## **TULLOW GHANA LIMITED - JUBILEE UNITIZATION**

## **CLOSING AGREEMENTS AND ANCILLARY DOCUMENTS – 13 JULY 2009**

## Unitization and Unit Operating Agreement

Exhibit A: Unit Interests

Exhibit B: Unit Area

Exhibit C: Unit Accounting Procedure

Exhibit D: Decommissioning Procedures

Exhibit E: Redetermination Procedures

Exhibit F: Redetermination Technical Procedures

Exhibit G: DWT Contract

Exhibit H: WCTP Contract

**Exhibit I: Pre-Unitization Expenditures** 

Exhibit J:

Part 1: (a), (b) and (c) Existing Data

Part 2: Form of Data License Agreement

Exhibit K: Existing Facilities

Exhibit L: Existing Contracts

Exhibit M: Existing Work Programs and Budgets

Exhibit N: Existing AFEs

Exhibit O: Jubilee Operating Committee Minutes

Exhibit P: Unit Development Plan

Exhibit Q:

Part 1: Form of Government Approval Part 2: Form of Contract Acknowledgment

Exhibit R:

Part 1: Form of Secondment Agreement Part 2: Initial Positions

Exhibit S: Form of Technical Services Agreement

Exhibit T:

Part 1: IPT Technical Operations Contract Procedure Part 2: Unit Operations Contract Procedure

Exhibit U: DWT JOA

Exhibit V: WCTP JOA

Exhibit W: Pre-Unit Agreement

Government Approval of POD

Government Approval of Unitization

Contract Acknowledgement

Attorney General's Opinion

Sabre Debenture Side Letter

Seismic Data License Agreement

Side Agreement Regarding Overhead

Second Amendment to Pre-Unitization Agreement

DWT JOA Amendment

Master Secondment Agreement - Anadarko to Tullow

Master Secondment Agreement - Kosmos to Tullow

Master Secondment Agreement - Tullow to Kosmos

**Technical Services Agreement** 

TSA Service Order No.1

Signing Authorities

Tullow

Kosmos

Anadarko

Sabre

EO Group

## **DOCUMENT VIEWING INSTRUCTIONS**

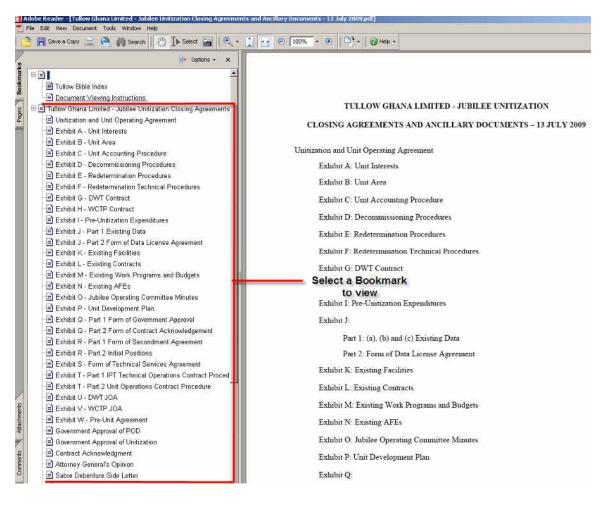
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# **ADOBE READER**

## Open Contents Page

A 🚺	[Adobe Reader - [Tullow Ghana Limited - Jubilee Unitization Closing Agreements and Ancillary Documents - 13 July 2009.pdf]					
A	File Edt View Document Tools Window Help					
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Pages Bookmarks	Select Bookmark Tab on the left					
Pag	TULLOW GHANA LIMITED - JUBILEE UNITIZATION					
	CLOSING AGREEMENTS AND ANCILLARY DOCUMENTS - 13 JULY 2009					
	Unitization and Unit Operating Agreement					
	Exhibit A: Unit Interests					
🔋 Constants 💱 affracturants 🔍	Exhibit B: Unit Area					
	Eshibit C: Unit Accounting Provolute					
	Estuibilt D: Decommissioning Proceedings					
	Estilait E: Refermination Procedures					
	Eshilail F. Radatamiasiian Technizad Prozadaowa					
	Rahibit G: DWT Contrast					
	Extrinit IN: WALTEP Cocourset					
	Estabili I: Fra-Carifization Expanditurez					
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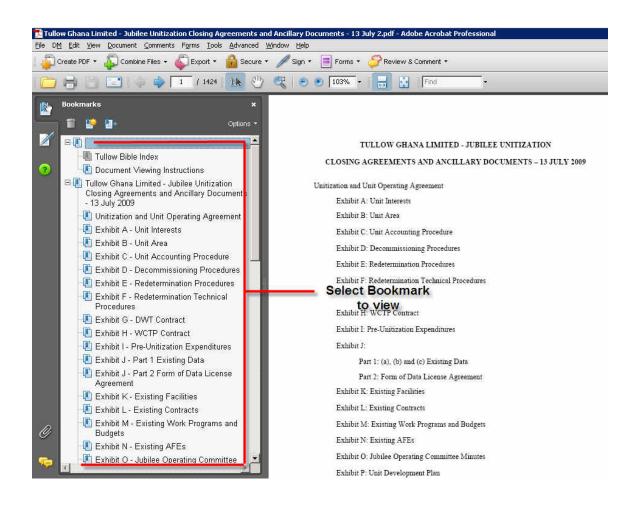


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## Open Contents Page

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	📄 📄 💽 🧼 🎝 1 / 1424 🚺 🥙 🥰 🗩 💌 161% 🕶 🔜 🔮 Find 🔹			
	Select the Bookmark Icon on the left to display Bookmarks			
?	TULLOW GHANA LIMITED - JUBILEE UNITIZATION			
CLOSING AGREEMENTS AND ANCILLARY DOCUMENTS – 13 JUL				
	Unitization and Unit Operating Agreement			
	Exhibit A: Unit Interests			
	Exhibit B: Unit Area			
	Exhibit C: Unit Accounting Procedure			
	Exhibit D: Decommissioning Procedures			
	Exhibit E: Redetermination Procedures			
	Exhibit F: Redetermination Technical Procedures			
	Exhibit G: DWT Contract			
Ø	Exhibit H: WCTP Contract			
-	Exhibit I: Pre-Unitization Expenditures			

## Select a bookmark you wish to view

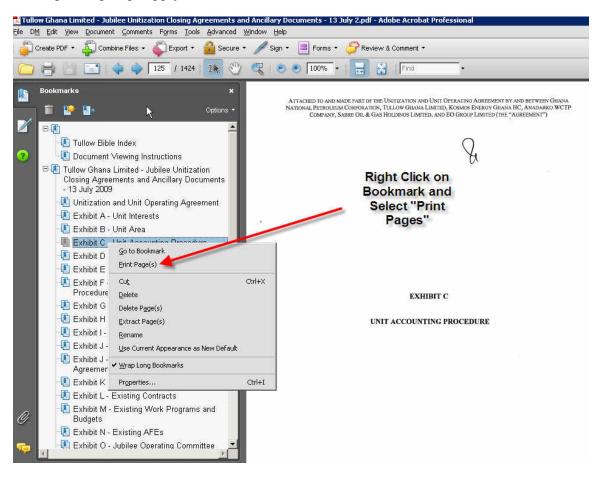


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## UNITIZATION AND UNIT OPERATING AGREEMENT

Ghana National Petroleum Corporation (1)

Tullow Ghana Limited (2)

Kosmos Energy Ghana HC (3)

Anadarko WCTP Company (4)

Sabre Oil & Gas Holdings Limited (5)

EO Group Limited (6)

### **COVERING:**

The Jubilee Field Unit located offshore the Republic of Ghana

& The Fle

-12

Unitization and Unit Operating Agreement

#### TABLE OF CONTENTS

ARTICLE	1 DEFIN	ITIONS	1						
ARTICLE 2 EFFECTIVE DATE AND TERM									
ARTICLE	ARTICLE 3 SCOPE								
ARTICLE	ARTICLE & CREATION AND EFFECT OF UNIT								
ARTICLE	ARTICLE 5 TRACT PARTICIPATIONS, UNIT INTERESTS AND PAYING INTERESTS								
ARTICLE 6 NON-UNIT OPERATIONS, USE OF UNIT FACILITIES									
ARTICLE 7 UNIT OPERATOR									
ARTICLE 8 UNIT OPERATING COMMITTEE									
ARTICLE 9 UNIT WORK PROGRAMS AND BUDGE 15									
ARTICLE 11 DISPOSITION OF PRODUCTION13									
ARTICLE 12 DECOMMISSIONING									
ARTICLE 13 MAINTENANCE, TERMINATION, SURRENDER, EXPIRY, EXTENSIONS AND									
RENEWALS									
ARTICLE 15 WITHDRAWAL FROM AGREEMENT1 ARTICLE 16 RELATIONSHIP OF PARTIES AND TAX									
ARTICLE	17 UNIT	DATA - CONFIDENTIALITY - INTELLECTUAL PROPERTY							
		CE MAJEURE							
		ICES							
		LICABLE LAW - DISPUTE RESOLUTION - WAIVER OF IMMUNITY							
ARTICLE	21 GENI	ERAL PROVISIONS							
Exhibit A:	-	Part 1: Contract Group Interests, Tract Participations and Unit Interests							
		Part 2: Contract Group Paying Interests, Tract Participations and Paying Intere	sts						
Exhibit B:	-	Unit Area and Definition of Unit Interval							
		Part 1: Unit Area Coordinates							
		Part 2: Unit Area Map							
		Part 3: Unit Interval Definition							
Exhibit C:	-	Unit Accounting Procedure							
Exhibit D:	-	Decommissioning Procedures							
Exhibit E:	-	Redetermination Procedures							
Exhibit F:	-	Redetermination Technical Procedures							
Exhibit G:	-	DWT Contract							
Exhibit H:	-	WCTP Contract							
Exhibit I:		Pre-Unitization Expenditures							
Exhibit J:	-	Part 1(a): Existing Data in which all Parties have interests as of the Effective Da	te						
		Part 1(b): Existing Data licensed as of the Effective Date among the Parties							
		Part 1(c): Existing Data licensed as of the Effective Date by GNPC to the other I	Parties						
		Part 2: Form of Data License Agreement							
Exhibit K:	-	Existing Facilities							
Exhibit L:		Existing Contracts							
Exhibit M:	-	Existing Work Programs and Budgets							
Exhibit N:	-	Existing AFEs							
	-	-							
Exhibit O:	-	Jubilee Operating Committee Minutes							
Exhibit P:	-	Unit Development Plan							

Exhibit Q: - Part 1: Form of Government Approval Part 2: Form of Contract Admondadem

Part 2: Form of Contract Acknowledgment

AN FOR

÷

i a

Unitization and Unit Operating Agreement

×

Exhibit R:	-	Part 1: Form of Secondment Agreement
		Attachment A: Secondee's Specifications
		Attachment B: Form of Secondee Agreement
		Part 2: Initial Positions
Exhibit S:	-	Form of Technical Services Agreement
Exhibit T:	-	Part 1: IPT Technical Operations Contract Procedure
		Part 2: Unit Operations Contract Procedure
Exhibit U:	-	DWT JOA
Exhibit V:	-	WCTP JOA
Exhibit W:	-	Pre-Unit Agreement

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Unitization and Unit Operating Agreement

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·17

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## UNITIZATION AND UNIT OPERATING AGREEMENT

THIS AGREEMENT is entered into as a deed on 13 JULY ZOOG among Ghana National Petroleum Corporation, a public corporation existing under the laws of the Republic of Ghana and established by Provisional National Defence Council Law 64 of 1983 (hereinafter referred to as "GNPC"); Tullow Ghana Limited, a company existing under the laws of Jersey, Channel Islands and registered in Ghana with branch registration number 1017 (hereinafter referred to as "Tullow"); Kosmos Energy Ghana HC, a company existing under the laws of the Cayman Islands and registered in Ghana with branch registration number EXT 927 (hereinafter referred to as "Kosmos"); Anadarko WCTP Company, a company existing under the laws of the Cayman Islands and registered in Ghana with branch registration number EXT 1090 (hereinafter referred to as "Anadarko"); Sabre Oil & Gas Holdings Limited, a company existing under the laws of the British Virgin Islands and registered in Ghana with branch registration number EXT 1226 (being the successor-in-interest to Sabre Oil & Gas Limited and being hereinafter referred to as "Sabre"); and EO Group Limited, a company existing under the laws of the Cayman Islands and registered in Ghana with branch registration number EXT 1238 (hereinafter referred to as "EO Group"). The companies named above, and their respective successors and assignees (if any), may sometimes individually be referred to as "Party" and collectively as the "Parties".

#### WITNESSETH:

WHEREAS, Tullow, Kosmos, Anadarko, Sabre and EO Group or their predecessors-in-interest entered into a Petroleum Agreement with the Government (represented by the Minister) and GNPC dated July 22, 2004 covering certain areas located in the West Cape Three Points (WCTP) Block Contract Area offshore Ghana;

WHEREAS, Tullow, Kosmos, Anadarko and Sabre or their predecessors-in-interest entered into a Petroleum Agreement with the Government (represented by the Minister) and GNPC dated March 10, 2006 covering certain areas located in the Deepwater Tano (DWT) Contract Area offshore Ghana;

WHEREAS, the Parties have determined that the Unit Interval extends across the boundary between the two Contract Areas and lies in part within each Contract Area;

WHEREAS, a letter has been received from the Minister dated November 25, 2008 determining that the field encompassed by the Unit Interval extends across the boundary between the Contract Areas and that such field shall be developed and exploited as a single unit pursuant to unitization and engineering principles and practices and in accordance with accepted international petroleum industry practices and the Laws/Regulations and instructing the Parties to negotiate and enter into a unitization and unit operating agreement setting forth the terms of the unitization;

WHEREAS, the Parties and the Government have agreed that the terms of this Agreement relating to unitization satisfy any requirements of the Laws/Regulations with respect to unitization; and

WHEREAS, the Parties desire to define their respective rights and obligations with respect to their development and operation of the Unit Interval on a unitized basis;

NOW, THEREFORE, in consideration of the premises and the mutual covenants and agreements and obligations set out below and to be performed, the Parties agree as follows:

#### ARTICLE 1 DEFINITIONS

As used in this Agreement, the following words and terms shall have the meaning ascribed to them below:

1.1 Acknowledgment has the meaning ascribed to it in Article 4.1(D)(3).

1.2 Acquiring Party has the meaning ascribed to it in Article 10.8(C).

HOU03:11544692 Unitization and Unit Operating Agreement

- 1.3 Act has the meaning ascribed to it in Article 21.8.
- 1.4 Additional Oil Entitlements has the meaning ascribed to it in each Contract.
- 1.5 Adjustment Date has the meaning ascribed to it in Article 5.7(B)(4).
- 1.6 Adjustment Percentage has the meaning ascribed to it in Article 5.7(B)(3)(f).
- 1.7 Adjustment Quantity has the meaning ascribed to it in Article 5.7(B)(3)(c).
- 1.8 Adjustment Quantity Contribution has the meaning ascribed to it in Article 5.7(B)(3)(e).
- 1.9 AFE means an authorization for expenditure pursuant to Article 9.6.
- 1.10 Affected Group has the meaning ascribed to it in Article 13.1(B)(1).
- 1.11 Affected JOA Group has the meaning ascribed to it in Article 13.2(B).
- 1.12 Affiliate means a legal entity which Controls, or is Controlled by, or which is Controlled by an entity which Controls, a Party.
- 1.13 Agreed Interest Rate means interest compounded on a monthly basis, at the rate per annum equal to the one (1) month term, London Interbank Offered Rate (LIBOR rate) for U.S. dollar deposits, as published in London by the <u>Financial Times</u> or if not published, then by <u>The Wall Street Journal</u>, plus three (3) percentage points, applicable on the first Business Day prior to the due date of payment and thereafter on the first Business Day of each succeeding Calendar Month. If the aforesaid rate is contrary to any applicable usury law, the rate of interest to be charged shall be the maximum rate permitted by such applicable law.
- 1.14 Agreement means this agreement, together with the Exhibits attached to this agreement, and any extension, renewal or amendment hereof agreed to in writing by the Parties.
- 1.15 Annual Unit Work Program and Budget has the meaning ascribed to it in Article 9.3(A).
- 1.16 Anticorruption Legislation means (1) the applicable laws of Ghana; (2) with respect to each Party, the anticorruption laws of any Home Country Governmental Authority with respect to such Party or any Affiliate of such Party including, as applicable to such Party or its Affiliates, the United Kingdom's anti-corruption legislation, including the Anti-Terrorism Crime & Security Act 2001, and the U.S. Foreign Corrupt Practices Act; (3) the OECD Anti-bribery Principles; or (4) with respect to each Party, any other implementing legislation with respect to (1), (2) and (3) above.
- 1.17 Appraisal Operation means any operation designed to delineate the accumulation of Hydrocarbons contained in an existing Discovery, including drilling, well testing and seismic operations, but excluding any operation within the scope of a Unit Development Plan.
- 1.18 Appraised Value has the meaning ascribed to it in Article 10.8(C)(1).
- 1.19 Approved Phase 1 Development Plan means the "Jubilee Field Phase 1 Dévelopment Plan" approved by the Government under the Contracts for the development of Hydrocarbons from the Unit.
- 1.20 Associated Agreements means any agreement (or series of substantially identical agreements) other than this Agreement entered into after the Effective Date by all of the Parties and, if applicable, one or more Third Parties, relating to Unit Operations.
- 1.21 Assumption Notice has the meaning ascribed to it in Article 13.1(B)(1)(a).

9/7/09 Unitization and Unit Operating Agreement



2

- 1.22 Attorney has the meaning ascribed to it in Article 10.9(B).
- 1.23 Authorized Seconding Party means Tullow, Anadarko, Kosmos, any successor or assign pursuant to Article 7.3(C), and GNPC or any successor entity owned or Controlled by the Government.
- 1.24 Burden has the meaning ascribed to it in Article 4.11.
- 1.25 Business Day means a Day on which the banks are customarily open for business in the cities of: Dallas, Texas; Houston, Texas; London, England; and Accra, Ghana.
- **1.26** Buy-Out Option has the meaning ascribed to it in Article 10.8(C).
- 1.27 Calendar Month means one of the twelve (12) calendar months of the Calendar Year commencing on the first Day of each calendar month, in accordance with the Gregorian Calendar, and the term "Monthly" shall be construed accordingly.
- 1.28 Calendar Quarter means a period of three (3) months commencing with January 1 and ending on the following March 31, a period of three (3) months commencing with April 1 and ending on the following June 30, a period of three (3) months commencing with July 1 and ending on the following September 30, or a period of three (3) months commencing with October 1 and ending on the following December 31, all in accordance with the Gregorian Calendar.
- 1.29 Calendar Year means a period of twelve (12) months commencing with January 1 and ending on the following December 31 according to the Gregorian Calendar.
- 1.30 Code has the meaning ascribed to it in Article 16.3(A).
- 1.31 Consequential Loss means any loss, damages, costs, expenses or liabilities caused (directly or indirectly) by any of the following arising out of, relating to, or connected with this Agreement or the operations carried out under this Agreement: (i) reservoir or formation damage; (ii) inability to produce, use or dispose of Hydrocarbons; (iii) loss or deferment of income; (iv) punitive damages; or (v) other indirect damages or losses whether or not similar to the foregoing.
- 1.32 Contract means the DWT Contract or the WCTP Contract.
- 1.33 Contract Area means the DWT Contract Area or the WCTP Contract Area.
- 1.34 Contract Group means the DWT Contract Group or the WCTP Contract Group.
- 1.35 Contract Group Interest means the following, expressed as a percentage to four (4) decimal places: in the case of GNPC, its GNPC Participating Interest in connection with the applicable Contract and, in the case of each other Party, (i) its JOA Group Interest in connection with the applicable Contract (ii) divided by one hundred (100), and (iii) multiplied by the "Contractor's" "Participating Interest" under the applicable Contract.
- 1.36 Contract Group Paying Interest means for either Contract the following, expressed as a percentage to four (4) decimal places: (a) with respect to all Unit Operations which are "Production Operations" (as that term is defined in each Contract) in the case of each Party, its Contract Group Interest; (b) with respect to all Unit Operations which are "Development Operations" (as that term is defined in each Contract), in the case of GNPC, the GNPC Additional Interest under the applicable Contract and, in the case of each other Party, (i) such Party's JOA Group Interest in connection with the applicable Contract with respect to a specified operation (ii) divided by 100, and (iii) multiplied by the difference between one hundred percent (100%) and the GNPC Additional Interest.
- 1.37 Contributing Parties has the meaning ascribed to it in Article 10.2(B).

9/7/09 Unitization and Unit Operating Agreement

- 1.38 Contributing Share has the meaning ascribed to it in Article 10.2(B).
- 1.39 Contribution Notice has the meaning ascribed to it in Article 10.2(B).
- **1.40 Control** means the ownership directly or indirectly of more than fifty percent (50%) of the voting rights in a legal entity or the ability to direct, directly or indirectly, the management or policies of a Person, whether through ownership of voting shares or other voting rights, pursuant to written contract, or otherwise. **"Controls"**, "**Controlled by**" and other derivatives shall be construed accordingly.
- 1.41 Crude Oil means all crude oils, condensates, and natural gas liquids at atmospheric pressure which are subject to and covered by the applicable Contract.
- 1.42 Cure Deficiency Notice has the meaning ascribed to it in Article 13.1(B)(1)(b).
- 1.43 Date of Commencement of Commercial Production has the meaning ascribed to such term in each Contract with respect to the production of Unit Substances from the Unit Interval.
- 1.44 Day means a calendar day unless otherwise specifically provided.
- **1.45 Decommissioning** means all work required in respect of the abandonment of Unit Facilities in accordance with good oil field practice and any specific legal obligation including, as applicable, plugging of wells, abandonment, disposal and/or demolition, cleanup or removal and any necessary site restoration and "**Decommission**" shall be construed accordingly.
- 1.46 Decommissioning Costs means costs of Decommissioning.
- 1.47 Decommissioning Response Deadline has the meaning ascribed to it in Article 12.1(A).
- **1.48 DWT Contract** means that certain Petroleum Agreement entered into by the Government and GNPC with Tullow, Kosmos and Sabre dated March 10, 2006, as amended from time to time. A copy of the DWT Contract is attached hereto as Exhibit G.
- 1.49 DWT Contract Area means the area specified in the DWT Contract as the "Contract Area", as modified from time to time in accordance with the terms of the DWT Contract.
- 1.50 DWT Contract Group means all those Persons who from time to time constitute the "Contractor" or equivalent under the DWT Contract (who, at the Effective Date, consist of Tullow, Kosmos, Anadarko and Sabre) and GNPC or any successor-in-interest to GNPC's interest in the DWT Contract.
- 1.51 DWT JOA means that certain Joint Operating Agreement dated August 15, 2006 by and among Tullow, Kosmos and Sabre, as amended from time to time, and any other agreements entered into wholly or partially in substitution therefor. A copy of the DWT JOA is attached hereto as Exhibit U.
- 1.52 DWT JOA Group means all those Persons who, from time to time, are parties to the DWT JOA (who, at the Effective Date, consist of Tullow, Kosmos, Anadarko and Sabre).
- 1.53 DWT Operator means the operator from time to time under the DWT JOA.
- 1.54 DWT Tract means that portion of the DWT Contract Area that falls within the Unit Area.
- 1.55 Defaulting Group has the meaning ascribed to it in Article 10.1(A).
- 1.56 Defaulting Party has the meaning ascribed to it in Article 10.1(A).
- 1.57 Default Notice has the meaning ascribed to it in Article 10.1(A).

9/7/09 Unitization and Unit Operating Agreement

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- 1.58 Default Period has the meaning ascribed to it in Article 10.1(B).
- **1.59 Delivery Point** means, with respect to Unit Substances, each outlet flange where such Unit Substances are first delivered from Unit Facilities to non-Unit Facilities, including the outlet flange of any Unit Facility connecting to non-Unit offshore or onshore facilities, or any non-Unit pipeline, or to any non-Unit vessel, vehicle or other means of transportation, as applicable.
- 1.60 Development Well means any well drilled pursuant to a Unit Development Plan.
- 1.61 Development Unit Work Program and Budget has the meaning ascribed to it in Article 9.2(A).
- 1.62 **Discovery** means the discovery of an accumulation of Hydrocarbons whose existence until that moment was unproven by drilling.
- 1.63 **Dispute** means any dispute, controversy or claim (of any and every kind or type, whether based on contract, tort, statute, regulation, or otherwise) arising out of, relating to, or connected with this Agreement or the operations carried out under this Agreement, including any dispute as to the construction, validity, existence, termination, interpretation, enforceability or breach of this Agreement.
- **1.64** Effective Date means the date on which the last of the conditions precedent to this Agreement are satisfied as notified by the Unit Operator to the other Parties pursuant to Article 4.1(D).
- 1.65 Employer Indemnitees has the meaning ascribed to it in Article 7.3(G)(1).
- **1.66** Encumbrance or Encumbrances means a mortgage, lien, pledge, charge or other encumbrance. "Encumber" and other derivatives shall be construed accordingly.
- **1.67 Entitlement** means that quantity of Unit Substances (excluding all quantities used or lost in Unit Operations) of which a Party has the right and obligation to take delivery pursuant to the terms of this Agreement and the applicable Contract(s), as such rights and obligations may be adjusted by the terms of any lifting, balancing and other disposition agreements entered into pursuant to Article 11.
- **1.68** Environmental Loss means any loss, damages, costs, expenses or liabilities (other than Consequential Loss) caused by a discharge of Hydrocarbons, pollutants or other contaminants into or onto any medium (such as land, surface water, ground water and/or air) arising out of, relating to, or connected with this Agreement or the operations carried out under this Agreement, including any of the following: (i) injury or damage to, or destruction of, natural resources or real or personal property; (ii) cost of pollution control, cleanup and removal; (iii) cost of restoration of natural resources; and (iv) fines, penalties or other assessments.
- 1.69 Expansion Call Date has the meaning ascribed to it in Article 5.3(B)(1).
- 1.70 Expansion End Date has the meaning ascribed to it in Article 5.3(B)(3).
- 1.71 Expansion Period means a period of time associated with a proposal for the expansion of the Unit Interval (and, if applicable, Unit Area) in accordance with Article 5.3(B) that begins with the Expansion Call Date and ends with the Expansion End Date attributable to such proposed expansion.
- 1.72 Expansion Proposal has the meaning ascribed to it in Article 5.3(B)(1).
- 1.73 *Expert* means the Person appointed as such pursuant to the provisions of Article 20.4 or <u>Exhibit E</u>, as applicable.
- 1.74 Expert Costs means the Expert's reimbursable expenses plus the Expert's fee.

9/7/09 Unitization and Unit Operating Agreement



- Family Member means a Person related to another within the second degree of consanguinity, affinity, or 1.75 legal adoption.
- 1.76 Force Majeure has the meaning ascribed to it in Article 18.2.
- 1.77 GNPC Additional Interest means: (i) with respect to the WCTP Contract, the "Additional Paying Interest" of two decimal five percent (2.5%) which GNPC has elected to acquire under Article 2.6 of the WCTP Contract; and (ii) with respect to the DWT Contract, the "Additional Interest" of five percent (5%) which GNPC has elected to acquire under Articles 2.5 and 2.6 of the DWT Contract.
- 1.78 GNPC Initial Interest means: (i) with respect to the WCTP Contract, a ten percent (10%) "Participating Interest" under Article 2.4 of the WCTP Contract; and (ii) with respect to the DWT Contract, a ten percent (10%) "Initial Interest" under Article 2.4 of the DWT Contract.
- 1.79 GNPC Participating Interest means, with respect to each Contract, the sum of the GNPC Additional Interest and the GNPC Initial Interest.
- 1.80 Government means the government of the Republic of Ghana and any political subdivision, agency or instrumentality thereof, but excluding GNPC in its role as a party under this Agreement.
- 1.81 Government Action Notice has the meaning ascribed to it in Article 13.1(B)(1).
- 1.82 Government Approval has the meaning ascribed to it in Article 4.1(D)(2).
- 1.83 Governmental Authority means (i) any national, regional or local government and any ministry or department thereof, or (ii) any Person exercising executive, legislative, judicial, regulatory or administrative functions of or pertaining to government (including any independent regulator) or (iii) any other governmental entity, instrumentality, agency, authority, court, or company, or (iv) any other entity, committee or commission under the direct or indirect control of a government, or (v) any governmentowned or Controlled commercial enterprise.
- 1.84 Gross Negligence / Willful Misconduct means any act or failure to act (whether sole, joint or concurrent) by any person or entity which was intended to cause, or which was in reckless disregard of or wanton indifference to, harmful consequences such person or entity knew, or should have known, such act or failure would have on the safety or property of another person or entity.
- 1.85 Home Country Governmental Authority means any Governmental Authority where a Party or any of its direct or indirect parent companies is organized or has its principal place of business.
- 1.86 Hydrocarbons means all substances which are subject to and covered by the Contract, including Crude Oil and Natural Gas.
- 1.87 HSE has the meaning ascribed to it in Article 7.14.
- ICC has the meaning ascribed to it in Article 20.3(C)(1). 1.88
- 1.89 ICC Court has the meaning ascribed to it in Article 20.3(C)(2).
- 1.90 Indemnitees has the meaning ascribed to it in Article 7.6(B).
- 1.91 Initial Positions has the meaning ascribed to it in Article 7.3(C)(1).
- 1.92 **IPT** has the meaning ascribed to it in Article 7.2(D).
- 1.93 IPT Technical Operations means those Technical Operations described in Article 7.2(D).

Unitization and Unit Operating Agreement

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- **1.94 IPT Technical Operations Contract Procedure** means the contracting procedure applicable to the award of contracts with respect to IPT Technical Operations attached hereto as Exhibit T, Part 1 and made a part hereof.
- **1.95 IPT Technical Operator** means the Technical Operator designated from time to time pursuant to Article 7 to conduct IPT Technical Operations.
- 1.96 JCC Parties means each Party which holds a Unit Interest of over twenty per cent (20%) and GNPC.
- 1.97 JOA Group means the DWT JOA Group or the WCTP JOA Group.
- **1.98** JOA Group Interest means a Party's undivided share, expressed as a percentage to four (4) decimal places, in the rights and obligations of the Parties in a JOA Group under the applicable Joint Operating Agreement.
- **1.99** Joint Management Committee means a "Joint Management Committee" established pursuant to Article 6 of either Contract.
- 1.100 Joint Operating Agreement means the DWT JOA or the WCTP JOA.
- 1.101 Laws/Regulations means those laws, statutes, rules and regulations governing activities under the Contracts.
- 1.102 Lien Holder has the meaning ascribed to it in Article 14.2(D).
- 1.103 Long Term Contract means any contract for the sale of Unit Substances that is not a Spot Contract.
- 1.104 Minimum Work Obligations means those work and/or expenditure obligations specified in Article 4 of the DWT Contract and Article 4 of the WCTP Contract.
- 1.105 Minister means the Minister for Energy of Ghana.
- 1.106 Natural Gas means all gaseous hydrocarbons (including wet gas, dry gas and residue gas) which are subject to and covered by the applicable Contract, but excluding Crude Oil.
- 1.107 Non-Affected Group has the meaning ascribed to it in Article 13.1(B)(1).
- 1.108 Non-Affected Parties has the meaning ascribed to it in Article 13.1(B)(1)(a).
- 1.109 Non-Affiliated Third Party means a Third Party who is not an Affiliate of any Party.
- 1.110 Non-Operator means each Party to this Agreement other than Unit Operator (or, where the reference is to Technical Operations or Technical Operator, other than Technical Operator).
- 1.111 Non-Unit Well means a well drilled in the Unit Area, or drilled outside the Unit Area but having a portion of its wellbore within the Unit Area, other than a Unit Well.
- 1.112 Non-U.S. Party has the meaning ascribed to it in Article 16.3(F).
- 1.113 Non-Unit Operations means operations (other than Unit Operations) conducted in the Unit Area and/or utilizing Unit Facilities, and undertaken by or on behalf of some or all of the Parties in either JOA Group with respect to its Contract Area, including such operations for purposes of exploring for, gathering, treating, processing, storing, transporting or marketing Hydrocarbons.
- 1.114 Non-Unit Production means production of Crude Oil, Natural Gas and/or other substances from or attributable to either Contract Area that is not attributable to the Unit Interval.

- 1.115 Notice of Dispute has the meaning ascribed to it in Article 20.3(A).
- 1.116 OECD Anti-bribery Principles means the following principles, which are based on the principles set forth in Article 1.1 and 1.2 of the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, signed in Paris on 17 December 1997, and entered into force on 15 February 1999, and the Convention's Commentaries, namely, that:
  - (a) It is unlawful for any person intentionally to offer, promise or give any undue pecuniary or other advantage, whether directly or through intermediaries, to a foreign public official, for that official or for a third party, in order that the official act or refrain from acting in relation to the performance of official duties, in order to obtain or retain business or other improper advantage in the conduct of international business; and
  - (b) Complicity in, including incitement, aiding and abetting, or authorization of an act of bribery of a foreign public official shall be unlawful. Furthermore, attempt and conspiracy to bribe a foreign public official of a country that is not a Party's Home Country Governmental Authority shall be unlawful to the same extent as attempt and conspiracy to bribe a public official of a country that is a Party's Home Country Governmental Authority.
- 1.117 Official means (i) any official, officer, employee or Person acting in an official capacity on behalf of a Governmental Authority or public international organization; or (ii) any political party or political party official; or (iii) any candidate for political office.
- 1.118 OHIP (or Original Hydrocarbon in Place) has the meaning ascribed to it in Article 5.5(A).
- 1.119 Operator means the Unit Operator or Technical Operator.
- 1.120 Option Notice has the meaning ascribed to it in Article 10.8(C).
- 1.121 Original Expansion Proposal has the meaning ascribed to it in Article 5.3(B)(1).
- 1.122 Original Party means each of GNPC, Tullow, Kosmos, Anadarko, Sabre and EO Group together with any of their Affiliates that subsequently become a Party to this Agreement.
- 1.123 Other Group has the meaning ascribed to it in Article 10.2(A).
- 1.124 Other Party has the meaning ascribed to it in Article 10.2(A).
- 1.125 Paying Interest means each Party's undivided share, expressed as a percentage to four (4) decimal places, in the Unit Account expense obligations under this Agreement with respect to a specific Unit Operation, equal to the sum of (i) such Party's Contract Group Paying Interest for the DWT Contract Group with respect to such Unit Operation multiplied by the Tract Participation for the DWT Tract and divided by one hundred (100) and (ii) such Party's Contract Group Paying Interest for the WCTP Contract Group with respect to such Unit Operation multiplied by the Tract Participation for the WCTP Contract Group with respect to such Unit Operation multiplied by the Tract Participation for the WCTP Tract and divided by one hundred (100). "Paying Interest" with respect to a JOA Group means the sum of the Paying Interests of each Party in the JOA Group derived from its interest in the applicable Tract.
- 1.126 Person means an individual, corporation, company, partnership, limited partnership, limited liability company, trust, estate, government agency or any other entity, including unincorporated business associations.
- 1.127 Pressure Communication means, with respect to any accumulation of Hydrocarbons, that:
  - (a) such accumulation has Hydrocarbon-bearing sediments which are in direct and continuous Hydrocarbon contact with the Unit Interval, and

9/7/09 Unitization and Unit Operating Agreement

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8

- (b) such accumulation belongs to the same Hydrocarbon pressure regime(s) as the Unit Interval, with which it is in direct and continuous Hydrocarbon contact as defined in (a) above, and
- (c) the composition of the Hydrocarbons of such accumulation is consistent with the composition of the Unit Interval Hydrocarbons, with which they are in direct and continuous Hydrocarbon contact as defined in (a) above.
- 1.128 Pre-Unit Agreement means the pre-unitization agreement dated February 22, 2008 by and among Tullow, Kosmos, Anadarko, Sabre and EO Group or their predecessors in interest with respect to the Unit Area, a copy of the Pre-Unit Agreement is attached hereto as <u>Exhibit W</u>.
- 1.129 Production Forecast has the meaning ascribed to it in Article 11.4(A).
- 1.130 Prohibited Assignee means (i) any Official in Ghana or of the Government or GNPC whilst it is owned or Controlled by the Government; or (ii) any Family Member of such an Official referred to in (i) above; or (iii) any entity in which one or more individuals specified in (i) or (ii) owns an interest, except as a consequence of ownership by such individual of publicly-traded securities.
- 1.131 Project Interest means, with respect to any Party, its Unit Interest derived from each Contract Group and its corresponding interests in the Project Interest Agreements.
- 1.132 Project Interest Agreements means this Agreement, the Contracts, the Joint Operating Agreements and the Associated Agreements, and when used to refer to the Project Interest Agreements of a particular Party, means this Agreement, the Contracts to which such Party is party, the Joint Operating Agreements applicable to such Contracts and the Associated Agreements.
- 1.133 Proposing Group has the meaning ascribed to it in Article 5.3(B)(1).
- 1.134 Proposed Phase 1 Development Plan means the "Jubilee Field Phase 1 Development Plan" approved for submission to the Joint Management Committee under Article 6 of each Contract, and to the Government for approval, attached hereto as Exhibit P.
- 1.135 Proscribed Persons means any Person: (a) whose name is specified in, or pursuant to, any directive or resolution of, or list maintained by, any Home Country Governmental Authority or the United Nations relating to the designation of a person as a terrorist or of a terrorist organization or the blocking of assets of such person or organization; (b) in respect of whom any Home Country Governmental Authority or the United Nations has publicly announced that all financial transactions involving the assets of such Person or organization have been, or are to be, blocked; or (c) who is designated from time to time by any Home Country Governmental Authority or the United Nations as a terrorist person or organization or an organization that assists or provides support to a terrorist person or organization.
- 1.136 Purchase Price has the meaning ascribed to it in Article 10.8(C).
- 1.137 Reasonably Prudent Operator has the meaning ascribed to it in Article 7.12(B)(2).
- 1.138 Received has the meaning ascribed to it in Article 19.
- 1.139 Recoverable Oil means the amount of recoverable Crude Oil within the Unit Interval as set out in the Unit Operator's most recent production profile for the Unit Interval, and as adjusted by the Unit Operator in accordance with any expansion of the Unit Interval under Article 5.3.
- **1.140 Redetermination** means the process established in Article 5.3 and in Article 5.4 for the review and possible revision of the Tract Participations, Unit Interests and Paying Interests pursuant to Articles 5.5, 5.6 and 5.7, as applicable, including any such review and revision involving a referral to an independent Expert. The term "Redetermination" shall include both the revision of Tract Participations, Unit Interests and Paying

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Interests and where applicable under those Articles the reapportionment of each Party's rights to Unit Substances and obligations for Unit Account costs.

- 1.141 Redetermination Basis has the meaning ascribed to it in Article 5.5(A).
- 1.142 Redetermination Call Date has the meaning ascribed to it in Article 5.5(D)(2).
- 1.143 Redetermination Effective Date has the meaning ascribed to it in Article 5.5(E).
- 1.144 Redetermination Effective Month has the meaning ascribed to it in Article 5.6(B)(4).
- 1.145 Redetermination End Date has the meaning ascribed to it in Article 5.5(E).
- 1.146 **Redetermination Period** means a period of time associated with a particular Redetermination that begins with the Redetermination Trigger Date for such Redetermination and ends with the Redetermination End Date for such Redetermination.
- 1.147 Redetermination Trigger Date has the meaning ascribed to it in Exhibit E.
- 1.148 Reserve Fund has the meaning ascribed to it in Article 10.5(D).
- 1.149 Rules has the meaning ascribed to it in Article 20.3(C)(1).
- 1.150 Run Down Period has the meaning ascribed to it in Exhibit D.
- 1.151 Secondee has the meaning ascribed to it in Article 7.3(A).
- 1.152 Secondment has the meaning ascribed to it in Article 7.3(A).
- 1.153 Security means (i) cash in an escrow account held by a bank or such other form of investment as may be authorized by Exhibit D with respect to Decommissioning, or (ii) an irrevocable standby letter of credit issued by a bank; or (iii) an on demand bond issued by a bank, in each case in favor of the Unit Operator on behalf of the Parties for the purposes for which such Security is required under the terms of this Agreement; provided, however, that the bank holding the cash or issuing the standby letter of credit or bond (as applicable) has a credit rating for long-term unsecured debt of at least "AA" by Standard & Poor's or "Aa2" by Moody's, or, in the event neither such entity is issuing credit ratings for long-term unsecured debt, the equivalent rating by a comparable international credit rating agency.
- 1.154 Senior Executive has the meaning ascribed to it in Article 20.3(B).
- 1.155 Senior Supervisory Personnel means, (i) with respect to Unit Operator, any individual who functions as its designated manager or supervisor of an onshore or offshore installation or facility used for operations and activities of such Party, but excluding all managers or supervisors who are responsible for or in charge of onsite drilling, construction or production and related operations or any other field operations, and any individual who functions for Unit Operator or one of its Affiliates at a management level equivalent to or superior to the management level described herein above, or any officer or director of Unit Operator or one of its Affiliates, and (ii) with respect to the IPT Technical Operator, any individual who functions as its director of the IPT, and any individual who functions for the IPT Technical Operator or one of its Affiliates at a management level equivalent to or superior to the IPT Technical Operator or one of its Affiliates at a management level equivalent to or superior to the management level equivalent to or superior or one of its Affiliates, and (ii) for any individual who functions for the IPT Technical Operations it is performing, and any officer or director of the IPT Technical Operator or one of its Affiliates, and (iii) for such Technical Operator or one of its Affiliates at a management level equivalent to or superior to the management level described hereinabove, or any officer or director of the IPT Technical Operator or one of its Affiliates, and (iii) for any other Technical Operator, any individual with overall responsibility for the Technical Operations it is performing, and any individual who functions for such Technical Operator or one of its Affiliates at a management level equivalent to or superior to the management level described hereinabove, or any officer or director of one of its Affiliates.

9/7/09 Unitization and Unit Operating Agreement

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- 1.156 Spot Contract means any contract for the sale of Unit Substances terminating, or terminable at will by the seller without penalty, ninety (90) Days or less after the commencement of the contract.
- 1.157 Subcommittee has the meaning ascribed to it in Article 8.4(A).
- 1.158 Subcontractor means any Third Party with whom an Operator enters into an agreement or arrangement for the provision of goods and/or services in connection with the conduct of Unit Operations.
- 1.159 Sufficient New Data means well log data and other wellbore data from outside the Unit Interval from a well completed after (i) in the case of any potential first expansion of the Unit Interval, the Effective Date and (ii) in the case of potential second and subsequent expansions of the Unit Interval, the last preceding Expansion Call Date.
- 1.160 Technical Operations mean operations within the scope of this Agreement (or whose purpose, at the time of being undertaken, was within the scope of this Agreement), including IPT Technical Operations, conducted by a Technical Operator on behalf of all of the Parties on or after the Effective Date, as further designated pursuant to this Agreement.
- 1.161 Technical Operator means a Party designated from time to time pursuant to Article 7 to conduct Technical Operations, in such capacity and not in its capacity as a Party.
- 1.162 Technical Operator Indemnitees has the meaning ascribed to it in Article 7.6(B).
- 1.163 Technical Services Agreement has the meaning ascribed to it in Article 7.3(H).
- 1.164 Third Party means any Person who is not a Party.
- 1.165 Tract means the DWT Tract or the WCTP Tract.
- 1.166 Tract Operator means the DWT Operator or the WCTP Operator.
- 1.167 Tract Participation means each Tract's undivided allocation of Unit Substances under Article 4.2(A) and the undivided share of the rights and obligations of the Parties under this Agreement with respect to the Unit and in the Unit Facilities, Unit Data and other assets held for the Unit Account accruing to the Contract Group associated with that Tract, expressed as a percentage to four (4) decimal places, as initially set out in Exhibit A, but subject to adjustment pursuant to Articles 5.3, 5.4, 13.1(B) and 13.2(A).
- 1.168 Transfer means any sale, assignment or other disposition by a Party of any rights or obligations derived from the Contracts or this Agreement or the Joint Operating Agreements to the extent that such transfer covers all or a portion of the Unit Interval, other than an Encumbrance or a transfer of the transferring Party's Entitlement and its rights to any credits, refunds or payments under this Agreement, and excluding any direct or indirect change in Control of a Party, and use of "Transfer" as a verb in this Agreement shall be construed accordingly.
- 1.169 Transfer Date has the meaning ascribed to it in Article 10.8(C)(5)(a).
- 1.170 Trigger Date has the meaning ascribed to it in Exhibit D.
- 1.171 Unit means the Jubilee Field Unit created pursuant to Article 4.1 of this Agreement.
- 1.172 Unit Account means the account maintained by the Unit Operator in accordance with the provisions of this Agreement and the Unit Accounting Procedure to record charges, expenditures, receipts and credits for Unit Operations.

9/7/09 Unitization and Unit Operating Agreement

11

- 1.173 Unit Accounting Procedure means the accounting procedure attached hereto as <u>Exhibit C</u> and made a part hereof.
- 1.174 Unit Area means the area described and depicted in Exhibit B, Part 1 and Exhibit B, Part 2, as amended from time to time in accordance with the terms of this Agreement.
- 1.175 Unit Data means all information and data acquired by Unit Operator in the conduct of Unit Operations or contributed as Unit Data pursuant to Article 4.6.
- 1.176 Unit Development Plan means a plan approved by the Government under the Contracts for the development of Hydrocarbons from the Unit Interval, including the Approved Phase 1 Development Plan, as amended from time to time in accordance with the terms of this Agreement.
- 1.177 Unit Facilities means any equipment or other real or personal property or rights with respect thereto, acquired or constructed for the Unit Account or contributed to the Unit Account pursuant to Article 4.7.
- 1.178 Unit Interest means each Party's undivided share, expressed as a percentage to four (4) decimal places, in the rights and obligations of the Parties under this Agreement with respect to the Unit and in the Unit Facilities, Unit Data and other assets held for the Unit Account, as initially set out in Exhibit A and adjusted pursuant to Articles 5.2(B)(1), 5.3, 5.4, 13.1(B) and 13.2(A), provided that, notwithstanding the preceding, each Party's obligations with respect to Unit Account expenses are equal to its Paying Interest.
- 1.179 Unit Interval means the interval between the top and bottom depths described in Exhibit B. Part 3 to the extent located within the Unit Area, as amended from time to time in accordance with the terms of this Agreement.
- 1.180 Unit Operating Committee means the committee established pursuant to Article 8.1.
- 1.181 Unit Operations means operations within the scope of this Agreement (or whose purpose, at the time of being undertaken, was within the scope of this Agreement) conducted by the Unit Operator on behalf of all of the Parties on or after the Effective Date, including operations for purposes of developing, producing, gathering, treating, processing, storing, transporting or delivering Unit Substances and including Technical Operations.
- 1.182 Unit Operator means the Party designated from time to time pursuant to Article 7 to conduct Unit Operations, in its capacity as operator and not its capacity as a Party.
- **1.183** Unit Operations Contract Procedure means the contracting procedure applicable to the award of contracts with respect to Unit Operations attached hereto as Exhibit T, Part 2 and made a part hereof.
- 1.184 Unit Operator Indemnitees has the meaning ascribed to it in Article 7.6(B).
- 1.185 Unit Substances means all Hydrocarbons produced from or attributable to the Unit Interval which the Parties are entitled to produce under the DWT Contract or the WCTP Contract, as applicable.
- 1.186 Unit Well means a well drilled or acquired for the Unit Account and held for the Unit Account at the time referenced.
- 1.187 Unit Work Program and Budget means a work program for Unit Operations and budget therefor established pursuant to Article 9.
- 1.188 Urgent Operational Matters has the meaning ascribed to it in Article 8.12(A)(1).
- 1.189 U.S. Party has the meaning ascribed to it in Article 16.3(F).

9/7/09 Unitization and Unit Operating Agreement

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- 1.190 WCTP Contract means that certain Petroleum Agreement entered into by the Government and GNPC with Kosmos and The E.O. Group dated July 22, 2004, as amended from time to time. A copy of the WCTP Contract is attached hereto as Exhibit H.
- 1.191 WCTP Contract Area means the area specified in the WCTP Contract as the "Contract Area", as modified from time to time in accordance with the terms of the WCTP Contract.
- 1.192 WCTP Contract Group means all those Persons who from time to time constitute the "Contractor" or equivalent under the WCTP Contract (who, at the Effective Date, consist of Tullow, Kosmos, Anadarko, Sabre and EO Group) and GNPC or any successor-in-interest to GNPC's interest in the WCTP Contract.
- 1.193 WCTP JOA means that certain Joint Operating Agreement dated July 22, 2004 by and between Kosmos and The E.O. Group, as amended from time to time, and any other agreements entered into wholly or partially in substitution therefor. A copy of the WCTP JOA is attached hereto as <u>Exhibit V</u>.
- 1.194 WCTP JOA Group means all those Persons who from time to time are parties to the WCTP JOA (who, at the Effective Date, consist of Tullow, Kosmos, Anadarko, Sabre and EO Group).
- 1.195 WCTP Operator means the operator from time to time under the WCTP JOA.
- 1.196 WCTP Tract means that portion of the WCTP Contract Area that falls within the Unit Area.

#### ARTICLE 2 EFFECTIVE DATE AND TERM

This Agreement shall have effect from the Effective Date and shall continue in effect until the earliest of the following:

- (A) The expiration, termination or revocation of both Contracts;
- (B) Termination pursuant to Article 4.1(D);
- (C) All Parties have become Defaulting Parties as described in Article 10.2(B);
- (D) The withdrawal of all of the Parties pursuant to Article 15.2(D); or
- (E) The written agreement of all of the Parties to terminate this Agreement.

For the avoidance of doubt, following the expiration, termination or revocation of either Contract, this Agreement shall remain in effect, Article 5.3(E) shall apply, and the Parties to the remaining Contract and GNPC as Contract Group with respect to the expired, terminated or revoked Contract shall continue to have the right to use the Unit Facilities on the same basis as prior to such expiration, termination or revocation, including those Unit Facilities in the Contract Area for the expired, revoked or terminated Contract, until the expiration, termination or revocation of the remaining Contract.

Notwithstanding anything to the contrary in this Article 2: (i) Article 12 and the terms of <u>Exhibit D</u>, as applicable, shall remain in effect until all Decommissioning obligations under this Agreement have been satisfied and all funds held pursuant to <u>Exhibit D</u> have been distributed as provided for therein; and (ii) Article 4, Article 6.3, Article 7.5, Article 7.6, Article 10, Article 17, Article 20 and the obligations to indemnify and to respond and provide information under Article 21.1 shall remain in effect until all such obligations have been extinguished and all Disputes have been resolved. Termination of this Agreement shall be without prejudice to any rights and obligations arising out of or in connection with this Agreement that have vested, matured or accrued prior to such termination.



#### 3.1 Scope

- (A) The scope of this Agreement shall include:
  - (1) The development and operation of the Unit Interval;
  - (2) The production of Unit Substances and the handling and transportation thereof up to the applicable Delivery Point and, if agreed unanimously by the Parties, transportation of Unit Substances to a point downstream of the Delivery Point;
  - (3) The principles in accordance with which each Party is entitled to have delivered to it and to take Unit Substances, or any proceeds of sale deriving therefrom;
  - (4) The acquisition, construction, operation, ownership, use, maintenance, repair and removal of fixed and floating facilities for the development, production, gathering, treatment, processing, compression and transportation of Unit Substances, (i) for Crude Oil, through the offloading flange(s) of any floating production, storage and offloading vessels or other offshore facilities in the Unit Area, or up to the inlet flange of any pipeline transporting Crude Oil from the Unit Area to outside of the Unit Area, and (ii) for Natural Gas, up to the inlet flange of any pipeline transporting Natural Gas from the Unit Area to outside of the Unit Area to outside of the Unit Area to outside of the Unit Area and acquired or constructed for the Unit Account in aid of development and production operations;
  - (5) Regulation of Non-Unit Operations affecting the Unit Area or proposing to use Unit Facilities;
  - (6) The regulation of Associated Agreements to the extent set forth herein;
  - (7) Development of information and promotional marketing material relating to Crude Oil from the Unit Interval;
  - (8) Decommissioning of Unit Facilities; and
  - (9) All other activities in connection with any of the foregoing that are expressly provided for by the terms hereof.
- (B) For greater certainty, the Parties confirm that, except to the extent expressly included in the Contract, the following activities are outside of the scope of this Agreement and are not addressed herein:
  - (1) Acquisition, construction, operation, ownership, use, maintenance, repair and removal of fixed and floating facilities, which facilities are located downstream from the facilities described in Articles 3.1(A)(4)(i) and (ii) (including, for the avoidance of doubt, any gas pipeline and downstream processing facilities), other than those facilities described in Article 3.1(A)(4)(iii);
  - (2) Transportation of the Parties' Entitlements downstream from the applicable Delivery Point;
  - (3) Marketing and sales of Hydrocarbons, except as expressly provided in Article 10.5 and Article 11;

9/7/09 Unitization and Unit Operating Agreement

- 14

- (4) Acquisition or exercise of rights to explore for, appraise, develop or produce Hydrocarbons outside of the Unit Area (other than as a consequence of expansion of the Unit Area into an adjoining area under the terms of Article 5.3); and
- (5) Exploration, appraisal, development or production of minerals other than Hydrocarbons, whether inside or outside of the Unit Area.

#### ARTICLE 4 CREATION AND EFFECT OF UNIT

#### 4.1 Unitization of Rights and Interests

- (A) All rights and interests of the Parties under the DWT Contract and the WCTP Contract insofar as they relate to the Unit Interval, the Unit Substances and the conduct of Unit Operations, are, subject to Article 4.1(D), hereby unitized, effective as of the Effective Date, in accordance with the terms of this Agreement.
- (B) As of the Effective Date, all Unit Operations shall be carried out in accordance with and subject to the provisions of this Agreement.
- (C) Nothing in this Agreement shall be construed to result in a transfer of title to any Party's interest in a Contract, Joint Operating Agreement or Associated Agreement to any other Party except as provided in Article 4.9(D) or in Article 10.
- (D) Save for the provisions of this Article 4.1(D) which shall be effective from the date hereof, this Agreement shall not become effective unless and until the following conditions precedent are satisfied, or waived in writing by all Parties:
  - (1) Approval for the Proposed Phase 1 Development Plan has been received from the Government.
  - (2) Approval for the unitization described in this Article 4.1 has been received from the Government in substantially the form of the approval instrument attached hereto as <u>Exhibit Q. Part 1</u> (the "Government Approval").
  - (3) The Parties and the Minister have signed the form of contract acknowledgement attached hereto as <u>Exhibit Q. Part 2</u> in connection with the unitization (the "*Acknowledgment*").
  - (4) An opinion from the Attorney General of Ghana has been received confirming that the Government Approval and the Acknowledgment are consistent with the Constitution and laws of Ghana and satisfy all approvals required under the Constitution and laws of Ghana and the Contracts, that no further approval of Parliament, the Cabinet of Ministers or other governmental bodies is required for the unitization pursuant to and in accordance with the terms of this Agreement and that the Minister has the power to execute the Government Approval and the Acknowledgment in connection with the unitization and to take other actions needed to implement the Government Approval and the Acknowledgment.

The Unit Operator shall promptly notify the other Parties upon satisfaction of each of the conditions precedent. If, after the expiry of ten (10) Business Days from the date hereof, any of these conditions precedent remain neither satisfied nor waived then this Article 4.1(D) shall terminate and the remainder of this Agreement shall not become effective unless such period is extended by an affirmative "Passmark Vote" of the Jubilee Operating Committee pursuant to the Pre-Unit Agreement (as such term is defined therein).

## 4.2 Allocation of Unit Substances and Expenditures

- (A) All Unit Substances that are produced and saved from and after the Effective Date, excluding, for the avoidance of doubt, any substances re-injected into the Unit Interval as part of Unit Operations, shall be allocated to each Tract in proportion to its Tract Participation. The Unit Substances allocated to a Tract to which the Parties in the applicable Contract Group are entitled under their Contract shall be allocated among those Parties in proportion to their Contract Group Interests.
- (B) All expenditures properly chargeable to the Unit Account, incurred with respect to the period from and after the Effective Date, shall be allocated to each Contract Group in proportion to its Tract Participation and to GNPC and the JOA Group in respect of the applicable Contract Group in proportion to their Contract Group Paying Interests.

#### 4.3 Applicability to Contract Obligations and Taxes

- (A) The Unit Substances allocated to each Tract under Article 4.2(A) shall, for purposes of the calculation of Additional Oil Futitlements under each Contract, calculation of income tax, profits tax, withholding tax and all other taxes with respect to each Party and each Contract, calculation of royalties under each Contract, determination of domestic marketing obligations with respect to each Contract, and for all other purposes, be deemed to have been produced and saved under the Contract applicable to that Tract, regardless of the actual location of the well from which such Unit Substances are produced.
- (B) The expenditures for the Unit Account allocated to GNPC and each JOA Group with respect to each Contract under Article 4.2(B) shall, for purposes of the calculation of Additional Oil Entitlements under that Contract, calculation of income tax, profits tax, withholding tax and all other taxes with respect to GNPC and each JOA Group in connection with that Contract, and for all other purposes, be deemed to have been incurred under that Contract, regardless of the actual location of the Unit Operations to which those expenditures relate.
- (C) If the allocation of expenditures and Unit Substances under Article 4.2 are not given effect as described in Articles 4.2(A), 4.2(B), 4.3(A) and 4.3(B) due to the application of Laws/Regulations or other Government action or inaction, the Parties shall attempt to adopt mutually agreeable arrangements which will allow the Parties to achieve the financial results intended by Articles 4.2(A), 4.2(B), 4.3(A) and 4.3(B).

## 4.4 Continued Liability under Contracts

As between Contract Groups, and subject to the delegation of certain functions to the Unit Operator as described in this Agreement, each Contract Group shall continue to be solely responsible for all obligations accruing with respect to its Contract, including any obligations for royalties, Additional Oil Entitlements and domestic marketing obligations, and the performance of any remaining Minimum Work Obligations, and shall indemnify and hold harmless the Parties in the other Contract Group against any claims with respect to the performance of such obligations.

#### 4.5 Pre-Unitization Expenditures

(A) Those expenditures for the period prior to the Effective Date which are incurred after December 31, 2007 as "Unit Costs" pursuant to the terms of the Pre-Unit Agreement, including those expenditures incurred during the period from January 1, 2008 to the last Day of the Calendar Mouth which ends prior to the Effective Date, provided that if such Calendar Month ends less than ten (10) Days prior to the Effective Date, such period shall end on the last Day of the preceding Calendar Month, shown in Exhibit I, shall be considered to be expenditures for the Unit Account for all purposes of this Agreement. Notwithstanding the foregoing approval, the Parties

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9/7/09 Unitization and Unit Operating Agreement

acknowledge that acceptance of such costs as "Petroleum Costs", as defined under the applicable Contract, shall be subject to the provisions of each Contract. Within fifteen (15) Days after the satisfaction of the conditions precedent set out in Article 4.1(D), the Unit Operator shall issue to the Tract Operators a schedule showing each JOA Group's actual share of such expenditures, the share that each JOA Group would have borne had it paid its applicable Paying Interest share, and the amount owing by or to each JOA Group. Within fifteen (15) Days after receipt of such schedule each JOA Group owing such funds shall make payment in the manner described in the Unit Accounting Procedure to the Unit Operator, who shall promptly distribute each such payment to the Tract Operator for the JOA Group entitled to reimbursement. Should the JOA Group owing any amount pursuant to this Article fail to pay that amount when due, no other Party shall be obligated to contribute the amount in default under Article 10.2, but all other rights and remedies of the Parties under Article 10 shall apply with respect to such default.

- (B) Each Party shall be entitled to audit the expenditures charged to the Unit Account under Article 4.5(A) in the same manuer as provided in the Unit Accounting Procedure for other expenditures for the Unit Account, to the extent they were not previously audited pursuant to the Pre-Unit Agreement, except that the twenty-four (24) month audit and claim period under the Unit Accounting Procedure shall begin to run for all expenditures incurred prior to the Effective Date at the end of the Calendar Year in which the Effective Date falls. Where such expenditures were incurred by a Non-Operator or its Affiliates, the provisions of the Unit Accounting Procedure regarding audits of the Unit Operator or a Technical Operator and its Affiliates shall apply to that Non-Operator and its Affiliates, *mutatis mutandis*. Any amount paid under this Article 4.5 that was not properly charged shall be refunded by the Party or Parties receiving the payment and shall be thereafter treated in accordance with Article 4.5(C).
- (C) Except as expressly provided in Article 4.5(A) or elsewhere in this Agreement, all expenditures incurred by any Party prior to the Effective Date shall be the sole responsibility of the Party incurring them (subject to any rights such Party may have under its Joint Operating Agreement or other contractual arrangements) and shall not be charged to the Unit Account. All rights with respect to deductions for Additional Oil Entitlement purposes and tax benefits attributable to expenditures not included in the Unit Account shall remain the property of and inure to the benefit of the Parties which would be entitled to such rights in the absence of this Agreement.

#### 4.6 Existing Data

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(A) The data and information listed in Exhibit J, Part 1(a), Part 1(b) and Part 1(c) is owned by GNPC in accordance with Section 23, Subsection 2 of the Petroleum (Exploration and Production) Law, 1984 (PNDCL 84). The Parties agree that all Parties have interests in the data and information listed in Exhibit J, Part 1(a), which data and information shall be deemed to be Unit Data with effect from the Effective Date. The Parties further agree that each JOA Group has the right to use the data and information listed in Exhibit J, Part 1(b) and, with effect from the Effective Date, GNPC grants to each other Party the right to use such data and information, on a non-exclusive and irrevocable basis and without the payment of fees, for so long as it is a party to a Contract. Such right is not transferable in whole or in part, except in connection with a permitted Transfer or Encumbrance of all or a portion of a Party's Unit Interest in accordance with Article 10.8, Article 10.9, Article 14 or Article 15. The grant of rights pursuant to this Article 4.6 shall not result in the transfer of title to the data and information set out in Exhibit J, Part 1(b), and only the rights granted with respect to such data and information shall be deemed to be Unit Data. Each receiving Party shall keep the data confidential in accordance with the terms of Article 17.2. The grant of rights under this Article is subject to the terms of the applicable Contract and the Laws/Regulations and is without prejudice to any rights of the Government and/or GNPC with respect to such data and information under the terms of either Contract or the Laws/Regulations. The data and information listed in Exhibit J, Part 1(c) shall be licensed to the other Parties pursuant to the seismic data license agreement, in the form attached hereto as Exhibit J, Part 2, to be entered into on the date hereof by GNPC, as licensor, and the other Parties, as licensees. Only the licensed rights with respect to such data and information shall be deemed to be Unit Data.

9/7/09 Unitization and Unit Operating Agreement



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- (B) Except as provided in Article 4.6(A) or Article 4.7(D), and subject to the Laws/Regulations and the terms of the applicable Contract, each Party shall retain its rights to all other data and information with respect to the Unit Area acquired prior to the Effective Date or through Non-Unit Operations, and no such data and information shall be deemed to be Unit Data.
- (C) Each Party that has delivered data and information listed in Exhibit J. Part 1(b) or Exhibit J. Part 1(c) warrants to the other Parties that it has the right to disclose and grant the right to use such data and information under Article 4.6(A) and that use of such data and information in accordance with the terms and conditions of this Agreement will not infringe on the intellectual property rights of any Third Party. Subject to the foregoing sentence, such data and information is furnished on an "as is" basis without warranties, express or implied, of any kind, including any warranty that such information and data is merchantable or fit for any particular purpose, or of a particular condition, quality or accuracy. Any use of or reliance on such information and data shall be at each receiving Party's sole risk.
- (D) For the avoidance of doubt, data and information included as Unit Data pursuant to this Article and <u>Exhibit J</u> shall not be automatically included in the Common Database pursuant to <u>Exhibit E</u> if such Unit Data lies outside the Unit Area, unless otherwise specified in <u>Exhibit E</u>.

#### 4.7 Existing Facilities

- (A) The Parties agree that, with effect from the Effective Date, the facilities, wells and other real property and tangible personal property listed in <u>Exhibit K</u> shall be deemed to be Unit Facilities and the Parties holding the existing rights in such property shall be deemed to have transferred their rights therein to the Parties collectively in proportion to their Unit Interests. This transfer of rights is subject to the terms of the applicable Contract and the Laws/Regulations and is without prejudice to any rights of the Government with respect to such property under the terms of either Contract or the Laws/Regulations.
- (B) Except as provided in Article 4.7(A), each Party shall retain its rights to all other facilities, wells and other real property and tangible personal property acquired prior to the Effective Date or through Non-Unit Operations, and no such property shall be deemed to be Unit Facilities.
- (C) All rights transferred pursuant to this Article 4.7 are transferred on an "as is" basis without warranties, express or implied, including warranties as to merchantability, fitness for a particular purpose, conformity to models or samples of materials, use, maintenance, condition, capacity or capability, provided that each Party that has delivered facilities or rights to use facilities pursuant to Article 4.7(A) warrants to the other Parties that it has the right to transfer such facilities, or rights therein, free and clear of all liens, charges and encumbrances, excepting the terms of the applicable Contract and the Laws/Regulations and the rights of the Government. Notwithstanding the preceding sentence, should any facilities, wells and other real property and tangible personal property transferred under this Article 4.7 be entitled to the benefits of a warranty by any Person other than a transferring Party or its Affiliates, the transferring Party or Parties holding the warranty shall transfer such warranty rights to the Parties collectively, in proportion to their Unit Interests, to the extent transferable.
- (D) Any Party transferring a well pursuant to Article 4.7(A) shall also transfer or license its rights to all data and information obtained in wellbore operations in that well, on the terms set forth in Article 4.6, to the extent such transfer is permitted by the Contracts, the Laws/Regulations and any applicable Non-Affiliated Third Party agreements. The transfer or license of such rights is without prejudice to any rights of the Government and GNPC with respect to such data and information under the terms of either Contract or the Laws/Regulations.

#### 4.8 Non-Unit Discoveries

- (A) Should a well drilled as a Unit Well encounter Hydrocarbons which may constitute a Discovery outside of the Unit Interval, the Unit Operator shall promptly notify the Contract Group holding the Contract on which the Hydrocarbons were discovered. The applicable Tract Operator shall report the Discovery to the Government and GNPC pursuant to Article 8.1 of the applicable Contract.
- (B) The Contract Group holding the Contract on which the Hydrocarbons were discovered shall have no rights with respect to the Unit Well that made the Discovery except as provided in Article 12.1(B).

## 4.9 Effect on Existing Agreements

- (A) The Parties in each Contract Group have provided the Parties that are members of the other Contract Group with a copy of the providing Contract Group's Contract as amended as of the Effective Date; a copy of the DWT Contract is attached hereto as <u>Exhibit G</u> and a copy of the WCTP Contract is attached hereto as <u>Exhibit H</u>. The Parties in each Contract Group will provide the Parties in the other Contract Group with copies of any amendments to such Contract entered into after the Effective Date.
- (B) The Parties intend, subject to applicable Ghana Laws/Regulations, that the terms of each Contract, to the extent that they apply to the operations carried out pursuant to this Agreement, shall be applied in such a manner as to give effect to the terms of the Government Approval and the Acknowledgment.
- (C) This Agreement shall not be deemed to amend or modify the provisions of either Joint Operating Agreement except as provided in the next sentence and except as expressly provided in the Unit Accounting Procedure. This Agreement shall apply with respect to Unit Operations in lieu of either Joint Operating Agreement, except to the extent the terms of the Joint Operating Agreements are expressly incorporated or otherwise expressly applied by the terms hereof, and, in addition, in the event of conflict between a provision of this Agreement and the provisions of either Joint Operating Agreement with respect to Non-Unit Operations, the provisions of this Agreement will prevail.
- (D) Each contract set forth on Part 1 of Exhibit L entered into by a Tract Operator or Anadarko for the joint account under the terms of its Joint Operating Agreement prior to the Effective Date that is still in effect on the Effective Date shall, to the extent relating to operations within the scope of this Agreement as described in Article 3 and to the extent transferable, be transferred to and assumed by Unit Operator and be deemed to have been properly approved with respect to Unit Operations under this Agreement, without prejudice to a Non-Operator's right to audit in accordance with Article 4.9(E). Upon the transfer and assumption of each such contract, Unit Operator shall be fully authorized to perform and enforce that contract on behalf of the Parties. Each contract entered into by Unit Operator, IPT Technical Operator or by Anadarko pursuant to the Pre-Unit Agreement prior to the Effective Date that is still in effect on the Effective Date, including those set forth on Part 2 of Exhibit L, shall be deemed to have been properly approved with respect to Unit Operations under this Agreement (and, in the case of contracts entered into by IPT Technical Operator or by Anadarko shall, to the extent transferable, be transferred to and assumed by Unit Operator), without prejudice to a Non-Operator's right to audit in accordance with Article 4.9(E). Unit Operator shall be fully authorized to execute and perform each such contract on behalf of the Parties. The Parties shall cooperate to cause the execution of such instruments of assignment and/or novation as shall be reasonably necessary to transfer from the IPT Technical Operator or Anadarko and vest in Unit Operator those rights and obligations under such contracts as are to be transferred to and assumed by Unit Operator pursuant to this Article 4.9(D). Within fifteen (15) Days after the satisfaction of the conditions precedent set out in Article 4.1(D), the Unit Operator shall deliver or cause to be delivered to each counterparty



under each contract set forth on Part 1 and Part 2 of <u>Exhibit L</u> and transferred to Unit Operator pursuant to this Article 4.9(D), written notice of such assignment to and assumption by Unit Operator.

(E) Each Operator warrants and represents to the other Parties that each contract set forth in Exhibit L entered into by such Operator was entered into in accordance with the terms of the IPT Technical Operations Contract Procedure or the Unit Operations Contract Procedure, as applicable, as set forth in Exhibit T and in accordance with the provisions of Article 7.2. Notwithstanding anything to the contrary contained in this Agreement or in the Unit Accounting Procedure, a Non-Operator's right to audit the Unit Accounts and records of any Operator relating to any such contracts shall continue for the greater of (i) the period provided for in Section 1.8.1 of the Unit Accounting Procedure and (ii) twenty-four (24) months following the Effective Date.

## 4.10 Existing Work Programs and Budgets and AFEs and Jubilee Operating Committee Approvals

Each expenditure under the work programs and budgets approved by the Jubilee Operating Committee pursuant to the Pre-Unit Agreement, as set forth in Exhibit M, shall, without any further action being required by the Unit Operating Committee under this Agreement, be deemed to be adopted on the Effective Date as the initial Unit Work Program and Budget under this Agreement (but only to the extent the operations approved thereunder fall within the scope of this Agreement as described in Article 3). Likewise, the unexpended portion of all AFEs set forth in Exhibit N shall be deemed to be adopted on the Effective Date as approved AFEs under this Agreement to the extent the operations approved thereunder fall within the scope of this Agreement as described in Article 3. Any portions of a Pre-Unit Agreement work program and budget and any Pre-Unit Agreement AFE transferred to the Unit pursuant to this Article 4.10 shall thereafter no longer be subject to the Pre-Unit Agreement. Each decision approved by the Jubilee Operating Committee pursuant to the Pre-Unit Agreement which is contained within Exhibit O shall, without any further action being required, be deemed to be adopted on the Effective Date as a matter approved by the Unit Operating Committee under this Agreement (but only to the extent the operations approved thereunder fall within the scope of this Agreement as described in Article 3). The decisions adopted pursuant to this Article 4.10 are subject to the terms of the applicable Contract and the Laws/Regulations, and this Article 4.10 is without prejudice to any remaining obligation to obtain approval of the Government for any such decisions under the terms of either Contract or the Laws/Regulations. For the avoidance of doubt, this Article 4.10 is without prejudice to any required approval of the Joint Management Committee under Article 6 of each Contract.

## 4.11 Responsibility For Existing Burdens

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Each Party represents and warrants to the other Parties that the interest in its Contract and rights with respect thereto that have become subject to this Agreement are free and clear of any overriding royalty, production payment, net profits interest, carry or special allocation of Unit Substances, proceeds thereof or costs of Unit Operations, or other right or Encumbrance (each, a "Burden") except (i) rights in favor of the Government and GNPC under its Contract and the Laws/Regulations, (ii) security rights under its Joint Operating Agreement for amounts not yet due and payable, (iii) Tullow's carry of Sabre's interest, and Kosmos' carry of EO Group's interest, each as disclosed in writing to GNPC and the Minister pursuant to the Contracts, (iv) Sabre's financing arrangements as disclosed in writing to all Parties and which do not attach to the rights received by the other Parties under this Agreement, and (v) such other Burdens as have been previously disclosed in writing to all Parties. Any Burden on a Party's interest shall be satisfied solely by that Party, and such Party shall be solely responsible for, and shall defend and indemnify each other Party (except those Parties which have otherwise agreed in writing to bear a part of such arrangements) against any and all costs, expenses, losses, damages and liabilities (including reasonable legal costs, expenses and attorneys' fees, and contractual liability to other Persons for such costs, expenses, losses, damages and liabilities) incident to the Burdens affecting its interest. Each Party contributing an interest in its Contract subject to an existing Burden has obtained ratification of the Unit from each holder of the Burden and has provided a copy thereof to the other Parties.



#### ARTICLE 5

### TRACT PARTICIPATIONS, UNIT INTERESTS AND PAYING INTERESTS

## 5.1 Tract Participations

- (A) The Tract Participation of each Tract as of the Effective Date shall be as set forth in Exhibit A.
- (B) The Tract Participations set forth in Article 5.1(A) shall not change during the term of this Agreement for any reason except as expressly provided in Articles 5.3, 5.4, 13.1(B) and 13.2(B), regardless of depletion of Unit Substances, changes in reserve estimates, or the surrender or revocation of any portion of either Contract Area.

#### 5.2 Unit Interests and Paying Interests

- (A) The Unit Interests of each Party as of the Effective Date shall be as set forth in <u>Exhibit A, Part 1</u>. The Paying Interests of each Party as of the Effective Date shall be as set forth in <u>Exhibit A, Part 2</u>.
- (B) Each Party's Unit Interest is determined by multiplying that Party's Contract Group Interest in each Contract Group by the Tract Participation for the applicable Tract and adding the results. Unit Interests shall be automatically revised (without the need for any amendment to the terms of this Agreement) upon:
  - (1) Any Transfer of a Unit Interest (including a Transfer under Article 10.8 as a consequence of a default, a Transfer under Article 14, and a Transfer under Article 15 as a consequence of a withdrawal); or
  - (2) An adjustment of the Tract Participations pursuant to Article 5.3, Article 5.4, Article 13.1(B) or Article 13.2(B).
- (C) Paying Interests shall be automatically revised in accordance with the definitions of "Paying Interest" (without the need for any amendment to the terms of this Agreement) upon:
  - (1) Any Transfer of a Unit Interest (including a Transfer under Article 10.8 as a consequence of a default, a Transfer under Article 14, and a Transfer under Article 15 as a consequence of a withdrawal); or
  - (2) An adjustment of the Tract Participations pursuant to Article 5.3, Article 5.4, Article 13.1(B) or Article 13.2(B).
- (D) All Unit Interest and Paying Interest calculations shall be rounded to the fourth (4th) decimal place, with digits of five and above rounded upward and those of four and below rounded downward. The total of all Tract Participations within the Unit, the total of all Unit Interests within the Unit and the total of all Paying Interests within the Unit shall each always equal one hundred percent (100%).

#### 5.3 Changes in Unit Area and Unit Interval

(A) Except as provided in Article 5.3(B) and without prejudice to any rights of the Government under the terms of either Contract or the Laws/Regulations, any change to the Unit Area or Unit Interval shall require the unanimous written approval of the Parties, except in the event of the surrender, revocation, termination or expiration of any Contract with respect to any portion (but not all) of the Unit Area covered by that Contract in the circumstances provided in Articles 13.1 and 13.2, in which case the Unit Area and Unit Interval shall be adjusted to exclude the area with respect to which the Contract has been surrendered or revoked or has terminated or expired without any



approval being required. In the case of the surrender, revocation, termination or expiration of any Contract with respect to all of the Unit Area covered by that Contract in the circumstances provided in Articles 13.1 and 13.2, Article 5.3(E) shall apply. In the event of surrender of only a portion of a Contract Area within the Unit Area, such surrendered area shall automatically be excluded from the Unit Area and the provisions of Article 13.2 shall apply. Should an accumulation of Hydrocarbons be located in the surrendered area which is determined to be in Pressure Communication with the Unit Substances, and the Minister so requires pursuant to Article 8.20 of each Contract, each Contract Group and GNPC (as holder of the surrendered area) shall negotiate in good faith to reach an agreement on unitization between the Unit Area and the portion of the surrendered area that is in Pressure Communication with the Unit Substances based upon the principles set forth in this Agreement.

- **(B**)
- (1)In the event a Party or group of Parties holding a collective Unit Interest of at least ten percent (10%) (the "Proposing Group") desires that the Unit Interval (and, if applicable, Unit Area) be expanded to include an accumulation of Hydrocarbons located outside the Unit Interval and within either Contract Area and the Proposing Group has Sufficient New Data indicating that there is an accumulation of Hydrocarbons located outside the Unit Interval and within either Contract Area that is in Pressure Communication with the Unit Substances, the Proposing Group shall propose (the date on which such proposal has been received by all the other Parties being referred to as the "Expansion Call Date") to all Parties to expand the Unit Interval (and, if applicable, Unit Area) (the "Original Expansion Proposal"). The Proposing Group shall also submit, simultaneously with the Original Expansion Proposal, the specific areas and formations proposed to be included in the applicable expansion and a proposed incremental addition to the quantity of OHIP contained within either Tract in the Unit Interval as a result of the proposed expansion, together with technical evidence and other relevant supporting documentation in relation to the proposed expansion. Any other Party may, within twenty (20) Days of the Expansion Call Date, provide to all other Parties additional information related to the proposed expansion, including alternate areas and formations proposed to be included in such expansion, an alternate proposed incremental addition to the quantity of OHIP contained within either Tract in the Unit Interval and alternate technical evidence and other relevant supporting documentation in relation to the proposed expansion. Within thirty (30) Days of the Expansion Call Date, the Unit Operating Committee shall vote, in accordance with Article 8.9(A)(1), whether to approve the Original Expansion Proposal or an alternate proposal (each referred to herein as an "Expansion Proposal") and, if an Expansion Proposal is so approved, shall determine the specific areas and formations to include in such expansion. Subject to Article 5.3(B)(2), if an Expansion Proposal is approved, together with the specific areas and formations to be included in such expansion, the Unit Operating Committee shall also vote to determine the incremental addition to the quantity of OHIP contained within either Tract in the Unit Interval. .
- (2) Should the Unit Operating Committee fail to approve an Expansion Proposal and the specific areas and formations to include in such expansion within the thirty (30) Day period following the Expansion Call Date, such Expansion Proposal shall fail and no expansion shall be conducted pursuant to such Expansion Proposal, without prejudice to the rights of any Proposing Group to make a subsequent Expansion Proposal.
- (3) If within thirty (30) Days of the Expansion Call Date, the Unit Operating Committee has voted to approve an Expansion Proposal and to include certain areas and formations within the Unit Interval (and, if applicable, Unit Area), the Unit Interval (and, if applicable, Unit Area) shall be expanded upon such applicable date to incorporate such areas and formations. The date upon which the Unit Interval (and, if applicable, Unit Area) is expanded in accordance with a particular proposed expansion or, if the Unit Interval is not expanded, the end of the time period provided for a vote by the Unit

Operating Committee to approve an Expansion Proposal shall be referred to herein as the "*Expansion End Date*" with respect to each such proposed expansion.

- (4) If:
  - (a) the Unit Operating Committee has voted to approve an Expansion Proposal and areas and formations for the expansion, but the Unit Operating Committee has failed to approve the incremental addition to the quantity of OHIP contained within either Tract in the Unit Interval as a consequence of the approved expansion, the quantity of OHIP contained within either Tract in the Unit Interval and the Tract Participations shall not be adjusted in accordance with such approved expansion (provided that such approved expansion shall be used in the next Redetermination provided for in Article 5.5);
  - (b) the Unit Operating Committee has voted to approve an Expansion Proposal and areas and formations for the expansion, and the incremental addition to the quantity of OHIP contained within either Tract in the Unit Interval as a consequence of the expansion, and the Expansion End Date for such approved expansion is within the three hundred and sixty five (365) Days prior to a Redetermination Call Date, the quantity of OHIP contained within either Tract in the Unit Interval and the Tract Participations shall not be adjusted in accordance with such approved expansion (provided that such approved expansion shall be used in the next Redetermination provided for in Article 5.5);
  - (c) the Unit Operating Committee has voted to approve an Expansion Proposal and areas and formations for the expansion and the incremental addition to the quantity of OHIP contained within either Tract in the Unit Interval as a consequence of the expansion, and the Expansion End Date for such approved expansion is during a Redetermination Period, the quantity of OHIP contained within either Tract in the Unit Interval and the Tract Participations shall be adjusted automatically in accordance with the incremental addition to the quantity of OHIP contained within either Tract in the Unit Interval that has been approved by the Unit Operating Committee, provided that the adjustments shall not be applied until the applicable Redetermination End Date, at which time they shall be applied to the quantities of OHIP and Tract Participations as in effect at that time for each Tract in the Unit Interval; or
  - (d) the Unit Interval is expanded in accordance with Article 5.3(B)(3) and none of Articles 5.3(B)(4)(a) to (c) apply, the quantity of OHIP contained within either Tract in the Unit Interval and the Tract Participations shall be adjusted automatically in accordance with the incremental addition to the quantity of OHIP contained within either Tract in the Unit Interval as a consequence of the expansion that has been approved by the Unit Operating Committee.
- (5) Within seven (7) Days after any incremental additions to the quantity of OHIP contained within either Tract in the Unit Interval are to be applied pursuant to Article 5.3(B)(4)(c) or Article 5.3(B)(4)(d), the Unit Operator shall calculate the revised Tract Participations in accordance with Article 5.5(A), using such incremental additions plus the quantity of OHIP previously determined to be contained within each Tract in the Unit Interval, without consideration of the expansion, as of the last Redetermination End Date falling on or before the date on which the incremental additions are to be applied. Unit Interests and Paying Interests shall be automatically revised in accordance with Articles 5.2(B) and 5.2(C) upon an adjustment of Tract Participations in accordance with Article 5.3(B)(4).



- (6) Notwithstanding anything to the contrary in this Article 5.3(B):
  - (a) in the case of any expansion for which the Expansion End Date occurs during a Redetermination Period, the changes to the Unit Interval resulting from the expansion shall not be considered for purposes of the applicable Redetermination and all facets of such expansion shall be kept separate from such Redetermination (provided that such expansion shall be used in any future Redetermination provided for in Article 5.5); and
  - (b) no expansion may be proposed after the final Redetermination Call Date scheduled in accordance with Article 5.5(D)(2)(e).
- (C) Notwithstanding anything to the contrary in this Article 5.3, no expansion may be proposed in accordance with Article 5.3(B) prior to or upon the date upon which the Redetermination Trigger Date associated with the Redetermination scheduled in accordance with Article 5.5(D)(1) occurs; except that an expansion may be proposed in accordance with Article 5.3(B) during the period beginning on, and including, January 1, 2010, and ending on, and including, February 28, 2010.
- (D)
- (1) Upon any modification of the Unit Interval (and, if applicable, Unit Area) pursuant to Article 5.3(A), but not, for the avoidance of doubt, Article 5.3(B), unless one Contract Group has lost its entire interest in the Unit, a Redetermination of Tract Participations shall be carried out. Such Redetermination shall follow the same procedure as, but shall be in addition to, the Redeterminations permitted under Article 5.5, and shall be effective as of the date of modification of the Unit Area or Unit Interval.
- (2) Upon any modification of the Unit Interval (and, if applicable, Unit Area) pursuant to Article 5.3(B) the rights and obligations of the Parties under this Agreement shall be based upon their Tract Participations, Unit Interests and Paying Interests as determined in accordance with Articles 5.3(B)(4) and 5.3(B)(5). For the avoidance of doubt, there will be no immediate adjustments for past Unit Account costs, revenues and credits, contributions to any fund for Decommissioning of Unit Facilities, or past production of Unit Substances, as described in Articles 5.6(B) and (C) and 5.7(B) and (C), following any such change in Tract Participations pursuant to Article 5.3(B); however, the expanded Unit Area or Unit Interval shall be considered in any future Redeterminations provided for in Article 5.5.
- (3) As soon as practicable following the effective date of any adjustment of Tract Participations pursuant to this Article 5.3(D), <u>Exhibit A</u> hereto shall be revised as necessary to reflect the results of such adjustment.
- (E) In cases where one Contract Group loses its entire interest in the Unit as a consequence of the surrender, expiration or termination of its Contract, the Unit Area shall not change but instead, as provided in the Government Approval, GNPC shall become the Contract Group for that Contract, as if the entire Project Interest with respect to such Contract had been Transferred pursuant to Article 12, and GNPC shall assume the obligations with respect to such Transfer pursuant to Article 14.2(B)(1). For the avoidance of doubt, no consent shall be required in such case under Article 14.2(B)(2). Where this Article 5.3(E) applies, GNPC shall be deemed to have Contract Group Interests and Contract Group Paying Interests of one hundred percent (100%) with respect to the surrendered, revoked, terminated or expired Contract, notwithstanding any terms of this Agreement to the contrary.

9/7/09 Unitization and Unit Operating Agreement

#### 5.4 Redetermination of Tract Participations

The respective Tract Participations as shown in <u>Exhibit A</u> hereto are subject to Redetermination in accordance with Articles 5.5, 5.6 and 5.7. It is recognized that the Tract Participations are based on the data available at the time, that the Redeterminations provided in Article 5.5 are to reflect additional or better data, that adjustments made under Article 5.6 are corrections of each Party's respective share of costs incurred for the Unit Account, and that the adjustments to entitlement to Unit Substances made under Article 5.7 are corrections to the Entitlements of the respective Parties based on such corrected Tract Participations.

#### 5.5 Conduct of a Redetermination

- (A) Tract Participations shall be redetermined by dividing the redetermined volumes of Original Hydrocarbon in Place ("*OHIP*") (as that term is defined in <u>Exhibit F</u>) in the Unit Interval underlying the respective Tracts by the total redetermined volume of Original Hydrocarbon in Place in the Unit Interval (the "*Redetermination Basis*").
- (B) The Parties shall follow the procedures in  $\underline{\text{Exhibit E}}$  and  $\underline{\text{Exhibit F}}$  to redetermine the Tract Participations. Any redetermination decision by an Expert pursuant to  $\underline{\text{Exhibit E}}$  shall be final and binding on the Parties.
- (C) Unit Interests and Paying Interests shall be automatically revised in accordance with Articles 5.2(B) and 5.2(C) upon a Redetermination of Tract Participations.
- (D) Redeterminations may take place only in the circumstances set forth in this Article 5.5(D), or as otherwise expressly provided for in this Agreement.
  - (1) Tract Participations shall be automatically redetermined in a Redetermination commencing on the date that is the later of: (i) six (6) Calendar Months prior to the anticipated Date of Commencement of Commercial Production as such date has been determined by the IPT as of January 1, 2010, or (ii) March 1, 2010.
  - (2) Any Party or group of Parties holding individually or collectively a Unit Interest of at least ten percent (10%) may require that the Tract Participations be redetermined by notice to all Parties within thirty (30) Days after occurrence of any of the events listed below (the date of each such event hereinafter referred to as a "*Redetermination Call Date*"):
    - (a) on the date that is the later of (i) two (2) years after the Date of Commencement of Commercial Production, or (ii) two (2) years after the Redetermination End Date associated with the Redetermination scheduled in accordance with Article 5.5(D)(1);
    - (b) on the date that is four (4) years after the Redetermination End Date associated with the Redetermination Call Date scheduled in accordance with Article 5.5(D)(2)(a);
    - (c) on the date that is five (5) years after the Redetermination End Date associated with the Redetermination Call Date scheduled in accordance with Article 5.5(D)(2)(b);
    - (d) on each subsequent date that is both (i) at least five (5) years after the Redetermination End Date associated with the Redetermination Call Date scheduled in accordance with Article 5.5(D)(2)(c) and (ii) five (5) years after the

Redetermination End Date associated with the most recent prior Redetermination Call Date; and

(e) on the earlier of: (i) January 1, 2024, or (ii) the date upon which sixty percent (60%) of the Recoverable Oil has been extracted from the Unit Interval,

provided that, should any Redetermination Call Date scheduled in accordance with the events described in Articles 5.5(D)(2)(a)-(d) be scheduled to occur at a time after either (i) January 1, 2022 or (ii) the date upon which fifty percent (50%) of the Recoverable Oil has been extracted from the Unit Interval, such Redetermination Call Date, and any Redetermination associated with such Redetermination Call Date, shall not occur. Unit Operator shall provide written notice to all of the Parties at least ninety (90) Days in advance of any Redetermination Call Date.

- (3) Notwithstanding the provisions of Article 5.5(D)(2), if any Redetermination Call Date occurs following an Expansion End Date that (i) resulted in an expansion of the Unit Interval and (ii) such expansion was not taken into account in the most recent preceding Redetermination under the principles set forth in Article 5.3(B)(6)(a), then the applicable Redetermination associated with such Redetermination Call Date shall occur automatically without being called by a Party or group of Parties holding a collective Unit Interest of at least ten percent (10%).
- (4) Notwithstanding the other provisions of this Article 5.5;
  - (i) the commencement of any Redetermination that can be called pursuant to Article 5.5(D)(2) or pursuant to Article 5.3 shall be deferred, one time only, until the Expansion End Date(s) for any Expansion Period(s) that is/are pending at the scheduled commencement of the Redetermination;
  - (ii) the commencement of the Redetermination that is to take place pursuant to Article 5.5(D)(1) shall be deferred until the Expansion End Date for any expansion proposed during the expansion proposal period described in Article 5.3(C); and
  - (iii) any Redetermination (including any Redetermination pursuant to Article 5.3) that would otherwise commence within twenty-four (24) Calendar Months of the Redetermination Effective Date for the previous Redetermination shall be deferred until after the end of that twenty-four (24) Calendar Month period.

For the avoidance of doubt, nothing in this Article 5.5(D)(4) shall restrict Unit Interval (and, if applicable, Unit Area) expansion and the corresponding adjustment of Tract Participations pursuant to Article 5.3(B). Any Redetermination or Redeterminations prevented from commencing by this Article 5.5(D)(4) may commence at the end of such period, subject to the limitations set out in the proviso following Article 5.5(D)(2)(e). Even though more than one Redetermination has been deferred in this manner, only one Redetermination may commence at the end of the period as a result of the deferral.

(E) A Redetermination shall be effective as of the first Day of the second Calendar Month following the Calendar Month in which: (1) the Parties have unanimously approved Redetermination in writing or (2) the Expert has notified the Parties of its final decision regarding the Redetermination in accordance with the procedures set forth in Exhibit E (the "Redetermination Effective Date"). By virtue of approving the unitization of the Unit Interval in accordance with the terms of this Agreement, the Government thereby approves the results of subsequent Redeterminations conducted in accordance with the terms of this Agreement. The Redetermination Effective Date for a particular Redetermination or, if applicable, the date upon which the thirty (30) Day period

following the Redetermination Call Date for such Redetermination ends without such Redetermination being called or the date upon which the Redetermination process ends pursuant to Section 4.6 of <u>Exhibit E</u>, shall be referred to as the "*Redetermination End Date*" with respect to each Redetermination or Redetermination Call Date, as applicable.

(F)

- (1) In the case of (a) any automatic Redetermination under Article 5.5(D)(1) or 5.5(D)(3), or any Redetermination pursuant to Article 5.3(A), regardless of the final shift in Tract Participations, or (b) any Redetermination under Article 5.5(D)(2) referred to an Expert by the Unit Operating Committee pursuant to Section 4.5 of <u>Exhibit E</u>, regardless of the final shift in Tract Participations, (c) any Redetermination under Article 5.5(D)(2) referred to an Expert of any other Redetermination conducted under Article 5.5(D)(2) that results in a shift of Tract Participations between the Tracts of one half of a percentage point (0.5%) or more out of one hundred percent (100%), the costs and expenses of Redetermination incurred and paid by the Unit Operator for the Unit Account (and not as a Party) and required under the terms of <u>Exhibit F</u>, including the Expert Costs, shall be charged to the Unit Account and borne by the Parties in accordance with their revised Paying Interests, and all other costs incurred by the Parties in connection with the Redetermination shall be borne by the Parties which incurred them.
- (2) In the case of a Redetermination conducted under Article 5.5(D)(2) that is not addressed under Article 5.5(F)(1), the Party or group of Parties which requested the Redetermination pursuant to Article 5.5(D) shall reimburse all direct costs incurred and paid by the other Parties to participate in that Redetermination and all direct costs incurred and paid by the Unit Operator for the Unit Account (and not as a Party) under the terms of Exhibits E and F, including the Expert Costs, plus interest on all such costs from the date of expenditure to the date of reimbursement at the Agreed Interest Rate, plus shall pay to the Unit Account for the sole benefit of the non-requesting Party or Parties, on a pro rata basis according to their respective Unit Interests, an amount equal the greater of (a) five million U.S. dollars (\$5,000,000) or (b) ten (10) times the Expert Costs and, notwithstanding anything to the contrary in Article 5.5, the Tract Participations shall not be adjusted.
- (3) All costs reimbursable under this Article 5.5 shall be subject to audit by any of the Parties within the time period and in the manner established by the Unit Accounting Procedure for the audit of the Unit Account, and each Party agrees to allow the other Parties to audit its books and records related to any costs claimed by it under this Article.
- (G) From the Redetermination Effective Date pursuant to this Article 5.5, the rights and obligations of the Parties under this Agreement shall be based upon their redetermined Tract Participations, revised Unit Interests and revised Paying Interests, and, except as provided in Article 5.3(D), adjustments shall be made as provided in Articles 5.6 and 5.7 as to costs incurred and revenues and credits received for the Unit Account, contributions to any fund for Decommissioning of Unit Facilities, and Unit Substances received, prior to the Redetermination Effective Date. As soon as practicable following the Redetermination Effective Date, <u>Exhibit A</u> hereto shall be revised as necessary to reflect the results of such Redetermination.

## 5.6 Adjustments to Contributions following Redetermination

(A) From, and including, the Redetermination Effective Date, all Unit Account expenditures shall be borne and paid by GNPC and each JOA Group in accordance with their revised Paying Interests and any revenues and credits (other than proceeds from the sale of Unit Substances) received for the Unit Account shall be allocated based upon GNPC's or such JOA Group's revised Paying Interests.

- (B) With regard to Unit Account expenditures paid, and revenues and credits (other than proceeds from the sale of Unit Substances) received for the Unit Account prior to, but not including, the Redetermination Effective Date:
  - (1) Following the Redetermination Effective Date, GNPC's and each JOA Group's shares of such Unit Account expenditures, and revenues and credits, shall be adjusted in accordance with the provisions of this Article 5.6(B).
  - (2) Within fifteen (15) Days of the Redetermination Effective Date, the Unit Operator shall furnish each Party a statement showing:
    - (a) GNPC's and each JOA Group's Monthly contributions to the Unit Account, less its Monthly receipts (other than proceeds from the sale of Unit Substances) from the Unit Account, for each Calendar Month up to but not including the Redetermination Effective Date;
    - (b) GNPC's and each JOA Group's revised Paying Interest share of such Monthly contributions, less GNPC's or the JOA Group's revised Paying Interest share of such Monthly receipts, assuming the redetermined Tract Participations had always been in effect, but considering Paying Interests separately for each specified operation, so that GNPC is not required to bear a share of any Unit Account Costs with respect to any Unit Operation in excess of its Paying Interest;
    - (c) the amount of GNPC's and each JOA Group's net overpayment or underpayment to the Unit Account for each Calendar Month, based upon the difference between its revised Paying Interest share of net contributions and its actual net contributions, as determined in accordance with Articles 5.6(B)(2)(a) and 5.6(B)(2)(b), and the aggregate amount owing by or owing to GNPC and each JOA Group. "Contributions" for purposes of this Article 5.6, shall include amounts deducted for the benefit of the Unit Account directly from the proceeds of a Party's share of Unit Substances prior to receipt by that Party, whether as part of a financing of the Unit Facilities or otherwise. Where GNPC or either JOA Group has made a late contribution but paid interest on the amount owing from the date due to the date paid at the Agreed Interest Rate, such contribution shall be deemed to have been paid on the due date for all purposes of this Article 5.6 and the interest paid shall not be considered for purposes of this Article 5.6.
  - (3) If GNPC or a JOA Group owes an aggregate underpayment, it shall pay that amount to the Unit Operator in accordance with Article 5.6(B)(4), and upon receipt of any such amounts the Unit Operator shall promptly pay the amounts owed to GNPC or the JOA Group that has made an aggregate overpayment in proportion to the aggregate overpayment by each. All payments under this Article shall be made in the same currency(ies) as the original contributions to which they relate.
  - (4) If GNPC or a JOA Group owes any amount pursuant to Article 5.6(B)(2), GNPC or the Tract Operator acting on behalf of the JOA Group shall pay that amount by bearing its proportionate share (based upon the relative amounts owed by each such debtor) of sixty percent (60%) of the share of cash calls made by the Unit Operator in respect of Unit Account expenses during the twelve (12) Calendar Months following the Calendar Month of the Redetermination Effective Date (the "Redetermination Effective Month") that would otherwise be borne by GNPC, to the extent GNPC is an overpaying Party or by the overpaying JOA Group with respect to their overpaying Paying Interests, until the earlier of (a) the last Business Day of the twelfth (12th) Calendar Month following the Redetermination Effective Month or (b) the entire amount owing has been paid in full.

28

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If, following the last Business Day of the twelfth (12th) Calendar Month following the Redetermination Effective Month, GNPC or a JOA Group continues to owe an underpayment pursuant to Article 5.6(B)(2), GNPC or such JOA Group shall, commencing with the thirteenth (13th) Calendar Month following the Redetermination Effective Month, bear its proportionate share (based upon the relative amounts owed by each such debtor) of one hundred percent (100%) of the share of cash calls made by the Unit Operator in respect of Unit Account expenses that would otherwise be borne by GNPC, to the extent GNPC is an overpaying Party or by the overpaying JOA Group with respect to their overpaying Paying Interests until the entire amount owing has been paid in full. In the event that the entire amount owing by GNPC or either JOA Group has not been repaid by the second (2nd) anniversary of the Redetermination Effective Date, the remaining balance shall be due and payable on that anniversary. Until all such amounts have been paid in full, the Unit Operator shall provide each Party with a Monthly statement showing the balance owed by, or owed to, each Party as of the end of the prior Calendar Month. Such make-up payments are adjustments among the Parties for payments that have already been incurred by the overpaying Parties and therefore shall not be subject to taxation.

- (5) GNPC's and each JOA Group's actual and redetermined Monthly contributions to the Unit Account and receipts from the Unit Account, as described in Articles 5.6(B)(2)(a) and 5.6(B)(2)(b), shall, for purposes of this Article 5.6, be increased by an amount equal to the interest that would accrue on such contributions or receipts at the Agreed Interest Rate, calculated in each case from the last Day of the Calendar Month in which each such contribution or receipt was made up to the Redetermination Effective Date. This interest shall not be entered into the Unit Account, notwithstanding the terms of Article 5.6(C), nor considered in future Redeterminations.
- (6) Should GNPC or either JOA Group owing any amount pursuant to Article 5.6(B)(2) fail to pay that amount when due, no other Party shall be obligated to contribute the amounts in default under Article 10.2, but all other rights and remedies of the Parties under Article 10 of the Agreement shall apply with respect to such default.
- (C) Upon GNPC's or any JOA Group's payment of amounts owing under Article 5.6(B), the Unit Account shall be adjusted to reflect that GNPC, as a paying Party, or such JOA Group paid its revised share of each such contribution and received its revised share of each such receipt as of the time of the original contribution or receipt. Upon GNPC's or any JOA Group's receipt of amounts owing under Article 5.6(B) the Unit Account shall be adjusted to reflect that GNPC, as a receiving Party, or such JOA Group paid only its revised share of each such contribution and received only its revised shares of each such receipt as of the time of the original contribution or receipt as of the time of the original contribution or receipt. Such adjustments shall apply for all purposes of this Agreement, including Article 4.2, provided that there shall be no retroactive adjustment of amounts payable to the Government under Article 4.3 but instead the payments made pursuant to this Article 5.6 shall be taken into account as increases in or reductions to the expenditures by GNPC or such JOA Group in the Calendar Year of payment.

# 5.7 Adjustments to Entitlements following Redetermination

- (A) From, and including, the Redetermination Effective Date, each Tract shall be allocated its redetermined Tract Participation share of Unit Substances, and the Unit Substances so allocated to the Tract to which the Parties in the applicable Contract Group are entitled under their Contract shall be allocated among those Parties in proportion to their Contract Group Interests.
- (B) With regard to production from the Unit prior to, but not including, the Redetermination Effective Date:

- (1) No compensation shall be paid to any Party for past variations in the price of Unit Substances.
- (2) Following the Redetermination Effective Date, each Tract's share of Unit Substances produced up to, but not including the effective date of Redetermination shall be adjusted in accordance with the provisions of this Article 5.7(B).
- (3) The Unit Operator shall within fifteen (15) Days of the Redetermination Effective Date furnish each Party and the Government with a statement showing:
  - (a) the aggregate quantities of each type of Unit Substance allocated to each Tract, up to but not including the Redetermination Effective Date;
  - (b) the quantities of each type of Unit Substance which each Tract would have been allocated, had the redetermined Tract Participations been in effect from the Date of Commencement of Commercial Production until the date prior to the Redetermination Effective Date;
  - (c) the difference between (i) the quantity that each Tract whose Tract Participation has been adjusted upward was allocated and (ii) the quantity which such Tract would have been allocated, had the redetermined Tract Participations been in effect, as determined in accordance with Articles 5.7(B)(3)(a) and 5.7(B)(3)(b) (referred to as the "Adjustment Quantity" with respect to each type of Unit Substance sold separately);
  - (d) the Government's and each Party's actual shares of Monthly production of each type of Unit Substance for each Calendar Month of production until the date prior to the Redetermination Effective Date and revised shares of Monthly production of each type of Unit Substance for each Calendar Month of production until the date prior to the Redetermination Effective Date, assuming the redetermined Tract Participations had been in effect from the Date of Commencement of Commercial Production;
  - (e) the amount of the Government's and each Party's overproduction or underproduction of each type of Unit Substance, based upon the difference between its revised share of such type of Unit Substance, and the actual quantities it has produced, determined in accordance with Article 5.7(B)(3)(d) (where consisting of an overproduction, such Person's "Adjustment Quantity Contribution" with respect to such type of Unit Substance); and
  - (f) An estimate as to whether the remaining production of each type of Unit Substances will be sufficient to correct the aggregate production allocations of each Tract to its redetermined Tract Participation allocation over two (2) years under the respective Contracts, and, if the remaining production of a type of Unit Substance will be sufficient, the minimum percentage reallocation of the overproduced Tract's share of that type of Unit Substance that is necessary under Article 5.7(B)(4) to permit full recovery of the Adjustment Quantity over the next two (2) years (the "Adjustment Percentage").
- (4) Except to the extent insufficient quantities of any type of Unit Substances are being sold by any overproduced Party under Spot Contracts to permit the adjustments described in this Article 5.7(B)(4) without affecting the production dedicated to Long Term Contracts, such Party's Adjustment Quantity Contribution with respect to that type of Unit Substances shall be subtracted from the relevant quantity of Unit Substances being sold by such Party under Spot Contracts which such Party would otherwise have been

9/7/09 Unitization and Unit Operating Agreement

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-51

allocated, beginning from the first Day of the third Calendar Month following the Calendar Month of the Redetermination Effective Date (the "Adjustment Date") and continuing onwards and shall be added to the quantity and type of Unit Substances, as applicable, which the Tract whose Tract Participation has been adjusted upward would otherwise be allocated, beginning from the Adjustment Date and continuing onwards, in each case in the manner described in the next sentence. Starting on the Adjustment Date the Tract whose Tract Participation is increased shall additionally receive the Adjustment Parte Participation of each type of Unit Substance which each overproduced Party would otherwise be allocated with respect to the Tract with the decreased Tract Participation following the Adjustment Date, until such overproduced Party has returned its entire Adjustment Quantity Contribution for such type of Unit Substance. The share of the Adjustment Quantity for each type of Unit Substance to which the underproduced Contract Group is entitled under its Contract shall be allocated among the Parties in that Contract Group in proportion to the underproduced balance of each Party within the Contract Group.

- Where quantities of any type of Unit Substance which are attributable to any (5) overproduced Party that are being sold under Long Term Contracts must be used to recover such Party's Adjustment Quantity Contribution at the rate specified in Article 5.7(B)(4), then subject to the terms of the applicable Long Term Contract, the Government and the Contract Group for the underproduced Tract shall be assigned a percentage of the rights that the overproduced Party holds in each applicable Long Term Contract sufficient to permit each of them to receive the full percentage of the redetermined production allocation of that type of Unit Substance to which they are entitled under Article 5.7(B)(4) and the applicable Contract. Such assignment shall be effective as of the Adjustment Date. Each Party (and, by approval of this Agreement, the Government) agrees that each Long Term Contract that it enters into with respect to the sale of Unit Substances shall contain language authorizing the assignment of interests to the Government and the Contract Group for the underproduced Tract contemplated herein without further approval. Each Party shall cooperate to obtain any approvals that are necessary or advisable, notwithstanding the preceding sentence, from any purchaser of Unit Substances and shall execute such instruments and take such actions as shall be reasonably required to accomplish such assignment (and, if applicable, novate the underproduced Contract Group and the Government into the Long Term Contract).
- (6) If (a) at the time of termination of this Agreement an Adjustment Quantity Contribution remains to be recovered from any Person or (b) an overproduced Party elects to withdraw pursuant to Article 15 prior to satisfying its entire Adjustment Quantity Contribution, then the overproduced Party (or, in the event of the termination of this Agreement, each overproduced Person) shall pay a cash settlement to the underproduced Contract Group and the Government, equal in aggregate to the current value of its remaining Adjustment Quantity Contribution with respect to each type of Unit Substances using the average weighted price for all sales of that type of Unit Substance by the Parties during the final three (3) Calendar Months of sales prior to such withdrawal or the termination of this Agreement.
- (7) Any additional allocation of production to a Party pursuant to this Article 5.7(B) is conditional upon the Party claiming production being current in its payments to the Unit Account. In the event an overproduced Person or Persons are to make a cash payment upon termination or withdrawal pursuant to Article 5.7(B)(6), each underproduced Person or Persons shall simultaneously pay to the overproduced Person or Persons required to make such cash payment the underproduced Person's share(s) of any amount that remains owing pursuant to Article 5.6(B)(4).

9/7/09 Unitization and Unit Operating Agreement

14

- (8) The Unit Operator shall provide Monthly statements to all Parties and to the Government showing the remaining Adjustment Quantity and Adjustment Quantity Contributions for each type of Unit Substance as at the end of the prior Month.
- (C) For the avoidance of doubt, expenditures for the Unit Account from the Redetermination Effective Date until recovery of the Adjustment Quantity shall be borne and paid as set forth in Article 5.6(A), notwithstanding the fact that the underproduced Tract will have an allocation of Unit Substances in excess of its redetermined Tract Participation.

#### ARTICLE 6 NON-UNIT OPERATIONS, USE OF UNIT FACILITIES

#### 6.1 Right to Conduct

- (A) Subject to the conditions under this Article 6 and the terms of its applicable Joint Operating Agreement, each Party or JOA Group has the right, at its own risk and expense, to conduct Non-Unit Operations within the portion of the Unit Area lying within the Tract or Tracts in which it holds an interest. Except as otherwise expressly provided in Article 6.7, all Non-Unit Operations shall be conducted on behalf of such Party or JOA Group by the Tract Operator for such Party's or JOA Group's Tract or by GNPC if GNPC so elects to conduct Non-Unit Operations pursuant to its right to conduct sole risk operations in accordance with Article 9 of the applicable Contract (or, if those Parties participating in the Non-Unit Operation so determine, by Anadarko, provided that the ability to conduct such operations is personal to Anadarko and may not be assigned).
- (B) The conduct of Unit Operations shall always have precedence over the conduct of Non-Unit Operations. Each Non-Unit Operation shall be conducted in a manner that does not have a material adverse effect on Unit Operations.

## 6.2 Conditions to Conduct

- (A) A JOA Group or a Party wishing to conduct Non-Unit Operations must give the Parties and the Unit Operator not less than forty-five (45) Days prior notice of its intention to undertake such operations and provide the location, the nature of the works, the estimated commencement date and other pertinent information.
- No Non-Unit Operation (except use of Unit Facilities, which is governed by Article 6.5) may **(B)** proceed without the approval of the Unit Operating Committee, except operations which GNPC may be entitled to conduct on a sole risk basis under Article 9 of either Contract. The Unit Operating Committee shall approve or reject any proposal to conduct Non-Unit Operations within thirty (30) Days of its submission to the Unit Operating Committee. The proposal shall be deemed approved unless Parties having sufficient votes to prevent a passmark vote under Article 8.9(A)(1) notify the Unit Operator and the other Parties within such thirty (30) Day period of their vote against the proposal. A Party may vote against a Non-Unit Operation only if, in its reasonable opinion, the Non-Unit Operations will cause a material adverse effect on Unit Operations. A Party's vote against a Non-Unit Operation must specifically describe the material adverse effect or effects (which may include, by way of example and not limitation, the Non-Unit Operation's failure to have a drilling and casing program that adequately protects the Unit Interval, physical conflict (surface or subsurface) between the proposed location of the Non-Unit Operation and the location of Unit Facilities, or the conduct of an unreasonably dangerous operation in the vicinity of Unit Operations) that form the basis for its disapproval. Unit Operating Committee approval shall likewise be required for any material deviation from the announced program for such Non-Unit Operation. In the event that the proposed Non-Unit Operation or material deviation from an approved Non-Unit Operation involves the use of a drilling rig or vessel that is standing by in the Unit Area or in a Contract Area specifically for the purpose of conducting such Non-Unit Operation, the foregoing provisions shall apply in respect of such approval, provided that the

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thirty (30) Day approval period provided in this Article 6.2(B) may be shortened to seventy two (72) hours at the request of the JOA Group or Party wishing to conduct the Non-Unit Operations.

- (C) Non-Unit Operations shall be conducted under the provisions of the Contract and Joint Operating Agreement applicable to the JOA Group or Party conducting the Non-Unit Operations and shall be at the cost and risk of that JOA Group and/or Party.
- Non-Unit Operations must not be conducted, or must cease to be conducted, as the case may be, if (D) the Unit Operator or the Unit Operating Committee determines that the Non-Unit Operations in question present an imminent threat of damage to the Unit Interval or an imminent threat of loss of life, injury, property damage or damage to the environment and so notifies the Party or JOA Group conducting such Non-Unit Operations. Such Non-Unit Operations may not be commenced or resumed until, and on such terms and conditions as, the Unit Operating Committee determines. A Party may propose to commence or resume any Non-Unit Operation prevented or suspended as a result of a Unit Operator or a Unit Operating Committee determination under this Article by notice to all Parties, and the proposal shall be deemed approved by the Unit Operating Committee unless Parties having sufficient votes to prevent a passmark vote under Article 8.9(A)(1) notify the Unit Operator and the other Parties within thirty (30) Days from the date of receipt of such proposal of their vote against the commencement or resumption of such Non-Unit Operation. A Party may vote against commencement or resumption of such Non-Unit Operation only if, in its reasonable opinion, the Non-Unit Operation will continue to present an imminent threat of damage to the Unit Interval or an imminent threat of loss of life, injury, property damage or damage to the environment. A Party's vote against commencement or resumption of such Non-Unit Operation must specifically describe the threat or threats that form the basis for its disapproval. In the event that the proposed commencement or resumption of a Non-Unit Operation involves the use of a drilling rig or vessel that is standing by in the Unit Area or in a Contract Area specifically for the purpose of conducting such Non-Unit Operation, the foregoing provisions shall apply in respect of such approval, provided that the thirty (30) Day approval period provided in this Article 6.2(D) may be shortened to seventy two (72) hours at the request of the JOA Group or Party wishing to conduct the Non-Unit Operations.
- (E) Any Non-Unit Operation that will penetrate the Unit Interval must be conducted with such precautions as are reasonably necessary to protect the Unit Interval. The JOA Group or Party conducting the Non-Unit Operation that will penetrate the Unit Interval shall include in its notice under Article 6.2(A) the following program:
  - (1) The surface and bottomhole locations of the wellbore;
  - (2) The well prognosis;
  - (3) The proposed well and casing programs; and
  - (4) A description of the method proposed for protecting the Unit Interval.

The JOA Group or Party shall also furnish any other information with respect to the Non-Unit Operations that is reasonably requested by the Unit Operator or the Unit Operating Committee. The JOA Group or Party shall provide a second notice to all Parties between seventy-two (72) and forty-eight (48) hours prior to spudding the well or commencing the wellbore operation. In the event of any proposed deviation from the announced program the JOA Group or Party shall promptly provide a notice to all Parties. No Non-Unit Well may be completed in the Unit Interval. For the avoidance of doubt, the Unit shall have no rights with respect to a Non-Unit Well that encounters Hydrocarbons in Pressure Communication with the Unit Interval except as provided in Article 6.8.

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#### 6.3 Responsibility

The JOA Group or Party participating in Non-Unit Operations shall:

- (A) Bear the entire cost and liability of conducting the Non-Unit Operation (without prejudice to any allocation of such cost and liability among such JOA Group or Parties under the terms of the applicable Joint Operating Agreement and any other agreements among some or all of them);
- (B) Indemnify the non-participating Parties and the Unit Operator in its capacity as such from any and all costs and liabilities arising from or incurred incident to such Non-Unit Operation including damage to the Unit Interval, Consequential Loss and Environmental Loss, even though caused in whole or in part by a pre-existing defect, or the negligence (whether sole, joint or concurrent), Gross Negligence/Willful Misconduct, strict liability or other legal fault of any indemnitee; provided that, if the Non-Unit Operations have been conducted substantially in accordance with a program approved by the Unit Operating Committee under Article 6.2(E), such indemnity shall not extend to, and the JOA Group or Party conducting the Non-Unit Operations shall not be liable for, any damage inflicted on the subsurface, including the Unit Interval, or any Consequential Losses, such as deferral of production, resulting from such subsurface damage;
- (C) Keep the Unit Area and Unit Facilities free and clear of all Encumbrances of every kind created by or arising from such Non-Unit Operation;
- (D) Obtain all necessary consents from the Government and other Third Parties, make any necessary reports and returns to the Government and other Third Parties, and otherwise ensure compliance with the terms of the relevant Contract and Laws/Regulations in connection with Non-Unit Operations; and
- (E) Procure and maintain for such operation all insurance in the types and amounts required by the Contracts and the Laws/Regulations and such other insurance as may reasonably be required by the Unit Operating Committee, subject to the terms of Articles 7.7(G), (H) and (I), applied *mutatis mutandis*.

#### 6.4 Data

Subject to the Laws/Regulations and the terms of the relevant Contract, each JOA Group or Party shall have the right to use all information and data obtained by such JOA Group or Party from Non-Unit Operations, but data and information from Non-Unit Operations covering the Unit Area or relevant to the Unit Operations shall, subject to the Laws/Regulations and the terms of the applicable Contract and of the relevant data license, if any, be made available without undue delay to the Parties free of charge and on a confidential basis under an irrevocable, non-exclusive license that is transferable only to successor Parties under this Agreement. This license shall constitute part of the Unit Data. Access to any other data and information from Non-Unit Operations shall be subject to the mutual agreement of the relevant Parties.

## 6.5 Use of Unit Facilities

- (A) Subject to the provisions of this Article, Unit Facilities shall only be used for Unit Operations.
- (B) Notwithstanding Article 6.5(A), the Unit Operating Committee may, subject to such Person's complying with the provision of this Article 6, authorize a Party or a Third Party to use spare capacity in Unit Facilities consisting of facilities for production, processing or transportation of Hydrocarbons (excluding Unit Wells) or of unused land available at any shore base acquired for the Unit Account, on such terms and conditions as it determines provided that, in the case of proposed use by a Party or JOA Group as a Non-Unit Operation, no Party's approval in the Unit Operating Committee vote shall be unreasonably withheld.

9/7/09 Unitization and Unit Operating Agreement

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- (C) The use of Unit Facilities may only be authorized under Article 6.5(B) if:
  - (1) Such use does not cause a material adverse effect on Unit Operations in the opinion of the Unit Operating Committee;
  - (2) Such use does not involve a breach of any relevant Laws/Regulations, either Contract or any Associated Agreement;
  - (3) An appropriate fee (except to the extent already provided for in Article 6.5(F) or Article 6.5(G)) and other acceptable terms and conditions for such use are agreed between the Unit Operating Committee and the Party or a Third Party and the agreed fees are paid as and when due and credited to the Unit Account; and
  - (4) Such use will not prevent the commingled production stream from meeting any minimum quality standards established by the Unit Operating Committee or by any contract for the sale of Unit Substances pursuant to which all Parties are sellers.
- (D) Where Crude Oil or Natural Gas from multiple sources are commingled in the Unit Facilities, each owner of such commingled substances shall retain title to a share of the commingled substances equal to the share of each such substance that the quantity of such substance supplied to the Unit Facilities by such owner at the time in question (assuming that the first quantities in are the first quantities out) bears to the total quantity of the substance in the Unit Facilities at the time. In the event losses of Crude Oil or Natural Gas occur in the Unit Facilities:
  - (1) Losses that occur as a result of a single identifiable event shall be attributed to each owner of the commingled substances in the ratio that such owner's quantity of each substance in the Unit Facilities at the time the loss occurs (assuming the first quantities in are the first quantities out) bears to the total quantity of the substance in the Unit Facilities at the time the loss occurs.
  - (2) All losses due to shrinkage, evaporation, interface losses, or otherwise that are not addressed in Article 6.5(D)(1) shall be attributed to each owner of each substance using the Unit Facilities in the ratio that such owner's quantity of that substance passing through the Unit Facilities during the applicable Calendar Month bears to the total quantity of such substance passing through the Unit Facilities during through the Unit Facilities during the applicable Calendar Month calendar Month.
- (E) Should any Party entitled to use capacity in the Unit Facilities pursuant to this Article 6.5 propose to introduce into the Unit Facilities at any time any Crude Oil or Natural Gas meeting the minimum standards for entry into the Unit Facilities but of a materially different quality than the Crude Oil or Natural Gas already utilizing the Unit Facilities, the Parties shall meet to discuss the desirability of establishing a quality adjustment procedure to provide each user with a share of each commingled substance having a value that is equal to the value of the Crude Oil or Natural Gas, as applicable, that was delivered by such user into the Unit Facilities (less losses as described in Article 6.5(D)).
- (F) Each Party using up to its Unit Interest share of total capacity for producing, processing or transporting Non-Unit Production shall pay to the Unit Account a Monthly amount equal to that portion of the Monthly cost of maintaining, operating and financing the Unit Facilities used by such Party that the capacity used by such Party (excluding its share of Unit Production) bears to the total capacity of such Unit Facilities used by all users during such Calendar Month, but without payment of any other fee under this Article 6.5. Otherwise, each Party using Unit Facilities for producing, processing or transporting Non-Unit Production pursuant to this Article 6.5 shall pay to the Unit Account Monthly throughout the period of use an arm's-length fee based upon arm's length Non-Affiliated Third Party charges for similar services in the vicinity of

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the Unit Area. If no such arm's-length rates for such services are available, then the Party desiring to use Unit Facilities pursuant to this Article 6.5 shall pay to the Unit Account a Monthly fee equal to (a) that portion of the total cost of the Unit Facilities made available to such Party, plus the Unit Operator's latest estimate of the Decommissioning Costs for such Unit Facilities as furnished to the Parties pursuant to Exhibit D, divided by the number of months of useful life established for such Unit Facilities under the tax law of the country of operations, that the capacity made available to such Party on a fee basis under this Article (whether or not actually used) bears to the total capacity of the Unit Facilities (which fee shall continue regardless of the number of months of use or whether the capital costs or Decommissioning Costs have previously been recovered in some other manner) plus (b) that portion of the Monthly cost of maintaining, operating and financing the Unit Facilities used by such Party that the capacity used by such Party on a fee basis under this Article 6.5 during such Calendar Month bears to the total capacity of such Unit Facilities used by all users during such Calendar Month.

(G) Each Party may use land available at any shore base, acquired for the Unit Account but not being used for Unit Operations or any other Non-Unit Operations being undertaken at that time, for purposes of Non-Unit Operations and shall pay to the Unit Account Monthly for the period of use an arm's length rental payment based upon arm's length Non-Affiliated Third Party charges for similar land rental in the vicinity of the shore base. If no such arm's length rental rates for use of land in the vicinity of the shore base are available, and the Parties are unable to agree on the rental rate, any Party may by notice to the other Parties require that the decision on the arm's length rental rate be referred to an Expert pursuant to Article 20.4.

## 6.6 Expansion or Modification of Unit Facilities

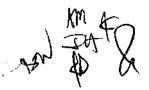
Subject to any necessary approval under its Contract and the Laws/Regulations, and provided that safety and Unit Operations are not impaired, any JOA Group or Party may propose to modify or to expand the capacity of the existing Unit Facilities at its sole risk and expense. In this event, the JOA Group or Party shall present a proposal to the Unit Operating Committee for its consideration, containing at least the information required by Article 6.2(A), and such modification or expansion may not take place until the Unit Operating Committee has granted its approval, not to be unreasonably withheld. The terms of Articles 6.2(C), 6.2(D), and 6.3 shall apply to any such modification or expansion operation.

## 6.7 Tie-in of Facilities

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- (A) Subject to any necessary approval under its Contract and the Laws/Regulations, and provided that safety is not impaired and there is no material adverse effect on Unit Operations, any JOA Group or Party entitled to use capacity in the Unit Facilities may propose to tie-in Non-Unit Facilities to the Unit Facilities. In this event, the JOA Group or Party shall present a proposal to the Unit Operating Committee for its consideration, containing at least the information required by Article 6.2(A), which proposal shall be deemed approved unless within thirty (30) Days of receipt of such proposal Parties having sufficient votes to prevent a passmark vote under Article 8.9(A)(1) notify the Unit Operator and the other Parties of their vote against the proposal. A Party may vote against a tie-in proposal only if, in its reasonable opinion, the tie-in proposal would impair safety of or have a material adverse effect on Unit Operations. A Party's vote against a tie-in proposal must specifically describe the impairment or material adverse effect or effects that form the basis for its disapproval. The terms of Articles 6.2(C), 6.2(D), and 6.3 shall apply to any such tie-in operation.
- (B) If production operations are already on-going under this Agreement, a Non-Unit Operation shall not lessen the production from the then existing Unit Wells and or the capacity used by such production in the Unit Facilities except for the period of time necessary to tie-in facilities that are part of the Non-Unit Operation. If, during the tie-in of Non-Unit Facilities with the existing Unit Facilities, the production of Hydrocarbons from other pre-existing operations is interrupted as a result, then the Parties to the Non-Unit Operation shall compensate the parties to such existing operations for such temporary deferral of production by paying a fee at a rate approved by the Unit

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Operating Committee for each Day or fraction thereof in excess of one hour during which production of Hydrocarbons is interrupted.

- (C) The Unit Operator shall conduct all tie-ins of Non-Unit Facilities to Unit Facilities. The Unit Operator, in conducting such tie-ins, shall bear no liability or cost of such Non-Unit Operations except as provided in Article 7.6, which shall apply, *mutatis mutandis*, to the Unit Operator's conduct of such Non-Unit Operations.
- (D) Principles, procedures and requirements regarding metering and sampling shall be established by the Unit Operating Committee. If the Parties to the Non-Unit Operations and the Unit Operating Committee cannot agree on the principles, procedures and requirements for metering and sampling within thirty (30) Days after the proposal for the tie-in was first submitted by the Parties to the Non-Unit Operation, the issues in dispute shall be referred to an Expert for resolution in accordance with the terms of Article 20.4.
- (E) The cost of decommissioning of facilities installed by the Parties participating in a Non-Unit Operation shall be borne by such Parties.

## 6.8 Abandonment of Non-Unit Wells

If any JOA Group or Party desires to abandon permanently any Non-Unit Well that penetrates the Unit Interval, that JOA Group or Party will give notice thereof to the Unit Operator and the other Parties not later than (a) forty-eight (48) hours prior to such abandonment, in the case of a well with a rig on location or (b) thirty (30) Days prior to such abandonment, in all other cases, stating in the notice that the well is to be abandoned and offering it to the Unit on the terms set forth in this Article. The Unit shall have an option, to be exercised by notice to the abandoning JOA Group or Party on or before the end of the applicable period, to take over the Non-Unit Well for the Unit Account (in which event the well shall become a Unit Well) on the terms set forth in this Article. Any decision by the Unit to exercise the option shall be made by a vote of the Unit Operating Committee. If the Unit elects to take over the well, the Parties shall assume responsibility for the Unit Account for all costs of plugging and abandoning the well and shall indemnify and hold harmless the JOA Group or Party which previously held the well against all costs, expenses, liabilities and losses associated with such plugging and abandonment (except such JOA Group's or Party's Paying Interest shares of those costs, expenses, liabilities and losses). Except as provided in the immediately preceding sentence, the Parties shall not be required to make any payment or undertake any obligation in connection with such transfer. Any Non-Unit Well transferred to the Unit pursuant to this Article is transferred on an "as is" basis without warranties, express or implied, including warranties as to merchantability, fitness for a particular purpose, or conformity to models or samples of materials.

#### ARTICLE 7 UNIT OPERATOR

## 7.1 Designation of Unit Operator and Technical Operator

Tullow is designated as Unit Operator and agrees to act as such in accordance with this Agreement. Kosmos is designated as the IPT Technical Operator and agrees to act as such in accordance with this Agreement. The Parties agree that additional Technical Operators may be appointed by a decision of the Unit Operating Committee from time to time, for the purposes designated in the instrument of appointment, subject to the terms and conditions of this Agreement and with the prior approval of the Minister and GNPC, such approval not to be unreasonably withheld or delayed.

## 7.2 Rights and Duties of Unit Operator and Technical Operator

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(1) Subject to the terms and conditions of this Agreement, Unit Operator shall have exclusive charge of and responsibility for and shall conduct all Unit Operations, but excluding Technical Operations. Unit Operator may employ independent Subcontractors and agents (which independent Subcontractors and agents may include an Affiliate of Unit Operator, a Non-Operator, or an Affiliate of a Non-Operator) in such Unit Operations.

- (2) Subject to the terms and conditions of this Agreement, including Articles 9.3(A), 9.5 and 9.9, each Technical Operator shall have exclusive charge of and responsibility for and shall conduct all Technical Operations entrusted to it, including, in the case of IPT Technical Operator, IPT Technical Operations. Technical Operator may employ independent Subcontractors and agents (which independent Subcontractors and agents may include an Affiliate of Technical Operator, a Non-Operator, or an Affiliate of a Non-Operator) in such Technical Operations.
- (B) In the conduct of Unit Operations Unit Operator and each Technical Operator shall, as applicable:
  - (1) Perform Unit Operations in accordance with the provisions of all applicable Laws/Regulations, this Agreement, the Contracts, the Unit Development Plan, relevant Work Programs and Budgets and the decisions of the Unit Operating Committee not in conflict with this Agreement;
  - (2) Conduct all Unit Operations in a diligent, safe and efficient manner in accordance with such good and prudent petroleum industry practices and field conservation principles as are generally followed by the international petroleum industry under similar circumstances;
  - (3) Exercise due care with respect to the receipt, payment and accounting of funds in accordance with good and prudent practices as are generally followed by the international petroleum industry under similar circumstances;
  - (4) Comply with the requirements of Article 20 of each Contract with respect to the acquisition of plant, equipment, services and supplies and with the requirements of Articles 21.2 and 21.3 of the WCTP Contract and Articles 21.3 and 21.4 of the DWT Contract with respect to the employment and secondment of Ghanaian and GNPC personnel;
  - (5) Subject to Article 7.6 and the Unit Accounting Procedure, neither gain a profit nor suffer a loss as a result of being an Operator in its conduct of Unit Operations, provided that each Operator may rely upon Unit Operating Committee approval of specific accounting practices not in conflict with the Unit Accounting Procedure;
  - (6) In the case of Unit Operator, perform the duties for the Unit Operating Committee set out in Article 8, and prepare and submit to the Unit Operating Committee proposed Work Programs and Budgets and (if required) AFEs, as provided in Article 9;
  - (7) In the case of Unit Operator, acquire all permits, consents, approvals, and surface or other rights that may be required for or in connection with the conduct of Unit Operations;
  - (8) Upon receipt of reasonable advance notice, permit the representatives of any of the Parties to have at all reasonable times during normal business hours and at their own risk and expense reasonable access to the Unit Operations with the right to observe all Unit Operations and to inspect all Unit Facilities and to conduct financial audits as provided in the Unit Accounting Procedure;

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- (9) Timely pay and discharge all liabilities and expenses incurred in connection with Unit Operations and use its reasonable endeavors to keep and maintain the Unit Facilities free from all liens, charges and encumbrances arising out of Unit Operations;
- (10) Carry out the obligations of Unit Operator or Technical Operator, as applicable, pursuant to this Agreement, including preparing and furnishing such reports, Work Programs and Budgets, AFEs, records and information as may be required;
- (11)In the case of Unit Operator, have, in accordance with any decisions of the Unit Operating Committee, and subject to the rights and duties of the Tract Operators as described in Article 7.2(D)(11), the exclusive right and obligation to represent the Parties in all dealings with the Government, excluding any dealings with GNPC as a Unit Interest or Paying Interest owner, with respect to matters arising under this Agreement and Unit Operations. Unit Operator shall notify the other Parties as soon as possible of such meetings. Subject to the Agreement and any necessary Government approvals, Non-Operators shall have the right to attend any meetings with the Government with respect to such matters, but only in the capacity of observers. Nothing contained in this Agreement shall restrict any Party from holding discussions with the Government with respect to any issue peculiar to its particular business interests arising under the Contracts or this Agreement, but in such event such Party shall promptly advise the Parties, if possible, before and in any event promptly after such discussions, provided that such Party shall not be required to divulge to the Parties any matters discussed to the extent the same involve proprietary information or matters not affecting the Parties;
- (12) In the case of Unit Operator, in conjunction with the Unit Operating Committee, collaborate with GNPC in accordance with the gas commercialization provisions of the Approved Phase 1 Development Plan;
- (13) In case of an emergency (including a significant fire, explosion, Natural Gas release, Crude Oil release, or sabotage; incident involving loss of life, serious injury to an employee, Subcontractor, or Third Party, or serious property damage; strikes and riots; or evacuations of Operator personnel): (i) take all necessary and proper measures for the protection of life, health, the environment and property; and (ii) as soon as reasonably practicable, report to all other Parties the details of such event and any measures such Operator has taken or plans to take in response thereto;
- (14) Establish and implement pursuant to Article 7.14 an HSE plan to govern Unit Operations which is designed to ensure compliance with applicable HSE laws, rules and regulations and this Agreement;
- (15) Include, to the extent practical, in its contracts with independent Subcontractors and to the extent lawful, provisions which:
  - (a) establish that such Subcontractors can only enforce their contracts against the Unit Operator or Technical Operator, as applicable;
  - (b) permit Unit Operator or Technical Operator, as applicable, on behalf of itself and Non-Operators, to enforce contractual indemnities against, and recover losses and damages suffered by them (insofar as recovered under their contracts) from, such Subcontractors; and
  - (c) require such Subcontractors to take insurance required by Article 7.7(I).
- (16) In the case of the Unit Operator and the IPT Technical Operator, jointly develop appropriate procedures for commissioning, transition and handover in respect of Unit





Facilities and reservoir development plans and reservoir management for each portion of the Unit Development Plan and jointly carry out acceptance and sign-off processes for Unit Facilities with Subcontractor entities;

- (17) In the case of the Unit Operator and the IPT Technical Operator, respective representatives shall meet and jointly develop appropriate procedures for the smooth and timely transition of the reservoir development plan and the reservoir management plan for the first phase and each subsequent phase of the Unit Development Plan in the period prior to commencement of first production (and each subsequent commencement of first production) to ensure the Unit Operator is fully prepared to optimize the reservoir management plan to maximize commercial reserves recovery;
- (18) In the case of Unit Operator, in conjunction with the Unit Operating Committee, supply the Tract Operators with all reports and information necessary for the Tract Operators to fulfill their reporting obligations under their respective Contracts;
- (19) In the case of Unit Operator, allow the Government access to reports and information with respect to Unit Operations and to the Unit Area in accordance with the terms and conditions of the Contracts.
- (C) Unit Operator has established the following work teams made up of employees, Secondees, Subcontractors, consultants and agents, performing the functions set forth below, as part of its conduct of Unit Operations:
  - (1) Ghana operating team, having the following responsibility with respect to Unit Operations:
    - (a) Drilling, testing and completion of Development Wells within the Unit Interval;
    - (b) Logistics and local procurement;
    - (c) Shore base operations;
    - (d) Dispatch (marine and air);
    - (e) Importation and customs;
    - (f) Local permits, filings and liaison with GNPC regarding same;
    - (g) Warehousing and supply yard;
    - (h) Community relations and services;
    - (i) Overall in-country shore base support of the development activities (including Unit Facilities installation);
    - (j) Overall support of drilling and production activities; and
    - (k) Providing services, on such terms as may be agreed by Unit Operator and the Tract Operator, as requested by either Tract Operator for drilling and other operations on such Tract Operator's Contract Area but outside of the Unit Interval, with the costs of such services to be invoiced to such Tract Operator, provided that Unit Operator may decline to provide such services in the event that, acting reasonably, Unit Operator considers that to do so would have a material adverse effect on the Unit Interval or Unit Operations.

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- (2) Production operations team, having the following responsibilities with respect to Unit Operations:
  - (a) Production operations with respect to production of Unit Substances;
  - (b) Unit Facilities operations and maintenance;
  - (c) Scheduling offtake activities;
  - (d) Production reporting to the Tract Operators;
  - (e) Production forecasting; and
  - (f) Planning and scheduling workovers and other remedial well operations.
- (3) A Technical Team of sub-surface and facilities personnel, having the following responsibilities with respect to Unit Operations:
  - (a) Prior to commencement of first production from each phase under the Unit Development Plan, the transition and handover from the IPT Technical Operator in a controlled manner of the complete responsibility for the sub-surface technical studies and execution of the remaining Unit Development Plan work in each such phase; and
  - (b) After each such handover, continued reservoir management, optimization and further planning and selection of infill well locations and workover requirements which may be additional and incremental to the Unit Development Plan and the Unit Facilities, and are in the immediate area developed by respective phases of the Unit Development Plan.
- (4) Gas commercialization team, having responsibility for gas commercialization activities including liaising with GNPC as envisaged by the Approved Phase 1 Development Plan.
- (D) IPT Technical Operator is responsible for the functions set forth below ("IPT Technical Operations") and has established an integrated project team ("IPT"), made up of employees, Secondees, Subcontractors, consultants and agents, to assist in the performance of IPT Technical Operations:
  - (1) Evaluate and characterize the subsurface resource in the Unit Interval and develop the best depletion plan;
  - (2) Planning and selection of locations of all development drilling within the Unit Interval up to the point of the start of transition from the IPT Technical Operator to the Unit Operator and then, jointly with the Unit Operator, during the transition until the completion of the handover of all sub-surface studies and operations to the Unit Operator (see Article 7.2(C)(3)) prior to commencement of first production;
  - (3) Front end engineering and design work for the Unit Facilities (other than Unit Wells);
  - (4) Propose amendments to the Unit Development Plan to the Unit Operator for submission to the Unit Operating Committee, including a Development Unit Work Program and Budget and proposed first production date for the additional phases of development covered by such amendment;
  - (5) Detailed engineering and design work for the Unit Facilities;







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- (6) Providing support to the Unit Operator in respect of gas commercialization activities to be carried out by the Contractor (as such term is defined in the Contract) under the Unit Development Plan (including supporting Unit Operator in its collaboration with GNPC in accordance with the Approved Phase 1 Development Plan);
- (7) Organize and conduct the procurement and tender processes for the Unit Facilities (including potentially some work on Unit Wells);
- (8) Manage the fabrication, inspection, testing, installation and commissioning of all Unit Facilities;
- (9) Coordinate with the Unit Operator all activities and interfaces between Unit Well drilling and above-ground Unit Facilities with respect to the activities in Articles 7.2(D)(7) and 7.2(D)(8);
- (10) Provide all Unit Work Program and Budget and other operational data relating to its activities to the Unit Operator to enable Unit Operator to distribute such information to the Unit Operating Committee; and
- (11) Review and provide recommendations with respect to the potential expansion of the Unit Area and/or the Unit Interval as a consequence of the possible existence of an accumulation of Hydrocarbons within either Contract Area that is outside of the Unit Interval but in Pressure Communication with the Unit Interval as anticipated in Article 5.3.
- (E) The Unit Operating Committee shall determine when each portion of the Approved Phase 1 Development Plan, and any subsequent amendments thereto, have been completed following installation, commissioning, testing and completion, transition and handover of the Unit Facilities for that portion of the Approved Phase 1 Development Plan, or subsequent amendments thereto.
- (F) Notwithstanding Article 7.2(B), each Tract Operator shall:
  - (1) Pay to the Government for its respective joint account under its respective Joint Operating Agreement all periodic rentals, bonuses, taxes (excluding any measured by the income of the Parties), fees and other payments attributable to its Contract generally, and not specifically to Unit Operations;
  - (2) Furnish to the Government in kind or pay to the Government in cash, as applicable, the Government's royalty and share of Additional Oil Entitlements with respect to all production of Hydrocarbons from or attributable to its Contract, including Unit Substances allocated to that Tract;
  - (3) Cause the satisfaction of any domestic marketing or Government sales obligation under its Contract;
  - (4) Prepare and submit to the Government all budgets and work programs required by its Contract, including where applicable its Group's proportionate part of any Unit Work Program and Budget approved under this Agreement;
  - (5) Prepare and submit development plans (and, if authorized under this Agreement, plans of appraisal) with respect to operations under its Contract, including such plans with respect to Unit Operations as described in Article 9;

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- (6) Make any other filings or submissions and perform any other activities that may be required under its Contract and that are not to be filed, submitted or performed by the Unit Operator pursuant to Article 7.2(B); and
- (7) Cooperate with and assist the other Tract Operator and the Unit Operator with any filings or submissions required under the other Contract or pursuant to this Agreement,

subject to conforming with the approved operations and Work Programs and Budgets under this Agreement.

## 7.3 Unit Operator and Technical Operator Personnel

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- (A) Unit Operator shall engage or retain only such employees, Secondees, Subcontractors, consultants and agents as are reasonably necessary to conduct Unit Operations (excluding Technical Operations). Technical Operators shall engage or retain only such employees, Secondees, Subcontractors, consultants and agents as are reasonably necessary to conduct Technical Operations. For the purposes of this Article 7.3, "Secondee" means an employee of a Non-Operator (or its Affiliate) who is seconded to Unit Operator or a Technical Operator, as applicable, to provide services under a secondment agreement to be entered into between Unit Operator or such Technical Operator, as applicable, and such Non-Operator substantially in the form of Exhibit R. Part 1; and "Secondment" means placement within Unit Operator's or Technical Operator or an Affiliate.
- (B) Subject to the Contracts and this Agreement, (i) Unit Operator shall determine the number of employees, Secondees, Subcontractors, consultants and agents, the selection of such persons, their hours of work, and (except for Secondees) the compensation to be paid to all such persons in connection with Unit Operations (excluding Technical Operations); and (ii) each Technical Operator shall determine the number of employees, Secondees, Subcontractors, consultants and agents, the selection of such persons, their hours of work, and (except for Secondees) the compensation to be paid to all such persons, their hours of work, and (except for Secondees) the compensation to be paid to all such persons in connection with Technical Operations performed by such Technical Operator.
- (C) Each Authorized Seconding Party shall have the right, as set out herein, to nominate and second qualified personnel to fill certain positions in the organizations of Unit Operator and IPT Technical Operator which are of appropriate influence and seniority to reflect such Party's position under this Agreement. In the event an Authorized Seconding Party, other than GNPC, Transfers more than fifty per cent (50%) of its entire Project Interest, or undergoes a change in Control (other than a change in Control of an Authorized Seconding Party to an Affiliate of such Authorized Seconding Party), then, only in respect of the first such assignment by, or change in Control of, such Authorized Seconding Party, its successor or assignee shall have the same rights to fill certain positions of appropriate influence and seniority in place of such Authorized Seconding Party provided that: (i) in the case of an assignment, the number of such positions shall be reduced pro rata to the assignee's Unit Interest; (ii) such assignee shall not be entitled to assign such rights to any other person; and (iii) the assigning Authorized Seconding Party shall cease to be an Authorized Seconding Party. In each case, such positions shall be determined pursuant to Articles 7.3(D)(1) through (D)(11). Without limiting the generality of the foregoing:
  - (1) Each Authorized Seconding Party shall have the right to nominate and second qualified personnel to fill initially the positions in the organizations of Unit Operator and IPT Technical Operator as set forth in <u>Exhibit R, Part 2</u> (the "*Initial Positions*"); and
  - (2) The individuals named by an Authorized Seconding Party and whose names are set forth in <u>Exhibit R, Part 2</u> have been accepted and shall be seconded into the respective Initial Positions designated for such individuals in the organizations of Unit Operator and IPT Technical Operator as set forth in <u>Exhibit R, Part 2</u>. To the extent that individuals are not

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listed for an Initial Position in Exhibit R. Part 2, the applicable Authorized Seconding Party shall nominate for such Initial Position one or more proposed Secondees who such Authorized Seconding Party considers reasonably qualified to fulfill the designated purpose and scope of such Secondment, and the applicable Operator shall consider and approve or reject such nominee on the same basis as is described in Article 7.3(D)(7), and the process may be repeated, at the option of such Authorized Seconding Party, until such Initial Position is filled. Any Secondee in the Initial Positions may be terminated by the applicable Operator for cause as described in Article 7.3(D)(8); and

- (3) Upon a subsequent vacancy in respect of any Initial Position (whether through resignation, removal, withdrawal or otherwise), the individual to fill such vacancy (if any) shall be determined pursuant to Articles 7.3(D)(1) through (D)(11), provided that each Authorized Seconding Party shall have the right from time to time to propose a qualified secondee for a number of positions in the organizations of Unit Operator and IPT Technical Operator that are comparable in terms of influence and seniority to its respective Initial Positions.
- (D) Except as provided in Article 7.3(C) with regard to the Initial Positions, no further Secondments may be implemented without the concurrence of the applicable Operator, in its discretion, except in the manner set out in Articles 7.3(D)(1) through (11) below.
  - (1) Each Authorized Seconding Party may propose Secondment for a designated purpose related to Technical Operations or other Unit Operations. Any proposal for Secondment must include the:
    - (a) designated purpose and scope of Secondment, including duties, responsibilities, and deliverables;
    - (b) duration of the Secondment;
    - (c) number of Secondees and minimum expertise, qualifications and experience required;
    - (d) work location and position within the applicable Operator's organization of each Secondee; and
    - (e) estimated costs of the Secondment.
  - (2) In relation to a proposed Secondment meeting the requirements of Article 7.3(D)(1), (i) the applicable Operator shall as soon as reasonably practicable, approve (such approval to not be unreasonably withheld) or reject any Secondment proposed by an Authorized Seconding Party. Without prejudice to such Operator's right to conduct Unit Operations (or Technical Operations, as applicable) in accordance with this Agreement and the Contracts, such Operator shall consider such Secondment proposal in light of the: (i) expertise and experience required for the relevant Unit Operations; (ii) expertise and experience of such Operator's personnel; and (iii) potential benefits of such Secondment to the conduct of Unit Operations.
  - (3) Any Party (other than an Authorized Seconding Party) may propose Secondment for a designated purpose related to Technical Operations or other Unit Operations. Any proposal for Secondment must include the:
    - (a) designated purpose and scope of Secondment, including duties, responsibilities, and deliverables;

. 9/7/09 Unitization and Unit Operating Agreement

- (b) duration of the Secondment;
- (c) number of Secondees and minimum expertise, qualifications and experience required;
- (d) work location and position within the applicable Operator's organization of each Secondee; and
- (e) estimated costs of the Secondment.

The applicable Operator shall, as soon as reasonably practicable, approve or reject in its discretion any Secondment proposed by any such Party.

- (4) Any proposal for one or more Secondment positions approved by an Operator is subject to: (i) the Unit Operating Committee's authorization of an appropriate budget for such Secondment positions; and (ii) the Authorized Seconding Parties continuing to make available to each Operator Secondees qualified to fulfill the designated purpose and scope of such Secondment.
- (5) As to each approved and authorized Secondment position pursuant to Article 7.3(D)(2), the applicable Operator shall request the Authorized Seconding Parties to nominate, by a specified date, qualified personnel to be the Secondee for such position. Each Authorized Seconding Party has the right (but not the obligation) to nominate for each Secondment position one or more proposed Secondees who such Authorized Seconding Party considers reasonably qualified to fulfill the designated purpose and scope of such Secondment.
- (6) As to each approved and authorized Secondment position pursuant to Article 7.3(D)(3), the applicable Operator shall request the Parties to nominate, by a specified date, qualified personnel to be the Secondee for such position. Each Party has the right (but not the obligation) to nominate for each Secondment position one or more proposed Secondees who such Party considers reasonably qualified to fulfill the designated purpose and scope of such Secondment.
- (7) Following the deadline for submitting nominations, the applicable Operator shall consider the expertise and experience of each such nominee in light of the expertise and experience required for the approved and authorized Secondment position, and shall select from the nominees the qualified nominee such Operator, in its discretion, deems best for the position, unless such Operator reasonably believes that no nominee is qualified to fulfill the designated purpose and scope of such Secondment and so reports to the Authorized Seconding Parties or Parties, as applicable.
- (8) Each Operator shall have the right to terminate any Secondment for cause in accordance with the secondment agreement provided for under Article 7.3(E).
- (9) Upon a subsequent vacancy in respect of any Secondment other than an Initial Position, or a Secondment in lieu thereof pursuant to Article 7.3(C)(3), the Secondment shall terminate, subject to any Authorized Seconding Party's, or Party's, right to again propose a Secondment pursuant to this Article 7.3(D).
- (10) Although each Secondee shall report to and be directed by Unit Operator or Technical Operator, as applicable, each Secondee shall remain at all times the employee of the Party (or its Affiliate) nominating such Secondee. Each Secondee shall enter into a secondee agreement substantially in the form set forth in Exhibit R, Part 1, Attachment B.

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- (11) Notwithstanding the terms of this Article 7.3, the Parties agree that neither the Authorized Seconding Parties nor any of the other Parties shall have the right to propose Secondees for positions within the organizations of Unit Operator or a Technical Operator which: (i) are not full time Unit Operation positions (including the positions of Ghana Country Manager and Ghana Finance Manager for such Unit Operator or Technical Operator); or (ii) are the most senior full time position (such as asset manager) within the organization of Unit Operator or a Technical Operator, which positions shall be filled by such Operator.
- (E) Any Secondment under this Agreement shall be subject to the terms between Unit Operator or Technical Operator, as applicable, and the employer of the Secondee set forth in the secondment agreement provided for under Article 7.3(A). The terms of Articles 7.3(D)(8), 7.3(D)(10), 7.3(F) and 7.3(G) and the terms of any secondment agreement entered into pursuant to Article 7.3(A) or secondee agreement entered into pursuant to Article 7.3(D)(10) shall apply retroactively to January 1, 2008 with respect to any employee of a Non-Operator or its Affiliates who has been seconded to an Operator or its Affiliates prior to the Effective Date.
- (F) All costs related to Secondment and Secondees that are within a Unit Work Program and Budget related to such Secondment position shall be charged to the Unit Account.
- (G)
- (1)Except as provided in Article 7.3(G)(2), neither the Non-Operator providing a Secondee to an Operator nor its Affiliates and their respective directors, officers and employees (collectively, the "Employer Indemnitees") shall bear any damage, loss, cost, expense or liability (except as a Party to the extent of its Paying Interest share) resulting from the Secondee's performance of (or failure to perform) its duties and functions, and the Employer Indemnitees are hereby released from liability to the other Parties for any and all damages, losses, costs, expenses and liabilities arising out of, incident to or resulting from such performance or failure to perform even though caused in whole or in part by a pre-existing defect, or the negligence (whether sole, joint or concurrent), Gross Negligence/Willful Misconduct, strict liability or other legal fault of any Employer Indemnitee. Except as set out in Article 7.3(G)(2), the Parties shall (in proportion to their Paying Interests) defend and indemnify the Employer Indemnitees from any and all damages, losses, costs, expenses (including reasonable legal costs, expenses and attorneys' fees) and liabilities incident to claims, demands or causes of action brought by or on behalf of any Person or any entity, which claims, demands or causes of action arise out of, are incident to or result from the Secondee's performance of (or failure to perform) its duties and functions even though caused in whole or in part by a pre-existing defect, or the negligence (whether sole, joint or concurrent), Gross Negligence/Willful Misconduct, strict liability or other legal fault of any Employer Indemnitee.
- (2) If any Secondee acting as a Senior Supervisory Personnel seconded to an Operator or its Affiliates engages in Gross Negligence/Willful Misconduct which proximately causes the Parties to incur damage, loss, cost, expense or liability for claims, demands or causes of action referred to in Articles 7.6(A) or 7.6(B), then:
  - (a) all such damages, losses, costs, expenses and liabilities shall be allocated to the Non-Operator providing such Secondee, in an equivalent manner and to the same extent liability for Gross Negligence/Willful Misconduct of Senior Supervisory Personnel is allocated to Unit Operator or any Technical Operator pursuant to the provisions of Article 7.6;
  - (b) provided that, where such Gross Negligence/Willful Misconduct results from an action by such Secondee at the direction of Unit Operator or any Technical Operator, such Operator shall bear all such damages, losses, costs, expenses and
- 9/7/09 Unitization and Unit Operating Agreement

liabilities in the manner and to the extent liability for Gross Negligence/Willful Misconduct of Senior Supervisory Personnel is allocated to Unit Operator or any Technical Operator pursuant to the provisions of Article 7.6, including Article 7.6(C).

(H) The Parties contemplate that, from time to time during the term of this Agreement, Anadarko may provide services, other than the services of individual Secondees, for the benefit of an Operator under the terms of a technical services agreement between such Operator and Anadarko (each a "Technical Services Agreement") which shall be substantially in the form of Exhibit S.

## 7.4 Information Supplied by Unit Operator

- (A) Unit Operator shall provide Non-Operators with the following data and reports (to the extent to be charged to the Unit Account) as they are currently produced or compiled from Unit Operations, in digital or electronic form where available:
  - (1) Copies of all logs or surveys, including in digitally recorded format if such exists;
  - (2) Daily drilling reports and Monthly production reports;
  - (3) Monthly Production Forecasts;
  - (4) Copies of all tests and core data and analysis reports;
  - (5) Final well recap report;
  - (6) Copies of plugging reports;
  - (7) Copies of final geological and geophysical maps, seismic data and shot point location maps;
  - (8) Engineering studies, development schedules and quarterly progress reports on development projects;
  - (9) Field and well performance reports, including reservoir studies and reserve estimates;
  - (10) As requested by a Non-Operator, (i) copies of all material reports relating to Unit Operations or the Unit Area furnished by Unit Operator to the Government; and (ii) other material studies and reports relating to Unit Operations;
  - (11) Crude oil lifting reports under agreements provided for in Article 11.2 and gas balancing reports as provided for in Article 11.3;
  - (12) Copies of all reports supplied to a Tract Operator relating to Unit Operations;
  - (13) Such additional information as a Non-Operator may reasonably request, provided that the requesting Party or Parties pay the costs of preparation of such information and that the preparation of such information will not unduly burden Unit Operator's administrative and technical personnel. Only Non-Operators who pay such costs will receive such additional information; and
  - (14) Other reports as directed by the Unit Operating Committee.
- (B) Where information required to be provided by Unit Operator pursuant to Article 7.4(A) is generated by Technical Operations, including information described in Article 7.4(A)(8), the

9/7/09 Unitization and Unit Operating Agreement



applicable Technical Operator shall provide such information to Unit Operator as it is currently produced or compiled from Technical Operations to enable Unit Operator to distribute such information to the Non-Operators.

(C) Unit Operator and each Technical Operator shall each give Non-Operators access at all reasonable times during normal business hours to all data and reports (other than data and reports provided to Non-Operators in accordance with Article 7.4(A)) acquired in the conduct of Unit Operations or Technical Operations, as applicable, which a Non-Operator may reasonably request. Any Non-Operator may make copies of such other data at its sole expense.

## 7.5 Settlement of Claims and Lawsuits

- Each Technical Operator shall promptly notify Unit Operator of any and all claims and suits that (A) primarily arise out of, are incident to or result from its Technical Operations. Unit Operator shall promptly notify the Parties of any and all material claims or suits that primarily arise out of, are incident to or result from Unit Operations (including Technical Operations). Unit Operator shall represent the Parties and defend or oppose any such claim or suit. Unit Operator may in its sole discretion compromise or settle any such claim or suit or any related series of claims or suits for an amount not to exceed the equivalent of five hundred thousand U.S. dollars (US\$500,000) exclusive of legal fees. Unit Operator shall obtain the approval and direction of the Unit Operating Committee on amounts in excess of the above-stated amount. Without prejudice to the foregoing, each Non-Operator shall have the right to be represented by its own counsel at its own expense in the settlement, compromise or defense of such claims or suits. Any material claims or suits that primarily arise out of, are incident to or result from Tract Operations shall be dealt with according to the applicable Joint Operating Agreement, and any material disputes between the Government and/or GNPC and those Persons who from time to time constitute the "Contractor" or the equivalent under either Contract shall be dealt with in accordance with Article 24 of the applicable Contract or, where so provided in the Acknowledgment, pursuant to Article 1.10 of the Acknowledgment.
- (B) Any Non-Operator shall promptly notify the other Parties of any claim made or suit filed against such Non-Operator by a Non-Affiliated Third Party that primarily arises out of, is incident to or results from the Unit Operations (including each Technical Operator for this purpose except with respect to claims or suits that primarily arise out of, are incident to or result from its Technical Operations), and such Non-Operator shall defend or settle the same in accordance with any directions given by the Unit Operating Committee. Those costs, expenses and damages incurred pursuant to such defense or settlement which are attributable to Unit Operations shall be for the Unit Account. If any material claims or suits primarily arise out of, are incident to or result from Tract Operations the Non-Operator shall promptly notify the other parties to the Tract and such claims or suits shall be dealt with according to the applicable Joint Operating Agreement.
- (C) Notwithstanding Article 7.5(A) and Article 7.5(B), each Party shall have the right to participate in any such suit, prosecution, defense or settlement conducted in accordance with Article 7.5(A) and Article 7.5(B), at its sole cost and expense; provided always that no Party may settle its Paying Interest share of any claim without first satisfying the Unit Operating Committee that it can do so without prejudicing the interests of the Unit Operations.

## 7.6 Limitation on Liability of Unit Operator and Technical Operator

(A) Except as set out in Article 7.6(C), neither Unit Operator nor any Technical Operator (nor any other Party, to the extent it performed the duties of Unit Operator or IPT Technical Operator between January 1, 2008 and the Effective Date) nor any other Indemnitee shall bear (except as a Party to the extent of its Paying Interest share) any damage, loss, cost, expense or liability resulting from performing (or failing to perform) the duties and functions of Unit Operator or Technical Operator, as applicable, and the Indemnitees are hereby released from liability to Non-Operators for any and all damages, losses, costs, expenses and liabilities arising out of, incident to

9/7/09 Unitization and Unit Operating Agreement

or resulting from such performance or failure to perform, even though caused in whole or in part by a pre-existing defect, or the negligence (whether sole, joint or concurrent), Gross Negligence/Willful Misconduct, strict liability or other legal fault of Unit Operator or Technical Operator (or any such Indemnitee).

- Except as set out in Article 7.6(C), the Parties shall (in proportion to their Paying Interests) defend (B) and indemnify Unit Operator and its Affiliates, and their respective directors, officers, and employees (and any other Party and its Affiliates, and their respective directors, officers, and employees, to the extent they performed the duties of Unit Operator between January 1, 2008 and the Effective Date) (collectively, the "Unit Operator Indemnitees"), from any and all damages, losses, costs, expenses (including reasonable legal costs, expenses and attorneys' fees) and liabilities incident to claims, demands or causes of action brought by or on behalf of any Person or entity, which claims, demands or causes of action arise out of, are incident to or result from Unit Operations, even though caused in whole or in part by a pre-existing defect, or the negligence (whether sole, joint or concurrent), Gross Negligence/Willful Misconduct, strict liability or other legal fault of Unit Operator (or any such Indemnitee). Except as set out in Article 7.6(C), the Parties shall (in proportion to their Paying Interests) defend and indemnify each Technical Operator and its Affiliates, and their respective directors, officers, and employees (and any other Party and its Affiliates, and their respective directors, officers, and employees, to the extent it performed the duties of IPT Technical Operator between January 1, 2008 and the Effective Date) (collectively, the "Technical Operator Indemnitees" and, together with the Unit Operator Indemnitees, the "Indemnitees"), from any and all damages, losses, costs, expenses (including reasonable legal costs, expenses and attorneys' fees) and liabilities incident to claims, demands or causes of action brought by or on behalf of any Person or entity, which claims, demands or causes of action arise out of, are incident to or result from Technical Operations, even though caused in whole or in part by a pre-existing defect, or the negligence (whether sole, joint or concurrent), Gross Negligence/Willful Misconduct, strict liability or other legal fault of Technical Operator (or any such Indemnitee).
- (C) Notwithstanding Articles 7.6(A) or 7.6(B), if any Senior Supervisory Personnel of Unit Operator or any Technical Operator (or of any other Party to the extent that any of its directors, officers and employees acted as Senior Supervisory Personnel prior to the Effective Date) (as applicable) or its Affiliates engage in Gross Negligence / Willful Misconduct which proximately causes the Parties to incur damage, loss, cost, expense or liability for claims, demands or causes of action referred to in Articles 7.6(A) or 7.6(B), including by virtue of directions to a Secondee in the circumstances described in Article 7.3(G)(2)(b), then Unit Operator or such Technical Operator (or other Party), as applicable, shall bear all such damages, losses, costs, expenses and liabilities. Notwithstanding the foregoing, under no circumstances shall Unit Operator or any Technical Operator (or other Party) (except as a Party to the extent of its Paying Interest) or any other Indemnitee bear any Consequential Loss or Environmental Loss without prejudice to the obligations of the Parties collectively under Article 17.5 of each Contract.
- (D) Nothing in this Article 7.6 shall be deemed to relieve Unit Operator or any Technical Operator (or other Party) from its Paying Interest share of any damage, loss, cost, expense or liability arising out of, incident to, or resulting from Unit Operations.
- (E) The Parties recognize that each of Unit Operator and each Technical Operator is also a Party, and may also be a Tract Operator, and shall be free to pursue its own interests as a Party (and, if applicable, Tract Operator), including through the Unit Operating Committee under Article 8 and as part of each Redetermination process under Article 5. The Parties hereby release:
  - (1) The Unit Operator, in its capacity as Unit Operator, from liability to Non-Operators for any and all claims of conflict of interest or breach of duty, arising out of, incident to or resulting from its actions in its capacity as a Party or as Tract Operator, and

(2) Each Technical Operator, in its capacity as Technical Operator, from liability to Non-Operators for any and all claims of conflict of interest or breach of duty, arising out of, incident to or resulting from its actions in its capacity as a Party or as Tract Operator,

in the case of clauses (1) and (2) even though caused in whole or in part by a pre-existing defect, or the negligence (whether sole, joint or concurrent), gross negligence, willful misconduct, strict liability or other legal fault of such Operator; provided that, for the avoidance of doubt, nothing in this Article 7.6(E) shall be deemed to relieve an Operator when acting as Tract Operator from its obligations and liabilities under the applicable Joint Operating Agreement.

(F) The Unit Operator, in its role as such, shall bear no liability or cost of conducting Non-Unit Operations on behalf of any Party except as provided in this Article 7.6 which shall apply, *mutatis mutandis*, to the Unit Operator's conduct of Non-Unit Operations.

## 7.7 Insurance Obtained by Unit Operator

- (A) Unit Operator shall procure and maintain for the Unit Account all insurance in the types and amounts required by either Contract and/or this Agreement or the Laws/Regulations in respect of the Unit Operations.
- (B) Unit Operator shall procure and maintain any further insurance as the Unit Operating Committee may from time to time require and at competitive rates. In procuring such insurance the Unit Operator shall comply with the Contract and Laws/Regulations and, without prejudice to the generality of the foregoing, shall comply with the provisions relating to contracting with an offshore insurer set out in sections 37 and 38 of the Ghana Insurance Act 2006 (Act 724) as then in effect.
- (C) Subject to the Contract and Laws/Regulations including, for the avoidance of doubt, the Ghana Insurance Act 2006 (Act 724), as may be amended from time to time, and to Article 7.7(E), each Party will be provided the opportunity to underwrite any or all of the insurance (excluding the contractor's all risk ("CAR")) to be procured by Unit Operator under Articles 7.7(A) and 7.7(B) through reinsurance policies to such Party's Affiliate insurance company; provided that:
  - (1) the direct insurance in such case is through a Ghanaian registered insurance company;
  - (2) such Party's Affiliate insurance company is licensed and regulated as an insurer under the laws of its country of domicile applicable to it and has (and maintains) a credit rating of at least "A-" by Standard & Poor's or A.M. Best or "A3" by Moody's, or in the event no such entity is issuing credit ratings for long-term unsecured debt, the equivalent rating by a comparable international credit rating agency; and
  - (3) such arrangements will not result in any part of the premiums for such insurance not being recoverable under the Contract, or being significantly higher than the market rate.
- (D) Subject to the Contract and the Laws/Regulations including, for the avoidance of doubt, the Ghana Insurance Act 2006 (Act 724), as may be amended from time to time, and to Articles 7.7(E) and 7.7(F), any Party may elect not to participate in some or all of the liability and property insurance (excluding the CAR) to be procured by Unit Operator under Articles 7.7(A) and 7.7(B) provided such Party:
  - (1) gives prompt written notice to that effect to Unit Operator;
  - (2) does nothing which may interfere with Unit Operator's negotiations for such insurance for the other Parties;

9/7/09 Unitization and Unit Operating Agreement

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- obtains insurance prior to or concurrent with the commencement of relevant operations and maintains such insurance (in respect of which a current certificate of adequate coverage, provided at least once a year, shall be sufficient evidence) which fully covers its Unit Interest share of the risks that would be covered by the insurance to be procured under Article 7.7(A) or 7.7(B) issued by:
  - (a) an insurer, either as a direct insurer or as a reinsurer to a Party's Affiliate insurance company, having (and maintaining) a credit rating of at least "A-" by Standard & Poor's or A.M. Best or "A3" by Moody's, or in the event no such entity is issuing credit ratings for long-term unsecured debt, the equivalent rating by a comparable international credit rating agency; or
  - (b) an insurer that is a Ghanaian registered insurance company and then reinsured with such Party's Affiliate insurance company, provided that such Party's Affiliate insurance company is licensed and regulated as an insurer under the laws of its country of domicile applicable to it and has (and maintains) a credit rating of at least "A-" by Standard & Poor's or A.M. Best or "A3" by Moody's, or in the event no such entity is issuing credit ratings for long-term unsecured debt, the equivalent rating by a comparable international credit rating agency; and
- (4) obtains insurance that:
  - (a) contains a waiver of subrogation in favor of all the other Parties, the Unit Operator and their insurers but only to the extent of those liabilities assumed by such Party under this Agreement;
  - (b) provides that thirty (30) Days written notice be given to Unit Operator prior to any material change in, or cancellation of, such insurance policy;
  - (c) is primary to, and receives no contribution from, any other insurance maintained by or on behalf of, or benefiting Unit Operator or the other Parties; and
  - (d) contains adequate territorial extensions and coverage in the location of the Unit Operations.
- (E) With respect to all of the insurance to be procured by Unit Operator under Articles 7.7(A) and 7.7(B) (excluding the CAR), in the event that a Party elects:
  - (1) not to participate in some or all of the insurance to be procured by Unit Operator under Articles 7.7(A) and 7.7(B); and
  - (2) to cover its Unit Interest share of the risks in accordance with the provisions of Article 7.7(C) or Article 7.7(D)(3)(b) by reinsuring through its Affiliate insurance company;

then the aggregate maximum amount of insurance to be procured under Articles 7.7(A) and 7.7(B) in which such Party may elect to either underwrite or not to participate, and to reinsure through such Party's Affiliate insurance company in accordance with Article 7.7(C) and Article 7.7(D)(3)(b), excluding the amount of reinsurance through such Party's Affiliate insurance company that is further reinsured with an insurer that satisfies the minimum rating requirements of Article 7.7(D)(3)(a); shall be one hundred million U.S. dollars (\$100,000,000) net for such Party's interest; provided that such Party's Affiliate or its ultimate publicly traded parent company (or, if there is no publicly

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traded parent company, the highest parent company Controlling the Party) shall be required:

- (a) to maintain a credit rating of at least "A-" by Standard & Poor's or A.M. Best or "A3" by Moody's, or in the event no such entity is issuing credit ratings for long-term unsecured debt, the equivalent rating by a comparable international credit rating agency; and
- (b) to provide a guarantee under an unconditional guarantee of payment in form reasonably acceptable to the Unit Operating Committee with respect to the amount of reinsurance issued by such Party's Affiliate insurance company that is not further insured with an insurer that satisfies the minimum rating requirements of Article 7.7(D)(3)(a).
- (F) To the extent that another insurance company provides insurance to a Party's Affiliate insurance company to satisfy the obligations set out in Article 7.7(D)(3)(a), such entity shall be required to maintain a credit rating of at least "A-" by Standard & Poor's or A.M. Best or "A3" by Moody's, or in the event no such entity is issuing credit ratings for long-term unsecured debt, the equivalent rating by a comparable international credit rating agency.

In the event that the insurance company fails to maintain a credit rating satisfying such requirements, such Party shall immediately notify the Unit Operator and, within thirty (30) Days of such notification, such Party shall either:

- (1) provide notice that it will participate in the insurance to be procured by Unit Operator under Article 7.7(A) or 7.7(B) in satisfaction of its Unit Interest share of the risks, in which event Unit Operator shall issue a cash call to such Party for its Paying Interest share of the cost of such insurance payable by such Party in accordance with the terms of this Agreement; or
- (2) procure the insurance to be procured by Unit Operator under Article 7.7(A) or 7.7(B) in satisfaction of its Unit Interest share of the risks from an insurer with a credit rating of at least "A-" by Standard & Poor's or A.M. Best or "A3" by Moody's, or in the event no such entity is issuing credit ratings for long-term unsecured debt, the equivalent rating by a comparable international credit rating agency;

failing which such Party shall be deemed to be in default of its obligations under this Agreement.

- (G) The cost of insurance in which all the Parties are participating shall be for the Unit Account and the cost of insurance in which less than all the Parties are participating shall be charged to the Parties participating in proportion to their respective Paying Interests.
- (H) Unit Operator shall, with respect to all insurance obtained for the Unit Account under this Article 7.7:
  - (1) procure such insurance (or reinsurance of such insurance) from an insurer having (and maintaining) a credit rating of at least "A-" by Standard & Poor's or A.M. Best or "A3" by Moody's, or in the event no such entity is issuing credit ratings for long-term unsecured debt, the equivalent rating by a comparable international credit rating agency;
  - (2) use reasonable endeavors to procure or cause to be procured such insurance prior to or concurrent with, the commencement of relevant operations and maintain or cause to be maintained such insurance during the term of the relevant operations or any longer term required under the Contract and the Laws/Regulations;

9/7/09 Unitization and Unit Operating Agreement

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(3) promptly inform the participating Parties when such insurance is obtained and supply them with certificates of insurance or copies of the relevant policies when the same are issued;

- (4) arrange for the participating Parties, according to their respective Unit Interests, to be named as co-insureds on the relevant policies with waivers of subrogation in favor of all the Parties but only with respect to their interests under this Agreement;
- (5) use reasonable endeavors to ensure that each policy shall survive the default or bankruptcy of the insured for claims arising out of an event before such default or bankruptcy and that all rights of the insured shall revert to the Parties not in default or bankruptcy; and
- (6) duly file all claims and take all necessary and proper steps to collect any proceeds and credit any proceeds to the participating Parties in proportion to their respective Paying Interests.
- (I) Unit Operator shall use its reasonable endeavors to require all Subcontractors performing work with respect to Unit Operations (and Technical Operator, to the extent it is negotiating contracts for Technical Operations, shall use its reasonable endeavors to require all Subcontractors performing work with respect to Technical Operations) to:
  - (1) obtain and maintain any and all insurance in the types and amounts required by the Contract, the Laws/Regulations or any decision of the Unit Operating Committee;
  - (2) name the Parties as additional insureds on the Subcontractor's insurance policies and obtain from their insurers waivers of all rights of recourse against Operators, Non-Operators and their insurers; and
  - (3) provide Unit Operator (and, in the case of Technical Operations, the applicable Technical Operator) with certificates reflecting such insurance prior to the commencement of their services;

Provided that, in the event the Unit Operator is unable to obtain agreement from a Subcontractor to obtain any insurance referred to in Article 7.7(I)(1) then the Unit Operator shall obtain appropriate alternative insurance for the Unit Account as required by the Contract and the Laws/Regulations; and, in the case of further insurance required by any decision of the Unit Operating Committee, shall obtain such insurance to the extent available and subject to Article 7.7(B).

## 7.8 Commingling of Funds

Unit Operator may not commingle with Unit Operator's own funds the monies which Unit Operator receives from or for the Unit Account pursuant to this Agreement.

# 7.9 Resignation of Unit Operator or Technical Operator

Subject to Article 7.13, (i) Unit Operator may resign as Unit Operator at any time by so notifying the other Parties at least one hundred and twenty (120) Days prior to the effective date of such resignation; and (ii) any Technical Operator may resign as Technical Operator at any time by so notifying the other Parties at least one hundred and twenty (120) Days prior to the effective date of such resignation.

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## 7.10 Termination of IPT Technical Operatorship

The IPT Technical Operator position shall terminate, and IPT Technical Operator shall automatically be deemed to have resigned, upon completion of the installation of all production facilities required for full field development of the Unit Interval under the Unit Development Plan as determined by the Unit Operating Committee pursuant to Article 7.2(E).

## 7.11 Assignment of the Unit Operatorship or Technical Operatorship to an Affiliate

No Operator may assign its rights or obligations as Operator except that either Operator may assign all (but not part) of its rights and obligations as Operator to one of its Affiliates, subject to the prior written consent of the Minister and GNPC, such consent not to be unreasonably withheld or delayed, and to the following conditions and provisions:

- (A) Either (i) such Affiliate shall possess sufficient technical competence and financial resources to perform the duties of the Unit Operator or Technical Operator, as applicable, or (ii) the assigning Operator or another Affiliate possessing such technical competence and financial resources shall have agreed in writing for the benefit of the other Parties that it shall be responsible, and remain responsible, for the assignee's performance of such duties;
- (B) Such Affiliate shall have entered into a written instrument whereby it accepts and assumes all of the obligations of the Unit Operator or Technical Operator, as applicable, and is granted all of the rights of such Operator; and
- (C) If the Affiliate should cease to be the Affiliate of the assigning Operator, then, notwithstanding Article 7.13, the Affiliate shall be removed as the Unit Operator or Technical Operator, as applicable, and the rights and obligations of such Operator shall be reassigned by the assignee to the former Operator or another Party that is an Affiliate of the former Operator; and
- (D) Without prejudice to the right to remove an Operator under Article 7.12(C), if the former Operator and all of its Affiliates cease to own any Unit Interest, the Affiliate shall be deemed to have resigned pursuant to Article 7.9.

# 7.12 Removal of Unit Operator or Technical Operator

- (A) Subject to Article 7.13, Unit Operator or Technical Operator shall be removed upon receipt of notice from any Non-Operator if:
  - (1) Such Operator becomes insolvent or bankrupt, or makes an assignment for the benefit of creditors;
  - (2) An order is made by a court or an effective resolution is passed for the reorganization under any bankruptcy law, dissolution, liquidation, or winding up of such Operator;
  - (3) A receiver is appointed for a substantial part of such Operator's assets; or
  - (4) Such Operator dissolves, liquidates, is wound up, or otherwise terminates its existence.
- (B) Subject to Article 7.13, an Operator may be removed:
  - (1) By the decision of the Non-Operators if such Operator has committed a material breach of this Agreement and has either failed to commence to cure that breach within thirty (30) Days of receipt of a notice from the Non-Operators detailing the alleged breach or failed to diligently pursue the cure to completion. Any decision of the Non-Operators to give notice of breach to an Operator or to remove an Operator under this Article 7.12(B)(1)

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shall be made by an affirmative vote of two (2) or more Non-Operators which are not Affiliates holding a combined Unit Interest of at least sixty-six percent (66%) of the Unit Interest held by all of the Non-Operators (after excluding Affiliates of such Operator); or

(2)If such Operator has repeatedly committed breaches of this Agreement (without regard to whether any or all of such repeated breaches (a) are similar or not, (b) are material or not or (c) were cured or not) over the course of a period of six (6) consecutive months from the date of receipt by such Operator of notice of the first such repeated breach, in a manner that demonstrates a course of conduct that would not reasonably and ordinarily be expected from a Reasonably Prudent Operator, taking into account for this purpose efforts by the Unit Operator to cure such breaches, and such Operator was notified in writing of each such breach by a Non-Operator, by the affirmative vote of three (3) or more of the total number of Non-Operators which are not Affiliates holding combined Unit Interests of at least eighty percent (80%) of the Unit Interests held by all of the Non-Operators (after excluding Affiliates of the affected Operator). If at any relevant time there are fewer than four (4) Parties to this Agreement, then the number of Non-Operators stipulated in this Article 7.12(B)(2) shall be two (2). A "Reasonably Prudent Operator" for purposes of this Article 7.12(B)(2) means an operator seeking in good faith to perform its contractual obligations and, in so doing, and in the general conduct of its undertaking, exercising that degree of skill, diligence, prudence and foresight which would reasonably and ordinarily be expected from a skilled and experienced operator engaged in the same type of undertaking under the same or similar circumstances and conditions and complying with applicable law,

provided, however, if such Operator disputes: (i) such alleged commission of or failure to cure a material breach, in the case of Article 7.12(B)(1), or (ii) such alleged commission of repeated breaches, in the case of Article 7.12(B)(2), and dispute resolution proceedings are initiated pursuant to Article 20.3 in relation to such breach or breaches, then such Operator shall remain appointed and no successor Operator may be appointed pending the conclusion or abandonment of such proceedings, subject to the terms of Article 10 with respect to such Operator's breach of its payment obligations.

- (C) If an Operator together with any Affiliates of such Operator becomes the holder of a Unit Interest of less than twenty percent (20%), then such Operator shall promptly notify the other Parties of such event. The Unit Operating Committee shall then vote within thirty (30) Days of such notification (or, if no such notification is provided by such Operator, within thirty (30) Days of any Party's notification to the other Parties of such event) whether or not to remove such Operator under this Article 7.12(C). An affirmative vote of two (2) or more of the total number of Non-Operators holding a combined Unit Interest of at least sixty six percent (66%) of the Unit Interest held by all of such Non-Operators (after excluding Affiliates of such Operator), shall be required to remove an Operator under this Article. This Article 7.12(C) shall not apply where the IPT Technical Operator position has not yet terminated pursuant to Article 7.10 and Tullow, Kosmos or Anadarko, or any of their respective Affiliates, but not any other successor-in-interest, is serving as the applicable Operator.
- (D) If prior to the termination of the IPT Technical Operator position pursuant to Article 7.10:
  - (1) Tullow, Kosmos or Anadarko, or any of their respective Affiliates, but not any other successor-in-interest, is serving as the IPT Technical Operator; and either
    - (a) There is a direct or indirect change in Control of the IPT Technical Operator (other than a change in Control of IPT Technical Operator to an Affiliate of IPT Technical Operator); or
    - (b) The IPT Technical Operator and/or any of its Affiliates Transfers a portion of its Unit Interest (other than a Transfer to an Affiliate of IPT Technical Operator or

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to GNPC as required by a Contract or Contracts) which results, at the date of completion of such Transfer, in the IPT Technical Operator together with its Affiliates holding a Unit Interest which is less than the Unit Interest at such date held by any of Tullow, Kosmos or Anadarko, together with its Affiliates, other than the Unit Interest held by any of them which serves as Unit Operator,

then IPT Technical Operator shall promptly notify the other Parties of such events. Within thirty (30) Days of such notification (or, if no such notification is provided by IPT Technical Operator, within thirty (30) Days of notification by Tullow, Kosmos or Anadarko, or any of their respective Affiliates, to the other Parties of such events), any of Tullow, Kosmos or Anadarko, or any of their respective Affiliates, may remove the IPT Technical Operator by serving written notice of removal to all Parties, in which event a successor IPT Technical Operator shall be appointed in accordance with Article 7.13(D). The right to remove the IPT Technical Operator under this Article 7.12(D) is personal to each of Kosmos, Anadarko and Tullow and may not be assigned, except by Kosmos, Anadarko or Tullow to any of its Affiliates, in each case, together with an assignment of a Unit Interest to such Affiliate. Except as provided in Article 7.9 or this Article 7.12, a Party serving as IPT Technical Operator following a direct or indirect change in Control or a Transfer of a portion of its or any of its Affiliates Unit Interest.

- (E) If prior to the termination of the IPT Technical Operator position pursuant to Article 7.10:
  - (1) Tullow, Kosmos or Anadarko, or any of their respective Affiliates, but not any other successor-in interest, is serving as Unit Operator; and either
    - (a) There is a direct or indirect change in Control of Unit Operator (other than a change in Control of Unit Operator to an Affiliate of Unit Operator); or
    - (b) The Unit Operator and/or any of its Affiliates Transfers a portion of its Unit Interest (other than a Transfer to an Affiliate of Unit Operator or to GNPC as required by a Contract or Contracts) which results, at the date of completion of such Transfer, in the Unit Operator together with its Affiliates holding a Unit Interest which is less than the Unit Interest at such date held by any of Tullow, Kosmos or Anadarko together with its Affiliates,

then the Unit Operator shall promptly notify the other Parties of such events. Within thirty (30) Days of such notification (or, if no such notification is provided by Unit Operator, within thirty (30) Days of notification by Tullow, Kosmos or Anadarko, or any of their respective Affiliates, to the other Parties of such events), any of Tullow, Kosmos or Anadarko, or any of their respective Affiliates, may remove the Unit Operator by serving written notice of removal to all Parties, in which event a successor Unit Operator shall be appointed in accordance with Article 7.13(D). The right to remove the Unit Operator under this Article 7.12(E) is personal to Tullow, Kosmos and Anadarko and may not be assigned, except by Tullow, Kosmos or Anadarko to any of its Affiliates, in each case, together with an assignment of a Unit Interest to such Affiliate. Except as provided in Article 7.9 or this Article 7.12, a Party serving as Unit Operator shall remain Unit Operator following a direct or indirect change in Control or a Transfer of a portion of its or any of its Affiliates Unit Interest.

- (F) For the avoidance of doubt, a reduction of the Unit Interest of an Operator or an Affiliate of an Operator as a result of a Redetermination shall not constitute a Transfer for the purposes of this Agreement, including for the purposes of Article 7.12(D) or Article 7.12(E).
- (G) Notwithstanding the terms of Article 7.12(C), if, prior to the termination of the IPT Technical Operator position pursuant to Article 7.10:

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- (1) Tullow, Kosmos or Anadarko, or any of their respective Affiliates, but not any other successor-in interest, is serving as an Operator; and either
  - (a) The Unit Operator Transfers all of its Unit Interest (other than a Transfer to an Affiliate of Unit Operator); or
  - (b) The IPT Technical Operator Transfers all of its Unit Interest (other than a Transfer to an Affiliate of IPT Technical Operator),

then such Operator shall be deemed to have resigned as Operator, effective on the date the Transfer becomes effective under Article 14, in which event a successor Operator shall be appointed in accordance with Article 7.13(D).

- (H) Notwithstanding the terms of Article 7.12(C), if,
  - (1) A Party serving as Operator Transfers all of its Unit Interest (other than a Transfer to an Affiliate of such Operator); and either
    - (a) Prior to the termination of the IPT Technical Operator position pursuant to Article 7.10, a Party other than Tullow, Kosmos or Anadarko, or any of their respective Affiliates, is serving as an Operator and Transfers all of its Unit Interest (other than a Transfer to an Affiliate of such Operator); or
    - (b) After termination of the IPT Technical Operator position pursuant to Article 7.10 a Party serving as Operator Transfers all of its Unit Interest (other than a Transfer to an Affiliate of such Operator),

then such Operator shall be deemed to have resigned as Operator, effective on the date the Transfer becomes effective under Article 14, in which event a successor Operator shall be appointed in accordance with Articles 7.13(A) and 7.13(B).

#### 7.13 Appointment of Successor

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When a change of Operator occurs pursuant to Article 7.9 or Article 7.12:

- (A) Unit Operator shall fulfill the role of any Technical Operator following any resignation or removal of such Technical Operator unless and until a successor Technical Operator is appointed pursuant to the provisions of this Article 7.13.
- (B) Except as provided in Article 7.12(D), Article 7.12(E) and Article 7.12(G), the Unit Operating Committee shall meet as soon as possible to appoint a successor Operator pursuant to the voting procedure of Article 8.9. No Party may be appointed as a successor Operator against its will.
- (C) If any Operator is removed, neither such Operator nor any Affiliate of such Operator shall be considered as a candidate for the successor Operator provided that: (a) any Operator removed under Article 7.12(C) or any Affiliate of such Operator; and (b) any Operator which is removed under Article 7.12(D), Article 7.12(E) or Article 7.12(G), or any Affiliate of such Operator or any transferee (pursuant to Article 14), may be considered as a candidate for the successor Operator.
- (D) In the case of removal or deemed resignation of:
  - (1) the Unit Operator under Article 7.12(E) or Article 7.12(G), within sixty (60) Days of such removal or deemed resignation, Tullow, Kosmos and Anadarko (other than the Party which is the current Unit Operator) shall determine, by agreement solely between them, which of them should fill the open Unit Operator position; and

9/7/09 Unitization and Unit Operating Agreement

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- (2) the IPT Technical Operator under Article 7.12(D) or Article 7.12(G), within sixty (60) Days of such removal or deemed resignation, Tullow, Kosmos and Anadarko (other than the Party which is the current IPT Technical Operator) shall determine, by agreement solely between them, which of them should fill the open IPT Technical Operator position; provided that if Anadarko is not the affected IPT Technical Operator, Anadarko shall fill the open IPT Technical Operator position and provided further that the right to succeed the IPT Technical Operator is personal to Anadarko and may not be assigned, except to an Affiliate of Anadarko together with an assignment of a Unit Interest by Anadarko to such Affiliate. In the event that Anadarko is the affected IPT Technical Operator and the applicable Parties cannot agree within such period, the successor IPT Technical Operator shall be determined by the affirmative vote of two (2) or more of the total number of Non-Operators which are not Affiliates holding a combined Unit Interest of at least a majority of the Unit Interests held by all of the Non-Operators (after excluding Affiliates of Anadarko).
- (E) The resigning or removed Operator shall be compensated out of the Unit Account for its reasonable expenses directly related to its resignation or removal, except in the case of Article 7.12(B)(1) or Article 7.12(B)(2).
- (F) The resigning or removed Operator and the successor Operator shall arrange for the taking of an inventory of all Unit Facilities and Unit Substances, and an audit of the books and records of the removed Operator. Such inventory and audit shall be completed, if possible, no later than the effective date of the change of Operator and shall be subject to the approval of the Unit Operating Committee. The liabilities and expenses of such inventory and audit shall be charged to the Unit Account.
- (G) Following a resignation or removal, upon the effective date of appointment of a successor Operator, such successor Operator shall succeed to all duties, rights and authority prescribed for the Operator it replaces. The former Operator shall transfer to the successor Operator custody, where applicable, of all Unit Facilities, books of account, records and other documents maintained by such Operator pertaining to the Unit Area and to Unit Operations. Upon delivery of the abovedescribed facilities and data, the former Operator shall be released and discharged from all obligations and liabilities as such Operator accruing after such date.

## 7.14 Health, Safety and Environment ("HSE")

- (A) With the goal of achieving safe and reliable operations in compliance with applicable HSE laws, rules and regulations (including avoiding significant and unintended impact on the safety or health of people, on property, or on the environment), Unit Operator and IPT Technical Operator shall meet and no later than six (6) months following the date of execution of this Agreement establish and implement an HSE plan in a manner consistent with standards and procedures generally followed in the international petroleum industry under similar circumstances, harmonizing the HSE policies of each of them, and using (unless they otherwise agree) the most stringent standards established by either of their policies. Each Operator shall thereafter design and operate Unit Facilities consistent with the HSE plan. In addition, each Operator shall conform with locally applicable HSE laws, rules and regulations and other HSE-related statutory requirements that may apply.
- (B) The Unit Operating Committee shall from time to time review details of the HSE plan and each Operator's implementation thereof.
- (C) In the conduct of Unit Operations, each Operator shall establish and implement a program for regular HSE assessments. The purpose of such assessments is to periodically review HSE systems and procedures, including actual practice and performance, to verify that the HSE plan is being implemented in accordance with the policies and standards of the HSE plan. Each Operator shall, at a minimum, conduct such an assessment before entering into significant new Unit Operations

9/7/09 Unitization and Unit Operating Agreement

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and before undertaking any major changes to existing Unit Operations. Upon reasonable notice given to an Operator, Non-Operators shall have the right to participate in such HSE assessments.

- (D) Each Operator shall require its Subcontractors, consultants and agents undertaking activities for the Unit Account to manage HSE risks in a manner consistent with the requirements of this Article 7.14.
- (E) The HSE plan adopted under Article 7.14(A) shall, at a minimum, prohibit within the Unit Area the following:
  - (1) Possession, use, distribution or sale of firearms, explosives, or other weapons (except use of explosives required for drilling operations, with the approval of senior management of Unit Operator and in accordance with applicable Laws/Regulations);
  - (2) Possession, use, distribution or sale of alcoholic beverages without the prior written approval of senior management of Unit Operator; and
  - (3) Possession, use, distribution or sale of illicit or non-prescribed controlled substances and the misuse of prescribed drugs.

#### ARTICLE 8 UNIT OPERATING COMMITTEE

# 8.1 Establishment of Unit Operating Committee

To provide for the overall supervision and direction of Unit Operations, there is established a Unit Operating Committee composed of representatives of each Party holding a Unit Interest. Each Party shall appoint one (1) representative and one (1) alternate representative to serve on the Unit Operating Committee. Each Party shall as soon as possible after the date of this Agreement give notice in writing to the other Parties of the name and address of its representative and alternate representative to serve on the Unit Operating Committee. Each Party shall have the right to change its representative and alternate at any time by giving notice of such change to the other Parties.

# 8.2 Powers and Duties of Unit Operating Committee

The Unit Operating Committee shall have power and duty to authorize and supervise Unit Operations that are necessary or desirable to fulfill this Agreement and properly develop the Unit Area in accordance with this Agreement and in a manner appropriate in the circumstances.

## 8.3 Authority to Vote

The representative of a Party, or in his absence his alternate representative, shall be authorized to represent and bind such Party with respect to any matter which is within the powers of the Unit Operating Committee and is properly brought before the Unit Operating Committee. Each such representative shall have a vote equal to the Unit Interest of the Party such Person represents. Each alternate representative shall be entitled to attend all Unit Operating Committee meetings but shall have no vote at such meetings except in the absence of the representative for whom he is the alternate.

In addition to the representative and alternate representative, each Party may also bring to any Unit Operating Committee meetings such technical and other advisors as it may deem appropriate.

## 8.4 Subcommittees

(A) The Unit Operating Committee may establish such subcommittees, including technical subcommittees, as the Unit Operating Committee may deem appropriate (each a

9/7/09

Unitization and Unit Operating Agreement



"Subcommittee"). The functions of such Subcommittees shall be in an advisory capacity or as otherwise determined unanimously by the Parties. Each Party shall have the right to appoint a representative to each Subcommittee, and to remove and replace that representative at any time, by notice to the other Parties.

- (B) All reasonable costs incurred by Subcommittee representatives to attend and participate in Subcommittee meetings shall be charged to the Unit Account.
- (C) Each of the following Subcommittees shall be deemed to be established on the Effective Date as approved Subcommittees under this Agreement:
  - (1) Technical (to cover all technical and operational matters from subsurface to production);
  - (2) Gas;
  - (3) Accounting & Financing;
  - (4) Oil Marketing;
  - (5) Audit; and
  - (6) Environment Health and Safety.
- (D) The Unit Operating Committee may, from time to time, vote to rename, consolidate or dissolve any of the Subcommittees established pursuant to the provisions of this Article 8.4.

## 8.5 Notice of Meeting

(A) Unit Operator may call a meeting of the Unit Operating Committee by giving notice to the Parties at least fifteen (15) Days in advance of such meeting. Any Non-Operator or group of Non-Operators holding individually or collectively a Unit Interest of at least ten percent (10%) may request a meeting of the Unit Operating Committee by giving notice to all the other Parties. Upon receiving such request, Unit Operator shall call such meeting for a date not less than fifteen (15) Days nor more than twenty (20) Days after receipt of the request. The notice periods above may only be waived with the unanimous consent of all the Parties.

#### 8.6 Contents of Meeting Notice

- (A) Each notice of a meeting of the Unit Operating Committee as provided by Unit Operator shall contain:
  - (1) The date, time and location of the meeting;
  - (2) The agenda of the matters and proposals to be considered and/or voted upon; and
  - (3) Copies of all proposals to be considered at the meeting (including all appropriate supporting information not previously distributed to the Parties).

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- (B) A Party, by notice to the other Parties given not less than seven (7) Days prior to a meeting, may add other matters to the agenda for the meeting.
- (C) On the request of a Party, and with the unanimous consent of all Parties, the Unit Operating Committee may consider at a meeting a proposal not contained in such meeting agenda.

9/7/09 Unitization and Unit Operating Agreement

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## 8.7 Location of Meetings

All meetings of the Unit Operating Committee shall be held in the offices of the Unit Operator in London, England or Accra, Ghana or the offices of the IPT Technical Operator in Dallas, Texas (or elsewhere, as may be convenient to the Parties, if the Unit Operating Committee so decides,).

#### 8.8 Unit Operator's Duties for Meetings

- (A) With respect to meetings of the Unit Operating Committee and any Subcommittee, Unit Operator's duties shall include, but not be limited to:
  - (1) Timely preparation and distribution of the agenda;
  - (2) Organization and conduct of the meeting; and
  - (3) Preparation of a written record or minutes of each meeting.
- (B) Unit Operator shall have the right to appoint the chairman of the Unit Operating Committee and all Subcommittees.

## 8.9 Voting Procedure

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- (A) Except as otherwise expressly provided in this Agreement, all decisions, approvals and other actions of the Unit Operating Committee on all proposals coming before it shall be decided as follows:
  - (1) All decisions, approvals and other actions of the Unit Operating Committee for which a voting passmark is not specifically established by the other terms of this Agreement shall require the affirmative vote of two (2) or more Parties which are not Affiliates then having collectively at least eighty percent (80%) of the Unit Interests. If there are fewer than three (3) Parties to this Agreement, then the number of Parties stipulated in this Article 8.9(A)(1) does not apply.
  - (2) All decisions, approvals and other actions listed below shall require the unanimous approval of the Parties who are eligible to vote under the terms hereof.

	Matter
(a)	Amendment of this Agreement
(b)	Any decision to voluntarily expand the Unit Area or Unit Interval pursuant to Article 5.3(A)
(c)	Any voluntary approval by the Parties of redetermined Tract Participations pursuant to $\underline{\text{Exhibit E}}$
(d)	Any voluntary disposition of substantially all of the Unit Facilities, except in connection with a termination of Unit Operations under Article 10.2(B) or Article 15.2(D)
(e)	Any voluntary permanent termination of Unit Operations as a whole, except as a consequence of the expiration, termination or revocation of either Contract or pursuant to Article 10.2(B), Article 15.2(C) or Article 15.2(D).
(f)	Any voluntary surrender by a JOA Group of a portion of its Contract Area that is located within the Unit Area pursuant to Article 13.2(A).

(g)	Assignment of ownership of intellectual property rights in the Unit Data to Unit Operator or a Party
(h)	Any matter for which unanimous approval of the Parties is expressly required by the terms of this Agreement.

#### 8.10 Record of Votes

The chairman of the Unit Operating Committee shall appoint a secretary who shall make a record of each proposal voted on and the results of such voting at each Unit Operating Committee meeting. Each representative shall sign and be provided a copy of such record at the end of such meeting, and it shall be considered the final record of the decisions of the Unit Operating Committee.

#### 8.11 Minutes

The secretary shall provide each Party with a copy of the minutes of the Unit Operating Committee meeting within fifteen (15) Business Days after the end of the meeting. Each Party shall have fifteen (15) Days after receipt of such minutes to give notice to the secretary of its objections to the minutes. A failure to give notice specifying objection to such minutes within said fifteen (15) Day period shall be deemed to be approval of such minutes. In any event, the votes recorded under Article 8.10 shall take precedence over the minutes described above.

#### 8.12 Voting by Notice

- (A) In lieu of a meeting, any Party may submit any proposal to the Unit Operating Committee for a vote by notice. The proposing Party or Parties shall notify Unit Operator who shall give each Party's representative notice describing the proposal so submitted and whether Unit Operator considers such operational matter to require urgent determination. Unit Operator shall include with such notice adequate documentation in connection with such proposal to enable the Parties to make a decision. Each Party shall communicate its vote by notice to Unit Operator and the other Parties within one of the following appropriate time periods after receipt of Unit Operator's notice:
  - (a) twenty-four (24) hours in the case of operations which involve the use of a drilling rig or vessel that is standing by in the Unit Area specifically for the purpose of conducting such operations, and (b) seventy two (72) hours in case of any other operational matters reasonably considered by Unit Operator to require by their nature urgent determination ((a) and (b) together being referred to as "Urgent Operational Matters"); and
  - (2) Ten (10) Days in the case of all other proposals.
- (B) Except in the case of Article 8.12(A)(1), any Party or group of Parties holding individually or collectively a Unit Interest of at least ten percent (10%) may, by notice delivered to all Parties within ten (10) Days of receipt of Unit Operator's notice, request that the proposal be decided at a meeting rather than by notice. In such an event, that proposal shall be decided at a meeting duly called for that purpose.
- (C) Except as provided in Article 10, any Party failing to communicate its vote in a timely manner shall be deemed to have voted against such proposal.
- (D) If a meeting is not requested, then at the expiration of the appropriate time period, Unit Operator shall give each Party a confirmation notice stating the tabulation and results of the vote.

9/7/09 Unitization and Unit Operating Agreement

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### 8.13 Effect of Vote

All decisions taken by the Unit Operating Committee pursuant to this Article 8 that are within the scope of this Agreement shall be conclusive and binding on all the Parties. For the avoidance of doubt, any decision taken by the Unit Operating Committee hereunder, is without prejudice to any required approval of the JMC under each Contract.

#### 8.14 Joint Management Committee

The Unit Operator shall be entitled to participate in meetings of the Joint Management Committee established pursuant to Article 6 of each Contract to act as representative of the Parties with respect to Unit Operations, regardless of whether Unit Operator holds a position as a Joint Management Committee representative under such Contract. The Joint Management Committee representative(s) appointed by each Tract Operator with respect to each Contract shall have the sole right to exercise all voting rights of the "Contractor" on the Joint Management Committee and shall exercise such voting rights to the extent pertaining solely to Unit Operator. Any Technical Operator shall be entitled to participate in meetings of the Joint Management Committee established pursuant to Article 6 of each Contract, to the extent helpful for purposes of discussing operations handled by such Technical Operator, regardless of whether such Technical Operator holds a position as a Joint Management Committee representative under such Contract, to the extent helpful for purposes of discussing operations handled by such Technical Operator, regardless of whether such Technical Operator holds a position as a Joint Management Committee representative under such Contract.

### ARTICLE 9 UNIT WORK PROGRAMS AND BUDGETS

# 9.1 Appraisal

The Parties agree that no Appraisal Operations may be conducted with respect to the Unit Interval. The Mahogany-2 Well and the Hyedua-2 Well, as such wells are described in the Proposed Phase 1 Development Plan, shall each be deemed an "Appraisal Well" under the applicable Contract, even though used for production or injection purposes under this Agreement. The Parties agree that GNPC shall have no obligation to bear any share of the cost of such "Appraisal Wells", notwithstanding the fact that such costs may be incurred after GNPC's acquisition of an "Additional Interest" or "Additional Paying Interest" under either Contract. The Mahogany-2 Well and the Hyedua-2 Well shall be considered Unit Operations under this Agreement.

# 9.2 Unit Development Plan and Development Unit Work Program and Budget

- (A) The Parties have approved for submission to the Joint Management Committee under Article 6 of each Contract, and to the Government for approval, the Proposed Phase 1 Development Plan attached hereto as <u>Exhibit P</u> and the development Unit Work Program and Budget (the "Development Unit Work Program and Budget") as set out in <u>Exhibit M</u> hereto.
- (B) Unit Operator shall periodically review the Unit Development Plan and associated Development Unit Work Program and Budget and propose amendments as may be prudent, and the Unit Operating Committee shall consider, modify (if necessary), and approve or reject those proposed amendments in accordance with Article 8.9.
- (C) The Parties agree that approval of a Unit Development Plan and associated Development Unit Work Program and Budget and any amendments thereto by the Unit Operating Committee shall constitute approval of the corresponding plan of development and associated budget and amendments under the JOA Groups' respective Joint Operating Agreements. Each Tract Operator shall submit the Unit Development Plan (and any approved amendments) and its proportionate share of the Development Unit Work Program and Budget to the Joint Management Committee under its Contract and to the Government for its approval. Unit Operator shall support each JOA



Group in seeking such approval. If any changes are required by either Joint Management Committee or by the Government, Unit Operator may make such requested changes if necessary to obtain approval, without resubmitting the Unit Development Plan, Development Unit Work Program and Budgets or amendments, as applicable, to the Unit Operating Committee, *provided* that such changes would not constitute a material change to the Development Unit Work Program and Budget or add or delete any material aspect of the Unit Development Plan, with "material" deemed to include any amendment which (either alone or cumulatively with other amendments) increases or decreases the previously approved Development Unit Work Program and Budget by more than five percent (5%) or any major budget category in such Development Unit Work Program and Budget by more than ten percent (10%). Unit Operator shall promptly notify the Parties of any such changes, and the Unit Development Plan, Development Unit Work Program and Budget, and the associated work programs and budgets under the Contracts, shall be deemed approved as changed.

# 9.3 Annual Work Programs and Budgets

- (A) Not later than the first Day of September of each preceding Calendar Year with respect to Calendar Year 2010 and thereafter, Unit Operator shall submit to the Parties a proposed Unit Work Program and Budget for Unit Operations for the applicable Calendar Year (the "Annual Unit Work Program and Budget"), which shall with respect to development operations be consistent with the then-existing Unit Development Plan, along with reasonable and necessary supporting information, and a proposed update of the life of Unit Interval production forecast in the Unit Development Plan. Technical Operator shall submit its proposal for the relevant portions of the Annual Unit Work Program and Budget relating to Technical Operations to Unit Operator at least thirty (30) Days prior to the date for Unit Operator's submission of the Annual Unit Work Program and Budget to the Parties. Each Annual Unit Work Program and Budget submitted by Unit Operator shall contain an itemized estimate of the cost of Unit Operations and all other expenditures to be made for the Unit Account during the Calendar Year in question and shall, inter alia: (i) identify each work category in sufficient detail to afford the ready identification of the nature, scope and duration of the activity in question; (ii) include such reasonable information regarding each Operator's allocation procedures and estimated manpower costs as the Unit Operating Committee may determine; and (iii) comply with the requirements of each Contract. Within thirty (30) Days of the Unit Operator's delivery of the proposed Annual Unit Work Program and Budget and updated production forecast, the Unit Operating Committee shall meet to consider, modify (if necessary), and either approve or reject the proposed Annual Unit Work Program and Budget in accordance with Article 8.9; provided that no Annual Unit Work Program and Budget may provide for development operations that exceed the scope of, or conflict with, the previously approved Unit Development Plan or associated Development Unit Work Program and Budget unless amendments to such previously approved plan and budget are adopted at or before the adoption of the Annual Unit Work Program and Budget.
- (B) Any work that cannot be efficiently completed within a single Calendar Year may be proposed in a multi-year Unit Work Program and Budget. Upon approval by the Unit Operating Committee, such multi-year Unit Work Program and Budget shall, subject only to revisions approved by the Unit Operating Committee thereafter: (i) remain in effect as among the Parties (and the associated cost estimate shall be a binding pro-rata obligation of each Party) through the completion of the work; and (ii) be reflected in each Annual Unit Work Program and Budget. If either Contract requires that Work Programs and Budgets be submitted to the Government for approval, such multi-year Unit Work Program and Budget shall be submitted to the Government either in a single request for a multi-year approval or as part of the annual approval process, according to the terms of the Contract.
- (C) The Parties agree that approval of an Annual Unit Work Program and Budget by the Unit Operating Committee shall constitute approval of a proportionate work program and budget under each Tract's respective Joint Operating Agreement. Each Contract Group shall include its Tract Participation pro rata share of an Annual Unit Work Program and Budget adopted under this

9/7/09 Unitization and Unit Operating Agreement

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Article 9.3 in the work programs and budgets submitted to the Joint Management Committee under its Contract and to the Government for approval under its Contract, if required. Unit Operator shall support each Contract Group in seeking such approvals, if required. If any changes are required by either Joint Management Committee or by the Government to the Unit portion of any work program and budget submitted under either Contract, Unit Operator may make such requested changes to the Annual Unit Work Program and Budget if necessary to obtain approval, without submitting the Annual Unit Work Program and Budget to the Unit Operating Committee, *provided* such changes do not add or delete any material portion of the work program and are within Unit Operator's deemed authority pursuant to Article 9.7 and, if applicable, Article 9.2(C). Unit Operator shall promptly notify the Parties of any such changes, and the Annual Unit Work Program and Budget, and work programs and budgets under the Contracts, shall be deemed approved as changed.

- (D) In the event an Annual Unit Work Program and Budget is not approved by the Unit Operating Committee prior to the date on which the Government requires a final Annual Unit Work Program and Budget (or, if sooner, by the commencement of the Calendar Year to which the Annual Unit Work Program and Budget applies), Unit Operator may submit to the Government such Annual Unit Work Program and Budget for the Calendar Year, consistent with the scope of, and not in conflict with, the approved Unit Development Plan and Development Unit Work Program and Budget, as is reasonably necessary to meet the commitments under the Unit Development Plan and Development Unit Work Program and Budget that are required to be carried out during the relevant Calendar Year and to fulfill all obligations of the Parties under any contracts for the sale or delivery of Unit Substances and other Associated Agreements. In this event, the Unit Operating Committee shall be deemed to have approved such Annual Unit Work Program and Budget. Unit Operator shall be reimbursed by GNPC and each JOA Group for their Paying Interest shares of costs and expenses incurred by Unit Operator and deemed approved in accordance with this Article 9.3(D). In the event no update of the life of Unit Interval production forecast in the Unit Development Plan is approved by the Unit Operating Committee, the existing production forecast shall continue to apply for purposes of this Agreement.
- (E) As set out in Article 1.6.12 of the Unit Accounting Procedure and notwithstanding any other terms of this Agreement, in no event shall GNPC be liable for, and GNPC shall be deemed to have a Paying Interest of zero (0) with respect to, any Unit Account expenses which are not allowable under Article 3.17 of Annex 2 of either Contract.

# 9.4 Amendments of Work Programs and Budgets.

A Party or group of Parties may at any time, by notice to the other Parties, propose that a Unit Work Program and Budget be amended. In the case of a specific Unit Operation that will be subject to an amendment to the Annual Unit Work Program and Budget (but not the Development Unit Work Program and Budget), such proposal may take the form of an AFE submitted for approval. To the extent that such amendment is approved by the Unit Operating Committee, the relevant Work Program and/or Budget shall, subject to any requisite approval by either Joint Management Committee or by the Government of amendments to the underlying work programs and budgets for the Contracts, be deemed amended accordingly, provided that, any such amendment shall not invalidate any commitment or expenditure already made by the Unit Operator in accordance with any previous authorization given pursuant hereto.

### 9.5 Contract Awards

All contract awards shall be conducted in accordance with Article 20 of each Contract and the Laws/Regulations. The applicable Operator shall award each contract for Unit Operations on the basis set out below (the amounts stated are in U.S. dollars and the person mentioned in the "Contracts" column is the contract recipient). Where a contract is to be awarded under Procedure B or Procedure C below, each JCC Party shall be invited to tender (or to have one of its Affiliates tender) for the contract and, in the event that the bid submitted by such Party or Affiliate is equivalent to or more favorable than other bids received in

9/7/09 Unitization and Unit Operating Agreement

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terms of technical and quality standards, price, grade, quantity, delivery dates and other commercial terms, it shall be given preference, subject to the terms of Article 20 of each Contract.

Contracts	Procedure A	Procedure B	Procedure C	Procedure D	Procedure E
IPT Technical Operations: Persons not a Party or Affiliates of a Party	0 to \$1,000,000	> \$1,000,000 to \$25,000,000	>\$25,000,000	-	-
Unit Operations (Other than IPT Technical Operations): Persons not a Party or Affiliates of a Party	0 to \$1,000,000	> \$1,000,000 to \$25,000,000	>\$25,000,000	-	<u>-</u> .
IPT Technical Operations: Parties or Affiliates of a Party	-	-	-	0 to \$1,000,000	> \$1,000,000
Unit Operations (other than IPT Technical Operations): Parties or Affiliates of a Party	-	-	-	0 to \$1,000,000	> \$1,000,000

#### Procedure A - No Tender, Non-Affiliated Third Parties

(A) Unit Operator (or, in the case of contracts with respect to Technical Operations, the applicable Technical Operator) shall award the contract to the best qualified Person as determined by cost and ability to perform the contract without the obligation to tender and without informing or seeking the approval of the Unit Operating Committee.

#### Procedure B - Tender, Non-Affiliated Third Parties

- (B) Unit Operator (or, in the case of contracts with respect to Technical Operations, the applicable Technical Operator) shall:
  - (1)Provide the Parties with a list of the Persons whom such Operator proposes to invite to tender for the said contract;
  - Add to such list any Person whom a Party reasonably requests to be added within not (2)more than seven (7) Days of receipt of such list;
  - Complete the tendering process within a reasonable period of time; (3)
  - Notify the Parties of the Persons to whom the contract has been awarded; (4)
  - (5)Deliver a competitive bid analysis stating the reasons for the choice made to GNPC and to any other Party upon its request; and
  - Provide a copy of the final version of the contract to GNPC and to any other Party upon (6) its request.

# Procedure C - Tender and Unit Operating Committee Approval, Non-Affiliated Third Parties

Unit Operator (or, in the case of contracts with respect to Technical Operations, the applicable (C) Technical Operator) shall: MO

9/7/09 Unitization and Unit Operating Agreement

- (1) Provide the Parties with a list of the Persons whom such Operator proposes to invite to tender for the said contract;
- (2) Add to such list any Person whom a Party reasonably requests to be added within not more than seven (7) Days of receipt of such list;
- (3) Prepare and dispatch the tender documents to the Persons on the list as aforesaid and to the JCC Parties and to any other Party upon request;
- (4) After the expiration of the period allowed for tendering, consider and analyze the details of all bids received;
- (5) Prepare and circulate to the Parties, a competitive bid analysis, stating such Operator's recommendation as to the Person to whom the contract should be awarded, the reasons therefor, and the technical, commercial and contractual terms to be agreed upon;
- (6) Obtain the approval of the Unit Operating Committee to the recommended bid; and
- (7) Provide a copy of the final version of the contract to GNPC and to any other Party upon its request.

# Procedure D - No Tender, Affiliates

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(D) Unit Operator (or, in the case of contracts with respect to Technical Operations, the applicable Technical Operator) may award the contract to an Affiliate as the best qualified Subcontractor as determined by cost and ability to perform the contract without the obligation to tender and without informing or seeking the approval of the Unit Operating Committee.

# Procedure E - Tender and Unit Operating Committee Approval, Affiliates

- (E) Unit Operator (or, in the case of contracts with respect to Technical Operations, the applicable Technical Operator) shall:
  - (1) Prepare and circulate to the Parties an analysis, stating such Operator's reasons for the award, and the technical, commercial and contractual terms to be agreed upon;
  - (2) Obtain the approval of the Unit Operating Committee to the recommended bid; and
  - (3) Provide a copy of the final version of the contract to GNPC and to any other Party upon its request.
- (F) The Parties have approved additional contracting and procurement procedures which shall apply to the award of contracts with respect to (i) IPT Technical Operations ("IPT Technical Operations Contract Procedure") and (ii) Unit Operations ("Unit Operations Contract Procedure") each in the form attached hereto as Exhibit T. The IPT Technical Operations Contract Procedure and the Unit Operations Contract Procedure may be amended by vote of the Unit Operating Committee pursuant to Article 8.9(A)(1).
- (G) With respect to contracts for Technical Operations, each Technical Operator (through the IPT in the case of IPT Operator) shall conduct the initial procurement process in accordance with the applicable procedures set forth in Articles 9.5(A) to 9.5(F) above (and the IPT Technical Operations Contract Procedure in the case of IPT Operator), including development of bidder lists and preparation of requests for proposal, conduct the tender and bid evaluation and shall either award the contract or recommend the award of the contract to the Unit Operating Committee, as applicable in accordance with the above procedures and provide notice of the contract award with



respect to contracts for Technical Operations, provided that, unless the Unit Operating Committee otherwise determines, Unit Operator shall execute each contract for Technical Operations.

- (H) The requirements to hold a competitive tender pursuant to Procedure B or Procedure C may be waived on a contract by contract basis by a vote of the Unit Operating Committee pursuant to Article 8.9(A)(1).
- (I) The procedures set forth in this Article 9.5 shall not apply to any contracts that have been awarded, or in respect of which invitations to tender have been issued, on or before the Effective Date.

# 9.6 Authorization for Expenditure ("AFE") Procedure

- (A) Prior to incurring any commitment or expenditure for the Unit Account, which is estimated to be:
  - (1) In excess of one million U.S. dollars (\$1,000,000) in a Development Unit Work Program and Budget; and
  - (2) In excess of one million U.S. dollars (\$1,000,000) in a Production Unit Work Program and Budget,

Unit Operator shall send to each Non-Operator an AFE as described in Article 9.6(D). Notwithstanding the above, Unit Operator shall not be obliged to furnish an AFE to the Parties with respect to general and administrative costs and operating expenditures that are listed as separate line items in an approved Annual Unit Work Program and Budget.

- (B) Technical Operator shall furnish Unit Operator with the form of each AFE required for Technical Operations to permit Unit Operator to distribute the AFE to each Non-Operator.
- (C) Prior to making any expenditures or incurring any commitments for work subject to the AFE procedure in Article 9.6(A), Unit Operator shall obtain the approval of the Unit Operating Committee. If the Unit Operating Committee approves an AFE for the operation, Unit Operator shall be authorized to conduct the operation under the terms of this Agreement. When an AFE for an operation is approved for differing amounts than those provided for in the applicable line items of the approved Annual Unit Work Program and Budget, the Annual Unit Work Program and Budget shall be deemed to be revised accordingly. Unit Operator shall be entitled to submit for approval master AFEs covering multiple commitments or expenditures that are subject to Article 9.6(A), and if any such AFE is approved, subsequent AFEs issued for individual commitments or expenditures covered by the master AFE shall be for informational purposes only and shall not require a further approval.
- (D) Each AFE proposed by Unit Operator (or sent to Unit Operator by Technical Operator) shall:
  - (1) Identify the operation by specific reference to the applicable line items in the Annual Unit Work Program and Budget but may relate to the total cost of the operation to be performed;
  - (2) Describe the work in detail;
  - (3) Contain such Operator's best estimate of the total funds required to carry out such work;
  - (4) Outline the proposed work schedule;
  - (5) Provide a timetable of expenditures, if known; and

9/7/09 Unitization and Unit Operating Agreement

(6) Be accompanied by such other supporting information as is necessary for an informed decision.

# 9.7 Overexpenditures

- (A) For expenditures on any line item of an approved Unit Work Program and Budget, or under any approved AFE, each Operator shall be entitled to incur without further approval of the Unit Operating Committee an overexpenditure for such line item or AFE of up to ten percent (10%) of the authorized amount for such line item or AFE; provided that the cumulative total of all overexpenditures for a Calendar Year shall not exceed five percent (5%) of the total Annual Unit Work Program and Budget for that Calendar Year. Any increases to the approved Unit Work Program and Budget by the Unit Operator pursuant to the authority granted to it under Article 9.2(C) or 9.3(B) without Unit Operating Committee approval shall be considered overexpenditures for purposes of this Article 9.7.
- (B) At such time that Unit Operator reasonably anticipates the limits of Article 9.7(A) will be exceeded, Unit Operator shall furnish to the Unit Operating Committee a reasonably detailed estimate for the Unit Operating Committee's approval. In the case of a specific operation, such estimate may take the form of an AFE submitted for approval. Upon receipt of Unit Operating Committee approval, the Unit Work Program and Budget shall be revised accordingly and the overexpenditures permitted in Article 9.7(A) shall be based on the revised Unit Work Program and Budget. Unit Operator shall promptly give notice of the amounts of overexpenditures when actually incurred. Technical Operator shall promptly provide Unit Operator with notice if Technical Operator reasonably anticipates that the limits of Article 9.7(A) will be exceeded with respect to Technical Operations, and with notice of the amounts of overexpenditures on Technical Operations when actually incurred, to permit Unit Operator to provide the necessary notice to the Unit Operating Committee.
- (C) The restrictions contained in this Article 9 shall be without prejudice to Unit Operator's rights to make expenditures necessary and proper for the protection of life, health, the environment and property in the case of an emergency without the Unit Operating Committee's approval; provided, however, that Unit Operator shall immediately notify the Parties of the details of such emergency and measures taken.

# 9.8 Decommissioning Unit Work Program and Budget

- (A) Unit Operator has included a preliminary estimated Decommissioning budget in the Proposed Phase 1 Development Plan under Article 9.2(A). Not later than the first Day of September of the Calendar Year that immediately precedes the Calendar Year in which the Unit Operator's latest estimate of Recoverable Oil pursuant to Article 9.3(A) indicates that the Trigger Date will occur, Unit Operator shall deliver to the Parties a draft Decommissioning Unit Work Program and Budget along with reasonable and necessary supporting information. Within thirty (30) Days of such delivery, the Unit Operating Committee shall meet to consider, modify (if necessary), and either approve or reject the proposed Decommissioning Unit Work Program and Budget in accordance with Article 8.9(A)(1). If the Unit Operating Committee fails to approve such Decommissioning Unit Work Program and Budget, the preliminary estimated Decommissioning budget included in the Unit Development Plan shall govern as the applicable Decommissioning Unit Work Program and Budget for all purposes of this Agreement, without prejudice to the terms of either Contract or applicable Laws/Regulations, until a Decommissioning Unit Work Program and Budget is approved under the terms hereof.
- (B) The Parties agree that approval of a Decommissioning Unit Work Program and Budget and any amendments thereto by the Unit Operating Committee shall constitute approval of the corresponding Decommissioning work program and budget and amendments under the Parties' respective Joint Operating Agreements, and the current Annual Unit Work Program and Budget shall be deemed to have been amended accordingly. Following receipt of the Decommissioning



Unit Work Program and Budget as approved by the Unit Operating Committee, each Tract Operator shall submit its proportionate share of the approved Decommissioning Unit Work Program and Budget (and any approved amendments) to the Joint Management Committee under its Contract and to the Government for its approval. If any changes are required by the Joint Management Committee under either Contract or by the Government, Unit Operator may make such requested changes if necessary to obtain approval without resubmitting the Decommissioning Unit Work Program and Budget or amendments, as applicable, to the Unit Operating Committee, *provided* that such changes would not constitute a material change to the Decommissioning Work Program Budget, with "material" deemed to include any amendment which (either alone or cumulatively with other amendments) increases or decreases the previously approved Decommissioning Unit Work Program and Budget by more than five percent (5%) or any major budget category in such Decommissioning Unit Work Program and Budget by more than ten percent (10%). Unit Operator shall promptly notify the Parties of any such changes, and the Decommissioning Unit Work Program and Budget, shall be deemed approved as changed.

- (C) Not later than the first Day of September of each Calendar Year subsequent to the Calendar Year in which a Decommissioning Unit Work Program and Budget is required to be delivered by the Unit Operator pursuant to Article 9.8(A), the Unit Operator shall prepare and shall submit the following for approval by the Unit Operating Committee:
  - (1) If necessary, proposals to amend the Decommissioning Unit Work Program and Budget;
  - (2) A detailed estimate of the Decommissioning Costs to be incurred in each Calendar Year pursuant to the Decommissioning Unit Work Program and Budget (expressed as the undiscounted cost in U.S. dollars at the time of expected expenditure and including a ten percent (10%) contingency); and
  - (3) For Calendar Years prior to the expiration of the Run Down Period, an estimate of the total Decommissioning Costs at the end of each Calendar Year within the Run Down Period.
- (D) Any amendment of the Decommissioning Unit Work Program and Budget and the estimates of Decommissioning Costs proposed pursuant to Article 9.8(C) shall be considered by the Unit Operating Committee within thirty (30) Days of its submission.
- (E) If all or part of the Decommissioning Unit Work Program and Budget, or any annual estimate of Decommissioning Costs pursuant to Article 9.8(C), for any Calendar Year subsequent to the Calendar Year in which a Decommissioning Unit Work Program and Budget is required to be delivered by Unit Operator pursuant to Article 9.8(A), is not approved by the Unit Operating Committee in accordance with the terms of this Article 9.8, then the Decommissioning Unit Work Program and Budget which governs the immediately preceding Calendar Year shall continue to govern for all purposes of this Agreement, without prejudice to the terms of either Contract or applicable Laws/Regulations, until a revised Decommissioning Unit Work Program and Budget is approved under the terms hereof.
- (F) Prior to making any expenditures or incurring any commitments under an approved Decommissioning Unit Work Program and Budget, Unit Operator shall comply with the AFE procedure in Article 9.6, where applicable.

# 9.9 Costs of Technical Operations and Other Unit Operations

Unit Operator shall be entitled to call for advances, or may bill, GNPC and the JOA Groups for charges to the Unit Account, including charges for Technical Operations, in accordance with the terms of the Unit Accounting Procedure, based upon their Paying Interests with respect to the applicable charges. Technical

Operator shall provide Unit Operator with a request for advances, or an invoice for costs paid, for Technical Operations in accordance with the terms of this Agreement at least five (5) Days prior to the date for delivery of Unit Operator's call for advances or billing to GNPC and the Tract Operators on behalf of the JOA Groups. Should Technical Operator provide a request for advances or billing to GNPC and the Tract Operator shall use reasonable efforts to make a corresponding call for advances or billing to GNPC and the Tract Operators within five (5) Days after receipt of Technical Operator's request or invoice, provided that in no event shall Unit Operator be required to send out more than two calls for advances, or two billings, to GNPC and the Tract Operators in any Calendar Month. Within ten (10) Days after receipt of funds from GNPC or either Tract Operator the portion attributable to Technical Operator's request for advance or shall send to Technical Operator the portion attributable to Technical Operator's request for advance or invoice. In the event of a partial payment or other circumstance in which the portion of a payment that should be attributed to Technical Operator is not clear, Unit Operator shall allocate the funds received on a pro rata basis, in proportion to the outstanding amounts for which advances have been requested or which have been billed to the paying Party or JOA Group by each of Unit Operator and Technical Operator.

# ARTICLE 10 DEFAULT

### 10.1 Default

- (A) Subject where applicable to the rights of GNPC under the Contracts, if GNPC or either JOA Group fails to pay when due its Paying Interest share and, as applicable, its Contributing Share of Unit Account expenses (including cash advances and interest) or to obtain and maintain any Security required of GNPC or either JOA Group under Exhibit D, then GNPC (a "Defaulting Party") or that JOA Group (a "Defaulting Group") shall be in default. Unit Operator, or any Other Group in case Unit Operator is a member of the Defaulting Group but not a member of an Other Group, as defined below, shall promptly give notice of such default (the "Default Notice") to each Party. For the avoidance of doubt, in the event of a failure by GNPC to pay "Petroleum Costs" pursuant to either Contract, GNPC shall have whatever rights it is entitled to under the Contracts, including the right to apply the applicable provisions of Article 2 of the applicable Contract in lieu of Article 10.4, and, in addition, the provisions of Article 10.6(A)(3) and Article 10.8 shall not apply.
- (B) For purposes of this Article 10, "*Default Period*" means the period beginning five (5) Business Days from the date that the Default Notice is issued in accordance with this Article 10.1 and ending when all of the Defaulting Party's or Defaulting Group's defaults pursuant to this Article 10 have been remedied in full.

# 10.2 Contributions of Amount in Default

- (A) With respect to the Defaulting Party or Defaulting Group, if GNPC and/or a JOA Group (the "Other Group") is not in default, they shall each be known as an "Other Party".
- (B) Upon a failure by the Defaulting Party or Defaulting Group to pay the entire amount due within ten (10) Business Days of receipt of the Default Notice, Unit Operator may by notice (a "Contribution Notice"), require each of the Other Parties to contribute a share of the amount due from the Defaulting Party or Defaulting Group or to post a share of the Security required to be posted by the Defaulting Party or Defaulting Group, such "Contributing Share" being the proportion that such Other Party's Paying Interest bears to the total Paying Interests of the Other Parties. If any Other Party fails to pay or post its Contributing Share within ten (10) Business Days of receipt of the Contribution Notice, it shall also be in default, with the result that Unit Operator shall send another Default Notice to the remaining Other Party, if any, and the remaining Other Party shall be required to contribute its revised Contributing Share of the amount due or post its revised Contributing Share of the amount due or post its revised Contributing Share of the amount due or post its revised Contributing Share of the amount due or post its revised Contributing Share of the amount due or post its revised Contributing Share of the amount due or post its revised Contributing Share of the amount frequired to be posted shall be referred to as the "Contributing Parties" for purposes of this Article 10. If both JOA Groups become

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Defaulting Groups, the Unit Operator shall undertake to terminate Unit Operations pursuant to Article 2.

- (C) Until such time as the Defaulting Party or Defaulting Group has remedied the default in respect of all unpaid amounts, each Contributing Party shall contribute its Contributing Share of the Defaulting Party's or Defaulting Group's share of all subsequent Unit Account costs, and post its Contributing Share of any Security subsequently required to be posted by the Defaulting Party or Defaulting Group.
- (D) If the Unit Operator is a member of the Defaulting Group but not also a member of an Other Group, then any Other Group member may send the Default Notice (and Contribution Notice, if applicable) and all payments otherwise payable to the Unit Operator for Unit Account costs pursuant to this Agreement shall be made to the Tract Operator for the Other Group instead until the default is cured or a successor Unit Operator appointed. The Tract Operator for notifying Other Group shall maintain such funds in a segregated account separate from its own funds and shall apply such funds to claims due and payable from the Unit Account of which it has notice, to the extent the Unit Operator would be authorized to make such payments under the terms of this Agreement. The Tract Operator shall be entitled to bill or cash call the Contributing Parties in accordance with the Unit Accounting Procedure for proper charges that become due and payable during such period to the extent sufficient funds are not available. When the Unit Operator's JOA Group has cured its default or a successor Unit Operator is appointed, the Tract Operator acting under this Article shall turn over all remaining funds in the account to the Unit Operator and shall provide the Unit Operator and the other Parties with a detailed accounting of the funds received and expended during this period. The notifying Other Group and its Tract Operator shall not be liable for damages, losses, costs, expenses or liabilities arising as a result of its actions under this Article 10.2(D), except to the extent the Unit Operator would be liable under Article 7.6. While the Unit Operator is a member of the Defaulting Group, the Unit Operator shall continue to perform its other functions as the Unit Operator that are not transferred to the notifying Party by this Article, until Unit Operator is removed or resigns.

#### 10.3 Temporary Financing

If the Unit Operator requires funds in a shorter time than it is possible for the Contributing Parties to make funds available then the Unit Operator in its discretion may itself temporarily finance such deficit, or may obtain a temporary line of credit. The Unit Operator shall require each Contributing Party to pay its Contributing Share of the costs, attributable to the Defaulting Party or Defaulting Group, of such temporary financing together with any interest which may be payable on the temporary financing and, for the purpose of Article 10.5, such costs together with such interest shall be added to the amount in default. Finance made available by the Unit Operator shall bear interest calculated at the Agreed Interest Rate. The Unit Operator shall be considered a Contributing Party with respect to amounts advanced by it as Unit Operator until such amounts are repaid in full, including interest, and costs to which it is entitled under Article 10.11.

# 10.4 Interest Due Under Default

Subject, where applicable, to GNPC's rights under the Contracts, all amounts in default and not paid when due under this Agreement shall bear interest at the Agreed Interest Rate plus an additional five percentage points (5%) (or, if such rate is contrary to any applicable usury law, the maximum rate permitted by such applicable law) from the due date to the date of payment.

# 10.5 Share of Unit Substances; Other Set-Off

(A) During the Default Period, the Defaulting Party or Defaulting Group shall not have a right to its Entitlement, which shall vest in and be the property of the Contributing Parties. Unit Operator (or the notifying Other Group, acting through its Tract Operator, if Unit Operator is a member of the Defaulting Group and not also a member of an Other Group) shall be authorized to sell such Entitlement in an arm's-length sale on terms that are commercially reasonable under the

9/7/09 Unitization and Unit Operating Agreement

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circumstances and, after deducting all costs, charges and expenses incurred in connection with such sale, pay the net proceeds to the Contributing Parties in proportion to the amounts they are owed by the Defaulting Party or Defaulting Group with respect to the Defaulting Party's or Defaulting Group's interest (in payment of first the costs they are entitled to under Article 10.11, then interest and then principal) and, after amounts owed to the Contributing Parties are repaid, apply such net proceeds toward the establishment of the Reserve Fund, if applicable, until all such total amount in default is recovered and such Reserve Fund is established. Any surplus remaining shall be paid to the Defaulting Party or Defaulting Group, as applicable, and any deficiency shall remain a debt due from the Defaulting Party or Defaulting Group to the Contributing Parties. When making sales under this Article 10.5(A), the Contributing Parties shall have no obligation to share any existing market or obtain a price equal to the price at which their own production is sold.

- (B) Without prejudice to GNPC's rights under the Contracts, if Unit Operator disposes of any Unit Facilities or if any other credit or adjustment is made to the Unit Account during the Default Period, Unit Operator (or the notifying Other Group, acting through its Tract Operator, if Unit Operator is a member of the Defaulting Group and not also a member of an Other Group) shall be entitled to apply the Defaulting Party's or Defaulting Group's Paying Interest share of the proceeds of such disposal, credit or adjustment against the total amount in default (against first the costs to which the Contributing Parties are entitled under Article 10.11, then interest and then principal) and toward the establishment of the Reserve Fund, if applicable. Any surplus remaining shall be paid to the Defaulting Party or Defaulting Group, and any deficiency shall remain a debt due from the Defaulting Party or Defaulting Group to the Contributing Parties.
- (C) If the Defaulting Party or Defaulting Group are entitled to any payment under Article 5.6(B) following a Redetermination, Unit Operator (or the notifying Other Group, acting through its Tract Operator, if Unit Operator is a member of the Defaulting Group and not also a member of an Other Group) shall be entitled to apply such payment instead against the Defaulting Party's or Defaulting Group' total amount in default (against first the costs to which the Contributing Parties are entitled under Article 10.11, then interest and then principal) and toward the establishment of the Reserve Fund, if applicable. Any surplus remaining shall be paid to the Defaulting Party or Defaulting Group, and any deficiency shall remain a debt due from the Defaulting Party or Defaulting Group to the Contributing Parties.
- (D) The Contributing Parties shall be entitled to apply the net proceeds received under Articles 10.5(A), 10.5(B) and 10.5(C) toward the creation of a reserve fund (the "Reserve Fund") in an amount equal to the Defaulting Party's or Defaulting Group's share of: (i) the estimated cost of Decommissioning pursuant to Exhibit D; (ii) the estimated cost of severance benefits for local employees upon cessation of operations; and (iii) any other identifiable costs that the Contributing Parties anticipate will be incurred in connection with the cessation of operations. Upon the conclusion of the Default Period, all amounts held in the Reserve Fund shall continue to be held as security for the Defaulting Party's or Defaulting Group' share of such costs (provided that, once security for Decommissioning is required pursuant to Exhibit D, the amounts held hereunder as security for Decommissioning shall be deposited as such Defaulting Party's or Defaulting Group's Security pursuant to Exhibit D).

# 10.6 Other Effects of Default

- (A) Notwithstanding any other provision of this Agreement, but subject to the rights of GNPC under Article 10.1(A), the Defaulting Party, or the members of the Defaulting Group (with respect to their Unit Interests and Paying Interests derived from the Defaulting Group, but not with respect to their Unit Interests and Paying Interests derived from an Other Group), as applicable, shall have no right, during the Default Period, to:
  - (1) Call or attend Unit Operating Committee or Subcommittee meetings;
  - (2) Vote on any matter coming before the Unit Operating Committee or any Subcommittee;

9/7/09 Unitization and Unit Operating Agreement

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- (3) Receive or access any data or information relating to any operations under this Agreement (except statements of the amounts for which it is in default);
- (4) Consent to or reject data trades between the Parties and Third Parties, nor access any data received in such data trades;
- (5) Transfer or Encumber all or part of its Unit Interest subject to the default, except to nondefaulting Parties in accordance with this Article 10;
- (6) Consent to or reject any Transfer or Encumbrance or otherwise exercise any other rights in respect of Transfers or Encumbrances under Article 14;
- (7) Receive its share of Unit Substances or proceeds thereof;
- (8) Withdraw from this Agreement under Article 15;
- (9) Take assignment of any portion of another Party's Unit Interest in the event such Party is either in default or withdrawing from this Agreement or a Joint Operating Agreement; or
- (10) Require that any redetermination be conducted pursuant to Article 5.5(D) or propose any expansion under Article 5.3.
- (B) Notwithstanding any other provisions in this Agreement, during the Default Period:
  - (1) Unless agreed otherwise by the Contributing Parties, for purposes of voting during the Default Period, the Unit Interest of each Contributing Party shall be deemed to be increased by allocating to it a share of the Unit Interest of the Defaulting Party or Defaulting Group equal to the ratio such Contributing Party's Unit Interest, after excluding any Unit Interest attributable to a Defaulting Group, bears to the total Unit Interests of the Contributing Parties (after excluding any Unit Interests attributable to a Defaulting Group);
  - (2) Any matters requiring a unanimous vote or approval of the Parties shall not require the vote or approval of the Defaulting Party or the vote of the Unit Interests of the Parties attributable to the Defaulting Group; and
  - (3) The Defaulting Party or Defaulting Group shall be bound by decisions of the Unit Operating Committee made during the default.

# 10.7 Right to Remedy

- (A) A Defaulting Party or Defaulting Group may remedy its default at any time prior to the loss of its Project Interest under Article 10.8 by the payment to the Unit Operator of the total amount in default together with interest thereon at the rate specified in Article 10.4 and all costs for which it is liable under Article 10.11.
  - (1) If a Defaulting Party or Defaulting Group makes any payment, the amount so received shall first be applied towards the payment of costs for which it is liable under Article 10.11, then toward the payment of interest and thereafter toward the defaulted amounts.
  - (2) Any such payment, together with interest thereon, received by the Unit Operator shall be paid to the Contributing Parties in proportion to the amounts they are owed by the Defaulting Party or Defaulting Group, provided that, in the event that such Parties as have paid a Contributing Share have not all paid their respective Contributing Share on



the same Day in respect of any requirement or cash call from the Unit Operator, such proportions shall be adjusted in respect of any payment of interest to take account of the different periods in respect of which their respective Contributing Shares have been outstanding.

(3) Interest paid by a Defaulting Party or Defaulting Group under this Article 10.7 shall be accounted for outside the Unit Account but in related records so that such interest is not taken into account for the purposes of a Redetermination of Tract Participations pursuant to this Agreement or for the purposes of calculation of taxes or Additional Oil Entitlements under either Contract.

# 10.8 Remedies in the Event of Continued Default

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- (A) If a Defaulting Party or Defaulting Group has been in default and failed to remedy its default within thirty (30) Days following the date of the Contribution Notice provided for in Article 10.2(B), then, without prejudice to any other rights available to the Contributing Parties to recover amounts owed them under this Agreement, at any time thereafter until the Defaulting Party or Defaulting Group has cured its defaults:
  - (1) Any Contributing Party or group of Contributing Parties holding individually or collectively a Unit Interest (as increased pursuant to Article 10.6(B)(1)) of at least fifty percent (50%) shall have the option, exercisable in its discretion, to require that the Defaulting Party or Defaulting Group withdraw from this Agreement and Transfer all of its Project Interests (in the case of a Defaulting Group, only that Project Interest attributable to the Contract with respect to which it is in default), as described in Article 10.8(B); and
  - (2) Any Contributing Party or group of Contributing Parties holding individually or collectively a Unit Interest (as increased pursuant to Article 10.6(B)(1)) of at least fifty percent (50%) shall have the option, exercisable in its discretion, to require that the Defaulting Party or Defaulting Group offer to sell all of its Project Interests (in the case of a Defaulting Group, only that Project Interest attributable to the Contract with respect to which it is in default) to any Contributing Parties wishing to purchase such interests, as described in Article 10.8(C).

Such options shall be exercised by providing notice of such election to the Defaulting Party or Defaulting Group and each Contributing Party. Until the Defaulting Party's or Defaulting Group's interests have been Transferred in full pursuant to this Article 10.8, each option is cumulative, not exclusive, and the exercise of one option which does not result in the Transfer of the Defaulting Party's or Defaulting Group's interests shall not preclude the Contributing Parties from exercising such option again, or another option. If the Government or any other Person whose consent is required does not consent to the proposed Transfer, then the Defaulting Party or Defaulting Group shall hold its Project Interest in trust for the sole and exclusive benefit of the Parties entitled to the Transfer with the right to be indemnified by the Parties entitled to the Transfer for any subsequent costs and liabilities incurred by it for which it would not have been liable had it successfully withdrawn from the Project. Subject to that, all costs and expenses pertaining to any such assignment (including for the avoidance of doubt any stamp duty incurred on the documents executed to effect such assignment) shall be the responsibility of the Defaulting Party or Defaulting Group.

(B) If option (1) in Article 10.8(A) is exercised, the Defaulting Party or Defaulting Group shall be deemed to have withdrawn and Transferred, pursuant to Article 15.6, effective on the date of the Contributing Party's notice under Article 10.8(A), all of its Project Interest to the Contributing Parties. In the absence of an agreement among the Contributing Parties to the contrary, any Transfer to the Contributing Parties following the exercise of the remedies set forth in option (1) of Article 10.8(A) shall be in proportion to the Contributing Shares of the Contributing Parties.

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The acceptance by a Contributing Party of any portion of the Defaulting Party's or Defaulting Group's Project Interest shall not limit any rights or remedies that such Contributing Party has to recover any remaining balance (including interest and costs to which it is entitled under Article 10.11) owing under this Agreement by the Defaulting Party or Defaulting Group.

(C) In connection with option (2) in Article 10.8(A) each Party grants to each of the other Parties the right and option to acquire (the "Buy-Out Option") all of its Project Interest (in the case of a Defaulting Group, only that Project Interest attributable to the Contract for which it is in default), as determined in this Article 10.8(C). If option (2) is exercised, by notice to the Defaulting Party or Defaulting Group and each Other Party (the "Option Notice"), the Defaulting Party or Defaulting Group shall be obligated to transfer, effective on the date of the Option Notice, its Project Interest to the Contributing Partys"). If there is more than one Acquiring Party, each Acquiring Party shall acquire a proportion of the Project Interest of the Defaulting Party equal to the ratio of its own Contributing Share to the total Contributing Share of all Acquiring Parties and pay such proportion of the Purchase Price, unless they otherwise agree.

The amount to be paid to acquire the Defaulting Party's or Defaulting Group's Project Interest (the "Purchase Price") shall be as follows:

- (1) In the Option Notice the Parties providing the Option Notice shall specify a value for the Defaulting Party's or Defaulting Group's Project Interest (in the case of a Defaulting Group, only that Project Interest attributable to the Contract for which it is in default). Within five (5) Days of the Option Notice, the Defaulting Party or Defaulting Group shall (i) notify all Contributing Parties that it accepts the value specified in the Option Notice (in which case such value is the "Appraised Value"); or (ii) refer the Dispute to an Expert pursuant to Article 20.4 for determination of the value of such Project Interest (in which case the value determined by such Expert shall be deemed the "Appraised Value"). If the Defaulting Party or Defaulting Group shall be deemed to have accepted the value contained in the Option Notice as the Appraised Value.
- (2) If the valuation of the Defaulting Party's or Defaulting Group's Project Interest is referred to an Expert, such Expert shall determine the Appraised Value which shall be equal to the fair market value of the Defaulting Party's or Defaulting Group's Project Interest (in the case of a Defaulting Group, limited to that Project Interest attributable to the Contract for which it is in default), less the following: (i) the total amount in default; (ii) all costs, including the Expert Costs, to obtain such valuation; and (iii) fifteen percent (15%) of the fair market value of such Project Interest.
- (3) Within ten (10) Days of notification of the Appraised Value, each Contributing Party shall, by notice to Unit Operator and the other Contributing Parties, elect whether to purchase some or all of the Defaulting Party's or Defaulting Group's Project Interest (in the case of a Defaulting Group, limited to that Project Interest attributable to the Contract for which it is in default), based upon the Appraised Value. A failure to timely deliver such a notice shall be deemed an election not to acquire any of such Project Interest at such Appraised Value.
- (4) Should no Contributing Party elect to purchase the Defaulting Party's or Defaulting Group's Project Interest at the Appraised Value, no transfer pursuant to this Article 10.8(C) shall take place, the Defaulting Party or Defaulting Group shall remain in default, and the Contributing Parties shall continue to have available to them all rights and remedies as if the Option Notice had never been delivered.

9/7/09 Unitization and Unit Operating Agreement

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- (5) If the Defaulting Party's Project Interest is transferred pursuant to this Article 10.8(C), the Appraised Value shall be paid to the Unit Operator in four (4) installments, each equal to twenty five percent (25%) of the Appraised Value as follows:
  - (a) the first installment shall be due and payable within fifteen (15) Days after the date on which the Defaulting Party's or Defaulting Group's Project Interest (in the case of a Defaulting Group, only that Project Interest attributable to the Contract for which it is in default) is effectively transferred to the Acquiring Parties (the "*Transfer Date*");
  - (b) the second installment shall be due and payable within one hundred and eighty (180) Days after the Transfer Date;
  - (c) the third installment shall be due and payable within three hundred and sixty five (365) Days after the Transfer Date; and
  - (d) the fourth installment shall be due and payable within five hundred and forty five (545) Days after the Transfer Date.

Effective as of the date of the Option Notice, the Defaulting Party or Defaulting Group shall Transfer all of its Project Interest (in the case of a Defaulting Group, limited to that Project Interest attributable to the Contract for which it is in default), to the Acquiring Parties electing to acquire such interest. The Unit Operator shall use the receipts received from the Acquiring Party(ies) to remedy the default and to repay to the Contributing Parties all amounts owed to them with respect to the Defaulting Party or Defaulting Group (including interest and costs to which they are entitled under Article 10.11). Any amount in excess of the amounts necessary to remedy the default and to pay all related costs, (including the costs of the assignment) and interest, if any, shall be paid by the Unit Operator to the Defaulting Group's Project Interests pursuant to this Article 10.8(C) shall not limit any rights or remedies that the Contributing Parties have to recover any remaining balance (including interest and costs to which they are entitled under Article 10.11) owing under this Agreement by the Defaulting Party or Defaulting Group.

# 10.9 Conditions of Assignment

- (A) Any Transfer of the Defaulting Party's or Defaulting Group's Project Interest made pursuant to Article 10.8 shall be:
  - (1) Subject to any necessary consent of the Government and GNPC under the Contracts;
  - (2) Without prejudice to any other rights and remedies any Party may have against the Defaulting Party or Defaulting Group, whether in law, equity or otherwise;
  - (3) Accompanied by the putting into effect the provisions of Article 12 regarding Security for Decommissioning Costs; and
  - (4) Effective as among the Parties as of the date of the first notice of exercise of the applicable option by a Contributing Party under Article 10.8(A).

The Defaulting Party or Defaulting Group and other Parties shall use their reasonable endeavors to obtain any necessary consent of the Government and any other necessary consents, and to take any other actions necessary to effect the Transfer. Promptly after obtaining all necessary consents, the Defaulting Party or Defaulting Group shall execute and deliver any and all documents necessary to effect the Transfer, provided that it shall be a term of such Transfer that the Defaulting Party or Defaulting Group shall warrant that it is the beneficial owner of the interest it is purporting to

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assign and that such interest is being assigned free of any Encumbrances (other than the terms of this Agreement, the Joint Operating Agreement, the Associated Agreements and the Contract, as applicable). The Defaulting Party or Defaulting Group shall promptly remove any Encumbrance that may exist on the interest that it is required to Transfer.

- (B) By way of security for the performance of its obligations under Article 10.8 and this Article 10.9, each Party hereby constitutes and appoints, jointly and severally, each other Party as its true and lawful attorney ("Attorney") on its behalf and in its name or otherwise to execute, sign, enter into and give effect to any and all documents and instruments and make such filings and applications as may be necessary to accomplish any such Transfer and to make such Transfer legally effective, and to obtain any necessary consents, including consents required under the Contract, on the following terms:
  - (1) The Unit Operator, or, if the Unit Operator is a member of the Defaulting Group but not also a member of an Other Group, the Tract Operator for the Other Group, shall be responsible for the preparation of any and all documents to effect any Transfer in accordance with the terms of this Article 10.9 and shall co-ordinate as between or among the Contributing Parties the arrangements in relation to the execution thereof.
  - (2) This power of attorney may be exercised independently by each Attorney, without the need to join the others. An Attorney may act under this power of attorney notwithstanding that another Attorney has previously acted or purported to act under it.
  - (3) The appointment contained in this power of attorney shall remain in full force and effect and be irrevocable until the earlier of the expiry or termination of this Agreement or the Transfer of the whole of the Project Interest of the appointing Party in question to another Party or Parties or a Third Party.
  - (4) In relation to the introduction of a Third Party to this Agreement as a Party hereto, and to any applicable Joint Operating Agreement, each Associated Agreement and the applicable Contract, such Third Party shall not acquire any rights hereunder unless and until each Party has executed in favour of the other Parties (other than any Party whose Project Interest is being reduced to zero (0) as a consequence of such introduction) a power of attorney in favour of such Parties which shall be granted in accordance with the terms of this Article 10.9.
  - (5) All acts done and documents executed or signed by an Attorney in good faith in the purported exercise of any power conferred by this power of attorney shall for all purposes be valid and binding on the grantor and its successors and assigns. If so requested, each Party will ratify and confirm each act done or caused to be done on its behalf by one of its Attorneys.
  - (6) Each Party irrevocably and unconditionally undertakes to indemnify each Attorney with respect to such Party against all actions, proceedings, claims, costs, expenses and liabilities of every kind arising from the exercise of any powers conferred by this power of attorney.

# 10.10 Effect of Transfer on Decommissioning

Any Defaulting Party or Defaulting Group whose interest is Transferred pursuant to the terms of this Article 10 shall have the same liability for Decommissioning Costs as such Party would have had if it had withdrawn under Article 15.

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9/7/09 Unitization and Unit Operating Agreement

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### 10.11 Right to Costs

The Other Parties shall be entitled to recover from the Defaulting Party or Defaulting Group all reasonable attorneys' fees and other costs incurred by the Other Parties in the collection of amounts owing by the Defaulting Party or Defaulting Group and in the enforcement of their remedies hereunder.

# 10.12 Rights not Exclusive

The rights and remedies granted to the Other Parties in this Article 10 shall be cumulative, not exclusive, and shall be in addition to any other rights and remedies that may be available to the non-defaulting parties, whether at law, in equity or otherwise. Each right and remedy available to the Other Parties may be exercised from time to time and so often and in such order as may be considered expedient by the non-defaulting parties in their sole discretion.

### 10.13 Survival

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The obligations of the Defaulting Party or Defaulting Group and the rights of the Other Parties shall survive the surrender of the Contracts, abandonment of Unit Operations and termination of this Agreement.

# 10.14 No Right of Set Off

Each Party acknowledges and accepts that a fundamental principle of this Agreement is that GNPC and each JOA Group pays its Paying Interest share of all amounts due under this Agreement as and when required. Accordingly, GNPC and each JOA Group which becomes a Defaulting Party or Defaulting Group undertakes that, in respect of either any exercise by the Other Parties of any rights under or the application of any of the provisions of this Article 10, GNPC and such JOA Group hereby waives any right to raise by way of set off or invoke as a defense, whether in law or equity, any failure by any other Party to pay amounts due and owing under this Agreement or any alleged claim that such Party may have against Unit Operator, Technical Operator or any Non-Operator, whether such claim arises under this Agreement or otherwise. Each Party further agrees that, without prejudice to GNPC's rights under the Contracts, the nature and the amount of the remedies granted to the Other Parties hereunder are reasonable and appropriate in the circumstances.

### ARTICLE 11 DISPOSITION OF PRODUCTION

# 11.1 Right and Obligation to Take in Kind

Except as otherwise provided in Article 10 or this Article 11, each Party shall have the right and obligation to own, take in kind and separately dispose of its Entitlement.

# 11.2 Disposition of Crude Oil

If Crude Oil is to be produced from the Unit Interval, the Parties shall in good faith, and not less than three (3) months prior to the anticipated first delivery of Crude Oil, as promptly notified by Unit Operator, negotiate and conclude the terms of a lifting agreement to cover the offtake of Crude Oil produced from the Unit Interval at each applicable Delivery Point. Each lifting procedure shall be based on the AIPN Model Form Lifting Procedure and shall contain all such terms as may be negotiated and agreed by the Parties, consistent with the Unit Development Plan and subject to the terms of the Contracts and shall contain provisions to allow for joint liftings. If a lifting agreement has not been entered into for each Delivery Point by the date of first delivery of Crude Oil, the Parties shall nonetheless be obligated to take and separately dispose of such Crude Oil as provided in Article 11.1 and in addition shall be bound by the terms set forth in the AIPN Model Form Lifting Procedure for each Delivery Point for which no lifting agreement is in place until a lifting agreement is executed by the Parties.



### 11.3 Disposition of Natural Gas

The Parties recognize that it may be necessary to enter into arrangements for the marketing and sale of Natural Gas which are consistent with the Unit Development Plan. The Parties shall in good faith negotiate and conclude the terms of any such arrangements.

# 11.4 Production Forecasts

- (A) No later than the first Day of the Calendar Month preceding the Calendar Month in which the Date of Commencement of Commercial Production is anticipated to occur, and thereafter on the first Day of each Calendar Quarter, the Unit Operator shall provide the Parties with a Production Forecast. A "Production Forecast" shall consist of the estimated average daily rate of production of Unit Substances for each Calendar Month during each of the next succeeding two (2) Calendar Years and, if there are multiple Delivery Points, the estimated quantities to be delivered to each Delivery Point.
- (B) If at any time the Unit Operator becomes aware that a change has taken place or will take place which in the Unit Operator's judgment has caused or will cause a significant variance from the latest Production Forecast, the Unit Operator shall promptly notify each Party of the following:
  - (1) The reason for such variance, its estimated magnitude, the date and time the change is expected to begin, and the estimated duration thereof; and
  - (2) The Unit Operator's revised Production Forecast for the period covered by the current Production Forecast based on such variance, along with all other requirements for a Production Forecast pursuant to Article 11.4(A).

For the purposes of this Article 11.4(B) only, a variation of ten percent (10%) or more in any figure appearing in a Production Forecast for Unit Substances shall be deemed to be a significant variance.

(C) The Production Forecast under this Article are only estimates. Actual production may vary based upon reservoir performance, variations in well deliverability and the composition of the produced substances, actions of the Government and other Third Parties, maintenance and repair obligations and Force Majeure, among other factors.

### ARTICLE 12 DECOMMISSIONING

# 12.1 Right to Take over Unit Facilities and Unit Wells

(A) In the event that Unit Operations are to terminate pursuant to Article 10.2(B) or Article 15.2(D), the Unit Operator shall give notice thereof to each JOA Group stating that Unit Operators are to terminate, and listing the material Unit Facilities together with Unit Operator's latest estimate of Decommissioning Costs pursuant to Exhibit D. Subject to the terms of the Contracts and applicable Laws/Regulations, each JOA Group shall have an option to take over as Non-Unit Operations any or all of such Unit Facilities located or held for use in the Contract Area or Contract Areas in which it holds its JOA Group Interests, which option shall be exercised by notice to the Unit Operator within thirty (30) Days after receipt of the Unit Operator's notice (the "Decommissioning Response Deadline"). If a JOA Group elects to take over any such Unit Facilities, the JOA Group shall (i) collectively assume responsibility for all Decommissioning Costs for the Unit Facilities that they take over and indemnify the other Parties and the Unit Operator (in its role as such) from and hold them harmless against all costs, expenses, liabilities and losses associated with that decommissioning and (ii) collectively assume responsibility for any remaining Trust Fund Cash Calls required pursuant to Exhibit D and prior to taking over such

9/7/09 Unitization and Unit Operating Agreement



Unit Facilities, provide replacement Complementary Security for the Decommissioning Costs (as described in Exhibit D) for any Complementary Security then held pursuant to Exhibit D with respect to such Unit Facilities, which Security may not be released prior to completion of Decommissioning without the written consent of the other Parties. Any Complementary Security previously provided by the other JOA Group with respect to such Unit Facilities pursuant to Article 12.3 shall be released immediately after the Party or JOA Group has provided replacement Complementary Security pursuant to Article 12.1(A)(ii) above. All rights to Unit Facilities transferred pursuant to this Article 12.1(A) are transferred on an "as is" basis without warranties expressed or implied, including warranties as to merchantability, fitness for a particular purpose, conformity to models or samples of materials, use, maintenance, condition, capacity or capability. When any Unit Facilities are transferred to a JOA Group under this Article 12.1, all rights held by the Parties for the Unit Account in data and information for those Unit Facilities shall also be transferred to the JOA Group. The transfer of such rights is subject to the terms of the applicable Contract and the Laws/Regulations and is without prejudice to any rights of the Government with respect to such data and information under the terms of either Contract or the Laws/Regulations.

(B) If any Unit Well is to be abandoned permanently, Unit Operator shall provide notice to the members of the JOA Group in whose Contract Area the Unit Well is located not later than (a) forty-eight (48) hours prior to such abandonment, in the case of a well with a rig on location or (b) thirty (30) Days prior to such abandonment, in all other cases, stating in the notice that the well is to be abandoned and offering it to such JOA Group on the terms set forth in this Article. The JOA Group shall have an option, to be exercised by notice to the Unit Operator on or before the end of the applicable period, to take over the Unit Well as a Non-Unit Well on the terms set forth in this Article. If the JOA Group elects to take over the well, such JOA Group shall assume responsibility for all costs of plugging and abandoning the well and shall indemnify and hold harmless the other Parties against all costs, expenses, liabilities and losses associated with such plugging and abandonment. Any Unit Well transferred to a JOA Group pursuant to this Article is transferred on an "as is" basis without warranties, express or implied, including warranties as to merchantability, fitness for a particular purpose, conformity to models or samples of materials, use, maintenance, condition, capacity or capability. When any Unit Well is transferred to a JOA Group under this Article 12.1, all rights held by the Parties for the Unit Account in data and information for that Unit Well, excluding data and information limited to the Unit Interval (such as past production data), shall also be transferred to that JOA Group. The Parties shall be entitled to retain copies of the transferred data and information on the same terms as are set forth in Article 6.4. The transfer of such rights is subject to the terms of the applicable Contract and the Laws/Regulations and is without prejudice to any rights of the Government with respect to such data and information under the terms of either Contract or the Laws/Regulations. The JOA Group taking over the Unit Well may not produce the Unit Interval and any operations conducted in such well after the date of the transfer shall be subject to the terms of Article 6.

# 12.2 Decommissioning

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To the extent either Group is responsible for decommissioning under its Contract, the Unit Operating Committee shall direct the Decommissioning of the Unit Facilities which are not taken over pursuant to Article 12.1, in accordance with the Contracts, any applicable Laws/Regulations, the approved Decommissioning Unit Work Program and Budget and good international oil and gas field practice. All costs and expenses of Decommissioning shall be charged to the Unit Account, and subject to the Contracts, any proceeds derived from the disposition of salvaged Unit Facilities upon Decommissioning shall be credited to the Unit Account.

# 12.3 Provision for and the Conduct of Decommissioning

The Parties shall provide for and conduct the Decommissioning of the Unit Facilities and the abandonment of the Unit Area and provide Security for the same in accordance with the terms of <u>Exhibit D</u>. In the event that some of the Parties continue to use the Unit Facilities following the expiration, termination, or

revocation of one Contract as provided for in Article 2, the Security provided by both Contract Groups shall remain in effect until such Unit Facilities are finally Decommissioned.

# 12.4 Decommissioning Liability

For the avoidance of doubt, subject to the obligations of the Government under Exhibit D, nothing provided for in Exhibit D shall remove, vitiate or otherwise annul the obligation of any Party to meet in full its liability to pay its Paying Interest share of Decommissioning Costs in accordance with this Agreement. Each Party shall remain liable for due payment of all Cash Calls (as defined in the Unit Accounting Procedure) payable by it under this Agreement in respect of its liability for Decommissioning Costs and for meeting Trust Fund Cash Calls (including posting Complementary Security) payable by it under Exhibit D. In the event that the Security provided by the Parties pursuant to Article 12.3 and in accordance with the terms of Exhibit D is insufficient to meet Decommissioning Costs in full, each Party shall remain liable to pay its Paying Interest share of any outstanding Decommissioning Costs.

# 12.5 Decommissioning Liability upon Transfer

In the event of a Transfer by any Party pursuant to the terms of Article 14, transferee shall demonstrate its financial capability to provide for its Paying Interest share of Trust Fund Cash Calls (as defined in <u>Exhibit</u> <u>D</u>) and such other Decommissioning Costs as may be required in the future pursuant to Article 12.3 and <u>Exhibit D</u> in order to obtain the consent of the other Parties required under Article 14.2(B)(2).

#### ARTICLE 13

# MAINTENANCE, TERMINATION, SURRENDER, EXPIRY, EXTENSIONS AND RENEWALS

### 13.1 Maintenance

- (A) Each Contract Group covenants, in respect of its Contract, that it will:
  - (1) To the extent it is reasonably within its control, preserve such Contract insofar as it covers the Unit Area for its remaining stated duration and comply with its terms and will exercise any optional rights to extend the term of its Contract if all terms of that extension are already established by its Contract and the Laws/ Regulations, provided that a Party that (a) engages in a good faith dispute with the Government over the interpretation of its Contract or the Laws/Regulations, or (b) fails to take actions not expressly required under the terms of its Contract or applicable Laws/Regulations to preserve its Contract, shall not be in breach of this Article 13.1(A)(1) with respect to any such actions under Article 13.1(A)(1)(b);
  - (2) Not agree to (to the extent that it is reasonably within its power to prevent) any amendment, modification or replacement of its Contract which would impair the rights of any of the Parties in the other Contract Group or affect Unit Operations without the prior written consent of the other Contract Group, or do or omit to do any other thing that would prevent or adversely affect performance of its obligations under this Agreement, and exercise its rights in such manner as to secure that the terms and provisions of this Agreement may be performed.
  - (3) Not resort to or take any action or omit to take any action that would create or cause or which is likely to create or cause a termination or revocation of its Contract insofar as it relates to the Unit Area, provided that a Party that: (a) engages in a good faith dispute with the Government over the interpretation of its Contract or Law/Regulations, or (b) fails to take actions not expressly required under the terms of its Contract or applicable Law/Regulations to preserve its Contract, shall not be in breach of this Article 13.1(A)(3) with respect to any such actions under Article 13.1(A)(3)(a) or any omissions to take such actions under Article 13.1(A)(3)(b).

9/7/09 Unitization and Unit Operating Agreement

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If either Contract Group or Tract Operator for a Group receives a notice of default or proposed termination or revocation with respect to its Contract from the Government (such Contract Group, for purposes of this Article 13.1(B)(1), the "Affected Group", and the other Contract Group, the "Non-Affected Group"), it shall provide notice of such default, termination or revocation notice (for purposes of this Article 13.1(B)(1), a "Government Action Notice") to the members of the Non-Affected Group within ten (10) Days after receipt of such Government Action Notice, accompanied by a description of the steps that it proposes to take to challenge or cure that default or proposed termination or revocation.

- (a) If the Affected Group fails to provide a Government Action Notice in accordance with Article 13.1(B)(1), any Party or group of Parties in the Non-Affected Group holding individually or collectively a Unit Interest of at least ten percent (10%) ("Non-Affected Parties") may provide the Affected Group notice of the Affected Group's failure to provide a Government Action Notice and such Parties' intention to take the steps necessary to challenge or cure the default or proposed termination or revocation (for purposes of this Article 13.1(B)(1)(a), an "Assumption Notice"). If the Affected Group fails to provide a Government Action Notice within ten (10) Days of its receipt of an Assumption Notice, the Non-Affected Parties may challenge or cure the default or proposed termination or revocation on behalf of the Affected Group, and in the event such default, termination or revocation is successfully challenged or cured, the Affected Group shall, except to the extent that some or all of the Non-Affected Group notifies it in writing that it does not wish to receive assignment of some or all of the Affected Group's Project Interests, assign its Project Interest free of cost to the Parties in the Non-Affected Group in proportion to such Parties' Group Interests, unless the Parties in the Non-Affected Group otherwise agree, and the Affected Group shall be treated as a withdrawing Group under Article 15.
- (b) If the Affected Group provides a Government Action Notice in accordance with Article 13.1(B)(1), but the Government Action Notice fails to identify the steps reasonably necessary to challenge or cure the default or proposed termination or revocation, or the Affected Group fails to take the steps reasonably necessary to challenge or cure the default or proposed termination or revocation, Non-Affected Parties may provide notice of such occurrence to the Affected Group (for purposes of this Article 13.1(B)(1)(b), a "Cure Deficiency Notice"). If the Affected Group fails to respond to the Cure Deficiency Notice by either providing a supplemental Government Action Notice properly identifying the steps reasonably necessary to challenge or cure the default or proposed termination or revocation, or taking the steps reasonably necessary to challenge or cure the default or proposed termination or revocation within ten (10) Days of a Cure Deficiency Notice, as applicable, the Non-Affected Parties may challenge or cure the default or proposed termination or revocation on behalf of the Affected Group, and in the event such default, termination or revocation is successfully challenged or cured, the Affected Group shall, except to the extent that some or all of the Non-Affected Group notifies it in writing that it does not wish to receive assignment of some or all of the Affected Group's Project Interests, assign its Project Interest free of cost to the Parties in the Non-Affected Group in proportion to such Parties' Group Interests, unless the Parties in the Non-Affected Group otherwise agree, and the Affected Group shall be treated as a withdrawing Group under Article 15. For the avoidance of doubt, Non-Affected Parties may provide more than one Cure Deficiency Notice with respect to each Government Action Notice pursuant to this Article 13.1(B)(1)(b).



(c) Notwithstanding the terms of Articles 13.1(B)(1)(a) and 13.1(B)(1)(b), if the Affected Group disputes the alleged failure to provide an Assumption Notice, or to identify or take the steps reasonably necessary to challenge or cure the default or proposed termination or revocation, and dispute resolution proceedings are initiated under Article 20.3 with respect to such Dispute within twenty (20) Days after delivery to the Affected Group of the relevant Assumption Notice or Cure Deficiency Notice, then the Affected Group shall not be required to assign its Project Interest or withdraw pending conclusion or abandonment of such proceedings, provided that the Affected Group may not Transfer or Encumber all or any part of its Project Interest during this period.

(2) If either Contract expires, terminates or is revoked prior to the expiry of this Agreement as provided herein, then the Parties to the expired, terminated, or revoked Contract shall cease to own a Project Interest with respect to that Contract and GNPC shall assume such Project Interest in accordance with the terms of Article 5.3(E). This loss of interest shall be without prejudice to any remedy that a Party may have against any other Party under this Agreement, at law or in equity because of the actions or omissions resulting in such a termination or revocation.

#### 13.2 Surrender

- (A) No JOA Group shall voluntarily renounce relinquish or surrender any portion of its Contract Area that is located within the Unit Area without the prior unanimous consent of the Unit Operating Committee. Should any JOA Group voluntarily surrender all or a portion of its Contract Area within the Unit Area without the prior unanimous consent of the Unit Operating Committee in contravention of the terms of this Article, it shall, except to the extent that the other Contract Group notifies it in writing that the other Contract Group does not wish to receive assignment of some or all of the surrendering JOA Group's Project Interests, assign any remaining Project Interest free of cost to the Parties in the other Contract Group in proportion to such Parties' Contract Group Interests, unless the Parties in the other Contract Group under Article 15. This loss of interest shall be without prejudice to any remedy that a Party may have against any other Party under this Agreement, at law or in equity because of the actions or omissions resulting in such a termination or revocation.
- If under any applicable Laws or pursuant to the Contract, either JOA Group (for purposes of this (B) Article 13.2(B), an "Affected JOA Group") is required to renounce or relinquish or surrender a part of its Contract Area, that part of the Contract Area that is included in the Unit Area shall be given first priority as to the area to be retained and no part of the Unit Area shall be renounced, relinquished or surrendered unless it becomes necessary, in which event the Tract Operator for the Affected JOA Group shall advise the Unit Operator and the Unit Operating Committee of such necessity at least one hundred and twenty (120) Days in advance of the earlier of the date for filing irrevocable notice of such surrender or the date of such surrender. Prior to the end of such period, the Unit Operating Committee, in consultation with the Affected JOA Group, shall determine the size and shape of the surrendered area, consistent with the requirements of the Contract. If a sufficient vote of the Unit Operating Committee cannot be obtained, then the proposal supported by a simple majority of the Unit Interests shall be adopted. If no proposal attains the support of a simple majority of the Unit Interests, then the proposal receiving the largest aggregate Unit Interest vote shall be adopted. In the event of a tie, Unit Operator shall choose among the proposals receiving the largest aggregate Unit Interest vote. The Affected JOA Group shall execute any and all documents and take such other actions as may be necessary to effect the surrender. Each Party renounces all claims and causes of action against Unit Operator and any other Parties on account of any area surrendered in accordance with the foregoing but against its recommendation if Hydrocarbons are subsequently discovered under the surrendered area. In the event of such surrender, the Unit Operating Committee shall meet to consider the incremental reduction to the quantity of OHIP contained within either Tract in the Unit Interval as a

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consequence of the surrender, and Tract Participations shall be adjusted in the same manner, if any, as would be the case following an expansion under Article 5.3(B).

(C) As contemplated by the applicable Laws/Regulations, GNPC shall have the right to explore, develop and produce Hydrocarbons from any part of a Contract Area that is renounced, relinquished or surrendered, subject to Article 5.4 of the applicable Contract.

#### 13.3 Extension of the Term

Without prejudice to any provisions to the contrary in any other applicable agreement, each JOA Group shall have the right but not the obligation to seek or obtain renewals or extensions of its Contract, the terms of which are not directly established under its Contract, on terms and conditions acceptable to such JOA Group in its sole discretion. Where the terms of any renewal or extension are already established under the Contract and renewal or extension is necessary to maintain the Contract in effect, the JOA Group shall be required to exercise the renewal or extension in accordance with Article 13.1(A)(1) and Article 13.1(A)(2).

### ARTICLE 14 TRANSFER OF INTEREST OR RIGHTS

#### 14.1 Obligations

A Transfer or Encumbrance shall be effective only if it satisfies the terms and conditions of: (A) the applicable Contract and any applicable Joint Operating Agreement, and (B) Article 14.2.

# 14.2 Transfer

- (A) Any Transfer or Encumbrance of an interest in a Contract and the corresponding Joint Operating Agreement must also include a Transfer or Encumbrance of the corresponding rights and obligations in this Agreement and all Associated Agreements in which the transferor holds an interest. Likewise, any Transfer or Encumbrance of an interest in this Agreement or any Associated Agreement must include a Transfer or Encumbrance of the corresponding rights and obligations in this Agreement and all Associated Agreements, one or both of the Contracts, as applicable, and the Joint Operating Agreement or Joint Operating Agreements corresponding to such Contract or Contracts.
- (B) A transferee shall have no rights in this Agreement (except any notice and cure rights or similar rights that may be provided to a Lien Holder by separate instrument signed by all Parties) unless and until:
  - (1) It expressly undertakes in an instrument reasonably satisfactory to the other Parties to perform the obligations of the transferor under this Agreement in respect of the Project Interest being transferred, whenever accruing, and obtains and furnishes to the other Parties a copy of any necessary Government approval for the Transfer or Encumbrance and furnishes any guarantees required by the Government or the applicable Contract on or before the applicable deadlines, and
  - (2) Except in the case of a Transfer to an Affiliate and Transfers among Parties as provided for in Article 10 or Article 15, each Party has consented in writing to such Transfer, which consent shall be denied only if the transferee fails to establish to the reasonable satisfaction of each Party its financial capability to perform its payment obligations under this Agreement including the satisfaction of its obligations with respect to Decommissioning pursuant to Article 12. No consent shall be required under this Article 14.2(B)(2) for a Transfer to an Affiliate if the transferring Party agrees in an instrument reasonably satisfactory to the other Parties to remain liable for its Affiliate's performance of its obligations.



- (C) To the extent a transferee has satisfied the requirements set out in Article 14.2(B), the transferor shall be released from any and all of its obligations hereunder in relation to such transferred interest; provided that, notwithstanding the Transfer, the transferor shall remain liable to the other Parties for any obligations, financial or otherwise, in relation to such transferred interest which have vested, matured or accrued under the provisions of this Agreement prior to the date of such Transfer.
- (D) Nothing contained in this Article 14 shall prevent a Party from Encumbering all or any undivided share of its Project Interest to a Third Party (a "*Lien Holder*") for the purpose of security relating to finance, provided that:
  - (1) Such Party shall remain liable for all obligations relating to such interest;
  - (2) The Encumbrance shall be subject to any necessary approval of the Government and be expressly subordinated to the rights of the other Parties under this Agreement; and
  - (3) Such Party shall ensure that any Encumbrance shall be expressed to be without prejudice to the provisions of this Agreement.
- (E) Each Party represents that neither it, nor any holder of equity interests in it or its direct or indirect parent companies or any right to any revenues or dividends or other distributions of such Party or its direct or indirect parent companies is or shall while it is a Party to this Agreement be a Prohibited Assignee, or a Person appearing on any list of Proscribed Persons, except as a consequence of purchase by such Prohibited Assignee or Proscribed Person of publicly-traded securities. From and after the Effective Date, should a Transfer or Encumbrance of (1) equity interests in a Party or its direct or indirect parent companies or any right to any revenues or dividends or other distributions of such Party or its direct or indirect parent companies or any right to any revenues or dividends or other distributions of such Party or its direct or indirect parent companies or any right to any revenues or dividends or other distributions of such Party or its direct or any right to revenues or other distributions under any Project Interest Agreement or any right to revenues or other distributions under any Project Interest Agreement occur which would breach this Article, such Party shall promptly provide notice to all other Parties and shall have thirty (30) Days in which to Transfer or Encumber its interest to a Person not in violation of the restrictions in this Article, failing which the other Parties shall have the remedies described in Article 10.8 as if such Party were a Defaulting Party.
- (F) No Party shall Transfer or Encumber an interest in a segregated portion of the Unit Interval or Unit Area, or in any portion of a Contract Area. A Transfer or Encumbrance by a Party must be in respect of all or an undivided percentage of its Unit Interest share together with the corresponding rights and obligations in this Agreement and all Associated Agreements, one or both of the Contracts, as applicable, and the Joint Operating Agreement or Joint Operating Agreements corresponding to such Contract or Contracts. For the avoidance of doubt, a Party with interests in both Contracts may Transfer or Encumber its interests in one Contract and the corresponding interests in such Contract's Joint Operating Agreement, this Agreement and the Associated Agreements, and maintain its interests in the other Contract and the corresponding interests in such other Contract's Joint Operating Agreement, this Agreement and the Associated Agreements, and maintain its interests in the other Contract and the corresponding interests.
- (G) In the event of a Transfer by an Operator, the terms of Articles 7.11 and/or 7.12(C), (D), (E) or (F) may apply as provided therein.

### ARTICLE 15 WITHDRAWAL FROM AGREEMENT

# 15.1 Right of Withdrawal

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(A) Subject to the provisions of this Article 15 and the Project Interest Agreements, any Party not in default may at its option withdraw from the Project Interest Agreements by giving notice to all the second se

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other Parties stating its decision to so withdraw. Such notice shall be unconditional and irrevocable when given, except as may be provided in Article 15.7.

- (B) No Party may withdraw from this Agreement without withdrawing from its other Project Interest Agreements, nor may any Party withdraw from any other Project Interest Agreement without withdrawing from this Agreement and no Party may withdraw from a segregated portion of the Unit Area or Unit Interval, or from any portion of a Contract Area without withdrawing from an entire Contract Area, provided that, for the avoidance of doubt, a Party with interests in both Contracts may withdraw from one Contract and the corresponding interests in such Contract's Joint Operating Agreement, this Agreement and the Associated Agreements, and maintain its interests in the other Contract and the corresponding interests in such other Contract's Joint Operating Agreement, this Agreement and the Associated Agreements.
- (C) The effective date of withdrawal for a withdrawing Party shall be the end of the Calendar Month following the Calendar Month in which the notice of withdrawal is given, provided that if all Parties elect to withdraw, the effective date of withdrawal for each Party shall be the date determined by Article 15.9.

# 15.2 Withdrawal

- (A) Within thirty (30) Days of receipt of each withdrawing Party's notification, each of the other Parties may also give notice that it desires to withdraw from its Project Interest Agreements.
- (B) If less than all of the Parties in a Contract Group give such notice of withdrawal, then the withdrawing Parties shall take all steps to withdraw from their Project Interest Agreements on the earliest possible date and execute and deliver all necessary instruments and documents to assign their Project Interests to the Parties in the Group which are not withdrawing, without any compensation whatsoever, in accordance with the provisions of Article 15.6.
- (C) Should all of the members of a Contract Group give notice of withdrawal, the other Contract Group may, within thirty (30) Days after the last notice from the members of the withdrawing Contract Group, notify the withdrawing Contract Group that it does not wish to receive assignment of some or all of the withdrawing Contract Group's Project Interests, in which case those interests shall not be assigned. Following the end of the thirty (30) Day period, the Parties in the withdrawing Contract Group shall take all steps to withdraw from their Project Interest Agreements on the earliest possible date, and execute and deliver all necessary instruments and documents to assign their Project Interests as to which the other Contract Group has not refused assignment to the members of the Contract Group for the remaining Contract that are not electing to withdraw, without any compensation whatsoever, in accordance with the provisions of Article 15.6. Should the members of the non-withdrawing Contract Group refuse assignment of the interest in the other Contract that would be assigned. Article 5.3(E) shall apply.
- (D) Within thirty (30) Days of receipt of a notice that all of the members of a Contract Group are withdrawing pursuant to Article 15.2(C) above, the other Contract Group may also give notice that it desires to withdraw from its Project Interest Agreements. Should all Parties give notice of withdrawal from the Project Interest Agreements, the Parties shall proceed to abandon the Contract Areas and terminate the Project Interest Agreements.
- (E) All costs and expenses incurred by a withdrawing Party in connection with its withdrawal shall be borne by such Party, and a withdrawing Party shall reimburse all non-withdrawing Parties for all costs and expenses incurred by such Parties in connection with such withdrawal.

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9/7/09 Unitization and Unit Operating Agreement



# 15.3 Rights of a Withdrawing Party

A withdrawing Party shall have the right to receive its Entitlement produced through the effective date of its withdrawal. The withdrawing Party shall be entitled to receive all information to which such Party is otherwise entitled under this Agreement until the effective date of its withdrawal. After giving its notification of withdrawal, a Party shall not be entitled to vote on any matters coming before the Unit Operating Committee, except that it shall be entitled to vote prior to the effective date of its withdrawal upon matters for which such Party has financial responsibility.

# 15.4 Obligations and Liabilities of a Withdrawing Party

A withdrawing Party shall, following its notification of withdrawal, remain liable only for its share of the following:

- (A) Costs of Unit Operations: (1) in which it has agreed to participate, (2) that were approved by the Unit Operating Committee as part of a Development Unit Work Program and Budget or an Annual Unit Work Program and Budget (including a multi-year Unit Work Program and Budget under Article 9.3(B)) or AFE prior to such Party's notification of withdrawal, or (3) incurred under any contract for performance of all or any part of Unit Operations entered into by Unit Operator prior to such Party's notification of withdrawal;
- (B) Expenditures described in Articles 7.2(B)(13) and 15.5 related to an emergency occurring prior to the effective date of a Party's withdrawal, regardless of when such expenditures are incurred;
- (C) All other obligations and liabilities of the Parties with respect to acts or omissions under this Agreement prior to the effective date of such Party's withdrawal for which such Party would have been liable, had it not withdrawn from this Agreement; and
- (D) Regardless of whether a Party is abandoning the Contract Area, the obligations and liabilities for which a withdrawing Party remains liable shall specifically include its share of any costs of: (1) plugging and abandoning wells or portions of wells in which it was required to bear a share of the costs pursuant to Article 15.4(A) to the extent such costs of plugging and abandoning are payable by the Parties under the applicable Contract, Laws/Regulations or this Agreement, and (2) Decommissioning any Unit Facilities in which it was required to bear a share of the costs pursuant to Article 15.4(A), to the extent the Decommissioning Costs for such Unit Facilities are payable by the Parties under the applicable Contract, and (3) contributions owing pursuant to Article 5.6 as a result of Redetermination and any cash amounts owing pursuant to Article 5.7(B)(6) in lieu of adjustments to Entitlements as a result of a Redetermination. Any Encumbrances which were placed on the withdrawing Party's Unit Interest prior to such Party's withdrawal shall be fully satisfied or released, at the withdrawing Party's expense, prior to its withdrawal. A Party's withdrawal shall not relieve it from liability to the non-withdrawing Parties with respect to any obligations or liabilities attributable to the withdrawing Party under this Article 15 merely because they are not identified or identifiable at the time of withdrawal.

Notwithstanding the other provisions of this Article 15.4, a Party shall not be liable for any operations or expenditures it voted against (other than operations and expenditures described in Article 15.4(B)) if it sends notification of its withdrawal within five (5) Days (or within such shorter period as may be required for Urgent Operational Matters) of the Unit Operating Committee vote approving such operation or expenditure.

# 15.5 Emergency

If a well goes out of control or a fire, blow out, sabotage or other emergency occurs prior to the effective date of a Party's withdrawal, the withdrawing Party shall remain liable for its Paying Interest share of the costs of such emergency, regardless of when they are incurred.

#### 9/7/09

Unitization and Unit Operating Agreement

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#### 15.6 Assignment

Subject to any necessary consent of the Government and GNPC under the Contracts, a withdrawing Party or Parties shall assign their Project Interests, free of cost, to each of the non-withdrawing Parties in its Contract Group in proportion to such non-withdrawing Parties' Contract Group Interests as provided herein, unless such non-withdrawing Parties agree otherwise. Subject to any necessary consent of the Government and GNPC under the Contracts, a withdrawing Contract Group shall assign those portions of its Project Interest as to which the non-withdrawing Contract Group has not refused assignment pursuant to Article 15.2(C), free of cost, to the Parties in the non-withdrawing Contract Group Interests as provided herein, unless the non-withdrawing Contract Group Interests as provided herein, unless the non-withdrawing Contract Group Interests as provided herein, unless the non-withdrawing Contract Group Interests as provided herein, unless the non-withdrawing Contract Group Interests as provided herein, unless the non-withdrawing Contract Group Interests as provided herein, unless the non-withdrawing Contract Group Interests as provided herein, unless the non-withdrawing Contract Group Interests as provided herein, unless the non-withdrawing Contract Group Interests as provided herein, unless the non-withdrawing Contract Group agrees otherwise.

#### 15.7 Approvals

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A withdrawing Party shall promptly join in such actions as may be necessary or desirable to obtain any Government approvals required in connection with the withdrawal and assignments. The non-withdrawing Parties shall use reasonable endeavors to assist the withdrawing Party in obtaining such approvals. Any penalties or expenses incurred by the Parties in connection with such withdrawal shall be borne by the withdrawing Party.

#### 15.8 Security

A Party withdrawing from its Project Interest Agreements pursuant to this Article 15 shall provide Security reasonably satisfactory to the other Parties to satisfy any obligations or liabilities for which the withdrawing Party remains liable in accordance with Article 15.4, but which become due after its withdrawal, including Security to cover the costs of an abandonment and Decommissioning, if applicable.

# 15.9 Withdrawal or Abandonment by All Parties

In the event all Parties decide to withdraw, the Parties agree that they shall be bound by the terms and conditions of this Agreement for so long as may be necessary to wind up the affairs of the Parties with the Government, to satisfy any requirements of the Laws/Regulations and to facilitate the sale, disposition or abandonment of property or interests held by the Unit Account, all in accordance with Article 2.

### ARTICLE 16 RELATIONSHIP OF PARTIES AND TAX

# 16.1 Relationship of Parties

The rights, duties, obligations and liabilities of the Parties under this Agreement shall be individual, not joint or collective. It is not the intention of the Parties to create, nor shall this Agreement be deemed or construed to create, a mining or other partnership, joint venture or association or (except as explicitly provided in this Agreement) a trust. This Agreement shall not be deemed or construed to authorize any Party to act as an agent, servant or employee for any other Party for any purpose whatsoever except as explicitly set forth in this Agreement. In their relations with each other under this Agreement, the Parties shall not be considered fiduciaries except as expressly provided in Articles 10.8(A) and 15.7 of this Agreement.

### 16.2 Tax

Each Party shall be responsible for reporting and discharging its own tax measured by the profit or income of the Party and the satisfaction of such Party's share of all contract obligations under the Contract and under this Agreement. Each Party shall protect, defend and indemnify each other Party from any and all loss, cost or liability arising from the indemnifying Party's failure to report and discharge such taxes or satisfy such obligations. The Parties intend that all income and all tax benefits (including deductions, depreciation, credits and capitalization) with respect to the expenditures made by the Parties hereunder will

9/7/09 Unitization and Unit Operating Agreement

89

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be allocated by the Government tax authorities to the Parties based on the share of each tax item actually received or borne by each Party. If such allocation is not accomplished due to the application of the Laws/ Regulations or other Government action, the Parties shall attempt to adopt mutually agreeable arrangements that will allow the Parties to achieve the financial results intended. Unit Operator shall provide each Party, in a timely manner and at such Party's sole expense, with such information with respect to Unit Operations as such Party may reasonably request for preparation of its tax returns or responding to any audit or other tax proceeding.

# 16.3 United States Tax Election

- (A) If, for United States federal income tax purposes, this Agreement and the operations under this Agreement are regarded as a partnership and if the Parties have not agreed to form a tax partnership, each U.S. Party elects to be excluded from the application of all of the provisions of Subchapter "K", Chapter 1, Subtitle "A" of the United States Internal Revenue Code of 1986, as amended (the "Code"), to the extent permitted and authorized by Section 761(a) of the Code and the regulations promulgated under the Code. Unit Operator, if it is a U.S. Party, is authorized to execute and file for each U.S. Party such evidence of this election as may be required by the Internal Revenue Service, including all of the returns, statements, and data required by United States Treasury Regulations Sections 1.761-2 and 1.6031(a)-1, and shall provide a copy thereof to each U.S. Party. However, if Unit Operator is not a U.S. Party, the Party who holds the greatest Unit Interest among the U.S. Parties shall fulfill the obligations of Unit Operator under this Article 16.3, and in the event Kosmos and Anadarko have the greatest, and equal, Unit Interests, such obligations shall be fulfilled by Anadarko.
- (B) Should there be any requirement that any U.S. Party give further evidence of this election, each U.S. Party shall execute such documents and furnish such other evidence as may be required by the Internal Revenue Service or as may be necessary to evidence this election.
- (C) No Party shall give any notice or take any other action inconsistent with the foregoing election. If any income tax laws of any state or other political subdivision of the United States or any future income tax laws of the United States or any such political subdivision contain provisions similar to those in Subchapter "K", Chapter 1, Subtitle "A" of the Code, under which an election similar to that provided by Section 761(a) of the Code is permitted, each U.S. Party shall make such election as may be permitted or required by such laws. In making the foregoing election or elections, each U.S. Party states that the income derived by it from operations under this Agreement can be adequately determined without the computation of partnership taxable income.
- (D) Unless approved by every Non-U.S. Party, no activity shall be conducted under this Agreement that would cause any Non-U.S. Party to be deemed to be engaged in a trade or business within the United States under United States income tax laws and regulations.
- (E) A Non-U.S. Party shall not be required to do any act or execute any instrument which might subject it to the taxation jurisdiction of the United States.
- (F) For the purposes of this Article 16.3, "U.S. Party" shall mean any Party that is subject to the income tax laws of the United States with respect to operations under this Agreement. "Non-U.S. Party" shall mean any Party that is not subject to such income tax laws.

# ARTICLE 17 UNIT DATA - CONFIDENTIALITY - INTELLECTUAL PROPERTY

### 17.1 Unit Data

(A) Each Party may use all Unit Data (including interpretation of and derivative works from such Unit Data) in its own operations without the approval of or accounting to any other Party, subject to

9/7/09

Unitization and Unit Operating Agreement

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any applicable restrictions and limitations set forth in this Article 17, this Agreement, the Contracts, or any applicable patents or other Non-Affiliated Third Party rights. For purposes of this Article 17, the right to use shall entail the right to copy and prepare derivative works subject to any applicable restrictions and limitations set forth in this Article 17, this Agreement, the Contracts, or any applicable patents or other Non-Affiliated Third Party rights.

- (B) Each Party may, subject to any applicable restrictions and limitations set forth in this Agreement, the Contracts, any applicable patents or other Non Affiliated Third Party rights, extend the right to use Unit Data to each of its Affiliates which are obligated to terms not less restrictive than this Article 17.
- (C) Subject to Article 4.6(C), all Unit Data received by a Party under this Agreement is received on an "as is" basis without warranties, express or implied, of any kind. Any use of such Unit Data by a Party shall be at such Party's sole risk.

### 17.2 Confidentiality

- (A) Subject to the provisions of the Contracts, any other applicable Non-Affiliated Third Party agreements and rights and this Article 17, the Parties agree that all information in relation to Unit Operations and, with respect to the receiving Parties, any information received pursuant to Article 6.4, shall be considered confidential and shall be kept confidential and not be disclosed (i) during the term of either Contract, to the extent disclosure is prohibited by the terms thereof, except as may be permitted therein, (ii) during the term of the data license agreement to be entered into pursuant to Article 4.6(A), to the extent disclosure is prohibited by the terms thereof, except as may be permitted therein, and (iii) during the term of this Agreement to any person or entity not a Party to this Agreement, except:
  - (1) Pursuant to Article 17.1(B);
  - (2) To a Governmental Authority when required by the Contracts provided that prior to any such disclosure (except routine disclosures by any Operator in fulfillment of its duties hereunder) such Party provides reasonable advance written notice of the disclosure and the legal reasons for such disclosure to the other, non-disclosing Parties;
  - (3) To the extent such information is required to be furnished in compliance with the applicable law or regulations, or pursuant to any legal proceedings or because of any order of any court binding upon a Party, or under the terms of either Contract;
  - (4) To a Governmental Authority with respect to any information disclosed by any Party in accordance with the terms of Article 21.1, where the general counsel of such Party, or where such Party has no general counsel, the senior external legal advisor of such Party determines to voluntarily disclose such information on the basis that such Governmental Authority has a legitimate need to know such information disclosed in accordance with the terms of Article 21.1; provided that prior to any such disclosure such Party provides reasonable advance written notice of the disclosure and the legal reasons for such disclosure to the other, non-disclosing Parties;
  - (5) To prospective or actual attorneys engaged by any Party where disclosure of such information is essential to such attorney's work for such Party;
  - (6) To prospective or actual Subcontractors and consultants engaged by any Party where disclosure of such information is essential to such Subcontractor's or consultant's work for such Party;

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9/7/09 Unitization and Unit Operating Agreement

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- To a bona fide prospective Transferee of all or a portion of a Party's Unit Interest to the extent appropriate in order to allow the assessment of such Unit Interest (including an entity with whom a Party and/or its Affiliates are conducting bona fide negotiations directed toward a merger, consolidation or the sale of a majority of its or an Affiliate's shares), and any Transferee of all or a portion of a Party's Unit Interest;
- (8) To a bank or other financial institution to the extent appropriate to a Party arranging for funding, or to provide Security;
- (9) To the extent such information must be disclosed pursuant to any rules or requirements of any government or stock exchange having jurisdiction over such Party, or its Affiliates; provided that if any Party desires to disclose information in an annual or periodic report to its or its Affiliates' shareholders and to the public and such disclosure is not required pursuant to any rules or requirements of any government or stock exchange, then such Party shall comply with Article 21.5;
- To its and its Affiliates' respective employees for the purposes of Unit Operations as the (10)case may be, subject to each Party taking customary precautions to ensure such information is kept confidential;
- Any information which, through no fault of a Party, becomes a part of the public domain; (11)
- To any Third Party to whom Unit Data is licensed pursuant to Article 17.3; and (12)
- (13) To any mediator, arbitrator or expert in a proceeding pursuant to Article 20.3 or Article 20.4 (including, for the avoidance of doubt, a proceeding pursuant to Exhibit E).
- (B) Disclosure as pursuant to Articles 17.2(A)(6), (7) and (8) shall not be made unless prior to such disclosure the disclosing Party has obtained a written undertaking from the recipient party to keep the information strictly confidential for at least two (2) years (or such longer term as is required by a Project Interest Agreement or any other applicable Non-Affiliated Third Party agreement) and to use the information for the sole purpose described in Articles 17.2(A)(6), (7) and (8), whichever is applicable, with respect to the disclosing Party.
- Without prejudice to any other rights or remedies that a Party may have, each Party acknowledges (C) and agrees that damages alone would not be an adequate remedy for any breach of the terms of this Article 17.2. Accordingly, a Party shall be entitled, without proof of special damages, or the posting of a bond, to the remedies of injunction, specific performance or other equitable relief for any threatened or actual breach of the terms of this Article 17.2.
- (D) Each Party hereby expressly acknowledges and agrees to the disclosure of the power of attorney as set forth in Article 10.9(B), by the Unit Operator or any other Party to a Third Party, to the extent that such disclosure is necessary or desirable in connection with the exercise of any remedies as set out in Articles 10.8 or 10.9 regarding a continued Default.

#### 17.3 Intellectual Property

Decisions regarding obtaining, maintaining and licensing such intellectual property rights shall be (A) made by the Unit Operating Committee, and the costs and revenues thereof shall be for the Unit Account. Upon unanimous consent of the Unit Operating Committee as to ownership, licensing rights, and income distribution, the ownership of intellectual property rights in the Unit Data may be assigned to the Unit Operator or to a Party.

9/7/09 Unitization and Unit Operating Agreement

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- (B) Nothing in this Agreement shall be deemed to require a Party to (i) divulge proprietary technology to any of the other Parties; or (ii) grant a license or other rights under any intellectual property rights owned or controlled by such Party or its Affiliates to any of the other Parties.
- (C) If a Party or an Affiliate of a Party has proprietary technology applicable to activities carried out under this Agreement which the Party or its Affiliate desires to make available on terms and conditions other than as specified in Article 17.3(A), the Party or Affiliate may, with the prior approval of the Unit Operating Committee, make the proprietary technology available on terms to be agreed. If the proprietary technology is so made available, then any inventions, discoveries, or improvements which relate to such proprietary technology and which result from Unit Account expenditures shall belong to such Party or Affiliate. In such case, each other Party shall have a perpetual, royalty-free, irrevocable license to practice such inventions, discoveries, or improvements, but only in connection with the Unit Operations.
- (D) Subject to Article 7.6(C), all costs and expenses of defending, settling or otherwise handling any Non-Affiliated Third Party claim, including any claim accruing or arising prior to the date hereof, which is based on the actual or alleged infringement of any intellectual property right through the possession, disclosure or use of Unit Data in Unit Operations shall be for the Unit Account and charged to the Parties based upon the Unit Operation from which the claim arose (or, if not attributable to a particular operation, shall be deemed to arise from the Approved Phase 1 Development Plan).

# 17.4 Continuing Obligations

Any Party ceasing to own a Unit Interest during the term of this Agreement shall nonetheless remain bound by the obligations of confidentiality in Article 17.2, and any Disputes in relation thereto shall be resolved in accordance with Article 20.3.

### 17.5 Trades

Unit Operator may, with approval of (i) the Unit Operating Committee and (ii) GNPC of the specific data to be traded, make well trades and data trades for the benefit of the Parties, with any data so obtained to be furnished to all Parties. Unit Operator shall cause any Third Party to such trade to enter into an undertaking to keep the traded data confidential and to confirm that ownership of the traded data remains with GNPC.

### ARTICLE 18 FORCE MAJEURE

#### 18.1 Obligations

If as a result of Force Majeure any Party is rendered unable, wholly or in part, to carry out its obligations under this Agreement, other than the obligation to pay any amounts due or to furnish Security, then the obligations of the Party giving such notice, so far as and to the extent that the obligations are affected by such Force Majeure, shall be suspended during the continuance of any inability so caused and for such reasonable period thereafter as may be necessary for the Party to put itself in the same position that it occupied prior to the Force Majeure, but for no longer period. The Party claiming Force Majeure shall notify the other Parties of the Force Majeure within a reasonable time after the occurrence of the facts relied on and shall keep all Parties informed of all significant developments. Such notice shall give reasonably full particulars of the Force Majeure. The affected Party shall use all reasonable diligence to remove or overcome the Force Majeure situation as quickly as possible in an economic manner but shall not be obligated to settle any labor dispute except on terms acceptable to it, and all such disputes shall be handled within the sole discretion of the affected Party. GNPC may not claim Force Majeure in respect of any action or provision of the Government or any agency of the Government and no other Party may claim Force Majeure in respect of any action by such Party or its Affiliates.

9/7/09 Unitization and Unit Operating Agreement



# 18.2 Definition of Force Majeure

For the purposes of this Agreement, "Force Majeure" shall mean circumstances which were beyond the reasonable control of the Party concerned and shall include strikes, lockouts and other industrial disturbances.

### ARTICLE 19 NOTICES

Except as otherwise specifically provided or as may otherwise be specifically agreed by the Unit Operating Committee, all notices authorized or required between or among the Parties by any of the provisions of this Agreement shall be in writing, in English, and delivered in person or by courier service or by facsimile which provides written confirmation of complete transmission, and addressed to such Parties. Oral communication and (except as may otherwise be specifically agreed by the Unit Operating Committee) e-mail do not constitute notice for purposes of this Agreement, and e-mail addresses and telephone numbers for the Parties are listed below as a matter of convenience only. A notice given under any provision of this Agreement shall be deemed delivered only when received by the Party to whom such notice is directed, and the time for such Party to deliver any notice in response to such originating notice shall run from the date the originating notice is received. "Received" for purposes of this Article 19 shall mean actual delivery of the notice to the address of the Party specified hereunder or to be thereafter notified in accordance with this Article 19. Each Party shall have the right to change its address at any time and/or designate that copies of all such notices be directed to another person at another address, by giving written notice thereof to all other Parties.

Ghana National Petroleum Corporation	Kosmos Energy Ghana HC
Petroleum House	c/o Kosmos Energy LLC
Harbour Road	8176 Park Lane
Private Mail Bag Tema	Suite 500
Accra, Ghana	Dallas, Texas 75231 USA
Attention: Managing Director	Attention: Mr. J Matthews, VP & License Manager
Fax: <u>+233 22 202854</u>	Fax: +1 214 445 9705
Email: nb.asafuadjaye@gnpcghana.com	Email: jmatthews@Kosmosenergy.com
Telephone: <u>+233 22 204726</u>	Telephone: <u>+1 214 445 9709</u>
Copy to: <u>Director of Operations</u> Fax: <u>+233 22 202 854</u> Email: <u>t.manu@gnpcghana.com</u> Telephone: <u>+233 22 202 843</u>	Copy to: Kosmos Energy Ghana HC Suite 409, Century Yard Cricket Square, Elgin Avenue George Town Grand Cayman KY1-1209 CAYMAN ISLANDS Attention: Mr. Andrew Johnson Fax: + 345 946 4090

Unitization and Unit Operating Agreement

9/7/09

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Tullow Ghana Limited	Anadarko WCTP Company		
Del Mina Place	1201 Lake Robbins Drive		
Orphan Crescent	The Woodlands		
Labone	<u>Texas 77380</u>		
Osu Accra, Ghana	United States of America		
Attention: President and General Manager, Tullow	Attention: Manager International Negotiations		
Ghana	Fax: +1 832 636 9800		
Fax: <u>+233 21 768121</u>	Email: john.bostock@anadarko.com		
Email: dai.jones@tullowoil.com	Telephone: +1 832 636 2827		
Telephone: +233 21 763 600			
-	Copy to: General Counsel International		
Copy to: General Counsel, Tullow Oil plc	Fax: +1 832 636 5587		
Fax: +44 208 994 5332	Email: luis.derrota@anadarko.com		
Email: graham.martin@tullowoil.com	Telephone: <u>+1 832 636 7523</u>		
Telephone: +44 208 996 1000	1000 pilone. <u>+1002 030 1025</u>		
Sabre Oil & Gas Holdings Limited			
Avenue Louis Casai 18, 5th Floor	EO Group Limited		
	PMB CT123 Cantoments		
CH-1203 Geneva, Switzerland	112A Adole Crescent Way		
Attention: David Lampe - Director	Airport, Accra Ghana		
Fax: <u>+41 22 747 7763</u>	Attention: George Owusu		
Email: david.lampe@sabreoilandgas.com	Fax: <u>+233 21 740 889</u>		
Telephone: + 41 22 747 7763	Email: georgeyawowusu@yahoo.com		
	Telephone: +233 21 740 888		
Copy to: David Morton - Director	· · ·		
Fax: <u>+ 44 (0) 1932 221115</u>	Copy to: Barnes & Cascio LLP		
Email: david.morton@sabreoilandgas.com	Fax: <u>+1 281 875 0255</u>		
Telephone: + 44 (0) 1932 230063 (Direct)	Email: james@barnescascio.com		
or + 44 (0) 207 060 9131 (Office)			
or + 44 (0) 207 060 9131 (Othee)	Telephone: <u>+1 281 875 0205</u>		

# ARTICLE 20 APPLICABLE LAW - DISPUTE RESOLUTION - WAIVER OF IMMUNITY

# 20.1 Compliance with Ghana Laws/Regulations

Unit Operations shall be carried out in compliance with the terms of the applicable Ghana Laws/Regulations, the Contracts, the Government Approval and the Acknowledgment. For the avoidance of doubt, if a dispute, controversy or claim is between GNPC and one or more of the other Parties and arises out of, relates to or is connected with either the terms and conditions of the Contract or the Government Approval or the Acknowledgment, that dispute, claim or controversy shall be resolved in accordance with the terms of Article 24 of the applicable Contract or Article 1.10 of the Acknowledgment, as applicable.

The Parties confirm that the enforcement by the Minister, on behalf of the government of the Republic of Ghana, of the unitization of the Jubilee Field Unit pursuant to the Government Approval and/or the Acknowedgment shall be governed by the laws of the Republic of Ghana and shall be resolved in accordance with the terms of Article 1.10 of the Acknowledgment.

# 20.2 Law of Interpretation

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This Agreement shall be interpreted and construed in accordance with the laws of England, exclusive of any conflicts of law principles that could require the application of any other law to such interpretation and construction.

9/7/09 Unitization and Unit Operating Agreement

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### 20.3 Dispute Resolution

- (A) Notification. Except to the extent a Dispute is to be resolved by an Expert as provided in Article 20.4, a Party who desires to submit a Dispute for resolution shall commence the dispute resolution process by providing the other parties to the Dispute written notice of the Dispute ("Notice of Dispute"). The Notice of Dispute shall identify the parties to the Dispute and contain a brief statement of the nature of the Dispute and the relief requested. The submission of a Notice of Dispute shall toll any applicable statutes of limitation related to the Dispute, pending the conclusion or abandonment of dispute resolution proceedings under this Article 20.
- (B) <u>Negotiations</u>. Except to the extent a Dispute is to be resolved by an Expert as provided in Article 20.4, the parties to the Dispute shall seek to resolve any Dispute by negotiation among Senior Executives. A "Senior Executive" means any individual who has authority to negotiate the settlement of the Dispute for a Party. Within thirty (30) Days after the date of the receipt by each party to the Dispute of the Notice of Dispute (which notice shall request negotiations among Senior Executives), the Senior Executives representing the parties to the Dispute shall meet at a mutually acceptable time and place to exchange relevant information in an attempt to resolve the Dispute. If a Senior Executive intends to be accompanied at the meeting by an attorney, each other party's Senior Executive shall be given written notice of such intention at least three (3) Days in advance and may also be accompanied at the meeting by an attorney. Notwithstanding the above, any Party may initiate arbitration proceedings pursuant to Article 20.3(C) concerning such Dispute within thirty (30) Days after the date of receipt of the Notice of Dispute.
- (C) <u>Arbitration</u>. Except to the extent a Dispute is to be resolved by an Expert as provided in Article 20.4 (but including under this Article 20.3(C) for the avoidance of doubt, any Dispute as to the interpretation of the Expert procedures under this Agreement or as to whether any Expert proceedings conducted pursuant to this Agreement have conformed to such procedures), any Dispute not resolved by the Parties shall be exclusively and definitively resolved through final and binding arbitration, it being the intention of the Parties that this is a broad form arbitration agreement designed to encompass all possible disputes.
  - (1) <u>Rules</u>. The arbitration shall be conducted in accordance with the Arbitration Rules of the International Chamber of Commerce ("*ICC*") (as then in effect) (the "*Rules*").
  - (2) <u>Number of Arbitrators</u>. The arbitration shall be conducted by three (3) arbitrators, unless all parties to the Dispute agree to a sole arbitrator within thirty (30) Days after the commencement of the arbitration. For greater certainty, for purposes of this Article 20.3(C), the commencement of the arbitration means the date on which the claimant's request for arbitration is received by the Secretariat of the International Court of Arbitration of the ICC ("ICC Court").
  - (3) <u>Method of Appointment of the Arbitrators.</u>
    - (a) If the arbitration is to be conducted by a sole arbitrator, then the arbitrator will be jointly nominated by the parties to the Dispute. If the parties to the Dispute fail to agree on the arbitrator within thirty (30) Days after reaching agreement to use a sole arbitrator, then the ICC Court shall appoint the arbitrator.
    - (b) If the arbitration is to be conducted by three (3) arbitrators and there are only two (2) parties to the Dispute, then each party to the Dispute shall nominate one (1) arbitrator within forty five (45) Days of the commencement of the arbitration, and the two (2) arbitrators so nominated shall select the presiding arbitrator within thirty (30) Days after the latter of the two (2) arbitrators has been nominated. If a party to the Dispute fails to nominate its party-nominated arbitrator or if the two (2) party-nominated arbitrators cannot reach an agreement on the presiding arbitrator within the applicable time period, then the

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ICC Court shall appoint the remainder of the three (3) arbitrators not yet appointed.

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- If the arbitration is to be conducted by three (3) arbitrators and there are more than two (2) parties to the Dispute, then within forty five (45) Days of the commencement of the arbitration, all claimants shall jointly nominate one (1) arbitrator and all respondents shall jointly nominate one (1) arbitrator, and the two (2) arbitrators so nominated shall select the presiding arbitrator within thirty (30) Days after the latter of the two (2) arbitrators has been nominated. If either all claimants or all respondents fail to make a joint nomination of an arbitrator or if the party-nominated arbitrators cannot reach an agreement on the presiding arbitrator within the applicable time period, then the ICC Court shall appoint all three (3) arbitrators.
- (4) If the Parties initiate multiple arbitration proceedings under this Consolidation. Agreement and/or under any Joint Operating Agreement, the subject matters of which are related by common questions of law or fact, then all such proceedings may be consolidated into a single arbitral proceeding, as determined by the tribunal constituted hereunder. To the extent an arbitral proceeding under this Agreement is consolidated with an arbitral proceeding under a Joint Operating Agreement and there is a conflict between the dispute resolution provisions of this Agreement and such Joint Operating Agreement, the dispute resolution provisions of this Agreement shall prevail. For the avoidance of doubt, as noted above in Article 20.1, if a dispute, controversy or claim is between GNPC and one or more of the other Parties and arises out of, relates to or is connected with either the terms and conditions of the Contract or the Government Approval or the Acknowledgment, that dispute, claim or controversy shall be resolved in accordance with the terms of Article 24 of the applicable Contract or Article 1.10 of the Acknowledgement, as applicable. If the subject matter of such a dispute, controversy and claim and an arbitration proceeding under this Agreement are related by common questions of law or fact, then such proceedings may all also be consolidated into a single arbitral proceeding, as determined by the tribunal constituted hereunder.
- (5) <u>Place of Arbitration</u>. Unless otherwise agreed by all parties to the Dispute, the place of arbitration shall be London, England.
- (6) <u>Language</u>. The arbitration proceedings shall be conducted in the English language and the arbitrator(s) shall be fluent in the English language.
- (7) <u>Entry of Judgment</u>. The award of the arbitral tribunal shall be final and binding. Judgment on the award of the arbitral tribunal may be entered and enforced by any court of competent jurisdiction.
- (8) <u>Notice</u>. All notices required for any arbitration proceeding shall be deemed properly given if sent in accordance with Article 19.
- (9) Qualifications and Conduct of the Arbitrators. All arbitrators shall be and remain at all times wholly impartial and independent, and, once appointed, no arbitrator shall have any ex parte communications with any of the parties to the Dispute concerning the arbitration or the underlying Dispute other than communications directly concerning the selection of the presiding arbitrator, where applicable. Whenever the parties to the Dispute are of more than one nationality, the single arbitrator or the presiding arbitrator (as the case may be) shall not be of the same nationality as any of the parties or their ultimate parent entities, unless the parties to the Dispute otherwise agree.
- (10) <u>Interim Measures</u>. Notwithstanding any requirements for alternative dispute resolution procedures as set forth in Articles 20.3(B) and (C), any party to the Dispute may apply to

9/7/09 Unitization and Unit Operating Agreement

a court for interim measures (i) prior to the constitution of the arbitral tribunal (and thereafter as necessary to enforce the arbitral tribunal's rulings); or (ii) in the absence of the jurisdiction of the arbitral tribunal to rule on interim measures in a given jurisdiction. The Parties agree that seeking and obtaining such interim measures shall not waive the right to arbitration. The arbitrators (or in an emergency the presiding arbitrator acting alone in the event one or more of the other arbitrators is unable to be involved in a timely fashion) may grant interim measures including injunctions, attachments and conservation orders in appropriate circumstances, which measures may be immediately enforced by court order. Such grant by the presiding arbitrator acting alone may be set aside by the full panel of arbitrators. Hearings on requests for interim measures may be held in person, by telephone, by video conference or by other means that permit the parties to the Dispute to present evidence and arguments.

- (11) <u>Costs and Attorneys' Fees</u>. The arbitral tribunal is authorized to award costs and attorneys' fees and to allocate them between or among the parties to the Dispute. The costs of the arbitration proceedings, including attorneys' fees, shall be borne in the manner determined by the arbitral tribunal.
- (12) <u>Interest</u>. The award shall include interest, as determined by the arbitral award, from the date of any default or other breach of this Agreement until the arbitral award is paid in full. Interest shall be awarded at the Agreed Interest Rate.
- (13) <u>Currency of Award</u>. The arbitral award shall be made and payable in United States dollars, free of any tax or other deduction.
- (14) <u>Consequential or Exemplary Damages</u>. The Parties waive their rights to claim or recover, and the arbitral tribunal shall not award, any Consequential Loss, except to the extent such damages have been awarded to a Person other than the Parties and their Affiliates and are subject to allocation between or among the parties to the Dispute, or any punitive, multiple or other exemplary damage (whether statutory or common law).
- (15) <u>Waiver of Challenge to Decision or Award</u>. To the extent permitted by law, any right to appeal or challenge any arbitral decision or award, or to oppose enforcement of any such decision or award, or to refer any question of law, before a court or any governmental authority, is hereby waived by the Parties. Without limiting the generality of the preceding sentence, the Parties agree to exclude any right to appeal any question of law to the courts of England under Section 45 or 69 of the Arbitration Act of 1996.
- (16) <u>Privilege</u>. Legal professional privilege, including privileges protecting attorney-client communications and attorney work product of each Party from compelled disclosure or use in evidence, legal advice privilege and litigation privilege, as recognized by the laws governing each Party's relationship with its in-house and its outside counsel, shall apply to and be binding in any arbitration proceeding conducted under this Article 20.3.
- (D) <u>Confidentiality</u>. All negotiations, mediation, arbitration, and expert determinations relating to a Dispute (including a settlement resulting from negotiation or mediation, an arbitral award, documents exchanged or produced during a negotiation or Expert determination or mediation or arbitration proceeding, and memorials, briefs or other documents prepared for the arbitration) are confidential and may not be disclosed by the Parties, their employees, officers, directors, counsel, consultants, and expert witnesses, except (in accordance with Article 17.2) to the extent necessary to enforce this Article 20 or any arbitration award, to enforce other rights of a Party, or as required by law; provided, however, that breach of this confidentiality provision shall not void any settlement, expert determination or award.

9/7/09 Unitization and Unit Operating Agreement

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(E) <u>Acknowledgment Dispute Resolution</u>. Each of the Parties agrees to be bound by the provisions of Article 1.10 of the Acknowledgment with respect to disputes or differences within the scope of that Article.

#### 20.4 Expert Determination

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For any determination referred to an Expert under this Agreement, the Parties hereby agree that such determination shall be conducted expeditiously by an Expert selected unanimously by the parties to the Dispute. The Expert is not an arbitrator of the Dispute and shall not be deemed to be acting in an arbitral capacity. The Expert shall not (without the written consent of the parties to the Dispute) be appointed to act as an arbitrator or as adviser to any party to a Dispute arbitrated pursuant to Article 20.3(C), provided that nothing in this sentence shall preclude any party to such a Dispute from using the Expert as a witness regarding the proper conduct of the expert procedure. The Party desiring an Expert determination shall give the other parties to the Dispute written notice of the request for such determination. If the parties to the Dispute are unable to agree upon an Expert within ten (10) Days after receipt of the notice of request for an Expert determination, then, upon the request of any of the parties to the Dispute, the International Centre for Expertise of the ICC shall appoint such Expert. The Expert, once appointed, shall have no ex parte communications with any of the parties to the Dispute concerning the Expert determination or the underlying Dispute. All communications between any Party and the Expert shall be conducted in writing, with copies sent simultaneously to the other parties to the Dispute in the same manner, or at a meeting to which representatives of all parties to the Dispute have been invited and of which such parties have been provided at least five (5) Business Days notice. Within thirty (30) Days after the Expert's acceptance of its appointment, the Party or Parties who referred the matter for resolution under this Article shall provide the Expert with a report containing its or their proposal for the resolution of the matter and the reasons therefor, accompanied by all relevant supporting information and data. Within the same thirty (30) Day period, the respondent Party or Parties shall provide the Expert with a report explaining their proposal and the reasons therefor, accompanied by all relevant supporting information and data. Within sixty (60) Days of receipt of the above-described materials and after receipt of additional information or data as may be required by the Expert, the Expert shall make a determination, which determination shall be consistent with the terms of this Agreement, with respect to each issue submitted to it pursuant to this Article 20.4.

The Expert's determination shall be final and binding on the parties to the Dispute. Any Party that fails or refuses to honor the determination of an Expert shall be in default under this Agreement.

The provisions of <u>Exhibit E</u> shall supersede the provisions of this Article 20.4 with respect to any Expert determination under <u>Exhibit E</u>, to the extent the two are in conflict.

#### 20.5 Waiver of Immunity

Any Party that now or hereafter has a right to claim immunity for itself or any of its assets hereby waives such immunity and agrees not to claim such immunity, in connection with this Agreement, including any Dispute hereunder. This waiver includes immunity from (A) legal process of any sort whatsoever, (B) jurisdiction or judgment, award, determination, order or decision of any court, arbitrator, tribunal or Expert, (C) inconvenient forum, and (D) any effort to confirm, enforce, or execute any decision, settlement, award, judgment, service of process, execution order, attachment (including pre-judgment attachment) or other remedy that results from an expert determination, arbitration or any judicial or administrative proceedings commenced pursuant to this Agreement. Each Party acknowledges that its rights and obligations hereunder are of a commercial and not a governmental nature.

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9/7/09 Unitization and Unit Operating Agreement

#### ARTICLE 21 GENERAL PROVISIONS

#### 21.1 Conduct of the Parties

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- (A) <u>Public Anti Corruption Provisions</u>.
  - (1) No Party to this Agreement shall knowingly permit or allow, by act or omission, the paying, making, offering, promising, authorizing or causing to pay, make, offer, give, promise or authorize, either directly or indirectly, by it or any of its Affiliates, of any bribe, commission, money, payment, gift (other than promotional and marketing gifts of nominal value), loan, fee, reward, travel, entertainment or transfer of anything of value, to or for the use or benefit of any Official, of a nature and cost which is not permitted under the Anticorruption Legislation, in connection with this Agreement or the operations associated therewith.
  - (2) Furthermore and without prejudice to the above, each Party, in recognition of the OECD Anti-bribery Principles represents and warrants that it and its Affiliates have not knowingly, either directly or indirectly, paid, made, offered, given, promised, or authorized and will not knowingly pay, make, offer, give, promise or authorize, in connection with this Agreement or the operations associated therewith, any commissions, money, payment, gift (other than promotional and marketing gifts of nominal value), loan, fee, reward, travel, entertainment or transfer anything of value, to or for the use or benefit of any Official for the purposes of:
    - (a) influencing any act, omission or decision on the part of any such Official, in his or her official capacity;
    - (b) securing any improper advantage from such Official; or
    - (c) inducing any such Official to use his or her influence with another Official or Governmental Authority to affect or influence any official act or to direct business to any Person, or to obtain or retain business related to this Agreement;

where such commission, money, payment, gift (other than promotional and marketing gifts of nominal value), loan, fee, reward, travel, entertainment or transfer of anything of value would violate the Anticorruption Legislation applicable to it.

- (3) Each Party further represents and warrants that it and its Affiliates have not either directly or indirectly paid, made, offered, given, promised or authorized, and will not pay, make, offer, give, promise or authorize, in connection with this Agreement or the operations associated therewith, to or for the use or benefit of any other Person, any commissions, money, payment, gift (other than promotional and marketing gifts of nominal value), loan, fee, reward, travel, entertainment or anything of value, if the Party or Affiliate knows, has a firm belief or is aware that there is a high probability that the other Person would use the commissions, money, payment, gift (other than promotional and marketing gifts of nominal value), loan, fee, reward, travel, entertainment or anything of value and marketing gifts of nominal value), loan, fee, reward, travel, entertainment or anything of value for any of the purposes prohibited by Article 21.1(A)(2).
- (4) Each Party further represents and warrants that it and its Affiliates have not either directly or indirectly taken or authorized, and will not take or authorize, any act in connection with this Agreement or the operations associated therewith that could give rise to either civil or criminal liability for any Original Party under any Anticorruption Legislation applicable to such Original Party.

9/7/09 Unitization and Unit Operating Agreement

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- (B) Indemnity. Each Party shall defend, indemnify and hold the other Parties harmless from and against any and all claims, damages, losses, penalties, costs and expenses arising from or related to, any breach by such first Party of such warranties or covenants under Article 21.1(A) (excluding any Consequential Loss or punitive, multiple or other exemplary damages in accordance with Article 20.3(C)(14)). Such indemnity obligation shall survive termination or expiration of this Agreement.
- (C) Internal Controls. Each Party agrees, in connection with this Agreement or the operations associated therewith, to (1) maintain adequate internal controls; (2) properly record and report all transactions; and (3) comply with the Anticorruption Legislation applicable to it. Each Party shall be entitled to rely on the other Parties' system of internal controls and record keeping, and on the adequacy of full disclosure of the facts, and transactions and of financial and other data regarding Unit Operations and any other activity undertaken under this Agreement. No Party is in any way authorized to take any action on behalf of another Party that would result in an inadequate or inaccurate recording and reporting of assets, liabilities or any other transaction, or which would put such Party in violation of its obligations under the Anticorruption Legislation or any other laws applicable in connection with this Agreement or the operations associated therewith.
- (D) <u>Audit Rights</u>. During the term of this Agreement and for a period of five (5) years thereafter, each Party shall in a timely manner:
  - (1) respond in reasonable detail as to itself and its Affiliates after reasonable inquiry and investigation to any notice from any other Party reasonably connected with the representations, warranties and covenants set forth in Article 21.1(A) and Article 21.3;
  - (2) furnish relevant documentary support for such response upon request from such other Party; and
  - (3) in general, cooperate in good faith with such other Party in determining whether a breach of the representations and warranties has occurred.
- (E) <u>Annual Certification</u>. Each Party shall complete an annual certification attesting that, to its knowledge after reasonable inquiry and investigation, neither such Party nor its Affiliates has breached the terms of Article 21.1(A) or Article 21.3 or committed to any act prohibited by the Anticorruption Legislation in connection with this Agreement or the matters which are the subject of this Agreement.
- (F) <u>Subcontractors</u>. Unit Operator and each Technical Operator, shall obtain express anticorruption provisions, including where appropriate in the contracting party's opinion, applicable anticorruption legislation provisions, andit rights, termination provisions, and requirements that each Subcontractor obtain similar provisions in any contracts with its subcontractors, in a written agreement with each of its respective Subcontractors retained for the Unit Account.

#### 21.2 Proscribed Persons

Each Party represents and warrants that neither it nor its Affiliates is or shall be on any list of Proscribed Persons, and agrees that, if it or any of its Affiliates is or becomes a Proscribed Person, it shall notify the other Parties to this Agreement as soon as possible after it becomes aware of such fact. A Party or its Affiliate being or becoming a Proscribed Person shall be deemed to be a breach of this Agreement and such Party shall be deemed to be a Defaulting Party subject to the remedies under Articles 10.6, 10.8, 10.9, 10.10 and 10.11, notwithstanding such Party's payment of all amounts owing by it when due under this Agreement and furnishing and maintaining any Security required of it under this Agreement. Such Party will only cease being a Defaulting Party by having itself removed from the list of Proscribed Persons prior to loss of its Project Interest under Article 10.8.

9/7/09 Unitization and Unit Operating Agreement

#### 21.3 Private Anti Corruption Provisions

Each Party agrees that neither it, nor its Affiliates nor their respective directors, officers and employees or individual contractors or consultants (natural persons) fulfilling a staff role in such Party's organization, will knowingly, whether directly or indirectly, pay, make, offer, give, promise or authorize, or accept, in connection with this Agreement or the operations associated herewith, any bribe, commission, money, payment, gift (other than promotional and marketing gifts of nominal value), loan, fee, reward, travel, entertainment or transfer of anything of value, to or for the use of any directors, officers and employees or individual contractors or consultants (natural persons) fulfilling a staff role, of any other Party, or any of its Affiliates, or any subcontractor of any tier, for the purpose of:

- (A) improperly influencing any act, omission or decision on the part of any such other Party, or its Affiliates, or any such subcontractor of any tier, in connection with this Agreement and the operations associated herewith; or
- (B) securing any improper advantage from such other Party, or its Affiliates, or any subcontractor of any tier, in connection with this Agreement or the operations associated herewith.

#### 21.4 Conflicts of Interest

- (A) Each Operator undertakes that it shall avoid any conflict of interest between its own interests (including the interests of Affiliates) and the interests of the other Parties in dealing with suppliers, customers and all other organizations or individuals seeking to provide goods or services to the Parties in connection with Unit Operations.
- (B) The provisions of the preceding paragraph regarding each Operator shall not apply to: (1) such Operator's performance which is in accordance with the written local preference laws or policies of the Government; (2) such Operator's acquisition of products or services from an Affiliate, or the sale thereof to an Affiliate, made in accordance with the terms of this Agreement; or (3) such Operator's acquisition of goods and services for the benefit of any Tract for which it is Tract Operator.
- (C) Unless otherwise agreed by the Parties in writing, the Parties and their Affiliates are free to engage or invest (directly or indirectly) in an unlimited number of activities or businesses, any one or more of which may be related to or in competition with the business activities contemplated under this Agreement, without having or incurring any obligation to the other Parties, including any obligation to offer any interest in such business activities to any Party.

#### 21.5 Public Announcements

(A) Subject to any required approvals under Article 16 of each Contract, Unit Operator shall be responsible for the preparation and release of all public announcements and statements regarding this Agreement or the Unit Operations; provided that no public announcement or statement shall be issued or made unless, prior to its release, all the Parties have been furnished with a copy of such statement or announcement and the approval of at least two (2) Parties which are not Affiliates of Unit Operator holding fifty percent (50%) or more of the Unit Interests not held by Unit Operator or its Affiliates has been obtained. Any Party failing to communicate its vote within three (3) Business Days of receipt shall be deemed to have approved such statement or announcement. Where a public announcement or statement becomes necessary or desirable because of danger to or loss of life, damage to property or pollution as a result of activities arising under this Agreement, Unit Operator and the applicable Tract Operator are authorized to issue and make such announcement or statement without prior approval of the Parties, but shall promptly furnish all the Parties with a copy of such announcement or statement.

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9/7/09 / Unitization and Unit Operating Agreement (B) If a Party wishes to issue or make any public announcement or statement regarding this Agreement or the Unit Operations, it shall not do so unless, at least three (3) Business Days prior to the release of the public announcement or statement, such Party furnishes all the Parties with a copy of such announcement or statement, and obtains the approval of at least two (2) Parties which are not Affiliates holding fifty percent (50%) or more of the Unit Interests not held by such announcing Party or its Affiliates; provided that, notwithstanding any failure to obtain such approval, no Party shall be prohibited from issuing or making any such public announcement or statement if it is necessary to do so in order to comply with the applicable laws, rules or regulations of any government, legal proceedings or stock exchange having jurisdiction over such Party or its Affiliates as set forth in Article 17.2.

#### 21.6 Successors and Assigns

Subject to the limitations on Transfer and Encumbrances contained in Article 14, this Agreement shall inure to the benefit of and be binding upon the successors and assigns of the Parties.

#### 21.7 Waiver

No waiver by any Party of any one or more defaults by another Party in the performance of any provision of this Agreement shall operate or be construed as a waiver of any future default or defaults by the same Party, whether of a like or of a different character. Except as expressly provided in this Agreement no Party shall be deemed to have waived, released or modified any of its rights under this Agreement unless such Party has expressly stated, in writing, that it does waive, release or modify such right.

#### 21.8 No Third Party Beneficiaries

The Contracts (Rights of Third Parties) Act 1999 (the "Act") shall only apply in respect of any relief from liability, hold harmless, indemnity or benefit expressly granted by Article 7.3(G), Article 7.6(A) and Article 7.6(B) and, without prejudice to those Articles, no Third Party shall otherwise have any right pursuant to the Act to enforce any term of this Agreement. Any rights held by a Third Party hereunder may only be enforced by arbitration in accordance with Article 20.3(C). The consent of a Third Party shall not be necessary for any rescission or variation (including any release or compromise in whole or part of any liability), novation or termination of this Agreement.

21.9 For the avoidance of doubt, notwithstanding the foregoing, the Parties recognise that the Minister, on behalf of the government of the Republic of Ghana, shall have the right to enforce the unitization of the Jubilee Field Unit and rights arising therefrom pursuant to the Government Approval and/or the Acknowedgment which enforcement shall be governed by the laws of the Republic of Ghana and shall be resolved in accordance with the terms of Article 1.10 of the Acknowledgment. Joint Preparation

Each provision of this Agreement shall be construed as though all Parties participated equally in the drafting of the same. Consequently, the Parties acknowledge and agree that any rule of construction that a document is to be construed against the drafting party shall not be applicable to this Agreement.

#### 21.10 Severance of Invalid Provisions

If and for so long as any provision of this Agreement shall be deemed to be judged invalid for any reason whatsoever, such invalidity shall not affect the validity or operation of any other provision of this Agreement except only so far as shall be necessary to give effect to the construction of such invalidity, and any such invalid provision shall be deemed severed from this Agreement without affecting the validity of the balance of this Agreement, but only if the economic or legal substance of the transactions contemplated hereby is not affected in any way that is materially adverse to any Party hereto. In the event that any provision in this Agreement is determined to be invalid or unenforceable, the Parties shall negotiate in good faith to agree upon a valid and enforceable replacement provision that will effectuate the intent of the Parties as set forth herein.



#### 21.11 Modifications

Except as is provided in Article 21.10, there shall be no modification of this Agreement except by written consent of all Parties (without any further approvals being necessary).

#### 21.12 Interpretation

- (A) <u>Headings</u>. The topical headings used in this Agreement are for convenience only and shall not be construed as having any substantive significance or as indicating that all of the provisions of this Agreement relating to any topic are to be found in any particular Article.
- (B) <u>Singular and Plural</u>. Reference to the singular includes a reference to the plural and vice versa.
- (C) <u>Gender</u>. Reference to any gender includes a reference to all other genders.
- (D) <u>Article</u>. Unless otherwise provided, reference to any Article or an Exhibit means an Article or Exhibit of this Agreement, and any reference to an Article or an Exhibit in any Exhibit means an Article or Exhibit of that Exhibit.
- (E) <u>Include</u>. "*include*" and "*including*" shall mean include or including without limiting the generality of the description preceding such term and are used in an illustrative sense and not a limiting sense.
- (F) <u>Priority</u>. In the event of a conflict between the body of this Agreement and any Exhibit, the body of this Agreement shall prevail except in the case of matters concerning an Expert, in which case the terms of the applicable Exhibit shall prevail over Article 20.3.

#### 21.13 Counterpart Execution

This Agreement may be executed in any number of counterparts and each such counterpart shall be deemed an original Agreement for all purposes; provided that no Party shall be bound to this Agreement unless and until all Parties have executed a counterpart. For purposes of assembling all counterparts into one document, Unit Operator is authorized to detach the signature page from one or more counterparts and, after signature thereof by the respective Party, attach each signed signature page to a counterpart.

#### 21.14 Entirety

With respect to the subject matter contained herein, this Agreement (i) is the entire agreement of the Parties; and (ii) supersedes all prior understandings and negotiations of the Parties.

IN WITNESS of their agreement each Party has caused its duly authorized representative to execute and deliver this instrument as a deed on the date first written above.

#### SIGNATURE PAGE FOLLOWS

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Signed as a deed on behalf of GHANA NATIONAL PETROLEUM CORPORATION By: Name: NANA 2 ASAFU-ANTATE F **.** • • • Title: MANACTIN ĴG AIRECTOR Date: 12 TH 00 In the presence of: MA Name: Thomas MA A Address: G-1+A-NATIONAL PETROLEUM CORP. Date: JUL 2009 ιk Signed as a deed on behalf of TULLOW GHANA LIMITED ones By: Name: 1)AI JONE ς Title: \_ PRESIDENT AND GENERAL MANAGER Date: 09 10 07 By: Name: ഹ Title: Date: Signed as a deed on behalf of KÖSMOS ENERGY GHANA HC By: Name: \_ 0. Rom Title: Date: 200 In the presence of: MAN Name: u. Address: (7/ 1 TO 75201 ARTS PIALA Da Date: 18-Jul 00 2

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Signed as a deed on behalf of
ANADARKO WCTP COMPANY
A Stand
By: ( achue)
Name: DONALD H, MACLYER
Title: VICE PRESIDENT
Date: 13 JULY 2009
By: Com.
Name: CHARLES E. PROVOST
Title: VICE PRESIDENT
Date: 13 July 2009
- <u> </u>
Signed as a deed on behalf of
SABRE OIL & GAS HOLDINGS LIMITED
PUPUL OF & ANS HOLDINDS LIMITED
Dr. K
By:
Name: KOFI ESSON
Title: ATTORNEY IN FACT
Date: 13 JULY 2009
In the presence of Reter Sham
Name
Name: PETER SLOAN
Address: 6 PARK AD, SELSEY, M. SUSTEX, UK
Date: 13 JULY 2009
Signed as a deed on behalf of
EO GROUP LIMITED
1/4 1-
De No yk
By:
Name: C-CORE MENSIE
Title: Director
Date: 13 July, 2009
In the presence of: Jane tomas e
in the presence of: sam to make
Name: James barnes
Address: Harson Taxas
 Date: B Sury 2009

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#### ATTACHED TO AND MADE PART OF THE UNITIZATION AND UNIT OPERATING AGREEMENT BY AND BETWEEN GHANA NATIONAL PETROLEUM CORPORATION, TULLOW GHANA LIMITED, KOSMOS ENERGY GHANA HC, ANADARKO WCTP COMPANY, SABRE OIL & GAS HOLDINGS LIMITED, AND EO GROUP LIMITED (THE "AGREEMENT")

EXHIBIT "A"

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Exhibit A to the Unitization and Unit Operating Agreement

# PART 1 -CONTRACT GROUP INTERESTS, TRACT PARTICIPATIONS AND UNIT INTERESTS

# **Deepwater Tano Contract Group**

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	Contract Group Interest	Tract Participation	Contract Unit Interest
Tullow	47.1750%		23.5875%
Kosmos	17.0000%		8.5000%
Anadarko	17.0000%		8.5000%
Sabre	3.8250%		1.9125%
EO Group	0.0000%		0.0000%
GNPC ·	15.0000%		7.5000%
Total	100.0000%	50.0000%	50.0000%

# West Cape Three Points Contract Group

	Contract Group Interest	Tract Participation	Contract Unit Interest
Tullow	22.2342%	······································	11.1172%
Kosmos	29.9827%		14.9913%
Anadarko	29.9827%		14.9913%
Sabre	1.8004%		0.9002%
EO Group	3.5000%	·	1.7500%
GNPC	12.5000%		6.2500%
Total	100.0000%	50.0000%	50.0000%

# Jubilee Unit (Aggregate)

	Unit Interest
Tullow	34.7047%
Kosmos Anadarko	23.4913% 23.4913%
Sabre	2.8127%
EO Group	1.7500%
GNPC Total	13.7500%

Exhibit A to the Unitization and Unit Operating Agreement

A-2

# PART 2 - CONTRACT GROUP PAYING INTERESTS, TRACT PARTICIPATIONS AND PAYING INTERESTS

# **Deepwater Tano Contract Group**

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	Contra Grou Payir Intere	p 1g	Tract Participation	Contract Intere	
	Development	Production		Development	Production
Tullow	52.7250%	47.1750%		26.3625%	23.5875%
Kosmos	19.0000%	17.0000%		9.5000%	8.5000%
Anadarko	19.0000%	17.0000%		9.5000%	8.5000%
Sabre	4.2750%	3.8250%		2.1375%	1.9125%
EO Group	0.0000%	0.0000%		0.0000%	0.0000%
GNPC	5.0000%	15.0000%		2.5000%	7.5000%
Total	100.0000%	100.0000%	50.0000%	50.0000%	50.0000%

# West Cape Three Points Contract Group

	Contra Group Payin Interes	g	Tract Participation	Contract Pa Interes	
·	Development	Production		Development	Production
Tullow	24.7783%	22.2342%	ï	12.3892%	11.1172%
Kosmos	33.4132%	29.9827%		16.7066%	14.9913%
Anadarko	33.4132%	29.9827%		16.7066%	14.9913%
Sabre	2.0064%	1.8004%		1.0032%	0.9002%
EO Group	3.8889%	3.5000%		1.9444%	1.7500%
GNPC	2.5000% 12.5000%			1.2500%	6.2500%
Total	100.0000%	100.0000%	50.0000%	50.0000%	50.0000%

# Jubilee Unit (Aggregate)

	Paying Interest	
	Development	Production
Tullow	38.7517%	34.7047%
Kosmos	26.2066%	23.4913%
Anadarko	26.2066%	23.4913%
Sabre	3.1407%	2.8127%
EO Group	1.9444%	1.7500%
GNPC	3.7500%	13.7500%
Total	100.0000%	100.0000%

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Exhibit A to the Unitization and Unit Operating Agreement

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ATTACHED TO AND MADE PART OF THE UNITIZATION AND UNIT OPERATING AGREEMENT BY AND BETWEEN GHANA NATIONAL PETROLEUM CORPORATION, TULLOW GHANA LIMITED, KOSMOS ENERGY GHANA HC, ANADARKO WCTP COMPANY, SABRE OIL & GAS HOLDINGS LIMITED, AND EO GROUP LIMITED (THE "AGREEMENT")

#### EXHIBIT "B" UNIT AREA AND DEFINITION OF UNIT INTERVAL

#### PART 1 UNIT AREA COORDINATES

The coordinates of the Unit Area for the development of the Jubilee field are presented in Table 1 below.

Point	, , . <i>i</i>	Longitude			Latitude	T	WGS84 UTM Zone 30
	Deg	Min	Sec	Deg	Min	Sec	
1	-2	58	0.000	4	29	30.000	503698.00 496474.00
2	-2	58	0.000	4	33	0.000	503698.00 502922.00
3	-2	59	0.000	4	33	0.000	501849.00 502922.00
4	-2	59	0.000	4	35	0.000	501849.00 506607.00
5	-2	56	0.000	4	35	0.000	507395.00 506607.00
6	-2	56	0.000	4	34	30.000	507395.00 505686.00
7	-2	54	0.000	4	34	30.000	511092.00 505687.00
8	-2	54	0.000	4	35	0.000	511092.00 506608.00
9	-2	52	0.000	4	35	0.000	514790.00 506608.00
10	-2	52	0.000	4	34	45.000	514790.00 506148.00
11	-2	51	15.000	4	34	45.000	516176.00 506148.00
12	-2	51	15.000	4	34	30.000	516176.00 505687.00
13	-2	50	30.000	4	34	30.000	517563.00 505688.00
14	-2	50	30.000	4	34	0.000	517563.00 504767.00
15	-2	50	0.000	4	34	0.000	518487.00 504767.00
16	-2	50	0.000	4	33	30.000	518488.00 503846.00
17	-2	50	30.000	4	33	30.000	517563.00 503845.00
18	-2	50	30.000	4	33	0.000	517563.00 502924.00
19	-2	51	15.000	4	33	0.000	516177.00 502924.00
20	-2	51	15.000	4	32	30.000	516177.00 50200 <b>3.00</b>
21	-2	52	0.000	4	32	30.000	514790.00 502003.00
22	-2	52	0.000	4	32	0.000	514791.00 501081.00
23	-2	52	45.000	4	32	0.000	513404.00 501081.00
24	-2	52	45.000	4 .	31	30.000	513404.00 500160.00
25	-2	53	30.000	4	31	30.000	512017.00 500160.00
26	-2	53	30.000	4	31	0.000	512018.00 499239.00
27	-2	54	0.000	4	31	0.000	511093.00 499239.00
28	-2	54	0.000	4	30	30.000	511093.00 498317.00
29	-2	54	30.000	4	30	30.000	510169.00 498317.00
30	-2	54	30.000	4	30	0.000	510169.00 497396.00
31	-2	55	0.000	4	30	0.000	509244.00 497396.00
32	-2	55	0.000	4	29	30.000	509245.00 496475.00
1	-2	58	0.000	4	29	30.000	503698.00 496474.00

UTM coordinates have been calculated using UTM projection zone 30 with WGS84 Datum and using the following:

**B-1** 

False Easting		5000000.0 meters
False Northing	=	0.00 meters
Central Meridian	=	-3.000000 degrees
Scale Factor	=	0.99960000

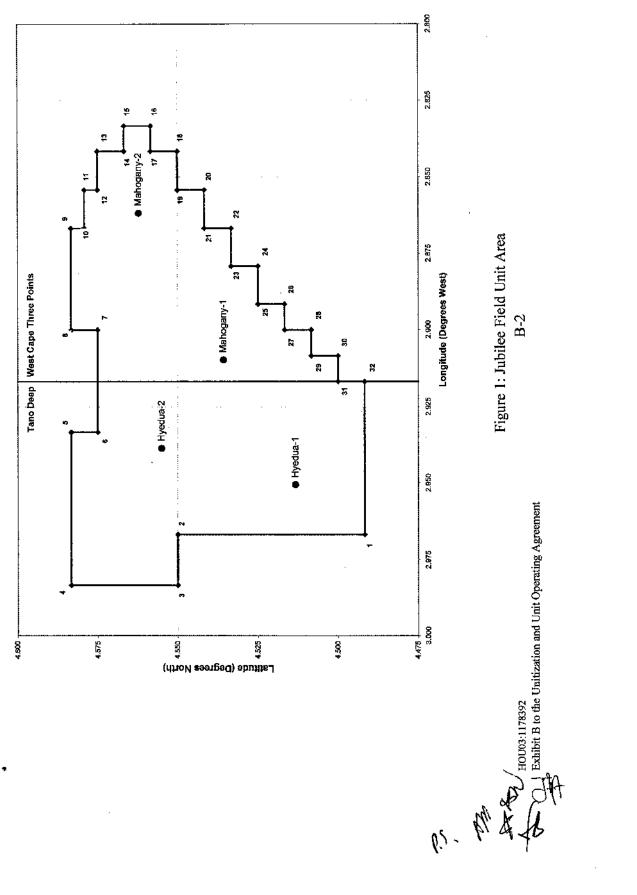
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Exhibit B to the Unitization and Unit Operating Agreement

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PART 2 UNIT AREA MAP





#### PART 3 UNIT INTERVAL DEFINITION

The Unit Interval means the sediments within the Unit Area which are encountered between the depths of the top and base of the Unit Interval.

The top and base of the Unit Interval, as identified in the wells drilled to date, is defined in Table 2 below and shown in Figure 2 of this Exhibit by the typical log response of the gamma ray, density and porosity logs for the Mahogany-1 Well and in Figure 3 the typical log response of the gamma ray and resistivity logs for the Mahogany-1 Well. In the absence of well data the seismic correlatives of the depths in Table 2 shall define the unit interval.

The top and base of the Unit Interval shall be identified where penetrated in each Well and correlated between each Well using all available data from the Common Database, including wireline log data, in accordance with Section 5 of Exhibit F.

	Hyedua-1 BP01 Drill Floor Elevation: 24 metres above msl		Mahogany-1 Drill Floor Elevation: 24 metres above msl		Mahogany-2 Drill Floor Elevation: 11 metres above msl		Hyedua-2 Deviated Well: MD-TVDSS = 42 metres	
STRATIGRAPHY	MD (metres)	TVDSS (metres)	MD (metres)	TVDSS (metres)	MD (metres)	TVDSS (metres)	MD (metres)	TVDSS (metres)
Top Unit Interval	3580.0	-3556.0	3412.0	-3388.0	3167.0	-3156.0	3365.0	-3323.0
Base Unit Interval	3811.0	-3787.0	3653.0	-3629.0	3372.0	-3361.0	3527.0	-3485.0

Table 2: Well depths of the top and base of the Unit Interval

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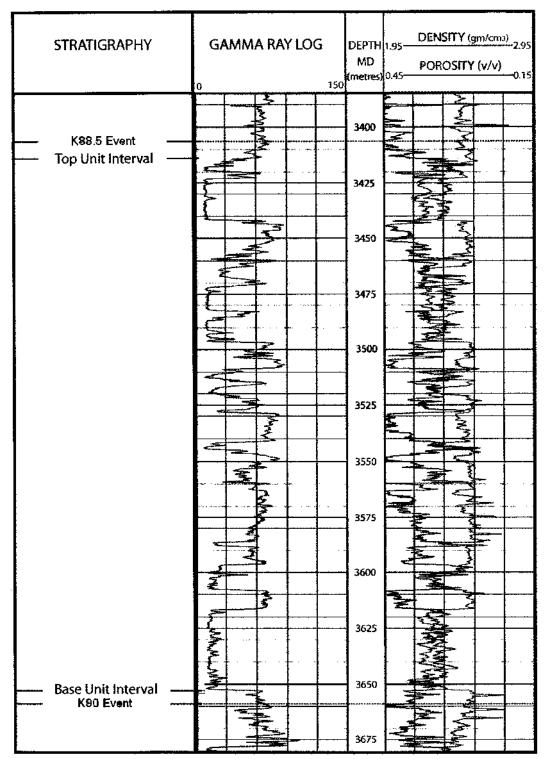
As additional information, the Parties expect the top of the Unit Interval to be coincident with the K88.5 Event stratigraphic marker which has an age date of 88.5 million years and which is equivalent to the top of the Late Turonian Age; and the base of the Unit Interval to be coincident with the K90 Event stratigraphic marker which has an age date of 90 million years and which is equivalent to the base of the Late Turonian Age, but the definition in Table 2 shall be controlling in the event the two are not coincident.

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Figure 2: Typical log response of the gamma ray, density and neutron logs for the top and base of the Unit Interval in the Mahogany-1 Well

# Well: Mahogany-1

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For purposes of illustration

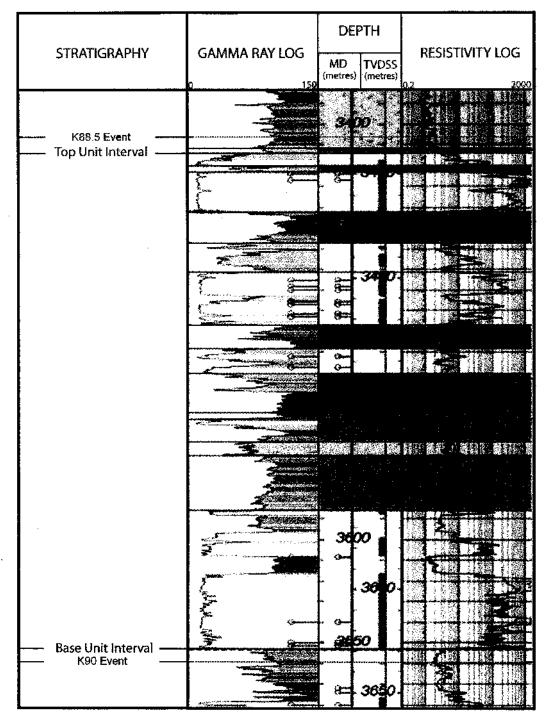
HOU03:1178392 B-4 Exhibit B to the Unitization and Unit Operating Agreement

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Figure 3: Typical log response of the gamma ray and resistivity logs for the top and base of the Unit Interval in the Mahogany-1 Well

# Well: Mahogany-1

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For purposes of illustration

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ATTACHED TO AND MADE PART OF THE UNITIZATION AND UNIT OPERATING AGREEMENT BY AND BETWEEN GHANA NATIONAL PETROLEUM CORPORATION, TULLOW GHANA LIMITED, KOSMOS ENERGY GHANA HC, ANADARKO WCTP COMPANY, SABRE OIL & GAS HOLDINGS LIMITED, AND EO GROUP LIMITED (THE "AGREEMENT")

# EXHIBIT C

# UNIT ACCOUNTING PROCEDURE

P. 5 .

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# TABLE OF CONTENTS

SECTION	N I – GENERAL PROVISIONS	
1.1	Purpose	
1.2	Conflict with Agreement	
1.3	Definitions	
1.4	Unit Account Records and Currency Exchange	
1.5	Statements and Billings	2
1.6	Payments and Advances	4
1.7	Adjustments	6
1.8	Audits	6
1.9	Allocations	8
SECTIO	N II – DIRECT CHARGES	
2.1	Licences, Permits, etc	8
2.2	Salaries, Wages and Related Costs	9
2.3	Offices, Camps and Miscellaneous Facilities	10
2.4	Material	10
2.5	Exclusively Owned Equipment and facilities of Operator and Affiliates	10
2.6	Services	10
2.7	Overhead	12
2.8	Insurance	14
2.9	Damages and Losses to Property	14
2.10	Litigation and Legal Expenses.	15
2.11	Taxes and Duties	15
2.12	Training Costs	15
2.13	Ecological and Environmental	16
2.14	Decommissioning (Abandonment) and Reclamation	16
2.15	Other Expenditures	
SECTIO	N III - ACQUISITION OF MATERIAL	16
3.1	Acquisitions	
3.2	Materials Furnished by Operator	16
3.3	Premium Prices	
3.4	Warranty of Material Furnished by an Operator	18
SECTIO	N IV - DISPOSAL OF MATERIALS	18
4.1	Disposal	
4.2	Material Purchased by a Party or Affiliate	18
4.3	Sale to Non-Affiliated Third Parties	19
SECTIO	N V – INVENTORIES	19
5.1	Periodic Inventories – Notice and Representation	
5.2	Special Inventories	

HOU03:1168111 Exhibit C to the Unitization and Unit Operating Agreement

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## EXHIBIT "C"

### UNIT ACCOUNTING PROCEDURE

#### **SECTION I – GENERAL PROVISIONS**

#### 1.1 Purpose

1.1.1 The purpose of this Unit Accounting Procedure (this "Accounting Procedure") is to establish equitable methods for determining charges and credits applicable to operations under the Agreement which reflect the costs of Unit Operations, including where relevant Technical Operations, to the end that no Party shall gain or lose in relation to other Parties.

It is intended that approval of a Unit Work Program and Budget and AFEs as provided in the Agreement shall constitute approval of the rates and allocation methods used therein to currently charge the Unit Account. All rates and allocation methods contained in Unit Work Programs and Budgets and AFEs as provided in the Agreement shall be in accordance with Section 1.9, but subject to verification by audit and adjustment to actual at a later date as provided in this Accounting Procedure.

1.1.2 The Parties agree, however, that if the methods prove unfair or inequitable to any Operator or Non-Operators, the Parties shall meet and in good faith endeavor to agree on changes in methods deemed necessary to correct any unfairness or inequity.

## 1.2 Conflict with Agreement

In the event of a conflict between the provisions of this Accounting Procedure and the provisions of the Agreement, the provisions of the Agreement shall prevail.

#### 1.3 Definitions

The definitions contained in Article 1 of the Agreement shall apply to this Accounting Procedure and have the same meanings when used herein. Certain terms used herein are defined as follows:

"Accrual Basis" means that basis of accounting under which costs and benefits are regarded as applicable to the period in which the liability for the costs is incurred or the right to the benefit arises, regardless of when invoiced, paid or received.

"Advance" means cash required to be paid pursuant to a Cash Call; "to Advance" shall mean to make a payment of such cash.

"Cash Call" means any request for payment of cash made by Unit Operator to GNPC and the JOA Groups pursuant to Sections 1.6.1 or 1.6.4 to cover future estimated expenditures, or shortfalls in previous Advances, in connection with Unit Operations; "to Cash Call" shall mean to send a notice of such request.

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"Material" shall mean any Unit Facilities which are moveable or not permanently affixed to the ground or sea floor, or which have been so affixed but can be removed without unreasonable damage to such property, and equipment or supplies acquired for Unit Operations.

#### 1.4 **Unit Account Records and Currency Exchange**

- The Unit Operator shall at all times maintain and keep true and correct separately 1.4.1 identifiable Unit records of the production and disposition of all liquid and gaseous Hydrocarbons and of all costs and expenditures under the Agreement, as well as other data necessary or proper for the settlement of accounts between the Parties hereto in connection with their rights and obligations under the Agreement and to enable the Parties to comply with their respective applicable Ghana income tax and other Ghanaian taxes.
- The Unit Operator shall maintain accounting records pertaining to Unit Operations in 1.4.2 accordance with the Contracts and generally accepted accounting practices used in the international petroleum industry and any applicable statutory obligations of Ghana as well as the provisions of the Contracts and the Agreement.
- 1.4.3 Unit Account records shall be maintained by the Unit Operator in the English language and in United States of America ("US") currency and in such other language and currency as may be required by the Laws/Regulations or the Contracts. Conversions of currency shall be recorded at the rate actually experienced in that conversion. Currency translations for expenditures and receipts shall be recorded at the average of the buying and selling rate for the last Business Day of the prevailing month as quoted by Barclays Bank, London, or if not published, the London Financial Times.
- 1.4.4 Any realised currency exchange gain or losses shall be credited or charged to the Unit Account, except as otherwise specified in this Accounting Procedure.
- 1.4.5 The Accrual Basis for accounting shall be used in preparing accounts concerning the Unit Operations.
- 1.4.6 Within sixty (60) Days from the Effective Date, the Unit Operator shall propose to GNPC an outline of a chart of accounts, operating records and reports to be prepared and maintained for purposes of reporting Unit Operations under each Contract, as described in Section 1.2.1 of Annex 2 of each Contract. The agreed outline shall apply for purposes of Unit Operations under both Contracts.
- 1.4.7 Each Technical Operator shall maintain accounting records pertaining to Technical Operations in accordance with the same standards set out in this Section 1.4 and shall furnish them to the Unit Operator for incorporation in the Unit accounting records.

#### 1.5 **Statements and Billings**

1.5.1 Unless otherwise agreed by the Parties, the Unit Operator shall issue monthly to GNPC and each Tract Operator on behalf of its JOA Group, on or before the twenty fifth (25th)

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Day of each month, statements of the costs and expenditures incurred during the prior month, indicating by appropriate classification the nature thereof, the corresponding budget category and/or AFE and the portion of such costs and expenditures charged to GNPC and each JOA Group.

These statements, as a minimum, shall contain the following information:

- Advances of funds received from GNPC and each JOA Group;
- the share of GNPC and each JOA Group in total expenditures;
- the accrued expenditures;
- the current account balance of GNPC and each JOA Group;
- summary of costs, credits and expenditures on a current month, year-to-date and inception-to-date basis indicating by appropriate classification the nature thereof, the corresponding budget category and/or AFE, and the portion of such costs charged to GNPC and each JOA Group; and
- details of unusual charges and costs in excess of five hundred thousand US dollars (\$500,000).
- where available at the time of issuing such statement, information relating to overexpenditures incurred pursuant to Article 9.7(A) of the Agreement to the extent that such information is known by the Unit Operator at such time.
- 1.5.2 The Unit Operator shall, upon request, furnish a description of the accounting classifications used by it.
- 1.5.3 Amounts included in the statements and billings shall be expressed in US currency.
- 1.5.4 Each Party shall be responsible for preparing its own accounting and tax reports to meet the requirements of Ghana and of all other countries to which it may be subject. The Unit Operator, to the extent that the information is reasonably available from the Unit Account records, shall provide the Parties in a timely manner with the necessary information to facilitate the discharge of such responsibility.
- 1.5.5 The Unit Operator shall prepare a production statement as required by Section 6 of Annex 2 to each Contract, a statement of expenses and receipts as required by Section 9 of Annex 2 to each Contract, a budget statement as required by Section 11 of Annex 2 to each Contract, and a development forecast as required by Section 12 of Annex 2 to each Contract, in each case showing the allocation between the Tracts, or among GNPC and the JOA Groups, as applicable; provided that the Unit Operator shall only prepare such aforementioned statements and forecast to the extent that such statements and forecast relate to Unit Operations. Each Tract Operator shall be responsible for preparing those statements and forecasts described in the immediately preceding sentence to the extent not relating to Unit Operations and also the value of production statement as required by

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Section 7 of Annex 2 to its Contract, the cost statement as required by Section 8 of Annex 2 to its Contract, and the final end-of-year statement as required by Section 10 of Annex 2 to its Contract, and for submitting all of those statements and forecasts as required by its Contract.

## 1.6 Payments and Advances

- 1.6.1 Upon approval of any Unit Work Program and Budget and AFE, if the Unit Operator so Cash Calls, GNPC and each JOA Group shall Advance its share of estimated cash requirements for the succeeding month's operations. Each such Cash Call shall be equal to the Unit Operator's estimate of the money to be spent in the currencies required to perform its duties under the approved Unit Work Program and Budget during the month concerned. The Unit Operator may determine that the cash to be called for a month may be paid in separate amounts within the month. For information purposes only, the Cash Call shall contain an estimate of the funds required for the succeeding two (2) months.
- 1.6.2 Each such Cash Call, detailed by major budget categories and AFE, shall be made in writing and delivered to GNPC and the Tract Operator for each JOA Group not less than fifteen (15) Days before the payment due date. The due date for payment of such Advances shall be set by the Unit Operator but shall be no sooner than the first Business Day of the month for which the Advances are required. All Advances shall be made without bank charges. Any charges related to receipt of Advances from GNPC or a JOA Group shall be borne by GNPC or that JOA Group. Each JOA Group agrees, with respect to its Joint Operating Agreement, that for the purposes of cash requirements that are Cash Called by the Unit Operator in accordance with this Section 1.6.2 of this Exhibit C, Section 1.6.2 of Exhibit A to such Joint Operating Agreement shall be amended as follows: the date that a cash call is made by the Tract Operator shall not be less than ten (10) Days before the applicable payment due date under such Joint Operating Agreement.
- 1.6.3 GNPC and each JOA Group shall wire transfer its share of the full amount of each such Cash Call to the Unit Operator on or before the due date, in US dollars at a bank designated by the Unit Operator. For all payments made by the Unit Operator in currencies other than US dollars, the Unit Operator shall request payment from GNPC and each JOA Group in US dollars. It is the intent that none of the Parties shall experience an exchange gain or loss at the expense of, or to the benefit of, the other Parties. If currency provided by GNPC or any JOA Group is other than US dollars, then the entire cost of converting to US dollars shall be borne by GNPC or that JOA Group.
- 1.6.4 Notwithstanding the provisions of Section 1.6.2, should the Unit Operator be required to pay any sums of money for the Unit Operations which were unforeseen at the time of providing GNPC and each JOA Group with said estimates of its requirements, the Unit Operator may make a written request to GNPC and each JOA Group for special Advances covering their shares of such payments. GNPC and each JOA Group shall make their special Advances within ten (10) Days after receipt of such notice. Each JOA Group agrees, with respect to its Joint Operating Agreement, that for the purposes of special Advances that are requested in accordance with this Section 1.6.4 of this Exhibit C, Section 1.6.4 of Exhibit A to such Joint Operating Agreement shall be amended as

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follows: the due date for the payment of special advances to the Tract Operator shall be five (5) Days following the date that notice of Tract Operator's request for such special advances is received.

- 1.6.5 If GNPC's or any JOA Group's Advances exceed its share of expenditures, the next succeeding cash Advance requirements, after such determination, shall be reduced accordingly. GNPC or any JOA Group may request that its excess Advances be refunded. The Unit Operator shall make such refund within ten (10) Days after receipt of GNPC's or any JOA Group's request provided that the amount is in excess of five hundred thousand US dollars (\$500,000). The Unit Operator will make best endeavours to place surplus funds in an interest bearing bank account. The Parties hereby agree that for the purposes of refunds that are requested in accordance with this Section 1.6.5 of this Exhibit C, Section 1.6.5 of Exhibit A to each Joint Operating Agreement shall be amended as follows: the due date for the Tract Operator to make a refund to a Party shall be as soon as practicable following the date that request for such refund is made to the Tract Operator, taking into account the time period for the Unit Operator to make the refund to such Tract Operator as described above.
- 1.6.6 If GNPC's or any JOA Group's Advances are less than its share of expenditures, the deficiency shall, at the Unit Operator's option, be added to subsequent cash Advance requirements or be paid by GNPC or such JOA Group within fifteen (15) Days following receipt of the Unit Operator's billing to GNPC or such JOA Group for such deficiency.
- 1.6.7 If, under the provisions of the Agreement, the Unit Operator is required to segregate funds received from GNPC and each JOA Group, any interest received on such funds shall be applied against the next succeeding Cash Call or, if directed by the Unit Operating Committee, distributed quarterly. The interest thus received shall be allocated to the Parties in accordance with their Paying Interests with respect to the specific Unit Operation to which such funds relate except if GNPC or any JOA Group is late in making a payment in which case interest will be allocated on an equitable basis taking into consideration date of funding by GNPC and each JOA Group to the accounts in proportion to the funding into the account. A monthly statement summarising receipts, disbursements, transfers to each Unit Derator to the Parties. Any interest received by the Unit Operator from interest-bearing accounts containing commingled funds received from the Parties shall be credited to the Parties in accordance with the allocation procedure as set out above.
- 1.6.8 If the Unit Operator does not request GNPC and each JOA Group to Advance their share of estimated cash requirements, GNPC and each JOA Group shall pay its share of cash expenditures within fifteen (15) Days following receipt of the Unit Operator's billing.
- 1.6.9 Payments shall be made on or before the due date. If payments are not received by the due date the unpaid balance shall bear and accrue interest from the due date until the payment is received by the Unit Operator at the interest rate provided for in Article 10.4 of the Agreement, and the provisions of Article 10 of the Agreement shall apply.

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- 1.6.10 Subject to governmental regulation, the Unit Operator shall have the right, at any time and from time to time, to convert funds received or any part thereof to other currencies to the extent that such currencies are then required for Unit Operations. The cost of any such conversion shall be charged to the Unit Account. The conversion rate of various currencies should be notified in the next billing.
- 1.6.11 The Unit Operator shall endeavour to maintain funds held for the Unit Account in bank accounts at a level consistent with that required for the prudent conduct of Unit Operations.
- 1.6.12 Notwithstanding the other terms of this Accounting Procedure, in no event shall GNPC be liable for, and GNPC shall be deemed to have a Paying Interest of zero (0) with respect to, any Unit Account expenses which are not allowable under Section 3.17 of Annex 2 of either Contract.

# 1.7 Adjustments

Payments of any Advances or billings shall not prejudice the right of any Party to protest or question the correctness thereof; provided, however, all bills and statements rendered to GNPC and each JOA Group by the Unit Operator during any Calendar Year shall conclusively be presumed to be true and correct after twenty-four (24) months following the end of such Calendar Year, unless within the said twenty-four (24) month period a Party takes written exception thereto and makes claim on the Unit Operator for adjustment. Failure on the part of a Party to make claim on the Unit Operator for adjustment within such period shall establish the correctness thereof and preclude the filing of exceptions thereto or making claims for adjustment thereon. No adjustment favorable to the Unit Operator shall be made unless it is advised within the same prescribed period. The provisions of this paragraph shall not prevent adjustments resulting from a physical inventory of the Material as provided for in Section V. The Unit Operator shall be allowed to make adjustments to the Unit Account after such twenty-four (24) month period if these adjustments result from audit exceptions outside of the Agreement, Third Party claims, or Government or GNPC requirements. Any such adjustments shall be subject to audit within the time period specified in Section 1.8.1.

# 1.8 Audits

1.8.1 A Non-Operator, upon at least sixty (60) Days advance notice in writing to any Operator and all other Non-Operators, shall have the right to audit the Unit Accounts and records of such Operator relating to the accounting hereunder for any Calendar Year within the twenty-four (24) month period following the end of such Calendar Year. Non-Operators shall have reasonable access to such Operator's personnel and to the facilities, warehouses and offices directly or indirectly serving Unit Operations. The cost of each such audit shall be borne by the Parties conducting the audit. It is provided, however, that the Non-Operators must take written exception to and make claim upon the Operator, with a copy to Unit Operator, for all discrepancies disclosed by said audit within said twenty-four (24) month period. Where there are two or more Non-Operators, the Non-

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Operators shall make a reasonable effort to conduct joint or simultaneous audits in a manner which will result in a minimum of inconvenience to the Operator.

- 1.8.2 Any information obtained by a Non-Operator under the provisions of this Section 1.8 shall be kept confidential and shall not be disclosed to any Third Party, except as would otherwise be permitted by Articles 17.2(A)(1), (2) (3), (4), (5), (6), (7), (8), (9) and (12) of the Agreement.
- 1.8.3 The Operator shall endeavour to produce information from its Affiliates as reasonably necessary to support charges from those Affiliates to the Unit Account other than those charges referred to in Section 2.7. If an Affiliate considers such information confidential or proprietary or if such Affiliate will not allow the Non-Operators to audit its accounts, the statutory auditor of the Affiliate shall be used to confirm the details and facts as required, provided such statutory auditor is an internationally recognised firm of public The auditing Non-Operator may instruct the statutory auditor of the accountants. Affiliate on the scope of such confirmation; however, the scope shall be subject to the approval of the Affiliate in question, such approval not to be unreasonably withheld. Should the statutory auditor of the Affiliate decline to act in such capacity, or not be an internationally recognised independent firm of public accountants, the auditing Non-Operators shall select an internationally recognised independent firm of public accountants to carry out such confirmation, subject to the approval of the Affiliate in question, such approval not to be unreasonably withheld. The cost of such audit by the statutory auditor or the independent firm of public accountants, as the case may be, shall be borne by the Non-Operators who requested such audit, unless the Unit Operating Committee confirms that the Operator's cost allocation procedures have not been followed as provided for in Section 1.9, in which case, the audit costs shall be charged to the Unit Account.
- 1.8.4 In the event that any Operator is required by the Government, or by GNPC, to employ a public accounting firm to audit the Unit Account and records of such Operator relating to the accounting hereunder, the cost thereof shall be a charge against the Unit Account and a copy of the audit certificate/report shall be furnished to each Party.
- 1.8.5 At the conclusion of each audit, the Parties shall endeavour to settle outstanding matters expeditiously. To this end the Parties conducting the audit will make a reasonable effort to prepare and distribute a written report to the applicable Operator, the Unit Operator, and all the Parties who participated in the audit as soon as possible and in any event within ninety (90) Days after the conclusion of each audit. The report shall include all questions and all claims arising from such audit together with comments pertinent to the operation of the accounts and records. The Operator shall make a reasonable effort to reply to the report in writing as soon as possible and in any event no later than ninety (90) Days after receipt of such report. Should the Non-Operators consider that the report or reply from the Operator requires further investigation of any item therein, the Non-Operators shall have the right to conduct further investigation in relation to such matter notwithstanding that the period of twenty-four (24) months in Sections 1.7 and 1.8.1 may have expired. However, conducting such further investigation shall not extend the twenty-four (24) month period for taking written exception to and making a claim upon

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the Operator for all discrepancies disclosed by said audit. Such further investigations shall be commenced within thirty (30) Days and be concluded within sixty (60) Days after the receipt of such report or reply, as the case may be.

1,8.6 All adjustments resulting from an audit agreed between the Operator and the Non-Operator conducting the audit shall be reported promptly to the Unit Operator and the Non-Operators. In the case of an audit of an Operator other than the Unit Operator, the agreed adjustments shall apply both as between that Operator and the Unit Operator and as between the Unit Operator and GNPC and each JOA Group. The Unit Operator shall make the necessary adjustments to the Unit Account. If any dispute shall arise in connection with an audit, it shall be reported to and discussed by the Unit Operating Committee, and, unless otherwise agreed by the parties to the dispute, resolved in accordance with the provisions of Article 20 of the Agreement. If all the parties to the dispute so agree, the adjustment(s) may be referred to an independent Expert agreed to by the parties to the dispute. At the election of the parties to the dispute, the decision of the Expert will be binding upon such parties. Unless otherwise agreed, the cost of such Expert will be shared equally by all the parties to the dispute. If GNPC participates in an audit under this Section 1.8 with respect to a particular matter, such audit shall be deemed also to serve as the audit with respect to such matter under Article 18.6 of each applicable Contract.

## 1.9 Allocations

If it becomes necessary to allocate any costs or expenditures to or between Unit Operations and any other operations, such allocation shall be made on an equitable basis. Each Operator shall furnish a description for informational purposes only, of its allocation procedures pertaining to these costs and expenditures and its rates for personnel and other charges, along with each proposed Unit Work Program and Budget.

## **SECTION II – DIRECT CHARGES**

2.0 The Unit Operator shall charge the Unit Account with all costs and expenditures incurred in connection with Unit Operations. It is also understood that charges for services normally provided by an Operator such as those contemplated in Section 2.6.2 which are provided by the Unit Operator's Affiliates shall reflect the cost to the Affiliate, excluding profit, for performing such services, except as otherwise provided in Section 2.6 and Section 2.6.1.

The costs and expenditures shall be recorded as required for the settlement of accounts between the Parties hereto in connection with the rights and obligations under the Agreement and for purposes of complying with the tax laws of Ghana and of such other countries to which any of the Parties may be subject. Without in any way limiting the generality of the foregoing, chargeable costs and expenditures shall include:

# 2.1 Licences, Permits, etc

All costs, if any, attributable to the acquisition, maintenance, renewal or relinquishment of licences, permits, contractual and/or surface rights acquired for Unit Operations.

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## 2.2 Salaries, Wages and Related Costs

- 2.2.1 The salaries, wages and related costs of the employees of any Operator and its Affiliates in Ghana directly engaged in Unit Operations whether temporarily or permanently assigned.
- 2.2.2 The salaries, wages and related costs of the employees of any Operator or its Affiliates outside Ghana directly engaged in Unit Operations whether temporarily or permanently assigned.
- Salaries and wages shall include everything constituting the employees' total 2.2.3 compensation. To the extent not included in salaries and wages, the Unit Account shall also be charged with the cost to any Operator of holiday, vacation, sickness, disability benefits, living and housing allowances, travel time, bonuses and other customary allowances applicable to the salaries and wages chargeable hereunder, as well as costs to such Operator for employee benefits, including but not limited to employee group life insurance, group medical insurance, hospitalisation, retirement and other benefit plans of a like nature applicable to labour costs of the Operator. Any Operator's employees participating in Ghana benefit plans may be charged at a percentage rate to reflect payments or accruals made or incurred by such Operator applicable to such employees. Such accruals for Ghana benefit plans shall not be paid by the Non-Operators, unless otherwise approved by the Unit Operating Committee, until (i) the same are due and payable to the employee, (ii) in the case of a specific Party, upon withdrawal of such Party pursuant to the Agreement, or (iii) upon termination of the Agreement, whichever occurs first.
- 2.2.4 Expenditures or contributions made pursuant to assessments imposed by a Governmental Authority for payments with respect thereto or on account of such employees.
- 2.2.5 Reasonable expenses (including related travel costs) of those employees whose salaries and wages are chargeable to the Unit Account under Sections 2.2.1 and 2.2.2 of this Section II and for which expenses the employees are reimbursed.
- 2.2.6 If employees are engaged in other activities in addition to the Unit Operations, the cost of such employees shall be allocated in accordance with Section 1.9.
- 2.2.7 Except as provided in Section 2.2.9, any Operator's cost of employees' relocation to or from the vicinity or location where the employees will reside or work, whether permanently or temporarily assigned to the Unit Operations, in accordance with the usual practice of such Operator. If such employee works on other activities in addition to Unit Operations, such relocation costs shall be allocated in accordance with Section 1.9.
- 2.2.8 Such relocation costs shall include transportation of employees, families, personal and household effects of the employee and family, transit expenses and all other related costs, in accordance with the usual practice of any Operator.

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- 2.2.9 Relocation costs from the vicinity of Ghana to another location classified as a foreign location by any Operator shall not be chargeable to the Unit Account unless such foreign location is the point of origin of the employee.
- 2.2.10 Costs of each Secondee retained by any Operator: (a) as charged to such Operator by such Secondee's employer pursuant to the terms of the applicable secondment agreement with such Secondee's employer; or (b) as otherwise incurred by such Operator pursuant to the terms of the applicable secondment agreement or Article 7.3 of the Agreement.

# 2.3 Offices, Camps and Miscellaneous Facilities

Cost of maintaining any offices, sub-offices, camps, warehouses, housing and other facilities of any Operator and/or Affiliates directly serving the Unit Operations. If such facilities serve operations in additions to the Unit Operations, the costs shall be allocated to the properties served in accordance with Section 1.9.

# 2.4 Material

Cost, net of discounts taken by any Operator, of Material purchased or furnished by such Operator. Such costs shall include, but are not limited to, export broker's fees, transportation charges, loading, unloading fees, export and import duties and licence fees associated with the procurement of Material and in transit losses, if any, not covered by insurance. So far as it is reasonably practical and consistent with efficient and economical operation, only such Material shall be purchased for and the cost thereof charged to the Unit Account as may be required for immediate use.

# 2.5 Exclusively Owned Equipment and facilities of Operator and Affiliates

Charges for exclusively owned equipment, facilities and utilities of any Operator and its Affiliates at rates not to exceed the average commercial rates of non-affiliated third parties, then prevailing for like equipment, facilities and utilities for use in the area where the same are used hereunder. Such Operator shall furnish the Non-Operators a list of rates and the basis of application. Such rates shall be revised if found to be either excessive or insufficient every six (6) months.

# 2.6 Services

- 2.6.1 The rates for services provided by the Parties (excluding the applicable Operator) and Third Parties (including the Affiliates of the respective Parties, including Affiliates of the applicable Operator), which have contracted with an Operator to perform services that are normally provided by Third Parties, other than those services covered by Section 2.6.2, shall be chargeable to the Unit Account. Such charges for services by the Affiliates of the respective Parties shall not exceed those rates currently prevailing for services performed by non-affiliated third parties, considering type, quality and availability of such services.
- 2.6.2 The cost of services performed by any Operator's Affiliates technical and professional staff, including Secondees, not permanently located within Ghana, shall be charged at the

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rates generally used by such Operator's Affiliates for such personnel and represent the Operator's Affiliate's actual cost for that employee or type of employee (or, in the case of Secondees, the rate provided by the applicable secondment agreement). In the case of employees, these rates shall include all costs incidental to the employment of such personnel but do not include transportation and living expenses which they may incur for the performance of such work. Such expenses shall be charged separately.

2.6.3 As early as possible, each Operator shall provide the Non-Operators with the rates referred to in Section 2.6.2 above for each Calendar Year. Estimated rates will be used during the Calendar Year which will be retrospectively adjusted to actual rates within three (3) months of the end of the Calendar Year.

Examples of such services include, but are not limited to, the following:

Geological Studies and Interpretation

Seismic Data Processing

Well Log Analysis, Correlation and Interpretation

Laboratory Services

Well Site Geology

Project Engineering

Source Rock Analysis

**Petrophysical Analysis** 

Geochemical Analysis

**Drilling Supervision** 

**Development Evaluation** 

Project Accounting and professional services

Costs shall include salaries and wages of such technical and professional personnel, lost time (for example, vacation, sickness and other authorised absence), governmental assessments as described in Section 2.2.4, employee benefits and reasonable expenses. Costs shall also include all support costs necessary for such technical and professional personnel to perform such services, such as, but not limited to, rent, utilities, support staff, drafting, telephone and other communications expenses, computer support, supplies and depreciation and administrative overhead.

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## 2.7 Overhead

#### 2.7.1 Purpose

Unit Operator shall charge the Unit Account monthly for the cost of indirect services and related office costs of the various Operators and their Affiliates not otherwise provided in this Accounting Procedure ("Overhead"). Overhead chargeable under this Section 2.7 represent the cost of general assistance and support services provided by each Operator and its Affiliates. These costs are such that it is not practical to identify or associate them with specific projects but are for services which provide the Unit Operations with needed and necessary resources which an Operator requires and provide a real benefit to Unit Operations. No cost or expenditure included under other parts of Section 11 shall be included or duplicated under this Section 2.7. The charges under Section 2.7 are not subject to audit under Sections 1.8.1 and 1.8.3 other than to verify that the percentages are applied correctly to the expenditure basis.

## 2.7.2 Amount

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- 2.7.2.1 The Overhead charges under Section 2.7.1 for any month shall equal the total amount of Overhead charges for the period beginning at the start of the Calendar Year through the end of the period covered by Operator's invoice ("Year-to-Date") determined under Section 2.7.2.2, less Overhead charges previously made under Section 2.7.1 for the Calendar Year in question.
- 2.7.2.2 The aggregate Year-to-Date Overhead charges for development expenditures shall be a percentage of the Year-to-Date development expenditures, calculated on the following graduated scale (US dollars):

Development Expenditures

\$0 to \$20,000,000.00	1.25%
\$20,000,001.00 to \$25,000,000.00	1.0%
\$25,000,001.00 to \$40,000,000.00	0.5%
Over \$40,000,000.00	0.25%

The amount of Overhead charged under the Agreement for development expenditures in any one (1) Calendar Year calculated on the graduated scale shall be subject to a total maximum cap of three million US dollars (US\$3,000,000.00) for the two Contracts.

Any amount of Overhead charged under the Agreement for development with respect to Unit Operations in excess of a combined three million US dollars (US\$3,000,000.00) for the two Contracts in any one (1) Calendar Year shall be disallowed as Petroleum Costs under the Contracts.

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# Production Expenditures

The aggregate Year-to-Date Overhead charges for production expenditures shall be a percentage of the Year-to-Date production expenditures, calculated on the following graduated scale (US dollars):

\$0 to \$20,000,000.00	1.25%
\$20,000,001.00 to \$25,000,000.00	1.0%
\$25,000,001.00 to \$40,000,000.00	0.5%
Over \$40,000,000.00	0.25%

The amount of Overhead charged under the Agreement for production expenditures in any one (1) Calendar Year calculated on the graduated scale shall be subject to a total maximum cap of five hundred thousand US dollars (US\$500,000.00) for the two Contracts.

Notwithstanding the rates of the scale stated above, the Parties, other than GNPC and any other Party Controlled by the Government, shall bear an additional charge equal to the difference between (a) 1.8% of Year-to-Date production expenditures and (b) the Overhead charged for production expenditures calculated on the graduated scale above for the same period and taking into account the total maximum cap (referred to as the "Special Overhead Charge"). If any Party, including GNPC or another entity Controlled by the Government, Transfers an interest to a transferee who is not Controlled by the Government, that transferee shall be subject to the Special Overhead Charge described in this paragraph from the effective date of the Transfer. There shall be no retroactive adjustment of Overhead charges upon a Transfer by GNPC or another entity Controlled by the Government to a transferee who is subject to the Special Overhead Charge.

Any production Overhead with respect to Unit Operations charged in accordance with the graduated scale above that is in excess of a combined five hundred thousand US dollars (US\$500,000.00) for the two Contracts in any one (1) Calendar Year, and any Special Overhead Charge, shall be disallowed as Petroleum Costs under the Contracts.

For the avoidance of doubt, lease day rate payments for a floating production, storage and offloading vessel (FPSO) shall be considered development expenditures.

#### 2.7.2.3 Overhead Charge for Decommissioning

During its process of finally winding-up Unit Operations, Unit Operator shall have the right to charge zero decimal two five percent (0.25%) of the Decommissioning Costs for Overhead; provided, however, that the amount of Overhead charged under the Agreement for Decommissioning Costs in any one

HOU03:1168111 Exhibit C to the Unitization and Unit Operating Agreement

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(1) Calendar Year shall be subject to a total maximum cap of five hundred thousand US dollars (US\$500,000.00).

Any Decommissioning Overhead with respect to Unit Operations in excess of a combined five hundred thousand US dollars (US\$500,000.00) for the two Contracts in any one (1) Calendar Year shall be disallowed as Petroleum Costs under the Contracts.

## 2.7.2.4 Overhead Caps

Where the Overhead charges are stated to be subject to maximum caps in this Section 2.7, such caps shall not be subject to escalation.

## 2.7.2.5 Distribution of Overhead Charge

All payments received in accordance with the Overhead charged in accordance with Sections 2.7.2.2 and 2.7.2.3 for a particular Calendar Year shall be distributed by the Unit Operator among itself and each Technical Operator that was in charge of and responsible for Unit Operations which incurred Unit Account expenditures within such Calendar Year. Such distribution shall be made pro rata in accordance with the proportion that the Year-to-Date expenditures attributable to the Unit Operations for which such Operator was in charge of and responsible for during such Calendar Year bear to the total amount of Year-to-Date expenditures during such Calendar Year by all Operators. Unit Operator shall distribute amounts to which each Operator is entitled hereunder in accordance with Article 9.9 of the Agreement within the following month of receipt from all Parties.

#### 2.7.3 Exclusions

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The expenditures used to calculate the monthly Overhead charge shall not include the Overhead charge, rentals on surface rights acquired and maintained for the Unit Account, guarantee deposits, pipeline tariffs, concession acquisition costs, royalties and taxes on production or revenue to the Unit Account paid by Unit Operator, payments made to Non-Operators under Section 2.6.1 above and other similar items.

#### 2.8 Insurance

Premiums paid for insurance required by law or the Agreement to be carried for the benefit of the Unit Operations not to exceed, in the case of insurance wholly or partially placed with an Affiliate of a Party, costs generally charged by non-Affiliate insurance companies.

#### 2.9 Damages and Losses to Property

2.9.1 All costs or expenditures necessary to replace or repair damages or losses incurred by fire, flood, storm, theft, accident, or any other cause. The Unit Operator shall furnish the Non-Operators written notice of damages or losses incurred in excess of five hundred

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thousand US dollars (\$500,000) as soon as practical after report of the same has been received by the Unit Operator.

- 2.9.2 Credits for settlements received from insurance carried for the benefit of Unit Operations and from others for losses or damages to Materials or other Unit Facilities. Each Party shall be credited with its applicable Paying Interest share thereof except where such receipts are derived from insurance purchases by the Unit Operator for less than all Parties in which event such proceeds shall be credited to those Parties for whom the insurance was purchased in the proportion of their respective contributions toward the insurance coverage.
- 2.9.3 Expenditures incurred in the settlement of all losses, claims, damages, judgments and other expenses for the account of Unit Operations.

#### 2.10 Litigation and Legal Expenses

The costs and expenses of litigation and legal services necessary for the protection of the Unit Operations under the Agreement as follows:

- 2.10.1 Legal services necessary or expedient for the protection of the Unit Operations and all costs and expenses of litigation, arbitration or other alternative dispute resolution procedure, including reasonable attorneys' fees and expenses, together with all judgments obtained against the Parties or any of them arising from the Unit Operations.
- 2.10.2 If the Unit Operating Committee shall so agree, actions or claims affecting the Unit Operations hereunder may be handled by the legal staff of one or any of the Parties hereto (including by way of Secondment to the Operator's organisation); in which case the reasonable costs of providing and furnishing such services rendered in accordance with Section 2.6.2 may be made by the Party providing such service to the Unit Operator for the Unit Account, but no such charges shall be made until approved by the Parties.

#### 2.11 **Taxes and Duties**

All taxes, duties, assessments and governmental charges, of every kind and nature, assessed or levied upon or in connection with the Unit Operations, other than any that are measured by or based upon the revenues, income and net worth of a Party, or any penalties arising as a result of mismanagement and late payment of taxes by the Unit Operator.

#### 2.12 **Training Costs**

All costs and expenses incurred for training and developing Ghanaian personnel in accordance with the provisions of either Contract or the Agreement or the Laws/Regulations. p.s. An Ab

## 2.13 Ecological and Environmental

Costs incurred in connection with Unit Operations as a result of statutory regulations for archaeological and geophysical surveys relative to identification and protection of cultural resources and/or other environmental or ecological surveys as may be required by any regulatory authority. Also, costs to provide or have available pollution containment and removal equipment plus costs of actual control, clean up and remediation resulting from responsibilities associated with Hydrocarbon contamination as required by all applicable laws and regulations.

## 2.14 Decommissioning (Abandonment) and Reclamation

Costs incurred for decommissioning (abandonment) and reclamation of the Unit Facilities, including costs required by governmental or other regulatory authority or by either Contract or the Agreement.

## 2.15 Other Expenditures

Any other costs and expenditures incurred by any Operator for the necessary and proper conduct of Unit Operations in accordance with approved Unit Work Programs and Budgets and not covered in this Section II.

# SECTION III - ACQUISITION OF MATERIAL

## 3.1 Acquisitions

Materials purchased for the Unit Account shall be charged at net cost paid by the applicable Operator and recorded in the accounting records in accordance with the standard accounting procedures of the Unit Operator. The price of Materials purchased shall include, but shall not be limited to export broker's fees (if any), insurance, transportation charges, loading and unloading fees, import duties, licence fees and demurrage (retention charges), if any, associated with the procurement of Materials and applicable taxes, less all discounts taken.

# 3.2 Materials Furnished by Operator

Materials required for Unit Operations shall be purchased for direct charge to the Unit Account whenever practicable, except an Operator may furnish such Materials from its stock under the following conditions:

- 3.2.1 New Materials (Condition "A"). New Materials transferred from the warehouse or other properties of Operator shall be priced at net cost determined in accordance with Section 3.1 above.
- 3.2.2 Used Materials (Conditions "B" and "C").

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- 3.2.2.1 Material which is in sound and serviceable condition and suitable for use without repair or reconditioning shall be classed as Condition "B" and priced at seventy-five percent (75%) of actual historical cost.
- 3.2.2.2 Materials not meeting the requirements of Section 3.2.2.1 above, but which can be made suitable for use after being repaired or reconditioned, shall be classed as Condition "C" and priced at fifty percent (50%) of actual historical cost after repairs and reconditioning.
- 3.2.2.3 Material which cannot be classified as Condition "B" or Condition "C" shall be priced at a value commensurate with its use.
- 3.2.2.4 Tanks, derricks, buildings and other items of Material involving erection costs, if transferred in knocked-down condition, shall be graded as to condition as provided in this Section 3.2.2 and priced on the basis of actual historical cost.
- 3.2.2.5 Material, including drill pipe, casing and tubing, which is no longer useable for its original purpose but is useable for some other purpose, shall be graded as to condition as provided in this Section 3.2.2. Such Material shall be priced on the basis of the current price of items normally used for such other purpose if sold to third parties.

#### 3.3 Premium Prices

Whenever Material is not readily obtainable at prices specified in Sections 3.1 and 3.2 of this Section III because of national emergencies, strikes or other unusual causes over which the acquiring Operator has no control, the acquiring Operator may charge the Unit Operator, and the Unit Operator may charge the Unit Account, for the required Material at the acquiring Operator's actual cost incurred procuring such Material, in making it suitable for use, and moving it to the Unit Area, provided that notice in writing, including a detailed description of the Material required and the required delivery date, is furnished to the Non-Operators of the proposed charge at least three (3) Days (or such shorter period as may be specified by the acquiring Operator) before the Material is projected to be needed for operations and prior to the Unit Operator billing the Non-Operators for such Material the cost of which exceeds five hundred thousand US dollars (\$500,000). Each Non-Operator shall have the right, by so electing and notifying the Unit Operator and the acquiring Operator within three (3) Days (or such shorter period as may be specified by the acquiring Operator) after receiving notice from the acquiring Operator, to furnish in kind all or part of his share of such Material per the terms of the notice which is suitable for use and acceptable to the acquiring Operator both as to quality and time of delivery. Such acceptance by the acquiring Operator shall not be unreasonably withheld. If Material furnished is deemed unsuitable for use by the acquiring Operator, all costs incurred in disposing of such Material or returning Material to its owner shall be borne by the Non-Operator furnishing the same unless otherwise agreed by the Parties. If a Non-Operator fails to properly submit an election notification within the designated period, the acquiring Operator is not required to accept Material furnished in kind by such Non-Operator. If the acquiring Operator fails to submit proper notification prior to

HOU03:1168111 Exhibit C to the Unitization and Unit Operating Agreement

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billing the Non-Operators for such Material, the acquiring Operator shall only charge the Unit Operator, and the Unit Operator shall only charge the Unit Account, on the basis of the price allowed during a "normal" pricing period in effect at time of movement.

# 3.4 Warranty of Material Furnished by an Operator

Where an Operator furnishes material from its own inventory then the following shall apply.

- (a) in the case of new unused items the Operator shall ensure that all warranties and guarantees issued by the manufacturer are transferred to the Unit Account. In case of defective Material, credit shall not be passed to the Unit Account until adjustment has been received by the Operator from the manufacturers or their agents.
- (b) in the case of used second-hand material the Operator is deemed at the time of transfer to certify that the material is fit for purpose. In case of defective material the Operator is required to credit the Unit Account in full.

# SECTION IV - DISPOSAL OF MATERIALS

# 4.1 Disposal

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- (a) No Operator shall be under an obligation to purchase the interest of the Non-Operators in new or used surplus Materials.
- (b) Subject to the conditions stipulated in the Contracts, the Unit Operator shall have the right to dispose of Materials but shall advise and secure prior approval of the Unit Operating Committee of any proposed disposition of Materials having an original cost to the Unit Account either individually or in the aggregate of five hundred thousand US dollars (\$500,000) or more. When Unit Operations are relieved of Material charged to the Unit Account, the Unit Operator shall advise each Non-Operator of the original cost of such Material to the Unit Account so that the Parties may eliminate such costs from their asset records. Credits for Material sold by the Unit Operator shall be made to the Unit Account in the month in which the payment is received for the Material. Any Material sold or disposed of under this Section shall be on an 'as is, where is' basis without guarantees or warranties of any kind or nature. Costs and expenditures incurred by the Unit Operator in the disposition of Materials shall be charged to the Unit Account.

# 4.2 Material Purchased by a Party or Affiliate

Material purchased from the Unit Account by a Party or an Affiliate thereof shall be credited by the Unit Operator to the Unit Account, with new Material valued in the same

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manner as new Material under Section 3.2.1 and used Material valued in the same manner as used Material under Section 3.2.2, unless otherwise agreed by the Parties.

### 4.3 Sale to Non-Affiliated Third Parties

Material purchased from the Unit Account by Non-Affiliated Third Parties shall be credited by the Unit Operator to the Unit Account at the net amount collected by the Unit Operator from such Non-Affiliated Third Party. If on transactions in excess of one hundred thousand US dollars (\$100,000) the sales price is less than that determined in accordance with the procedure set forth in Section 4.2, then approval by the Unit Operating Committee shall be required prior to the sale. Any claims by the buyer for defective materials or otherwise shall be charged back to the sale. Any claims by the buyer for defective materials or otherwise shall be charged back to the Unit Account if and when paid by the Unit Operator.

### SECTION V - INVENTORIES

### 5.1 **Periodic Inventories – Notice and Representation**

At reasonable intervals, and at least annually for warehouse stocks, inventories shall be taken by the Unit Operator of all Material on which detailed accounting records are normally maintained. The expense of conducting periodic inventories shall be charged to the Unit Account. The Unit Operator shall give the Non-Operators written notice at least sixty (60) Days in advance of its intention to take inventory and the Non-Operators, at their sole cost and expense, shall each be entitled to have a representative present. The failure of any Non-Operator to be represented at the inventory shall bind such Non-Operator to accept the result of such inventory taken by the Unit Operator, who shall in that event furnish each Non-Operator with a reconciliation of overages and shortages. Inventory adjustments to the Unit Account shall be made for overages and shortages. Any adjustment equivalent to five hundred thousand US dollars (\$500,000) or more shall be brought to the attention of the Unit Operating Committee.

### 5.2 Special Inventories

Whenever there is a sale or change of interest in the Agreement, a special inventory may be taken by the Unit Operator provided the assignor and/or assignce of such interest agrees to bear all costs and expenses thereof. In such cases, both the assignee and the assignor shall be entitled to be represented and shall be governed by the inventory so taken, whether or not a representative is present.

Any Party shall be entitled on giving sixty (60) Days notice in writing, at its own expense, to require the Unit Operator to take a special inventory of the Material forming part of the Unit Facilities at any reasonable time, provided such request shall not interfere with Unit Operations. This election will be limited to one special inventory per Calendar Year. Unit Operator shall, upon request, provide the other Parties with a copy of such special inventory.

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A special inventory shall be taken upon any change of the Unit Operator and the cost thereof shall be charged to the Unit Account.

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ATTACHED TO AND MADE PART OF THE UNITIZATION AND UNIT OPERATING AGREEMENT BY AND BETWEEN GHANA NATIONAL PETROLEUM CORPORATION, TULLOW GHANA LIMITED, KOSMOS ENERGY GHANA HC, ANADARKO WCTP COMPANY, SABRE OIL & GAS HOLDINGS LIMITED, AND EO GROUP LIMITED (THE "AGREEMENT")

## EXHIBIT "D" DECOMMISSIONING PROCEDURES

## SECTION I DEFINITIONS

In this Exhibit D, all capitalized terms defined in the Agreement shall have the respective meanings as set forth in the Agreement, provided that references to the "Government" shall be deemed to be references only to the Government of the Republic of Ghana, and the capitalized terms below shall have the following meanings:

### 1.1 Authorised Investments means:

- (a) subject to satisfaction of all of the conditions set forth in Section V prior to the date that is three hundred and sixty five (365) days before the Trigger Date and maintenance of such conditions thereafter, and to the proviso set forth in Section 3.4(d), Government of Ghana Securities; provided, however, in the event the provisions of Section 3.4(b) become applicable and a Loss Event occurs, then, from and after such Loss Event, Government of Ghana Securities shall not constitute Authorised Investments for purposes of any Decommissioning Trust Fund investments other than as provided for in Section 3.4(e).
- (b) securities issued by Her Majesty's government in the United Kingdom being fixed-interest securities registered in the United Kingdom or fixed-interest securities the payment of principal and interest on which is guaranteed by Her Majesty's government in the United Kingdom with a maximum maturity not to exceed the first to occur of: (i) two (2) years from the date of issue, and (ii) the expected date of Decommissioning;
- (c) securities issued by the government of the United States being fixed-interest securities registered in the United States or fixed-interest securities the payment of principal and interest on which is guaranteed by the government of the United States with a maximum maturity not to exceed the first to occur of: (i) two (2) years from the date of issue, and (ii) the expected date of Decommissioning; and
- (d) a separate interest bearing account in a bank in London, England provided, however, that the bank holding the cash has a credit rating for long-term unsecured debt of at least "AA" by Standard & Poor's or "Aa2" by Moody's, or, in the event neither such entity is issuing credit ratings for long-term unsecured debt, the equivalent rating by a comparable international credit rating agency.

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- *1.2 Cash Call* has the meaning ascribed to it in the Unit Accounting Procedure, Exhibit C to the Agreement.
- 1.3 Cash Security has the meaning ascribed to it in Section 4.2.
- 1.4 Complementary Security has the meaning ascribed to it in Section 4.1.
- **1.5** Decommissioning Assumption and Release Agreement has the meaning ascribed to it in Section 5.1.
- 1.6 Decommissioning Indemnitees has the meaning ascribed to it in Section 5.1.
- 1.7 **Decommissioning Work Program and Budget** means the Work Program and Budget for Decommissioning, in respect of the Unit Area approved, or deemed approved, pursuant to Article 9.8 of the Agreement.
- *1.8 Decommissioning Trust Fund* means the trust fund established pursuant to Section III below.
- **1.9** End Date means the date that is the earlier of: (i) the date upon which the production of Hydrocarbons by the Parties from the Unit Area is expected to permanently cease, as set out in the most recently approved Unit Development Plan; or (ii) the date upon which the Agreement is expected to terminate as a result of the termination of both Contracts; or (iii) the date upon which the Parties expect to relinquish the Unit Area as a result of their determination that production of Hydrocarbons from the Unit Interval is no longer economic.
- 1.10 Government of Ghana Securities means publicly offered securities issued by the Government being fixed-interest securities the payment of interest and principal on which is guaranteed by the Government with a maximum maturity not to exceed the first to occur of: (i) two (2) years from the date of issue, and (ii) the expected date of Decommissioning.
- 1.11 Government Guaranty Agreement has the meaning ascribed to it in Section 5.2.
- **1.12** Government Party means any of the Government, GNPC, the Bank of Ghana and any successor entity owned or Controlled by the Government and (if the financial institution mentioned in Section 3.4(a) is determined by Section 3.4(b)) the Trustee.
- 1.13 Loss means:
  - (a) the loss of the principal amount (calculated in US dollars) of Cash Security invested in Government of Ghana Securities, and
  - (b) any and all damages, losses, costs, expenses and liabilities arising out of, incident to or resulting from (i) any breach by any Government Party of the provisions of, or any duty under, the trust deed provided for in Section 3.5, or (ii) as a result of

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any action by any Government Party that is in violation of the Parties' rights under the Agreement or the Contracts, and

(c) costs and expenses incurred by the Parties (or any of them) in connection with the enforcement of their rights with respect to the Government of Ghana Securities against any Government Party.

For purposes of clause (a) of this definition, "Loss" shall be calculated by subtracting (x) the amount received (converted to US dollars, to the extent received in currency other than US dollars) upon or before the due date for Redemption of such Government of Ghana Securities, from (y) the amount of Cash Security used to make such investment in such Government of Ghana Securities. Such Loss shall be calculated no more than ten (10) Business Days from the due date for Redemption of such Government of Ghana Securities. For purposes of the indemnity set forth in Section 5.1(c), any Loss realized shall be deemed to have been realized from the due date for Redemption.

- 1.14 Loss Event means a failure by the Government to reimburse the Parties for any Loss and the continuation of such failure for a period of ninety (90) Days from the due date for Redemption.
- 1.15 Other Securities means any of the Authorised Investments described in clauses (b), (c), and (d) of the definition of "Authorised Investments" set forth in Section 1.1.
- **1.16 Redemption** means, with respect to any Government of Ghana Securities, payment of the principal obligation of the issuer of such security, whether at or prior to the maturity thereof and howsoever such maturity may be brought about.
- 1.17 *Run Down Period* means the period of time, which commences on the Trigger Date and ends at the End Date.
- 1.18 Trigger Date has the meaning ascribed to it in Section 3.2.
- 1.19 Trust Fund Cash Call has the meaning ascribed to in Section 3.3.

# SECTION II PURPOSE

The purpose of these Decommissioning Procedures is (i) to ensure that each Party provides adequate Security for the benefit of the other Parties for due payment of all Cash Calls payable by it under the Agreement in respect of its liability to contribute to Decommissioning Costs and (ii) to ensure compliance with the Decommissioning requirements of the Contracts, the Government Approval and the Acknowledgment.

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### SECTION III CONTRIBUTIONS TO TRUST FUND

### 3.1 Trust Fund Cash Calls

Subject only to Section IV, each Party will be required to contribute to the creation of the Decommissioning Trust Fund. Unless unanimously approved otherwise, each Party shall bear the Decommissioning Costs proportionally to its respective Paying Interest.

## 3.2 Trigger Date

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The obligations of the Parties to commence paying Trust Fund Cash Calls (or provide Complementary Security pursuant to Section IV in lieu thereof) shall commence when the **"Trigger Date"** occurs, being the first day of the Calendar Month following the earlier of: (a) the Calendar Month in which fifty percent (50%) of the recoverable Crude Oil as set out in the most recently approved Unit Development Plan has been extracted from the Unit Interval; or (b) the date that is five (5) years prior to the End Date. The obligations of the Parties pursuant to Sections III and IV shall, once the Trigger Date has occurred, remain in effect regardless of whether a subsequent production profile for the Unit Interval submitted by the Unit Operator and approved by the Unit Operating Committee pursuant to Article 9.3(A) of the Agreement shows that an amount of Crude Oil that is less than fifty percent (50%) of the Recoverable Oil has been extracted from the Unit Interval, including a change in a subsequent production profile for the Unit Interval in accordance with Article 5.3 of the Agreement.

## 3.3 Decommissioning Trust Fund

The Parties shall contribute to the Decommissioning Trust Fund and Unit Operator is instructed and authorized to make annual Cash Calls (**"Trust Fund Cash Calls"**) to each Party in respect of an amount calculated in accordance with the following formula:

(a) in respect of the Calendar Year in which the Trigger Date falls and each subsequent Calendar Year beginning during the Run Down Period:

Trust Fund Cash Call =  $[(PI \times AC) - (Fund + Security)]/Y$ 

where:

**PI** is the Paying Interest of the Party on whom the Trust Fund Cash Call is made in respect of production expenditures at the time of calculation,

AC is the latest estimate of Decommissioning Costs, for Unit Facilities not yet decommissioned, approved by the Unit Operating Committee and in effect at the time of calculation,

Y is the number of Calendar Years and partial Calendar Years remaining in the Run Down Period, based upon the projected End Date at the time of calculation, **Fund** is the total amount of funds of the Party (and its predecessor in interest) held in trust in the Decommissioning Trust Fund at the time of calculation, **Security** is the total amount of Complementary Security provided by that Party

HOU03:1165937 Exhibit D to the Unitization and Unit Operating Agreement D-4

(and its predecessor in interest) which satisfies the requirements of Section IV at the time of the calculation.

If the Trust Fund Cash Call is negative it is deemed to be zero.

The first Trust Fund Cash Call shall be due within thirty (30) Days after receipt and each subsequent Trust Fund Cash Call shall be due on or before January 1 of the Calendar Year to which it applies (but in no event earlier than fifteen (15) Days after receipt); provided that any Complementary Security shall be renewed in accordance with the requirements of Section 3.7. All payments of Trust Fund Cash Calls shall be made in US dollars to the bank and account designated by the Trustee.

The Trustee (as defined in Section 3.4(a) below) shall keep records of the contributions made by each Party in response to Trust Fund Cash Calls, and the interest earned on such monies, as well as the Complementary Security held for each Party. For purposes of determining funds which remain held for each Party's account at any time, funds withdrawn by the Trustee from the Decommissioning Trust Fund shall be charged to the account of the Party for whose benefit they are withdrawn and if not withdrawn at the request or as a result of the default of a specific Party, shall be deemed to be withdrawn on a pro rata basis in proportion to the amounts held for the account of each Party.

The funding of Trust Fund Cash Calls that include in part earlier amounts not funded by a Defaulting Party shall not excuse the Defaulting Party from curing such default.

### 3.4 Trustee

- (a) A suitably qualified independent trustee employed by the financial institution determined pursuant to the provisions of Sections 3.4(b) and 3.4(c) below will be the trustee of the Complementary Security and the Decommissioning Trust Fund. The financial institution determined pursuant to the provisions of Section 3.4(c) shall be subject to approval by the Unit Operating Committee pursuant to the voting provisions of the Agreement. In the event the Unit Operating Committee fails to approve a trustee by the required vote, then that trustee with the most support shall be appointed, and in the event of a tie, the Unit Operator shall select one of the trustee candidates having the most support. In any event, the trustee so selected is referred to herein as the "Trustee".
- (b) Subject to satisfaction of the conditions set forth in Section V prior to the date that is three hundred and sixty five (365) days before the Trigger Date and maintenance of such conditions thereafter, the financial institution referred to in Section 3.4(a) shall be the Bank of Ghana.
- (c) If any of the conditions set forth in Section V have not been satisfied and maintained prior to the date that is three hundred and sixty five (365) days before the Trigger Date, then the financial institution referred to in Section 3.4(a) shall be a commercial financial institution having a credit rating of at least "AA" by Standard & Poor's or "Aa2" by Moody's, or, in the event neither such entity is issuing credit ratings for long-term unsecured debt, the equivalent rating by a

D-5

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comparable international credit rating agency. If, pursuant to the immediately preceding sentence, the financial institution referred to in Section 3.4(a) is determined pursuant to this Section 3.4(c), then the provisions of Section 3.4(b) shall not apply.

- (d) The Security documents and any cash received into the Decommissioning Trust Fund will be held by the Trustee for the benefit of Unit Operator on behalf of each Party according to its net contributions. All payments of Trust Fund Cash Calls shall be made in US dollars to the bank and account designated by the Trustee. The Decommissioning Trust Fund shall be invested, subject to any direction from the Unit Operating Committee, in Authorised Investments; provided, however, in no event shall more than fifty percent (50%) of the Cash Security deposited in the Decommissioning Trust Fund at any particular time be invested in Government of Ghana Securities. In the event a Loss has occurred, during any period that such Loss has not been reimbursed to the Parties, no Cash Security deposited in the Decommissioning Trust Fund shall be invested in Government of Ghana Securities.
- (e) In the event GNPC is of the opinion that the circumstances leading to a Loss Event have passed, GNPC may notify the other Parties in writing and request that a Unit Operating Committee meeting be held within thirty (30) Days of such notification in order to consider such matter. At the meeting, the Unit Operating Committee shall determine whether Government of Ghana Securities shall again become Authorised Investments for the purposes of Decommissioning Trust Fund investments.

## 3.5 Trust

The Trustee will be required to enter into a trust deed, governed by English Iaw and approved by the Unit Operating Committee pursuant to which it will hold all capital and accrued interest upon trust, to withdraw from the Decommissioning Trust Fund and/or to realize upon the Complementary Security to pay all Decommissioning Costs. Interest accrued in the trust shall become part of the Decommissioning Trust Fund for the account of each Party in proportion to its share of the principal balance on the date the interest accrues. The Trustee shall issue regular statements to the Parties and to the Minister (and in no event less frequently than monthly) showing the balance in the Decommissioning Trust Fund and Complementary Security held, the amounts for the account of each Party, and all receipts and disbursements since the prior statement.

# 3.6 Cash Calls for Decommissioning Costs

Beginning in the Calendar Month prior to the Calendar Month in which any Decommissioning is to commence, the Unit Operator will issue Cash Calls for Decommissioning of the applicable Unit Facilities to each Party separately from other Cash Calls and shall copy the same to the Trustee. If any such Cash Call is not paid directly by a Party by the due date for payment thereof or if a Party so elects by notice to the Trustee prior thereto (such election to be made by notice to the Trustee at least five

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(5) Business Days prior to the Cash Call due date to enable the Trustee to meet the Cash Call by the due date for payment thereof), then the Unit Operator shall require payment from and invoice the Trustee. In the event payment is required for the account of a Party from the Decommissioning Trust Fund and there are insufficient funds standing to the credit of that Party in the Decommissioning Trust Fund to meet such Cash Call, then the Trustee shall take all steps necessary to realize any Complementary Security established by that Party pursuant to Section IV and shall hold the excess of such realized security over the amount of such Cash Call for the account of such Party in the Decommissioning Trust Fund.

#### 3.7 Maintenance Requirement

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The funds in the Decommissioning Trust Fund and/or Complementary Security required hereunder shall be maintained, to the extent not drawn to pay Decommissioning Costs, until the time of completion of Decommissioning and payment of all Decommissioning Costs, regardless of whether occurring before or after the End Date. If Complementary Security provided by a Party hereunder at any time ceases at any time prior to such date to meet the definition of Security, then within thirty (30) Business Days of such occurrence, such Party must either (i) pay an amount in cash equivalent to the outstanding face value of such Complementary Security to the Trustee for deposit in the Decommissioning Trust Fund or (ii) replace the defective Complementary Security with qualifying Complementary Security.

If Complementary Security is provided by a Party, such Complementary Security shall have an expiry date of 31<sup>st</sup> December of the Calendar Year in question or any succeeding Calendar Year. Complementary Security shall be renewed for each Calendar Year by no later than 1<sup>st</sup> December preceding the Calendar Year to which it applies provided that the renewed Complementary Security may be stated to take effect from the expiry date of the expiring Complementary Security. Without prejudice to the provisions of Section 6.1, in the event of a failure by a Party to renew Complementary Security in accordance with this Section 3.7, the Trustee may take any and all steps necessary to enforce the expiring Complementary Security prior to the expiry date thereof. On provision of renewed Complementary Security, a Party shall be entitled to request the Trustee promptly to return to the relevant Party the expired Complementary Security.

Upon Transfer by a Party of all or an undivided percentage of its Project Interest other than (i) to an Affiliate or (ii) to another Party or Parties, the transferor shall replace any existing Complementary Security provided by it with respect to the Transferred Project Interest by paying cash equal to the outstanding face value of such Complementary Security to the Trustee for deposit in the Decommissioning Trust Fund, and the Trustee shall upon receipt of such amounts release to the transferor the Complementary Security held by the Trustee with respect to the Transferred Project Interest. In the event of a Transfer by a Party (i) to an Affiliate or (ii) to another Party or Parties, the existing balance in the Decommissioning Trust Fund and any existing Complementary Security provided with respect to the Transferred Project Interest shall be accounted for as if originally supplied by the transferee and, prior to the effective date of the Transfer, the transfere shall provide replacement Complementary Security for any Complementary

D-7

HOU03:1165937 Exhibit D to the Unitization and Unit Operating Agreement

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Security then held pursuant to this <u>Exhibit D</u> with respect to the Transferred Project Interest, and the Trustee shall upon receipt of such amounts release to the transferror the Complementary Security held by the Trustee with respect to the Transferred Project Interest.

If following the End Date, GNPC takes over operation of any or all of the Unit Facilities without the same having been Decommissioned, the Parties at that time shall replace any Complementary Security provided by them by paying cash equal to the outstanding face value of such Complementary Security to the Trustee for deposit in the Decommissioning Trust Fund, and promptly upon receipt of such amounts (but in any event within thirty (30) Business Days following receipt), the Trustee shall release to the applicable Party the Complementary Security held by the Trustee with respect to such Party's interest. The Trustee shall thereafter hold the capital and interest in the Decommissioning Trust Fund in trust to be released for payment of Decommissioning Costs for the Unit Facilities as in existence at the time of termination of the last Contract, until Decommissioning of such Unit Facilities has been completed. Funds shall be released upon receipt from GNPC and a designated representative of the Parties of instructions to release amounts required to pay invoices for such Decommissioning Costs. For the avoidance of doubt, activities of GNPC after the termination of the last Contract shall not increase the liability of the Parties for Decommissioning Costs, which shall be based upon the Unit Facilities as they existed at the time of termination of the last Contract. The trust deed shall contain terms and provisions in compliance with the foregoing provisions of this Section 3.7.

### 3.8 Surplus

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If any funds remain for the account of any Party in the Decommissioning Trust Fund or Complementary Security are held for the account of any Party at the time of completion of Decommissioning and payment of all Decommissioning Costs, then, promptly upon such completion and payment (but in any event within thirty (30) Business Days following such completion and payment) the unused funds, including interest thereon, shall be repaid and the remaining Complementary Security released to the Party or Parties for whose account they are held, subject to payment of applicable taxes thereon.

## 3.9 Shortfall

For the avoidance of doubt, except as otherwise provided in Section 5.1, nothing provided for in this Exhibit D shall remove, vitiate or otherwise annul the obligation of any Party to meet in full its liability to pay its Unit Interest share of Decommissioning Costs. Each Party shall remain liable for due payment of all Cash Calls payable by it under the Agreement in respect of its liability for Decommissioning Costs. In the event that the Security (including the Decommissioning Trust Fund and any Complementary Security) provided by the Parties in accordance with the terms of this Exhibit D is insufficient to meet Decommissioning Costs in full, each Party (and, unless otherwise agreed in writing by the Parties, in the case of Article 10.10, Article 14 or Article 15 of the Agreement, each Defaulting Party, Transferring Party or withdrawing Party, as applicable) shall remain liable to pay its Unit Interest share of any outstanding Decommissioning Costs.

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## SECTION IV COMPLEMENTARY SECURITY

### 4.1 Party may elect to provide Complementary Security

In lieu of compliance with the obligation to pay a Trust Fund Cash Call in respect of any Calendar Year, a Party may elect, subject to Section 4.2, to provide Security to cover all or a portion of its obligation in respect of the Trust Fund Cash Call for such Calendar Year in the form of an irrevocable standby letter of credit issued by a bank or an on demand bond issued by a bank ("**Complementary Security**") to the Trustee. Such fully documented Security must be provided at or prior to the date on which the relevant Trust Fund Cash Call becomes due for payment.

## 4.2 Limitations on Complementary Security

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In no event may any Party satisfy more than forty percent (40%) of the total at any particular time of its aggregated Trust Fund Cash Calls with Complementary Security. At least sixty percent (60%) of the aggregate Security furnished by each Party at any particular time must consist of cash deposited in US dollars in the Decommissioning Trust Fund ("Cash Security") plus any interest accrued on such cash.

## SECTION V CONDITIONS PRECEDENT

The provisions of Sections 1.1(a) and 3.4(b) are subject to the following conditions:

# 5.1 Decommissioning Assumption and Release Agreement

The Government shall have entered into an agreement with the Parties, in form and substance approved by the Unit Operating Committee pursuant to the voting provisions of the Agreement (the "**Decommissioning Assumption and Release Agreement**"), which shall provide that, in the event the Parties suffer or incur any Loss, then, upon delivery of notice by the Unit Operator to the Government of such Loss,

- (a) the Government shall irrevocably assume, and shall automatically be deemed to have assumed, all liabilities and obligations of the Parties for and with respect to Decommissioning whether arising under the Agreement, either Contract, the Laws/Regulations, or otherwise, to the extent of the amount of such Loss;
- (b) the Parties and their respective shareholders, officers, directors, agents and other representatives (collectively, the "**Decommissioning Indemnitees**") shall automatically be irrevocably released and discharged, fully and completely, from and of all liabilities and obligations mentioned in Section 5.1(a) above to the extent of the amount of such Loss;
- (c) the Government shall indemnify and hold harmless the Decommissioning Indemnitees from and against such Loss and from and against any failure by the

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D-9

Exhibit D to the Unitization and Unit Operating Agreement

Government to conduct or cause to be conducted the Decommissioning for which liability is assumed by the Government as provided in Section 5.1(a); and

(d) the Parties shall have the right to set off the amount of such Loss against any liabilities or obligations owing by the Parties (whether matured or not and howsoever arising) to a Government Party under or in connection with the Agreement or either Contract (including, without limitation, royalties, taxes of any kind, duties, fees and Entitlement).

## 5.2 Government Guaranty Agreement

The Government shall have entered into an agreement with the Parties, in form and substance approved by the Unit Operating Committee pursuant to the voting provisions of the Agreement ("the **Government Guaranty Agreement**"), under which the Government shall absolutely and unconditionally guarantee to the Parties, their successors and assigns, the prompt payment and performance by the Trustee and the Bank of Ghana of all their respective liabilities and obligations under or in connection with the trust deed.

## 5.3 Other Governmental Approvals

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The Parties shall have received approval in writing from the Minister (and from any and all other Governmental Authorities whose approval is required by applicable Law/Regulations) of the Decommissioning Assumption and Release Agreement and Government Guaranty Agreement, in form and substance approved by the Unit Operating Committee pursuant to the voting provisions of the Agreement.

### 5.4 Opinion of Attorney General

The Attorney General of the Republic of Ghana shall have delivered to the Parties a written legal opinion, in form and substance satisfactory to the Unit Operating Committee pursuant to the voting provisions of the Agreement, confirming (a) the due power and authority of the Government to execute and deliver the Decommissioning Assumption and Release Agreement and Government Guaranty Agreement and to perform its respective obligations thereunder, (b) the validity, legally binding nature and enforceability of the Decommissioning Assumption and Release Agreement and Government Guaranty Agreement against the Government in accordance with their respective terms, and (c) the due power and authority of the Minister to execute and deliver such approval provided for above in Section 5.3 and to perform its obligations thereunder.

## 5.5 Audit Right

The trust deed shall include an obligation upon the Trustee and/or the Bank of Ghana, if applicable, to keep and retain complete and accurate records relating to the Decommissioning Trust Fund and any Complementary Security. The Trustee and/or the Bank of Ghana, if applicable, shall equally ensure that at all times appropriate disaster recovery plans are in place to safeguard copies of all such records. The trust deed shall provide, *inter alia*, that the Parties shall have the right from time to time to audit the records of the Trustee and/or, if applicable, the

D-10

Exhibit D to the Unitization and Unit Operating Agreement

Bank of Ghana relating to the Decommissioning Trust Fund and any Complementary Security, and to take and retain copies of any such records. Any withdrawal of funds from the Decommissioning Trust Fund and/or Complementary Security may only be made by way of a written instrument signed by the Trustee and an authorized representative of the Unit Operator.

# 5.6 Arbitration; Waiver of Immunity

The trust deed, the Decommissioning Assumption and Release Agreement and the Government Guaranty Agreement shall each contain provisions for (a) any dispute or difference arising between or among one or more of the Government Parties, on the one hand, and the Parties, on the other hand, in relation to or in connection with or arising out of any terms and conditions of any of those agreements or documents, to be resolved by final and binding arbitration under the Rules as provided for in Article 20.3 of the Agreement, and (b) the waiver of sovereign or governmental immunity by each Government Party as to each such person or entity (as applicable) and its property in respect of the enforcement and execution of any award rendered by an arbitral tribunal constituted pursuant to such arbitration provisions.

## SECTION VI DEFAULT

# 6.1 Consequences of Failure to Pay or Furnish Security

If any Party fails to pay a Trust Fund Cash Call or to provide Complementary Security as authorized in Section IV, or fails to provide renewal or replacement Complementary Security as required by Section 3.7, the failure shall for all purposes be treated as a default under Article 10 of the Agreement.

## 6.2 Non-compliance

Where any Party believes that the Complementary Security provided by any other Party does not comply at any time with the requirements of Section IV, it may notify all Parties and state the reasons for the purported non-compliance. The Party whose Complementary Security is alleged to be non-compliant must within ten (10) Business Days from receipt of such notice either prove to the other Parties' reasonable satisfaction that its Security does comply with Section IV or take the remedial actions required under Section 3.7 in the event of defective Complementary Security.

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ATTACHED TO AND MADE PART OF THE UNITIZATION AND UNIT OPERATING AGREEMENT BY AND BETWEEN GHANA NATIONAL PETROLEUM CORPORATION, TULLOW GHANA LIMITED, KOSMOS ENERGY GHANA HC, ANADARKO WCTP COMPANY, SABRE OIL & GAS HOLDINGS LIMITED, AND EO GROUP LIMITED (THE "AGREEMENT")

## EXHIBIT "E" REDETERMINATION PROCEDURES

# SECTION 1 GENERAL

### 1.1 Definitions

Capitalized terms used and not otherwise defined in this Exhibit shall have the meanings given such terms in the Agreement. In addition, for purposes of this Exhibit, the following terms shall have the meaning ascribed to them below:

- (A) Accepted Unit Data means Unit Data from (i) within the Unit Area and (ii) other Unit Data provided for in Section 4.3(A) of Exhibit F (and including, for the avoidance of doubt, data from Non-Unit Operations for which the Unit Parties have acquired a license pursuant to Article 6.4 of the Agreement), that in each case is not Excluded Unit Data, to be incorporated into a database for the purposes of undertaking Redeterminations pursuant to Section 2 of this Exhibit, subject in each case to the restrictions described in Section 2.1 of this Exhibit with respect to the Data Cut-off Date.
- (B) Accepted Other Data means such Other Data that is agreed by the Unit Operating Committee to be incorporated into a database for the purposes of undertaking Redeterminations pursuant to Section 2 of this Exhibit, subject in each case to the restrictions described in Section 2.1 of this Exhibit with respect to the Data Cutoff Date.
- (C) *Candidate* has the meaning ascribed to it in Section 5.2(C).
- (D) Common Database means a database containing: (i) Accepted Unit Data other than Excluded Unit Data and (ii) Accepted Other Data. Such Common Database shall only be valid for the Redetermination for which it is compiled. Only data in the Common Database may be used in an Initial Proposal or Final Proposal submitted for the Redetermination.
- (E) **Data Cut-off Date** means the Redetermination Trigger Date or such other date as may be unanimously agreed by the Unit Operating Committee.
- (F) Excluded Unit Data means Unit Data from (i) within the Unit Area and (ii) other Unit Data provided for in Section 4.3(A) of Exhibit F (and including, for the avoidance of doubt, data from Non-Unit Operations for which the Unit Parties have acquired a license pursuant to Article 6.4 of the Agreement) that in each case the Unit Operating Committee has agreed to exclude from a database for the purposes of undertaking Redeterminations pursuant to Section 2 of this Exhibit.
- (G) *Expert Call Window* has the meaning ascribed to it in Section 4.5.

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- (H) *Expert Commencement Date* has the meaning ascribed to it in Section 4.3.
- (I) *Expert Employment Date* has the meaning ascribed to it in Section 5.3(B)(3).
- (J) *Final Determination* has the meaning ascribed to it in Section 5.7(C).
- (K) *Final Proposal* has the meaning ascribed to it in Section 4.7.
- (L) Initial Determination has the meaning ascribed to it in Section 5.7(A).
- (M) Initial Proposal has the meaning ascribed to it in Section 3.1(A).
- (N) *Numerics of OHIP* means the numbers, formulas and/or quantities used to describe the volume of OHIP within the portion of the Unit Interval underlying each Tract.
- (O) Other Data means data, other than Unit Data from (i) within the Unit Area and (ii) other Unit Data provided for in Section 4.3(A) of Exhibit F, that is proposed by any Party to the Agreement to be incorporated into a database for the purposes of undertaking Redeterminations pursuant to Section 2 of this Exhibit, subject in each case to the restrictions described in Section 2.1 of this Exhibit with respect to the Data Cut-off Date.
- (P) **Positions** has the meaning ascribed to it in Section 4.1.
- (Q) **Redetermination Process Commencement Date** has the meaning ascribed to it in Section 1.4.
- (R) *Redetermination Subcommittee* has the meaning ascribed to it in Section 1.5.
- (S) *Redetermination Trigger Date* means:
  - (1) the date upon which a Redetermination is scheduled to commence in accordance with either Article 5.5(D)(1) of the Agreement; or
  - (2) a Redetermination Call Date for a Redetermination that may be called in accordance with Article 5.5(D)(2) of the Agreement; or
  - (3) the date upon which a Redetermination is scheduled to commence in accordance with Article 5.3(E)(1) of the Agreement,

as applicable, provided that, notwithstanding the preceding, if the commencement of a Redetermination is deferred in accordance with the provisions of Article 5.5(D)(4) of the Agreement, the "Redetermination Trigger Date" associated with such Redetermination shall be the date upon which the Redetermination is scheduled to commence in accordance with Article 5.5(D)(4).

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# 1.2 Redetermination Principles

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Exhibit E to the Unitization and Unit Operating Agreement

In carrying out a Redetermination, the Parties, the Unit Operator, the Unit Operating Committee and the Redetermination Subcommittee shall use the following principles:

- (A) A Redetermination shall apply sound geophysical, geological and petrophysical principles so that the Redetermination Basis as defined in Article 5.5 of the Agreement is accurately determined.
- (B) A Redetermination shall be conducted using:
  - (1) the data derived from the Common Database; and
  - (2) the Redetermination Technical Procedures contained in Exhibit F to the Agreement in order to ensure that interpretations of the Common Database have a reasonable technical foundation, but without limiting the application of the knowledge of the Parties and the Redetermination Subcommittee in the interpretation and analysis of such data.
- (C) All decisions of the Unit Operating Committee under this Exhibit shall require the unanimous affirmative vote of the Parties.
- (D) Computer-based systems utilizing industry recognized and commercially available software reasonably available to the Parties prior to the Data Cut-off Date shall be used in all matters related to Redetermination including the Initial Proposal and all Final Proposals. All data exchange among the Parties or with an Expert related to Redetermination shall be in an industry standard format that is compatible with such commercially available software.

### 1.3 Role of Unit Operating Committee

The role of the Unit Operating Committee in a Redetermination shall be as follows:

- (A) vote whether to exclude any Unit Data from (i) within the Unit Area or (ii) other Unit Data provided for in Section 4.3(A) of Exhibit F (and including, for the avoidance of doubt, data from Non-Unit Operations for which the Unit Parties have acquired a license pursuant to Article 6.4 of the Agreement) as Excluded Unit Data from the proposed Common Database;
- (B) vote whether to include any Other Data as Accepted Other Data in the proposed Common Database;
- (C) attempt to resolve any disputes among the Parties as to any aspect of the recommendation or report of the Redetermination Subcommittee, or any of the matters on which the Redetermination Subcommittee have not unanimously agreed;
- (D) vote whether to approve the Numerics of OHIP within the portion of the Unit Interval underlying each Tract as recommended by the Redetermination Subcommittee, or to approve the Numerics of OHIP within the portion of the Unit

Exhibit E to the Unitization and Unit Operating Agreement

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Interval underlying each Tract as otherwise determined by the Unit Operating Committee; and

(E) vote whether to refer the redetermination of the Numerics of OHIP within the portion of the Unit Interval underlying each Tract to an Expert pursuant to Section 4.4.

#### 1.4 Notice of Impending Redetermination

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At least ninety (90) Days prior to an anticipated Redetermination Trigger Date (the "*Redetermination Process Commencement Date*"), the Unit Operator shall send notice to the Parties of the anticipated Redetermination Trigger Date.

#### 1.5 Formation of the Redetermination Subcommittee

Immediately after the Redetermination Process Commencement Date, the Unit Operating Committee shall establish a subcommittee to oversee the conduct of the Redetermination (the "*Redetermination Subcommittee*").

As described in Section 4.1, the Redetermination Subcommittee shall use all reasonable efforts to achieve agreement among the Parties on matters affecting the Redetermination by reviewing the Initial Proposal and assessments and identifying areas of agreement and outstanding issues.

The Redetermination Subcommittee shall be chaired by the Unit Operator and shall consist of one representative and one alternate from each Party. Each Party shall have the right to change its representative and alternate at any time by giving notice of such change to the other Parties. Each of the Parties shall bear its own overhead and direct costs in relation to its involvement in the Redetermination Subcommittee, subject to Article 5.5(F) of the Agreement.

The Redetermination Subcommittee shall be dissolved upon the Redetermination End Date.

#### 1.6 Information and Discussion

The Parties agree that the Redetermination Subcommittee shall establish working procedures for frequent and timely meetings in relation to the work of the Unit Operator and of the Redetermination Subcommittee in regard to the Redetermination.

The chairman of the Redetermination Subcommittee shall be responsible for sending notices of meetings, preparing agendas, and for maintaining records and Positions pursuant to Section 4.1 as the Redetermination progresses.

## SECTION 2 DATA

#### 2.1 Data Cut-off Date

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E-4 Exhibit E to the Unitization and Unit Operating Agreement Subject to the following sentence, the Common Database shall only include data existing on the Data Cut-Off Date. Data created or acquired after the Data Cut-Off Date shall be included only with the unanimous agreement of the Unit Operating Committee.

### 2.2 Data Preparations

No later than thirty (30) Days after the Data Cut-off Date, the Unit Operator shall:

- (A) make the Unit Data available electronically to the Parties; and
- (B) propose the Common Database for use in the Redetermination, and make the proposed Common Database available electronically to the Redetermination Subcommittee for consideration and modification.

## 2.3 Vote to Accept Common Database

- Other Data may only be included in the Common Database with the approval of (A) the Unit Operating Committee, and Unit Data from (i) within the Unit Area or (ii) other Unit Data provided for in Section 4.3(A) of Exhibit F (and including, for the avoidance of doubt, data from Non-Unit Operations for which the Unit Parties have acquired a license pursuant to Article 6.4 of the Agreement) may only be excluded from the Common Database with the approval of the Unit Operating Committee. The Unit Operating Committee shall have a period of sixty (60) Days from its receipt of the Unit Operator's proposal pursuant to Section 2.2(B) to vote to include any Other Data (whether or not contained in the Unit Operator's proposal) in the Common Database as Accepted Other Data and may during that same period vote to exclude any Unit Data from (i) within the Unit Area or (ii) other Unit Data provided for in Section 4.3(A) of Exhibit F from the Common Database as Excluded Unit Data. For the avoidance of doubt, unless specifically excluded from the Common Database by the Unit Operating Committee as Excluded Unit Data, all Unit Data from (i) within the Unit Area and (ii) other Unit Data provided for in Section 4.3(A) of Exhibit F (and including, for the avoidance of doubt, data from Non-Unit Operations for which the Unit Parties have acquired a license pursuant to Article 6.4 of the Agreement) shall be automatically included in the Common Database as Accepted Unit Data without a vote of the Unit Operating Committee.
- (B) During the sixty (60) Day period referred to in Section 2.3(A) above, the Redetermination Subcommittee shall meet on a weekly basis to discuss specific data to be included in or excluded from the Common Database. Prior to the end of the sixty (60) Day period, the Unit Operator will present a final written recommendation for a Common Database to be used in the Redetermination to the Unit Operating Committee. If any issues remain unresolved, the Redetermination Subcommittee will report such issues to the Unit Operating Committee. The Unit Operating Committee will meet to attempt to resolve the remaining issues.

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E-5 Exhibit E to the Unitization and Unit Operating Agreement

#### 2.4 Failure to Agree on Data

- (A) If the Unit Operating Committee fails to unanimously agree that certain Unit Data from (i) within the Unit Area or (ii) other Unit Data provided for in Section 4.3(A) of Exhibit F (and including, for the avoidance of doubt, data from Non-Unit Operations for which the Unit Parties have acquired a license pursuant to Article 6.4 of the Agreement) shall be excluded from the Common Database as Excluded Unit Data, such data shall be included in the Common Database as Accepted Unit Data.
- (B) If the Unit Operating Committee fails to unanimously agree that certain Other Data shall be included in the Common Database as Accepted Other Data, such data shall be excluded from the Common Database.

## 2.5 Distribution of the Common Database

Within fifteen (15) Days after the date on which the Unit Operating Committee votes to determine whether to exclude Excluded Data and/or to include Accepted Other Data pursuant to Section 2.3, the Unit Operator shall distribute to the Parties the Common Database.

## SECTION 3 INITIAL PROPOSALS

### 3.1 Timing

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- (1) For the first Redetermination conducted with respect to the Unit Interval, not later than sixty (60) Days after the Common Database related to such Redetermination has been distributed to the Parties by the Unit Operator in accordance with Section 2.5, and
- (2) for each subsequent Redetermination conducted with respect to the Unit Interval following the first Redetermination referred to in Section 3.1(A)(1) above, not later than ninety (90) Days after the Common Database related to such subsequent Redetermination has been distributed to the Parties by the Unit Operator in accordance with Section 2.5,

the Unit Operator shall provide the Parties an assessment of the Numerics of OHIP within the portion of the Unit Interval underlying each Tract and the resultant redetermined Tract Participations (the "*Initial Proposal*").

(B) At the same time that the Unit Operator distributes the Common Database in accordance with Section 2.5, the Unit Operator shall provide the Parties with a plan for meetings at which the work will be reviewed as it progresses. At these meetings the Parties may comment on the work and the Unit Operator may consider these comments.

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Exhibit E to the Unitization and Unit Operating Agreement

(C) The Initial Proposal shall be based on the Common Database approved under Section 2 and the Redetermination Technical Procedures in Exhibit F to the Agreement.

## 3.2 Documentation of Initial Proposal

The Initial Proposal tendered pursuant to Section 3.1(A) shall be accompanied by documentation that sets forth the bases for its assessment, its assumptions, and electronic versions of its geophysical, geological and petrophysical analysis along with input and output data sets from its analysis in respect of the Redetermination.

## SECTION 4 CONSIDERATION OF INITIAL PROPOSALS

### 4.1 Redetermination Subcommittee's Report and Positions

The Redetermination Subcommittee shall have a period of sixty (60) Days from receipt of the Initial Proposal, to:

- (A) consider and discuss the Initial Proposal and the related documentation;
- (B) attempt to resolve any disputes among the Parties as to any aspect of the Initial Proposal and the related documentation; and
- (C) attempt to reach a unanimous agreement on the Numerics of OHIP within the portion of the Unit Interval underlying each Tract and the resultant redetermined Tract Participations.

At the beginning of this period, the Redetermination Subcommittee shall agree on a plan and a timetable for review of the Initial Proposal and the related documentation. The Unit Operator shall provide the Redetermination Subcommittee such information and opportunities to meet as may be reasonably necessary for the Parties to understand the Initial Proposal and the related documentation in order to facilitate a full understanding by all Parties. The Redetermination Subcommittee shall, within the same sixty (60) Day period, develop and submit a report to the Unit Operating Committee. The report shall state whether the Redetermination Subcommittee reached agreement on the Initial Proposal or on any revisions to the Initial Proposal. Failing agreement on the Initial Proposal (as originally tendered, or as revised), the report shall specify the matters on which the Redetermination Subcommittee has unanimously agreed, the matters on which it has not unanimously agreed, and the positions of the members of the Redetermination Subcommittee (including, for the avoidance of doubt, the Party that is the Unit Operator acting in pursuance of its own interest as a Party and not as the Unit Operator) on the matters on which they have not unanimously agreed (all such positions on all matters, agreed and not agreed, are referred to herein as "Positions"). The report shall be signed by each Party's representative to the Redetermination Subcommittee. The Parties shall use the Positions in all future deliberations and in any Final Proposals.

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Exhibit E to the Unitization and Unit Operating Agreement

# 4.2 Vote on the Report of the Redetermination Subcommittee

Within ten (10) Days of its receipt of the Redetermination Subcommittee's report under Section 4.1 above, the Unit Operating Committee shall attempt to resolve any unresolved issues noted in the Redetermination Subcommittee report that are preventing unanimous agreement on the Numerics of OHIP within the portion of the Unit Interval underlying each Tract and vote on the acceptance or rejection of the Initial Proposal as submitted by the Redetermination Subcommittee and modified by the Unit Operating Committee.

# 4.3 Failure to Agree and Expert Commencement Date

If the Unit Operating Committee fails to agree unanimously on the Numerics of OHIP within the portion of the Unit Interval underlying each Tract within the period permitted under Section 4.2, the Numerics of OHIP within the portion of the Unit Interval underlying each Tract shall, subject to Section 4.6, be established pursuant to:

- (A) an Expert determination initiated by the Unit Operating Committee pursuant to Section 4.4; or
- (B) an Expert determination initiated by one or more Parties pursuant to Section 4.5,

as the case may be. An Expert determination initiated pursuant to Section 4.4 or Section 4.5 shall be conducted in accordance with Section 5 and shall be final and binding on all of the Parties.

For the purposes of this Exhibit, the date on which the Unit Operating Committee decides to refer the Redetermination to an Expert under Section 4.4 or the date on which any Party or group of Parties sends a notice to the other Parties referring the Redetermination to an Expert as provided in Section 4.5 below shall be the "*Expert Commencement Date*".

# 4.4 Unit Operating Committee Referral

If the Unit Operating Committee fails to agree unanimously on the Numerics of OHIP within the portion of the Unit Interval underlying each Tract within the period permitted in Section 4.2, the Unit Operating Committee shall within fourteen (14) Days of the expiration of such period, vote as to whether to refer the determination of the quantity of OHIP within the portion of the Unit Interval underlying each Tract to an Expert pursuant to Section 5.

# 4.5 Party Referral

If, by the end of the period referenced in Section 4.4, the Unit Operating Committee has not either:

- (A) unanimously agreed the Numerics of OHIP within the portion of the Unit Interval underlying each Tract; or
- (B) referred the determination of the quantity of OHIP within the portion of the Unit Interval underlying each Tract to an Expert under Section 4.4,

Exhibit E to the Unitization and Unit Operating Agreement

6

any Party or group of Parties holding individually or collectively a Unit Interest of at least ten percent (10%) may, by notice to the other Parties, refer the determination of the quantity of OHIP within the portion of the Unit Interval underlying each Tract to an Expert pursuant to Section 5. Such notice must be issued within a fourteen (14) Day period ("Expert Call Window") commencing on the Day immediately after the end of the fourteen (14) Day period specified in Section 4.4.

### 4.6 Effect of No Approval

If, at the end of the Expert Call Window referenced in Section 4.5:

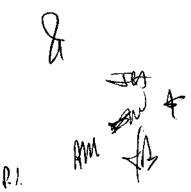
- (D) the Unit Operating Committee has not unanimously approved the redetermined Numerics of OHIP within the portion of the Unit Interval underlying each Tract;
- (E) the Unit Operating Committee has not initiated an Expert determination pursuant to Section 4.4; and
- (F) no Party has initiated an Expert determination pursuant to Section 4.5,

the Numerics of OHIP and the Tract Participations existing immediately prior to the Redetermination Trigger Date shall be conclusively considered to have been approved by, and shall be, subject to any further Redeterminations that may be permitted under the terms of Article 5 of the Agreement, final and binding upon all of the Parties.

### 4.7 Final Proposals

If the Numerics of OHIP within the portion of the Unit Interval underlying each Tract are referred to an Expert each Party (including, for the avoidance of doubt, the Party that is the Unit Operator acting in pursuance of its own interest as a Party and not as the Unit Operator) shall deliver to each other Party, not later than thirty (30) Days after the Expert Commencement Date, its proposal of the Numerics of OHIP within the portion of the Unit Interval underlying each Tract and for the resolution of the outstanding Positions along with documentation that sets forth the bases for its assessment, its assumptions, and electronic versions of its geophysical, geological and petrophysical analysis along with inputs and output data sets from its analysis in respect of the Redetermination ("*Final Proposal*").

Any Final Proposals shall be consistent with the principles stated in Section 1.2, matters unanimously agreed in the Redetermination Subcommittee report or by the Unit Operating Committee, and the Positions of the Parties submitting them as such Positions will have been stated by such Parties in accordance with Section 4.1, and shall not incorporate any data other than data in the Common Database.



E-9

Exhibit E to the Unitization and Unit Operating Agreement

### SECTION 5 DETERMINATION BY EXPERT

### 5.1 Procedure for Expert Determination

- (A) Any Expert determination initiated pursuant to Section 4.4 or Section 4.5 of this Exhibit shall be conducted in accordance with this Section 5 and Article 20.3 of the Agreement. In the event of a conflict between the terms of this Section 5 and Article 20.3 of the Agreement, the terms of this Section 5 shall prevail.
- No sooner than thirty (30) Days prior to the anticipated Redetermination Trigger **(B)** Date, but no later than ten (10) Days prior to the earliest possible Expert Commencement Date for the Redetermination under Section 4.4, the Unit Operating Committee shall attempt to agree upon a list of up to ten (10) potential Experts that are each: (a) well-qualified to determine the matters in dispute with respect to the Redetermination; and (b) available to conduct the Redetermination. The Redetermination Subcommittee shall, at least twenty (20) Days prior to the date upon which the Unit Operating Committee meets to agree upon a list of potential Experts in accordance with the preceding sentence, provide information on potential Experts to the Unit Operating Committee to assist the Unit Operating Committee in its preparation of such list. From the applicable Redetermination Trigger Date onward, there shall be no contact by any Party with any such potential Expert in connection with the proposed Redetermination or the Unit prior to the Expert Employment Date except written contact, or oral communications or site visits for which all Parties are provided with prior notice and an opportunity to participate, to request information related to such potential Experts' applicable qualifications or availability. Copies of all written communication with such potential Experts shall be sent to all Parties.

## 5.2 Qualifications of Expert

- (A) An Expert appointed pursuant to Section 5.3 shall:
  - (1) be at all times wholly independent and impartial, with no financial interest in the dispute, controversy or claim;
  - (2) at or following the Expert Commencement Date, be well-qualified, by technical training and experience, in geological and reservoir assessment, in subsurface evaluation and to determine the matters in dispute;
  - (3) not be employed by or providing services to any Party or any Affiliate of any Party except for Expert-determination services provided in accordance with the contract executed pursuant to Section 5.3(B); and
  - (4) not have been employed by or have provided services to any Party or any Affiliate of any Party during the five (5) year period preceding the Expert Commencement Date exceeding five hundred thousand US dollars (\$500,000) in value in any Calendar Year.

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provided that the Parties may unanimously elect to waive the requirements set forth in (3) and (4) in accordance with Section 5.2(B) below.

- (B) A Party may request a waiver of the requirements set forth in Section 5.2(A)(3) and (4) for a Candidate or an Expert at any point during the Expert appointment process as set out in Section 5.3; provided that such Party must:
  - (1) request such waiver as soon as such Party becomes aware that such a waiver will be necessary for such Candidate or Expert to remain a Candidate or an Expert, as applicable; and
  - (2) provide to all other Parties, simultaneously with such waiver request, detailed information about the employment of or services provided by such Candidate or Expert, as applicable, for which such Party is requesting a waiver.
- (C) An individual or entity proposed as an Expert (a "*Candidate*"), before accepting an appointment as an Expert, shall sign a statement declaring that the Candidate believes in good faith that there is nothing that would interfere with the Candidate's independence or impartiality and that the Candidate will disclose any such circumstances to the Parties if they should arise after that time and before the Expert determination is concluded, and the statement shall include details as to whether the Candidate has performed services for any Party or any Affiliate of any Party within the five (5) years preceding the Expert Commencement Date and, if so, the nature and cost of such services. A copy of that statement shall be provided to each of the Parties.

#### 5.3 Appointment of Expert

- (A) Unless the matter in dispute is resolved by discussion and negotiation by the Parties following the Expert Commencement Date, the Expert shall be appointed as follows:
  - (1) On or before ten (10) Days following the Expert Commencement Date, each Party shall, by notice to the other Parties and the Unit Operator, provide the names of up to two (2) Candidates who possess the qualifications specified in Section 5.2(A). Such notice shall also include a statement in which the Party selecting the Candidate declares to such Party's knowledge whether the Candidate has performed services for such Party or any Affiliate of such Party within the five (5) years preceding the Expert Commencement Date and, if so, the extent and cost of such services.
  - (2) The Unit Operating Committee shall have up to twenty (20) Days following the Expert Commencement Date to attempt to agree upon up to three (3) Candidates and to rank such Candidates in order of preference. The Candidate receiving the highest ranking shall be selected as the Expert. In the event that the Unit Operating Committee is unable to agree upon at least one (1) Candidate and (if up to three (3) Candidates are agreed upon) to rank such Candidate(s) in order of preference, if applicable, on or before twenty (20) Days following the Expert

E-11 Exhibit E to the Unitization and Unit Operating Agreement

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Commencement Date, the Expert shall be determined in accordance with Section 5.3(A)(3) below.

- On or before thirty (30) Days following the Expert Commencement Date, (3)if the process set out in Section 5.3(A)(2) has not resulted in the selection of an Expert, each Party shall, by notice to the Unit Operator and the other Parties, state the names of up to three (3) Candidates, in order of preference, whom the Party is prepared to accept as the Expert, which Candidates must be selected from among the list of names of potential Experts submitted by the Parties in their first notices under this Section. A Candidate listed as a first preference in any such notice shall be assigned a score of three (3) points. A Candidate listed as a second preference in any such notice shall be assigned a score of two (2) points. A Candidate listed as a third preference in any such notice shall be assigned a score of one (1) The Unit Operator shall keep the total score for each of the point. Candidates by adding the scores given to each such Candidate by each Party in accordance with this Section. The Candidate receiving the highest aggregate point score based on such notices shall be selected as the Expert. In the event of a tie, the Candidate to be appointed as the Expert shall be selected from among the group of Candidates that had the highest aggregate point score by lot, by the Unit Operator in the presence of any Party that chooses to be present following at least five (5) Business Davs notice of such drawing. The remainder of the Candidates shall be ranked according to their aggregate point score.
- (B) Once an Expert is chosen in accordance with Section 5.3(A)(2) or 5.3(A)(3), as applicable, the Unit Operator shall:
  - forthwith provide notice to the Parties as to the name of the Candidate selected as the Expert pursuant to the foregoing procedure, along with a copy of the statement of such Expert signed in accordance with Section 5.2(C);
  - (2) execute a contract with the Expert as promptly as practicable thereafter; and
  - (3) after the contract with the Expert has been executed, provide notice to the Parties of the appointment of the Expert (the date of the notice shall be referred to as the "*Expert Employment Date*").

provided that, if the contract with the Expert is not executed within sixty (60) Days from the date when an Expert was chosen in accordance with Section 5.3(A)(2) or 5.3(A)(3), as applicable, then the next most highly ranked Candidate selected in accordance with Section 5.3(A)(2) or 5.3(A)(3), as applicable, shall be appointed as the Expert and the provisions of this Section 5.3(B) shall apply in respect of such Expert.

#### 5.4 Information Provided to the Expert

For the purpose of the Expert determination described by this Section 5, the Unit Operator shall provide to the Expert, with a copy provided to the other Parties, the following information and data within seven (7) Days of the Expert Employment Date:

E-12

Exhibit E to the Unitization and Unit Operating Agreement

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- (A) relevant extracts from the Agreement regarding Redetermination, including Articles 5.5 and 20.3 thereof, and this Exhibit;
- (B) the Initial Proposal and any other data delivered pursuant to Section 3.1;
- (C) the Position of each Party as established in Section 4.1;
- (D) the Final Proposals and any other data delivered pursuant to Section 4.7;
- (E) the Common Database approved or determined under Section 2; and
- (F) the Redetermination Technical Procedures in Exhibit F to the Agreement.

No communication with the Expert shall be permitted until after delivery of the Expert's Final Determination except as provided by this Exhibit and administrative contacts necessary to schedule meetings and hearings related to the Expert's work.

# 5.5 Further Submissions to the Expert

Within fifteen (15) Days from the Expert Employment Date, each Party shall have the right to provide comments on the other Parties' Final Proposals by written submissions provided to the Expert with a copy provided to the other Parties.

# 5.6 Expert Determination

The Expert shall determine the quantities of OHIP within the portion of the Unit Interval underlying each Tract. In making its determination, the Expert shall:

- (A) be bound by the principles of Redetermination as set forth in Section 1.2; and
- (B) review only the information and data provided to the Expert pursuant to Section 5.4, and the submissions of the Parties delivered pursuant to Section 5.5.

The Expert shall not be bound by either the Initial Proposal or any Final Proposal in making its determination. The Expert shall make its determination based upon the most technically justified result of the application of the relevant information and data and material provided to the Expert consistent with Article 5 of the Agreement and the principles in Section 1.2 of this Exhibit.

# 5.7 Notification of Determination

(A) The Expert will have sixty (60) Days from the expiration of the period described in Section 5.5 to present to the Parties in writing its initial determination in regard to the Numerics of OHIP within the portion of the Unit Interval underlying each Tract, accompanied by detailed technical explanations including digital copies of grids, maps, polygons, results and calculations and any other technical information produced by the Expert in reaching its initial determination such that the Parties can reproduce the Expert's initial determination (the "Initial Determination").

E-13

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- (B) No later than fifteen (15) Days after the Expert has submitted the Initial Determination as provided in Section 5.7(A) above each Party has the right to request in writing that the Expert revise the Initial Determination provided that such Party sets out the reasons for its request. Such request shall be copied simultaneously to all other Parties.
- (C) The Expert may but shall not have an obligation to revise the Initial Determination. The Expert will have thirty (30) Days from the delivery of the Initial Determination to present to the Parties in writing its final determination in regard to the Numerics of OHIP within the portion of the Unit Interval underlying each Tract (the "*Final Determination*"), accompanied by detailed technical explanations including digital copies of grids, maps, polygons, results and calculations and any other technical information produced by the Expert in reaching the Final Determination such that the Parties can reproduce the Expert's Final Determination.

## SECTION 6 UPDATED TRACT AND UNIT PARTICIPATING INTERESTS

Within seven (7) Days of the Parties' agreement on the Numerics of OHIP within the portion of the Unit Interval underlying each Tract, or the Expert resolving the Numerics of OHIP in its Final Determination, the Unit Operator shall calculate the redetermined Tract Participations and Unit Interests in accordance with Article 5 of the Agreement, shall update <u>Exhibit A</u> to the Agreement to reflect the redetermined Tract Participations and Unit Interests, and shall distribute a revised version of such exhibit to all Parties.

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E-14 Exhibit E to the Unitization and Unit Operating Agreement

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-31

## EXHIBIT "F"

## **REDETERMINATION TECHNICAL PROCEDURES**

Exhibit F to the Unitization and Unit Operating Agreement

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# Table of Contents

SECTION 1	DEFINITIONS
SECTION 2	GENERAL PROCEDURES7
SECTION 3	PETROPHYSICAL PROCEDURES8
SECTION 4	GEOPHYSICAL PROCEDURES
SECTION 5	GEOLOGICAL PROCEDURES
SECTION 6	COMPUTER GRIDDING
SECTION 7	CALCULATION OF ORIGINAL GAS PORE VOLUME AND ORIGINAL OIL PORE VOLUME AND THE CALCULATION OF OGIP AND STOOIP36
SECTION 8	CALCULATION OF ORIGINAL HYDROCARBONS IN PLACE

Figure 1:	Illustration of Free Fluid Levels
Figure 2:	Illustration of idealised water saturation profiles
Figure 3:	Illustration of the reconciliation of Reservoir Zone boundary depths with log increments depths for the calculation of average reservoir properties
Figure 4:	Illustration of Wedge Zones
Figure 5:	Illustration of Reservoir Zone midpoint(s)
Figure 6:	Illustration of the position of polygons in faulted and in truncated areas

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Exhibit F to the Unitization and Unit Operating Agreement

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# SECTION 1 DEFINITIONS

Capitalized terms used and not otherwise defined in this Exhibit shall have the meaning given to such terms in the main body of the Agreement and in Exhibit E. In addition, for purposes of this Exhibit, the following terms shall have the meaning ascribed to them in this Section 1, and include the plural as well as the singular:

- 1.1 **Basic Seismic Survey** means the processed and migrated time version(s) of the seismic survey(s) used by the Unit Operator and/or the Technical Operator in its latest full field evaluation and made available to the Parties prior to the Data Cut-off Date.
- 1.2 Centre Cell Point (CCP) means the centre of a grid cell for a three-dimensional (3D) seismic survey.
- **1.3 Condensate** means that portion of Unit Substances associated with the free Gas phase in the Reservoir that are in a liquid state when Reservoir Gas is flashed to Standard Conditions.
- 1.4 Condensate Initially in Place (CIIP) which is the volume of Condensate calculated in accordance with Section 7.4 of this Exhibit.
- **1.5 Depth Reference Log** means the log that will be assumed to have the correct measurements of Measured Depth in relation to the parameter recorded, generally the first valid gamma ray log recorded across each Reservoir where the contractor's depth measurement procedures were applied.
- 1.6 Depth Structure Grid means a grid of TVDSS.
- 1.7 Free Fluid Level means the TVDSS at which the capillary pressure between two (2) fluids is zero (0) in accordance with Section 3.12 of this Exhibit and shall be taken as the TVDSS of the intersection of the pressure gradient of the two fluids in a Reservoir Horizon provided that these two fluids are in pressure communication.
- **1.8** Free Gas Initially In Place (FGIIP) means the volume of Gas calculated in accordance with Section 7.4 of this Exhibit.
- **1.9** Free Oil Originally In Place (FOOIP) means the volume of Oil calculated in accordance with Section 7.4 of this Exhibit.
- 1.10 Free Oil Level means the depth of intersection between the pressure gradient in the Reservoir Gas Zone and the pressure gradient in the Reservoir Oil Zone, provided that these fluids are in pressure communication, as illustrated in Figure 1 of this Exhibit.
- 1.11 Free Water Level (FWL) means the depth of the intersection of the pressure gradient in the water zone and the pressure gradient in the Hydrocarbon zone. If the Hydrocarbon zone contains both Oil and Gas, the Free Water Level shall be based on the pressure gradient in the water zone and the pressure gradient in the Reservoir Oil Zone as illustrated in Figure 1 of this Exhibit.

F-3

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Exhibit F to the Unitization and Unit Operating Agreement

- 1.12 Free Water Level for Gas means the depth at which the capillary pressure between Gas and water is zero (0) as illustrated in Figure 1 of this Exhibit.
- 1.13 Gas means that part of Unit Substances that is in a gaseous phase at the Initial reservoir conditions, including Condensate, but excluding any Solution Gas.
- 1.14 Gross Gas Thickness means the TVT of that part of a Reservoir Zone at any position which occurs above the Initial Free Oil Level or the Initial Free Water Level as applicable at that position.
- **1.15** Gross Oil Thickness means the TVT of that part of a Reservoir Zone at any position which occurs above the Initial Free Water Level and where applicable, below the Initial Free Oil Level at that position.
- 1.16 Gross Sand has the meaning ascribed thereto in Section 3.4 of this Exhibit.
- **1.17 Initial** means any period prior to the start of production of Unit Substances from the relevant Reservoir.
- 1.18 Initial Condensate Gas Ratio  $(R_{\nu i})$  means the ratio of Condensate volumes produced from a volume of Gas and determined in accordance with Section 3.15 of this Exhibit.
- 1.19 Initial Gas Formation Volume Factor  $(B_{gi})$  means the Initial Gas formation volume factor, where all the components in the Gas shall be assumed to be in a gaseous phase at Standard Conditions and shall be determined in accordance with Section 3.15 of this Exhibit.
- 1.20 Initial Oil Formation Volume Factor  $(B_{oi})$  means the Initial Oil formation volume factor, where all the components in the Oil shall be assumed to be in a liquid phase at Standard Conditions and shall be determined in accordance with Section 3.15 of this Exhibit.
- **1.21** Initial Solution Gas Ratio (R<sub>si</sub>) means the ratio of Gas volume produced from a volume of Oil and determined in accordance with Section 3.15 of this Exhibit.
- **1.22 Isochore** means a contour line connecting values of equal True Vertical Thickness of any Unit Interval.
- 1.23 Measured Depth (MD) means the depth in metres as measured along the borehole. The reference point for these data is the appropriate rig floor elevation.
- 1.24 MWD/LWD for MWD means "measurement while drilling" and for LWD means "logging while drilling".
- 1.25 Net Sand has the meaning ascribed thereto in Section 3.6 of this Exhibit.
- 1.26 Oil means that part of Unit Substances which is in a liquid phase at Initial reservoir conditions, including the Solution Gas, but excluding any Condensate.

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- 1.27 Oil Equivalent means the volume of Natural Gas that corresponds to the value of one (1) stock tank barrel of Oil if Natural Gas is proven at reservoir conditions.
- 1.28 Original means at Initial reservoir conditions.

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- 1.29 Original Gas in Place (OGIP) means the sum of Free Gas Initially In Place (FGIIP) and Solution Gas Initially In Place (SGIIP) in accordance with Section 7.4 of this Exhibit.
- 1.30 Original Gas Pore Volume (OGPV) means that pore volume at Initial reservoir conditions occupied by Reservoir Gas.
- 1.31 Original Hydrocarbons in Place (OHIP) means the volume of STOOIP and the volume of OGIP converted to Oil Equivalent as calculated in Section 7 of this Exhibit.
- 1.32 Original Oil Pore Volume (OOPV) means that pore volume at Initial Reservoir conditions occupied by Reservoir Oil.
- 1.33 **Porosity** has the meaning ascribed thereto in Section 3.5 of this Exhibit.
- 1.34 *PVT Analysis* means the measurement, interpretation and analysis of data performed on reservoir fluids or combinations of fluids to determine their phase behaviour and fluid properties over appropriate ranges of pressure and temperature. PVT data includes, but is not limited to, volume factors, compositions, viscosities, gas/oil ratios, fluid compressibilities, and miscibility conditions, as functions of pressure and temperature at both saturated and under saturated conditions.
- 1.35 **Region** means an area having a common Initial Free Fluid Level for a Reservoir Zone.
- 1.36 **Reflectivity Function** means a series of reflection coefficients computed from the calibrated velocity log and the density log, if available.
- 1.37 **Repeat Section** means a duplication of any part of the Unit Interval along the same wellbore.
- Reservoir means a rock interval within the Unit Area and Unit Interval containing Net 1.38 Sand.
- 1.39 Reservoir Gas Zone means that part of the Reservoir Zone that contains Gas.
- 1.40 Reservoir Horizon means any seismic mappable surface within and including the Upper Mahogany Member or the Mid Shale Member or the Lower Mahogany Member defined in Exhibit B or any modification thereof.
- 1.41 Reservoir Oil Zone means that part of the Reservoir Zone that contains Oil.
- Reservoir Zone means a subdivision of the entire Unit Interval constructed by 1.42 correlating rocks in one Well from the Common Database to another Well in the Common Database based on a combination of stratigraphy, sedimentology and rock AM AS properties in such a way that lateral equivalence is demonstrated.

Exhibit F to the Unitization and Unit Operating Agreement

F-5

- SCAL means "Special Core Analysis" which means the measurement, interpretation and 1.43 analysis of laboratory data, performed on reservoir cores, to determine the initial distribution of reservoir fluids and the flow characteristics of in-place or injected fluids in the reservoir rock. Data includes, but is not limited to, capillary pressure, relative permeabilities, wettability, and electrical properties.
- Solution Gas means Natural Gas dissolved in Oil at reservoir conditions. 1.44
- Solution Gas Originally in Place (SGOIP) means the volume of Solution Gas 1.45 calculated in accordance with Section 7.4 of this Exhibit.
- 1.46 Standard Conditions means the conditions at an absolute pressure of fourteen point six five (14.65) pounds per square inch and sixty (60) degrees Fahrenheit.
- 1.47 Stock Tank Oil Originally in Place (STOOIP) means the sum of Free Oil Initially In Place (FOIIP) and Condensate Initially In Place (CIIP) in accordance with Section 7.4 of this Exhibit.
- Synthetic Seismogram means an artificial seismic reflection record derived from a 1.48 Reflectivity Function convolved with a waveform to include the effects of filtering by the substrata and recording and processing system.
- 1.49 Time Structure Grid means a grid of TWT.
- 1.50 True Vertical Depth Subsea (TVDSS) means true vertical depth with reference to mean sea level expressed as a negative value in metres.
- True Vertical Thickness (TVT) means the thickness of a Reservoir Zone at any point 1.51 and is the difference between the True Vertical Depth Subsea of the top of the Reservoir Zone and the base of the Reservoir Zone at the same geographic point expressed in metres.
- 1.52 TWT means two-way seismic reflection time.
- 1.53 Universal Transverse Mercator (UTM) means a grid-based method of specifying locations on the surface of the Earth which is divided into sixty (60) zones, each with a specific Transverse Mercator projection.
- 1.54 Vertical Seismic Profile (VSP) means a high resolution seismic image in the immediate vicinity of a Well.
- Water Saturation has the meaning ascribed thereto in Section 3.10 of this Exhibit. 1.55
- Wedge Zone means a Gas wedge zone or an Oil wedge zone or a water wedge zone as 1.56 illustrated in Figure 4 of this Exhibit.
- 1.57 Well means a well for which data are included in the Common Database.
- Wireline Formation Tester (WFT) means a generic name for RFT, FMT, MDT and 1.58 RCI. KAB

Exhibit F to the Unitization and Unit Operating Agreement

#### SECTION 2 GENERAL PROCEDURES

#### 2.1 *Objective of procedures*

The objective of this Exhibit is to describe the technical procedures to be used in a calculation of OHIP within the portion of the Unit Interval underlying each Tract following a call for Redetermination in accordance with Article 5 of the Agreement.

The procedures defined in this Exhibit shall be fixed for the term of the Agreement unless all Parties agree in writing to specific changes. Where applicable, the provisions of Exhibit E to the Agreement and Article 5.5 of the Agreement shall apply with regard to the procedures conducted under this Exhibit.

#### 2.2 Exchanging data

All data distributed to or by the Unit Operator or Technical Operator and the Parties shall be in a standard industry digital format that is suitable for and can be read by commercially available software.

## 2.3 Wells drilled after the start of production

Quantitative use of pressure, water saturation, Oil saturation and Gas saturation data from Wells drilled after the start of production may not represent Initial conditions and shall be considered on an individual basis.

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### SECTION 3 PETROPHYSICAL PROCEDURES

### 3.1 Objective

The objective of this Section is to define the petrophysical procedures to be applied to determine the Initial Free Fluid Level(s), Gross Sand, Net Sand, net to gross ratio, average Porosity, average Initial Water Saturation,  $B_{oi}$ ,  $B_{gi}$ ,  $R_{si}$  and  $R_{vi}$  for each of the Reservoir Zones in each Well within the Unit Interval.

Improvements to petrophysical evaluation by the application of new and/or improved logging tools and/or measurements shall not be excluded from these procedures provided that these improvements are compatible with previous logging tools and/or measurements.

#### 3.2 Log data

- (A) *Log quality control* 
  - (1) Log data shall be plotted on an appropriate scale and be checked for accuracy against the service company's hard copy. The depth units used shall be metres. Depth increments shall be according to the conventional acquisition depth increments, or re-sampled and interpolated to match the conventional acquisition depth increments. The single sample rate shall be zero point one five two four (0.1524) metres unless otherwise agreed.
  - (2) All log data shall be checked for invalid readings and/or mis-calibrations and/or tool related differences and corrected for these accordingly. All correction procedures applied to the recorded logs shall be noted for approval for the Unit Operating Committee prior to inclusion in the Common Database.
  - (3) If no valid Porosity data can be derived for a Reservoir Zone in a Well then that Reservoir Zone shall be treated as indeterminate in accordance with Section 5.11 (A) and Section 6.5 of this Exhibit.
- (B) Depth Reference Log
  - (1) All Measured Depths along the hole for each Well shall be quoted with reference to the contractor's depth on the first valid gamma ray log recorded across each Reservoir where the contractor's depth measurement procedures were applied. In severe "stick and pull" conditions the gamma ray least affected shall be selected. Where a valid gamma ray log is not available, the density log will be used as the Depth Reference Log. All other Well information shall be depth matched to the Depth Reference Log.
  - (2) In Wells with both wireline and MWD/LWD data, wireline log data shall take precedence. Use of MWD/LWD data shall only occur where wireline logs are invalid or in Wells where only MWD/LWD data are available. The use of MWD/LWD shall be considered on an individual basis.

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(3) If it can be demonstrated that the Depth Reference Log was recorded off depth by a constant amount, the Depth Reference Log shall be shifted by such constant amount and all other data shall be depth matched to the adjusted Depth Reference Log accordingly.

### (C) Depth matching

Depth matching of log data to the Depth Reference Log shall be performed by moving data points, by linear interpolation or stretching/squeezing of data to agree in depth with the Depth Reference Log. The minimum depth discrepancy for compulsory depth shifting is set to zero point one five two four (0.1524) metres. If this process creates undefined values, linear interpolation shall be applied to estimate the missing values.

#### (D) Environmental corrections

Log environmental corrections shall be made by reference to the appropriate contractor's published correction charts where available. The corrections shall be based on a computerized version of the appropriate logging contractor's charts.

### (E) Data from highly deviated Wells

Quantitative use of log data from wellbores where such data, due to high well deviation and/or varying formation dip along the wellbore, may not be representative for mapping purposes, or where high well deviation has caused changes in data acquisition procedures and/or conditions so that data quality may have been affected, shall be considered on an individual basis.

#### 3.3 Core data

All core data permitted in the Common Database shall be validated. Invalid data shall be excluded from the evaluation.

The core data corrections described in this Section shall be input to the petrophysical computational analysis. Compaction corrected core data shall form the basis of Porosity calculations in accordance with Section 3.5 of this Exhibit.

## (A) Depth matching of core

Ambient core data shall be depth matched to the wireline log data in a consistent manner without the creation or deletion of samples.

The final definitive shifts to core data shall be those that achieve the best match of core porosity to the valid bulk density log, unless otherwise agreed. The depth shifts shall be applied to both core data and SCAL data.

### (B) Core corrections to Reservoir stress

Core data shall be corrected to Reservoir stress conditions by applying a correction factor determined to represent Reservoir stress conditions at the location of each Well where core is taken.

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Any difference in the confining pressure(s) at which the core porosity and core permeability measurements were obtained shall be accounted for.

#### (C) Core porosity correction to Reservoir stress

Core porosities shall be corrected to Reservoir stress conditions based on the linear relationship:

 $\Phi_{core} = a * \Phi_{lab} + b$ 

where:

Φ<sub>core</sub> = core porosity corrected to Reservoir stress conditions
 Φ<sub>lab</sub> = core porosity measured at ambient conditions
 a, b = parameters determined by correlating core porosities measured at Reservoir stress and at ambient conditions

If necessary to assess proper stress correction of core porosity, the correction parameters a, and b shall be determined on a Reservoir by Reservoir basis or Region by Region basis or fluid type basis if appropriate.

# (D) Core permeability correction for Reservoir stress

Core permeabilities shall be corrected to Reservoir stress conditions in a manner consistent with the laboratory procedures used to obtain the ambient measurement.

Stress correction of core permeabilities shall be based on the following relationship:

 $\log_{10}(K_{corr}) = m * \log_{10}(K_{amb}) + c$ 

where:

- K<sub>corr</sub> = Klinkenberg horizontal core permeability corrected to Reservoir stress conditions expressed in milliDarcies
- K<sub>amb</sub> = Klinkenberg horizontal core permeability measured at ambient conditions expressed in milliDarcies
- m, c = parameters determined by correlating core permeabilities determined at Reservoir stress and at ambient conditions

If necessary to assess proper stress correction of core permeability, the correction parameters m and c shall be determined on a Reservoir by Reservoir basis or Region by Region basis or fluid type basis if appropriate.

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#### 3.4 Gross Sand calculation

Gross Sand shall be determined for each Reservoir Zone in each Well for the Unit Interval using information provided by all logs and core data.

Gross Sand for each Reservoir Zone at each depth increment shall be determined based on cut-off values using, but not limited to, the gamma ray logs, and/or density logs and/or neutron logs or any combination of logs or interpretations thereof. The results shall be calibrated to core data where available.

The determined cut-off values shall be applied to each Reservoir Zone to distinguish between Gross Sand intervals and non-reservoir lithologies.

The method that results in the largest Gross Sand count shall be used provided that it is consistent with other data in the Common Database.

The cut-offs determined by the Unit Operator in accordance with Exhibit E shall be applied in a consistent manner to the Unit Interval.

#### 3.5 **Porosity calculation**

Compaction corrected core porosity as defined in Section 3.3 (C) of this Exhibit shall be assumed to represent the total Porosity, and the log based Porosity derived as outlined in this Section shall be assumed to be an estimate of the total Porosity.

The log based Porosity shall be determined from the density log. The Porosity shall be calculated assuming a linear relationship between bulk density and Porosity of the form:

$$\Phi_{f} = (\rho_{ma} - \rho_{b}) / (\rho_{ma} - \rho_{fl})$$

Where:

$\Phi_{\mathbf{f}}$	=	total Porosity (fraction)
$\rho_{\mathfrak{b}}$	=	bulk density from density log reading (g/cm <sup>3</sup> )
$ ho_{ma}$	=	matrix density (g/cm <sup>3</sup> )
$ ho_{ m fl}$	=	fluid density (g/cm <sup>3</sup> )

In the event that no valid density log data is available, an alternative model for the calculation of Porosity shall be established.

(A) Matrix density calculation

> Matrix density shall be derived for each Reservoir Zone and each Well by averaging core grain density data in the Common Database.

Only core plugs occurring in intervals determined as Gross Sand, in accordance with Section 3.4 of this Exhibit, shall be used to determine matrix density. Any core plug classified as broken or fractured shall be reviewed on an individual basis. Any core data that might bias the determination of matrix density, such as PS. AM -R

plugs in highly cemented intervals, shall be excluded in the determination of matrix density.

In Reservoir Zones where core data is unavailable in a Well, matrix density shall be derived from the same Reservoir Zone in the same Region from other Wells, or if no similar Reservoir Zone in the same Region exists then by combining Reservoir Zones of similar character that have valid core data.

Matrix density may be determined on a Reservoir Zone(s) by Reservoir Zone(s) basis or on a Region by Region basis as appropriate.

# (B) Fluid density calculation

Fluid density value(s) shall be derived from linear "y on x" regression where the dependent (y) variable is core porosity, corrected for Reservoir stress conditions, and the independent (x) variable is the corresponding valid density log data. The regression line should be forced through the point y=0.0, x=matrix density, as calculated in accordance with Section 3.5(A) of this Exhibit. Fluid density is to be determined at the intercept of this regression line and the value of one (1) for corrected core porosity.

Consideration shall be given to Reservoir fluid type and mud type (oil-based mud or water-based mud) in the determination of fluid density value(s).

### 3.6 Net Sand

Net Sand shall be determined for each Reservoir Zone in each Well for the Unit Interval using information provided by all logs, integrated with information from core and test data.

Net Sand shall be determined by log based Porosity cut-offs determined by the Unit Operator in accordance with Exhibit E corresponding to Klinkenberg corrected core permeability values in accordance with Section 3.3 (D) of this Exhibit. Appropriate cutoffs to log based Porosity determined by the Unit Operator in accordance with Exhibit E shall be determined to exclude intervals of non-Reservoir quality sand. Any Gross Sand interval with a log Porosity value less than the cut-off shall be excluded from Net Sand.

For each Reservoir fluid type an appropriate log Porosity cut-off shall be determined that excludes those intervals of Gross Sand that do not contribute to well productivity.

Isolated water bearing intervals within a Reservoir Zone shall be excluded from Net Sand.

Net Sand intervals shall be counted by log depth increments. The minimum Net Sand interval thickness shall be zero point three (0.3) metres.

If there is no or insufficient core data available from a Reservoir Zone, the cut-off used in the Net Sand calculation shall be determined from the same Reservoir Zone from other Wells with comparable Reservoir fluid or other similar Reservoir Zones.

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# 3.7 True formation resistivity

In Wells drilled with oil-based muds, the deepest reading, highest resolution, induction resistivity log shall be used for true formation resistivity.

In Wells drilled with water-based muds all available environmentally corrected resistivity logs shall be used to determine true formation resistivity. If more than one type of resistivity measurement is available then the measurement which best represents the true formation resistivity shall be used.

If resistivity measurements from wireline logs are not available, resistivity from MWD/LWD measurements may be used, provided that it can be demonstrated that data is compatible with wireline measurements.

# 3.8 Formation temperature determination

Formation temperature shall be calculated for each log depth increment using an appropriate geothermal gradient. The geothermal gradient shall be determined from the temperature data available from the overburden and the Unit Interval. The geothermal gradient may be calculated by Reservoir, Reservoir Zone or Region.

If temperature data from different sources leads to inconsistent results the maximum temperature recorded in drill stem tests shall prevail.

# 3.9 Formation water resistivity determination

The formation water resistivity for a Reservoir Zone shall be determined from the laboratory analysis of formation water not contaminated by other sources produced during drill stem or production tests from another Reservoir Zone.

Only samples from tests where a representative volume of water of constant salinity is produced shall be used. If no valid water samples are available from drill stem or production tests then a valid WFT sample may be used. The formation water resistivity shall be corrected for temperature using the following relationship:

$$R_{w} = R_{wi} * \frac{(T_i + 21.5)}{(T + 21.5)}$$

Where:

 $R_w =$  formation water resistivity in ohm-m

- $R_{wi} = formation$  water resistivity in ohm-m measured at temperature  $T_i$  in °C
- T = formation temperature in °C as determined for each log increment in accordance with Section 3.8 of this Exhibit
- $T_i = temperature at which R_w is measured in °C$

Should information indicate that the formation water resistivity varies between different Regions or Reservoir Zones, or no water samples produced from drill stem or production

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tests or valid WFT were available the formation water resistivity shall be determined from logs using appropriate techniques.

# 3.10 Initial Water Saturation and Hydrocarbon Saturation

# (A) Initial Water Saturation

Initial Water Saturation  $(S_w)$  shall be calculated from log data with respect to known electrical properties of the Reservoir defined by SCAL and temperature corrected formation water resistivity data. Initial Water Saturation from logs may be used to characterize transition zones in the Reservoir.

Log based  $S_w$  will be determined across the interval from the top of each Reservoir Zone to the base of each Reservoir Zone in each Well to the extent that the Well penetrates each Reservoir Zone.

Water saturation shall be determined by applying the equation:

$$S_{w} = \left(\frac{a \times R_{w}}{R_{t} \times \Phi_{f}^{m}}\right)^{\frac{1}{n}}$$

Where:

 $S_w = total water saturation (fraction)$  a = tortuosity factor  $R_w = resistivity of formation water (ohm-m)$   $R_t = true formation resistivity (ohm-m)$   $\Phi_f = total porosity (fraction)$  m = cementation exponentn = saturation exponent

n saturation exponent

The a, m and n parameters of the above saturation equation shall be determined for each Reservoir from SCAL, corrected to Reservoir stress in a manner consistent with the laboratory procedures used to obtain the ambient measurement. If sufficient SCAL are not available from a Reservoir Zone, the parameters needed may be derived from log values in a water bearing part of the same Reservoir Zone, from core data or from water bearing parts of another appropriate Reservoir Zone. Where data shows additional variability within a Reservoir Zone, a, m and n parameters will be determined for specific Reservoir Zones. The  $S_w$  shall be limited to values between zero (0) and one (1).

In the event that the equation as given in this Section is not appropriate to the calculation of Initial Water Saturation another equation shall be used. All other techniques and equations shall be fully justified.

(B) Initial Hydrocarbon Saturation

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The Initial Oil saturation  $(S_0)$  within a Reservoir Oil Zone shall be determined by the following equation:

 $\mathbf{S}_{o} = (1 - \mathbf{S}_{w})$ 

The Initial Gas saturation  $(S_g)$  within a Reservoir Gas Zone shall be determined by the following equation:

 $S_{g} = (1 - S_{w})$ 

### 3.11 Saturation height relationships

If appropriate an equation or algorithm shall be created based on all available data in the Common Database, including but not limited to, log data, SCAL data and PVT data that calculates total Initial Water Saturation as a function of the height above the Free Water Level. The effects of rock quality, bed boundary and Reservoir fluid types will be taken into consideration in the determination of the saturation height relationships.

The best technically justifiable reconciliation between log derived Initial Water Saturation and core derived Initial Water Saturation data and other data shall be sought. The total Water Saturation derived, for each Reservoir Zone penetrated by the Wells, from the total Initial Water Saturation-height functions created in this Section 3.11 should be consistent with the log-derived total Initial Water Saturation in Net Sand in the Wells.

Where reconciliation is not possible, the saturation-height functions either from logs or capillary pressure curves will have precedence in determining total Initial Water Saturation.

### 3.12 Initial Free Fluid Levels in Wells

In each Well for each Reservoir, the Initial Free Fluid Levels (i.e. Free Oil Level, Free Gas Level and Free Water Level where appropriate) as illustrated in Figure 1 of this Exhibit shall be determined if possible, from petrophysical interpretation of formation pressure data, Well test data, log data, core data and reservoir fluid density from formation fluids samples as appropriate. Initial Free Fluid Levels determined by formation pressure data shall prevail. Only data prior to start of production shall be used to determine Initial Free Fluid Levels. If appropriate, seismic attributes may be used if accurate calibration of the seismic response to fluid saturations at Wells for a Reservoir Horizon can be established.

Free Oil Level shall not be determined in Reservoir Zones where a transition between the Oil phase and the Gas phase is shown to exist.

In the event of a conflict between the use of seismic data to determine Initial Free Fluid Level(s) in accordance with Section 4.5 of this Exhibit and Well data the Well data shall prevail.

An interval with residual Hydrocarbon saturations resulting from aquifer encroachment over geological time (curve D in Figure 2 of this Exhibit) and isolated Hydrocarbon pockets (curve B in Figure 2 of this Exhibit) shall be deemed to be below the Initial Free

Water level. An interval with residual Hydrocarbon saturations resulting from field exploitation (curve C in Figure 2 of this Exhibit) shall be deemed to be above the Initial Free Water Level.

If it can be demonstrated that an area of the Unit Interval Free Fluid Level(s) or Hydrocarbon saturations are different from the Initial Free Fluid Level(s) or Initial Hydrocarbon saturations due to pressure depletion from adjacent field production from outside the Unit Area then all available data shall be considered in establishing the Free Fluid Level(s) in accordance with this Section.

Free Fluid Level(s) shall be determined to the nearest zero point one (0.1) of a metre.

In the event that Initial Free Fluid Level(s) in a Reservoir Zone in a Well cannot be determined fluid-down-to and fluid-up-to depths shall be defined. The fluid-down-to and fluid-up-to depths for each Well where no Initial Free Fluid Level (s) can be determined within a Reservoir Zone shall be listed in a table. If the difference between the fluid-down-to depth and fluid-up-to depth is five (5) metres or less the Initial Free Fluid Level in a Reservoir Zone shall be taken as the midpoint between the fluid-down-to depth and fluid-up-to depth. If the difference between the fluid-down-to and the fluid-up-to is greater than five (5) metres the Initial Free Fluid Level in that Well shall be indeterminate.

Free Fluid Level(s) derived from using fluid-down-to and fluid-up-to depths shall be determined to the nearest zero point one (0.1) of a metre. References to fluid-down-to and fluid-up-to shall be in TVDSS.

# 3.13 Defining Regions

The Reservoir shall be divided into Regions and other areas as described below based on Free Fluid Level(s) in accordance with Section 3.12 of this Exhibit, and direct Hydrocarbon indicators, as appropriate, in accordance with Section 4.5 of this Exhibit.

Data from Wells drilled prior to start of production shall form the basis for the determination of the Initial Free Fluid Level per Region. Wells drilled after start of production shall be considered on an individual basis. The Initial Free Fluid Level in a Region may not be shallower than the Free Fluid Level observed in Wells in that Region. If Free Fluid Level(s) or Hydrocarbon saturations differ from the Initial Free Fluid Level or Hydrocarbon saturations per Region within the Unit Interval, then all available data from the Common Database shall be considered in establishing the Initial Free Fluid Level.

Where the Free Fluid Levels established from pressure data and the structural, stratigraphic, and fault frameworks are inconsistent, the differences will be reconciled. If, within an area of the Reservoir an Initial Free Fluid Level cannot be determined from Well data in a Reservoir Zone in accordance with Section 3.12 of this Exhibit, then a model for Initial Free Fluid Level in that Reservoir Zone and for that area shall be established from observed occurrences of Gas, Oil and water in Wells, pressure data and seismic data.

Exhibit F to the Unitization and Unit Operating Agreement

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For the purposes of Section 5 and Section 6 of this Exhibit only one value of Initial Free Fluid Level for each Reservoir Zone for each Region shall be used.

### 3.14 Determination of average Reservoir properties

For the purposes of determining average reservoir properties all depth measurements shall be in true vertical depth.

### (A) Definition of increments

In the equations given in Sections 3.14 (B), (C), (D), (E) of this Exhibit pertaining to average Reservoir properties, " $H_i$ " is the Net Sand thickness of increment "i" and " $G_i$ " is the Reservoir Zone thickness of increment "i".

In such equations the Reservoir Zone shall be assumed to consist of "k" increments numbered 1, 2, ..., k.

The increment used when calculating average Reservoir properties shall be zero point one five two four (0.1524) of a metre or less.

The Reservoir Zone top intersects increment "l" and the Reservoir Zone base intersects increment "m".

When calculating average values, such increments "1" and "m" shall be deemed to fall either completely within or completely outside the Reservoir Zone in a consistent manner. An increment divided by the boundary between two (2) subsequent Reservoir Zones shall be included in only one (1) of the Reservoir Zones. The reconciliation of Reservoir Zone boundary depths with log increment depth calculation of average reservoir properties is illustrated in Figure 3 of this Exhibit.

In the event the method described above is not implemented, due to software limitations, for average calculation, partial increments created at the intersection of the Reservoir Zone top and the Reservoir Zone base and increment depths shall be included in the calculation of averages. Such partial increments shall be included in the average calculations in proportion to the TVT of such partial increments and the equations given in Sections 3.14 (B), (C), (D), (E) of this Exhibit shall be adjusted accordingly.

(B) Net to gross Ratio

The net to gross ratio for a Reservoir Zone within a Well shall be calculated to four (4) decimal places using the following equation:

$$N/G = \frac{\sum_{i=1}^{k} H_i}{\sum_{i=1}^{k} G_i}$$

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H<sub>i</sub> and G<sub>i</sub> are as defined in Section 3.14 (A) of this Exhibit.

In Reservoir Zones in which the Initial Free Fluid Level(s) are encountered in Wells, values for net to gross for that part of the Reservoir Zone above and that part of the Reservoir Zone below the Initial Free Fluid Level(s) shall be provided separately in addition to the net to gross for the entire Reservoir Zone. Estimation of net to gross ratio for incomplete Reservoir Zones within Wells shall be performed on an individual basis.

### (C) Average Porosity

The average Porosity for a Reservoir Zone shall be calculated to four (4) decimal places using the equation:

$$\Phi = \frac{\sum_{i=1}^{k} H_i \Phi_i}{\sum_{i=1}^{k} H_i}$$

Where:

- $\Phi$  = average Porosity in fractions of the total Net Sand thickness within a Reservoir Zone.
- $\Phi_i$  = Porosity reading of the i<sup>th</sup> Net Sand increment.

H<sub>i</sub> is as defined in Section 3.14 (A) of this Exhibit.

In Reservoir Zones in which Initial Free Fluid Level(s) are encountered in Wells, average Porosities of the Net Sand in the zone above and the zone below the Initial Free Fluid Level(s) shall be provided in addition to the average Porosity of the Net Sand for the entire Reservoir Zone. Estimation of average Porosity for incomplete Reservoir Zones within Wells shall be performed on an individual basis.

### (D) Average Initial Gas saturation

The average Initial Gas saturation in a Reservoir Gas Zone shall be calculated separately to four (4) decimal places using the following equation:

$$S_g = \frac{\sum_{i=1}^k H_i S_{g_i} \Phi_i}{\sum_{i=1}^k H_i \Phi_i}$$



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F-18

- S<sub>g</sub> = average Initial Gas saturation of the Reservoir Gas Zone above the Initial Free Water Level For Gas or Initial Free Oil Level as appropriate
- $S_{gi}$  = Initial Gas saturation of the i<sup>th</sup> Net Sand depth increment determined in accordance with Section 3.14 (A) of this Exhibit.

 $H_i$  and  $\Phi_i$  are as defined in Section 3.14 (A) and Section 3.14 (C) of this Exhibit.

Estimation of average Initial Gas saturation for incomplete Reservoir Gas Zones within Wells shall be performed on an individual basis.

### (E) Average Initial Oil saturation

The average Initial Oil saturation in a Reservoir Oil Zone shall be calculated separately to four (4) decimal places using the following equation:

$$S_o = \frac{\sum_{i=l}^{k} H_i S_{oi} \Phi_i}{\sum_{i=l}^{k} H_i \Phi_i}$$

Where:

 $S_{\sigma}=\mbox{average Initial Oil saturation of the Reservoir Oil Zone above the <math display="inline">% f(x)=0$  . Initial Free Water Level

 $S_{oi}$  = Initial Oil saturation of the i<sup>th</sup> Net Sand increment determined in accordance with Section 3.14 (A) of this Exhibit.

 $H_i$  and  $\Phi_i$  are as defined in Section 3.14 (A) and Section 3.14 (C) of this Exhibit.

Estimation of average Initial Oil saturation for incomplete Reservoir Oil Zones within Wells shall be performed on an individual basis.

# 3.15 Determination of Boi, Bgi, Rsi and Rvi

Initial Formation Volume Factors ( $B_{oi}$ ,  $B_{gi}$ ) and Initial Solution Gas Ratio ( $R_{si}$ ) and Initial Condensate Gas Ratio ( $R_{vi}$ ) shall be used in the calculation of the STOOIP and OGIP as required for the Redetermination. Reservoir simulation and reservoir simulators shall not be used in these calculations.

For each Reservoir Zone within each Region,  $B_{oi}$ ,  $B_{gi}$ ,  $R_{si}$ , and  $R_{vi}$ , shall be determined from laboratory measurements on representative fluid samples from the Unit Interval.

The representative fluid samples shall mean those samples taken either as bottom hole samples, or recombined test separator samples taken prior to start of production provided that those samples are collected within three (3) months of start of production. Samples taken later than three (3) months after start of production from within a Region where

F-19

pressure has not fallen below fifty (50) pounds per square inch of the Initial Reservoir pressure may be used on a case by case basis.

The evaluation of whether a sample is representative shall be based on:

- a. geological evaluation
- b. evaluation of sampling, transfer and handling conditions
- c. comparison with installed production facilities separator gas-oil ratios
- d. comparison with other appropriate fluid samples from the Reservoir

The composition and properties of each sample should be determined using consistent measuring and calculation techniques.

 $B_{oi}$  and  $R_{si}$  shall be derived from the analyses of representative Reservoir fluid samples taken in intervals containing Reservoir Oil.

 $B_{oi}$  and  $R_{si}$  for each of these representative Reservoir fluid samples shall be calculated based on laboratory measurements of composition and density at Initial Reservoir conditions.

 $B_{gi}$  and  $R_{vi}$  shall be derived from the analyses of representative Reservoir fluid samples taken in intervals containing Reservoir Gas.

 $B_{gi}$  and  $R_{vi}$  for each of these representative Reservoir fluid samples shall be calculated based on laboratory measurements of the composition and the density at Initial Reservoir conditions.

For each grid cell, n, in accordance with Section 7 of this Exhibit, representative values of  $B_{oi}$ ,  $R_{si}$ ,  $B_{gi}$  and  $R_{vi}$  shall be defined, as appropriate. Any lateral or vertical variation in fluid properties within each phase in each Reservoir observed from representative samples shall be accounted for.

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# SECTION 4 GEOPHYSICAL PROCEDURES

### 4.1 Objective

The objective of the geophysical procedures contained in this Section is to delineate the structural configuration of the Reservoir, within the Unit Interval, by constructing depth grids using the interpretation of the TWT and velocity model. The time structure grids as specified in Section 4.4(B)(4) of this Exhibit shall be used as a basis for the geological mapping of the Unit Interval. Other geophysical techniques pursuant to Section 4.5 of this Exhibit may be used to support structural, geological, static and dynamic reservoir characterization.

# 4.2 Geophysical mapping horizons

Mapping horizons include, but are not restricted to the following geological and seismic markers:

- (1) Sea floor
- (2) Miocene Unconformity
- (3) Top Campanian Fan
- (4) Base Campanian Fan
- (5) Top Upper Mahogany Member
- (6) Top Middle Shale Member
- (7) Top Lower Mahogany Member
- (8) Base Lower Mahogany Member
- (9) Top Cenomanian
- (10) Albian Unconformity
- (11) Seismic markers related to reservoir fluid interface(s) or characterisation of the Reservoir
- (12) Other markers relevant to mapping the Unit Interval or depth conversion of the Reservoir

## 4.3 Data sources

(A) Seismic

Unless otherwise agreed, the basis for control of the seismic interpretation shall be the Basic Seismic Survey. The Basic Seismic Survey may be extended beyond the Unit Area boundary by up to three (3) kilometres for structural and velocity control. If the Basic Seismic Survey does not cover the entire Unit Area then additional 3D seismic surveys shall be used for control of the seismic horizon interpretation in those parts of the Unit Area that are not covered by the Basic

F-21

Seismic Survey. Different versions of the processing, including gathers and velocity data, and different offset stack volumes of the Basic Seismic Survey and any other 3D seismic survey in the Common Database may be used to supplement the interpretation of the Unit Interval.

In the event of mis-ties between such additional seismic data and the Basic Seismic Survey, the Basic Seismic Survey shall prevail.

Well logs **(B)** 

> In all Wells, acoustic logs, calibrated velocity logs, check shots, vertical seismic profiles, density, caliper and gamma ray logs shall be utilized wherever possible for the purpose of establishing the best possible calibration of the seismic data to the Well.

Tops, bases, faults and other boundaries (C)

> For each Well the tops, bases, faults and other boundaries used for identifying geological markers shall be specified in Measured Depth, TVDSS and geographical position in accordance with Section 6.2 of this Exhibit.

> At least the following tops, bases, faults and other boundaries where present and where penetrated shall be identified:

- Sea floor а.
- b. Miocene Unconformity
- Top Campanian Fan C.
- d. Base Campanian Fan
- Top Upper Mahogany Member e.
- f. Top Middle Shale Member
- Top Lower Mahogany Member g.
- Base Lower Mahogany Member h.
- i. Top Cenomanian
- Albian Unconformity į.
- Other tops, bases, faults or boundaries relevant to mapping the Unit k. Interval
- (D) Well times

A table listing Measured Depth, TVDSS and TWT in Wells from the check-shot calibrated acoustic logs together with the corresponding seismic time picks for tops, bases, faults and other boundaries listed under Section 4.3(C) of this Exhibit shall be constructed and made available in digital format. AN BA The seismic line and CCP used for picking of seismic TWT for each tops, bases, faults and other boundaries in each Well shall also be included in the table.

The table constructed under this Section will be distributed to the Parties by the Unit Operator.

### 4.4 Seismic data interpretation

(A) Well tie

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Synthetic Seismograms shall be prepared, where possible, for all Wells. For the purposes of establishing the best possible Well to seismic calibration in all Wells penetrating the Unit Interval the following data may be utilised, but may not be limited to: acoustic logs, image logs, calibrated velocity logs, check shots, vertical seismic profiles, density logs, caliper logs and gamma ray logs.

A seismic wavelet and polarity assumption or a derived wavelet, giving the best character and time fit to the seismic at Unit Interval level, at as many Wells as possible, shall be applied. The derivation of the wavelet(s) used in Synthetic Seismograms shall be fully documented. The correlation of the surface seismic data with the Synthetic Seismograms, where possible, shall be honoured in picking TWT for each Well. Time shifts to Synthetic Seismograms may be applied and shall be listed. The result will be output in digital format and distributed to the Parties.

Well ties may be adjusted for inconsistencies at or between Wells. A lead or lag time may be applied as necessary and such times shall be documented. Final Well to seismic ties shall be tabulated and be distributed to the Parties.

# (B) Horizon and fault interpretation

All interpretation of seismic data will be consistent with the geological model as described in Section 5.2 of this Exhibit.

- (1) Seismic time horizons representing the mapping horizons listed in Section 4.2 of this Exhibit shall be picked over the entire area where they exist within the Unit Area. The seismic pick criteria, including phase and polarity of the interpreted horizons, shall be fully documented. These seismic interpretations shall be distributed to the Parties in digital format together with seismic line and CCP numbers and UTM co-ordinates and include the original horizon interpretation along with surfaces generated from that interpretation. In addition, a reference interpreted seismic section set distributed across the Unit Area shall be provided to illustrate the seismic pick convention and Well to seismic calibration.
- (2) If a seismic time horizon representing a mapping horizon listed in Section 4.2 in this Exhibit cannot be reliably mapped, then a seismic time horizon which most closely defines the geometry of that seismic time horizon shall be mapped or used as a guide for mapping that seismic time horizon. Where such an additional seismic time horizon is mapped as per this Section, it will be deemed to be added to the list of geophysical mapping

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F-23

horizons in Section 4.2 of this Exhibit. As such it will also be added as a geological marker required under Section 5.3(A) of this Exhibit and treated as per all geological markers. Isochore maps will be constructed as per Section 5.9 of this Exhibit to construct the Depth Structure Grid for the seismic horizon that could not be reliably mapped.

- (3) Faults shall be interpreted where possible and in accordance with Sections
   5.2 and 5.3(C) of this Exhibit.
- (4) TWT for each of the horizons listed in Section 4.3 (C) of this Exhibit shall be gridded together with fault interpretation to produce Time Structure Grids of these mapping horizons. The gridding shall be performed in accordance with Section 6 of this Exhibit.

Time Structure Grids and corresponding maps shall be in digital format. Well TWT values for the appropriate mapping objectives shall be posted on the maps.

(C) *Time-depth conversion* 

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(1) The velocity model(s) for depth conversion of the mapping horizons listed in Section 4.2 of this Exhibit shall be generated. When establishing the velocity model for depth conversion, all relevant data from the Common Database shall be considered for the purpose of generating the most reliable depth maps. The velocity model(s) shall cover at least the Unit Area, and shall be extended so that all Wells used for establishing the velocity model(s) are included in the grids.

The Time Structure Grids shall be converted to Depth Structure Grids using a method that appropriately accounts for vertical and lateral velocity variations above and within the Unit Interval.

The response of the seismic markers related to fluid interfaces shall be modelled using Well data and seismic data if that said seismic marker is to be used as depth control for any velocity model.

- (2) The velocity model(s) and grids shall be fully documented with a full explanation and justification of methods, input data, smoothing and applied corrections and be submitted in digital format with corresponding maps and distributed to the Parties. Well velocity values for the appropriate horizon and/or interval shall be posted on the maps.
- (3) All gridding involved either in generating the velocity model(s) or in transforming it to velocity grids shall be performed in accordance with Section 6 of this Exhibit.

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### (D) Depth structure grids

Depth Structure Grids shall be generated for each Reservoir based on the Time Structure Grids and applying the depth conversion described in Section 4.4 (C) of this Exhibit. The resulting grid values shall be consistent with the depths for each top, base or other boundary listed in Section 4.3 (C) of this Exhibit from all Wells and in accordance with Section 6.5 of this Exhibit.

The Depth Structure Grids and corresponding maps shall be prepared and stored in digital format. Well TVDSS values for the appropriate mapping objectives shall be posted on the maps.

### 4.5 Other geophysical techniques

Seismic attributes, including but not limited to offset data and seismic inversion, may be mapped and used in conjunction with the structural interpretation and Well data in order to assist in the mapping of Reservoir properties and Hydrocarbon saturation within the Reservoir. Seismic responses, interpreted to be related to fluid interfaces or Reservoir properties, shall be modelled in order to calibrate and demonstrate the seismic response.

If and where appropriate other commercially available non-seismic geophysical techniques may be used to support the structural, geological and fluid mapping of the Unit Interval.

### 4.6 Conflicting data

If Well information and seismic data lead to conflicting mapping control points, and careful review of all data does not present an appropriate solution, Well data shall prevail at Well locations. If the objective seismic horizon cannot be mapped using consistent seismic criteria, a combined geological-geophysical mapping method shall be applied and Well data shall take precedence over other data.

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# SECTION 5 GEOLOGICAL PROCEDURES

# 5.1 Objective

The objective of this Section is to define the geological procedures that will be used to identify the relevant markers in each Well, correlate those markers between Wells, select Reservoir Zones within the Reservoir, and construct the grids of the Unit Interval that are specified in Sections 5.9 to 5.12 of this Exhibit.

A geological model of the Unit Interval shall be constructed.

### 5.2 Geological model

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A geological model of the Unit Interval shall be constructed as an aid for reservoir parameter mapping. The geological model shall describe the stratigraphy and structural development of the Unit Interval in terms of age, depositional environment and lithofacies or any other factors that may aid the description and the gridding of reservoir properties.

The geological model shall be based on geological and geophysical data from the Common Database. Field analogue data within the public domain may be used to support the geological model.

Reservoir properties from Wells and seismic data shall be analysed for trends. Any analysis of trends to help substantiate the geological model shall be based on correlation of Well data with respect to continuous data. For any such correlations to be utilized geologically reasonable and statistically valid trends, where established, shall be fully substantiated.

Processing artefacts and biases in the continuous data and imprints from the overburden on seismic data shall be eliminated from the analysis.

### 5.3 Correlation of Wells

The following shall be identified where penetrated in each Well and correlated between each Well using all available data from the Common Database to assist the correlation:

- (A) Geological markers
  - (1) All geophysical mapping horizons listed in Section 4.2 of this Exhibit;
  - (2) Tops and bases of all Reservoir Horizons
  - (3) Tops of all Reservoir Zones as identified in Section 5.4 of this Exhibit

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### (B) *Missing section*

Intervals in the Wells where stratigraphic section is missing shall be identified and interpreted on an individual basis, using all relevant data from the Common Database.

Data from incomplete sections of the Reservoir or Reservoir Zones shall be accounted for but shall only be used for that Reservoir or Reservoir Zone from which they were derived.

Estimates of the amount of missing stratigraphic section shall be made and documented.

(C) Faults and barriers

Fault locations shall be determined from geophysical and geological evidence. Fault locations shall be submitted digitally and shown on a map of the Reservoir Zone Depth Structure Grids.

Where faults are identified in Wells but not on seismic data, the faults shall be mapped in the location at which they are observed in the Wells. If possible, the extent, type and dip of these faults shall be determined by taking into account all relevant geological data from the Common Database.

The extent of barriers shall, if possible, be determined from geological, petrophysical and geophysical evidence including data from, but not limited to, well tests and PVT analysis where relevant for the identification of Regions.

(D) Repeat Sections

Each Repeat Section identified on well logs shall be individually described.

If the Repeat Section is due to the incidence of wellbore deviation and a reverse fault, the hanging wall block shall be mapped using the first encountered section in the Well, and the footwall block shall be mapped using the Repeat Section after restoration of the section and values taking account of the missing section. In such areas a minimum of one cross-section to illustrate the interpretation that has been used shall be prepared.

#### 5.4 Zonation of the Unit Interval

The Unit Interval shall be subdivided into Reservoir Zones in accordance with the geological model. There shall be no overlap of the Reservoir Zones.

All Reservoir Zones shall be chosen for the purposes of improving the calculation accuracy of OGIP and STOOIP and minimizing the need to average widely ranging values of reservoir properties in Wells.

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# 5.5 Depth Reference

# (A) Measured Depth

All Measured Depths (along hole) in a given Well shall be quoted with reference to the Depth Reference Log. Tops shall be expressed in metres rounded to the nearest zero point one (0.1) of a metre.

(B) True Vertical Depth

TVDSS shall be used for depth mapping. Measured Depths in all deviated wells shall be corrected to TVDSS in accordance with Section 5.5 (C) of this Exhibit.

(C) Well Path

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Final surface and bottom hole locations and final directional deviation data for each Well in the Common Database shall be supplied by geodetic and survey contractors selected by the Unit Operator. The logging contractors' final directional deviation survey shall be used for well path and TVDSS calculations. Conversion from Measured Depth along hole to TVDSS shall be performed by a minimum curvature method.

# 5.6 Control point positions

# (A) *Geographical positions*

The geographical positions of the subsurface well data points for each Reservoir Zone shall be those derived from interpolations of the established deviation data set in accordance with Section 5.5 of this Exhibit. All quoted positions shall refer to both geographical and corresponding UTM positions rounded to the nearest one (1) metre.

# (B) Depth structure data

Reservoir Zone depth structure data for a Well shall be located at the first intersection of the borehole with the surface being mapped. Repeat Sections in wells shall on relevant maps be posted with an "R" adjacent to the posted point.

# (C) Zone parameters

Reservoir Zone parameter data for a Well, such as TVT, net to gross ratio, average Porosity, and average Initial saturations, shall be located at an appropriate Reservoir Zone midpoint(s) as illustrated in Figure 5 of this Exhibit.

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# 5.7 Grids and maps of Reservoir Zones

The following grids and maps shall be constructed for each Reservoir Zone:

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a. depth structure at the top of Reservoir Zone

Exhibit F to the Unitization and Unit Operating Agreement

b. depth structure at the base of Reservoir Zone

c. TVT

d. net to gross ratio

- e. average Porosity
- f. average Initial Reservoir Gas saturation
- g. average Initial Reservoir Oil saturation
- h. if justified, other grids relevant to Reservoir property mapping

The gridding shall be performed in accordance with Section 6 of this Exhibit. The grids and corresponding maps shall be submitted in digital format.

Polygons limiting the lateral extent of the Wedge Zone formed by the Initial Free Fluid Level(s) shall be produced from all Reservoir Zone tops and base Depth Structure Grids and displayed on all the appropriate maps.

The Well data values described in Sections 5.8 (B), 5.9 (B), 5.10 (B), 5.11 (B) and 5.12 (B) respectively of this Exhibit shall be posted on the appropriate maps.

### 5.8 Reservoir Zone Depth Structure Grids

(A) Depth values

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Depths and geographical positions shall be presented as outlined in Sections 5.5 (B) and 5.6 (A) of this Exhibit. Depth values shall be expressed in metres rounded to the nearest zero point one (0.1) of a metre.

### (B) Grid construction

The Depth Structure Grids pursuant to Section 4.4 (D) of this Exhibit shall provide the basis for Reservoir Zone Depth Structure Grids.

Reservoir Zone Depth Structure Grids shall be constructed by generating TVT grids in accordance with Section 5.9 of this Exhibit for all defined Reservoir Zones and adding TVT grids to the seismically derived top Reservoir Depth Structure Grids.

Time Structure Grids, other than Reservoir Time Structure Grids may also be used in the construction of Reservoir Depth Structure Grids.

If an interval of the Reservoir Zone can be mapped from seismic data then the TVT grids within the interval of the Reservoir Zone shall be adjusted pro-rata, such that the sum of the TVTs conforms to the seismically derived TVT of that Reservoir Zone interval.

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If a Reservoir Zone is eroded the Reservoir Zone TVT grids should correctly represent the truncation of the Reservoir Zone by the erosion surface. The Depth Structure Grid of the erosion surface shall be constructed using combined geophysical and geological principles and shall honour the TVT at the Wells.

Faults shall be incorporated in the gridding in accordance with Section 6 of this Exhibit.

# 5.9 TVT data and grids

(A) TVT data

The TVT of a Reservoir Zone shall be calculated using an appropriate technique at all Well positions by using the Well deviation survey data in accordance with Section 5.5 (C) of this Exhibit together with the appropriate structural data.

The calculated TVT values shall be rounded to the nearest zero point one (0.1) of a metre.

In Reservoir Zones in which the Initial Free Fluid Level(s) are encountered in Wells, values for TVT for that part of the Reservoir Zone above and that part of the Reservoir Zone below the Initial Free Fluid Level(s) shall be provided separately in addition to the TVT for the entire Reservoir Zone.

If a Reservoir Zone in a Well is cut by a fault, or if a Reservoir Zone is incompletely penetrated or logged, the true vertical Reservoir Zone thickness at the Well position may, if justified, be restored in accordance with the TVT of the missing section, estimated from adjacent Wells and consistent with seismic data and the geological model.

In areas of high formation dips, meaning greater than ten (10) degrees, where no Reservoir Depth Structure Grids for the base of the Reservoir Zone are present TVT grids shall be constructed by the application of an appropriate technique taking into account all available data including but not limited to dipmeter data.

### (B) TVT grids

Gridding shall be performed in accordance with Section 5.8 (B) and Section 6 of this Exhibit.

Each TVT grid shall be constructed such that the Reservoir Zone Depth Structure Grids of the top and the base of the Reservoir Zone shall honour the corresponding depth values in Wells and be consistent with the seismic interpretation and the geological model.

If a Reservoir Zone is absent due to non-deposition then the value shall be set to zero (0). If a Reservoir Zone is incomplete within a Well for other reasons the TVT value at that Well within that Reservoir Zone shall only be included if the back interpolated grid value is greater than the incomplete Reservoir Zone TVT

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value of that Well. The use of incomplete TVT data shall be consistent with seismic interpretation and the geological model.

(C) Gross Hydrocarbon thickness grids

The Reservoir Zone Depth Structure Grids for each Reservoir Zone in each Region will be clipped to the appropriate Initial Free Fluid Levels as determined in Sections 3.12 and 3.13 of this Exhibit to calculate Gross Oil Thickness and Gross Gas Thickness.

### 5.10 Net to gross ratio data and grids

#### (A) Net to gross ratio

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The net to gross ratio for each Reservoir Zone and Reservoir Oil Zone or Reservoir Gas Zone shall be calculated by dividing the Net Sand for that Reservoir Zone and Reservoir Oil Zone or Reservoir Gas Zone by the TVT for that Reservoir Zone and Reservoir Oil Zone or Reservoir Gas Zone. Net Sand values for incomplete Reservoir Zone and Reservoir Oil Zone or Reservoir Gas Zone within Wells shall be treated on an individual basis.

### (B) Net to gross ratio grids

The Net Sand for each Reservoir Zone and Reservoir Oil Zone or Reservoir Gas Zone shall be gridded in accordance with Section 6 of this Exhibit. The TVT grids calculated in Section 5.9 (B) of this Exhibit for the same Reservoir Zone and Reservoir Oil Zone or Reservoir Gas Zone shall be used in the grid to grid operation. For each Reservoir Oil Zone or Reservoir Gas Zone the net to gross grids will be set to one (1) if a grid value is greater than one (1) and shall be set to zero (0) if the value is less than zero (0).

The gridding of net to gross ratio for each Reservoir Zone and Reservoir Oil Zone or Reservoir Gas Zone shall be consistent with the net to gross ratio values in Wells and be consistent with constraints imposed by seismic interpretation and the geological model.

The net to gross ratio grids within the Wedge Zones shall be corrected to best represent the portion of the Reservoir Oil Zone or Reservoir Gas Zone within the Wedge Zone.

# 5.11 Average Porosity data and grids

### (A) Average Porosity data

For each Well, the average Porosity of the Net Sand for each complete Reservoir Zone and Reservoir Oil Zone or Reservoir Gas Zone shall be determined by the procedures in accordance with Section 3.5 and 3.14 (C) of this Exhibit. In Reservoir Zones in which Initial Free Fluid Level(s) are encountered in Wells, average Porosity of the Net Sand in the zone above and the zone below the Initial

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Exhibit F to the Unitization and Unit Operating Agreement

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Free Fluid Level(s) shall be provided in addition to the average Porosity of the Net Sand for the entire Reservoir Zone.

Porosity data for any incomplete Reservoir Zone and Reservoir Oil Zone or Reservoir Gas Zone within Wells shall be treated on an individual basis.

If a Reservoir Zone and Reservoir Oil Zone or Reservoir Gas Zone is absent or incomplete within a Well the Porosity value in that Reservoir Zone and Reservoir Oil Zone or Reservoir Gas Zone shall be considered an indeterminate value and that indeterminate value shall be gridded in accordance with Section 6.5 of this Exhibit.

(B) Average Porosity grids

Gridding shall be performed in accordance with Section 6 of this Exhibit.

The gridding of average Porosity for each Reservoir Zone and Reservoir Oil Zone or Reservoir Gas Zone shall honour the average values in Wells and constraints imposed by seismic interpretation and the geological model.

The average Porosity grids within Wedge Zones shall be corrected to best represent the portion of the Reservoir Oil Zone or Reservoir Gas Zone within the Wedge Zone.

# 5.12 Initial Reservoir Oil and Initial Reservoir Gas saturation grids

# (A) Initial Reservoir Oil and Initial Reservoir Gas saturation data

Initial Reservoir Oil and Initial Reservoir Gas saturation in Wells shall be determined in accordance with Section 3.10 of this Exhibit.

Saturation-height functions for Initial Reservoir Gas saturation and Initial Reservoir Oil saturation shall be generated in accordance with Section 3.11 of this Exhibit.

For each Well the average Initial Reservoir Gas and Initial Reservoir Oil saturation shall be calculated for each Reservoir Oil Zone and Reservoir Gas Zone in accordance with Section 3.14 (D) and 3.14 (E) of this Exhibit.

# (B) Gridding of average Initial Reservoir Oil and Initial Reservoir Gas saturation

Saturation data as described in this Section shall provide the basis for the gridding of saturation data.

Average Initial Reservoir Gas and Initial Reservoir Oil saturation grids shall honour the average Initial Reservoir Gas and Initial Reservoir Oil saturation values at Wells drilled prior to start of production. For Wells drilled after start of production the average Initial Reservoir Gas and Initial Reservoir Oil saturation grid shall honour the value modelled from the saturation-height function or the average Reservoir Gas and Reservoir Oil saturation value, whichever is the larger value, created in accordance with Sections 3.10 and 3.11 of this Exhibit.

Average modelled Initial Reservoir Gas and Initial Reservoir Oil saturation grids for each Reservoir Oil Zone and Reservoir Gas Zone shall be derived by means of integrating the established saturation-height function with respect to height above the appropriate Initial Free Fluid Level for that Reservoir Zone and the relevant Region in accordance with Section 3.11 of this Exhibit.

If available data does not allow the construction of such saturation-height functions, then other methods of gridding may be applied.

Gridding shall be performed in accordance with Section 6 of this Exhibit.

### 5.13 Free Fluid Levels in Regions and other areas

The Unit Interval shall be divided into Regions and other areas as described below based on the Initial Free Fluid Level in Wells in accordance with Sections 3.12 and 3.13 of this Exhibit, and direct Hydrocarbon indicators as appropriate and in accordance with Sections 4.5 and 4.6 of this Exhibit.

Data from Wells drilled prior to start of production shall form the basis for the determination of the Initial Free Fluid Level per Region. Wells drilled after start of production shall be considered on an individual basis. The Initial Free Fluid Level in a Region may not be shallower than the Free Fluid Level observed in Wells in that Region. If Free Fluid Levels or Hydrocarbon saturations differ from the Initial Free Fluid Level or Initial Hydrocarbon saturations within that Region then all available data from the Common Database shall be considered to establish the Initial Free Fluid Level.

If, within an area of the Unit Interval, an Initial Free Fluid Level cannot be determined from Well data in a Reservoir Zone in accordance with Sections 3.12 and 3.13 of this Exhibit then a model for Initial Free Fluid Level in that Reservoir Zone and that area shall be established from observed occurrences of Hydrocarbon and water in Wells, pressure data and any seismic data from the Common Database.

For the purposes of Section 5 and Section 6 of this Exhibit only one value of Initial Free Fluid Level for each Reservoir Zone for each Region shall be used.

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Exhibit F to the Unitization and Unit Operating Agreement

# SECTION 6 COMPUTER GRIDDING

# 6.1 Objective

The objective of the computer gridding procedures contained in this Section is to define the gridding and mapping procedures to be applied to determine geophysical, geological and petrophysical parameters for each Reservoir Zone in between Well locations and within the Unit Interval.

# 6.2 Map projection

All grids and maps shall be calculated using UTM projection zone 30 with WGS84 Datum and using the following:

False Easting	=	5000000.0 meters
False Northing	=	0.00 meters
Central Meridian	=	-3.000000 degrees
Scale Factor	=	0.99960000

### 6.3 Base maps

A digital base map in a scale of 1:50 000 shall be provided and shall include but not be limited to:

Geographic co-ordinates

UTM co-ordinates

Licence boundaries

Unit Area boundary

Surface and bottom hole location and trajectory of each Well determined in accordance with Section 5.5 (C) of this Exhibit.

CCP for the Basic Seismic Survey or any other seismic data used displayed and numbered at sufficiently dense intervals.

All information displayed on the base map shall be distributed digitally to the Parties.

Such information shall also be displayed on all geophysical, geological and rock property and fluid maps. CCP may be omitted for clarity.

# 6.4 Grid size and grid area

All mapping grids shall have the same grid cell size and area. The grid cell size shall be fifty (50) by fifty (50) metres. The orientation of the grid shall be UTM north/south. The grid shall be the Unit Area unless otherwise agreed.

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# 6.5 Computer gridding

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Computer gridding shall reproduce data sets in gridded form, but not add or change data. Unless otherwise specified in this Exhibit the principle for gridding of interpreted 3D seismic data shall be to simply reproduce the data within the grid framework as accurately as grid resolution.

The reservoir property mapping must be consistent with the description of the geological model of the Unit Interval and shall be consistent with observed trends established from analysis of the geological and geophysical data pursuant to Section 5.2 of this Exhibit.

Unless otherwise specified in this Exhibit the principle for gridding sparser data sets shall be to establish trends against continuous data sets and honour such trends in gridding. The trends shall be analysed in accordance with Section 5.2 of this Exhibit.

The gridding must be consistent with the range of values in Wells and constraints imposed by seismic interpretation.

Residuals may be expressed as either the difference or the ratio between actual values and modelled values at a set of control points. If a trend can be established in the estimated results the model shall be updated and the residuals shall be revised.

The principle for gridding residuals from seismic processing velocities shall be to use interpolation to produce a smooth result. The principle for gridding of residuals from Well data shall be to use kriging with a stationary assumption and a limited correlation range.

The principle for gridding of a non-additive variable such as Net Sand, TVT, average Porosity, average Initial saturation and interval velocity, and the residuals of these, shall be to apply thickness weighting using the appropriate thickness for weighting.

Indeterminate values due to absent or incomplete Reservoir Zones shall be ignored in the gridding of data. The resulting grid value at an indeterminate Reservoir Zone Well shall be consistent with the geological model and any other data from the Common Database.

All gridding of Well data shall be in such a way that any grid value shall be clipped to a maximum value of plus ten percent (10%) of the range observed in Wells within that Reservoir Zone and to a minimum value of minus ten percent (10%) of the range observed in Wells within that Reservoir Zone.

All final grids shall honour the relevant initial parameter values at Well locations.

### 6.6 Volume calculation polygons

For volume calculation purposes the Reservoir Zones shall be delimited by one or more polygons to ensure maximum accuracy in the calculations.

Grid refinement utilising a finer grid spacing may be used locally to accommodate nonorthogonal boundaries.

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A polygon that follows a fault and/or a truncation line shall be placed at the geographical mid point of the faulted and /or truncated area, as shown in Figure 6 of this Exhibit. A set of polygons defined for a given Reservoir Zone or a set of Reservoir Zones shall be non-overlapping and the combined spatial extent shall completely cover the spatial extent of the Hydrocarbon accumulation within the Reservoir Zone or set of Reservoir Zones.

### SECTION 7 CALCULATION OF ORIGINAL GAS PORE VOLUME AND ORIGINAL OIL PORE VOLUME AND THE CALCULATION OF OGIP AND STOOIP

# 7.1 Objective

The objective of these procedures contained in this Section is to calculate the volumes of Original Gas Pore Volume and the Original Oil Pore Volume per grid cell in the Unit Interval and the Original Gas in Place and Stock Tank Oil Originally in Place using the relevant conversion factors in the Unit Interval.

# 7.2 Calculation of OGPV

Volume calculations shall be performed on grids created in accordance with Section 6 of this Exhibit.

For each Reservoir Gas Zone the relevant following grids are to be used:

a) Gross Gas Thickness

b) net to gross ratio

c) average Porosity

d) average Initial Reservoir Gas saturation

For each grid cell, 'n',  $OGPV_n$  is calculated by the following formula:

 $OGPV_n = GRV_n * (N/G)_n * \Phi_n * S_{gn}$ 

Where:

$\begin{array}{c} OGPV_{n} \\ GRV_{n} \end{array}$		5 5 million
(N/G) <sub>n</sub>		Level (cubic metres) grid cell net to gross ratio (fraction)
· · · · ·		grid cell average Porosity (fraction)
Sen	=	grid cell average Initial Reservoir Gas saturation (fraction)

# 7.3 Calculation of OOPV

Volume calculations shall be performed on grids created in accordance with Section 6 of this Exhibit.

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For each Reservoir Oil Zone the relevant following grids are to be used:

- a) Gross Oil Thickness
- b) net to gross ratio
- c) average Porosity
- d) average Initial Reservoir Oil saturation

For each grid cell, 'n',  $OOPV_n$  is calculated by the following formula:

$$OOPV_n = GRV_n * (N/G)_n * \Phi_n * S_{on}$$

Where:

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 $OOPV_n = grid cell Initial Reservoir Oil pore volume (cubic metres)$ 

 $GRV_n$  = grid cell gross Oil rock volume above the corresponding Initial Free Water Level (cubic metres)

 $(N/G)_n$  = grid cell net to gross ratio (fraction)

 $\tilde{\Phi}_n$  = grid cell average Porosity (fraction)

 $S_{on}$  = grid cell average Initial Reservoir Oil saturation (fraction)

# 7.4 Determination of OGIP and STOOIP

In each Reservoir Zone the OGIP and STOOIP shall be calculated using the  $B_{oi}$ ,  $B_{gi}$ ,  $R_{si}$  and  $R_{vi}$  factors derived from representative fluids defined in accordance with section 3.14 of this Exhibit.

In each Reservoir Zone containing Oil for each cell "n" the FOOIP and the SGOIP shall be calculated by the formulae:

 $FOOIP_n = OOPV/B_{oi}$ 

 $SGOIP_n = FOOIP_n * R_{si}$ 

 $SGOIP_n$  shall be converted to Oil Equivalent.

In each Reservoir Zone containing Gas for each grid cell "n" the FGIIP and CIIP shall be calculated by the formulae:

 $FGIIP_n = OGPV_n/B_{gi}$ 

 $CIIP_n = FGIIP_n * R_{vi}$ 

 $FGIIP_n$  shall be converted to Oil Equivalent only if the presence of Gas is proven at Reservoir conditions. If no Gas at Reservoir conditions is proven  $FGIIP_n$  will not be included in the determination of OGIP.

The total STOOIP for each Reservoir Zone shall be obtained by summing FOOIP<sub>n</sub> and

F-37

CIIP<sub>n</sub>

The total OGIP expressed as Oil Equivalent for each Reservoir Zone shall be obtained by summing  $FGIIP_n$  and  $SGOIP_n$  for all relevant grid cells for that Reservoir Zone provided that for  $FGIIP_n$  the presence of Natural Gas is proven at Reservoir conditions.

# SECTION 8 CALCULATION OF ORIGINAL HYDROCARBONS IN PLACE

# 8.1 Objective

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The objective of this Section is to calculate the quantities of OHIP within the portions of the Unit Interval underlying each Tract.

# 8.2 Calculation of OHIP

The OHIP for each Tract shall be calculated as the sum of all the OGIP (expressed as Oil Equivalent) in all Reservoir Gas Zones within that Tract and all the STOOIP in all Reservoir Oil Zones within that Tract.





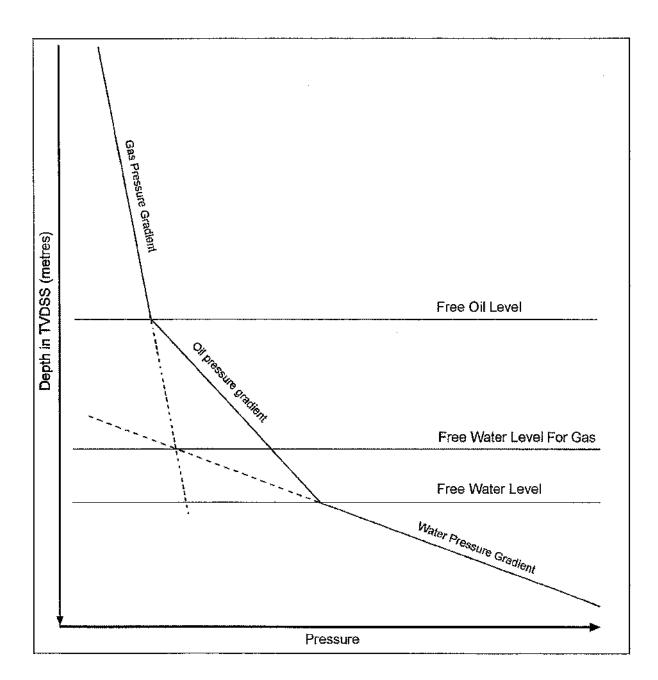
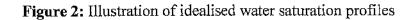
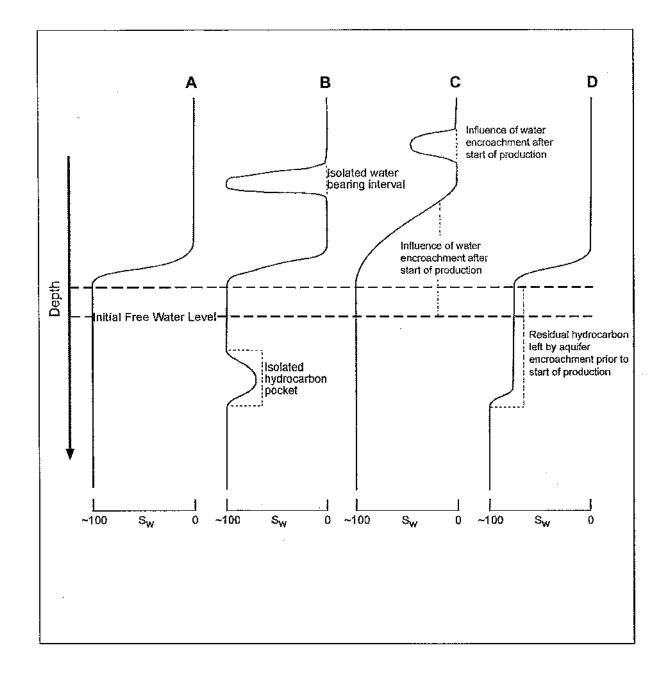


Exhibit F to the Unitization and Unit Operating Agreement

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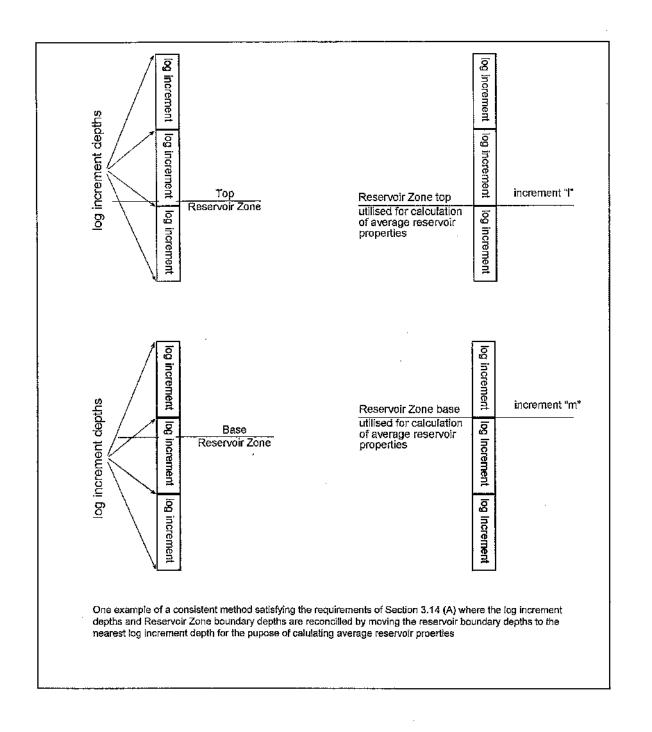
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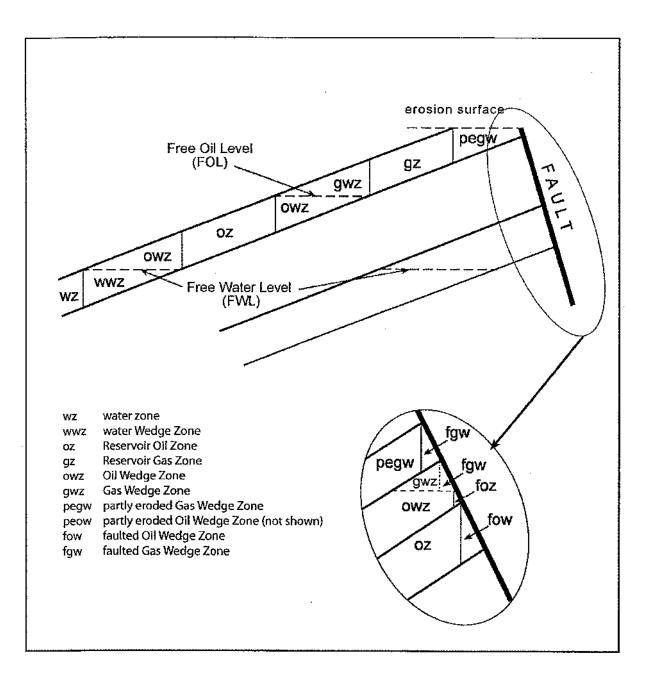
**Figure 3:** Illustration of the reconciliation of Reservoir Zone boundary depths with log increments depths for the calculation of average reservoir properties

Exhibit F to the Unitization and Unit Operating Agreement

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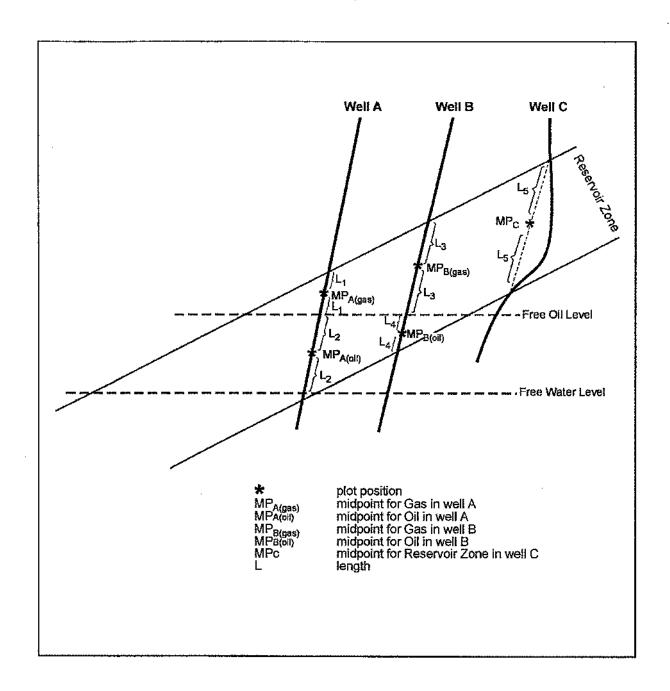
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# Figure 4: Illustration of Wedge Zones



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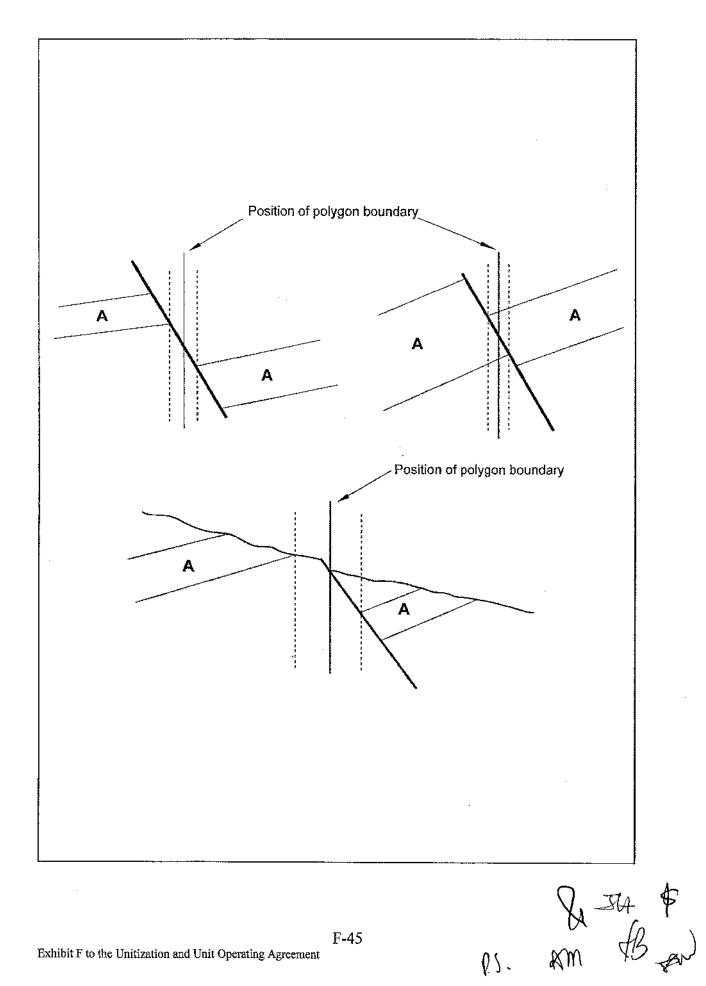
Exhibit F to the Unitization and Unit Operating Agreement

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Figure 6: Illustration of the position of polygons in faulted areas and in truncated areas.

Exhibit F to the Unitization and Unit Operating Agreement

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ATTACHED TO AND MADE PART OF THE UNITIZATION AND UNIT OPERATING AGREEMENT BY AND BETWEEN GHANA NATIONAL PETROLEUM CORPORATION, TULLOW GHANA LIMITED, KOSMOS ENERGY GHANA HC, ANADARKO WCTP COMPANY, SABRE OIL & GAS HOLDINGS LIMITED, AND EO GROUP LIMITED (THE "AGREEMENT")

#### EXHIBIT "G"

### DEEPWATER TANO CONTRACT AREA

PETROLEUM AGREEMENT

Exhibit G to the Unitization and Unit Operating Agreement

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# PETROLEUM AGREEMENT

AMONG



# GOVERNMENT OF THE REPUBLIC OF GHANA GHANA NATIONAL PETROLEUM CORPORATION



### AND

TULLOW GHANA LIMITED SABRE OIL AND GAS LIMITED KOSMOS ENERGY GHANA HC

IN RESPECT OF

# THE DEEPWATER TANO CONTRACT AREA

DATED MARCH 10, 2006

G-2

Exhibit G to the Unitization and Unit Operating Agreement

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### TABLE OF CONTENTS

ARTICLE 1	
DEFINITIONS	5
ARTICLE 2	
SCOPE OF THE AGREEMENT, INTERESTS OF THE PARTIES AND CONTRACT AREA	
ARTICLE 3	
EXPLORATION PERIOD	
ARTICLE 4	
MINIMUM EXPLORATION PROGRAMME	
ARTICLE 5	
RELINQUISHMENT	
ARTICLE 6	
JOINT MANAGEMENT COMMITTEE	
ARTICLE 7	
RIGHTS AND OBLIGATIONS OF CONTRACTOR AND GNPC	
ARTICLE 8	
COMMERCIALITY	
ARTICLE 9	
SOLE RISK ACCOUNT	
ARTICLE 10	
SHARING OF CRUDE OIL	
ARTICLE 11	
MEASUREMENT AND PRICING OF CRUDE OIL	
ARTICLE 12	
Taxation and other imposts	
ARTICLE 13	
FOREIGN EXCHANGE TRANSACTIONS	
ARTICLE 14	
SPECIAL PROVISIONS FOR NATURAL GAS	
PART I - GENERAL	
PART II -ASSOCIATED GAS	
PART III - NON-ASSOCIATED GAS	
PART IV NATURAL GAS PROJECTS	
Petroleum Agreement Deepwater-Tullow/Sabre/Kosmos- March, 2006	

Exhibit G to the Unitization and Unit Operating Agreement

-

G-3

......

Aras

......

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 $\left[ \right]$  $\left[ \right]$  $\left[ \right]$ . — . }

	15
DOMEST	TC SUPPLY REQUIREMENT (CRUDE OIL)
ARTICLE	16
	IATION AND REPORTS : CONFIDENTIALITY
ARTICLE	17
INSPECT	ION, SAFETY AND ENVIRONMENTAL PROTECTION
ARTICLE	18
NOODA	NTING AND AUDITING
ARTICLE	19
TITLE TO	and control of goods and equipment
ARTICLE	20
PURCHA	SING AND PROCUREMENT
ARTICLE	21
employ	MENT AND TRAINING
ARTICLE	22
FORCEN	4AJEURE
ARTICLE	23,
TERM AI	ND TERMINATION
ARTICLE	25
ASSIGNA	1ENT
ARTICLE	26
MISCELL	ANEOUS
ARTICLE	27
	- CONTRACT AREA
	- ACCOUNTING GUIDE
SECTION	GENERAL PROVISIONS
1.2	STATEMENTS REQUIRED TO BE SUBMITTED BY CONTRACTOR
	LANGUAGE, MEASUREMENT, AND UNITS OF ACCOUNTS
2.0 2.1	CLASSIFICATION AND ALLOTMENT OF COSTS AND EXPENDITURE ALL EXPENDITURE RELATING TO PETROLEUM OPERATIONS SHALL BE CLAS FOLLOWS:
SECTION	3
3.0 3.1	COSTS, EXPENSES, EXPENDITURES AND CREDITS OF CONTRACTOR CONTRACTOR FOR THE PURPOSE OF THIS AGREEMENT SHALL CHARGE THE FOLLOWING ALLOWABLE COSTS TO THE ACCOUNTS:
3.2	COST OF ACQUIRING SURFACE RIGHTS AND RELINQUISHMENT
3.3	LABOUR AND ASSOCIATED LABOUR COSTS
Petroleum Agr	eement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006
	G-4
Exhibit G to the	he Unitization and Unit Operating Agreement

EXPENDITURES AND CREDITS OF CONTRACTOR ...... 12 

3.4	TRANSPORTATION COSTS	
3.5	CHARGES FOR SERVICES	
3.6	RENTALS, DUTIES AND OTHER ASSESSMENTS	
3.7	INSURANCE AND LOSSES	
3.8	LEGAL EXPENSES	
3.9	TRAINING COSTS	
3.10	GENERAL AND ADMINISTRATIVE EXPENSES	
3.11	UTILITY COSTS	
3.12	OFFICE FACILITY CHARGES	
3.13	COMMUNICATION CHARGES	
3.14	ECOLOGICAL AND ENVIRONMENTAL CHARGES	
3.15	ABANDONMENT COST	
3.16	OTHER COSTS	
3.17	COSTS NOT ALLOWABLE UNDER THE AGREEMENT	
3.18	ALLOWABLE AND DEDUCTIBILITY	
3.19	CREDITS UNDER THE AGREEMENT	
3.20	DUPLICATION OF CHARGES AND CREDITS	
SECTION	14	
4.0	MATERIAL	
4.1	VALUE OF MATERIAL CHARGED TO THE ACCOUNTS UNDER THE AGREEMENT	
4.2	VALUE OF MATERIAL PURCHASED FROM AN AFFILIATE	19
4.3	CLASSIFICATION OF MATERIALS	20
4.4	DISPOSAL OF MATERIALS	20
4.5	WARRANTY OF MATERIALS	20
4.6	CONTROLLABLE MATERIALS	
SECTION	5	22
5.0	CASH CALL STATEMENT	22
SECTION	6	23
6.0	PRODUCTION STATEMENT	23
SECTION	17	
7.0	VALUE OF PRODUCTION STATEMENT	
SECTION	8	
8.0	COST STATEMENT	25
SECTION	9	
9.0	STATEMENT OF EXPENDITURES AND RECEIPTS	
SECTION	10	
10.0	FINAL END-OF-YEAR STATEMENT	27
SECTION	11	
11.0	BUDGET STATEMENT.	
SECTION	12	
12.0	LONG RANGE PLAN AND FORECAST	
ANNEX 3	- SAMPLE AOE CALCULATION	

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

3 And СV

Exhibit G to the Unitization and Unit Operating Agreement

G-5

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#### WITNESSETH:

- 1. All Petroleum existing in its natural state within Ghana is the property of the Republic of Ghana and held in trust by the State.
- 2. GNPC has by virtue of the Petroleum Law the right to undertake Exploration, Development and Production of Petroleum over all blocks declared by the Minister to be open for Petroleum Operations.
- 3. GNPC is further authorised to enter into association by means of a Petroleum Agreement with a contractor for the purpose of Exploration, Development and Production of Petroleum.
- 4. The Contract Area that is the subject matter of this Petroleum Agreement has been declared open for Petroleum Operations by the Minister and the Government of Ghana desires to encourage and promote Exploration, Development and Production within the said area. GNPC and the State have assured Contractor that all of said area is within the jurisdiction of the Republic of Ghana.
- 5. Contractor, having the financial ability, technical competence and professional skills necessary for carrying out the Petroleum Operations herein described, desires to associate with GNPC in the Exploration for, and Development and Production of, the Petroleum resources of the said area.
- 6. The Parties recognise that Ghanaian nationals should as soon as reasonably possible be engaged in employment at all levels in the Petroleum industry, including technical, administrative and managerial positions, and that to achieve this objective an adequate programme of training must be established as an integral part of this Agreement.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) --March 2006

Exhibit G to the Unitization and Unit Operating Agreement

NOW THEREFORE, in consideration of the mutual covenants herein contained, it is hereby agreed and declared as follows:

### **ARTICLE 1**

#### DEFINITIONS

- 1. In this Agreement:
- 1.1 "Accounting Guide" means the accounting guide which is attached hereto as Annex 2 and made a part hereof;
- 1.2 **"Additional Interest**" means the Additional Interest of GNPC provided for in Article 2.5 and Article 2.6;
- 1.3 "Affiliate" means any person, whether a natural person, corporation, partnership, unincorporated association or other entity:
  - a) in which one of the Parties hereto or one of the companies comprising Contractor directly or indirectly hold more than fifty percent (50%) of the share capital or voting rights;
  - b) which holds directly or indirectly more than fifty percent (50%) of the share capital or voting rights in a Party hereto or of the companies comprising Contractor;
  - c) in which the share capital or voting rights are directly or indirectly and to an extent more than fifty percent (50%) held by a company or companies holding directly or indirectly more than fifty percent (50%) of the share capital or voting rights in a Party hereto or in one of the companies comprising Contractor; or
  - d) which holds directly five percent (5%) or more of the share capital or voting rights in Contractor.
- 1.4 "Agreement" means this Agreement between the State, GNPC and Contractor, and includes the Annexes attached hereto;
- 1.5 **"Appraisal Programme"** means a programme carried out following a Discovery of Petroleum for the purpose of delineating the accumulation of Petroleum to which that Discovery relates in terms of thickness and lateral extent and estimating the quantity of recoverable Petroleum therein;

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) --March 2006

Exhibit G to the Unitization and Unit Operating Agreement

- 1.6 "Appraisal Well" means a well drilled for the purposes of an Appraisal Programme;
- 1.7 "Associated Gas" means Natural Gas produced from a well in association with Crude Oil;
- 1.8 **"Barrel"** means a quantity or unit of Crude Oil equal to forty-two (42) United States gallons at a temperature of sixty (60) degrees fahrenheit and at 14.65 psia pressure.
- 1.9 **"Block"** means an area of approximately 685 square kilometres as depicted on the reference map prepared by the Minister in accordance with the provisions of the Petroleum Law;
- 1.10 "Calendar Year" means the period of twelve (12) months of the Gregorian calendar, commencing on January 1 and ending on the succeeding December 31;
- 1.11 "Carried Interest" means an interest held by GNPC in respect of which Contractor pays for the conduct of Petroleum Operations without any entitlement to reimbursement from GNPC as expressly provided for in this Agreement;
- 1.12 "Commercial Discovery" means a Discovery which is determined to be commercial in accordance with the provisions of this Agreement;
- 1.13 "Commercial Production Period" means in respect of each Development and Production Area the period from the Date of Commencement of Commercial Production until the termination of this Agreement or earlier relinquishment of such Development and Production Area;
- 1.14 "Contract Area" means the area of 1,108 sq km covered by this Agreement in which Contractor is authorised to explore for, develop and produce Petroleum, which is described in Annex 1 attached hereto and made a part of this Agreement, but excluding any portions of such area in respect of which Contractor's rights hereunder are from time to time relinquished or surrendered pursuant to this Agreement;
- 1.15 "Contractor" means Tullow Ghana Limited, Sabre Oil and Gas Limited and Kosmos Energy Ghana HC and their respective successors and assignees;
- 1.16 "Contract Year" means a period of twelve (12) Months, commencing on the Effective Date or any anniversary thereof;

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

Exhibit G to the Unitization and Unit Operating Agreement

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- 1.17 "Crude Oil" means hydrocarbons which are liquid at 14.65 psia pressure and sixty (60) degrees Fahrenheit and includes condensates and distillates obtained from Natural Gas;
- 1.18 **"Date of Commencement of Commercial Production"** means, in respect of each Development and Production Area, the date on which production of Petroleum under a programme of regular production, lifting and sale commences;
- 1.19 "Date of Commercial Discovery" means the date referred to in Article 8.12;
- 1.20 "Delivery Point" shall have the meaning ascribed it in Article 10.5;

- 1.21 "Development" or "Development Operations" means the preparation of a Development Plan, the design, engineering, building and installation of facilities for Production, and includes drilling of Development Wells, construction and installation of equipment, pipelines, facilities, plants and systems, in and outside the Contract Area, which are required for achieving Production, treatment, transport, storage and lifting of Petroleum, and preliminary Production and testing activities carried out prior to the Date of Commencement of Commercial Production, and includes all related planning and administrative work, and also includes drilling and installation of wells and equipment for pressure maintenance and/or for increasing production rates and may also include the construction and installation of secondary and tertiary recovery systems, where these are included as part of the Development Plan;
- 1.22 "Development Costs" means Petroleum Costs incurred in Development Operations;
- 1.23 "Development and Production Area" means that portion of the Contract Area reasonably determined by Contractor (or by GNPC if a Sole Risk Operation pursuant to Article 9) on the basis of the available seismic and well data to cover the areal extent of an accumulation of Petroleum constituting a Commercial Discovery, enlarged in area by ten percent (10%), such enlargement to extend uniformly around the perimeter of such accumulation; and further enlarged by the area covering any extension of the accumulation which is revealed by further development work provided such extension is within the Contract Area;
- 1.24 **"Development Period"** means in respect of each Development and Production Area, the period from the Date of Commercial Discovery until the Date of Commencement of Commercial Production;
- 1.25 **"Development Plan"** means the plan for development of a Commercial Discovery prepared by Contractor in consultation with the Joint Management Committee and approved by the Minister pursuant to Article 8;

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) --March 2006

Exhibit G to the Unitization and Unit Operating Agreement

- 1.26 "Development Well" means a well drilled in accordance with a Development Plan for producing Petroleum, for pressure maintenance or for increasing the Production rate;
- 1.27 "Discovery" means finding during Exploration Operations an accumulation of Petroleum not previously known or proven to have existed, which is recovered or recoverable at the surface in a flow measurable by conventional petroleum industry testing methods;
- 1.28 "Discovery Area" means that portion of the Contract Area, reasonably determined by Contractor (or by GNPC if a Sole Risk Operation pursuant to Article 9) on the basis of the available seismic and well data to cover the areal extent of the geological structure in which a Discovery is made. A Discovery Area may be modified at any time by Contractor (or by GNPC if applicable), if justified on the basis of new information, but may not be modified after the date of completion of the Appraisal Programme;
- 1.29 "Effective Date" shall have the meaning ascribed to it in Article 26.9;
- 1.30 "Exploration" or "Exploration Operations" means the search for Petroleum by geological, geophysical and other methods and the drilling of Exploration Well(s) and includes any activity in connection therewith or in preparation thereof and any relevant processing and appraisal work, including technical and economic feasibility studies, that may be carried out to determine whether a Discovery of Petroleum constitutes a Commercial Discovery;
- 1.31 "Exploration Costs" means all expenditures made and costs incurred, both within and outside Ghana, in conducting Exploration Operations hereunder determined in accordance with the Accounting Guide attached hereto an Annex 2;
- 1.32 "Exploration Period" means the period commencing on the Effective Date and continuing during the time provided for in Article 3.1 within which Contractor is authorised to carry out Exploration Operations and shall include any periods of extensions provided for in this Agreement. The period shall terminate with respect to any Discovery Area on the Date of Commercial Discovery in respect of such Discovery Area;
- 1.33 **"Exploration Well"** means a well drilled in the course of Exploration Operations conducted hereunder during the Exploration Period, but does not include an Appraisal Well;

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) -- Merch 2006

G-10\_

Exhibit G to the Unitization and Unit Operating Agreement

- 1.34 "Extension Period" means any of the First Extension Period or Second Extension Period;
- 1.35 "First Extension Period" shall have the meaning ascribed to it in Article 3.1(a)(ii);
- 1.36 **"First SubPeriod** shall have the meaning ascribed to it in Article 3.1(a)(i);
- 1.37 **"Force Majeure"** means any event beyond the reasonable control of the Party claiming to be affected by such event which has not been brought about at its instance, including, but not limited to, earthquake, storm, flood, lightning or other adverse weather conditions, war, embargo, blockade, riot or civil disorder;
- 1.38 **"Foreign National Employee"** means an expatriate employee of Contractor, its Affiliates, or its Sub-contractors who is not a citizen of Ghana;
- 1.39 "Ghana" means the territory of the Republic of Ghana and includes the sea, seabed and subsoil, the continental shelf and all other areas within the jurisdiction of the Republic of Ghana;
- 1.40 "Gross Production" means the total amount of Petroleum produced and saved from a Development and Production Area during Production Operations which is not used by Contractor in Petroleum Operations and is available for distribution to the Parties in accordance with Article 10;
- 1.41 "Gross Negligence" means any act or failure to act (whether sole, joint or concurrent) which was in reckless disregard of or wanton indifference to harmful consequences such person or entity knew or should have known such act or failure would have on another person or entity;
- 1.42 "Initial Exploration Period" shall have the meaning ascribed to it in Article 3.1(a)(i);
- 1.43 **"Initial Interest"** means the interest of GNPC in all Petroleum Operations provided for in Article 2.4;
- 1.44 "Joint Management Committee (JMC)" means the committee established pursuant to Article 6.1 hereof;

G-H

- 1.45 "Market Price" shall have the meaning ascribed to it in Article 11.7;
- 1.46 "Minister" means Minister for Energy;
- 1.47 "Month" means a month of the Calendar Year;

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

Exhibit G to the Unitization and Unit Operating Agreement

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- 1.48 "Natural Gas" means all hydrocarbons which are gaseous at 14.65 psia pressure and sixty (60) degrees fahrenheit temperature and includes wet gas, dry gas and residue gas remaining after the extraction of liquid hydrocarbons from wet gas;
- 1.49 **"Non-Associated Gas"** means Natural Gas produced from a well other than in association with Crude Oil;
- 1.50 "Operator" means Tullow or such other Party as may be appointed by Contractor with the approval of GNPC and the State, which approval shall not be unreasonably withheld or delayed;
- 1.51 **"Participating Interest"** means for GNPC, the interest held by GNPC in accordance with the provisions of Article 2.4 and Article 2.5 and for Contractor, the interest held by Contractor in accordance with the provisions of Article 2.9;
- 1.52 "Party" means the State, GNPC or Contractor, as the case may be;

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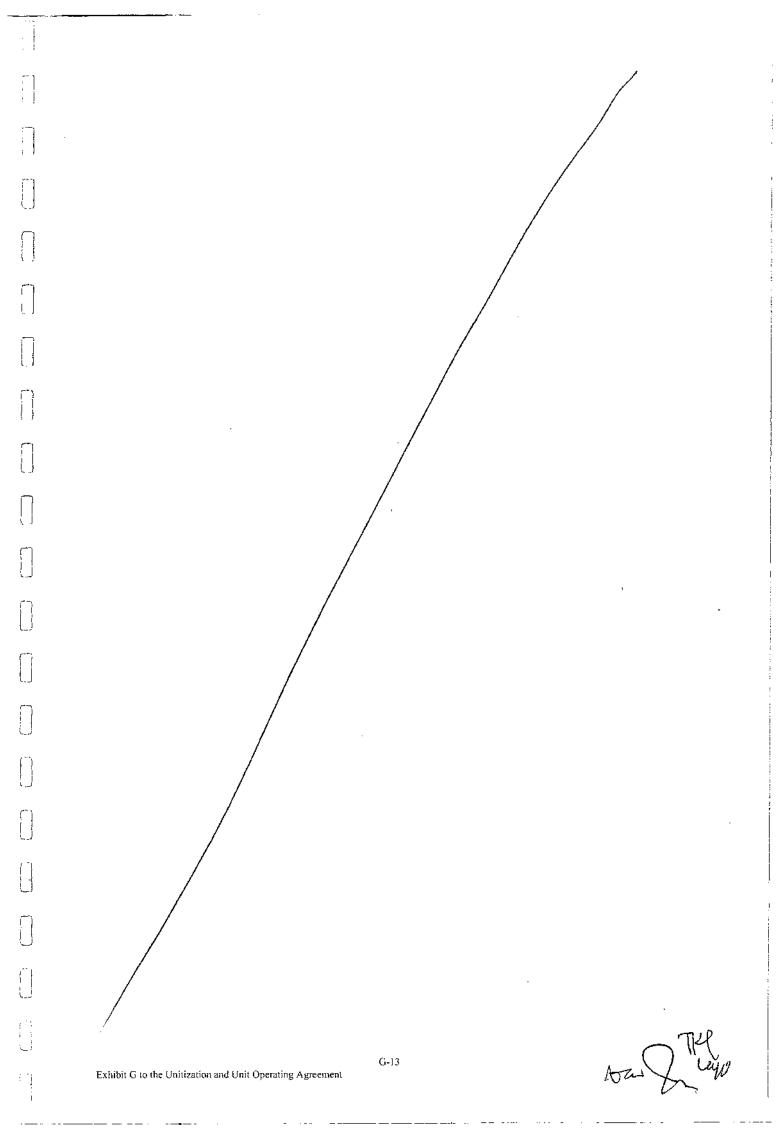
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- 1.53 **"Paying Interest"** means an interest held by GNPC in respect of which GNPC pays for the conduct of Petroleum Operations;
- 1.54 "Petroleum" means Crude Oil or Natural Gas or a combination of both;
- 1.55 "Petroleum Costs" means all expenditures made and costs incurred, both within and outside Ghana, in conducting Petroleum Operations hereunder determined in accordance with the Accounting Guide attached hereto as Annex 2;
- 1.56 "Petroleum Income Tax Law" means the Petroleum Income Tax Law, 1987 (PNDCL 188);
- 1.57 **"Petroleum Law"** means the Petroleum (Exploration and Production) Law, 1984 (PNDCL 84);
- 1.58 "Petroleum Operations" means all activities, both in and outside Ghana, relating to the Exploration for, Appraisal, Development, Production, handling and transportation of Petroleum contemplated under this Agreement and includes Exploration Operations, Development Operations and Production Operations and all activities in connection therewith;
- 1.59 **"Petroleum Product"** means any product derived from Petroleum by any refining or other process;

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

And

Exhibit G to the Unitization and Unit Operating Agreement



- 1.60 "Production" or "Production Operations" means activities not being Development Operations, undertaken in order to extract, save, treat, measure, handle, store, load and transport Petroleum to storage and/or loading points and to carry out any type of primary and secondary operations, including recycling, recompression, maintenance of pressure and water flooding and all related activities such as planning and administrative work and shall also include maintenance, repair and replacement of facilities, and well workovers, conducted after the Date of Commencement of Commercial Production of the respective Development and Production Area;
- 1.61 "Production Costs" means Petroleum Costs incurred in Production Operations;
- 1.62 "Quarter" means a period of three (3) Months, commencing January 1, April 1, July 1 or October 1;
- 1.63 "Rate of Return" shall have the meaning ascribed to it in Article 10;

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- 1.64 **"Second Extension Period"** shall have the meaning ascribed to it in Article 3.1(a)(ii);
- 1.65 "Second Sub Period" shall have the meaning ascribed to it in Article 3.1(a)(i);
- 1.66 "Sole Risk Operation" means an operation conducted at the sole cost, risk and expense of GNPC referred to in Article 9;
- 1.67 "Specified Rate" means the rate which the National Westminster Bank, Plc, London, certifies to be the London Interbank offered rate (LIBOR) in the London Interbank Eurodollar market on thirty (30) day deposits, in effect on the last business day of the last respective preceding month, plus one point five percent (1.5%);
- 1.68 "Standard Cubic Foot" or "SCF" means the quantity of gas that occupies one (1) cubic foot at 14.65 psia pressure and sixty (60) degrees fahrenheit temperature;
- 1.69 "State" means the Government of the Republic of Ghana;
- 1.70 **"Subcontractor"** has the meaning assigned to that term in the Petroleum Income Tax Law;
- 1.71 "Termination" means termination of this Agreement pursuant to Article 23 hereof;
- 1.72 **"Work Programme"** means the annual plan for the conduct of Petroleum Operations prepared pursuant to Articles 4.3, 6.4 and 6.5;

G-14

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) --March 2006

11

Exhibit G to the Unitization and Unit Operating Agreement

# SCOPE OF THE AGREEMENT, INTERESTS OF THE PARTIES AND CONTRACT AREA

- 2.1 This Agreement provides for the Exploration for and Development and Production of Petroleum in the Contract Area by GNPC in association with Contractor.
- 2.2 Subject to the provisions of this Agreement, Contractor shall be responsible for the execution of such Petroleum Operations as are required by the provisions of this Agreement and subject to Article 9, is hereby appointed the exclusive entity to conduct Petroleum Operations in the Contract Area. GNPC shall at all times participate in the management of Petroleum Operations and in order that the Parties may cooperate in the implementation of Petroleum Operations GNPC and Contractor shall establish a Joint Management Committee, to conduct and manage Petroleum Operations.
- 2.3 In the event that no Commercial Discovery is made in the Contract Area, or that Gross Production achieved from the Contract Area is insufficient fully to reimburse Contractor in accordance with the terms of this Agreement, then Contractor shall bear its own loss; GNPC and the State shall have no obligations whatsoever to contractor in respect of such loss.
- 2.4 GNPC shall have a ten percent (10%) Initial Interest in all Petroleum Operations under this Agreement. With respect to all Exploration and Development Operations GNPC's Initial Interest shall be a Carried Interest. With respect to all Production Operations GNPC's Initial Interest shall be a Paying Interest.
- 2.5 GNPC shall have the option to acquire an Additional Interest of five percent (5%) in every Commercial Discovery. In order to acquire the Additional Interest, GNPC must notify Contractor within ninety (90) days after Contractor's notice to the Minister that a Discovery is a Commercial Discovery, of its intention to acquire the Additional Interest. If within such ninety (90) day period GNPC does not give such notice, GNPC's interest will remain as described in Article 2.4. If GNPC acquires the Additional Interest, GNPC shall be responsible for paying five percent (5%) of all future Petroleum Costs including Development and Production Costs as approved by the JMC. GNPC and Contractor shall agree on the mode of financing such Additional Interest.

In the event that Contractor decides to seek project finance from a bank or group of banks for the financing of Development Operations, Contractor shall offer GNPC

G-15

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) ~March 2006

Exhibit G to the Unitization and Unit Operating Agreement

the opportunity (but not an obligation) to join in the said project financing with respect to its Additional Interest. GNPC shall not, by its action or inaction, impede or delay Contractor in its efforts to obtain such project financing.

If GNPC fails to pay for the costs associated with its Additional Interest and those associated with Production Operations as described in Article 2.4 and Article 2.6, then Contractor shall be entitled to recover the said costs, together with interest at the Specified Rate, from Production revenues.

In the event that GNPC, having acquired the Additional Interest, subsequently wishes to dispose of it (or part of it) to a third party, GNPC shall notify Contractor of such intent and shall inform Contractor of the price which is to be paid by such third party for the same, and Contractor shall have the right for a period of forty five days from receipt of such notice to inform GNPC that it wishes to acquire such interest at the price notified to it by GNPC, being the price at which it was to have been sold to the third party.

- 2.6 If GNPC opts to take an Additional Interest as provided for in Article 2.5 then within six (6) Months of its election, GNPC shall reimburse Contractor for all expenditures attributable to GNPC's Additional Interest and incurred from the Date of Commercial Discovery to the date GNPC notifies Contractor of its election.
- 2.7 For the avoidance of doubt GNPC shall only be liable to contribute to Petroleum Costs:
  - a) incurred in respect of Development Operations in any Development and Production Area and to the extent only of any Additional Interest acquired in such Development and Production Area under Article 2.5; and
  - b) incurred in respect of Production Operations in any Development and Production Area both to the extent of:
    - i) its ten percent (10%) Initial Interest; and
    - ii) any Additional Interest acquired in such development and Production Area under Article 2.5
- 2.8 GNPC may during the Exploration Period assist Contractor in carrying out Contractor's obligations expeditiously and efficiently as stipulated in Article 7.3. Upon completion of the work associated with said assistance, GNPC shall invoice the Contractor for the costs incurred and shall provide reasonable supporting documentation in respect of such costs. Contractor shall pay GNPC the invoiced amount within thirty (30) days of receipt of the invoice. The actual amount of the

G-16

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) --March 2006

Exhibit G to the Unitization and Unit Operating Agreement

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invoice submitted by GNPC shall be at rates agreed by GNPC and the Contractor for such services.

- 2.9 Contractor's Participating Interest in all Petroleum Operations and in all rights under this Agreement shall be ninety per cent (90%), reduced proportionately at any given time and in any given part of the Contract Area by the Additional Interest of GNPC pursuant to Article 2.5 or the Sole Risk Interest of GNPC pursuant to Article 9.
- 2.10 As of the Effective Date, the Contract Area shall cover a total of approximately one thousand one hundred and eight square kilometres (1,108km<sup>2</sup>) as depicted by Annex 1 and shall from time to time during the term of this Agreement be reduced according to the terms herein. During the term of the Agreement, Contractor shall pay rentals to the State for that area included within the Contract Area at the beginning of each Contract Year according to the provisions of Article 12.2(e) below provided that a pro-rata payment shall be made to cover a period of less than one (1) full Contract Year.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) - March 2006

Exhibit G to the Unitization and Unit Operating Agreement

14

#### EXPLORATION PERIOD

3.1 The Exploration Period shall begin on the Effective Date and shall not cover a period of more than six and one half (6½) years except as provided for in accordance with this Agreement and the Petroleum Law.

- a) The Exploration Period shall be divided as follows:
  - (i) an Initial Exploration Period of two and one half (2½) years ("Initial Exploration Period") further divided into Subperiods:
    - 1. One (1) year ("First Subperiod");
    - 2. One and one half (1<sup>1</sup>/<sub>2</sub>) years ("Second Subperiod") plus
  - (ii) Two (2) extension periods totalling four (4) years:
    - 1. Two (2) years for the first such period ("First Extension Period"); and
    - 2. Two (2) years for the second of such periods ("Second Extension Period").
- b) At the end of the First Subperiod, Contractor shall elect to drill a well during the Second Subperiod or relinquish the entire Contract Area. Contractor shall have the right to relinquish the entire Contract Area and withdraw from this Agreement upon the expiration of any of the First Subperiod, the Second Subperiod, the First Extension Period or the Second Extension period; subject only to notifying GNPC not less than thirty (30) days before expiration of the relevant period and provided Contractor has completed the applicable work obligation of the First Subperiod or Second Subperiod, or any of the Extension Periods (as applicable) during which such relinquishment and withdrawal is made.
- c) Where Contractor has fulfilled its work and expenditure obligations set out in Article 4.3 before the end of a specific Subperiod or any of the Extension Periods and has exercised its option by applying to the Minister in writing for an extension into the next phase, the Minister will be deemed to have granted an extension into the Second Subperiod, First Extension Period or, Second Extension Period, as applicable.
- d) For each well drilled by Contractor or with Contractor's participation during the Initial Exploration Period (beyond those referred to in Article 4.3), the Initial Exploration Period shall be extended by three (3) Months and the commencement of subsequent periods shall be postponed in their entirety accordingly.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

15

Exhibit G to the Unitization and Unit Operating Agreement

- 3.2 Following the end of the Second Extension Period, subject to the provisions of Article 3.4, Contractor will be entitled to an extension or extensions, by reference to Article 8, of the Exploration Period as follows:
  - a) Where at the end of the Second Extension Period Contractor is drilling or testing any well, Contractor shall be entitled to an extension for such further period as may be reasonably required to enable Contractor to complete such work and assess the results and, in the event that Contractor notifies the Minister that the results from any such well show a Discovery which merits appraisal, Contractor shall be entitled to a further extension for such period as may be reasonably required to carry out an Appraisal Programme and determine whether the Discovery constitutes a Commercial Discovery;
  - b) Where at the end of the Second Extension Period Contractor is engaged in the conduct of an Appraisal Programme in respect of a Discovery which has not been completed, Contractor shall be entitled to a further extension following the end of the Second Extension for such period as may be reasonably required to complete that Appraisal Programme and determine whether the Discovery constitutes a Commercial Discovery;
  - c) Where at the end of the Second Extension Period Contractor is in the process of completing an aspect of the Approved Work Programme not falling under paragraphs (a) or (b) in this Article 3.2 above, or under Article 4.3(c), Contractor will be entitled to such extension of time as the Minister considers reasonable for the purpose of completing such work;
  - d) Where pursuant to Article 8 Contractor has before the end of the Second Extension Period, including extensions under (a), (b) and (c) above, given to the Minister a notice of Commercial Discovery, Contractor shall, if the Exploration Period would otherwise have been terminated, be entitled to a further extension of the Exploration Period in which to prepare the Development Plan in respect of the Discovery Area to which that Development Plan relates until either:
    - i) the Minister has approved the Development Plan as set out in Article 8, or
    - ii) in the event that the Development Plan is not approved by the Minister as set out in Article 8 and the matter or matters in issue between the Minister and Contractor have been referred for resolution under Article 24, one (1) Month after the date on which the final decision thereunder has been given.

G-19

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

Exhibit G to the Unitization and Unit Operating Agreement

1 

- 3.3 Where Contractor has during the Initial Exploration Period or, as the case may be, during the First Extension Period failed to fulfill its work and expenditure obligations under Article 4 in respect of that period but has made reasonable arrangements to remedy its default during the First Extension Period or, as the case may be, the Second Extension Period, Contractor shall be entitled to an extension subject to such reasonable terms and conditions as the Minister may stipulate to assure performance of the work.
- 3.4 Save in respect of a Discovery Area:
  - a) In the circumstances and subject to the limitations set forth in Section 12 (3) of the Petroleum Law; or
  - b) In a case falling within the provisions of Article 3.2 (d)

nothing in Article 3.2 shall be read or construed as requiring or permitting the extension of the Exploration Period beyond seven (7) years from the Effective Date except for reasons of Force Majeure.

- 3.5 The provisions of Article 3.2 (a), (b) and (c) so far as they relate to the duration of the extension period to which Contractor will be entitled shall be read and construed as requiring the Minister to give effect to the provisions of Article 8 relating to the time within which Contractor must meet the requirements of that Article.
- 3.6 In the event that the Contractor is in the course of drilling or testing any well at the end of the Second Subperiod or the First Extension Period then it shall be permitted to complete the said drilling or testing without breaching this Agreement.

G-20

If Contractor elects thereafter to enter into the First Extension Period or the Second Extension Period, as the case may be, the commencement of the First Extension Period or the Second Extension Period shall not be affected by the duration of the period required for the completion of drilling or testing as referred to above, but shall remain as stated in Article 4.3 (b) or Article 4.3(c) as applicable.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

17

Exhibit G to the Unitization and Unit Operating Agreement

#### MINIMUM EXPLORATION PROGRAMME

- 4.1 Exploration Operations shall begin as soon as practicable and in any case not later than sixty (60) days after the Effective Date.
- 4.2 GNPC shall, at the request of Contractor, make available to it such records and information relating to the Contract Area as are relevant to the performance of Exploration Operations by Contractor and are in GNPC's possession, provided that Contractor shall reimburse GNPC for the costs reasonably incurred in procuring or otherwise making such records and information available to Contractor.
- 4.3 Subject to the provisions of this Article, in discharge of its obligations to carry out Exploration Operations in the Contract Area, Contractor shall during the several phases into which the Exploration Period is divided carry out the work specified hereinafter:
  - a) <u>Initial Exploration Period</u>: Commencing on the Effective Date and terminating at the end of the two and one half (2½) Contract Years which is made up of the following;

#### First Subperiod (1 year):

**Description of Work**: By the end of the First Subperiod of the Initial Exploration Period Contractor shall have undertaken a work programme including the reprocessing of 3D seismic data and seabed logging.

Minimum Expenditure: Contractor's minimum expenditure for the work in the First Subperiod of the Initial Exploration Period shall be two million United States dollars (U.S.\$2,000,000).

#### Second Subperiod (1<sup>1</sup>/<sub>2</sub> years):

**Description of Work**: By the end of the Second Subperiod of the Initial Exploration Period, Contractor shall have drilled at least one (1) Exploration Well in the Contract Area.

<u>Minimum Expenditure</u>: Contractor's minimum expenditure for the work in the Second Subperiod of the Initial Exploration Period shall be twenty million United States dollars (U.S.\$20,000,000).

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Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

Exhibit G to the Unitization and Unit Operating Agreement

 b) First Extension Period: Commencing at the end of the Initial Exploration Period and terminating at the end of a further two (2) Contract Years.
 <u>Minimum Expenditure</u>: Contractor's minimum expenditure for the work in the First Extension Period shall be twenty million United States dollars U.S.\$20,000,000).

**Description of Work:** By the end of the First Extension Period, Contractor shall have drilled at least one (1) Exploration Well in the Contract Area.

c) <u>Second Extension Period</u>: Commencing at the end of the First Extension and terminating at the end of a further two (2) Contract Years.

**Description of Work :** By the end of the Second Extension Period, Contractor shall have drilled one (1) Exploration Well in the Contract Area.

<u>Minimum Expenditure</u>: minimum expenditure for work in the Second Extension Period shall be twenty million United States dollars (U.S.\$20,000,000).

- d) Work and expenditures accomplished in any Subperiod or Extension Period in excess of the above obligations may be applied as credit in satisfaction of obligations called for in any other Subperiod or Extension Period. The fulfillment of any work obligation shall relieve Contractor of the corresponding minimum expenditure obligation, but the fulfillment of any minimum expenditure obligation shall not relieve Contractor of the corresponding work obligation.
- (e) The principle of Article 4 is that, the fulfillment of any minimum Work Programme supersedes its corresponding minimum expenditure. However, for any Extension Period or Subperiod, for which the entire minimum work obligation is not met by Contractor, the corresponding part of the minimum expenditure obligation relating to the unfulfilled work obligation shall be paid to GNPC whereupon Contractor shall be deemed to have fulfilled such minimum work obligation. However, Contractor's entitlement to proceed to the next Extension Period or Subperiod shall be at the discretion of the Minister.
- 4.4 No Appraisal Wells drilled or seismic surveys carried out by Contractor as part of an Appraisal Programme undertaken pursuant to Article 8 and no expenditure incurred by Contractor in carrying out such Appraisal Programme shall be treated as discharging the minimum work obligations under Article 4.3.
- 4.5 The seismic reprocessing and seabed logging programme in Article 4.3(a), when combined with existing data, shall be such as will enable a study of the regional

G-22

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

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Exhibit G to the Unitization and Unit Operating Agreement

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geology of the Contract Area and the preparation of a report thereon with appropriate maps, cross sections and illustrations, as well as a geophysical survey of the Contract Area which, when combined with existing data, shall provide:

- a) a minimum seismic grid adequate to define prospective drill sites over prospective closures as interpreted from data available to Contractor; and
- b) a seismic evaluation of structural and stratigraphic conditions over the remaining portions of the Contract Area.
- 4.6 Each Exploration Well shall be drilled at a location and to an objective depth determined by Contractor in consultation with GNPC. Except as otherwise provided in Article 4.7 and 4.8 below, the minimum depth of each obligatory Exploration Well shall be whichever of the following is first encountered:
  - a) the depth of 3,600 metres measured from the Rotary Table Kelly Bushing (RTKB);
  - b) the depth sufficient to penetrate 500 metres into the primary target;
  - c) the depth at which Contractor encounters geologic basement.
- 4.7 The minimum depth of the first obligatory Exploration Well in Article 4.3 shall be whichever of the following is first encountered:
  - a) the depth of 4,400 meters measured from the Rotary Table Kelly Bushing (RTKB);
  - b) the depth sufficient to penetrate 300 metres into the Santonian; or
  - c) the depth at which Contractor encounters geological basement.
- 4.8 If in the course of drilling an Exploration Well the Contractor concludes that drilling to the minimum depth specified in Article 4.6 or 4.7 above is impossible, impracticable or imprudent in accordance with accepted international petroleum industry drilling and engineering practice, then Contractor may plug and abandon the Exploration Well and GNPC shall have the option of either:
  - a) waiving the minimum depth requirement, in which case Contractor will be deemed to have satisfied the obligation to drill such Exploration Well; or
  - b) requiring Contractor to drill a substitute Exploration Well at a location determined by Contractor in consultation with GNPC and to the relevant

G-23

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) --March 2006

Exhibit G to the Unitization and Unit Operating Agreement

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minimum depth set forth in Article 4.6 or 4.7, except that if in the course of drilling such substitute Exploration Well Contractor establishes that drilling to the relevant minimum depth specified in Article 4.6 or 4.7 above is impossible, impracticable or imprudent in accordance with accepted petroleum industry drilling and engineering practice, then Contractor may plug and abandon the substitute Exploration Well and will be deemed to have satisfied the obligation to drill one (1) Exploration Well to the minimum depth to which such well had been planned.

The above option shall be exercised by GNPC within thirty (30) days from the plugging and abandonment of the Exploration Well, and failure to exercise such option shall constitute a waiver of the minimum depth requirement pursuant to Articles 4.6 and 4.7 as the case may be.

- 4.9 During the Exploration Period, Contractor shall have the right to perform additional Exploration Operations, including without limitation performing gravity and magnetic surveys, drilling stratigraphic wells and performing additional geological and geophysical studies, provided the minimum work obligations are performed within the applicable period.
- 4.10 During the Exploration Period, Contractor shall deliver to GNPC and the Minister reports on Exploration Operations conducted during each Calendar Quarter within thirty (30) days following the end of that Quarter. Further requests for information by the Minister under Section 9(1) of the Petroleum Law shall be complied with within a reasonable time and copies of documents and other material containing such information shall be provided to GNPC.
- 4.11 If, upon completion of the minimum exploration programme set forth in Article 4.3, Contractor desires to conduct a further programme of Exploration on those retained areas that will be relinquished upon expiry of the Exploration Period, Contractor shall have a right of first refusal to the granting of a new petroleum agreement covering such retained areas. If Contractor elects to exercise this right, it must do so in writing to GNPC not less than one (1) year before the expiry of the Exploration Period. If GNPC receives such written election from Contractor, the Parties shall use best efforts to negotiate in good faith a new petroleum agreement to cover such retained areas, with the intention that if possible there shall be no lapse between the expiration of this Petroleum Agreement and the effective date of the new petroleum agreement.

G-24

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

21

Exhibit G to the Unitization and Unit Operating Agreement

#### <u>RELINQUISHMENT</u>

- 5.1 Except as provided in Article 8.3, 8.9, 14.9 and 14.14, Contractor shall relinquish portions of the Contract Area in the manner provided hereafter.
  - a) If on or before the expiration of the Initial Exploration Period, Contractor elects to enter into the First Extension Period pursuant to Article 3.1(c) then subject to Article 5.2 at the commencement of the First Extension Period the area retained shall be one hundred per cent (100%) of the original Contract Area as at the Effective Date;
  - b) If on or before the expiration of the First Extension Period, Contractor elects to enter into the Second Extension Period pursuant to Article 3.1(c) then subject to Article 5.2 at the commencement of the Second Extension Period the area retained shall not exceed fifty (50%) of the original Contract Area as at the Effective Date. Provided always that the area retained shall be permitted to exceed fifty percent (50%) of the original Contract Area but not to exceed seventy-five percent (75%) of the original Contract Area in the event that at that time, the Contractor commits to the drilling of a total of two (2) or more wells in the Second Extension Period in which case the provisions of Article 4.3 ( c) shall be deemed amended accordingly;
  - c) On the expiration of the Second Extension Period, Contractor shall subject to Article 5.2 relinquish the remainder of the retained Contract Area.
- 5.2 The Provisions of Article 5.1 shall not be read or construed as requiring Contractor to relinquish any portion of the Contract Area which constitutes or forms part of either a Discovery Area or a Development and Production Area.

PROVIDED HOWEVER THAT if at the end of the First Subperiod, Second Subperiod, First Extension Period or Second Extension Period as the case may be, Contractor elects not to enter into the Second Subperiod, the First Extension Period or the Second Extension Period, Contractor shall relinquish the entire Contract Area, other than any Discovery or Development and Production Area.

5.3 Each area to be relinquished pursuant to this Article shall be selected by Contractor and shall be measured as far as possible in terms of continuous and compact units of a size and shape which will permit the carrying out of Petroleum Operations in the relinquished portions.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

Exhibit G to the Unitization and Unit Operating Agreement

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22

Without prejudice to the foregoing provisions of this Article 5, in the event that, 5.4 following the relinquishment of the Contract Area, the Contractor has retained one or more Development and Production Areas, and Contractor and GNPC have, after reviewing all the relevant technical data and information, determined that the field or reservoirs for which a Development and Production Area was granted covers Petroleum lying outside such Development and Production Area, and provided such outside areas are not under any contract, the Contractor and GNPC shall endeavour to reach an agreement on unitization between the Contractor (with respect to the Contract Area) and GNPC (as holder of the area outside of the Contract Area) to cover the full development of the reservoir or field.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) - March 2006

G-26

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Exhibit G to the Unitization and Unit Operating Agreement

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### JOINT MANAGEMENT COMMITTEE

- 6.1 In order that the Parties may at all times cooperate in the implementation of Petroleum Operations, GNPC and Contractor shall not later than thirty (30) days after the Effective Date establish a Joint Management Committee (JMC). Without prejudice to the rights and obligations of Contractor for day-to-day management of the operations, the JMC shall oversee and supervise the Petroleum Operations and ensure that all approved Work Programmes and Development Plans are complied with and also that accounting for costs and expenses and the maintenance of records and reports concerning the Petroleum Operations are carried out in accordance with this Agreement and the accounting principles and procedures generally accepted in the international petroleum industry.
- 6.2 The composition of and distribution of functions within the JMC shall be as follows:
  - i) The JMC shall constitute of four (4) representatives of GNPC and four (4) representatives of Contractor. GNPC and Contractor shall also designate a substitute or alternate for each member. In the case of absence or incapacity of a member of the JMC, his alternate shall automatically assume the rights and obligations of the absent or incapacitated member;
  - ii) The Chairperson of the JMC shall be designated by GNPC from amongst the members of the JMC;
  - Contractor shall be responsible in consultation with GNPC for the preparation of agenda and supporting documents for each meeting of the JMC and for keeping records of the meetings and decisions of the JMC (GNPC shall have the right to inspect all records of the JMC at any time);
  - iv) At any meeting of the JMC six (6) representatives shall form a quorum, provided that at least two (2) of such representatives shall be representatives of GNPC and at least two (2) of such representatives shall be representatives of the Contractor.
- 6.3 Meetings of the JMC shall be held and decisions taken as follows:
  - i) All meetings of the JMC shall be held in Accra, Dublin or London or such other place as may be agreed upon by members of the JMC;

6-27

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

Exhibit G to the Unitization and Unit Operating Agreement

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- ii) The JMC shall meet at least twice yearly and at such times as the members may agree;
- A meeting of the JMC may be convened by either GNPC or the Contractor giving not less than twenty (20) days notice to the other or, in a case requiring urgent action, notice of such lesser duration as the members may agree upon;
- iv) Decisions of the JMC shall require unanimity provided, however, that decisions and approvals required for budgets and day-to-day operational matters associated with Appraisal, Development and Production Operations the expenditures, outlays or advances for which Contractor will be required to make on a one hundred percent (100%) basis shall require approval of the Contractor's representatives only;
- v) Any member of the JMC may vote by written and signed proxy held by another member;
- vi) Decisions of the JMC may be made without holding a meeting if all representatives of both Parties notify their consent thereto in the manner provided in Article 27;
- vii) GNPC and Contractor shall have the right to bring expert advisors to any JMC meetings to assist in the discussions of technical and other matters requiring expert advice;
- viii) The JMC may also establish subcommittees it deems appropriate for carrying out its functions, such as:
  - a) a technical subcommittee;
  - b) an audit subcommittee; and
  - c) an accounting subcommittee,
- ix) costs and expenses related to attendance by GNPC outside Ghana (e.g. business class travel, transportation, lodging, per diem and insurance), shall be borne by Contractor and treated as Petroleum Costs. Subject to GNPC providing to Contractor reasonable supporting documentation in respect of such costs and expenses, those costs and expenses shall be reimbursed by Contractor to GNPC.
- 6.4 The JMC shall oversee Exploration Operations as follows:
  - i) Not later than sixty (60) days after the Effective Date and thereafter at least ninety (90) days before the commencement of each subsequent Contract Year,

25

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

Exhibit G to the Unitization and Unit Operating Agreement

Contractor shall prepare and submit to the JMC for its review a reasonably detailed Work Programme and budget setting forth all Exploration Operations which Contractor proposes to carry out in that Contract year and the estimated cost thereof, and shall also give an indication of Contractor's tentative preliminary exploration plans for the succeeding Contract year;

- ii) Upon notice to the Minister and GNPC, Contractor may amend any Work Programme or budget submitted to the JMC pursuant to this Article which notice will state why in Contractor's opinion the amendment is necessary or desirable. Any such amendment shall be submitted to the JMC for review;
- iii) Every Work Programme submitted to the JMC pursuant to this Article 6.4 and every revision or amendment thereof shall be consistent with the requirements set out in Article 4.3 relating to minimum work and expenditure for the period of the Exploration Period in which such Work Programme or budget falls;
- iv) Contractor shall report any Discovery to GNPC immediately following such Discovery and shall place before the JMC for review its Appraisal Programme prior to submission thereof to the Minister. Within thirty (30) days of completion of the Appraisal Programme a JMC meeting to discuss the results of the Appraisal Programme shall be convened to take place before submission of the detailed Appraisal Programme report provided for in Article 8.7;
- v) The JMC will review Work Programmes and budgets and any amendments or revisions thereto, and Appraisal Programmes, submitted to it by Contractor pursuant to this Article 6, and timely give such advice as it deems appropriate which Contractor shall consider before submitting the Programme to GNPC and the Minister for their information;
- vi) After the date of the first Commercial Discovery, Contractor shall seek the concurrence of GNPC's JMC representatives, which concurrence shall not be unreasonably withheld, on any proposal for the drilling of an Exploration Well or Wells not associated with the Commercial Discovery and not otherwise required to be drilled under Article 4.3. If concurrence is not secured by Contractor, Contractor may nevertheless elect to drill the Exploration Well or Wells but the costs of such Well or Wells shall be considered Petroleum Costs for AOE purposes and deductible cost for Ghana income tax purposes only in the event there is a subsequent Commercial Discovery associated with the Well or Wells.
- 6.5 From the first occurring Date of Commercial Discovery the JMC shall have supervision of Petroleum Operations as follows:

G-29

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

Exhibit G to the Unitization and Unit Operating Agreement

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- i. Within sixty (60) days after the Date of Commercial Discovery Contractor shall prepare and submit to the JMC for approval any revisions to its annual Work Programme and budget that may be necessary for the remainder of that Contract Year and for the rest of the Exploration Period;
- ii. At least ninety (90) days before the Commencement of each subsequent Calendar Year Contractor shall submit to the JMC for review and approval a reasonably detailed Work Programme and budget setting forth all Development and Production Operations which Contractor proposes to carry out in that Calendar Year and the estimated cost thereof and shall also give an indication of Contractor's plans for the succeeding Calendar Year;
- iii. Within sixty (60) days of the Date of Commencement of Commercial Production and thereafter not later than one hundred and twenty (120) days before the commencement of each Calendar Year Contractor shall submit to the JMC for its review and approval an annual production schedule which shall be in accordance with good international oilfield practice, and shall be designed to provide the most efficient, beneficial and timely production of the Petroleum resources.
- 6.6 The JMC shall approve lifting schedules for Development and Production Areas as well as review all of Contractor's reports on the conduct of Petroleum Operations.
- 6.7 The JMC shall approve Contractor's insurance programme and the programmes for training and technology transfer submitted by Contractor and the accompanying budgets for such schemes and programmes.
- 6.8 If during any meeting of the JMC the Parties are unable to reach agreement concerning any of the matters provided for in Article 6.5 and 6.6, the matter shall be deferred for reconsideration at a further meeting to be held not later than fifteen (15) days following the original meeting. If after such further meeting the Parties are still unable to reach agreement, the matter in dispute shall be referred to the Parties forthwith. Failing agreement within fifteen (15) days thereafter, the matter in dispute shall, at the request of any Party, be referred for resolution under Article 24.

G-30

Petroleum Agreement for Deepwater Tano (Tullov/Sabre/Kosmos) ~March 2006

Exhibit G to the Unitization and Unit Operating Agreement

### RIGHTS AND OBLIGATIONS OF CONTRACTOR AND GNPC

- 7.1 Subject to the provisions of this Agreement, Contractor shall be responsible for the conduct of Petroleum Operations and shall:
  - a) conduct Petroleum Operations with utmost diligence, efficiency and economy, in accordance with accepted International Petroleum Industry practices, under the same or similar circumstances observing sound technical and engineering practices using appropriate advanced technology and effective equipment, machinery, materials and methods;
  - b) take all practicable steps to ensure compliance with Section 3 of the Petroleum Law including ensuring the recovery and prevention of waste of Petroleum in the Contract Area in accordance with accepted International Petroleum Industry practices under the same or similar circumstances;
  - c) prepare and maintain in Ghana full and accurate records of all Petroleum Operations performed under this Agreement;
  - d) prepare and maintain accounts of all Petroleum Operations under this Agreement in such a manner as to present a full and accurate record of the costs of such Petroleum Operations, in accordance with the Accounting Guide;
  - e) disclose to GNPC and the Minister any operating or other agreement among the Parties that constitute Contractor relating to the Petroleum Operations hereunder, which agreement shall not be inconsistent with the provisions of this Agreement.
- 7.2 In connection with its performance of Petroleum Operations, Contractor shall have the right within the terms of applicable law:
  - a) to establish offices in Ghana and to assign to those offices such representatives as it shall consider necessary for the purposes of this Agreement;
  - b) to use public lands for installation and operation of shore bases, and terminals, harbours and related facilities, pipelines from fields to terminals and delivery facilities, camps and other housing;

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) – March 2006

Exhibit G to the Unitization and Unit Operating Agreement

G-31

- c) to receive licenses and permission to install and operate such communications and transportation facilities as shall be necessary for the efficiency of its operations;
- d) to bring to Ghana such number of Foreign National Employees as shall be necessary for its operations, including employees assigned on permanent or resident status, with or without families, as well as those assigned on temporary basis such as rotational (rota) employees;
- e) to provide or arrange for reasonable housing, schooling and other amenities, permanent and temporary, for its employees and to import personal and household effects, furniture and vehicles, for the use of its personnel in Ghana;
- f) to be solely responsible for provision of health, accident, pension and life insurance benefit plans on its Foreign National Employees and their families; and such employees shall not be required to participate in any insurance, compensation or other employee or social benefit programs established in Ghana;
- g) to have, together with its personnel, at all times the right of ingress to egress from its offices in Ghana, the Contract Area, and the facilities associated with Petroleum Operations hereunder in Ghana including the offshore waters, using its owned or chartered means of land, sea and air transportation;
- h) to engage such Subcontractors, expatriate and national, including also consultants, and to bring such Subcontractors and their personnel to Ghana as are necessary in order to carry out the Petroleum Operations in a skillful, economic, safe and expeditious manner; and said Subcontractors shall have the same rights as Contractor specified in this Article 7.2 to the extent they are engaged by Contractor for the Petroleum Operations hereunder.
- 7.3 GNPC shall assist Contractor in carrying out Contractor's obligations expeditiously and efficiently as stipulated in this Agreement, and in particular GNPC shall use its best efforts to assist Contractor and its Subcontractors to:
  - a) establish supply bases and obtain necessary communications facilities, equipment and supplies;
  - b) obtain necessary approvals to open bank accounts in Ghana;
  - c) subject to Article 21 hereof, obtain entry visas and work permits for such number of Foreign National Employees of Contractor and its Subcontractors engaged in Petroleum Operations and members of their families who will be

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

Exhibit G to the Unitization and Unit Operating Agreement

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resident in Ghana, and make arrangements for their travel, arrival, medical services and other necessary amenities;

- d) comply with Ghana customs procedures and obtain permits for the importation of necessary materials;
- e) obtain the necessary permits to transport documents, samples or other forms of data to foreign countries for the purpose of analysis or processing if such is deemed necessary for the purposes of Petroleum Operations;
- f) contact Government agencies dealing with fishing, meteorology, navigation and communications as required;
- g) identify qualified Ghanaian personnel as candidates for employment by Contractor in Petroleum Operations; and
- h) procure access on competitive commercial terms, to infrastructure owned by the State or GNPC or any Affiliate of or entity controlled by the State or GNPC or owned by any third party, required for the transportation and/or processing of Petroleum produced under this Agreement.
- 7.4 All reasonable expenses incurred by GNPC in connection with any of the matters set out in Article 7.3 above shall be borne by Contractor.
- 7.5 GNPC shall use its best efforts to render assistance to Contractor in emergencies and major accidents, and such other assistance as may be requested by Contractor, provided that any reasonable expenses involved in such assistance shall be borne by Contractor.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

Exhibit G to the Unitization and Unit Operating Agreement

### COMMERCIALITY

- 8.1 Contractor shall notify the Minister and GNPC in writing as soon as possible after any Discovery is made, but in any event not later than thirty (30) days after any Discovery is made.
- 8.2 As soon as possible after the analysis of the test results of such Discovery is complete and in any event not later than one hundred (100) days from the date of such Discovery, Contractor shall by a further notice in writing to the Minister indicate whether in the opinion of Contractor the Discovery merits appraisal.
- 8.3 Where the Contractor indicates that the Discovery does not merit appraisal, Contractor shall, subject to Article 8.17 below, relinquish the Discovery Area associated with the Discovery.
- 8.4 Where Contractor indicates that the Discovery merits appraisal, Contractor shall submit to the Minister within one hundred and eighty (180) days from the date of Discovery, an Appraisal Programme to be carried out by Contractor in respect of such Discovery. After thirty (30) days following its submission the Appraisal Programme shall be deemed approved as submitted, unless the Minister has before the end of the said thirty (30) period given the Contractor a notice in writing stating:
  - i. that the Appraisal Programme as submitted has not been approved; and
  - ii. the revisions proposed by the Minister to the Appraisal Programme submitted, and the reasons therefor.
- 8.5 Unless Contractor and the Minister otherwise agree in any particular case, Contractor shall have a period of two (2) years from the date of Discovery to complete the Appraisal Programme.
- 8.6 Contractor shall commence to conduct the Appraisal Programme within one hundred and fifty (150) days from the date of approval or deemed approval of the Appraisal Programme by the Minister. Where the Contractor is unable to commence the conduct of the Appraisal Programme within one hundred and fifty (150) days from the date of approval or deemed approval of the Appraisal Programme by the Minister, GNPC shall be entitled to exercise the option provided for in Article 9.1 to enable prompt appraisal, provided however that after Contractor actually embarks on appraisal work or obtains an extension of time for such work, this option may not be exercised.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

Exhibit G to the Unitization and Unit Operating Agreement

G-34

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- 8.7 Not later than ninety (90) days from the date on which said Appraisal Programme relating to the Discovery is completed, Contractor will submit to the Minister a report containing the results of the Appraisal Programme. Such report shall include all available technical and economic data relevant to a determination of commerciality, including, but not limited to, geological and geophysical conditions, such as structural configuration, physical properties and the extent of reservoir rocks, areas, thickness and depth of pay zones, pressure, volume and temperature analysis of the reservoir fluids; preliminary estimates of Crude Oil and Natural Gas reserves; recovery drive characteristics; anticipated production performance per reservoir and per well; fluid characteristics, including gravity, sulphur percentage, sediment and water percentage and refinery assay pattern.
- 8.8 Not later than ninety (90) days from the date on which said Appraisal Programme is completed Contractor will, by a further notice in writing, inform the Minister whether the Discovery in the opinion of Contractor is or is not a Commercial Discovery.
- 8.9 If Contractor informs the Minister that the Discovery is not a Commercial Discovery, then subject to Articles 8.17, Contractor shall relinquish such Discovery Area; provided, however, that in appropriate cases, before declaring that a Discovery is not a Commercial Discovery, Contractor shall consult with the other Parties and may make appropriate representations proposing minor changes in the fiscal and other provisions of this Agreement which may, in the opinion of Contractor, affect the determination of commerciality. The other Parties may, where feasible, and in the best interests of the Parties agree to make such changes or modifications in the existing arrangements.
- 8.10 If Contractor pursuant to Article 8.8 informs the Minister that the Discovery is a Commercial Discovery, Contractor shall not later than one hundred and eighty (180) days thereafter, prepare and submit to the Minister a Development Plan.
- 8.11 The Development Plan referred to in Article 8.10 shall be based on detailed engineering studies and shall include:
  - a) Contractor's proposals for the delineation of the proposed Development and Production Area and for the development of any reservoir(s), including the method for the disposal of Associated Gas in accordance with the provisions of Article 14.4;
  - b) the way in which the Development and Production of the reservoir is planned to be financed;

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) --March 2006

Exhibit G to the Unitization and Unit Operating Agreement

G-35



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- c) Contractor's proposals relating to the spacing, drilling and completion of wells, the production, storage, transportation and delivery facilities required for the production, storage and transportation of the Petroleum, including without limitation:
  - i) the estimated number, size and production capacity of production platforms if any;
  - ii) the estimated number of Production Wells;
  - iii) the particulars of feasible alternatives for transportation of the Petroleum, including pipelines;
  - iv) the particulars of onshore installations required, including the type and specifications or size thereof; and
  - v) the particulars of other technical equipment required for the operations;
- d) the estimated production profiles for Crude Oil and Natural Gas from the Petroleum reservoirs;
- e) estimates of capital and Production Operation expenditures;
- f) the economic feasibility studies carried out by or for Contractor in respect of alternative methods for Development of the Discovery, taking into account:
  - i) location;

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- ii) water depth (where applicable);
- iii) meteorological conditions;
- iv) estimates of capital and Production Operation expenditures; and
- v) any other relevant data and evaluation thereof;
- g) the safety measures to be adopted in the course of the Development and Production Operations, including measures to deal with emergencies;
- h) the necessary measures to be taken for the protection of the environment;
- i) Contractor's proposals with respect to the procurement of goods and services obtainable in Ghana;

33

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- j) Contractor's plan for training and employment of Ghanaian nationals; and
- k) the timetable for effecting Development Operations.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) --March 2006

Exhibit G to the Unitization and Unit Operating Agreement

- 8.12 The date of the Minister's approval of the Development Plan shall be the Date of Commercial Discovery.
- 8.13 After thirty (30) days following its submission, the Development Plan shall be deemed approved as submitted, unless the Minister has before the end of the said thirty (30) day period given Contractor a notice in writing stating:
  - i) that the Development Plan as submitted has not been approved; and
  - ii) the revisions, proposed by the Minister, to the Development Plan as submitted, and the reasons thereof.
- 8.14 Where the Development Plan is not approved by the Minister as provided under Article 8.13 above, the Parties shall within a period of thirty (30) days from the date of the notice by the Minister as referred to under Article 8.13 above meet to agree on the revisions proposed by the Minister to the Development Plan. In the event of failure to agree to the proposed revisions, within fourteen (14) days following said meeting any matters in dispute between the Minister and the Contractor shall be referred for resolution in accordance with Article 24.
- 8.15 Where the issue in dispute referred for resolution pursuant to Article 24 is finally decided in favour of Contractor the Minister shall forthwith give the requisite approval to the Development Plan submitted by Contractor.
- 8.16 Where the issue in question referred for resolution pursuant to Article 24 is finally decided in favour of the Minister in whole or in part, Contractor shall forthwith:
  - i) amend the proposed Development Plan to give effect to the final decision rendered under Article 24, and the Minister shall give the requisite approval to such revised Development Plan; or
  - ii) subject to Article 8.19 below relinquish the Discovery Area.
- 8.17 Notwithstanding the relinquishment provisions of Articles 8.3 and 8.9 above, if Contractor indicates that a Discovery does not at the time merit appraisal, or after appraisal does not appear to be commercial but may merit appraisal or potentially become commercial at a later date during the Exploration Period, then Contractor need not relinquish the Discovery Area and may continue its Exploration Operations in the Contract Area during the Exploration Period provided that the Contractor shall explain what additional evaluations, including Exploration work or studies (within or outside the Discovery Area), are or may be planned in order to determine whether subsequent appraisal is warranted or that the Discovery is commercial. Such

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

Exhibit G to the Unitization and Unit Operating Agreement

G-37

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evaluations shall be performed by Contractor according to a specific time table, subject to its right of earlier relinquishment of the Discovery Area. After completion of the evaluations, Contractor shall make the indications called for under Article 8.2 or 8.8 and either proceed with appraisal, confirm commerciality or relinquish the Discovery Area. In any case, if at the end of the Exploration Period Contractor has not indicated its intent to proceed with an Appraisal Programme or that the Discovery is a Commercial Discovery, then the Discovery Area shall be relinquished.

- 8.18 Before Contractor indicates that the Discovery will not merit appraisal, or after an Appraisal Programme, indicates it will not be a Commercial Discovery, Contractor may consult with the other Parties and may make appropriate representations proposing minor changes in the fiscal and other provisions of this Agreement which may, in the opinion of Contractor, affect the determination of commerciality. The other Parties may, agree to make such changes or modifications in the existing arrangements. In the event the Parties do not agree on such changes or modifications, then subject to Article 8.17 and Article 8.19 Contractor shall relinquish the Discovery Area.
- 8.19 Nothing in Article 8.3, 8.9, 8.16 or 8.17 above shall be read or construed as requiring Contractor to relinquish:
  - a) any area which constitutes or forms part of another Discovery Area in respect of which:
    - i) Contractor has given the Minister a separate notice indicating that such Discovery merits appraisal or confirmation; or
    - ii) Contractor has given the Minister a separate notice indicating that such Discovery is a Commercial Discovery; or
  - b) any area which constitutes or forms part of a Development and Production Area.
- 8.20 In the event a field extends beyond the boundaries of the Contract Area, the Minister may require Contractor if it so wishes, to exploit said Field in association with the third party holding the adjacent area, pursuant to unitization and engineering principles and practices in accordance with accepted international Petroleum industry practices.

G-38

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) – March 2006

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Exhibit G to the Unitization and Unit Operating Agreement

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## SOLE RISK ACCOUNT

- 9.1 Subject to Article 8.6, unless and until Contractor has notified GNPC that it wishes to appraise a Discovery, GNPC may notify Contractor that it will at its sole cost, risk and expense commence to appraise that Discovery, provided that within thirty (30) days of such notification from GNPC, Contractor may elect to commence to appraise that Discovery within its Work Programme.
- 9.2 Where an appraisal undertaken under Article 9.1 at the sole expense of GNPC results in a determination that a Discovery is commercial, Contractor may develop the Commercial Discovery upon reimbursement to GNPC of all expenses incurred in undertaking the appraisal and arranging with GNPC satisfactory terms for the payment of a premium equivalent to seven hundred per cent (700%) of such expenses. Such premium shall not be reckoned as cost of Petroleum Operations for the purpose of the Accounting Guide. In the event that Contractor declines to develop said Discovery, Contractor shall relinquish the Development and Production Area established by the Appraisal Programme conducted by GNPC under Article 9.1.
- 9.3 During the Exploration Period GNPC may, at its sole risk and expense, require Contractor to continue drilling to penetrate and test horizons deeper than those contained in the Work Programme of Contractor or required under Article 4. GNPC may also at its sole risk ask the Contractor to test a zone or zones which Contractor has not included in Contractor's test programme. Notice of this shall be given to Contractor in writing as early as possible prior to or during the drilling of the well, but in any case not after Contractor has begun work to test, complete or abandon the well. The exercise by GNPC of this right shall be in an agreed manner which does not prevent Contractor from complying with its work obligations under Article 4.3.
- 9.4 At any time before commencing such deeper drilling or testing under Article 9.3, Contractor may elect to embody the required drilling or testing in its own Exploration Operations, in which case any resulting Discovery shall not be affected by the provisions of this Article 9.
- 9.5 Where any sole risk deeper drilling or testing results in a Discovery, GNPC shall have the right, at its sole cost, risk and expense, to appraise, develop, produce and dispose of all Petroleum from that deeper horizon, provided however that if at the time such Petroleum is tested from the well, Contractor's Work Programme includes a well or wells to be drilled to the same producing horizon, and provided that that the well or wells result (s) in a Petroleum producing well producing from the same Petroleum Agreement for Deepwater Tano (Tutlow/Sabre/Kosmos)-March 2006

Exhibit G to the Unitization and Unit Operating Agreement

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horizon, Contractor shall, after reimbursing GNPC for all costs associated with its Sole Risk deeper drilling in said well, have the right to include production from that well in its total production for the purposes of establishing a Commercial Discovery, and, if a Commercial Discovery is subsequently established, to develop, produce and dispose of the Petroleum in accordance with the provisions of this Agreement.

- 9.6 Alternatively, if at the time such Petroleum is tested from the well, Contractor's Work Programme does not include a well to be drilled to said horizon, Contractor has the option to appraise and /or develop, as the case may be, the Discovery for its account under the terms of this Agreement if it so elects within a period of sixty (60) days after such Discovery. In such case, Contractor shall reimburse GNPC for all expenses incurred by GNPC in connection with such sole risk operations, and shall make satisfactory arrangements with GNPC for the payment of a premium equivalent to seven hundred percent (700%) of such expenses.
- 9.7 During the term of this Agreement, GNPC shall have the right, at its sole cost, risk and expense, and upon six (6) months prior notice to Contractor, to drill one (1) or two (2) wells per Calendar Year within the Contract Area provided that the work intended to be done by GNPC had not been scheduled for a Work Programme to be performed by Contractor and the exercise of such right by GNPC and the arrangement made by GNPC for undertaking such drilling do not hinder Contractor from satisfying its work obligations or delay it in so doing. Within thirty (30) days after receipt of such notice Contractor may elect to drill the required well or wells as part of Contractor's Exploration Operations.
- 9.8 In the event that a well drilled for the account and risk of GNPC in accordance with Article 9.7 above results in a Discovery, GNPC shall have the right to appraise and develop as the case may be or require Contractor to develop, after GNPC declares a Commercial Discovery, such Commercial Discovery for a mutually agreed service fee, so long as Contractor has an interest in the Contract Area, GNPC taking all the interest risk and costs and hence having the right to all Petroleum produced from the Commercial Discovery, provided however that Contractor has the option to appraise and/or develop, as the case may be, the Discovery for its account under the terms of this Agreement if it so elects within a period of sixty (60) days after receipt of GNPC's written notice of such Discovery.
- 9.9 Contractor shall reimburse GNPC for all expenses incurred by GNPC in connection with such Sole Risk Operations, and shall make satisfactory arrangements with GNPC for the payment of a premium equivalent to seven hundred percent (700%) of such expenses before exercising the option under Article 9.7. Such premium shall not be reckoned as Petroleum Costs for the purposes of Accounting Guide.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) – March 2006

Exhibit G to the Unitization and Unit Operating Agreement

- 9.10 In the event that Contractor declines to develop the Commercial Discovery or no agreement is reached on the service fee arrangement as provided for in Article 9.8, Contractor shall relinquish the Development and Production Area associated with such Commercial Discovery.
- 9.11 Sole Risk Operations under this Article shall not extend the Exploration Period nor the term of this Agreement and Contractor shall complete any agreed programme of work commenced by it under this Article at GNPC's sole risk, and subject to such provisions hereof as the Parties shall then agree, even though the Exploration Period as defined in Article 3 or the term of this Agreement may have expired.
- 9.12 GNPC shall indemnify and hold harmless Contractor against all actions, claims, demands and proceedings whatsoever brought by any third party or the State, arising out of or in connection with Sole Risk Operations under this Article 9, unless such actions, claims, demands and proceedings are caused by Contractor's Gross Negligence provided that under no circumstances shall Contractor be liable for consequential loss (including but not limited to loss of profit or loss of production).
- 9.13 The exercise by GNPC of its sole risk rights under this Article 9 shall be performed in an agreed manner with Contractor, which does not prevent Contractor from complying with its work obligations under Article 4.3, an Appraisal Programme or a Development Plan and shall include a financing plan satisfactory to Contractor where GNPC has nominated Contractor to perform the Sole Risk Operations on its behalf.
- 9.14 GNPC shall not elect to conduct any Sole Risk Operations during the First Subperiod or within the boundaries of a Development and Production Area.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) --March 2006

38

Exhibit G to the Unitization and Unit Operating Agreement

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## SHARING OF CRUDE OIL

- 10.1 Gross Production of Crude Oil from each Development and Production Area shall (subject to a Calendar Year adjustment developed under the provisions of Article 10.7) be distributed amongst the Parties in the following sequence and proportions:
  - a) Five per cent (5%) of the Gross Production of Crude Oil shall be delivered to the State as **ROYALTY**, pursuant to the provisions of the Petroleum Law. Royalty for any Crude Oil having an API gravity of less than eighteen degrees (18°) shall be four per cent (4%). The rate of royalty on the Gross Production of Natural Gas shall be three per cent (3%). Upon notice to Contractor, the State shall have the right to elect to receive cash in lieu of its royalty share of such Petroleum. The State's notice shall be given to Contractor at least ninety (90) days in advance of each lifting period, such periods to be established pursuant to the provisions of Article 10.7. In such case, said share of Crude Oil shall be delivered to Contractor and it shall pay to the State the value of said share in cash at the relevant weighted average Market Price for the relevant period as determined in accordance with Article 11.7;
  - b) The State's AOE (as hereinafter defined) Share of Crude Oil if any, shall be distributed to the State out of the Contractor's share of Crude Oil determined under Article 10.1 (d). The State shall also have the right to elect to receive cash in lieu of the AOE share of Crude Oil accorded to it pursuant to Article 10.2. Notification of said election shall be given in the same notice in which the State notifies Contractor of its election to receive cash in lieu of Crude Oil under Article 10.1 (a). In such case, said share of Crude Oil shall be delivered to Contractor and it shall pay to the State the value of said share in cash at the Market Price for the relevant period as determined in accordance with Article 11.7 for Crude Oil;
  - c) After distribution of such amounts of Crude Oil as are required pursuant to Article 10.1(a), the amount of Crude Oil, if any, shall be delivered to GNPC to the extent it is entitled for Sole Risk operations under Article 9;
  - d) After distribution of such amounts of Crude Oil as are required pursuant to Article 10(a) and (c) above, the remaining Crude Oil produced from each Development and Production Area shall be distributed to Contractor and, subject to (e) below, to GNPC on the basis of their respective Participating Interests pursuant to Article 2.4, 2.5 and 2.9;

G-42

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

Exhibit G to the Unitization and Unit Operating Agreement

39

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Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –Merch 2006

Exhibit G to the Unitization and Unit Operating Agreement

G-43

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- e) In the event that GNPC has failed to pay any amounts due to Contractor pursuant to Article 15.2 of this Agreement (such amounts together with interest thereon in accordance with Article 26.7 being hereinafter called "Default Amounts") and for so long as any such advances and interest thereon remain unrecovered by Contractor, an amount of Crude Oil shall be delivered to GNPC sufficient in value to reimburse it for its share of Production Costs paid by it to that date, until such share of Production Costs has been fully reimbursed to it, after which a volume of Crude Oil shall be delivered to Contractor equivalent in value to the outstanding amounts of the aforesaid Default Amounts until such Default Amounts are fully recovered by Contractor. The value of the Crude Oil for the purposes of this Article 10 shall be the Market Price determined pursuant to Article 11.7.
- At any time the State shall be entitled to a portion of Contractor's share of Crude Oil then being produced from each separate Development and Production Area (hereinafter referred to as "Additional Oil Entitlements" or "AOE") on the basis of the after-tax inflation-adjusted rate of return ("ROR") which Contractor has achieved with respect to such Development and Production Area as of that time. Contractor's ROR shall be calculated on its NCF and shall be determined separately for each Development and Production Area at the end of each Quarter in accordance with the following computation:

#### Definitions:

"NCF" means Contractor's net cash flow for the Quarter for which the calculation is being made and shall be computed in accordance with the following formula:

NCF = x - y - z

"x" equals all revenues received during such Quarter by Contractor from the Development and Production Area, including an amount computed by multiplying the amount of Crude Oil taken by Contractor during such Quarter in accordance with Article 10.1 (d) and (e); excluding such Crude Oil taken by Contractor for payment of advances and interest in respect of Petroleum Costs incurred by Contractor on GNPC's behalf, and Default Amounts as defined in Article 10.1 (e) by the Market Price applicable to Crude Oil during the Quarter when lifted, plus any other proceeds specified in the Accounting Guide received by Contractor, including, without limitation, the proceeds from the sale of any assets to which Contractor continues to have title. For the avoidance of doubt, "x" shall not include revenues from Royalty or AOE Crude Oil delivered to Contractor because the State has elected to receive cash in lieu or which is Crude Oil lifted by

Contractor which is part of another Party's entitlement (e.g. Crude Oil purchased by Contractor from GNPC or the State) but shall include revenues from Crude Oil owned by Contractor but lifted by another Party (e.g. Crude Oil purchased by 'GNPC or the State from Contractor).

"y" equals one quarter (1/4) of the income tax paid by the Contractor to the State with respect to the Calendar Year in respect of the Development and Production Area. If there are two (2) or more Development and Production Areas, the total income tax paid by Contractor in accordance with the Petroleum Income Tax Law 1987 shall for purposes of this calculation be allocated to the Development and Production Area on the basis of hypothetical tax calculations for the separate Development and Production Areas. The hypothetical tax calculation for each Development and Production Area shall be determined by allocating the total amount of tax incurred for each Calendar Year by Contractor under the Petroleum Income Tax Law to each Development and Production Area based on the ratio that the chargeable income from a given Development and Production Area bears to the total chargeable income of Contractor. The chargeable income of Contractor is determined under section 2 of the Petroleum Income Tax Law and the chargeable income of a Development and Production Area shall be calculated by deducting from the gross income derived from or allocated to that Area those expenses deductible under section 3 of the Petroleum Income Tax Law which are directly allocable to that Area as well as those expenses deductible under the said Section 3 which are not attributable to any Development and Production Area where the Development and Production in question had the earliest Date of Commencement of Commercial Production. A negative chargeable income for an Area shall be treated as zero for purposes of this allocation and not more (or less) than the total income tax paid by Contractor shall be allocated between the Areas.

"z" equals all Petroleum Costs specified in the Accounting Guide and expended by Contractor during such Quarter with respect to the Development and Production Area, including any Petroleum Costs paid by Contractor on GNPC's behalf, and not reimbursed by GNPC within the Quarter, provided that all Petroleum Costs for Exploration Operations not directly attributable to a specific Development and Production Area shall for purposes of this calculation be allocated to the Development and Production Area having the earliest date of Commencement of Commercial Production; and provided further that for the purpose of the ROR calculation Petroleum Costs shall not include any amounts in respect of interest on loans obtained for the purposes of carrying out Petroleum Operations.

For the avoidance of doubt, where Petroleum Costs are expended before the first Date of Commencement of Commercial Production, the NCF computation shall nonetheless be made for each such Quarter and once a Development and Production Area is delineated, costs directly attributable to such Area as well as

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) – March 2006

Exhibit G to the Unitization and Unit Operating Agreement

41

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Exploration Costs not attributable to any other Area shall be retrospectively deemed allocated to the Development and Production Area having the first Date of Commencement of Commercial Production; provided that where, after the delineation of such Development and Production Area but before its Date of Commencement of Commercial Production, another Development and Production Area is delineated, Contractor may elect either to maintain the original retrospective allocation or reallocate those Exploration Costs attributable to the new Development and Production Area to such new area.

"FA<sub>n</sub>", "SA<sub>n</sub>", "TA<sub>n</sub>", "YA<sub>n</sub>" and "ZA<sub>n</sub>" means First Account, Second Account, Third Account, Fourth Account and Fifth Account, respectively, and represent amounts as of the last day of the Month in question as determined by the formulae in (b) below.

"FA<sub>n-1</sub>", "SA<sub>n-1</sub>". "TA<sub>n-1</sub>", "YA<sub>n-1</sub>" and "ZA<sub>n-1</sub>", respectively, mean the lesser of (i) the  $FA_n$ ,  $SA_n$ ,  $TA_n$ ,  $YA_{n-1}$  or  $ZA_n$ , as the case may be, as of the last day of the Quarter immediately preceding the Quarter in question, or (ii) zero. Stated otherwise,  $FA_{n-1}$  shall equal  $FA_n$  as of the last day of the Quarter immediately preceding the Quarter in question if such FA<sub>n</sub> was a negative number, but shall equal zero if such FAn was a positive number. Likewise, SAn-1 shall equal SAn as of the last day of the Quarter immediately preceding the Quarter in question if such  $SA_n$  was a negative number, but shall equal zero if such  $SA_n$  was a positive number. Likewise  $TA_{n-1}$  shall equal  $TA_n$  as of the last day of the Quarter immediately preceding the Quarter in question if such TA<sub>n</sub> was a negative number, but shall equal zero if such  $TA_n$  was a positive number. Likewise  $YA_{n-1}$  shall equal YA<sub>n</sub> as of the last day of the Quarter immediately preceding the Quarter in question if such YA<sub>n</sub> was a negative number, but shall equal zero if such YA<sub>n</sub> was a positive number. Likewise,  $ZA_{n-1}$  shall equal  $ZA_n$  as of the last day of the Quarter immediately preceding the Quarter in question if such ZA<sub>n</sub> was a negative number, but shall equal zero if such ZAn was a positive number. In the ROR calculation for the first Quarter of Petroleum Operations, FA<sub>n-1</sub>, SA<sub>n-1</sub>, TA<sub>n-1</sub>, YA<sub>n-1</sub> and  $ZA_{n-1}$  shall be zero.

"i" for the Quarter in question equals one (1) subtracted from the quotient of the United States Industrial Goods Wholesale Price Index ("USIGWPI) for the Quarter second preceding the Quarter in question as first reported in the International Financial statistics of the International Monetary Fund, divided by the USIGWPI for the same second preceding Quarter as first reported in the International Financial Statistics of the International Monetary Fund. If the USIGWPI ceases to be published, a substitute U.S. Dollar-based price index shall be used.

"n" refers to the nth Quarter in question.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

Exhibit G to the Unitization and Unit Operating Agreement

"n-1" refers to the Quarter immediately preceding the nth Quarter

b) Formulae:

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$$FA_n = \left(FA_{n-1}\left(1 + \frac{(0.19 + i)}{4}\right)\right) + NCF$$

$$SA_n = \left(SA_{n-l}\left(l + \frac{(0.20+i)}{4}\right)\right) + NCF$$

In the calculation of  $SA_n$  an amount shall be subtracted from NCF identical to the value of any AOE which would be due to the State if reference were made hereunder only to the  $FA_n$ .

$$TA_n = \left(TA_{n-l}\left(1 + \frac{(0.25 + i)}{4}\right)\right) + NCF$$

In the calculation of  $TA_n$  an amount shall be subtracted from NCF identical to the value of any AOE which would be due to the State if reference were made hereunder only to the  $FA_n$  and  $SA_n$ .

$$YA_n = \left(YA_{n-1}\left(1 + \frac{(0.30+i)}{4}\right)\right) + NCF$$

In the calculation of  $YA_n$  an amount shall be subtracted from NCF identical to the value of any AOE which would be due to the State if reference were made hereunder only to the  $FA_n$ ,  $SA_n$  and  $TA_n$ .

$$\mathbb{Z}A_n = \left(\mathbb{Z}A_{n-l}\left(l + \frac{(0.40 + i)}{4}\right)\right) + NCF$$

In the calculation of  $ZA_n$  an amount shall be subtracted from NCF identical to the value of any AOE which would be due to the State if reference were made hereunder only to the FA<sub>n</sub>, SA<sub>n</sub>, TA<sub>n</sub> and YA<sub>n</sub>.

43

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Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

Exhibit G to the Unitization and Unit Operating Agreement

c) Prospective Application:

The State's AOE measured in barrels of Crude Oil will be as follows:

- i) If  $FA_n$ ,  $SA_n$ ,  $TA_n$ ,  $YA_n$  and  $ZA_n$  are all negative, the State's AOE for the Quarter in question shall be zero;
- ii) If  $FA_n$  is positive and  $SA_n$ ,  $TA_n$ ,  $YA_n$  and  $ZA_n$  are all negative, the State's AOE for the Quarter in question shall be equal to the absolute amount resulting from the following monetary calculation:

Five percent (5%) of the  $FA_n$  for that Quarter divided by the weighted average Market Price of Crude Oil as determined in accordance with Article 11.7.

iii) If both  $FA_n$  and  $SA_n$  are positive, but  $TA_n YA_n$  and  $ZA_n$  are negative, the State's AOE for the Quarter in question shall be equal to an absolute amount resulting from the following monetary calculation:

the aggregate of five percent (5%) of  $FA_n$  for that Quarter plus ten percent (10%) of the  $SA_n$  for that Month all divided by the weighted average Market Price of Crude Oil as determined in accordance with Article 11.7.

iv) If  $FA_n$ ,  $SA_n$  and  $TA_n$  are all positive but both  $YA_n$  and  $ZA_n$  are negative, the State's AOE for the Quarter in question shall be equal to the absolute amount resulting from the following monetary calculation:

the aggregate of five percent (5%) of the  $FA_n$  for that Quarter plus ten percent (10%) of the  $SA_n$  for that Quarter plus fifteen percent (15%) of the  $TA_n$  for that Quarter all divided by the weighted average Market Price of Crude Oil as determined in accordance with Article 11.7.

v) If  $FA_n$ ,  $SA_n$   $TA_n$  and  $YA_n$  are all positive but  $ZA_n$  is negative, the State's AOE for the Quarter in question shall be equal to the absolute amount resulting from the following monetary calculation:

the aggregate of five percent (5%) of the  $FA_n$  for that Quarter plus ten percent (10%) of the  $SA_n$  for that Quarter plus fifteen percent (15%) of the  $TA_n$  for that Quarter plus twenty percent (20%) of the  $YA_n$  for that Quarter all divided by the weighted average Market Price of Crude Oil as determined in accordance with Article 11.7.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) --March 2006

Exhibit G to the Unitization and Unit Operating Agreement

vi) If  $FA_n$ ,  $SA_n$ ,  $TA_n$   $YA_n$  and  $ZA_n$  are all positive, the State's AOE for the Quarter in question shall be equal to the absolute amount resulting from the following monetary calculation:

the aggregate of five percent (5%) of the  $FA_n$  for that Quarter plus ten percent (10%) of the  $SA_n$  for that Quarter plus fifteen percent (15%) of the  $TA_n$  for that Quarter plus twenty percent (20%) of the  $YA_n$  for that Quarter plus twenty five percent (25%) of the  $ZA_n$  for that Quarter all divided by the weighted average Market Price as determined in accordance with Article 11.7.

- d) The AOE calculations shall be made in U.S. Dollars with all non-dollar expenditures converted to U.S. Dollars in accordance with Section 1.3.5 of Annex 2. When the AOE calculation cannot be definitively made because of disagreement on the Market Price or any other factor in the formulae, then a provisional AOE calculation shall be made on the basis of best estimates of such factors, and such provisional calculation shall be subject to correction and revision upon the conclusive determination of such factors, and appropriate retroactive adjustments shall be made.
- e) The AOE shall be calculated on a Quarterly basis, with the AOE to be paid commencing with the first Quarter following the Quarter in which the  $FA_n$ ,  $SA_n$ ,  $TA_n$ ,  $YA_n$  or  $ZA_n$ , (as applicable) becomes positive. Because the precise amount of the AOE for a Quarter cannot be determined with certainty until after the end of that Quarter, deliveries (or payments in lieu) of the AOE with respect to a Quarter shall be made during such Quarter based upon the Contractor's good faith estimates of the amounts owing, with any adjustments following the end of the Quarter to be settled pursuant to the procedures agreed to pursuant to Article 10.7. Final calculations of the AOE shall be made within thirty (30) days following the filing by the Contractor of the annual tax return for such Calendar year pursuant to the Petroleum Income Tax Law, and the amount of the AOE shall be appropriately adjusted in the event of a subsequent adjustment of the amount of tax owing on such term.
- 10.3 GNPC shall act as agent for the State in the collection of all Petroleum or money accruing to the State under this Article and delivery or payment to GNPC by Contractor shall discharge Contractor's liability to deliver the share of the State.
- 10.4 The State or GNPC, having met the requirements of Article 15.1, may elect, in accordance with terms and conditions to be mutually agreed by the Parties, that all or part of the Crude Oil to be distributed to the State or to GNPC pursuant to this Article shall be sold and delivered by the State or GNPC to Contractor or its Affiliate for use and disposal and in such case Contractor or its Affiliate shall pay to the State or to GNPC, as the case may be, the Market Price for any Crude Oil so sold and delivered.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

45

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Exhibit G to the Unitization and Unit Operating Agreement

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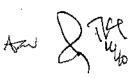
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Market Price for purposes of this Article 10.4 shall be determined in the manner specified in Article 11.7.

- 10.5 Except as otherwise provided in this Agreement, GNPC's and Contractor's respective right and entitlement to the volume of gross production of Petroleum at the first metering of fiscalization point shall be shared according to Articles 2.4, 2.5, 2.7 and 2.9. Ownership and risk of loss of all Petroleum lifted or sold by Contractor or GNPC shall pass to Contractor or GNPC, as the case may be, after the custody transfer at the fiscal metering skid at the outlet flange ("Delivery Point") of the marine terminal or other storage or holding facility or pipeline for loading into tankers or other transportation equipment referred to in Article 11.1.
- 10.6 Subject to the provisions of Article 15 hereof, Contractor shall have the right freely to export and dispose of all the Petroleum allocated and/or delivered to it pursuant to this Article.
- 10.7 The Parties shall through consultation enter into supplementary agreements concerning Crude Oil lifting procedures, lifting and tanker schedules, loading conditions, Crude Oil metering, and the settlement of lifting imbalances, if any, among the Parties at the end of each Quarter. The Crude Oil to be distributed or otherwise made available to the Parties in each Calendar Year in accordance with the preceding provisions of this Article shall insofar as possible be in reasonably equal Monthly quantities.
- 10.8 To assist in the making of the AOE calculation in accordance with Article 10.2, there is attached as Annex 3 to this Agreement a worked example of the calculation using hypothetical figures, rates and thresholds, for the purpose of illustration only.

Petroleum Agreement for Deepwater Ta	no (Tullow/Sabre/Kosmos) – March 2006
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46

Exhibit G to the Unitization and Unit Operating Agreement

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## MEASUREMENT AND PRICING OF CRUDE OIL

- 11.1 Crude Oil shall be delivered by Contractor to storage tanks constructed, maintained and operated in accordance with applicable laws and good international petroleum industry oilfield practice under the same or similar circumstances. Crude Oil shall be metered or otherwise measured for quantity and tested for quality in such storage tanks for all purposes of this Agreement. Any Party may request that measurements and tests be done by an internationally recognised inspection company. Contractor shall arrange and pay for the conduct of any measurement, or test so requested provided, however, that in the case of (1) a test requested for quality purposes and (2) a test requested on metering (or measurement) devices, where the test demonstrates that such devices are accurate within acceptable tolerances, the Party requesting the test shall reimburse Contractor for the costs associated with the test or tests.
- 11.2 GNPC or its authorised agent shall have the right:
  - a) to be present at and to observe such measurement of Crude Oil; and
  - b) to examine and test whatever appliances are used by Contractor.
- 11.3 In the event that GNPC considers Contractor's methods of measurement to be inaccurate GNPC shall notify Contractor to this effect and the Parties shall meet within ten (10) days of such notification to discuss the matter. If after thirty (30) days the Parties cannot agree over the issue they shall refer for resolution under Article 24 the sole question of whether Contractor's method of measuring Crude Oil is accurate and reasonable. Retrospective adjustments to measurements shall be made where necessary to give effect to the decision rendered under Article 24.
- 11.4 If upon the examination or testing of appliances provided for in Article 11.2 any such appliances shall be discovered to be defective:
  - a) Contractor shall take immediate steps to repair or replace such appliance; and
  - b) subject to the establishment of the contrary, such error shall be deemed to have existed for three (3) Months or since the date of the last examination and testing, whichever occurred more recently.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

Exhibit G to the Unitization and Unit Operating Agreement

- 11.5 In the event that Contractor desires to adjust, repair or replace any measuring appliance, it shall give GNPC reasonable notice to enable GNPC or its authorised agent to be present.
- 11.6 Contractor shall keep full and accurate accounts concerning all Petroleum measured as aforesaid and provide GNPC with copies thereof on a monthly basis, not later than ten (10) days after the end of each month.
- 11.7 The market price for Crude Oil delivered to Contractor hereunder shall be established with respect to each lifting as follows:
  - a) on Crude Oil sold by Contractor in "arm's length commercial transactions" (defined in Article 11.7 (c) below), the Market Price shall be the price actually realized by Contractor on such sales;
  - b) on other sales by Contractor, on exports by Contractor without sale and on sales under Article 15.2, the Market Price shall be determined by reference to world Market Prices of comparable Crude Oils sold in arm's length transactions for export in the major world petroleum markets, and adjusted for oil quality, location and conditions of pricing, delivery and payment, provided that in the case of sales under Article 15.2 where such sales relate to part only of Contractor's entitlement, prices actually realized by Contractor in sales of the balance of its proportionate share falling within Article 11.7(a) above shall be taken into account in determining Market Price;
  - c) sales in "arm's length commercial transactions" shall mean sales to purchasers independent of the seller, which do not involve Crude Oil exchange or barter transactions, government to government transaction, sales directly or indirectly to Affiliates, or sales involving consideration other than payment in U.S. Dollar or currencies convertible thereto, or affected in whole or in part by considerations other than the usual economic incentives for commercial arm's length Crude Oil sales;
  - d) the price of Crude Oil shall be expressed in U.S. Dollars per barrel, F.O.B. the Delivery Point by Contractor;
  - e) if the quality of various Crude Oils produced from the Contract Area is different, segregated and sold separately, the Market Price shall be determined separately for each type sold and/or exported by Contractor only to the extent that the different quality grades remain segregated through to the point where they are sold, and if grades of different quality are commingled into a common stream, Contractor and GNPC shall agree to an equitable methodology for assessing relative value for each grade of Crude Oil comprising the blend and shall

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

Exhibit G to the Unitization and Unit Operating Agreement

G-51

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implement the agreed methodology for having the producer(s) of higher quality Crude Oil(s) reimbursed by the producer(s) of lower quality Crude Oil(s) as appropriate.

- 11.8 Contractor shall notify GNPC of the market Price determined by it for its respective lifting during each Quarter not later than thirty (30) days after the end of that Quarter.
- 11.9 If GNPC considers that the price notified by Contractor was not correctly determined in accordance with the provisions of Article 11.7, it shall so notify Contractor not later than thirty (30) days after notification by Contractor of such price, and GNPC and Contractor shall meet not later than twenty (20) days thereafter to agree on the correct Market Price.
- 11.10 In the event that GNPC and Contractor fail to agree upon the commencement of meetings for that purpose, or if, having met, cannot agree on the applicable Market Price, the Market Price shall be referred for determination in accordance with Article 24 of this Agreement.
- 11.11 Pending a determination under Article 11.10, the Market Price will be deemed to be the last Market Price agreed or determined, as the case may be, or if there has been no such previous agreement or determination, the price notified by Contractor for the lifting in question under Article 11.8. Should the determined price be different from that used in accordance with the foregoing then the difference plus interest at the Specified Rate shall be paid in cash or in Crude Oil by or to Contractor, as the case may be, within thirty (30) days of such determination.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

Exhibit G to the Unitization and Unit Operating Agreement

## TAXATION AND OTHER IMPOSTS

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- 12.1 No tax, duty, fee or other impost shall be imposed by the State or any political subdivision on Contractor, its Subcontractors or its Affiliates in respect of activities related to Petroleum Operations and to the sale and export of Petroleum other than as provided in this Article.
- 12.2 Contractor shall be subject to the following:
  - i) Royalty as provided for in Article 10;
  - ii) Income Tax in accordance with the Petroleum Income Tax Law 1987 (PNDC L188) levied at the rate of thirty-five percent (35%) as stipulated in the Petroleum Income Tax Law 1987, PNDC Law 188. Where a new income tax rate comes into force as a result of the promulgation of the new Petroleum Income Tax Law currently before Cabinet, Contractor shall have the option of either applying the new income tax rate to this Agreement or remaining under the Petroleum Income Tax Law, 1987, PNDC Law 188;
  - iii) Additional Oil Entitlement as provided for in Article 10.2;
  - iv) Payments for rental of Government property, public lands or for the provision of specific services requested by Contractor from public enterprises; provided, however, that the rates charged Contractor for such rentals or services shall not exceed the rates charged to other members of the public who receive similar services or rentals;
  - v) Surface rentals payable to the State pursuant to Section 18 of the Petroleum Law per square kilometre of the area remaining at the beginning of each Contract Year as part of the Contract Area, in the amounts as set forth below:

Phase of Operation	Surface Rentals Per Annum
Initial Exploration Period	US \$ 30 per sq. km.
1st Extension Period	US \$ 50 per sq. km.
2nd Extension Period	US \$ 75 per sq. km.
Development & Production Area	US \$100 per sq. km.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

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Exhibit G to the Unitization and Unit Operating Agreement

- vi) Taxes, duties, fees or other imposts of a minor nature and amount insofar as they do not relate to the stamping and registration of this (1) Agreement, (2) any assignment of interest in this Agreement, or (3) any contract in respect of Petroleum Operations between Contractor and any Subcontractor.
- 12.3 Save for withholding tax at a rate of five percent (5%) from the aggregate amount due to any Subcontractor (other than the State or any entity wholly-owned or controlled by the State, where such entity is in possession of a certificate of exemption from withholding tax from the Commissioner of Internal Revenue Service, in which case withholding tax shall not be payable) if and when required by Section 27 (1) of the Petroleum Income Tax Law, Contractor shall not be obliged to withhold any amount in respect of tax from any sum due from Contractor to any Subcontractor. Notwithstanding the foregoing, the withholding tax in respect of services provided to Contractor by an Affiliate of any company comprising Contractor shall be waived provided such services are charged at cost.
- 12.4 Contractor shall not be liable for any export tax on Petroleum exported from Ghana and no duty or other charge shall be levied on such exports. Vessels or other means of transport used in the export of Contractor's Petroleum from Ghana shall not be liable for any tax, duty or other charge by reason of their use for that purpose.
- 12.5 Subject to the local purchase obligations hereunder, Contractor and Subcontractors may import into Ghana all plant, equipment and materials to be used solely and exclusively in the conduct of Petroleum Operations without payment of customs and other duties, taxes, fees and charges on imports save minor administrative charges.

#### PROVIDED THAT:

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- a) GNPC shall have the right of first refusal for any item imported duty free under this Article which is later sold in Ghana; and
- b) where GNPC does not exercise its right of purchase Contractor may sell to any other person only subject to all import duty and taxes as if such items were being imported at the time of such sale; provided, however, that no duty or tax shall be levied if the purchaser could have imported the item sold free of duty or tax under an exemption similar to Contractor's hereunder.
- 12.6 Foreign National Employees of Contractor or its Affiliates, and of its Subcontractors, shall be permitted to import into Ghana free of import duty their personal and household effects in accordance with Section 22.7 of PNDCL 64; provided, however, that no property imported by such employee shall be resold by such employee in Ghana except in accordance with Article 12.5.

G-54

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

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Exhibit G to the Unitization and Unit Operating Agreement

- 12.7 Subject to GNPC's rights under Article19, Contractor, Subcontractors and Foreign National Employees shall have the right to export from Ghana all previously imported items as defined. Such exports shall be exempt from all customs and other duties, taxes, fees and charges on exports save minor administrative charges.
- 12.8 The Ghana Income Tax law applicable generally to individuals who are not employed in the petroleum industry shall apply in the same fashion and at the same rates to employees of Contractor, its Affiliates and its Subcontractors; provided, however, that Foreign National Employees of Contractor, its Affiliates, and its Subcontractors shall be exempt from the income tax and withholding tax liabilities unless they are resident in Ghana for more than thirty (30) continuous days or sixty (60) days in aggregate in any Calendar Year.
- 12.9 Pursuant to part 1 section 3 (2) of the Petroleum Income Tax Law, the parties hereby confirm that in respect of Capital allowance deductions for the purposes of calculating chargeable income of the Contractor, the Contractor shall fully depreciate in five (5) years. The mode of calculation shall be in accordance with the Capital Allowances schedule annexed to the Petroleum Income Tax Law 1987 (PNDC L.188).
- 12.10 With regard to each Development and Production Area, Contractor shall accrue estimated costs of decommissioning and abandonment of operations and facilities, site restoration and other associated operations and have such costs allowed prior to abandonment as a deduction against chargeable income over the estimated life of the estimated reserves on a straight line basis, commencing on the date when fifty percent (50%) of the estimated reserves have been produced from such area. Estimates with regard to costs will be reviewed on an annual basis for adjustment and will be adjusted to reflect actual expenses as incurred. The implementation of this Article 12.10 shall be subject to detailed guidelines to be issued by the Minister, but to the extent that such guidelines suggest potential changes to what is agreed in this Article 12.10, any such changes shall be subject to prior agreement between the Parties hereto.
- 12.11 It is the intent of the Parties that payments by Contractor of tax levied by the Petroleum Income Tax Law qualify as creditable against the income tax liability of each company comprising Contractor in its jurisdiction. Should the fiscal authority involved determine that the Petroleum Income Tax Law does not impose a creditable tax, the Parties agree to negotiate in good faith with a view to establishing a creditable tax on the precondition that no adverse effect should occur to the economic rights of GNPC or the State.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

Exhibit G to the Unitization and Unit Operating Agreement

### FOREIGN EXCHANGE TRANSACTIONS

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- 13.1 Contractor shall for the purpose of this Agreement be entitled to receive, remit, keep and utilise freely abroad all the foreign currency obtained from the sales of the Petroleum assigned to it by this Agreement or purchased hereunder, or from transfers, as well as its own capital, receipts from loans and in general all assets thereby acquired abroad. Upon making adequate arrangements with regard to its commitment to conduct Petroleum Operations, Contractor shall be free to dispose of this foreign currency or assets as it deems fit.
- 13.2 Contractor shall have the right to open and maintain in Ghana bank accounts in foreign currency and Ghanaian currency. No restriction shall be made on the import by Contractor in an authorised manner of funds assigned to the performance of the Petroleum Operations and Contractor shall be entitled to purchase Ghanaian currency through authorised means, without discrimination, at the prevailing rate of exchange; provided, however, that such prevailing rate applicable to Contractor hereunder for all transactions for converting Ghanaian currency into U.S. Dollars, and vice versa, shall be at a buying or selling, as the case may be, rate of exchange not less favourable to Contractor than that quoted by the State or its foreign exchange control authority to any person or entity on the dates of such conversion (excepting those special rates provided by the State to discretely defined groups for special, limited purposes).
- 13.3 Contractor shall be entitled to convert in an authorised manner into foreign currencies of its choice funds imported by Contractor for the Petroleum Operations and held in Ghana which exceeds its local requirements at the prevailing rate of exchange referred to in Article 13.2 and remit and retain such foreign currencies outside Ghana.
- 13.4 In the event of resale by Contractor or its Affiliate of Crude Oil purchased from the State or GNPC, the State or GNPC shall have the right to request payment for such sales of its share of production to Contractor or its Affiliate to be held in the foreign currency in which the resale transaction took place or in U.S. Dollars.
- 13.5 Contractor shall have the right to make direct payments outside of Ghana from its home offices, and elsewhere, to its Foreign National Employees, and to those of its Subcontractors and suppliers 'not resident in Ghana' (as that term is defined in Part IV, Division 1, Section 160 of the Internal Revenue Act, 2000 (Act 592) for wages, salaries, purchases of goods and performance of services, whether imported into Ghana or supplied or performed therein for Petroleum Operations carried out Petroleum Agreement for Deepweter Tano (Tullow/Sabre/Kosmos) -March 2006

Exhibit G to the Unitization and Unit Operating Agreement

hereunder, in accordance with the provisions of this Agreement, in respect of services performed within the framework of this Agreement, and such payments shall be considered as part of the costs incurred in Petroleum Operations. In the event of any changes in the location of Operator's home or other offices, Operator shall so notify GNPC and the State.

- 13.6 All payments which this Agreement obligates Contractor to make to GNPC or the State, including income taxes, shall be made in U.S. Dollars, except as requested otherwise pursuant to Article 13.4 above. All payments shall be made by electronic transfer in immediately available funds to a bank to be designated by GNPC or the State, and reasonably accessible to Contractor by way of its being able to receive payments made by Contractor and give a confirmation of receipt thereof, or in such other manner as may be mutually agreed.
- 13.7 All payments which this Agreement obligates GNPC or the State to make to Contractor shall be made in U.S. Dollars. All payments shall be made by electronic transfer in immediately available funds to a commercial bank to be designated by Contractor, and reasonably accessible to GNPC or the State by way of its being able to receive payments made by GNPC or the State and give confirmation of receipt thereof, or in such other manner as may be mutually agreed.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

Exhibit G to the Unitization and Unit Operating Agreement

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### SPECIAL PROVISIONS FOR NATURAL GAS

#### PART I - GENERAL

- 14.1 Contractor shall have the right to use Natural Gas produced from any Development and Production Area for Petroleum Operation within the Contract Area such as reinjection for pressure maintenance and/or power generation.
- 14.2 Contractor shall have the right to flare Natural Gas:
  - a) to the extent provided in an approved Development Plan;
  - b) during production testing operations;
  - c) when required for the safety of persons engaged in Petroleum Operations in accordance with Petroleum Industry practice;
  - d) where reinjection is inadvisable from the point of view of good reservoir or petroleum engineering practice; or
  - e) as otherwise authorised by the Minister.
- 14.3 Contractor shall have the right to extract condensate and Natural Gas liquids for disposition under the provisions relating to Crude Oil. Residual Natural Gas remaining after the extraction of condensate and Natural Gas liquids is subject to the provisions of this Article.

#### PART II -ASSOCIATED GAS

- 14.4 Based on the principle of full utilisation of Associated Gas and without substantial impediment to Crude Oil production, the Development Plan of each Development and Production Area shall include a plan of utilisation for Associated Gas.
- 14.5 If Contractor considers that production processing and utilisation of Associated Gas from any Development and Production Area to be non-economic, GNPC shall have the option to offtake such Associated Gas at the outlet flange of the gas-oil separator at its Sole Risk for its own use and to that end the Development Plan proposed by Contractor shall include:

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

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Exhibit G to the Unitization and Unit Operating Agreement

- a) a statement of the facilities necessary for the delivery to GNPC of such Associated Gas; and
- b) a plan for the reinjection of such Associated Gas into the reservoir.
- 14.6 A. If GNPC elects to offtake Associated Gas under Article 14.5 above, GNPC shall pay for the cost of any additional facilities and any related production cost required for the delivery of the gas to GNPC, provided that:
  - a) if Contractor subsequently wishes to participate in GNPC's gas utilisation programme, it shall reimburse GNPC for the costs of such facilities plus a premium of three hundred percent (300%); or
  - b) if Contractor subsequently develops a gas utilisation programme and requires the use of such facilities, Contractor shall pay GNPC an agreed fee for such use.
  - **B.** The decision of GNPC as to whether or not to exercise the option provided for in Article 14.5 shall be made in a timely manner. In making any such decision and in its subsequent conduct GNPC shall avoid the prevention of , or delay to, the orderly start-up or continuation of the production of Crude Oil as envisaged in Contractor's Development Plan.

#### PART III - NON-ASSOCIATED GAS

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- 14.7 Contractor shall notify the Minister in writing as soon as any Discovery of Non-Associated Gas is made in the Contract Area.
- 14.8 As soon as possible after the technical evaluation of the test results of such Discovery is complete and in any event not later than one hundred eighty (180) days from the date of Discovery, Contractor shall by a further notice in writing to the Minister (the "Notice") indicate whether in Contractor's opinion the Discovery merits Appraisal.
- 14.9 Where Contractor's Notice indicates that the Discovery does not at that time merit Appraisal but may merit Appraisal or additional evaluation at a later date during the Exploration Period or during the initial period under a new petroleum agreement made pursuant to Article 14.18 below, then Contractor need not submit a proposed Appraisal Programme at that time but instead shall indicate what other studies or evaluations may be warranted before an Appraisal Programme is undertaken. Where Contractor's Notice indicates that the Discovery will not merit appraisal at any time during the Exploration Period or during the initial period under a new petroleum agreement made pursuant to Article 14.18, then GNPC may by Notice to Contractor

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

Exhibit G to the Unitization and Unit Operating Agreement

require Contractor to relinquish the rights to the Non-Associated Gas within that Discovery Area.

- 14.10 Where Contractor's Notice indicates that the Discovery merits the drilling of one or more Appraisal Wells at that time, Contractor shall prepare and submit to the JMC the appropriate Appraisal Programme which Appraisal Programme shall be scheduled to be completed within two (2) years of the submission of the Notice to the Minister.
- 14.11 Not later than ninety (90) days from the date on which the Appraisal Programme relating to a Discovery is concluded, Contractor shall submit to the Minister a report containing the results of the Appraisal Programme. If the report concludes that the Discovery merits commercial assessment, Contractor shall notify the Minister within one hundred eighty (180) days from the date on which the Appraisal Programme relating to the Discovery was completed of a programme of such assessment and shall conduct such programme during the rest of the Exploration Period and, if applicable, during the initial period under a new petroleum agreement made pursuant to Article 14.18. Notwithstanding the above, Contractor may also notify the Minister that commercial assessment of the Discovery is not warranted at that time but the Discovery may merit such assessment at a later date during the Exploration Period or during the initial period aforesaid. If Contractor so notifies the Minister, Contractor shall also indicate what other studies or evaluation may be warranted before a commercial assessment is undertaken.
- 14.12 The purpose of the commercial assessment shall be to study the uses to which production from the Discovery Area, separately or together with any Natural Gas referred to in Part II of this Article 14, can be devoted and whether involving exports or domestic utilisation. As part of the assessment, the Parties shall also pursue discussions on the required contractual arrangements for disposition of the Natural Gas to potential purchasers and/or consumers of the Natural Gas.
- 14.13 Contractor may consult with the other Parties and may make appropriate representations proposing changes in the fiscal and other provisions of this Agreement which may, in the opinion of Contractor, affect the above determinations made pursuant to Articles 14.10 and 14.11. The other Parties may, where feasible and in the best interests of the Parties, agree to make such changes or modifications in the existing arrangements.
- 14.14 Nothing in this Part III of Article 14 shall be read or construed as requiring Contractor to relinquish any area:

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) --March 2006

Exhibit G to the Unitization and Unit Operating Agreement

- i) which constitutes or forms part of another Discovery Area in respect of which Contractor has given to the Minister a separate notice indicating that such Discovery merits confirmation or commercial assessments; or
- ii) which Contractor has given the Minister a separate notice in respect of indicating that such Discovery is a Commercial Discovery; or
- iii) which constitutes or forms part of a Development and Production Area.

#### PART IV NATURAL GAS PROJECTS

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- 14.15 If at any time during the commercial assessment Contractor informs the Minister in writing that the Discovery can be produced commercially, it shall as soon as reasonably possible thereafter submit to the Minister and to GNPC its proposals for an agreement in accordance with Article 8 relating to the development of the Discovery on the principles set forth in this Part IV of Article 14. The State and GNPC undertake on receipt of such notice to negotiate in good faith with Contractor with a view to reaching agreement on terms for such production. Any such agreement will be based on terms and fiscal requirements which shall be no less favourable to Contractor than those provided for in Articles 10 and 11 and which take full account of the legifimate interest of the State as the resource owner.
- 14.16 If at any time during the commercial assessment Contractor has identified a market in Ghana for the reserves of Associated and/or Non-Associated Gas or any part thereof that can be saved without prejudice to an export project, the Parties shall proceed in good faith to negotiate the appropriate contractual arrangements for the disposition of the Natural Gas. In the event of a domestic market for such Natural Gas, Contractor and GNPC shall receive for delivery onshore of its share of the Natural Gas at a price to be agreed between GNPC and Contractor taking into account among other things the cost of developing the Natural Gas and the uses which will be made of the Natural Gas.
- 14.17 In the event of a Discovery of Natural Gas in the Contract Area which is to be developed and commercially produced, the provisions of this Agreement in respect to interests, rights and obligations of the Parties regarding Crude Oil shall apply to Natural Gas, with the necessary changes in points of detail, except with respect to specific provisions in this Agreement concerning Natural Gas and different or additional provisions concerning Natural Gas which may be agreed by the Parties in the future:
  - a) The system for the allocation of Natural Gas among the Parties shall follow the same general format as Article 10.1 provides for Crude Oil, with the exception

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Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) ~March 2006

Exhibit G to the Unitization and Unit Operating Agreement

that the Royalty to be delivered to the State on Natural Gas shall be at the rate of three percent (3%) of the annual Gross Production of Natural Gas as an incentive to enhance the viability of a Gas project on the basis herein provided for.

- b) The Parties recognise that projects for the Development and Production of Natural Gas are generally long-term in nature for both the project developers and the customers who purchase the Natural Gas. Substantial investments and dedication of facilities require long-term commitments on both sides. This Agreement, being for a specific term of years, may not cover the length of time for which customers in given cases will require commitments on the part of the Parties to this Agreement to deliver their respective shares of the output. Accordingly the Parties agree to consider undertaking such commitments where reasonably required for the efficient and viable development of a Natural Gas project. It is recognised that, unless otherwise agreed by the Parties hereto, Contractor will have no right or interest in the project or the Natural Gas produced and delivered after the term of this Agreement has expired unless a petroleum agreement pursuant to Article 14.18(A) has been entered into.
- c) In the event that Contractor or an Affiliate decides to construct facilities to receive Natural Gas from the Development and Production Area for further processing or for use as a feedstock or fuel in order to convert such Natural Gas into one or more commercially marketable products, the Contractor shall be entitled to pay for such Natural Gas the price paid by the State or GNPC under Article 14.16.
- d) The Parties will consider collaboration in obtaining any common external financing available for Natural Gas processing or Natural Gas utilisation facilities, including project financing; however, each Party shall remain free to finance externally its share of such facilities to the extent it prefers to do so.
- 14.18 A) Where Contractor has during the continuance of the Exploration Period made a Discovery of Non-Associated Gas but has not before the end of the Exploration Period declared that Discovery to be a Commercial Discovery, the State and GNPC will, if Contractor so requests, enter into a new petroleum agreement with Contractor in respect of the Discovery Area to which that Discovery relates.
  - B) The State and GNPC shall not be under any obligation to enter into an Agreement pursuant to Article 14.18(A) unless before the end of the Exploration Period Contractor has carried out an Appraisal Programme in respect of that Discovery pursuant to Article 14.10 and submitted to the Minister a report thereon pursuant to Article 14.11, or has notified the Minister of reasonable

G-62

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

Exhibit G to the Unitization and Unit Operating Agreement

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arrangements to undertake and complete such an Appraisal Programme during the period provided for in (C) (i) below.

C) A Petroleum Agreement entered into pursuant to Article 14.18 (A):

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- shall unless the Discovery in respect of which the Agreement has been made is declared by Contractor to be a Commercial Discovery continue in force for an initial period not exceeding five (5) years;
- ii) shall in the event that the Discovery is declared by Contractor to be a Commercial Discovery
  - a) continue in force for an aggregate period not exceeding thirty (30) years;
  - b) include, or be deemed to include, all the provisions which, <u>mutatis</u> <u>mutandis</u>, would have applied to a Commercial Discovery of Non-Associated Gas if Contractor had declared such Discovery to be a Commercial Discovery under this Agreement;
- iii) shall contain in respect of the initial period or of any renewal period details of the evaluations or studies which Contractor proposes to undertake in order to determine or keep under review the commerciality of the Discovery;
- iv) shall confer on GNPC preemptive rights in respect of the Gas contained in the reservoir to which the Discovery relates substantially in the form of the provisions hereinafter set out in Article 14.18 (D).
- D In the event that the Parties are unable to agree to the detailed terms of the Petroleum Agreement contemplated in Article 14.18(a) and the Exploration Period expires, GNPC itself, or a third party may, at its sole risk and expense, complete the Appraisal Programme relating to the Discovery and/or develop the Discovery, provided that Contractor shall have the right of first refusal in respect of any transaction proposed by GNPC or such third party for the development of the Discovery.
  - i) Where Contractor has not, before the end of the initial period, declared the Discovery to be commercial and the Minister has in his discretion determined that further evaluation or studies may be required before the Discovery can be declared commercial, the right of Contractor to retain the Discovery Area shall continue for a further period not exceeding in the aggregate five (5) years. The

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Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

Exhibit G to the Unitization and Unit Operating Agreement

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right of Contractor to retain the Discovery Area aforesaid shall be secured by the renewal of the Agreement referred to in Article 14.18 (a) or where necessary by a new Agreement entered into by the Parties for that purpose.

- ii) Where Contractor has not declared the Discovery to be a Commercial Discovery, if GNPC has identified a market for the Gas contained in the reservoir to which the Discovery relates, or any part thereof, it may at any time during the initial period or the aggregate period referred to in 14.18 D above serve on Contractor a notice giving particulars of the quantities of Natural Gas required to serve that market and the price offered; and on the basis of the procedure detailed in Article 9, exercise the right referred to in Article 14:18 C (iv) above.
- 4.19 For the purposes of calculating the State's 3% Royalty share on Natural Gas, if the State elects to take its royalty on Natural Gas in cash, the value of such Natural Gas shall be the actual price realized.
- 4.20 Within four (4) months from the receipt of a notice as aforesaid Contractor may declare the Discovery to be a Commercial Discovery and in accordance with the Agreement and the Petroleum Law prepare and submit to the Minister a Development Plan for the production of the Gas in association with GNPC to serve the market identified at the price offered.
- 4.21 If Contractor has not, within the period of four (4) months aforesaid, declared the Discovery to be a Commercial Discovery, GNPC may at its sole risk and expense develop the Discovery to the extent necessary to meet the requirements of the market identified as aforesaid, and in that event the Contractor shall cease to have any rights in respect of the Natural Gas in the reservoir required for that purpose.

G-64

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

Exhibit G to the Unitization and Unit Operating Agreement

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## DOMESTIC SUPPLY REQUIREMENT (CRUDE OIL)

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- 15.1 Crude Oil for consumption in Ghana (in this Article called the "Domestic Supply Requirement") shall be supplied, to the extent possible, by the State and GNPC from their respective entitlements under this Agreement and under any other contract for the production of Crude Oil in Ghana.
- 5.2 In the event that Crude Oil available to the State pursuant to Article 15.1 is insufficient to fulfill the Domestic Supply Requirement, Contractor shall upon three (3) Month's notice from the State, be obliged together with any third parties which produce Crude Oil in Ghana, to supply a volume of Crude Oil to be used for such Domestic Supply Requirement, calculated on the basis of the ratio of Contractor's entitlement to Crude Oil under Article 10.1 (d) to the entitlements of all such third parties producing Crude Oil in Ghana and provided that Contractor's obligation to supply Crude Oil for purposes of meeting the Domestic Supply Requirement shall not exceed the total of Contractor's entitlement of Gross Production of Crude Oil after deduction of the State's Royalty under this Agreement.
- 15.3 The Contractor shall ensure that any contract for the supply of the Contractor's share of Crude Oil under this Agreement shall be made subject to the requirement in this Article 15 to meet the Domestic Supply Requirement.
- 15.4 The State shall purchase any Crude Oil supplied by Contractor pursuant to this Article at a price which matches the Market Price determined under Article 11.7 for the Month of delivery. The State shall pay such prices in accordance with Article 13.7 within thirty (30) days after receipt of Contractor's invoice, failing which Contractor's obligations in respect of the Domestic Supply Requirement under this Article 15 shall be suspended until payment is made good, at which time deliveries shall be resumed subject to any alternative commitments that may have been reasonably entered into by Contractor to dispose of the Domestic Supply Requirement Crude Oil during the period of default in payment. Contractor shall recover any amount due and unpaid by State, plus interest at the interest rate defined in Article 26.7, from GNPC's share of Crude Oil as provided in Article 10.1 (e).

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

Exhibit G to the Unitization and Unit Operating Agreement

## INFORMATION AND REPORTS : CONFIDENTIALITY

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- 16.1 Contractor shall keep GNPC regularly and fully informed of operations being carried out by Contractor and provide GNPC with all information, data, (film, paper and digital forms), samples, interpretations and reports, (including progress and completion reports) including but not limited to the following:
  - a) processed seismic data and interpretations thereof;
  - b) well data, including but not limited to electric logs and other wireline surveys, and mud logging reports and logs, samples of cuttings and cores and analyses made therefrom;
  - c) any reports prepared from drilling data or geological or geophysical data, including maps or illustrations derived therefrom;
  - d) well testing and well completion reports;
  - e) reports dealing with location surveys, seabed conditions and seafloor hazards and any other reports dealing with well, platform or pipeline locations;
  - f) reservoir investigations and estimates regarding reserves, field limits and economic evaluations relating to future operations;
  - g) daily, weekly, monthly and other regular reports on Petroleum Operations;
  - h) comprehensive final reports upon the completion of each specific project or operation;
  - i) contingency programmes and reports on safety and accidents;
  - j) procurement plans, Subcontractors and contracts for the provision of services to Contractor.

Where appropriate, data shall be provided on film, paper and in digital format. In respect of the reports, including text and graphics, paper and digital copies shall be submitted.

16.2 Contractor shall have the right to retain for its own use in connection with the conduct of Petroleum Operations under this Agreement copies of data, well logs,
 Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) - March 2006 63

Exhibit G to the Unitization and Unit Operating Agreement

G-66

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maps, magnetic tapes, other geological and geophysical information, portions of core samples and copies of reports, studies and analyses, referred to in Article 16.1.

- 16.3 Not later than ninety (90) days following the end of each Calendar Year, Contractor shall submit to GNPC a report covering Petroleum Operations performed in the Contract Area during such Calendar Year. Such report shall include, but not be limited to:
  - a) a statement of the number of Exploration Wells, Appraisal Wells and Development Wells drilled, the depth of each such well, and a map on which drilling locations are indicated;
  - b) a statement of any Petroleum encountered during Petroleum Operations, as well as a statement of any fresh water layers encountered and of any other minerals discovered;
  - c) a statement of the quantity of Petroleum produced and of all other minerals produced therewith from the same reservoir or deposit;
  - d) a summary of the nature and extent of all exploration activities in the Contract Area;
  - e) a general summary of all Petroleum Operations in the Contract Area; and
  - f) a statement of the number of employees engaged in Petroleum Operations in Ghana, identified as Ghanaian or non-Ghanaian. Contractor will inform the latter that details as to nationality are required by GNPC and that Contractor is available to assist them to supply that information.
- 16.4 All data, information and reports including interpretation and analysis supplied by Contractor pursuant to this Agreement, including without limitation, that described in Articles 16.1, 16.2 and 16.3 shall be treated as confidential and shall not be disclosed by any Party to any other person without the express written consent of the other Parties.
- 16.5 The provisions of Article 16.4 shall not prevent disclosure:
  - a) by GNPC or the State:

i) to any agency of the State or to any adviser or consultant to GNPC or the State; or

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

Exhibit G to the Unitization and Unit Operating Agreement

ii) for the purpose of obtaining a Petroleum Agreement in respect of any acreage adjacent to the Contract Area.

#### b) by Contractor:

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- i) to its Affiliates, advisers or consultants;
- ii) to a bona fide potential assignee of all or part of Contractor's Interest hereunder provided GNPC is given prior notice of such potential assignee;
- iii) to banks or other lending institutions for the purpose of seeking external financing of costs of the Petroleum Operations;
- iv) to non-Affiliates who shall provide services for the Petroleum Operations, including Subcontractors, vendors and other service contractors, where this is essential for their provision of such services, and provided GNPC is notified about such disclosure;
- v) to governmental agencies for obtaining necessary rulings, permits, licenses and approvals, or as may be required by applicable law or financial stock exchange, accounting or reporting practices, and provided GNPC is notified about such disclosure; or
- vi) to such persons and for such purposes as the Joint Management Committee may permit from time to time.

#### c) by any Party:

- i) to the extent necessary in any arbitration proceedings or proceedings before a Sole Expert or in proceedings before any court;
- ii) with respect to data, etc., which already through, no fault of the disclosing Party is in the public domain.
- 16.6 Any Party disclosing information or providing data to any third party under this Article shall require such persons to observe the confidentiality of such data. Promptly after the Effective Date, the Parties shall agree upon a mutually acceptable international petroleum industry standard form of confidentiality agreement. Contractor shall require the execution of an agreement substantially on the terms contained in such agreed form of agreement by a potential assignee prior to disclosure of such data; and shall provide copies of all such signed agreements to GNPC.

G-68

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

Exhibit G to the Unitization and Unit Operating Agreement

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### INSPECTION, SAFETY AND ENVIRONMENTAL PROTECTION

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- 17.1 GNPC shall have the right of access to all sites and offices of Contractor and the right to inspect all buildings and installations used by Contractor relating to Petroleum Operations. Such inspections and audits shall take place in consultation with Contractor and at such times and in such manner as not unduly to interfere with the normal operations of Contractor.
- 17.2 Contractor shall take all necessary steps, in accordance with accepted Petroleum industry practice, to perform activities pursuant to the Agreement in a safe manner and shall comply with all requirements of the Law of Ghana, including labour, health safety and environmental laws and regulations issued by the Environmental Protection Agency.
- 17.3 Contractor shall provide an effective and safe system for disposal of water and waste oil, oil base mud and cuttings in accordance with accepted Petroleum industry practice, and shall provide for the safe completion or abandonment of all boreholes and wells.
- 17.4 Contractor shall exercise its rights and carry out its responsibilities under this Contract in accordance with accepted Petroleum industry practice, and shall take steps in such manner as to:
  - a) result in minimum ecological damage or destruction;
  - b) control the flow and prevent the escape or the avoidable waste of Petroleum discovered in or produced from the Contract Area;
  - c) prevent damage to Petroleum-bearing strata;
  - d) prevent the entrance of water through boreholes and wells to Petroleum-bearing strata, except for the purpose of secondary recovery;
  - e) prevent damage to onshore lands and to trees, crops, buildings or other structures; and
  - f) avoid any actions which would endanger the health or safety of persons.

17.5 If Contractor's failure to comply with the requirements of Article 17.4 results in the release of Petroleum or other materials on the seabed, in the sea, on land or in fresh water, or if Contractor's operations result in any other form of pollution or otherwise
 Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) - March 2006

Exhibit G to the Unitization and Unit Operating Agreement

cause harm to fresh water, marine, plant or animal life, Contractor shall, in accordance with accepted Petroleum industry practice, promptly take all necessary measures to control the pollution, to clean up Petroleum or other released material, or to repair, to the maximum extent feasible, damage resulting from any such circumstances. If such release or pollution results directly from the Gross Negligence of Contractor, the cost of subcontract clean-up and repair activities shall be borne by Contractor and shall not be included as a Petroleum Cost under this Agreement.

- 17.6 Contractor shall notify GNPC immediately in the event of any emergency or major accident and shall take such action as may be prescribed by GNPC's emergency procedures and by accepted international petroleum industry practices in the same or similar circumstances.
- 17.7 If Contractor does not act promptly so as to control, clean up or repair any pollution or damage, GNPC may, after giving Contractor reasonable notice in the circumstances, take any actions which are necessary, in accordance with accepted international petroleum industry practice in the same or similar circumstances and the reasonable costs and expenses of such actions shall be borne by Contractor and shall, subject to Article 17.5 be included as Petroleum Costs.

G-70

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

Exhibit G to the Unitization and Unit Operating Agreement

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## ACCOUNTING AND AUDITING

- 18.1 Contractor shall maintain, at its offices in Ghana, books of account and supporting records in the manner required by applicable law and accepted accounting principles generally used in the international petroleum industry and shall file reports, tax returns and any other documents and any other financial returns which are required by applicable law.
- 18.2 In addition to the books and reports required by Article 18.1 Contractor shall maintain, at its office in Ghana, a set of accounts and records relating to Petroleum Operations under this Agreement. Such accounts shall be kept in accordance with the requirements of the applicable law and accepted accounting principles generally used in the international petroleum industry.
- 18.3 The accounts required by Articles 18.1 and 18.2 shall be kept in United States Dollars.
- 18.4 Contractor will provide GNPC with quarterly summaries of the Petroleum Costs incurred under this Agreement.
- 18.5 GNPC shall review all financial statements submitted by the Contractor as required by this Agreement, and shall signify its provisional approval or disapproval of such statements in writing within ninety (90) days of receipt failing which the financial statements as submitted by Contractor shall be deemed approved by GNPC; in the event that GNPC indicates its disapproval of any such statement, the parties shall meet within fifteen (15) days of Contractor's receipt of the notice of disapproval to review the matter.
- 18.6 Notwithstanding any provisional approval pursuant to Article 18.5 GNPC shall have the right at its sole expense and upon giving reasonable notice in writing to Contractor to audit the books and accounts of Contractor relating to Petroleum Operations within two (2) years from the submission by Contractor of any report of financial statement. GNPC shall not, in carrying out such audit, interfere unreasonably with the conduct of Petroleum Operations. Any such audit shall be undertaken by an independent international auditing firm and shall be completed within nine (9) months after commencement. An extension of time to complete an audit shall be allowed upon receipt by Contractor from GNPC's auditing firm of a written statement representing that the auditors have used reasonable efforts to complete the subject audit and they require additional time not to exceed three (3) months to complete such audit. If after a period of one (1) year the subject audit has Petroleum Agreement for Deepwater Tano (Tutlow/Sabre/Kosmos) -Merch 2006

Exhibit G to the Unitization and Unit Operating Agreement

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not been completed by GNPC the books and accounts covering such period shall be deemed approved. Contractor shall provide all necessary facilities for auditors appointed hereunder by GNPC including working space and access to all relevant personnel, records, files and other materials.

If GNPC desires verification of charges from an Affiliate, Contractor shall at GNPC's sole expense obtain for GNPC or its representatives an audit certificate to this purpose from the statutory auditors of the Affiliate concerned. Copies of audit reports shall be provided to the Contractor and GNPC. Any unresolved audit claim resulting from such audit, upon which Contractor and GNPC are unable to agree shall be submitted to the JMC for decision which must be unanimous. In the event that a unanimous decision is not reached in respect of any audit claim, then such unresolved audit claim shall be submitted for resolution in accordance with Article 24. Subject to any adjustments resulting from such audits, Contractor's accounts and financial statements shall be considered to be correct on expiry of a period of two (2) years from the date of their submission unless before the expiry of such two year period GNPC has notified Contractor of any exceptions to such accounts and statements.

18.7 Nothing in this Article shall be read or construed as placing a limit on GNPC's access to Contractor's books and accounts in respect of matters arising under Article 23.4 (a).

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

Exhibit G to the Unitization and Unit Operating Agreement

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## TITLE TO AND CONTROL OF GOODS AND EQUIPMENT

- 19.1 GNPC shall be the sole and unconditional owner of:
  - a) Petroleum produced and recovered as a result of Petroleum Operations, except for such Petroleum as is distributed to the State and to Contractor pursuant to Article 10 or 14 hereof;
  - b) all physical assets other than those to which Article 19.3 or 19.4 apply, which are purchased, installed, constructed or used by Contractor in Petroleum Operations as from the time that:
    - the full cost thereof has been recovered by Contractor in accordance with the provisions of the Accounting Guide from its proportionate share of Petroleum revenues and any other revenues it receives in respect of Petroleum Operations; or
    - ii) this Agreement is terminated pursuant to Articles 23.3 and 23.4 and Contractor has not disposed of such assets prior to such termination, whichever occurs first.
- 19.2 Contractor shall have the use of the assets referred to in Article 19.1(b) for purposes of its operations under this Agreement without payment provided that Contractor shall remain liable for maintenance, insurance and other costs associated with such use in accordance with international petroleum industry practices in the same or similar circumstances. Where Contractor has failed to keep any such asset in good working condition (normal wear and tear excepted), GNPC shall have the right to recover the cost of repair or replacement of such assets from Contractor. Contractor shall indemnify GNPC against all losses, damages, claims or legal action resulting from Contractor's use of such assets, if and in as far as such losses, damages, claims or legal actions were directly caused by Contractor's Gross Negligence.
- 19.3 Equipment or any other assets rented or leased by Contractor which is imported into Ghana for use in Petroleum Operations and subsequently re-exported therefrom, which is of the type customarily leased for such use in accordance with international petroleum industry practice or which is otherwise not owned by Contractor shall not be transferred to GNPC. No equipment or assets owned or leased by a Subcontractor shall by reason of the provisions of this Article 19 be deemed to be transferred to GNPC.

G-73

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

Exhibit G to the Unitization and Unit Operating Agreement

10  19.4 All assets owned by Contractor which are not affected by the provisions of Article 19.1 (b) above may, where required for further Petroleum Operations, be retained by GNPC for such operations provided that GNPC shall thereby be liable to pay a reasonable and mutually agreed fee for such use, and shall bear the cost of repair or replacement upon failure to keep such assets in good working condition (normal wear and tear excepted), and further provided that Contractor does not require such assets for its Petroleum Operations.

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- 19.5 Upon the termination of Petroleum Operations in any Area, Contractor shall give GNPC the option to acquire any movable and immovable assets used for such Petroleum Operations and not affected by the provisions of Article 19.1 (b) at a reasonable and mutually agreed price, always provided that Contractor does not require such assets for Contractor's Petroleum Operations in the Contract Area.
- 19.6 All assets which are not affected by Article 19.1 (b) nor subject to Article 19.3 above, and all subcontractor equipment, may be freely exported by Contractor or its Subcontractor, respectively, at its discretion.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) --March 2006

G-74

Exhibit G to the Unitization and Unit Operating Agreement

### PURCHASING AND PROCUREMENT

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- 20.1 In the acquisition of plant, equipment, services and supplies for Petroleum Operations, Contractor shall give preference to materials, services and products produced in Ghana including shipping services provided by vessels owned or controlled by Ghanaian shipping companies if such materials, services and products meet standards generally acceptable to international oil and gas companies and supplied at prices, grades, quantities, delivery dates and on other commercial terms equivalent to or more favourable than those at which such materials, services and products can be supplied from outside Ghana.
- 20.2 For the purposes of Article 20.1, price comparisons shall be made on a c.i.f. Accra delivered basis.

Petroleum Agreement for Deepwater	Tano (Tullow/Sabre/Kosmos) –March :	2006

72 Aan Myo

Exhibit G to the Unitization and Unit Operating Agreement

G-75

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## EMPLOYMENT AND TRAINING

21.1 In order to establish programmes to train Ghanaian personnel for work in Petroleum Operations and for the transfer of management and technical skills required for the efficient conduct of Petroleum Operations, Contractor shall pay to GNPC the sum of two hundred and fifty thousand US dollars (US\$250,000) per year from the Effective Date to maintain and implement such programmes. Such expenditure shall qualify for deduction against income tax under the Income Tax law and shall be considered as Petroleum Costs.

The above amounts shall be payable within thirty (30) days after the beginning of each Calendar Year, provided that the sum payable shall be pro rata for any period of less than a full Calendar Year (e.g. from the Effective Date to the end of the Calendar Year). GNPC shall prepare and present to JMC its intentions for such programmes on an annual basis and shall consider any suggestions made by Contractor's JMC representatives.

- 21.2 In addition to the annual sums payable pursuant to Article 21.1 above, Contractor shall pay to GNPC on a once-off basis a single further sum of four hundred thousand US dollars (U.S.\$400,000) in respect of technical support for GNPC. Such expenditure shall also qualify for deduction against income tax under the Income Tax law and shall be considered as a Petroleum Cost.
- 21.3 Where qualified Ghanaian personnel are available for employment in the conduct of Petroleum Operations, Contractor shall ensure that in the engagement of personnel it shall as far as reasonably possible provide opportunities for the employment of such personnel. For this purpose, Contractor shall submit to GNPC an employment plan with number of persons and the required professions and technical capabilities prior to the performance of Petroleum Operations. GNPC shall provide the qualified personnel according to the said plan.
- 21.4 Contractor shall, if so requested by GNPC, provide opportunities for a mutually agreed number of GNPC personnel nominated by GNPC to be seconded for on-the-job training or attachment in all phases of its Petroleum Operations under a mutually agreed secondment contract. Expenses of secondment shall not be credited against the training obligation under Article 21.1. Such secondment contract shall include continuing education and short industry courses mutually identified as beneficial to the secondee. Costs and other expenses connected with such assignment of GNPC personnel on secondment shall be borne by the Contractor and

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) --March 2006

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Exhibit G to the Unitization and Unit Operating Agreement

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shall qualify for deduction against income under the Petroleum Income Tax Law and shall be considered as Petroleum Costs.

- 21.5 Contractor shall regularly provide to GNPC information and data relating to worldwide Petroleum science and technology, Petroleum economics and engineering available to Contractor, and shall assist GNPC personnel in every way to acquire knowledge and skills in all aspects of the Petroleum industry.
- 21.6 It is agreed that there will be no disclosure or transfer of any documents, data, knowhow, technology or other information owned or supplied by Contractor, its Affiliates, or non-Affiliates, to third parties without Contractor's prior written consent, and then only upon agreement by the recipients to retain such information in strict confidence.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

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 $\mathsf{Exhibit}\ G$  to the Unitization and Unit Operating Agreement

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## FORCE MAJEURE

- 22.1 The failure of a Party to fulfil any term or condition of this Agreement, except for the payment of monies, shall be excused if and to the extent that such failure arises from Force Majeure, provided that, if the event is reasonably foreseeable such party shall have prior thereto taken all appropriate precautions and all reasonable alternative measures with the objective of carrying out the terms and conditions of this Agreement. A Party affected by an event of Force Majeure shall promptly give the other Parties notice of such event and also of the restoration of normal conditions.
- 22.2 A Party unable by an event of Force Majeure to perform any obligation hereunder shall take all reasonable measures to remove its inability to fulfil the terms and conditions of this Agreement with a minimum of delay, and the Parties shall take all reasonable measures to minimise the consequences of any event of Force Majeure.
- 22.3 Any period set herein for the completion by a Party of any act required or permitted to be done hereunder, shall be extended for a period of time equal to that during which such Party was unable to perform such actions as a result of Force Majeure, together with such time as may be required for the resumption of Petroleum Operations.
- 22.4 Except in the case of:
  - a) a law of general application;
  - b) an action taken in consequence of an emergency arising from a condition of Force Majeure;

GNPC may not claim Force Majeure in respect of any action or provision of the State or any agency of the State.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) -- March 2006

Exhibit G to the Unitization and Unit Operating Agreement

## TERM AND TERMINATION

- 23.1 Subject to this Article 23 and to the Petroleum (Exploration and Production) Law PNDCL 84 (Section 12) the term of this Agreement shall be thirty (30) years commencing from the Effective Date.
- 23.2 At the end of the term provided for in Article 23.1, provided that this Agreement has not earlier been terminated, the Parties may negotiate concerning the terms and conditions of a further agreement with respect to the Contract Area or any part thereof, but no failure to enter any such further agreement shall give rise to arbitration pursuant to Article 24 hereof.
- 23.3 Subject to Article 22, Termination of this Agreement shall result upon the occurrence of any of the following:
  - a) the relinquishment or surrender of the entire Contract Area;
  - b) the termination of the Exploration Period including extensions pursuant to Article 3 without notification by Contractor of commerciality pursuant to Article 8 in respect of a Discovery of Petroleum in the Contract Area; provided, however, Termination shall not occur while Contractor has the right to evaluate a Discovery for appraisal or commerciality and/or propose a Development Plan pursuant to Articles 8 or 14, or once a Development Plan has been approved, nor when the provisions of Articles 8.13 through 8.19 are applicable;
  - c) if, following a notice that a Discovery is a Commercial Discovery the Exploration Period terminates under Article 3 without a Development Plan being approved, provided however that Termination shall not occur when the provisions of Articles 8.13 through 8.19 are applicable; or
  - d) the failure of Contractor through any cause other than Force Majeure, to commence preparations with respect to Development Operations pursuant to Article 8.11.
- 23.4 Subject to Article 22 and pursuant to procedures described in Article 23.5 below GNPC and/or the State may terminate this Agreement upon the uncorrected occurrence of any of the events (or failures to act listed) below:

 a) the submission by Contractor to GNPC of a written statement which Contractor knows or should have known to be false, in a material particular; provided that Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) --March 2006

Exhibit G to the Unitization and Unit Operating Agreement

in the event of intent on the part of Contractor to cause serious damage to GNPC or the State, a period for remedy of such false statement shall not be given;

- b) the assignment or purported assignment by Contractor of this Agreement contrary to the provisions of Article 25 hereof;
- c) the insolvency or bankruptcy of Contractor, the entry by Contractor into any agreements or composition with its creditors, taking advantage of any law for the benefit of debtors or Contractor's entry into liquidation, or receivership, whether compulsory or voluntary, and there is thereby justifiable anticipation that the obligations of Contractor hereunder will not be performed; provided, however, if the Contractor is comprised of more than one non-Affiliated entity, then the insolvency or bankruptcy of one Contractor Party shall not lead to a termination of the Agreement if the other Contractor Parties will assume the rights and obligations of the defaulting Contractor Party under the Petroleum Agreement;
- d) the intentional extraction by Contractor of any material of potential economic value other than as authorised under this Agreement, or any applicable law except for such extraction as may be unavoidable as a result of Petroleum Operations conducted in accordance with accepted international petroleum industry practice, in the same or similar circumstances;
- e) failure by Contractor
  - i) to fulfil its minimum work obligations pursuant to Article 4.3, save where the Minister has waived the default; or
  - ii) to carry out an approved Appraisal Programme undertaken by Contractor pursuant to Article 8, unless Contractor notifies GNPC and the Minister that the Appraisal Programme should be amended and submits said amendment to the JMC for its review;
- f) substantial and material failure by Contractor to comply with any of its obligations pursuant to Article 7.1 hereof;
- failure by Contractor to make any payment of any sum due to GNPC or the g) – State pursuant to this Agreement within thirty (30) days after receiving notice that such payment is due, except where liability for payment of such sum is disputed in good faith by Contractor in which case the matter shall, if agreement in relation to it cannot be reached after thirty (30) days, be referred to arbitration under Article 24;

G-80

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) - March 2006

Exhibit G to the Unitization and Unit Operating Agreement

- h) failure by Contractor to comply with any decisions reached as a result of any arbitration proceedings conducted pursuant to Article 24 hereof.
- 23.5 If GNPC and/or the State believe an event or failure to act as described in Article 23.4 above has occurred, a written notice shall be given to Contractor describing the event or failure. Contractor shall have thirty (30) days from receipt of said notice to commence and pursue remedy of the event or failure cited in the notice. If after said thirty (30) days Contractor has failed to commence appropriate remedial action, GNPC and/or the State may then issue a written Notice of Termination to Contractor which shall become effective thirty (30) days from receipt of said Notice by Contractor unless Contractor has referred the matter to arbitration. In the event that Contractor disputes whether an event specified in Article 23.3 or Article 23.4 has occurred or been remedied, Contractor may, any time up to the effective date of any Notice of Termination refer the dispute to arbitration pursuant to Article 24 hereof. If so referred, GNPC and/or the State may not terminate this Agreement in respect of such event except in accordance with the terms of any resulting arbitration award.
- 23.6 Upon termination of this Agreement, all rights of Contractor hereunder shall cease, except for such rights as may at such time have accrued, and without prejudice to any obligation or liability imposed or incurred under this Agreement prior to Termination and to such rights and obligations as the Parties may have under applicable law.
- 23.7 Upon termination of this Agreement or in the event of an assignment of all the rights of Contractor, all wells and associated facilities shall be left in a state of good repair in accordance with accepted international petroleum industry practice.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

Exhibit G to the Unitization and Unit Operating Agreement

## CONSULTATION, ARBITRATION AND INDEPENDENT EXPERT

- 24.1 Except in the cases specified in Article 26.4 any dispute arising between the State and GNPC or either of them on one hand and Contractor on the other hand in relation to or in connection with or arising out of any terms and conditions of this Agreement shall be resolved by consultation and negotiation among senior personnel authorized by each Party. In the event that no agreement is reached within thirty (30) days after the date when either Party notifies the other that a dispute or difference exists within the meaning of this Article or such longer period specifically agreed to by the Parties or provided elsewhere in this Agreement, any Party shall have the right subject to Article 24.7 to have such dispute or difference finally settled through international arbitration under the auspices of the International Chamber of Commerce (the "ICC") and adopting the Rules of Arbitration of the International Chamber of Commerce (the "ICC Rules"), which ICC Rules are deemed incorporated by reference into this Article 24, save as otherwise provided herein.
- 24.2 The tribunal shall consist of three (3) arbitrators. Each Party to the dispute shall appoint one (1) arbitrator and those so appointed shall designate a chairman arbitrator. If a Party's arbitrator and/or the chairman arbitrator is not appointed within the periods provided in the rules referred to in Article 24.1 above, such Party's arbitrator and/or the chairman arbitrator shall at the request of any Party to the dispute be appointed by the ICC International Court of Arbitration in accordance with the ICC Rules.
- 24.3 No arbitrator or Sole Expert shall be a citizen of the home country of any Party hereto, and no arbitrator or Sole Expert shall have any economic interest or relationship with any such Party.
- 24.4 The arbitration proceedings shall be conducted in London, England or at such other location as selected by the arbitrators unanimously, but which must be located in a State which is a party to the New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards and located within any one of the States specified in the Schedule to the Arbitration (Foreign Awards) Instrument, 1963 (LI 261), as may be amended from time to time. The proceedings shall be conducted in the English language.
- 24.5 The award of the tribunal shall be final and binding upon the Parties and enforceable by the Parties in whose favour the award is made. Each of the Republic of Ghana and GNPC hereby irrevocably agree that to the extent that such party, has any right of immunity from any legal proceedings whether in Ghana, England or elsewhere

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

Exhibit G to the Unitization and Unit Operating Agreement

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in connection with or arising from terms and conditions of this Agreement, including immunity from service of process, immunity from jurisdiction or judgement or any arbitration tribunal, immunity from execution of judgement or tribunal award, such party hereby expressly and irrevocably waives any such immunity and agrees not to assert or invoke any such rights or claim in any such proceedings whether in Ghana, England or elsewhere.

- 24.6 The right to arbitrate disputes arising out of this Agreement shall survive the termination of this Agreement.
- Unless where a matter is specifically required to be referred to a Sole Expert under 24.7 this Agreement, the Parties to a dispute arising under this Agreement may, in lieu of resorting to arbitration, mutually agree to refer such matter for determination by a Sole Expert to be appointed by agreement of the Parties. The Sole Expert proceedings shall be administered in accordance with the Rules for Expertise of the International Chamber of Commerce and any hearings or meetings shall take place in Accra, Ghana. Where, however, the Parties fail to agree upon the appointment of a Sole Expert within forty-five (45) days of the notice by one Party to the other Parties of a dispute pursuant to this Agreement, the Sole Expert shall be appointed by the International Centre for Expertise established by the International Chamber of Commerce (ICC). The decision of the Sole Expert shall be given in writing with full reasoning and shall be final and binding upon the Parties and shall be treated as if it was an award by a sole arbitrator. The Sole Expert shall have ninety (90) days after his appointment to decide the case, subject to any extensions mutually agreed to by the Parties to the dispute. Upon failure of the Sole Expert to decide the matter in a prompt and timely manner, any Party may call for arbitration under Article 24.1 above.
- 24.8 Each Party to a dispute shall pay its own counsel and other costs; however, costs of the arbitration tribunal shall be allocated in accordance with the decision of the tribunal. The costs and fees of the Sole Expert shall be borne equally by the Parties to the dispute.
- 24.9 Any arbitration or Sole Expert proceeding pursuant to this Agreement shall be conducted in accordance with the ICC Rules or the ICC Rules for Expertise (as applicable) in effect on the date on which the proceeding is instituted.
- 24.10 In the event of a matter being referred for resolution under this Article 24; any obligations of the Parties relating to such matter shall (unless otherwise provided by this Agreement) be suspended, without liability to any Party, until said matter has been resolved pursuant to this Article 24.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

Exhibit G to the Unitization and Unit Operating Agreement

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24.11 Neither the State and/or GNPC, on the one hand, and the Contractor, on the other hand, shall be held liable to the other for any consequential, special, indirect or punitive damages (including loss of profit or loss of production) arising directly or indirectly out of or in relation or in connection to this Agreement, regardless of cause or fault.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) - March 2006

81 Aan

Exhibit G to the Unitization and Unit Operating Agreement

## ASSIGNMENT

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- 25.1 This Agreement shall not be assigned by any or all of the companies comprising Contractor directly or indirectly in whole or in part, without the prior written consent of GNPC, and the Minister, which consent shall not be unreasonably withheld or delayed.
- 25.2 Any assignment of this Agreement shall bind the assignee as a Party to this Agreement to all the terms and conditions hereof unless otherwise agreed and as a condition to any assignment Contractor shall provide an unconditional undertaking by the assignee to assume all obligations assigned by Contractor under this Agreement.
- 25.3 Where in consequence of an assignment hereunder Contractor is more than one person:
  - a) any operating or other agreement made between the persons who constitute contractor and relating to the Petroleum Operations hereunder shall be disclosed to GNPC and the Minister and shall not be inconsistent with the provisions of this Agreement;
  - b) no change in the scope of the Petroleum Operations may take place without the prior approval in writing of GNPC, which approval shall not be unreasonably delayed or withheld; and
  - c) the duties and obligations of Contractor hereunder shall be joint and several except those relating to the payment of income tax pursuant to Article 12 which shall be the several obligation of each such person.
- 25.4 GNPC's acquisition of Additional Interest under Article 2 or a Sole Risk Interest pursuant to Article 9 shall not be deemed to be an assignment within the meaning of this Article.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

Exhibit G to the Unitization and Unit Operating Agreement

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- 26.1 This Agreement and the relationship between the State and GNPC on one hand and Contractor on the other shall be governed by and construed in accordance with the laws of the Republic of Ghana consistent with such rules of international law as may be applicable, including rules and principles as have been applied by international tribunals.
- 26.2 The State, its departments and agencies, shall support this Agreement and shall take no action which prevents or impedes the due exercise and performance of rights and obligations of the Parties hereunder. As of the Effective Date of this Agreement and throughout its Term, the State guarantees Contractor the stability of the terms and conditions of this Agreement as well as the fiscal and contractual framework hereof specifically including those terms and conditions and that framework that are based upon or subject to the provisions of the laws and regulations of Ghana (and any interpretations thereof) including, without limitation, the Petroleum Income Tax Law, the Petroleum Law, the GNPC Law and those other laws, regulations and decrees that are applicable hereto.
- 26.3 This Agreement and the rights and obligations specified herein may not be modified, amended, altered or supplemented except upon the execution and delivery of a written agreement executed by the Parties. Any legislative or administrative act of the State or any of its agencies or subdivisions which purports to vary any such right or obligation shall, to the extent sought to be applied to this Agreement, constitute a breach of this Agreement by the State provided, however, where a new income tax rate comes into force as a result of the promulgation of the new Petroleum Income Tax Law currently before Cabinet, Contractor shall have the option of either applying the new income tax rate to this Agreement or remaining under the Petroleum Income Tax Law, 1987, PNDC Law 188.
- 26.4 Where a Party considers that a significant change in the circumstances prevailing at the time the Agreement was entered into, has occurred affecting the economic balance of the Agreement, the Party affected hereby shall notify the other Parties in writing of the claimed change with a statement of how the claimed change has affected the relations between the Parties.
- 26.5 The other Parties shall indicate in writing their reaction to such representation within a period of three (3) Months of receipt of such notification and if such significant changes are established by the Parties to have occurred, the Parties shall meet to engage in negotiations and shall effect such changes in, or rectification of, these Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) March 2006

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Exhibit G to the Unitization and Unit Operating Agreement

provisions as they may agree are necessary to restore the relative economic position of the Parties at the date of this Agreement.

26.6 No waiver by any Party of any of its rights hereunder shall be construed or implied, but shall be binding on such Party only if made specifically, expressly and in writing.

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- 26.7 Except for payment obligations arising under the Petroleum Income Tax Law, any Party failing to pay any amounts payable by it under this Agreement (including the provisions of Annex 2) on the respective dates on which such amounts are payable by such Party hereunder shall be obligated to pay interest on such unpaid amounts to the Party to which such amounts are payable. The rate of such interest with respect to each day of delay during the period of such nonpayment shall be the Specified Rate. Such interest shall accrue from the respective dates such amounts are payable until the amounts are duly paid. The Party to whom any such amount is payable may give notice of nonpayment to the Party in default and if such amount is not paid within fifteen (15) days after such notice, the Party to which the amount is owed may, in addition to the interest referred to above, and without prejudice to Article 10.1 (e) seek remedies available pursuant to Article 24.
- 26.8 A) The rights and obligations under this Agreement of the State and GNPC on the one hand and Contractor on the other shall be separate and proportional and not joint. This Agreement shall not be construed as creating a partnership or joint venture, nor an association or trust (under any law other than the Petroleum Law), or as authorising any Party to act as agent, servant or employee for any other Party for any purpose whatsoever except as provided in Article 10.4.
  - B) The duties and obligations of each Party constituting Contractor hereunder shall be joint and several and it is recognised that each such Party shall own and be responsible for its undivided Interest in the rights and obligations of Contractor hereunder; provided, however, that the following payments shall be the separate obligation of and shall be made by each Party which constitutes the Contractor:
    - i) Payments under the Petroleum Income Tax Law;
    - ii) Payments of royalty taken in cash under the provisions of Article 10.1 (a); and
    - iii) AOE share under the provisions of Article 10.1 (b).

26.9 Each Party warrants that it and its Affiliates have not made, offered, or authorized and will not make, offer, or authorize with respect to the matters which are the subject of this Agreement, any payment, gift, promise or other advantage, whether Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) -March 2006 84

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Exhibit G to the Unitization and Unit Operating Agreement

directly or through any other person or entity, to or for the use or benefit of any public official (i.e., any person holding a legislative, administrative or judicial office, including any person employed by or acting on behalf of a public agency, a public enterprise or a public international organization) or any political party or political party official or candidate for office, where such payment, gift, promise or advantage would violate (i) the applicable laws of Ghana; (ii) the laws of the country of incorporation of such Party or such Party's ultimate parent company and of the principal place of business of such ultimate parent company; or (iii) the principles described in the Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, signed in Paris on December 17, 1997, which entered into force on February 15, 1999, and the Convention's Commentaries. Each Party shall defend, indemnify and hold the other Parties harmless from and against any and all claims, damages, losses, penalties, costs and expenses arising from or related to, any breach by such first Party of such warranty. Such indemnity obligation shall survive termination or expiration of this Agreement. Each Party shall in good time (i) respond in reasonable detail to any notice from any other Party reasonably connected with the above-stated warranty; and (ii) furnish applicable documentary support for such response upon request from such other Party.

26.10 This Agreement shall not take effect unless and until it is ratified by the Parliament of Ghana and this Agreement has been executed by the parties which ever occurs later (the "Effective Date").

G-88

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006

Exhibit G to the Unitization and Unit Operating Agreement

## NOTICE

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27 Any Notice, Application, Requests, Agreements, Consent, Approval, Instruction, Delegation, Waiver or other communication required or permitted to be given hereunder shall be in writing and shall be deemed to have been properly given when delivered in person to an authorised representative of the Party to whom such notice is directed or when actually received by such Party through registered mail, facsimile or telegram at the following address or at such other address as the Party shall specify in writing fifteen (15) days in advance:

#### FOR THE STATE:

MINISTER FOR ENERGY MINISTRY OF ENERGY PRIVATE MAIL BAG MINISTRY POST OFFICE ACCRA, GHANA

Telephone: 233 21 667151 - 3

Telefax: 233 21 668262

#### FOR GHANA NATIONAL PETROLEUM CORPORATION:

THE MANAGING DIRECTOR GHANA NATIONAL PETROLEUM CORPORATION PETROLEUM HOUSE HARBOUR ROAD PRIVATE MAIL BAG TEMA, GHANA

Telephone: 233-22-204726

Telefax: 233-22-205449

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) –March 2006



Exhibit G to the Unitization and Unit Operating Agreement

#### FOR CONTRACTOR:

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EXPLORATION MANAGER TULLOW GHANA LIMITED P. O. BOX 532 CHANNEL HOUSE 7 ESPLANADE ST. HELIER, JERSEY CHANNEL ISLANDS JE4 5UW

Telephone: + 3531 737 700 Telefax: + 3531 239 0400

MANAGING DIRECTOR SABRE OIL AND GAS LIMITED 4 RUBISLAW PLACE ABERDEEN AB10 IXN

Telephone:+ 44 1244 649 400Telefax:+ 44 1244 649 700

KOSMOS ENERGY GHANA HC C/O KOSMOS ENERGY, LLC 8401 N. CENTRAL EXPRESSWAY SUITE 280 DALLAS, TEXAS 75225 U.S.A ATTN: MR CRAIG CLICK

Telephone:+ 1 214 363 0700Telefax:+ 1 214 363 9024

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) -- March 2006

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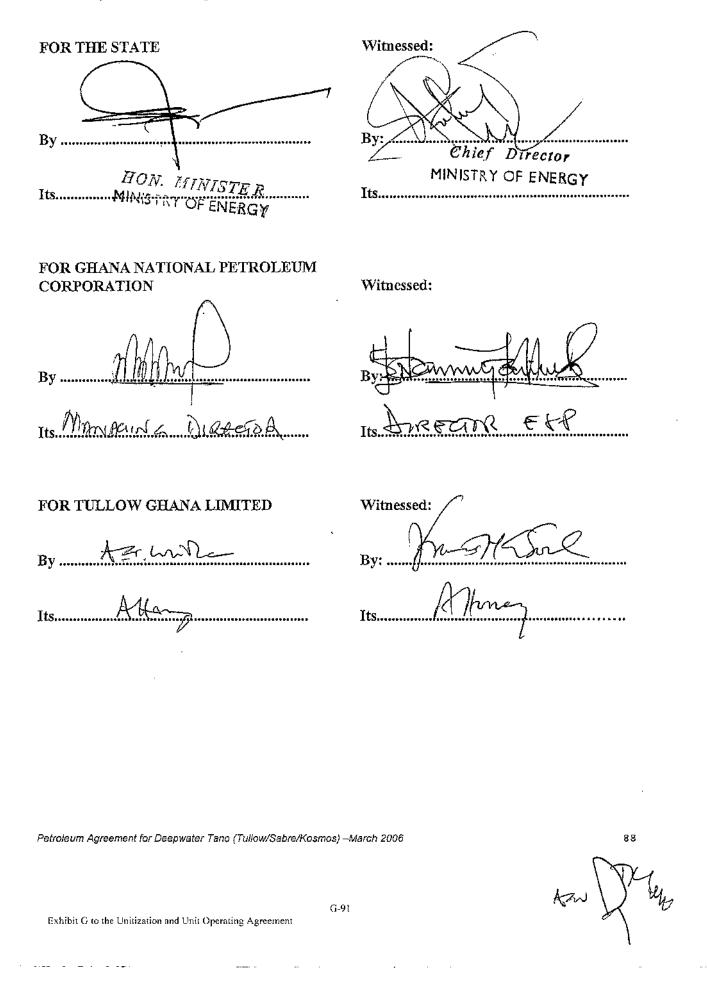
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Exhibit G to the Unitization and Unit Operating Agreement

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IN WITNESS WHEREOF the parties have caused this agreement to be executed by their duly authorized representatives as of the date first written above.

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FOR SABRE OIL AND GAS LIMITED		
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FOR KOSMOS ENERGY GHANA HC By By HTTP MANAGER Its COUMTRY MANAGER Witnessed:

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Petroleum Agreement' for Deepwater Tano (Tuliow/Sabre/Kosmos) –March 2006

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89

Exhibit G to the Unitization and Unit Operating Agreement

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# ANNEXES

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) - March 2006

Exhibit G to the Unitization and Unit Operating Agreement

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# **ANNEX 1 - CONTRACT AREA**

The Contract Area is bounded to the North, starting at point 'A' along the Ghana Ivory Coast boarder at Latitude 4° 47' 34.874" N and Longitude 3° 10' 35.296" W; thence proceed Southeast to point 'B' at Latitude 4° 40' 00.000" N and Longitude 2° 55' 00.00" W; thence proceed South to point 'C' at Latitude 4° 25' 54.00" N and Longitude 2° 55' 00.00" W; thence proceed West to point 'D' at Latitude 4° 25' 54.00" N and Longitude 3° 14' 53.00" W; thence proceed North along the Ghana-Ivory Coast border to the beginning of point 'A' resulting in an area comprising of approximately one thousand and one hundred and eight (1,108) square kilometers.

The Contract Area is designated by the coordinates of the following points as shown in Table 1 and the area covered by the points A, B, C and D as indicated on the map on the following page.

Tabi	le 1
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Point	Latitude	Longitude
<b>A</b>	4º 47' 34.874" N	3° 10' 35.296" W
B	4° 40' 00.000" N	2° 55' 00.000" W
C	4° 25' 54.000" N	2° 55" 00.000" W
D	4º 25' 54.000" N	3° 14' 53.000" W

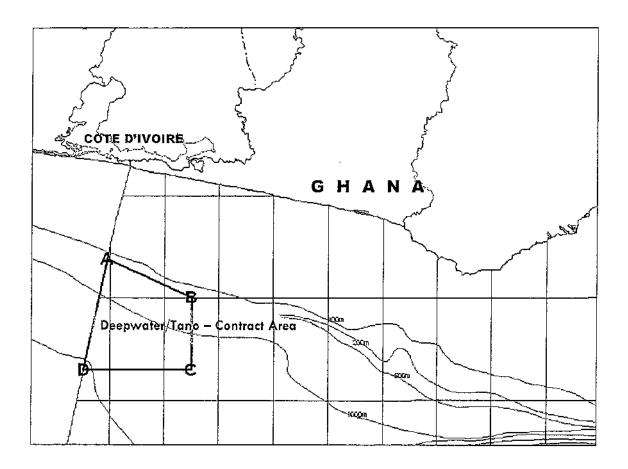
Petroleum Agreement for Deepwater Tanc (Tullow/Sabre/Kosmos) - March 2006

G-94

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Exhibit G to the Unitization and Unit Operating Agreement

#### **Contract Area Plat**



Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos – March 2006)

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Exhibit G to the Unitization and Unit Operating Agreement

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G-95

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# **ANNEX 2 - ACCOUNTING GUIDE**

The purpose of this Accounting Guide is to establish equitable methods as between the Parties for determining charges and credits applicable to operations under the Agreement. Principles established by this Accounting Guide shall truly reflect the Contractor's actual cost.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos – March 2006)

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Exhibit G to the Unitization and Unit Operating Agreement

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## SECTION 1

#### 1.1 GENERAL PROVISIONS

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- 1.1.1 Words and terms appearing in this Annex shall have the same meaning as in the Agreement and to that end shall be defined in accordance with Article 1 of the Agreement. A reference to an Article in this Annex shall, unless otherwise indicated, refer to an Article in the Agreement.
- 1.1.2 This Annex may be amended by written agreement upon a unanimous decision of the JMC.
- 1.1.3 In the event of a conflict between the provisions of the Accounting Guide and the provisions of the Agreement, the provisions of the Agreement shall prevail.

#### 1.2 STATEMENTS REQUIRED TO BE SUBMITTED BY CONTRACTOR

- 1.2.1 Within sixty (60) days from the Effective Date, Contractor shall propose to GNPC an outline of the chart of accounts, operating records and reports to be prepared and maintained, which shall describe the basis of the accounting principles and procedures to be used during the term of the Agreement, and shall be consistent with normal practice of the international petroleum industry and Article 18.2.
- 1.2.2 Within ninety (90) days of the receipt of such proposal GNPC shall either accept it or request such revisions as GNPC deems necessary. Failure to notify Contractor of any requested revisions within a ninety (90) day period shall be deemed acceptance of such proposal.
- 1.2.3 Within one hundred and eighty (180) days from the Effective Date, the parties shall either agree on such outline or submit any outstanding issue for determination by a Sole Expert pursuant to the provisions of Article 24.
- 1.2.4 Following agreement over the outline Contractor shall prepare and submit to GNPC formal copies of the chart of accounts

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos – March 2006)

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Exhibit G to the Unitization and Unit Operating Agreement

relating to the accounting, recording and reporting functions listed in such outline. Contractor shall also permit GNPC to inspect its manuals and to review all procedures which are to be followed under the Agreement.

- 1.2.5 Without prejudice to the generality of the foregoing, Contractor shall make separate statements relating to Petroleum Operations for each Development and Production Area as follows:
  - a) Cash Call Statement (see Section 5)
  - b) Production Statement (see Section 6)
  - c) Value of Production Statement (see Section 7)
  - d) Cost Statement (see Section 8)
  - e) Statement of Expenditures and Receipts (see Section 9)
  - f) Final End-of-Year Statement (see Section 10)
  - g) Budget Statement (see Section 11)

h) Long Range Plan and Forecast (see Section 12)

#### 1.3 LANGUAGE, MEASUREMENT, AND UNITS OF ACCOUNTS

- 1.3.1 The U.S. Dollar being the currency unit for investments and compensation hereunder shall therefore be the unit of currency for all bookkeeping and reporting under the Agreement. When transactions for an asset, capital item or liability are in Ghana Cedis or currency other than the U.S. Dollar, amounts in such other currency shall be immediately converted to U.S. Dollars at the rate actually incurred and accounts required for the purposes of this Agreement shall be maintained only in U.S. Dollars.
- 1.3.2 Measurement required under this Annex shall be in the metric system and Barrels.
- 1.3.3 The English language shall be employed.
- 1.3.4 Where necessary for purposes of clarification, Contractor may also prepare financial reports in other languages, units of measurement and currencies.
- 1.3.5 It is the intent of the Parties that no Party shall experience any gain or loss at the expense of or to the benefit of the other as a result of exchange of currency. Where any such currency exchange gain or loss arises it shall be charged or credited to the accounts under the Agreement.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos – March 2006)

Exhibit G to the Unitization and Unit Operating Agreement

- 1.3.6 The rate of exchange for the conversion of currency shall be the rate actually incurred in the purchase or sale of currencies required in Petroleum Operations as allowed under the laws of Ghana.
- 1.3.7 To translate revenue received and expenditures made in Ghana Cedis or in U.S. Dollars, the average of the preceding month's rate between the currencies shall be used.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos - March 2006)

Exhibit G to the Unitization and Unit Operating Agreement

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# SECTION 2

#### 2.0 CLASSIFICATION AND ALLOTMENT OF COSTS AND EXPENDITURE

#### 2.1 ALL EXPENDITURE RELATING TO PETROLEUM OPERATIONS SHALL BE CLASSIFIED, AS FOLLOWS:

- a) Exploration Expenditure;
- b) Development Expenditure;
- c) Production Expenditure;
- d) Service Costs; and

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e) General and Administrative expenses

and shall be defined and allotted as herein below provided.

#### 2.2 **EXPLORATION EXPENDITURE**

Exploration Expenditure shall consist of all direct, indirect and allotted costs incurred in Exploration Operations, in the search for Petroleum in the Contract Area, including but not limited to expenditure on:

- a) aerial, geographical, geochemical, paleontological, geological, bathymetrical, topographical and seismic surveys, and all relevant studies and their interpretation;
- b) borehole drilling and water well drilling;
- c) labour, consumables, materials and services used in drilling wells with the objective of finding new Petroleum reservoirs or for the purpose of appraising of Petroleum reservoirs already discovered, provided such wells are not completed as producing wells save such wells temporarily abandoned for future use as producing wells;
- d) facilities used solely for Exploration Operations, including access roads, where applicable, and purchased geological and geophysical information;

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos – March 2006)

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Exhibit G to the Unitization and Unit Operating Agreement

- e) all service costs allotted to the Exploration Operations on an equitable basis;
- f) all General and Administrative Expenses allotted to Exploration Operations based on the percentage share of projected budget expenditure which will be adjusted to actual expenditure at the end of each year.
- g) all of the above costs in connection with or related to an Appraisal Programme.

#### 2.3 DEVELOPMENT EXPENDITURE

Development Expenditure shall consist of all expenditure incurred in Development Operations, including but not limited to expenditure on:

- a) drilling wells which are completed as producing wells and drilling wells for purposes of producing a Petroleum reservoir already discovered, whether these wells are dry or producing;
- b) tangible drilling costs for completing wells such as installation of casing or equipment or otherwise equipping a well after it has been drilled for the purpose of bringing such well into use as a producing well;
- c) intangible drilling costs such as labour, consumable material and services having no salvage value which are incurred in drilling and deepening of wells for producing purposes;
- d) field facilities such as pipelines, flow lines, production and treatment units, wellhead equipment, subsurface equipment, enhanced recovery systems, offshore platforms and production facilities, Petroleum storage facilities (whether offshore or onshore) and access roads for Production Operations;
- e) engineering and design studies for field facilities;
- f) all service costs allotted to Development Operations on an equitable basis;
- g) all General and Administrative Expenses (incurred within or outside Ghana) allocated to Development Operations based on the

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos – March 2006)

Exhibit G to the Unitization and Unit Operating Agreement

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percentage share of projected budget expenditure which will be adjusted to actual expenditure as the end of the year.

#### 2.4 **PRODUCTION EXPENDITURE**

Production Expenditure shall consist of but not be limited to all expenditure incurred in Petroleum Operations, including appropriate abandonment charges, after the Date of Commencement of Commercial Production, such expenditure being other than Exploration Expenditure, Development Expenditure, General and Administrative Expenses and Service Costs. The balance of General and Administrative Expenses and Service Costs not allocated to Exploration Operations or to Development Operations under Section 2.2 and 2.3 shall be allocated to Production Expenditure.

#### 2.5 SERVICE COSTS

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2.5.1 Service Costs shall consist of but not be limited to all direct and indirect expenditure incurred in support of Petroleum Operations (within and/or outside the Republic of Ghana), including (but not limited to) the construction, installation, purchase, hire or charter (as applicable) of the following: of warehouses, piers, marine vessels, vehicles, motorised rolling equipment, aircraft, fire security stations, workshops, water and sewerage plants, power plants, offices, housing, community and recreational facilities and furniture, fixtures, tools, land and equipment used in such construction or installation.

Service Costs in any Calendar Year shall include the total costs incurred in such year to purchase and construct or install such facilities as well as the annual costs of maintaining and operating such facilities.

2.5.2 All Service Costs will be regularly allotted on an equitable basis to Exploration Expenditure, Development Expenditure and Production Expenditure.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos – March 2006)

Exhibit G to the Unitization and Unit Operating Agreement

#### 2.6 GENERAL AND ADMINISTRATIVE EXPENSES

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#### General and Administrative Expenses shall consist of:

- 2.6.1 All main office, field and general administrative costs, benefiting Petroleum Operations the Republic of Ghana), including but not limited to supervisory, technical, accounting, financial, legal and employee relations services;
- 2.6.2 An overhead charge for the actual unallocated cost of services rendered outside the Republic of Ghana by Contractor or its Affiliates for managing Petroleum Operations and for staff advice and assistance, including but not limited to financial, legal, accounting and employee relations services. Such overhead charges shall be allocated at a rate equivalent to the following percentages of the total costs attributable to Petroleum Operations as follows:

For the Exploration Phase:

U.S. Dollars 0 – 20 million -- One point two five percent (1.25%)

U.S. Dollars 20 – 25 million – One percent (1%)

U.S. Dollars 25 million and above--Zero point five percent (0.5%)

For the Development Phase:

U.S. Dollars 0 – 50 million – One point two five percent (1.25%)

U.S. Dollars 50 – 100 million –One percent (1.0%)

U.S. Dollars 100 - 500 million -- Zero point five percent (0.5%)

U.S. Dollars 500 million and above--A lump sum of not less than U.S. Dollars two point five million (U.S. Dollars 2.5 million)

2.6.3 All General and Administrative Expenses will be regularly allocated as specified in subsections 2.2(f), 2.3(g) and 2.4 to Exploration Expenditure, Development Expenditure and Production Expenditure.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos – March 2006)

Exhibit G to the Unitization and Unit Operating Agreement

# SECTION 3

# 3.0 COSTS, EXPENSES, EXPENDITURES AND CREDITS OF CONTRACTOR

#### 3.1 CONTRACTOR FOR THE PURPOSE OF THIS AGREEMENT SHALL CHARGE THE FOLLOWING ALLOWABLE COSTS TO THE ACCOUNTS:

- a) costs of acquiring surface rights;
- b) labour and associated costs;
- c) transportation costs;
- d) charges for services;
- e) material costs;

177

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- f) rentals, duties and other assessments;
- g) insurance and losses;
- h) legal expenses;
- i) training expenses;
- j) general and administrative expenses;
- k) utility costs;
- l) office facility charges;
- m) communication charges;
- n) ecological and environmental charges;
- o) abandonment cost; and
- p) such other costs necessary for the Petroleum Operations

#### 3.2 COST OF ACQUIRING SURFACE RIGHTS AND RELINQUISHMENT

Cost of acquiring surface rights shall consist of all direct costs attributable to the acquisition, renewal or relinquishment of surface rights acquired and maintained in force over the Contract Area.

#### 3.3 LABOUR AND ASSOCIATED LABOUR COSTS

Labour and associated labour costs shall include but not be limited to:

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos – March 2006)

G-104

Exhibit G to the Unitization and Unit Operating Agreement

- a) gross salaries and wages including bonuses of those employees of Contractor and of its Affiliates engaged in Petroleum Operations who are permanently or temporarily assigned to Ghana;
- b) costs regarding holidays, vacation, sickness and disability payments applicable to the salaries and wages chargeable under (a);
- c) expenses or contributions made pursuant to assessments or obligations imposed under the laws of the Republic of Ghana which are applicable to cost of salaries and wages chargeable under (a);
- d) cost of established plans for employees' life insurance, hospitalisation, pensions and other benefits of a like nature customarily granted to employees; and
- e) reasonable travel and personal expenses of employees and families, including those made for travel and relocation of the personnel, all of which shall be in accordance with usual practice of the Contractor.

#### 3.4 TRANSPORTATION COSTS

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Transportation costs and other related costs of transportation of employees, equipment, materials and supplies necessary for the conduct of Petroleum Operations.

#### 3.5 CHARGES FOR SERVICES

#### 3.5.1 Charges for services shall include:

- a) actual costs under third party contracts for technical and all other services entered into by Contractor for Petroleum Operations made with third parties other than Affiliates of Contractor, provided that the prices paid by Contractor are no higher than the prevailing rates for such services in the regional (Gulf of Guinea) market;
- b) cost of technical and other services of personnel assigned by the Contractor and its Affiliates when performing management, engineering, geological, geophysical, operations, technical, administrative, legal, accounting,

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos – March 2006)

Exhibit G to the Unitization and Unit Operating Agreement

treasury, tax, employee relations, computer services, purchasing, and all other functions for the direct benefit of Petroleum Operations;

- c) cost of general services, including, but not without limitation, professional consultants and others who perform services for the direct benefit of Petroleum Operations.
- 3.5.2 Services furnished by Contractor and its Affiliates shall be charged at rates commensurate with those currently prevailing for such services in the regional (Gulf of Guinea) market.

#### 3.6 RENTALS, DUTIES AND OTHER ASSESSMENTS

All rentals, taxes, duties, levies, charges, fees, contributions and any other assessments and charges levied by the Government in connection with Petroleum Operations or paid for the benefit of Petroleum Operations, with the exception of the income tax specified in the Article 12.2 (ii).

#### 3.7 INSURANCE AND LOSSES

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- a) Insurance premia and costs incurred for insurance, provided that if such insurance is wholly or partly placed with an Affiliate of Contractor, such premia and costs shall be recoverable only to the extent not in excess of those generally charged by competitive insurance companies other than Affiliate;
- b) costs and losses incurred as a consequence of events, which are, insofar as not made good by insurance, allowable under 17 of the Agreement; and
- c) Costs or expenses necessary for the repair or replacement of property resulting from damage or losses incurred.

#### 3.8 LEGAL EXPENSES

All costs and expenses of litigation, arbitration, mediation and legal or related services necessary or expedient for the procuring, perfecting, retaining and protecting the rights hereunder and in defending or prosecuting lawsuits involving the Contract Area or any third party claim arising out of activities under the Agreement, or sums paid in respect of legal services necessary or expedient for the protection of the joint interest of GNPC and Contractor, provided that where legal services are rendered in such matters by salaried or regularly retained lawyers of Contractor or an Affiliate of Contractor, such compensation will be included instead under either Section 3.3 or 3.5, as applicable.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos – March 2006)

Exhibit G to the Unitization and Unit Operating Agreement

#### 3.9 TRAINING COSTS

All costs and expenses incurred by Contractor in training of its employees and nominees of GNPC to the extent that such training is attributable to Petroleum Operations under the Agreement, including, without limitation, the amounts referred to in Article 21.1.

#### 3.10 GENERAL AND ADMINISTRATIVE EXPENSES

General and Administrative Expenses shall consist of the costs described in Subsection 2.6.1 and the charge described in Subsection 2.6.2.

#### 3.11 UTILITY COSTS

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Any water, electricity, heating, fuel or other energy and utility costs used and consumed for the Petroleum Operations.

#### 3.12 OFFICE FACILITY CHARGES

The cost and expenses of constructing, establishing, maintaining and operating offices, camps, housing and any other facilities necessary to the conduct of Petroleum Operations. The cost of constructing or otherwise establishing any operating facility which may be used at any time in operations of more than one Development and Production Area shall be charged initially to the Development and Production Area for which the facility is first used. Costs incurred thereafter shall be allocated in a reasonable manner, consistent with generally accepted international petroleum industry accounting practice, to the Development and Production Area for which the facility is used.

#### 3.13 COMMUNICATION CHARGES

The costs of acquiring, leading, installing, operating, repairing and maintaining communication systems, including radio and microwave facilities.

#### 3.14 ECOLOGICAL AND ENVIRONMENTAL CHARGES

All charges for environmental protection and safety measures conducted in the Contract Area including, without limitation, those incurred in accordance with Article 17 of the Agreement.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos - March 2006)

Exhibit G to the Unitization and Unit Operating Agreement

#### 3.15 ABANDONMENT COST

Cost relating to the decommissioning and abandonment of Petroleum Operations and facilities, site restoration and other associated operations pursuant to Article 12.10.

#### 3.16 OTHER COSTS

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Any other costs not covered or dealt with in the foregoing provisions which are incurred and not mentioned in Section 3.17 for the necessary and proper conduct of Petroleum Operations.

#### 3.17 COSTS NOT ALLOWABLE UNDER THE AGREEMENT

The following costs shall not be allowable under the Agreement:

- a) commission paid to intermediaries by Contractor;
- b) charitable donations and contributions, except where prior approval has been obtained from GNPC;
- c) interest incurred on loans raised by the Contractor, provided that it shall be deductible for income tax purposes pursuant to the Petroleum Income Tax Law;
- d) petroleum marketing costs or costs of transporting petroleum beyond the Delivery Point;
- e) the costs of any Bank Guarantee under the Agreement and any other amounts spent on indemnities with regard to nonfulfilment of contractual obligations;
- premium paid as a result of GNPC exercising a Sole Risk option under Article 9 of this Agreement;
- g) cost of arbitration under Article 24 of the Agreement or dispute settlement by any independent expert under the terms of the Agreement;
- h) final and unappealable fines and penalties imposed by a competent Court of Law;

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos – March 2006)

Exhibit G to the Unitization and Unit Operating Agreement

i) cost incurred as a result of Contractor's Gross Negligence chargeable to Contractor or the Operator under the terms of the Agreement.

### 3.18 ALLOWABLE AND DEDUCTIBILITY

The costs and expenses set forth herein shall be for the purpose of determining allowable or non-allowable costs and expenses only and shall have no bearing on Contractor's eligibility or otherwise for deductions in computing Contractor's net income from Petroleum Operations for income tax purposes under Article 10 of the Agreement.

#### 3.19 CREDITS UNDER THE AGREEMENT

The net proceeds of the following transactions will be credited to the accounts under the Agreement:

- a) the net proceeds of any insurance or claim in connection with Petroleum Operations or any assets charged to the accounts under the Agreements when such operations or assets were insured and the premia charged to the accounts under the Agreement;
- b) revenue received from third parties for the use of property or assets charged to the accounts under this Agreement;
- c) any adjustment from the suppliers or manufacturers or their agents in connection with a defective equipment or material the cost of which was previously charged to the account under the Agreement;
- d) the proceeds received for inventory materials previously charged to the account under the Agreement and subsequently exported from the Republic of Ghana or transferred or sold to third parties without being used in the Petroleum Operations;
- e) rentals, refunds or other credits received which apply to any charge which has been made to the account under the Agreement, but excluding any award granted under arbitration or sole expert proceedings;
- f) the proceeds from the sale or exchange of plant or facilities from the Development and Production Area or plant or facilities the acquisition costs of which have been deducted in the AOE computation under Article 10for the relevant Development and Production Area;

G-109

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos – March 2006)

Exhibit G to the Unitization and Unit Operating Agreement

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- g) the proceeds derived from the sale or issue of any intellectual property the development costs of which were incurred pursuant to this Agreement; and
- h) the proceeds from the sale of any petroleum information derived from Petroleum Operations under this Agreement.

#### 3.20 DUPLICATION OF CHARGES AND CREDITS

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· | : | ! ; Notwithstanding any provision to the contrary in this Annex, it is the intention that there shall be no duplication of charges or credits in the accounts under the Agreement.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos – March 2006)



Exhibit G to the Unitization and Unit Operating Agreement

#### 4.0 MATERIAL

# 4.1 VALUE OF MATERIAL CHARGED TO THE ACCOUNTS UNDER THE AGREEMENT

Material purchased, leased or rented by Contractor for use in Petroleum Operations shall be valued at the actual net cost incurred by Contractor. The net cost shall include invoice price less trade and cash discounts, if any, purchase and procurement fees plus freight and forwarding charges between point of supply and point of shipment, freight to port of destination and to point of usage or installation, including but not limited to, insurance, taxes, customs duties, consular fees, other costs incurred on such material, and any other related costs actually paid.

#### 4.2 VALUE OF MATERIAL PURCHASED FROM AN AFFILIATE

Contractor shall notify GNPC of any goods supplied by an Affiliate of Contractor. Materials purchased from Affiliate of Contractor shall be charged at the prices specified in Sections 4.2.1, 4.2.2 and 4.2.3.

#### 4.2.1 New Material (Condition "A")

New material shall be classified as Condition "A". Such material shall be valued at the prevailing market price, plus expenses incurred in procuring such new materials, and in moving such materials to the locations where the material shall be used.

## 4.2.2 Used Material (Condition "B")

Used material shall be classified as Condition "B" provided that it is in sound and serviceable condition and is suitable for reuse without reconditioning. Such material shall be valued at not more than seventy five percent (75%) of the current price of new material valued according to Section 4.2.1 above.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos – March 2006)

G-111

Exhibit G to the Unitization and Unit Operating Agreement

#### 4.2.3 Used Material (Condition "C")

Used material which is serviceable for original function as good second hand material after reconditioning and cannot be classified as Condition "B" shall be classified as Condition "C". Such material shall be valued at not more than fifty percent (50%) of the current price of new material valued according to Section 4.2.1 above. The cost of reconditioning shall be charged to the reconditioned material provided that that the value of such Condition "C" material plus the cost of reconditioning does not exceed the value of Condition "B" material.

#### 4.3 CLASSIFICATION OF MATERIALS

Material costs shall be charged to the respective Exploration Expenditure, Development Expenditure, Operating Expenditure accounts at the time the material is acquired and on the basis of the intended use of the material. Should such material subsequently be used other than as intended, the relevant charge will be transferred to the appropriate account.

#### 4.4 DISPOSAL OF MATERIALS

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( ) ( ) Sales of property shall be recorded at the net amount collected by the Contractor from the purchaser.

### 4.5 WARRANTY OF MATERIALS

In the case of defective material or equipment, any adjustment received by Contractor from the suppliers or manufacturers of such materials or their agents will be credited to the accounts under the Agreement. Contractor does not warrant any material.

#### 4.6 CONTROLLABLE MATERIALS

4.6.1 The Contractor shall control the acquisition, location, storage and disposition of materials which are subject to accounting record control, physical inventory and adjustment for overages and shortages (hereinafter referred to as Controllable Material).

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos – March 2006)

G-112

Exhibit G to the Unitization and Unit Operating Agreement

- 4.6.2 Unless additional inventories are scheduled by the JMC, Contractor shall conduct one physical inventory of the Controllable Material each Calendar Year which shall be completed prior to the end of each such year. The Contractor shall conduct said inventory on a date to be approved by the JMC. Failure on the part of GNPC to participate in a JMC schedule or approved physical inventory shall be regarded as approval of the results of the physical inventory as conducted by the Contractor.
- **4.6.3** The gain or loss resulting from the physical inventory shall be reflected in the stock records of Controllable Materials. The Contractor shall compile a reconciliation of the inventory with a reasonable explanation for such gains or losses. Failure on the part of GNPC to object to Contractor's reconciliation within thirty (30) days of compilation of said reconciliation shall be regarded as approval by GNPC.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos – March 2006)

G-113



Exhibit G to the Unitization and Unit Operating Agreement

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#### 5.0 CASH CALL STATEMENT

- 5.1 In respect of any Petroleum Costs to which GNPC is contributing as provided in Article 2 and in any case where Contractor conducts Sole Risk Operations for GNPC's account, Contractor shall at least fifteen (15) days prior to the commencement of any Month submit a Cash Call Statement to GNPC for its share of Petroleum Costs. Such Cash Call Statement shall include the following information:
  - a) Due Date;

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- b) Payment Instructions;
- c) The balance prior to the Cash Call being issued;
- d) Amount of US Dollars due; and
- e) An estimation of the amounts of US Dollars required from GNPC for the following Month.
- 5.2 Not later than the twenty-fifth (25<sup>th</sup>) day of each Month, Contractor will furnish GNPC a statement reflecting for the previous Month:
  - a) Payments;
  - b) The nature of such payments by appropriate classifications; and
  - c) The balance due to or from GNPC.
- 5.3 Contractor may in the case where a large unforeseen expenditure becomes necessary issue a special Cash Call Statement requiring GNPC to meet such Cash Call within ten (10) days of receipt of such Statement.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos – March 2006)

Exhibit G to the Unitization and Unit Operating Agreement

### 6.0 PRODUCTION STATEMENT

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- 6.1 Subsequent to the Date of Commencement of Commercial Production from the Contract Area, Contractor shall submit a monthly Production Statement to GNPC showing the following information for each Development and Production Area as appropriate:
  - a) the quantity of Crude Oil produced and saved;
  - b) the quantity of Natural Gas produced and saved;
  - c) the quantities of Petroleum used for the purpose of conducting drilling and Production Operations, pumping to field storage and reinjections;
  - d) the quantities of Natural Gas flared;
  - e) the size of Petroleum stocks held at the beginning of the Month;
  - f) the size of Petroleum stocks held at the end of the Month.
- 6.2 The Production Statement of each Calendar Month shall be submitted to GNPC not later than ten (10) days after the end of such Month.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos – March 2006)

Exhibit G to the Unitization and Unit Operating Agreement

### 7.0 VALUE OF PRODUCTION STATEMENT

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7. Contractor shall prepare a statement providing calculations of the value of Crude Oil produced and saved during each Quarter based on the Market Price established under Article 11 of the Agreement as well as the amounts of Crude Oil allocated to each of the Parties during that Quarter. Such Statement shall be submitted to the Minister and to GNPC not later than thirty (30) days following the determination, notification and acceptance of the Market Price to GNPC according to Article 11 of the Agreement.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos - March 2006)

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Exhibit G to the Unitization and Unit Operating Agreement

### 8.0 COST STATEMENT

- 8.1 Contractor shall prepare with respect to each Quarter, a Cost Statement containing the following information:
  - a) Total Petroleum Costs in previous Quarters, if any;
  - b) Petroleum Costs for the Quarter in question;
  - c) Total Petroleum Costs as of the end of the Quarter in question (subsection 8.1(a) plus subsection 8.1(b));
  - d) Petroleum Costs for Development Operations advanced in the Quarter in respect of GNPC's Participating Interest pursuant to Article 2 of the Agreement;
  - e) Costs as specified in (d) above which have been recovered during the Quarter pursuant to Article 10.1(e) of the Agreement and the balance, if any, of such costs unrecovered and carried forward for recovery in a later period.

Petroleum Costs for Exploration, Development and Production Operations as detailed above shall be separately identified for each Development and Production Area. Petroleum Costs for Exploration Operations not directly attributable to a specific Development Area shall be shown separately.

8.2 The Cost Statement of each Quarter shall be submitted to GNPC no later than thirty (30) days after the end of such Quarter.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos – March 2006)

Exhibit G to the Unitization and Unit Operating Agreement

#### 9.0 STATEMENT OF EXPENDITURES AND RECEIPTS

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- 9.1 Subsequent to the Date of Commencement of Commercial Production from the Contract Area, Contractor shall prepare with respect to each Quarter a Statement of Expenditures and Receipts. The Statement will distinguish between Exploration Expenditure and Development Expenditure and Production Expenditure and will identify major items of expenditure within these categories. The statement will show the following:
  - a) actual expenditures and receipts for the Quarter in question;
  - b) cumulative expenditure and receipts for the budget year in question;
  - c) latest forecast of cumulative expenditures at the year end; and
  - d) variations between budget forecast and latest forecast and explanations therefor.
- 9.2 The Statement of Expenditures and Receipts of each Quarter shall be submitted to GNPC not later than thirty (30) days after the end of such Quarter for provisional approval by GNPC.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos - March 2006)

Exhibit G to the Unitization and Unit Operating Agreement

#### 10.0 FINAL END-OF-YEAR STATEMENT

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10.1 The Contractor will prepare a Final End-of-Year Statement. The Statement will contain information as provided in the Production Statement, Value of Production Statements, Cost Statement and Statements of Expenditures and Receipts, as appropriate. The Final End-of-year Statement of each Calendar Year shall be submitted to GNPC within ninety (90) days of the end of such Calendar Year. Any necessary subsequent adjustments shall be reported promptly to GNPC.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos - March 2006)

Exhibit G to the Unitization and Unit Operating Agreement

### 11.0 BUDGET STATEMENT

- 11.1 The Contractor shall prepare an annual budget Statement. This will distinguish between Exploration Expenditure, Development Expenditure and Production Expenditure and will show the following:
  - a) Forecast Expenditures and Receipts for the budget year under the Agreement;
  - b) cumulative Expenditures and Receipts to the end of said budget year; and
  - c) the most important individual items of Exploration, Development and Production Expenditures for said budget year.

The budget may include a budget line or lines for unforeseen expenditures which, however, shall not exceed ten percent (10%) of the total budgetary expenditure.

- 11.2 The Budget Statement shall be submitted to GNPC and JMC with respect to each budget year no less than ninety (90) days before the start of such year except in the case of the first year of the Agreement when the Budget Statement shall be submitted within sixty (60) days of the Effective Date.
- 11.3 Where Contractor foresees that during the budget period expenditures have to be made in excess of the ten percent (10%) pursuant to Section 11.1.1 hereof, Contractor shall submit a revision of the budget to GNPC.

G-120

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos – March 2006)

Exhibit G to the Unitization and Unit Operating Agreement

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#### 12.0 LONG RANGE PLAN AND FORECAST

- 12.1 Contractor shall prepare and submit to GNPC the following:
  - a) During Exploration Period, an Exploration Plan for each year commencing as of the Effective Date which shall contain the following information:
    - i) Estimated Exploration Costs showing outlays for each of the years or the number of years agreed and covered by the Plan;
    - ii) Details of seismic operations for each such year;
    - iii) Details of drilling activities planned for each such year;
    - iv) Details of infrastructure utilisation and requirements.

The Exploration Plan shall be revised on each anniversary of the Effective Date. Contractor shall prepare and submit to GNPC the first Exploration Plan for the First Subperiod of twelve months of the Initial Exploration Period within sixty (60) days after the Effective Date and thereafter shall prepare and submit to GNPC no later than forty five (45) days before each anniversary of the Effective Date a revised Exploration Plan.

- b) In the event of a Development Plan being approved, the Contractor shall prepare a Development Forecast for each Calendar Year of the Development Period, which shall contain the following information:
  - i) forecast of capital expenditure portions of Development and Production expenditures for each Calendar Year of the Development Period;
  - ii) forecast of operating costs for each Calendar Year;
  - iii) forecast of Petroleum production for each Calendar Year;
  - iv) forecast of number and types of personnel employed in the Petroleum Operations in the Republic of Ghana;

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos – March 2006)

Exhibit G to the Unitization and Unit Operating Agreement

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- v) description of proposed Petroleum marketing arrangements;
- vi) description of main technologies employed; and
- vii) description of the working relationship of Contractor to GNPC.
- c) The Development forecast shall be revised at the beginning of each Calendar Year commencing as of the second year of the first Development forecast Contractor shall prepare and submit to GNPC the first Development forecast within one hundred and twenty (120) days of the date when the first Development Plan is approved by the Minister and Contractor commences the implementation of such plan and thereafter shall prepare and submit a revised Development Forecast to GNPC no later than thirty (30) days before each Calendar Year commencing as of the second year of the first Development forecast.

### 12.2 CHANGES OF PLAN AND FORECAST

It is recognised by Contractor and GNPC that the details of the Exploration Plan and Development forecast may require changes in the light of existing circumstances and nothing herein contained shall limit the flexibility to make such changes. Consistent with the foregoing the said Plan and Forecast may be revised when appropriate. The Exploration Plan and Development Forecast are for planning purposes only.

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos – March 2006)

Exhibit G to the Unitization and Unit Operating Agreement

# ANNEX 3 - SAMPLE AOE CALCULATION

### SAMPLE ADDITIONAL OIL ENTITLEMENT CALCULATION

This sample calculation has been prepared to illustrate the Additional Oil Entitlement (AOE) provisions of Article 10 of the Petroleum Agreement to which this Annex 3 is attached and made a part thereof. The assumptions used, year-by-year cash flows, inflation rate, and resulting AOE payments are hypothetical only and are neither based upon nor do they represent an actual situation. They are designed to illustrate the mechanics of each of the hypothetical AOE calculations only.

#### Sample AOE Calculation:

Contractor's Revenues minus Income Taxes minus "Petroleum Costs"

Income Tax Rate: 35%

Petroleum Costs: Contractor's Petroleum Costs including costs advanced on GNPC's behalf

#### Additional Oil Entitlement (AOE):

Discounted Cash Flow				
Real Rate of Return (%*) AOE Rate				
19% or less	0%			
Over 19%	5%			
Over 20%	10%			
Over 25%	15%			
Over 30%	20%			
Over 40%	25%			

\*Rate of Return exclusive of Inflation

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos – March 2006)

G-123

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AGN 4

Exhibit G to the Unitization and Unit Operating Agreement

### SAMPLE AOE CALCULATION (MILLION US DOLLARS)

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YEAR	NCF	FAn@19	AOE 1 @	SAn@10	AOE 2 @	TAn@25	AOE 3 @	ҮАл @	AOE 4 @	IAn @	AOE 3 @	Toloi AO
		% p.a.	5%	% թ.օ.	10% p.c.	% p.a.	15%	30% p.o.	20% p.o.	40% p.a.	25%	Payment
1	-\$2.0	-\$2.0		\$2.0		-\$2.0		-\$2.0		-\$2.0		
2	-\$15,0	-\$17.5		-\$17.5		-\$17.6		-\$17.7		-\$17.9		
3	-\$150.0	-\$171.7		-\$171.9		-\$172.9		-\$173.9		\$176.0		
4	-\$20.0	-\$232.9		-\$234.8		-\$244,7		-\$254.8		-\$275.1		
5	\$10.0	-\$278.8		\$283.6		-\$308.2		-\$333.9		-\$388.9		
4	\$340.0	-\$5.7		-\$14.4		-\$40.6		-\$110.8		-\$224.0		
7	\$220.0	\$213.0	\$10.6	\$191.3	\$19.1	\$111.4	\$16.7	\$23.9	\$4.8	-\$156.0		\$51.
8	\$200.0	\$200.0	\$10.0	\$190.0	\$19.0	\$171.0	\$25.7	\$145.4	\$29.1	-\$110.0		\$B3.
9	\$1.50.0	\$150.0	\$7.5	\$142.5	\$14.3	\$128.3	\$19.2	\$109.0	\$21.8	-\$72.2		\$62.
10	\$100.0	\$100.0	\$5.0	\$95.0	\$9.5	\$85.5	\$12.2	\$72.7	\$14.5	-\$46.6		\$41.
11	\$65.0	\$65.0	\$3.3	\$61.8	\$6.2	\$55.6	\$8.3	\$47.2	\$9.4	-\$29.8		\$27.3
12	\$45.0	\$45	\$2.3	\$42.8	\$4.3	\$38.5	\$5.6	\$32.7	\$6.5	-\$17.1		\$18.
13	\$35	\$35.0	\$1.8	\$33.3	\$3.3	\$29.9	\$4.5	\$25.4 ·	\$5.1	-\$4.4		\$14.7
14	\$25.0	\$25.0	\$1.3	\$23.6	\$2.4	\$21.4	\$3.2	\$18.2	\$3.6	\$8.2	\$2.0	\$12.
15	\$10.0	\$10.0	\$0.5	\$0.5	\$1.0	\$8.6	\$1.3	\$7.3	\$1.5	\$5.8	\$1.5	\$5.0
Totals	\$1013.0		\$42.1		\$79.0		\$97.5		\$96.4		\$3.5	\$318.2

1. Rates of return used above include annual inflation of 5%.

- Year 7: AOE 1 = 0.05 \* \$213.0 MM (i.e. 0.05 times Cumulative Cash Flows compounded annually at 19% p.a. + 5% inflation) = \$10.6 MM.
- 3. Years 8 through 15: AOE 1 in nth year = nth Year FA \* 0.05

4. Year 7: SA = -\$14.4 MM \* 1.25 + \$220.0 MM - \$10.6 MM = \$191.3 MM

- Year 7: AOE 2 = 0.10 \* \$191.3 MM (i.e. AOE Rate times Cumulative Cash Flow LESS AOE 1 compounded at 20% p.a. + 5% inflation) = \$19.1 MM
- 6. Year 7: TA = -\$60.6 MM \* 1.30 + \$220.0 MM \$10.6 MM \$19.1 MM = \$111.4 MM
- Year 7: AOE 3 = 0.15 \* \$111.4 MM (i.e. AOE Rate times Cumulative Cash Flow AOE
  1 AOE 2 compounded at 25% p.a. + 5% inflation) = \$16.7 MM
- 8. Year 7: YA = -\$110.8 MM \* 1.35 + \$220.0 MM \$10.6 MM \$19.1 MM \$16.7 = \$23.9 MM
- 9. Year 7: AOE 4 = 0.20 \* \$23.9 MM (i.e. AOE Rate times Cumulative Cash Flow AOE 1 - AOE 2 - AOE 3 compounded at 30% p.a. + 5% inflation) = \$4.8 MM
- 10. Year 14: ZA = -\$4.4 MM \* 1.45 + \$25.0 MM \$1.3 MM \$2.4 MM \$3.2 \$3.6 MM = \$8.2 MM
- Year 14: AOE 5 = 0.25 \* \$8.2 MM (i.e. AOE Rate times Cumulative Cash Flow AOE 1
   AOE 2 AOE 3 AOE 4 compounded at 40% p.a. + 5% inflation) = \$2.0 MM

Petroleum Agreement for Deepwater Tano (Tullow/Sabre/Kosmos) -- March 2006

Exhibit G to the Unitization and Unit Operating Agreement

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#### DEED OF ASSIGNMENT

#### (Deepwater Tano)

# THIS DEED OF ASSIGNMENT is made the 1th day of September 2006

#### BY AND AMONG:

- 1. Kosmos Energy Ghana HC, a Cayman Islands exempted company ("Assignor");
- 2. Anadarko WCTP Company, a Ghanaian company ("Assignee");
- 3. The Minister of Energy representing the Government of the Republic of Ghana;
- 4. The Ghana National Petroleum Corporation, a public corporation established by Provisional National Defence Council Law 64 of 1983 ("GNPC"); and

collectively referred to as the "Parties" and individually as a "Party".

#### WHEREAS

- (A) Assignor has agreed to assign and transfer to Assignee an undivided 18% Participating Interest in the Petroleum Agreement (the "Subject Interest").
- (B) The prior consent of the Minister of Energy of the Government of the Republic of Ghana and of GNPC to this assignment has been granted pursuant to the letter August 18, 2006 annexed hereto.
- (C) In order to effect the assignment and transfer referred to in Recital (A), the Parties have agreed to the execution of this Deed.

THEREFORE it is agreed as follows:

- 1. In this Deed:
  - (a) unless the context otherwise requires, the words, phrases and expressions defined in the Petroleum Agreement shall have the meanings given to them in the Petroleum Agreement;
  - (b) references to clauses are to clauses to this Deed unless otherwise specified;
  - (c) references to the singular shall include the plural and vice versa; and
  - (d) the following terms shall bear the meanings ascribed to them:

"Effective Datc"	shall have the meaning given to such term in the Farm- out Agreement;
"Farmout Agreement"	means the agreement between Assignor and Assignee dated March, 2006, and as amended

	Page 1 of 5	
Exhibit G to the Unitization and Unit Operating Agreement	G-125	Deepwater Tano Deed of Assignment

"Participating Interest"	means an undivided percentage interest in the rights, privileges, duties and obligations of the Contractor under the Petroleum Agreement;
"Petroleum Agreement"	means the Petroleum Agreement dated 10 March 2006 amongst the Government of the Republic of Ghana, GNPC, Assignor, Tullow Ghana Limited and Sabre Oil and Gas Limited in respect of the Deepwater Tano Block, offshore Ghana; and
"Subject Interest"	shall have the meaning ascribed thereto in the Recitals.

- 2. By this Deed Assignor assigns and Assignee accepts the assignment by Assignor of all of Assignor's rights, entitlements, obligations and liabilities in the Subject Interest, subject to and in accordance with the terms and conditions of this Deed.
- 3. Assignor hereby represents and warrants to Assignee that:
  - (a) As of the date hereof, neither Assignor nor its employees or agents have taken or agreed to take any action which would result in liability for commissions, finder's fees or other compensation for services in connection with this Agreement.
  - (b) Assignor has the legal right, power and authorization to execute and enter into this Deed and to act upon this Deed in accordance with its terms;
  - (c) Assignor has not transferred, assigned or encumbered in any way the Subject Interest;
  - (d) To the knowledge of Assignor, the Petroleum Agreement is in full force and effect;
  - (e) As of the date hereof, Assignor is not aware of (i) any litigation relating to the Petroleum Agreement or (ii) any breach or threatened revocation of the Petroleum Agreement.
- 4. Assignee covenants that with effect on and from the Effective Date, in respect of the Subject Interest, it shall perform and observe all of the terms and conditions contained in, and shall assume all obligations and liabilities arising in and under, the Petroleum Agreement and each Party shall accept such performance and observance by Assignee in place of Assignor. Assignee shall be liable to the other Parties for any claims, fines, proceedings, injury, costs (including reasonable legal costs), loss, damage or expense incurred by the other Parties as a result of the failure by Assignee to comply with its obligations under this clause 4.
- 5. Nothing contained herein shall prejudice the rights and obligations of Assignor and Assignee under or in connection with the Petroleum Agreement and any other documents made between them in relation to the transfer of the Subject Interest.
- 6. Each Party shall keep confidential and shall not disclose to any third party any information provided by the other Parties in connection with the negotiation, execution or performance of this Deed without the prior written consent of the

Exhibit G to the Unitization and Unit Operating Agreement	Page 2 of 5 G-126	Deepwater Tano Deed of Assignment

Any Party may send any notice, request, demand, claim or other communication hereunder to the intended recipient Party at the address set forth above by mail, personal delivery, expedited or overnight courier, messenger service or fax, but no such notice, request, demand, claim or other communication shall be deemed to have been duly given unless and until it actually is received by the intended recipient Party. Any Party may change the address to which notices, requests, demands, claims and other communications hereunder are to be delivered by giving the other Parties notice in the manner herein set forth.

- 12. The Parties agree to promptly execute and deliver all such further instruments and promptly do and perform all such further acts and things as shall be necessary or expedient for the carrying out of the provisions of this Deed.
- 13. This Deed shall not confer any rights or remedies upon any person other than the Parties and their respective successors and permitted assigns.
- 14. This Deed is governed by and shall be construed in accordance with the laws of Ghana.

IN WITNESS WHEREOF this Deed has been executed for and on behalf of the Parties.

EXECUTED as a DEED on behalf of KOSMOS ENERGY GHANA HC ) Director Director/Secretary EXECUTED as a DEED on behalf of ANADARKO WCTP COMPANY  $\wedge$ Director Director/Secretary

Exhibit G to the Unitization and Unit Operating Agreement

Page 4 of 5 G-127

Deepwater Tano Deed of Assignment

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EXECUTED as a DEED on behalf of THE GOVERNMENT OF THE REPUBLIC OF GHANA

)) ) Minister of Energy

EXECUTED as a DEED on behalf of THE GHANA NATIONAL PETROLEUM CORPORATION

) ) Directon ŝ, mh Director/Secretary

Exhibit G to the Unitization and Unit Operating Agreement	Page 5 of 5 G-128	Deepwater Tano Deed of Assignment

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#### DEED OF ASSIGNMENT

#### TANO DEEP

THIS DEED OF ASSIGNMENT is made the 31st day of March 2008

#### BY AND AMONG:

Tullow Ghana Limited a Jersey Company ("Tullow");

Kosmos Energy Ghana HC a Cayman Islands company ("Kosmos");

Anadarko WCTP Company a Cayman Islands - company ("Anadarko");

Sabre Oil and Gas Limited a Scottish Company ("Assignor"); and

Sabre Oil & Gas Holdings Limited ("Assignce") a British Virgin Islands Company

collectively referred to as the "Parties" and individually as a "Party".

#### WHEREAS

- (A) In implementation of a group restructuring. Assignor has agreed to assign and transfer to Assignee its entire undivided Participating Interest of four point five percent 4.5% in the Petroleum Agreement dated 10<sup>th</sup> March 2007 in respect of the Deep Water Tano Contract Area (the "Subject Interest").
- (B) The prior consent of the Minister of Energy of the Government of the Republic of Ghana and of GNPC to these assignments has been granted.
- (C) In order to effect the assignments and transfers referred to in Recital (A), the Parties have agreed to the execution of this Deed.

THEREFORE it is agreed as follows:

- 1. In this Deed:-
  - (a) unless the context otherwise requires, the words, phrases and expressions defined in the Petroleum Agreement shall have the meanings given to them in the Petroleum Agreement;
  - (b) references to clauses are to clauses to this Deed unless otherwise specified;
  - (c) references to the singular shall include the plural and vice versa; and
  - (d) the following terms shall bear the meanings ascribed to them:-

"Effective Date"	shall mean 14 <sup>th</sup> June 2007;
"Participating Interest"	means an undivided percentage interest in the rights, privileges, duties and obligations of the Contractor under the Petroleum Agreement:
"Petroleum Agreement"	means the Petroleum Agreement dated 10 <sup>th</sup> March. 2006 amongst the Government of the Republic of Ghana, GNPC. Tullow. Kosmos and Assignor in respect of the Deep Water Tano Contract Area, offshore Ghana; and
"Subject Interest"	shall have the meaning ascribed thereto in the Recitals.

- 2. By this Deed Assignor assigns and Assignee accepts the assignment by Assignor with effect on and from the Effective Date, of all of Assignor's rights, entitlements, obligations and liabilities in the respective Subject Interest, subject to and in accordance with the terms and conditions of this Deed.
- 3. Assignee hereby covenants that with effect on and from the Effective Date, it shall perform and observe all of the terms and conditions contained in, and shall assume all obligations and liabilities arising in and under, the Petroleum Agreement and each Party shall accept such performance and observance by Assignee in place of Assignor in relation to the Subject Interest. Assignee shall be liable to the other Parties for any claims, fines, proceedings, injury, costs (including reasonable legal costs), loss, damage or expense incurred by the other Parties as a result of the failure by Assignee to comply with its obligations under this clause 3.
- 4. Nothing contained herein shall prejudice the rights and obligations of Assignor and Assignee under or in connection with the Petroleum Agreement and any other documents made between them in relation to the transfer of the Subject Interest.
- 5. No Party shall make any announcement to the public or otherwise publicise this. Deed or any arrangement entered into under or in connection with this Deed without the prior written consent of the other Parties, such consent not to be unreasonably withheld or delayed.
- 6. This Deed may only be amended or varied by the written agreement of each of the Parties.
- 7. No waiver or failure by a Party to insist on the strict performance of this Deed or to act in respect of the default of another Party and no acceptance of payment or performance during the continuance of any such default shall preclude any right, relief or remedy under or in connection with this Deed available to the non-

defaulting Parties and may not be relied upon by the defaulting Party as a consent to that default or to its repetition.

- 8. No Party shall be entitled to assign this Deed without the consent of the other Parties. This Deed shall bind and enure to the benefit of the Parties and their respective successors and permitted assigns.
- 9. All notices and other communications required or permitted under this Deed shall be in writing to the appropriate Party at the address specified below:

If to Tullow, to:

Tullow Ghana Limited c/o 21<sup>55</sup> Floor Metropolitan Centre 7 Coen Steytler Ave Cape Town 8001 South Africa Attn: Exploration Manager Fax: +27 21 400 7660 If to Kosmos, to:

Kosmos Energy Ghana HC c/o Kosmos Energy, LLC 8401 North Central Expressway; Suite 280 Dallas, Texas 75225 Attn: W. Greg Dunlevy Fax: (214) 363 9024

If to Anadarko, to:

If to Assignor, to:

Anadarko WCTP Company 1201 Lake Robbins Drive The Woodlands, Texas 77380 USA ATTN: Manager, Int'l Negotiations Fax: + 832-636-8023 Tel: +1 832/636-2827 Anadarko WCTP Company Sabre Oil and Gas Limited 4 Rubislaw Place Aberdeen Scotland AB10 EXN Attn: Andrew MacDonald Fax: ±44 (0) 1224 649 700

If to Assignce, to:

Sabre Oil & Gas Holdings Limited Avenue Louis-Casai CH-1209 Geneva Switzerland

Attn. David Lampe Fax=41 22 747 7990

Exhibit G to the Unitization and Unit Operating Agreement

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G-131

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- 10. Any Party may send any notice, request, demand, claim or other communication hereunder to the intended recipient Party at the address set forth above by mail, personal delivery, expedited or overnight courier, messenger service or fax, but no such notice, request, demand, claim or other communication shall be deemed to have been duly given unless and until it actually is received by the intended recipient Party. Any Party may change the address to which notices, requests, demands, claims and other communications hereunder are to be delivered by giving the other Parties notice in the manner herein set forth.
- 11. The Parties agree to promptly execute and deliver all such further instruments and promptly do and perform all such further acts and things as shall be necessary or expedient for the carrying out of the provisions of this Deed.
- This Deed shall not confer any rights or remedies upon any person other than the 12. Parties and their respective successors and permitted assigns,
- 13. This Deed is governed by and shall be construed in accordance with the laws of Ghana.

IN WITNESS WHEREOF this Deed has been executed for and on behalf of the Parties,

EXECUTED as a DEED on behalf of TULLOW GHANA LIMITED

Director

Director/Secretary

EXECUTED as a DEED on behalf of KOSMOS ENERGY GHANA HC )

Director

(in 812; Director/Sec

EXECUTED as a DEED. on behalf of ANADARKO WCTP COMPANY )



Ronald DJ Director/Secretary

EXECUTED as a DEED on behalf of SABRE OIL AND GAS LIMITED )

Director

Director/Secretary

EXECUTED as a DEED ) on behalf of ) SABRE OIL & GAS HOLDINGS LIMITED

Director

Director/Secretary

Exhibit G to the Unitization and Unit Operating Agreement

ATTACHED TO AND MADE PART OF THE UNITIZATION AND UNIT OPERATING AGREEMENT BY AND BETWEEN GHANA NATIONAL PETROLEUM CORPORATION, TULLOW GHANA LIMITED, KOSMOS ENERGY GHANA HC, ANADARKO WCTP COMPANY, SABRE OIL & GAS HOLDINGS LIMITED, AND EO GROUP LIMITED (THE "AGREEMENT")

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#### EXHIBIT "H"

### WEST CAPE THREE POINTS BLOCK

#### PETROLEUM AGREEMENT

Exhibit H to the Unitization and Unit Operating Agreement

H-1

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# PETROLEUM AGREEMENT

Among

THE REPUBLIC OF GHANA

GHANA NATIONAL PETROLEUM CORPORATION

KOSMOS ENERGY GHANA HC

And

THE E. O. GROUP

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IN RESPECT OF West Cape Three Points Block Offshore Ghana

DATED 22ND JULY 2004

Exhibit H to the Unitization and Unit Operating Agreement

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H-2

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INDEX

А	RTICLE	PAGE
1.	DEFINITIONS	2
2.	SCOPE OF THE AGREEMENT, INTERESTS OF THE PARTIES	9
	AND CONTRACT AREA	9
3.	EXPLORATION PERIOD	11
4.	MINIMUM EXPLORATION PROGRAM	14
5.	RELINQUISHMENT	14
б.	JOINT MANAGEMENT COMMITTEE	20
7.	RIGHTS AND OBLIGATIONS OF CONTRACTOR	20
	AND GNPC	24
8.	COMMERCIALITY	27
9.	SOLE RISK	32
10.	SHARING OF PETROLEUM	36
I1.	MEASUREMENT AND PRICING OF PETROLEUM	43
12.	TAXATION AND OTHER IMPOSTS	46
13.	FOREIGN EXCHANGE TRANSACTIONS	49
14.	SPECIAL PROVISIONS FOR NATURAL GAS	51
15.	DOMESTIC SUPPLY REQUIREMENTS (CRUDE OIL)	57
16.	INFORMATION AND REPORTS: CONFIDENTIALITY	58
17,	INSPECTION, SAFETY AND ENVIRONMENTAL PROTECTION	61
18.	ACCOUNTING AND AUDITING	63
19.	TITLE TO AND CONTROL OF GOODS AND EQUIPMENT	65
20,	PURCHASING AND PROCUREMENT	67
21.	EMPLOYMENT AND TRAINING	68
22.	FORCE MAJEURE	70
23.	TERM AND TERMINATION	71
		• •

Exhibit H to the Unitization and Unit Operating Agreement

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**.** .... H-3

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#### ARTICLE

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CONSULTATION, ARBITRATION AND INDEPENDENT EXPERT 24. 74 25. ASSIGNMENT 76 26. MISCELLANEOUS 77 27. NOTICE 80

ANNEX 1	-	CONTRACT AREA
ANNEX 2	-	ACCOUNTING GUIDE
ANNEX 3	-	SAMPLE OF AOE CALCULATION
ANNEX 4	-	PARENT COMPANY GUARANTEE

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Exhibit H to the Unitization and Unit Operating Agreement

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H-4

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THIS PETROLEUM AGREEMENT, made this .... day of ...... 2004, by and among the Government of the Republic of Ghana (hereinafter referred to as "The State"), represented by the Minister of Energy (hereinafter referred to as the "Minister"), the Ghana National Petroleum Corporation, a public corporation established by Provisional National Defence Council Law 64 of 1983 (hereinafter referred to as ("GNPC"), and Kosmos Energy Ghana HC, a Cayman Islands exempted company ("Kosmos") and the E.O.Group, a Ghanaian Company ("EO"), (EO and Kosmos being hereinafter referred to as "Contractor")

#### WITNESSETH:

- 1. All Petroleum existing in its natural state within Ghana is the property of the Republic of Ghana and held in trust by the State.
- 2. GNPC has by virtue of the Petroleum Law the right to undertake Exploration, Development and Production of Petroleum over all blocks declared by the Minister to be open for Petroleum Operations.
- 3. GNPC is further authorised to enter into association by means of a Petroleum Agreement with a contractor for the purpose of Exploration, Development and Production of Petroleum.
- 4. The Contract Area that is the subject matter of this Petroleum Agreement has been declared open for Petroleum Operations by the Minister and the Government of Ghana desires to encourage and promote Exploration, Development and Production within the said area. GNPC and the State have assured Contractor that all of said area is within the jurisdiction of the Republic of Ghana.
- 5. Contractor, having the financial ability, technical competence and professional skills necessary for carrying out the Petroleum Operations herein described, desires to associate with GNPC in the Exploration for, and Development and Production of, the Petroleum resources of the said area.
- 6. The Parties recognise that Ghanaian nationals should as soon as reasonably possible be engaged in employment at all levels in the Petroleum industry, including technical, administrative and managerial positions, and that to achieve this objective an adequate programme of training must be established as an integral part of this Agreement.

NOW THEREFORE, in consideration of the mutual covenants herein contained, it is hereby agreed and declared as follows:

Exhibit H to the Unitization and Unit Operating Agreement

H-5

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### ARTICLE 1

#### **DEFINITIONS**

#### L. In this Agreement:

- 1.1 "Accounting Guide" means the accounting guide which is attached hereto as Annex 2 and made a part hereof.
- 1.2 "Additional Paying Interest" means GNPC's right to acquire an interest in a Commercial Discovery by paying its proportionate share of all Petroleum Costs subject to Article 2.6;
- 1.3 "Affiliate" means any person, whether a natural person, corporation, partnership, unincorporated association or other entity:
  - a) In which one of the Parties hereto or one of the companies comprising Contractor directly or indirectly holds more than fifty percent (50%) of the share capital or voting rights;
  - b) Which holds directly or indirectly more than fifty percent (50%) of the share capital or voting rights in a Party hereto or in one of the companies comprising Contractor;
  - c) In which the share capital or voting rights are directly or indirectly, and to an extent more than fifty percent (50%), held by a company or companies holding directly or indirectly more than fifty percent (50%) of the share capital or voting rights in a Party hereto or in one of the companies comprising Contractor;
  - d) Which holds directly five percent (5%) or more of the share capital or voting rights in Party hereto or in one of the companies comprising Contractor.
- 1.4 "Agreement" means this Agreement between the State, GNPC and Contractor, and includes the Annexes attached hereto;
- 1.5 "Appraisal Programme" means a programme carried out following a Discovery of Petroleum for the purpose of delineating the accumulation of Petroleum to which that Discovery relates in terms of thickness and lateral extent and estimating the quantity of recoverable Petroleum therein;
- 1.6 "Appraisal Well" means a well drilled for the purposes of an Appraisal Programme;
- 1.7 "Associated Gas" means Natural Gas produced from a well in association with Crude Oil;

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Exhibit H to the Unitization and Unit Operating Agreement

- 1.8 "Barrel" means a quantity or unit of Crude Oil equal to forty two (42) United States gallons at a temperature of sixty (60) degrees Fahrenheit and at 14.65 psia pressure;
- 1.9 "Block" means an area of approximately six hundred and eighty-five (685) square kilometres as depicted on the reference map prepared by the Minister in accordance with the provisions of the Petroleum Law;
- 1.10 "Calendar Year" means the period of twelve (12) months of the Gregorian calendar, commencing on January 1 and ending on the succeeding December 31;
- 1.11 "Carried Interest" means an interest held by GNPC in respect of which Contractor pays for the conduct of Petroleum Operations without any entitlement to reimbursement from GNPC other than for Production Operations;
- 1.12 "Commercial Discovery" means a Discovery, which is determined to be commercial in accordance with the provisions of this Agreement;
- 1.13 "Commercial Production Period" means, in respect of each Development and Production Area, the period from the Date of Commencement of Commercial Production until the termination of this Agreement or earlier relinquishment of such Development and Production Area;
- 1.14 "Contract Area" means the area covered by this Agreement in which Contractor is authorised to explore for, develop and produce Petroleum, which is described in Annex 1 attached hereto and made a part of this Agreement, but excluding any portions of such area in respect of which Contractor's rights hereunder are hereafter from time to time relinquished or surrendered pursuant to this Agreement;
- 1.15 "Contractor" means Kosmos and EO and their respective successors and assignees;
- 1.16 "Contract Year" means a period of twelve (12) calendar months, commencing on the Effective Date or any anniversary thereof;
- 1.17 "Crude Oil" means hydrocarbons, which are liquid at 14.65 psia pressure and sixty (60) degrees Fahrenheit, and includes condensates and distillates obtained from Natural Gas;
- 1.18 "Date of Commencement of Commercial Production" means, in respect of each Development and Production Area, the date on which production of Petroleum under a program of regular production, lifting and sale commences;
- 1.19 "Date of Commercial Discovery" means the date referred to in Article 8.12;
- 1.20 "Deepwater" means a water depth of 200 meters or more.
- 1.21 "Delivery Point" shall have the meaning ascribed it in Article 10.5;

Exhibit H to the Unitization and Unit Operating Agreement

- 1.22 "Development" or "Development Operations" means the preparation of a Development Plan, the design, engineering, building and installation of facilities for Production, and includes drilling of Development Wells, construction and installation of equipment, pipelines, facilities, plants and systems, in and outside the Contract Area, which are required for achieving Production, treatment, transport, storage and lifting of Petroleum, and preliminary Production and testing activities carried out prior to the Date of Commencement of Commercial Production, and includes all related planning and administrative work, and also includes drilling and installation of wells and equipment for pressure maintenance and/or for increasing production rates, but excludes all secondary and tertiary costs except the costs of wells and equipment;
- 1.23 "Development Costs" means Petroleum Costs incurred in Development Operations;
- 1.24 "Development and Production Area" means that portion of the Contract Area reasonably determined by Contractor (or by GNPC if a Sole Risk Operation pursuant to Article 9) on the basis of the available seismic and well data to cover the areal extent of an accumulation of Petroleum constituting a Commercial Discovery, enlarged in area by ten percent (10%), such enlargement to extend uniformly around the perimeter of such accumulation and further enlarged by the area covering any extension of the accumulation which is revealed by further development work provided that such extension is within the Contract Area;
- 1.25 "Development Period" means in respect of each Development and Production Area, the period from the Date of Commercial Discovery until the Date of Commencement of Commercial Production;
- 1.26 "Development Plan" means the plan for Development of a Commercial Discovery prepared by Contractor in consultation with the Joint Management Committee and approved by the Minister pursuant to Article 8;
- 1.27 "Development Well" means a well drilled in accordance with a Development Plan for producing Petroleum, for pressure maintenance or for increasing the Production rate;
- 1.28 "Discovery" means Petroleum not previously known to have existed, recovered at the surface in a flow measurable by conventional petroleum industry testing methods;
- 1.29 "Discovery Area" means that portion of the Contract Area, reasonably determined by Contractor (or by GNPC if a Sole Risk Operation pursuant to Article 9) on the basis of the available seismic and well data to cover the real extent of the geological structure in which a Discovery is made. A Discovery Area may be modified at any time by Contractor (or by GNPC if applicable), if justified on the basis of new information, but may not be modified after the date of completion of the Appraisal Programme.

Exhibit H to the Unitization and Unit Operating Agreement

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- 1.30 "Effective Date" shall have the meaning ascribed to it in Article 26.9;
- 1.31 "Exploration" or "Exploration Operations" means the search for Petroleum by geological, geophysical and other methods and the drilling of Exploration Well(s) and includes any activity in connection therewith or in preparation thereof and any relevant processing and including technical and economic feasibility studies that may be carried out to determine whether a Discovery of Petroleum constitutes a Commercial Discovery;
- 1.32 "Exploration Costs" means all Petroleum Costs incurred in connection with Exploration and/or Exploration Operations, including all costs incurred prior to a Commercial Discovery;
- 1.33 "Exploration Period" means the period commencing on the Effective Date and continuing during the time provided for in Article 3.1 within which Contractor is authorized to carry out Exploration Operations and shall include any periods of extensions provided for in this Agreement. The period shall terminate with respect to any Discovery Area on the Date of Commercial Discovery in respect of such Discovery Area which becomes a Development and Production Area;
- 1.34 "Exploration Well" means a well drilled in the course of Exploration Operations conducted hereunder during the Exploration Period, but does not include an Appraisal Well;
- 1.35 "Extension Period" means any of the First Extension Period or Second Extension Period;
- 1.36 "First Extension Period" shall have the meaning ascribed to it in Article 3.1 a(ii);
- 1.37 "First Subperiod" shall have the meaning ascribed to it in Article 3.1 a(i);
- 1.38 "Force Majeure" means any event beyond the reasonable control of the Party claiming to be affected by such event which has not been brought about at its instance, including, but not limited to, earthquake, storm, flood, lightning or other adverse weather conditions, war, embargo, blockade, riot or civil disorder;
- 1.39 "Foreign National Employee" means an expatriate employee of Contractor, its Affiliates, or its Sub-contractors who is not a citizen of Ghana;
- 1.40 "Ghana" means the territory of the Republic of Ghana and includes the sea, seabed and subsoil, the continental shelf and all other areas within the jurisdiction of the Republic of Ghana;
- 1.41 "Gross Production" means the total amount of Petroleum produced and saved from a Development and Production Area during Production Operations, which is not used by Contractor in Petroleum Operations, and is available for distribution to the Parties in accordance with Article 10;

Exhibit H to the Unitization and Unit Operating Agreement

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- 1.42 "Gross Negligence" means the intentional failure to perform a manifest duty in reckless disregard of the consequences as affecting the life or property of another; including, such a gross want of care and regard for the rights of others as to justify the presumption of willfulness and wantonness;
- 1.43 "Initial Exploration Period" shall have the meaning ascribed to it in Article 3.1 (a)(i)
- 1.44 "Joint Management Committee (JMC)" means the committee established pursuant to Article 6.1 hereof;
- 1.45 "Market Price" shall have the meaning ascribed to it in Article 11.7;
- 1.46 "Minister" means Minister of Energy;
- 1.47 "Month" means a month of the Calendar Year;
- 1.48 "Natural Gas" means all hydrocarbons which are gaseous at 14.65-psia pressure and sixty (60) degrees Fahrenheit temperature and includes wet gas, dry gas and residue gas remaining after the extraction of liquid hydrocarbons from wet gas;
- 1.49 "Non-Associated Gas" means Natural Gas produced from a well other than in association with Crude Oil;
- 1.50 "Operator" means "Kosmos" or such other Party as may be appointed by Contractor with the approval of GNPC and the State, which approval shall not be unreasonably delayed or withheid;
- 1.51 "Participating Interest" shall have the meaning as ascribed to it in Articles 2.4 and 2.8;
- 1.52 "Party" means the State, GNPC or all or any of companies constituting Contractor, as the case may be;
- 1.53 "Paying Interest" means an interest held by GNPC in respect of which GNPC pays for its two point five per cent (2.5%) of future Petroleum Costs, including capital costs, Development Costs and Production Costs;
- 1.54 "Petroleum" means Crude Oil or Natural Gas or a combination of both;
- 1.55 "Petroleum Costs" means all expenditures made and costs incurred, both within and outside Ghana, in conducting Petroleum Operations hereunder, determined in accordance with the Accounting Guide attached hereto as Annex 2;
- 1.56 "Petroleum Income Tax Law" means the Petroleum Income Tax Law, 1987 (PNDCL 188);

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Exhibit H to the Unitization and Unit Operating Agreement

- "Petroleum Law" means the Petroleum (Exploration and Production) Law, 1984 1.57 (PNDCL 84) and any amendment thereto or replacement thereof;
- 1.58 "Petroleum Operations" means all activities, both in and outside Ghana, relating to the Exploration for, Appraisal, Development, Production, handling and transportation of Petroleum contemplated under this Agreement and includes Exploration Operations, Development Operations and Production Operations and all activities in connection therewith;
- 1.59 "Petroleum Product" means any product derived from Petroleum by any refining or other process;
- 1.60 "Production" or "Production Operations" means activities undertaken in order to extract, save, treat, measure, handle, store, sell, market, load and transport Petroleum to storage and/or loading points and to carry out any type of primary and secondary operations, including recycling, recompression, maintenance of pressure and water flooding and all related activities such as planning and administrative work and shall also include maintenance, repair and replacement of facilities, and well workovers, conducted after the Date of Commencement of Commercial Production of the respective Development and Production Area but excluding Development Operations, and shall also include drilling of wastewater wells, water flooding, steam injection, gas injection and any other such secondary or tertiary recovery operations;
- 1.61 "Production Costs" means Petroleum Costs incurred in Production Operations;
- "Quarter" means a period of three (3) calendar months, commencing January 1, 1.62 April 1, July 1 or October 1;
- 1.63 "Rate of Return" shall have the meaning ascribed to it in Article 10;
- "Second Extension Period" shall have the meaning ascribed to it in Article 3.1 a(ii); 1.64
- 1.65 "Second Subperiod" shall have the meaning ascribed to it in Article 3.1 a(i);
- "Shallow water" means a water depth less than 200 meters 1.66
- "Sole Risk Operation" means an operation conducted at the sole cost, risk and 1.67 expense of GNPC in accordance with Article 9.
- 1.68 "Specified Rate" means the rate which the National Westminster Bank, PLC London, certifies to be the London Interbank Offered Rate (LIBOR) in the London Interbank Eurodollar market on thirty (30) day deposits, in effect on the last business day of the last respective preceding month, plus five per cent (5%);
- "Standard Cubic Foot" or "SCF" means the quantity of gas that occupies one (1) 1.69 cubic foot at 14.65 psia pressure and sixty (60) degrees Fahrenheit temperature;

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Exhibit H to the Unitization and Unit Operating Agreement

1.70 "State" means the Government of the Republic of Ghana;

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- 1.71 "Subcontractor" has the meaning assigned to that term in the Petroleum Law;
- 1.72 "Termination" means termination of this Agreement pursuant to Article 23 hereof;
- "Work Programme" means the annual plan for the conduct of Petroleum 1.73 Operations prepared pursuant to Articles 4.3, 6.4 and 6.5.

Exhibit H to the Unitization and Unit Operating Agreement

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## ARTICLE 2

# SCOPE OF THE AGREEMENT. INTERESTS OF THE PARTIES AND CONTRACT AREA

- 2.1 This Agreement provides for the Exploration, Development and Production of Petroleum in the Contract Area by GNPC in association with Contractor.
- 2.2 Subject to the provisions of this Agreement, Contractor shall be responsible for the execution of such Petroleum Operations as are required by the provisions of this Agreement and subject to Article 9, is hereby appointed the exclusive entity to conduct Petroleum Operations in the Contract Area. GNPC shall at all times participate in the management of Petroleum Operations and in order that the Parties may cooperate in the implementation of Petroleum Operations, GNPC and Contractor shall establish a Joint Management Committee, to conduct and manage Petroleum Operations.
- 2.3 In the event that no Commercial Discovery is made in the Contract Area, or that Gross Production achieved from the Contract Area is insufficient fully to reimburse Contractor in accordance with the terms of this Agreement, then Contractor shall bear its own loss; GNPC and the State shall have no obligations whatsoever to Contractor in respect of such loss.
- 2.4 Subject to Article 2.6 GNPC shall have a ten percent (10%) Participating Interest in all Petroleum Operations under this Agreement. With respect to all Exploration and Development Operations, GNPC's Participating Interest shall be a Carried Interest. With respect to all Production Operations, GNPC's Participating Interest shall be a Paying Interest.
- 2.5 For the avoidance of doubt, GNPC shall only be liable to contribute to Petroleum Costs incurred in respect of Production Operations in any Development and Production Area to the extent of its ten percent (10%) Participating Interest;
- 2.6 GNPC shall have the option to acquire an Additional Paying Interest of two and one half percent (2 ½) in a Commercial Discovery. In order to acquire the Additional Interest GNPC must notify Contractor within sixty (60) days of Contractor's notice to the Minister that a Discovery is a Commercial Discovery of its intention to acquire the Additional Interest. If within the 60 days GNPC does not give notice, GNPC's interest will remain as described in Article 2.4. If GNPC acquires the Additional Interest, GNPC must pay its two and one half percent (2½) of all future Petroleum Costs, including capital costs, Development and Production Costs as approved by the JMC. If GNPC fails to pay these costs and those associated with Production Operations described in Article 2.4 then the Contractor shall be entitled to recover the said costs, together with agreed interest thereon of not less than the cost of capital of the Contractor in funding such costs, from production revenues.

Exhibit H to the Unitization and Unit Operating Agreement

51

- 2.7 GNPC may during the Exploration Period assist Contractor in carrying out Contractor's obligations expeditiously and efficiently as stipulated in Article 7.3. Upon completion of the work associated with said assistance, GNPC shall invoice the Contractor for the costs incurred and shall provide reasonable supporting documentation in respect of such costs. Contractor shall pay GNPC the invoiced amount within thirty (30) days of receipt of the invoice. The actual amount of the invoice submitted by GNPC shall be at rates agreed by GNPC and the Contractor for such services.
- 2.8 Contractor's Participating Interest in all Petroleum Operations and in all rights under this Agreement shall be ninety per cent (90%) (or eighty-seven point five per cent (87.5%) if GNPC exercises its rights under Article 2.6 to acquire an additional two point five per cent (2.5%) Paying Interest), pursuant to Article 2.4 and 2.5.
- 2.9 As of the Effective Date, the Contract Area shall cover a total of one thousand nine hundred and fifty-seven point zero five square kilometres (1957.05 km<sup>2</sup>) as depicted by Annex 1. During the Exploration Period, Contractor shall pay rentals to the State for that area included within the Contract Area at the beginning of each Calendar Year or at the beginning of each period of the Exploration Periods, or on the creation of a Development and Production Area, for the entire Development and Production Period as the case may be, provided that a pro-rata payment shall be made to cover the period from the Effective Date to the beginning of the first Calendar Year and according to the provisions of Article 12.2(v) below.

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#### Exhibit H to the Unitization and Unit Operating Agreement

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#### EXPLORATION PERIOD

- 3.1 The Exploration Period shall begin on the Effective Date and shall not cover a period of more than seven (7) Contract Years, unless it is extended in accordance with the terms of this Agreement, or the Agreement is sooner terminated. Should the envisaged new regulatory regime extend the deepwater exploration period, Contractor shall benefit from such extension of the Exploration Period. In which case the exploration programme with its corresponding financial commitments for the additional period shall be renegotiated by both parties in good faith.
  - The Exploration Period shall be divided as follows: a)
    - (i) An Initial Exploration Period of three (3) years ("Initial Exploration Period") further subdivided into Subperiods:
      - 1. One and one-half (1 1/2) years ("First Subperiod"); and
      - 2 One and one-half (1 1/2) years ("Second Subperiod"); plus
    - (ii)Two (2) separate Extension Periods totalling four (4) years:
      - 1 Two (2) years for the first such period ("First Extension Period"); and
      - 2. Two (2) year for the second of such periods ("Second Extension Period").
  - At the end of the First Subperiod, Contractor shall elect to drill a well during b) the Second Subperiod or relinquish the entire Contract Area. Contractor shall have the right to relinquish the entire Contract Area and withdraw from this Agreement upon the expiration of any of the First Subperiod, the Second Subperiod, the First Extension Period and the Second Extension Period; subject only to notifying GNPC not less than thirty (30) days before expiration of the relevant period and provided Contractor has completed the applicable work obligation of the First Subperiod or Second Subperiod, or any of the Extension Periods (as applicable) during which such relinquishment and withdrawal is made.
  - Where Contractor has fulfilled its work and expenditure obligations set out in c) Article 4.3 before the end of a specific Subperiod or any of the Extension Periods, as the case may be, and has exercised its option by applying to the Minister in writing for an extension into the next phase, the Minister will be deemed to have granted such extension into the Second Subperiod, First Extension Period or Second Extension Period, as applicable.

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Exhibit H to the Unitization and Unit Operating Agreement

- d) For each well drilled by Contractor or with Contractor's participation during the Initial Exploration Period (beyond those referred to in Article 4.3), the Initial Exploration Period shall be extended by six (6) months and the commencement of subsequent periods shall be postponed in their entirety accordingly.
- 3.2 Subject to the provisions of Article 3.4, Contractor will be entitled to an extension or extensions of the Exploration Period as follows:
  - a) Where at the end of the Second Subperiod, the First Extension Period or the Second Extension Period, Contractor is drilling or testing any well, Contractor shall be entitled to an extension for a period of up to one hundred and eighty (180) days in which to complete such work and assess the results and to elect by giving the Minister notice in writing whether to proceed to the First Extension Period or the Second Extension Period, as applicable; provided further, neither the expiration date of the next succeeding period nor the term of this Agreement shall be extended thereby. In the event that Contractor notifies the Minister that the results from any such well show a Discovery which merits appraisal, Contractor shall be entitled to a further extension for such period as may be reasonably required to carry out an Appraisal Programme and determine whether the Discovery constitutes a Commercial Discovery;
  - Where at the end of the Second Extension Period, Contractor is engaged in the b) conduct of an Appraisal Programme in respect of a Discovery which has not been completed, Contractor shall be entitled to such extension as may be reasonably required to complete that Appraisal Programme and determine whether the Discovery constitutes a Commercial Discovery;
  - Where at the end of the Second Extension Period Contractor is in the process of c) completing work not falling under paragraphs (a) or (b) in this Article 3.2 above, or under Article 4.3(c), then Contractor shall be entitled to such extension of time as the Minister considers reasonable for the purpose of completing such work.
  - d) If during the Second Extension Period, including extensions under (a), (b) and (c) in this Article 3.2 above, Contractor gives to the Minister a notice of Commercial Discovery pursuant to Article 8.8, the Exploration Period shall not terminate until Contractor has prepared and submitted a Development Plan relating to such Discovery for the approval of the Minister and, if the Exploration Period would otherwise have been terminated, the Exploration Period shall terminate:
    - when the Minister has approved the Development Plan as set out in i) Article 8; or
    - ii) in the event that the Development Plan is not approved by the Minister as set out in Article 8 and the matter or matters in issue between the

12

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Exhibit H to the Unitization and Unit Operating Agreement

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Minister and Contractor have been referred for resolution under Article 24, one (1) month after the date on which the final decision thereunder has been given.

- 3.3 Where Contractor has during the Initial Exploration Period or, as the case may be, during the First Extension Period, failed to fulfil its work and expenditure obligations under Article 4 in respect of that period but has made reasonable arrangements to remedy its default during the First Extension Period or, as the case may be, the Second Extension Period, Contractor shall be entitled to an extension, subject to such reasonable terms and conditions as the Minister may stipulate to assure performance of the work
- 3.4 Save in respect of a Discovery Area:

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- a) In the circumstances and subject to the limitations set forth in Section 12 (3) of the Petroleum Law; or
- b) In a case falling within the provisions of Article 3.2 (d),

Nothing in Article 3.2 shall be read or construed as requiring or permitting the extension of the Exploration Period beyond seven (7) years (or ten (10) years if applicable) from the Effective Date except for reasons of Force Majeure; or as provided in Article 4.10.

3.5 The provisions of Article 3.2 (a), (b) and (c), so far as they relate to the duration of the extension period to which Contractor will be entitled, shall be read and construed as requiring the Minister to give same effect to the provisions of Article 8 relating to the time within which Contractor must meet the requirements of that Article.

Exhibit H to the Unitization and Unit Operating Agreement

## MINIMUM EXPLORATION PROGRAMME

- 4.1 Exploration Operations shall begin as soon as practicable and in any case not later than seventy five (75) days after the Effective Date.
- 4.2 GNPC shall, at the request of Contractor, make available to it such records and information relating to the Contract Area as are relevant to the performance of Exploration Operations by Contractor and are in GNPC's possession, provided that Contractor shall reimburse GNPC for the costs reasonably incurred in procuring or otherwise making such records and information available to Contractor.
- 4.3 Subject to the provisions of this Article and Article 3.2 in discharge of its obligations to carry out Exploration Operations in the Contract Area, Contractor shall during the several phases into which the Exploration Period is divided carry out the work specified hereinafter:
  - a) <u>Initial Exploration Period</u>: Commencing on the Effective Date and terminating at the end of three (3) Contract Years, which is made up of the following:

## First Subperiod (1½ years):

**Description of Work:** By the end of the First Subperiod of the Initial Exploration Period, Contractor shall have undertaken the seismic programme described below:

(i) Contractor shall acquire, process and interpret at least one thousand square kilometres (1000km<sup>2</sup>) of new 3-D seismic data;

Minimum Expenditure: Contractor's minimum expenditure for the work in the First Subperiod of the Initial Exploration Period shall be four million U.S. dollars (US\$4,000,000).

#### Second Subperiod (1½ years)

**Description of Work:** By the end of the Second Subperiod of the Initial Exploration Period, Contractor shall have drilled at least one (1) Exploration Well in the Contract Area.

<u>Minimum Expenditure</u>: Contractor's minimum expenditure for the work in the Second Subperiod of the Initial Exploration Period shall be eight million U.S. dollars (US\$8,000,000).

b) <u>First Extension Period</u>: Commencing at the end of the Initial Exploration Period and terminating at the end of a further two (2) Contract Years.

14

Exhibit H to the Unitization and Unit Operating Agreement

**Description of Work:** By the end of the First Extension Period, Contractor shall have drilled at least one (1) Exploration Well on the Contract Area.

<u>Minimum Expenditure</u>: Contractor's minimum expenditure for the work in the First Extension Period shall be eight million US dollars (US\$8,000,000).

c) <u>Second Extension Period</u>: Commencing at the end of the First Extension and terminating at the end of a further two (2) Contract Years.

<u>Description of Work</u>: By the end of the Second Extension Period, Contractor shall have undertaken the drilling program described below:

Contractor shall drill one (1) Exploration Well in the Contract Area.

<u>Minimum Expenditure</u>: Minimum expenditure for work in the Second Extension Period shall be eight million U.S. dollars. (US\$8,000,000).

- d) Work and expenditures accomplished in any Subperiod or Extension Period in excess of the above obligations may be applied as credit in satisfaction of obligations called for in any other Subperiod or Extension Period. The fulfilment of any work obligation shall relieve Contractor of the corresponding minimum expenditure obligation, but the fulfilment of any minimum expenditure obligation shall not relieve Contractor of the corresponding work obligation.
- e) The principle of Article 4 is that, the fulfilment of any minimum Work Programme supersedes its corresponding minimum expenditure. However, for any Extension Period or Subperiod, for which the entire minimum work obligation is not met by Contractor, the corresponding part of the minimum expenditure obligation relating to such unfulfilled work obligation shall be payable to GNPC. Once Contractor has paid GNPC this amount, Contractor shall be deemed to have fulfilled the minimum work obligation for that Extension Period or Subperiod.
- 4.4 No Appraisal Wells drilled or seismic surveys carried out by Contractor as part of an Appraisal Programme undertaken pursuant to Article 8 and no expenditure incurred by Contractor in carrying out such Appraisal Programme shall be treated as discharging the minimum work obligations under Article 4.3.
- 4.5 The seismic programme in Article 4.3(a), when combined with existing data, shall be such as will enable a study of the regional geology of the Contract Area and the preparation of a report thereon with appropriate maps, cross sections and illustrations, as well as a geophysical survey of the Contract Area which, when combined with existing data provides:

Exhibit H to the Unitization and Unit Operating Agreement

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- (a) A minimum seismic grid adequate to define prospective drill sites over prospective closures as interpreted from data available to Contractor; and
- (b) A seismic evaluation of structural and stratigraphic conditions over the remaining portions of the Contract Area.
- 4.6 Each Exploration Well shall be drilled at a location and to an objective depth determined by Contractor, in consultation with GNPC. Except as otherwise provided in Article 4.7 below, the minimum depth of each obligatory Exploration Well shall be whichever of the following is first encountered:
  - a) The depth of 7,500 ft. measured from the Rotary Table Kelly Bushing (RTKB);
  - b) The depth at which Contractor encounters geologic basement and
  - c) The depth at which a Discovery is made and tested.
- 4.7 If in the course of drilling an Exploration Well the Contractor concludes that drilling to the minimum depth specified in Article 4.6 above is impossible, impracticable or imprudent in accordance with accepted international petroleum industry drilling and engineering practice, then Contractor may plug and abandon the Exploration Well and GNPC shall have the option of either:
  - a) Waiving the minimum depth requirement, in which case Contractor will be deemed to have satisfied the obligation to drill such Exploration Well; or
  - b) Unless the Contractor shall have incurred at least eighty per cent (80%) of the budgeted Petroleum Costs for such Exploration Well in drilling such Well, requiring Contractor to drill a substitute Exploration Well at a location determined by Contractor, in consultation with GNPC and to the minimum depth of the original well that was being drilled as set forth in Article 4.6 as applicable, except that if in the course of drilling such substitute Exploration Well Contractor establishes that drilling to the minimum depth specified in Article 4.6 above is impossible, impracticable or imprudent in accordance with accepted petroleum industry drilling and engineering practice, then Contractor may plug and abandon the substitute Exploration Well and will be deemed to have satisfied the obligation to drill one (1) Exploration Well to the minimum depth to which such well had been planned.

The above option shall be exercised by GNPC in writing within thirty (30) days from the plugging and abandonment of the Exploration Well, and failure to exercise such option shall be deemed to be GNPC's waiver of the minimum depth requirement pursuant to (a) above.

4.8 During the Exploration Period, Contractor shall have the right to perform additional Exploration Operations, including without limitation performing gravity and magnetic surveys, drilling stratigraphic wells and performing additional geological

16

Exhibit H to the Unitization and Unit Operating Agreement

and geophysical studies, provided the minimum work obligations are performed within the applicable period.

- 4.9 During the Exploration Period, Contractor shall deliver to GNPC and the Minister, reports on Exploration Operations conducted during each Quarter within thirty (30) days following the end of that Quarter. Further requests for information by the Minister under Section 9(1) of the Petroleum Law shall be complied with within a reasonable time and copies of documents and other material containing such information shall be provided to GNPC.
- 4.10 If, upon completion of the minimum exploration programme set forth in Article 4.3, Contractor desires to conduct a further programme of Exploration on those retained areas that will be relinquished upon expiry of the Exploration Period, Contractor shall have a right of first refusal to the granting of a new petroleum agreement covering such retained areas. If Contractor elects to exercise this right, it must do so in writing to GNPC not less than one (1) year before the expiry of the Exploration Period. If GNPC receives such written election from Contractor, the Parties shall use best efforts to negotiate in good faith a new petroleum agreement to cover such retained areas, such that there shall be no lapse between the expiration of this Petroleum Agreement and the effective date of the new petroleum agreement. The fiscal and commercial terms of such new petroleum agreement will be the same as those contained in this Agreement, provided, the work and expenditure obligations for the new petroleum agreement shall not be unreasonable to Contractor in relation to those set forth in this Agreement. Notwithstanding the foregoing, if there are better written bona fide third party offers, Contractor shall be required to match the best alternative offer or relinquish the retained acreage.

H-21

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Exhibit H to the Unitization and Unit Operating Agreement

18

### RELINQUISHMENT

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- Except as provided in Article 5.2, 8.3, 8.9, 14.9 and 14.11, Contractor's rights and 5.1 obligations in respect of relinquishing portions of the Contract Area shall be as provided hereafter.
  - Without prejudice to Article 5.5, Contractor shall be required to relinquish ten (a) percent (10%) of the Contract Area on the expiration of the First Subperiod. If Contractor elects not to go into the Second Subperiod; then the Contractor shall relinquish the whole contract area.
  - If on or before the expiration of the Second Subperiod Contractor elects to (b) enter into the First Extension Period pursuant to Article 3.1 then, subject to Article 5.2, at the commencement of the First Extension Period, Contractor shall relinquish fifteen percent (15%) of the retained area after the first relinquishment;
  - If at the end of the Second Extension Period Contractor benefits from the new (c) Exploration Period of 10 years for Deep water, Contractor shall not be made to relinquish any further acreage falling in Deepwater if the Contractor elects to go into the three (3) year extension period.
- 5.2 The provisions of Article 5.1 shall not be read or construed as requiring Contractor to relinquish any portion of the Contract Area which constitutes or forms part of either a Discovery Area, Development Area; or Production Area provided, however that if at the end of the first Subperiod, Second Subperiod, First Extension Period or Second Extension Period as the case may be, Contractor elects not to enter the Second Subperiod, First Extension Period, Second Extension Period, Contractor shall relinquish entire Contract Area, other than any Discovery, Development Area and Production Area.
- Each area to be relinquished pursuant to this Article 5 shall be selected by Contractor 5.3 and shall be measured as far as possible in terms of continuous and compact units of a size and shape to permit the carrying out of Petroleum Operations in the relinquished portions.
- 5.4 Without prejudice to the foregoing provisions of this Article 5, in the event that, following the relinquishment of the Contract Area, the Contractor has retained one or more Development and Production Areas, and Contractor and GNPC have, after reviewing all the relevant technical data and information, determined that the field or reservoirs for which a Development and Production Area was granted covers Petroleum lying outside such Development and Production Area, and provided such outside areas are not under any contract, the Minister shall use his best endeavours to extend the relevant Development and Production Area (part of the Contract Area) to

Exhibit H to the Unitization and Unit Operating Agreement

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cover the areal extent of such reservoir or field; provided that Contractor provides technical evidence to show that the Petroleum accumulation lies under the area of extension so requested, and always in accordance with the Petroleum Law.

5.5 Contractor shall have the right at any time to relinquish all or part of the Contract Area provided it has undertaken the work obligation of the Subperiod or Extension Period during which such relinquishment is made.

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Exhibit H to the Unitization and Unit Operating Agreement

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H-23

## **ARTICLE 6**

### JOINT MANAGEMENT COMMITTEE

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- 6.1 In order that the Parties may at all times cooperate in the implementation of Petroleum Operations, GNPC and Contractor shall not later than thirty (30) days after the Effective Date establish a Joint Management Committee (JMC). Without prejudice to the rights and obligations of Contractor for day-to-day management of all Petroleum Operations, the JMC shall oversee and supervise the Petroleum Operations and ensure that all approved Work Programmes and Development Plans are complied with, and accounting for costs and expenses and the maintenance of records and reports concerning the Petroleum Operations are carried out in accordance with this Agreement and the accounting principles and procedures generally accepted in the international petroleum industry.
- 6.2 The composition of and distribution of functions within the JMC shall be as follows:
  - The JMC shall comprise two (2) representatives of GNPC and two (2) representatives of Contractor. GNPC and Contractor shall also designate a substitute or alternate for each member. In the case of absence or incapacity of a member of the JMC, his alternate shall automatically assume the rights and obligations of the absent or incapacitated member;
  - ii) The Chairperson of the JMC shall be designated by GNPC from amongst the members of the JMC;
  - Contractor shall be responsible in consultation with GNPC for the preparation of agenda and supporting documents for each meeting of the JMC and for keeping records of the meetings and decisions of the JMC (GNPC shall have the right to inspect all records of the JMC at any time);
  - iv) At any meeting of the JMC three (3) representatives shall form a quorum.
- 6.3 Meetings of the JMC shall be held and decisions taken as follows:
  - i) All meetings of the JMC shall be held in Accra, London, Tema or Dallas or such other place as may be agreed upon by members of the JMC;
  - ii) The JMC shall meet at least twice yearly and at such times as the members may agree;
  - A meeting of the JMC may be convened by either Party giving not less than twenty (20) days notice to the others or, in a case requiring urgent action, notice of such lesser duration as the members may agree upon;

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Exhibit H to the Unitization and Unit Operating Agreement

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- Decisions of the JMC shall require unanimity provided, however, decisions or iv) approvals required for programmes, budgets and day-to-day operational matters associated with an Appraisal Programme, Development Operations, or Production Operations, the expenditures, outlays or advances for which Contractor will be required to make payments on a one hundred percent (100%) basis shall require the approval of the Contractor's representatives only:
- Any member of the JMC may vote by written and signed proxy held by v) another member:
- vi) Decisions of the JMC may be made without holding a meeting if all representatives of both Parties notify their consent thereto in the manner provided in Article 27;
- GNPC and Contractor shall have the right to bring expert advisors to any JMC vii) meetings to assist in the discussions of technical and other matters requiring expert advice;
- The JMC may also establish subcommittees it deems appropriate for carrying viii) out its functions, such as:
  - a technical subcommittee; a)
  - b) an audit subcommittee; and
  - c) an accounting subcommittee.
- ix) Costs and expenses related to attendance by GNPC outside (but not within) Ghana (e.g. business class travel, transportation, lodging, per diem and insurance) shall be borne by Contractor and treated as Petroleum Costs. Subject to GNPC providing to Contractor reasonable supporting documentation in respect of such costs and expenses, those costs and expenses shall be reimbursed by Contractor to GNPC.
- 6.4 The JMC shall oversee Exploration Operations as follows:
  - Not later than sixty (60) days after the Effective Date and thereafter at least i) – ninety (90) days before the commencement of each subsequent Contract Year, Contractor shall prepare and submit to the JMC for its review a reasonably detailed Work Programme and budget setting forth all Exploration Operations which Contractor proposes to carry out in that Contract Year and the estimated cost thereof, and shall also give an indication of Contractor's tentative preliminary Exploration plans for the succeeding Contract Year;
  - ii) Upon notice to the Minister and GNPC, Contractor may amend any Work Programme or budget submitted to the JMC pursuant to this Article 6 which notice will state why in Contractor's opinion the amendment is necessary or desirable. Any such amendment shall be submitted to the JMC for review;

Exhibit H to the Unitization and Unit Operating Agreement

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- iii) Every Work Programme submitted to the JMC pursuant to this Article 6.4 and every revision or amendment thereof shall be consistent with the requirements set out in Article 4.3 relating to minimum work and expenditure for the period of the Exploration Period in which such Work Programme or budget falls;
- iv) Without prejudice to Article 8.1, Contractor shall report any Discovery to GNPC immediately following such Discovery and shall place before the JMC for review its Appraisal Programme prior to submission thereof to the Minister. Within sixty (60) days of completion of the Appraisal Programme, a JMC meeting to discuss the Appraisal Programme results shall be convened to take place before submission of the detailed Appraisal Programme report provided for in Article 8.7;
- v) The JMC will review Work Programmes and budgets and any amendments or revisions thereto, and Appraisal Programmes, submitted to it by Contractor pursuant to this Article 6, and timely give such advice as it deems appropriate which Contractor shall consider before submitting the Programme to GNPC and the Minister for their information.
- 6.5 From the first occurring Date of Commercial Discovery, the JMC shall have supervision of Petroleum Operations as follows:
  - Within sixty (60) days after the Date of Commercial Discovery, Contractor shall prepare and submit to the JMC for approval any revisions to its annual Work Programme and budget that may be necessary for the remainder of that Contract Year and for the rest of the Exploration Period;
  - ii) At least ninety (90) days before the commencement of each subsequent Calendar Year, Contractor shall submit to the JMC for review and approval a reasonably detailed Work Programme and budget setting forth all Development and Production Operations which Contractor proposes to carry out in that Calendar Year and the estimated cost thereof and shall also give an indication of Contractor's plans for the succeeding Calendar Year;
  - iii) Within sixty (60) days of the Date of Commencement of Commercial Production and thereafter not later than one hundred and twenty (120) days before the commencement of each Calendar Year, Contractor shall submit to the JMC for its review and approval an annual production schedule which shall be in accordance with good international oilfield practice, and shall be designed to provide the most efficient, beneficial and timely production of the Petroleum resources.
- 6.6 Unless superseded by a lifting agreement entered into by GNPC and Contractor, the JMC shall approve lifting schedules for Development and Production Areas. The JMC may review all of Contractor's reports on the conduct of Petroleum Operations.

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Exhibit H to the Unitization and Unit Operating Agreement

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- 6.7 The JMC shall approve Contractor's insurance programme and shall review and approve the programmes for training and technology transfer submitted by Contractor and the accompanying budgets for such schemes and programmes.
- If during any meeting of the JMC the Parties are unable to reach agreement 6.8 concerning any of the matters provided for in Article 6.5 and 6.6, the matter shall be deferred for reconsideration at a further meeting to be held not later than fifteen (15) days following the original meeting. If after such further meeting the Parties are still unable to reach agreement, the matter in dispute shall be referred to the Parties forthwith. Failing agreement within fifteen (15) days thereafter, the matter in dispute shall, at the request of any Party, be referred for resolution under Article 24.

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Exhibit H to the Unitization and Unit Operating Agreement

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# ARTICLE 7

## RIGHTS AND OBLIGATIONS OF CONTRACTOR AND GNPC

### **RIGHTS AND OBLIGATIONS OF CONTRACTOR**

- 7.1 Subject to the provisions of this Agreement, Contractor shall be responsible for the conduct of Petroleum Operations and shall:
  - a) Conduct Petroleum Operations with utmost diligence, efficiency and economy, in accordance with accepted international petroleum industry practices under the same or similar circumstances, observing sound technical and engineering practices using appropriate advanced technology and effective equipment, machinery, materials and methods;
  - b) Take all practicable steps to ensure compliance with Section 3 of the Petroleum Law; including ensuring the recovery and prevention of waste of Petroleum in the Contract Area in accordance with accepted international petroleum industry practices under the same or similar circumstances;
  - c) Prepare and maintain in Ghana full and accurate records of all Petroleum Operations performed under this Agreement;
  - d) Prepare and maintain accounts of all Petroleum Operations under this Agreement in such a manner as to present a full and accurate record of the costs of such operations, in accordance with the Accounting Guide;
  - e) Disclose to GNPC and the Minister any operating or other agreement among the Parties that constitute Contractor relating to the Petroleum Operations hereunder, which agreement shall not be inconsistent with the provisions of this Agreement.
- 7.2 In connection with its performance of Petroleum Operations, Contractor shall have the right within the terms of applicable law:
  - a) To establish offices in Ghana and to assign to those offices such representatives as it shall consider necessary for the purposes of this Agreement;
  - b) To use public lands for installation and operation of shore bases and terminals, harbours and related facilities, pipelines from fields to terminals and delivery facilities, camps and other housing;
  - c) To receive licenses and permission to install and operate such communications and transportation facilities as shall be necessary for the efficiency of its operations;

24

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Exhibit H to the Unitization and Unit Operating Agreement

- d) To bring to Ghana such number of Foreign National Employees as shall be necessary for Petroleum Operations, including employees assigned on permanent or resident status, with or without families, as well as those assigned on temporary basis such as rotational employees;
- e) To provide or arrange for reasonable housing, schooling and other amenities, permanent and temporary, for its employees and to import personal and household effects, furniture and vehicles for the use of its personnel in Ghana;
- f) To be solely responsible for provision of health, accident, pension and life insurance benefit plans on its Foreign National Employees and their families; and such employees shall not be required to participate in any insurance, compensation or other employee or social benefit programmes established in Ghana;
- g) To have, together with its personnel, at all times the right of ingress to egress from its offices in Ghana, the Contract Area, and the facilities associated with Petroleum Operations under this Agreement in Ghana, including the offshore waters, using its owned or chartered means of land, sea and air transportation;
- h) To engage such Subcontractors, expatriate and national, including consultants, and to bring such Subcontractors and their personnel to Ghana as are necessary in order to carry out the Petroleum Operations in a skillful, economic, safe and expeditious manner under the same or similar circumstances;
- i) Provided further, Subcontractors shall have the same rights as Contractor specified in this Article 7.2 to the extent they are engaged by Contractor for the Petroleum Operations hereunder.

## **RIGHTS AND OBLIGATIONS OF GNPC**

- 7.3 GNPC shall assist Contractor in carrying out Contractor's obligations expeditiously and efficiently as stipulated in this Agreement, and in particular GNPC shall use its best efforts to assist Contractor and its Subcontractors to:
  - a) Establish supply bases and obtain necessary communications facilities, equipment and supplies;
  - b) Obtain necessary approvals to open bank accounts in Ghana;
  - c) Subject to Article 21 hereof obtain entry visas and work permits for such number of Foreign National Employees of Contractor and its Subcontractors engaged in Petroleum Operations and members of their families who will be resident in Ghana, and make arrangements for their travel, arrival, medical services and other necessary amenities;
  - d) Comply with Ghana customs procedures and obtain permits for the importation of necessary materials;

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Exhibit H to the Unitization and Unit Operating Agreement

- Obtain the necessary permits to transport documents, samples or other forms of e} data to foreign countries for the purpose of analysis or processing, if such is deemed necessary for the purposes of Petroleum Operations;
- Contact Government agencies dealing with fishing, meteorology, navigation and Ð communications as required;
- Identify qualified Ghanaian personnel as candidates for employment by g) Contractor in Petroleum Operations; and
- h) Procure access for Contractor to infrastructure owned by the State or GNPC or any Affiliate of or entity controlled by the State or GNPC, or owned by any third party upon Contractor's request, subject to such third party's own capacity requirement, for the transportation and/or processing of Petroleum produced under this Agreement. Access to such infrastructure shall be on terms which are fair and reasonable taking account of the capacity and throughput requirement of Contractor and the respective risk, investment and cost of the Contractor and the infrastructure owner and in any event shall be on terms to Contractor no less favourable than those offered to be agreed with any other potential user.
- 7.4 All reasonable expenses incurred by GNPC in connection with any of the matters set out in Article 7.3 above shall be borne by Contractor.
- GNPC shall use its best efforts to render assistance to Contractor in emergencies and 7.5 major accidents, and such other assistance as may be requested by Contractor, provided that any reasonable expenses involved in such assistance shall be borne by Contractor.

26

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Exhibit H to the Unitization and Unit Operating Agreement

### ARTICLE 8

## COMMERCIALITY

- 8.1 Contractor shall notify the Minister and GNPC in writing as soon as possible, after any Discovery is made, but in any event not later than thirty (30) days, after such Discovery is made.
- 8.2 As soon as possible after the analysis of the test results of such Discovery is complete and in any event not later than one hundred (100) days from the date of such Discovery, Contractor shall by a further notice in writing to the Minister indicate whether in the opinion of Contractor the Discovery merits appraisal.
- 8.3 Where the Contractor indicates that the Discovery does not merit appraisal, Contractor shall, subject to Article 8.17 and 8.19 below, relinquish the Discovery Area associated with the Discovery.
- 8.4 Where Contractor indicates that the Discovery merits appraisal, Contractor shall submit to the Minister an Appraisal Programme to be carried out by Contractor in respect of such Discovery.
- 8.5 Unless Contractor and the Minister otherwise agree in any particular case, Contractor shall have a period of two (2) years from the date of Discovery to complete the Appraisal Programme.
- 8.6 Unless the Minister requires revisions to the Appraisal Programme submitted under Article 8.4, Contractor shall commence to conduct the Appraisal Programme within one hundred and eighty (180) days from the date of approval of the Appraisal Programme by the Minister. Where the Contractor is unable to commence the conduct of the Appraisal Programme within one hundred and eighty (180) days from the date of approval of the Appraisal Programme by the Minister, the Minister shall notify Contractor that it risks having the Discovery Area released to GNPC and if within thirty (30) days of such notification Contractor does not commence to conduct the Appraisal Programme, the Discovery area shall be deemed relinquished to GNPC provided however that after Contractor actually embarks on appraisal work or obtains an extension of time for such work, such release shall not occur.
- 8.7 Not later than ninety (90) days from the date on which said Appraisal Programme relating to the Discovery is completed, Contractor will submit to the Minister a report containing the results of the Appraisal Programme. Such report shall include all available technical and economic data relevant to a determination of commerciality, including, but not limited to, geological and geophysical conditions, such as structural configuration, physical properties and the extent of reservoir rocks, areas, thickness and depth of pay zones, pressure, volume and temperature analysis of the reservoir fluids; preliminary estimates of Crude Oil and Natural Gas reserves; recovery drive characteristics; anticipated production performance per reservoir and per well; fluid

Exhibit H to the Unitization and Unit Operating Agreement

H-31

S-M characteristics, including gravity, sulphur percentage, sediment and water percentage and refinery assay pattern. For the avoidance of doubt, all costs associated with the planning and execution of the Appraisal Programme shall be deductible as Petroleum Costs and shall be deemed included in Section 2.2 of the Accounting Guide.

- 8.8 Not later than ninety (90) days from the date on which said Appraisal Programme is completed, Contractor will, by a further notice in writing, inform the Minister whether the Discovery in the opinion of Contractor is or is not a Commercial Discovery.
- 8.9 If Contractor informs the Minister that the Discovery is not a Commercial Discovery, then subject to Articles 8.17 and 8.19, Contractor shall relinquish such Discovery Area; provided, however, that in appropriate cases, before declaring that a Discovery is not a Commercial Discovery, Contractor shall consult with the other Parties and may make appropriate representations proposing minor changes in the fiscal and other provisions of this Agreement which may, in the opinion of Contractor, affect the determination of commerciality. The other Parties may, where feasible, and in the best interests of the Parties agree to make such changes or modifications in the existing arrangements.
- 8.10 If Contractor pursuant to Article 8.8 informs the Minister that the Discovery is a Commercial Discovery, Contractor shall, not later than one hundred and eighty (180) days thereafter, prepare and submit to the Minister a Development Plan.
- 8.11 The Development Plan referred to in Article 8.10 shall be based on detailed engineering studies and shall include:
  - a) Contractor's proposals for the delineation of the proposed Development and Production Area and for the development of any reservoir(s), including the method for the disposal of Associated Gas in accordance with the provisions of Article 14.4;
  - b) The way in which the Development and Production of the reservoir is planned to be financed;
  - c) Contractor's proposals relating to the spacing, drilling and completion of wells, the production, storage, transportation and delivery facilities required for the production, storage and transportation of the Petroleum, including without limitation:
    - The estimated number, size and production capacity of production platforms if any;
    - ii) The estimated number of Production Wells;
    - iii) The particulars of feasible alternatives for transportation of the Petroleum, including pipelines;
    - iv) The particulars of onshore installations required, including the type and specifications or size thereof and

28

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Exhibit H to the Unitization and Unit Operating Agreement

- v) The particulars of other technical equipment required for the operations;
- d) The estimated production profiles for Crude Oil and Natural Gas from the Petroleum reservoirs;
- c) Estimates of capital and Production Operation expenditures;
- f) The economic feasibility studies carried out by or for Contractor in respect of alternative methods for Development of the Discovery, taking into account:
  - i) Location;
  - ii) Water depth;

- iii) Meteorological conditions;
- iv) Estimates of capital and Production Operation expenditures; and
- v) Any other relevant data and evaluation thereof;
- g) The safety measures to be adopted in the course of the Development and Production Operations, including measures to deal with emergencies;
- h) The necessary measures to be taken for the protection of the environment;
- i) Contractor's proposals with respect to the procurement of goods and services obtainable in Ghana;
- j) Contractor's plan for training and employment of Ghanaian nationals; and
- k) The timetable for effecting Development Operations.
- 8.12 The date of the Minister's approval of the Development Plan shall be the Date of Commercial Discovery.
- 8.13 After thirty (30) days following its submission, the Development Plan shall be deemed approved as submitted, unless the Minister has before the end of the said thirty (30) day period given Contractor a notice in writing stating:
  - i) That the Development Plan as submitted has not been approved; and
  - ii) The revisions, proposed by the Minister, to the Development Plan as submitted, and the reasons thereof.

Exhibit H to the Unitization and Unit Operating Agreement

H-33

29

- 8.14 Where the Development Plan is not approved by the Minister as provided under Article 8.13 above, the Parties shall, within a period of thirty (30) days from the date of Contractor's receipt of the notice from the Minister as referred to under Article 8.13 above, meet to agree on the revisions proposed by the Minister to the Development Plan. In the event of failure to agree to the proposed revisions, within fourteen (14) days following said meeting any matters in dispute between the Minister and the Contractor shall be referred for resolution in accordance with Article 24.
- 8.15 Where the issue in dispute referred for resolution pursuant to Article 24 is finally decided in favour of Contractor, the Minister shall forthwith give the requisite approval to the Development Plan submitted by Contractor.
- 8.16 Where the issue in question referred for resolution pursuant to Article 24 is finally decided in favour of the Minister in whole or in part, Contractor shall forthwith:
  - i) Amend the proposed Development Plan to give effect to the final decision rendered under Article 24, and the Minister shall give the requisite approval to such revised Development Plan; or
  - ii) Subject to Article 8.19 below relinquish the Discovery Area.
- 8.17 Notwithstanding the relinquishment provisions of Articles 8.3 and 8.9 above, if Contractor indicates that a Discovery does not at the time merit appraisal, or after appraisal does not appear to be a Commercial Discovery but may merit appraisal or potentially become commercial at a later date during the Exploration Period, then Contractor need not relinquish the Discovery Area and may continue its Exploration Operations in the Contract Area during the Exploration Period; provided, that the Contractor shall explain what additional evaluations, including Exploration work or studies (within or outside the Discovery Area), are or may be planned in order to determine whether subsequent appraisal is warranted or that the Discovery is commercial. Such evaluations shall be performed by Contractor according to a specific timetable, subject to its right of earlier relinquishment of the Discovery Area. After completion of the evaluations, Contractor shall make the indications called for under Article 8.2 or 8.8 and either proceed with appraisal, confirm commerciality or relinquish the Discovery Area. In any case, if at the end of the Exploration Period, Contractor has not indicated its intent to proceed with an Appraisal Programme or that the Discovery is a Commercial Discovery, then the Discovery Area shall be relinquished.
- 8.18 Before Contractor indicates that the Discovery will not merit appraisal, or after Appraisal Programme, indicates it will not be a Commercial Discovery, Contractor may consult with the other Parties and may make appropriate representations proposing minor changes in the fiscal and other provisions of this Agreement which may, in the opinion of Contractor, affect the determination of commerciality. The other Parties may, agree to make such changes or modifications in the existing arrangements. In the event the Parties do not agree on such changes or modifications, and, if within sixty (60) days after such failure to agree, Contractor does not propose

Exhibit H to the Unitization and Unit Operating Agreement

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H-34

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additional evaluations, including Exploration work or studies, that are or may be planned in order to determine whether subsequent appraisal is warranted or that the Discovery is commercial, then subject to Article 8.19, Contractor shall relinquish the Discovery Area.

- 8.19 Nothing in Article 8.3, 8.9, 8.16 or 8.17 above shall be read or construed as requiring Contractor to relinquish:
  - a) Any area which constitutes or forms part of another Discovery Area in respect of which:
    - i) Contractor has given the Minister a separate notice indicating that such Discovery merits appraisal or confirmation; or
    - ii) Contractor has given the Minister a separate notice indicating that such Discovery is a Commercial Discovery; or
  - b) Any area which constitutes or forms part of a Development and Production Area.

8.20 In the event a field extends beyond the boundaries of the Contract Area, the Minister may require Contractor to exploit said Field in association with the third party holding the adjacent area pursuant to unitisation and engineering principles and practices in accordance with accepted international petroleum industry practices.

31



Exhibit H to the Unitization and Unit Operating Agreement

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### SOLE RISK

- 9.1 Subject to and in accordance with the terms of this Article 9, GNPC shall have the right to conduct Sole Risk Operations.
- 9.2 GNPC shall not elect to conduct any Sole Risk operations during the Initial Exploration Period or within the boundaries of a Development and Production Area or a Discovery Area. A Sole Risk Operation to drill additional Exploration Wells or to penetrate and test horizons deeper than the agreed Well depth shall not be conducted if: (i) the Well in question has encountered potentially productive horizons; (ii) employing international petroleum industry practices under the same or similar circumstances, such operations are not technically feasible or cannot be conducted in a safe and prudent manner; (iii) such operations may unduly interfere with or delay Contractor's Petroleum Operations, or may result in additional costs to the Contractor, (iv) such operations will have a detrimental effect on the proper performance of the Contractor's Work Programme or (v) the objective is to drill to and/or test a horizon in which Contractor has made a Discovery or which Contractor has identified as being prospective or considered drilling to during the Exploration Period on the Contract Area.
- 9.3 Subject to Article 9.2, during the Exploration Period GNPC may, at its sole risk and expense, require Contractor) to continue drilling to penetrate and test horizons deeper than those contained in the Work Programme of Contractor or required under Article 4. Subject to Article 9.2, GNPC may also ask the Contractor to test a zone or zones, at GNPC's sole risk and expense, which Contractor has not included in or previously conducted tests in Contractor's test programme. Notice of this shall be given to Contractor in writing as early as possible prior to or during the drilling of an Exploration Well, but in any case, not after Contractor has begun operations to complete or abandon the well.
- 9.4 Upon receipt of a notice from GNPC under Article 9.3, Contractor shall promptly notify GNPC of the estimated cash requirements to conduct the Sole Risk Operation on GNPC's behalf; and shall provide GNPC a copy of such estimate. GNPC shall make financial arrangements satisfactory to the Contractor, failing which GNPC shall promptly pay such cash advance to Contractor in US Dollars in immediately available funds to the bank account designated by Contractor. If Contractor does not receive GNPC's cash advance payment in full within seven (7) days (if the proposed Sole Risk Operation will not be conducted before the end of such seven (7) day period) or within seventy-two (72) hours (if) the drilling rig and other services, equipment and Subcontractors used in the drilling of the Exploration Well are on location waiting to commence the Sole Risk Operation), GNPC shall lose and no longer have the right to conduct such Sole Risk Operation and in such event Contractor shall have the right thereafter to conduct additional operations or plug and abandon such well. Regardless of the cash advance made by GNPC to Contractor, it is understood that GNPC shall bear and pay the entire cost, risk and expense of all expenditures, obligations and liabilities incurred by the Contractor in conducting the Sole Risk Operation. Contractor

32

OM A

Exhibit H to the Unitization and Unit Operating Agreement

shall not be required to use any of its own funds to pay any cost and expense of the Sole Risk Operation. Contractor shall not be obliged to commence or continue a Sole Risk Operation until satisfactory financial arrangements have been made or advance payment from GNPC received in full, as the case may be.

- Stand-by costs incurred for the drilling rig and other services, equipment and 9.5 Subcontractors used in the drilling of the Exploration Well, pending receipt of GNPC's payment of the cash advance to Contractor or any response from GNPC, shall be borne and paid by GNPC.
- At any time before commencing a Sole Risk Operation, Contractor may elect to include 9.6 the proposed Sole Risk Operation in its own Exploration Operations, in which case any resulting Discovery shall not be subject to or affected by the provisions of this Article 9.
- The computation of liabilities and expenses incurred in a Sole Risk Operation, including 9.7 the liabilities and expenses of Contractor for conducting such operations, shall be made in accordance with the principles set out in the Accounting Guide.
- Where any Sole Risk Operation for deeper drilling results in a Discovery, GNPC shall, 9.8 subject to Article 9.2, have the right at its sole cost, risk and expense to develop, produce and dispose of all Petroleum from that deeper horizon; provided, however, Contractor has the optional right to appraise and/or develop, as the case may be, the Discovery for its account under the terms of this Agreement if it so elects by notice to GNPC within a period of sixty (60) days after the date of such Discovery. In such case, Contractor shall reimburse GNPC for all expenses incurred by GNPC in connection with such Sole Risk Operations, and shall make satisfactory arrangements with GNPC for the payment of a premium equivalent to five hundred per cent (500%) of such expenses. Contractor shall, after reimbursing GNPC for all costs associated with its Sole Risk deeper drilling in said well, have the right to include Petroleum production from that well in its total production for the purposes of establishing a Commercial Discovery subject to and in accordance with Article 8.17 and Article 8.18, and if a Commercial Discovery is subsequently established, to develop, produce and dispose of the Petroleum in accordance with the provisions of this Agreement.
- 9.9 Subject to Article 9.2, GNPC shall have the right at its sole cost, risk and expense, to drill not more than two (2) wells within an area that Contractor intends to relinquish or no longer finds prospective; provided, that the Sole Risk Operation intended to be done by GNPC had not previously been scheduled for a work programme to be performed by a Contractor. Such area shall be of reasonable size in view of the geologic prospect defined by GNPC.
- 9.10 In exercise of such right, GNPC must take reasonable steps to have access to all information and data related to the intended Sole Risk Operation for drilling.
- 9.11 Based on GNPC's assessment of such data/information, GNPC shall prepare and submit to a specially convened meeting of the JMC for its review, a reasonably detailed

Exhibit H to the Unitization and Unit Operating Agreement

H-37

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prospect study including a budget and estimated cost and an indication of GNPC's tentative plan for drilling the prospect.

- 9.12 At any time before commencing a Sole Risk operation, Contractor may elect to include the proposed Sole Risk Operation in its own Exploration Operations in which case any resulting Discovery shall not be affected by the provisions of this Article 9.
- 9.13 If the JMC is not unanimous in its decision, the Contractor shall have sixty (60) days to review such proposal and data after which period the Parties will convene another JMC meeting within fourteen (14) days to agree on the inclusion or not of the proposal in the Contractor's Work Programme.
- 9.14 If the JMC is not unanimous in agreeing to include such proposal in the Contractor's Work Programme, the JMC shall refer the matter for resolution by the Minister of Energy. The Minister shall seek to resolve the matter by consultation and negotiations with the Parties. In the event that no agreement is reached within thirty (30) days after the date of referral to the Minister, the Contractor shall relinquish the prospect area for GNPC's Sole Risk Operation for drilling; provided, however, if GNPC has not commenced actual drilling operations within one hundred eighty (180) days from the date of such relinquishment by Contractor, GNPC shall lose the right to conduct such proposed Sole Risk drilling and the area relinquished by Contractor or shall be returned to and become a part of the Contract Area. If GNPC still desires to drill the proposed prospect as a Sole Risk Operation, GNPC shall be required to make the proposal again in accordance with Articles 9.10 through 9.15, inclusive.
- 9.15 Where GNPC's Sole Risk Operation for drilling results in a Discovery, Contractor shall have the right to appraise and/or develop, as the case may be, the Discovery for its account under the terms of this Agreement if it so elects within a period of sixty (60) days after such Discovery. In such case, Contractor shall reimburse GNPC for all expenses incurred by GNPC in connection with the sole risk drilling that made the Discovery, and shall make satisfactory arrangements with GNPC for the payment of a premium equivalent to seven hundred percent (700%) of such expenses. In such event, the area shall be returned to and be part of the Contract Area and thereafter subject to the terms of this Agreement as before the relinquishment by Contractor.
- 9.16 If Contractor does not exercise the option to appraise and/or develop a Sole Risk Discovery for its account pursuant to Article 9.8 or Article 9.16 above, then subject to and in accordance with Article 8.17 and Article 8.18, if Contractor does not propose additional evaluations, including Exploration work or studies, that are or may be planned in order to determine whether subsequent appraisal is warranted or that the Discovery is commercial, Contractor, shall relinquish the Discovery Area and/or shallower or deeper horizon, as the case may be, and in the event of such relinquishment, GNPC shall have a 100% undivided interest in such Discovery. In pursuance of the objective of achieving efficiency and viability in the development of Ghana's petroleum resources, the Parties shall proceed in good faith to negotiate a technically feasible joint development of their respective discoveries for mutual benefit, in accordance with accepted international petroleum industry practice.

Exhibit H to the Unitization and Unit Operating Agreement

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H-38

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- 9.17 Where GNPC's Sole Risk drilling results in a Discovery and upon appraisal the limits of the field are determined to extend beyond the area into the Contractor's retained area, the Parties shall proceed to undertake unitisation in accordance with accepted international petroleum industry practices under the same or similar circumstances.
- 9.18 Sole Risk Operations shall not extend the Exploration Period nor the term of this Agreement and Contractor shall complete any agreed program of work commenced by it under this Article at GNPC's sole risk, and subject to such provisions hereof as the Parties shall then agree, even though the Exploration Period as defined in Article 3 or the term of this Agreement may have expired.
- 9.19 GNPC shall indemnify and hold harmless Contractor against all costs, liabilities, actions, claims, demands and proceedings whatsoever brought by any third party or the State, arising out of or in connection with Sole Risk Operations, unless such actions, claims, demands and proceedings are caused by Contractor's Gross Negligence; provided, that under no circumstances shall Contractor be liable for consequential loss (including but not limited to loss of profit or loss of production).

35

Exhibit H to the Unitization and Unit Operating Agreement

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### SHARING OF PETROLEUM

- 10.1 Gross Production of Petroleum from each Development and Production Area shall (subject to a Calendar Year adjustment developed under the provisions of Article 10.7) be distributed amongst the Parties as follows:
  - Seven and one half percent (71/2%) of the Gross Production of Crude Oil shall be a) delivered to the State as royalty, pursuant to the provisions of the Petroleum Law and the Petroleum Income Tax Law 1987; provided, that if all or any part of the accumulation of Crude Oil within such Area is located in water depths of two hundred (200) meters, (six hundred and fifty six (656) feet) or more, the rate of royalty for Crude Oil shall be five per cent (5%); and provided further that the rate of royalty for any Crude Oil having an API gravity of less than twenty (20) shall be five per cent (5%). The rate of royalty on the Gross Production of Natural Gas shall be five per cent (5%). Upon notice to Contractor, the State shall have the right to elect to receive cash in lieu of its royalty share of Crude Oil. The State's notice shall be given to Contractor at least ninety (90) days in advance of each Quarter or other period to be established pursuant to the provisions of Article 10.7. In such case, said share of Crude Oil shall be delivered to Contractor and it shall pay to the State the value of said share in cash at the relevant weighted average Market Price for the relevant Quarter (or period) as determined in accordance with Article 11.7;
  - b) The State's "AOE" (as hereinafter defined) share of Petroleum, if any, shall be levied in accordance with the Petroleum Law and the Petroleum Income Tax Law 1987 and shall be distributed to the State treasury out of the Contractor's share of Petroleum determined under Article 10.1 (d). The State shall also have the right to elect to receive cash in lieu of the AOE share of Petroleum accorded to it pursuant to Article 10.2. Notification of said election shall be given in the same notice in which the State notifies Contractor of its election to receive cash in lieu of Petroleum under Article 10.2(a). In such case, said share of Petroleum shall be delivered to Contractor and it shall pay to the State the value of said share in cash at the relevant weighted average Market Price for the relevant period as determined in accordance with Article 11.7 for Crude Oil and the price (value) for Natural Gas as determined under Article 14.20;
  - c) After distribution of such amounts of Petroleum as are required pursuant to Article 10.1(a) an amount of Petroleum, if any, shall be delivered to GNPC to the extent it is entitled for Sole Risk Operations under Article 9.
  - d) After distribution of such amounts of Petroleum as are required pursuant to Article 10.1(a) and (c) above, the remaining Petroleum produced from each Development and Production Area shall be distributed to Contractor and,

36

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Exhibit H to the Unitization and Unit Operating Agreement

subject to (e) below, to GNPC on the basis of their respective Participating Interests in accordance with Article 2.4, 2.6 and 2.8.

- e) In the event that GNPC has failed to pay any amounts due to Contractor pursuant to Article 15.2 in this Agreement (such amounts together with interest thereon in accordance with Article 26.6 being hereinafter called "default amounts") and for so long as any such default amounts remain unrecovered by Contractor, an amount of Petroleum shall be delivered to GNPC sufficient in value to reimburse it for its share of Production Costs paid by it to that date, until such share of Production Costs has been fully reimbursed to it, after which a volume of Petroleum shall be delivered to Contractor equivalent in value to the outstanding amounts of the aforesaid default amounts until such default amounts are fully recovered by Contractor. The value of the Crude Oil for the purpose of this Article 10 shall be at the weighted average Market Price determined pursuant to Article 11.7. The value of Natural Gas for the purpose of this Article 10 shall be determined pursuant to Article 14.20.
- 10.2 At any time the State shall be entitled to a portion of Contractor's share of Petroleum then being produced from each separate Development and Production Area (hereinafter referred to as "Additional Oil Entitlements" or "AOE") on the basis of the after Royalty, after-tax inflation-adjusted Rate of Return ("ROR") which Contractor has achieved with respect to such Development and Production Area as of that time. Contractor's ROR shall be calculated on its NCF and shall be determined separately for each Development and Production Area at the end of each Calendar Year in accordance with the following computation:
  - a) Definitions:

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"NCF" means Contractor's net cash flow which shall be calculated for each Calendar Year from the Effective Date of this Agreement and which shall be computed in accordance with the following formula:

NCF = x-y-z

where:

"x" equals all revenues (if any) received during such Calendar Year by Contractor from the Development and Production Area, including an amount computed by multiplying the amount of Petroleum taken by Contractor during such Calendar Year in accordance with Article 10.1 (d) and (e) (if any) excluding such Petroleum taken by Contractor for payment of advances and interest in respect of Petroleum Costs incurred by Contractor on GNPC's behalf, and default amounts as defined in Article 10.1 (e) by the weighted average Market Price applicable to Crude Oil and the value applicable to Natural Gas (determined under Article 14.20) during the Calendar Year when lifted or sold (as applicable), plus any other proceeds specified in the Accounting Guide received by Contractor,

37

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Exhibit H to the Unitization and Unit Operating Agreement

including, without limitation, the proceeds from the sale of any assets to which Contractor continues to have title. For the avoidance of doubt, "x" shall not include revenues from royalty or AOE Petroleum delivered to Contractor because the State has elected to receive cash in lieu or which is Petroleum lifted or sold by Contractor which is part of another Party's entitlement (e.g. Petroleum purchased by Contractor from GNPC or the State); but shall include revenues from Petroleum owned by Contractor but lifted by or sold to another Party (e.g. Crude Oil purchased by GNPC or the State from Contractor).

"y" equals the income tax paid by the Contractor to the State with respect to the Calendar Year in respect of the Development and Production Area. If there are two (2) or more Development and Production Areas, the total income tax paid by Contractor in accordance with the Petroleum Income Tax Law 1987 shall for purposes of this calculation be allocated to the Development and Production Area on the basis of hypothetical tax calculations for the separate Development and Production Areas. The hypothetical tax calculation for each Development and Production Area shall be determined by allocating the total amount of tax incurred for each Calendar Year by Contractor under the Petroleum Income Tax Law to each Development and Production Area based on the ratio that the chargeable income from a given Development and Production Area bears to the total chargeable income of Contractor. The chargeable income of Contractor is determined under section 2 of the Petroleum Income Tax Law and the chargeable income of a Development and Production Area shall be calculated by deducting from the gross income derived from or allocated to that Area those expenses deductible under section 3 of the Petroleum Income Tax Law which are directly attributable to that Area as well as those expenses deductible under the said section 3 which are not attributable to any Development and Production Area where the Development and Production in question had the earliest Date of Commencement of Commercial Production. A negative chargeable income for an Area shall be treated as zero for purposes of this allocation and not more (or less) than the total income tax paid by Contractor shall be allocated between the areas.

"z" equals all Petroleum Costs specified in the Accounting Guide and expended by Contractor during such Calendar Year or in the case of abandonment cost accrued in respect of such Calendar Year pursuant to Article 12.9(b) which are directly attributable or retrospectively deemed attributable to the Development and Production Area, including any Petroleum Costs paid by Contractor on GNPC's behalf, and not reimbursed by GNPC within the Calendar Year, provided that all Petroleum Costs for Exploration Operations not directly attributable to a specific Development and Production Area shall for

H-42

Exhibit H to the Unitization and Unit Operating Agreement

38

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purposes of this calculation be allocated to the Development and Production Area having the earliest Date of Commencement of Commercial Production; and provided further that for the purpose of the ROR calculation, Petroleum Costs shall not include any amounts in respect of interest on loans obtained for the purposes of carrying out Petroleum Operations.

For the avoidance of doubt, where Petroleum Costs are expended before the first Date of Commencement of Commercial Production, the NCF computation shall nonetheless be made for each such Calendar Year and once a Development and Production Area is delineated, costs directly attributable to such Area as well as Exploration Costs not attributable to any other Area shall be retrospectively deemed allocated to the Development and Production Area having the first Date of Commencement of Commercial Production; provided that where, after the delineation of such Development and Próduction Area but before its Date of Commencement of Commercial Production, another Development and Production Area is delineated, Contractor may elect either to maintain the original retrospective allocation or reallocate those Exploration Costs attributable to the new Development and Production Area to such new area.

"FA<sub>n</sub>", "SA<sub>n</sub>" and "TA<sub>n</sub>" means First Account, Second Account and Third Account, respectively, and represent amounts as of the last day of the Calendar Year in question as determined by the formulae in (b) below.

"FA<sub>n-1</sub>", "SA<sub>n-1</sub>" and "TA<sub>n-1</sub>", respectively, mean the lesser of (i) the FA<sub>n</sub>, SA<sub>n</sub>, TA<sub>n</sub>, as the case may be, as of the last day of the Calendar Year immediately preceding the Calendar Year in question, or (ii) zero. Stated otherwise, FA<sub>n-1</sub> shall equal FA<sub>n</sub>, as of the last day of the Calendar Year immediately preceding the Calendar Year in question if such FA<sub>n</sub> was a negative number, but shall equal zero if such FA<sub>n</sub> was a positive number.

Likewise,  $SA_{n-1}$  shall equal  $SA_n$  as of the last day of the Calendar Year immediately preceding the Calendar Year in question if such  $SA_n$  was a negative number, but shall equal zero if such  $SA_n$  was a positive number.

Likewise  $TA_{n-1}$  shall equal  $TA_n$  as of the last day of the Calendar Year immediately preceding the Calendar Year in question if such  $TA_n$  was a negative number, but shall equal zero if such  $TA_n$  was a positive number. In the ROR calculation for the first Calendar Year of Petroleum Operations,  $FA_{n-1}$ ,  $SA_{n-1}$ , and  $TA_{n-1}$  shall be zero.

"i" for the Calendar Year in question equals one (1) subtracted from the quotient of the United States Industrial Goods Wholesale Price Index ("USIGWPI) for the Calendar Year second preceding the Calendar Year in question (e.g. use August data for October's computation) as first reported in the International Financial statistics of the International Monetary Fund,

Exhibit H to the Unitization and Unit Operating Agreement

divided by the USIGWPI for the same second preceding Calendar Year of the immediately preceding Calendar Year as first reported in the International Financial Statistics of the International Monetary Fund. If the USIGWPI ceases to be published, a substitute U.S. Dollar-based price index shall be used.

"n" refers to the nth Calendar Year in question.

"n-1" refers to the Calendar Year immediately preceding the nth Calendar Year

b) Formulae:

$$FA_n = (FA_{n-1} (1 + 0.25 + i)) + NCF$$
$$SA_n = (SA_{n-1} (1 + 0.30 + i)) + NCF$$

In the calculation of  $SA_n$  an amount shall be subtracted from NCF identical to the value of any AOE which would be due to the State if reference were made hereunder only to the  $FA_n$ .

$$TA_n = (TA_{n-1} (1 + 0.40 + i)) + NCF$$

In the calculation of  $TA_n$  an amount shall be subtracted from NCF identical to the value of any AOE which would be due to the State if reference were made hereunder only to the  $FA_n$  and  $SA_n$ .

c) Prospective Application:

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The State's AOE measured in Barrels of Crude Oil or MMBTU as applicable will be as follows:

- i) If  $FA_n$ ,  $SA_{n, and} TA_n$  are all negative, the State's AOE for the Calendar Year in question shall be zero;
- ii) If  $FA_n$  is positive and  $SA_n$  and  $TA_n$  are all negative, the State's AOE for the Calendar Year in question shall be equal to the absolute amount resulting from the following monetary calculation:

7.5% of the  $FA_n$  for that Calendar Year divided by the weighted average Market Price of Crude Oil as determined in accordance with Article 11.7 for Crude Oil and the weighted average price of Natural Gas for the Calendar Year determined in accordance with Article 14.20.

iii) If both  $FA_n$ , and  $SA_n$  are positive, but  $TA_n$  is negative, the State's AOE for the Calendar Year in question shall be equal to an absolute amount resulting from the following monetary calculation:

40

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Exhibit H to the Unitization and Unit Operating Agreement

The aggregate of 7.5% of  $FA_n$  for that Calendar Year plus 15% of the  $SA_n$  for that Calendar Year all divided by the weighted average Market Price of Crude Oil as determined in accordance with Article 11.7 for Crude Oil and the weighted average price of Natural Gas for the Calendar Year determined in accordance with Article 14.20.

iv) If  $FA_n$ ,  $SA_n$  and  $TA_n$ , are all positive the State's AOE for the Calendar Year in question shall be equal to the absolute amount resulting from the following monetary calculation:

The aggregate of 7.5% of the FA<sub>n</sub> for that Calendar Year plus 15% of the SA<sub>n</sub> for that Calendar Year, plus 25% of the TA<sub>n</sub> for that Calendar Year, all divided by the weighted average Market Price Crude Oil as determined in accordance with Article 11.7 and the weighted average price of Natural Gas for the Calendar Year determined in accordance with Article 14.20.

- d) The AOE calculations shall be made in U.S. Dollars with all non-dollar expenditures converted to U.S. Dollars in accordance with Section 1.3.5 of the Accounting Guide. When the AOE calculation cannot be definitively made because of disagreement on the price of Petroleum to use or any other factor in the formulae, then a provisional AOE calculation shall be made on the basis of best estimates of such factors, and such provisional calculation shall be subject to correction and revision upon the conclusive determination of such factors, and appropriate retroactive adjustments shall be made.
- e) The AOE shall be calculated on a Calendar Year basis, with the AOE to be paid commencing with the first Calendar Year following the Calendar Year in which the  $FA_n$ ,  $SA_n$  and  $TA_n$  (as applicable) becomes positive. Because the precise amount of the AOE for a Calendar Year cannot be determined with certainty until after the end of that Calendar year, deliveries (or payments in lieu) of the AOE with respect to a Calendar Year shall be made during such Calendar Year based upon the Contractor's good faith estimates of the amounts owing, with any adjustments following the end of the Calendar Year to be settled pursuant to the procedures agreed to pursuant to Article 10.7. The Contractor of the annual tax return shall make final calculations of the AOE within thirty (30) days following the filing for such Calendar year pursuant to the Petroleum Income Tax Law, and the amount of the AOE shall be appropriately adjusted in the event of a subsequent adjustment of the amount of tax owing on such term.
- 10.3 GNPC shall act as agent for the State in the collection of all Petroleum or money accruing to the State under this Article and delivery or payment to GNPC by Contractor shall discharge Contractor's liability to deliver the share of the State.
- 10.4 The State or GNPC, may elect, in accordance with terms and conditions to be mutually agreed by the Parties, that all or part of the Crude Oil to be distributed to

41

S.S.

Exhibit H to the Unitization and Unit Operating Agreement

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the State or to GNPC pursuant to this Article 10 shall be sold and delivered by the State or GNPC to Contractor or its Affiliate for use and disposal; and in such case, Contractor or its Affiliate shall pay to the State or to GNPC, as the case may be, the weighted average Market Price for any Crude Oil so sold and delivered. Market Price of Crude Oil, for purposes of this Article 10.4, shall be determined in the manner specified in Article 11.7.

- 10.5 Except as otherwise provided in this Agreement, GNPC's and Contractor's respective right and entitlement to the volume of Gross Production of Petroleum at the first metering or fiscalization point shall be shared according to Articles 2.4 and 2.7. Ownership and risk of loss of all Petroleum lifted or sold by Contractor or GNPC shall pass to Contractor or GNPC, as the case may be, after the custody transfer at the fiscal metering skid at the outlet flange ("Delivery Point") of the marine terminal or other storage or holding facility or pipeline for loading into tankers or other transportation equipment referred to in Article 11.1.
- 10.6 Subject to the provisions of Article 15 hereof, Contractor shall have the right to freely export and dispose of all the Petroleum allocated and/or delivered to it pursuant to this Agreement.
- 10.7 The Parties shall through consultation enter into supplementary agreements concerning Crude Oil lifting procedures, lifting and tanker schedules, loading conditions, Crude Oil metering, and the settlement of lifting imbalances, if any, among the Parties at the end of each Calendar Year. The Crude Oil to be distributed or otherwise made available to the Parties in each Quarter in accordance with the preceding provisions of this Article shall, insofar as possible, be in reasonably equal quarterly quantities.
- 10.8 To assist in the making of the AOE calculation in accordance with Article 10.2, there is attached as Annex 3 to this Agreement a worked example of the calculation using hypothetical figures, rates and thresholds, for the purpose of illustration only.

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Exhibit H to the Unitization and Unit Operating Agreement

2

## ARTICLE 11

### MEASUREMENT AND PRICING OF PETROLEUM

- 11.1 Crude Oil shall be delivered by Contractor to storage tanks or other suitable holding facility constructed, maintained and operated in accordance with applicable laws and good international petroleum industry oilfield practice (*e.g.* American Petroleum Institute) under the same or similar circumstances. Crude Oil shall be metered or otherwise measured for quantity and tested for quality in such storage tanks or other facility for all purposes of this Agreement. Any Party may request that measurements and tests be done by an internationally recognised inspection company. Contractor shall arrange and pay for the conduct of any measurement, or test so requested, provided however, that in the case of (1) a test requested for quality purposes and (2) a test requested on metering (or measurement) devices where the test demonstrates that such devices are accurate within acceptable tolerances, the Party requesting the test shall reimburse Contractor for the costs associated with the test or tests.
- 11.2 GNPC or its authorized agent shall have the right:

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- a) To be present at and to observe such measurement of Crude Oil; and
- b) To examine and test whatever appliances are used by Contractor.
- 11.3 In the event that GNPC considers Contractor's methods of measurement to be inaccurate, GNPC shall notify Contractor to this effect and the Parties shall meet within ten (10) days of such notification to discuss the matter. If after thirty (30) days, the Parties cannot agree over the issue they shall refer for resolution under Article 24, the sole question of whether Contractor's method of measuring Crude Oil is accurate. Retrospective adjustments to measurements shall be made where necessary to give effect to the decision rendered under Article 24.
- 11.4 If, upon the examination or testing of appliances provided for in Article 11.2, any such appliances shall be discovered to be defective:
  - a) Contractor shall take immediate steps to repair or replace such appliance; and
  - b) Subject to the establishment of the contrary, such error shall be deemed to have existed for three (3) months or since the date of the last examination and testing, whichever occurred more recently.
- 11.5 In the event that Contractor desires to adjust, repair or replace any measuring appliance, it shall give GNPC reasonable notice to enable GNPC or its authorized agent to be present.
- 11.6 Contractor shall keep full and accurate accounts concerning all Petroleum measured as aforesaid and provide GNPC with copies thereof on a monthly basis, not later than ten (10) days after the end of each month.

43

DATE 1

Exhibit H to the Unitization and Unit Operating Agreement

- 11.7 The Market Price for Crude Oil delivered to Contractor hereunder ('Market Price'') shall be established with respect to each lifting or other period as provided elsewhere as follows:
  - a) On Crude Oil sold by Contractor in "arm's-length commercial transactions" (defined below), the Market Price shall be the price actually realized by Contractor on such sales;
  - b) On Crude Oil sold by Contractor not in an arm's-length commercial transaction, on exports by Contractor without sale or on sales under Article 15.2, the Market Price shall be determined by reference to world Market Prices of comparable Crude Oils sold in arm's-length transactions, and adjusted for oil quality and conditions of pricing, delivery and payment; provided that in the case of sales under Article 15.2 where such sales relate to part only of Contractor's entitlement, prices actually realised by Contractor in sales of the balance of its proportionate share falling within Article 11.7(a) above shall be taken into account in determining Market Price;
  - c) Sales in "arm's-length commercial transactions" shall mean sales to purchasers independent of the seller, which do not involve Crude Oil exchange or barter transactions, government to government transaction, sales directly or indirectly to Affiliates, or sales involving consideration other than payment in U.S. Dollar or currencies convertible thereto, or affected in whole or in part by considerations other than the usual economic incentives for commercial arm's length Crude Oil sales;
  - d) The price of Crude Oil shall be expressed in U.S. Dollars per barrel, F.O.B. the Delivery Point by Contractor;
  - e) If the quality of Crude Oils produced from the Contract Area is different, Contractor may commingle such Crude Oils and the Market Price shall be determined by reference to such commingled stream.
- 11.8 Contractor shall notify GNPC of the Market Price determined by it for its respective lifting during each Quarter not later than thirty (30) days after the end of that Quarter.
- 11.9 If GNPC considers that the price notified by Contractor was not correctly determined in accordance with the provisions of Article 11.7, it shall so notify Contractor not later than thirty (30) days after notification by Contractor of such price, and GNPC and Contractor shall meet not later than twenty (20) days thereafter to resolve any differences of such Market Price.
- 11.10 In the event that GNPC and Contractor fail to agree upon the commencement of meetings for that purpose, or if having met, cannot agree on the Applicable Market Price, the Market Price shall be referred for determination in accordance with Article 24 of this Agreement.

44

Exhibit H to the Unitization and Unit Operating Agreement

11.11 Pending a determination under Article 11.10, the Market Price will be deemed to be the last Market Price agreed or determined, as the case may be, or if there has been no such previous agreement or determination, the price notified by Contractor for the lifting in question under Article 11.8. Should the determined price be different from that used in accordance with the foregoing then the difference plus interest at the Specified Rate shall be paid in cash or in Crude Oil by or to Contractor, as the case may be, within thirty (30) days of such determination.

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Exhibit H to the Unitization and Unit Operating Agreement

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## TAXATION AND OTHER IMPOSTS

- 12.1 No tax, duty, fee or other impost (including VAT) shall be imposed by the State or any entity or Affiliate political subdivision on Contractor, its Subcontractors or its Affiliates in respect of activities related to Petroleum Operations and to the sale and export of Petroleum other than as provided in this Article.
- 12.2 Contractor shall be subject to the following:
  - (i) Royalty as provided for in Articles 10 and 14.17(a);
  - (ii) Income Tax at the rate of thirty-five percent (35%), calculated in accordance with the Petroleum Income Tax Law 1987 (PNDC L.188) or at such lower rate as may be applicable under an amended Petroleum Income Tax Law;
  - (iii) Additional Oil Entitlement as provided for in Article 10.2;
  - (iv) Payments for rental of Government property, public lands or for the provisions of specific services requested by Contractor from State Affiliates; provided, however, that the rates charged Contractor for such rentals or services shall not exceed the rates charged to other members of the public who receive similar services or rentals;
  - (v) Surface rentals payable to the State pursuant to Section 18 of the Petroleum Law per square kilometre of the Contract Area remaining at the beginning of each Calendar Year or upon the creation of a Development and Production Area, as the case may be, in the amounts as set forth below

Phase of Operation	Surface Rentals Per Annum
Initial Exploration Period	US \$ 20 per sq. km.
1st Extension Period	US \$ 25 per sq. km.
2nd Extension Period	US \$ 30 per sq. km.
Development & Production Area	US \$100 per sq. km.

Provided, that a pro-rata payment shall be made to cover the period from the Effective Date to the beginning of the first Calendar Year.

(vi) Taxes, duties, fees or other imposts of a minor nature and amount excluding any that relate to the stamping and registration of this (1) Agreement, (2) any assignment of interest in this Agreement, or (3) any contract in respect of Petroleum Operations between Contractor and any Subcontractor.

46

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Exhibit H to the Unitization and Unit Operating Agreement

- 12.3 Save for withholding tax at a rate of five percent (5%) from the aggregate amount due to any Subcontractor if and when required by Section 27 (1) of the Petroleum Income Tax Law, Contractor shall not be obliged to withhold any amount in respect of tax from any sum due from Contractor to any Subcontractor. Notwithstanding the foregoing, the withholding tax in respect of services provided to Contractor by an Affiliate of any company comprising Contractor shall be waived provided such services are charged at cost.
- 12.4 Contractor shall not be liable for any export tax on Petroleum exported from Ghana and no duty or any other charge shall be levied on such exports. Vessels or other means of loading and transportation used in the export of Contractor's Petroleum from Ghana shall not be liable for any tax, duty or other charge by reason of their use for that purpose.
- 12.5 Subject to the local purchase obligations hereunder, Contractor and Subcontractors may import into Ghana all plant, equipment and materials to be used solely and exclusively in the conduct of Petroleum Operations without payment of customs and other duties, taxes, fees and charges on imports, save minor administrative charges;

### PROVIDED THAT:

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- a) GNPC shall have the right of first refusal for any item imported duty-free under this Article which is later sold in Ghana on condition that the Ghana Customs is notified about the intended sale; and
- b) Where GNPC does not exercise its right of purchase, Contractor may sell to any other person only subject to all import duty and taxes as if such items were being imported at the time of such sale; provided, however, that no duty or tax shall be levied if the purchaser could have imported the item sold free of duty or tax under an exemption similar to Contractor's hereunder.
- 12.6 Foreign National Employees of Contractor or its Affiliates, and of its Subcontractors, shall be permitted to import into Ghana free of import duty their personal and household effects in accordance with the Section 22.7 of PNDCL 64; provided, however, that no property imported by such employee shall be resold by such employee in Ghana except in accordance with Article 12.5.
- 12.7 Subject to GNPC's rights under Article 19, Contractor, Affiliates and Subcontractors and Foreign National Employees shall have the right to export from Ghana all previously imported items as defined. Such exports shall be exempt from all customs and other duties, taxes, fees and charges on exports, save minor administrative charges.
- 12.8 The Ghana Income Tax law applicable generally to individuals who are not employed in the petroleum industry shall apply in the same fashion and at the same rates to employees of Contractor, its Affiliates and its Subcontractors; provided, however, that Foreign National Employees of Contractor, its Affiliates, and its Subcontractors

47

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Exhibit H to the Unitization and Unit Operating Agreement

shall be exempt from the income tax and withholding tax liabilities if they are resident in Ghana for thirty (30) days or less in any Calendar Year.

- 12.9 Pursuant to Part 1 section 3 (2) of the Petroleum Income Tax Law, the parties hereby confirm that in respect of Capital allowance deductions for the purposes of calculating chargeable income of the Contractor, GNPC shall make sufficient arrangements to ensure that the Contractor has the option to fully depreciate in five (5) years. The mode of calculation shall be in accordance with the Capital Allowances schedule annexed to the Petroleum Income Tax Law 1987 (PNDC L.188).
- 12.10 GNPC shall submit to the appropriate State authorities for approval to enable the accrual of cost for abandonment as provided in Section 28 of the Petroleum Law within one (1) year of the Effective Date, to enable Contractor to have such cost allowed as deduction against chargeable income prior to abandonment, using the same method as described for a Petroleum Capital expenditure under the Petroleum Income Tax Law, five (5) years prior to abandonment or after fifty percent (50%) of the reserves are depleted, whichever comes later, based on estimates of abandonment cost (subject to adjustment to actuals).
- 12.11 It is the intent of the Parties that payments by Contractor of tax levied by the Petroleum Income Tax Law qualify as creditable against the income tax liability of each company comprising Contractor in the jurisdiction of its or an Affiliate's incorporation and any other relevant jurisdiction. Should the fiscal authority involved determine that the Petroleum Income Tax does not impose a creditable tax, the Parties agree to negotiate in good faith with a view to establishing a creditable tax on the precondition that no adverse effect should occur to the economic rights of GNPC or the State.
- 12.12 Contractor shall be entitled to economic and fiscal stability according to the rights and benefits as defined in this Agreement.

48 RA M

Exhibit H to the Unitization and Unit Operating Agreement

### FOREIGN EXCHANGE TRANSACTIONS

- 13.1 Contractor shall, for the purpose of this Agreement, he entitled to receive, remit, keep and utilize freely abroad all the foreign currency obtained from the sales of the Petroleum assigned to it by this Agreement or purchased hereunder, or from transfers, as well as its own capital, receipts from loans and in general all assets thereby acquired abroad. Upon making adequate arrangements with regard to its commitment to conduct Petroleum Operations, Contractor shall be free to dispose of this foreign currency or assets as it deems fit.
- 13.2 Contractor shall have the right to open and maintain in Ghana bank accounts in foreign currency and Ghanaian currency. No restriction shall be made on the import by Contractor in an authorized manner of funds assigned to the performance of the Petroleum.Operations and Contractor shall be entitled to purchase Ghanaian currency through authorized means, without discrimination, at the prevailing rate of exchange; provided, however, that such prevailing rate applicable to Contractor hereunder for all transactions for converting Ghanaian currency into U.S. Dollars, and vice versa, shall be at a buying or selling, as the case may be, rate of exchange not less favourable to Contractor than that quoted by the State or its foreign exchange control authority to any person or entity on the dates of such conversion (excepting those special rates provided by the State to certain defined groups for special, limited purposes).
- 13.3 Contractor shall be entitled to convert in an authorized manner into foreign currencies of its choice funds imported by Contractor for the Petroleum Operations and held in Ghana which exceeds its local requirements at the prevailing rate of exchange referred to in Article 13.2 and remit and retain such foreign currencies outside Ghana.
- 13.4 In the event of resale by Contractor or its Affiliate of Crude Oil purchased from the State or GNPC, the State or GNPC shall have the right to request payment for such sales of its share of production to Contractor or its Affiliate to be held in the foreign currency in which the resale transaction took place or in U.S. Dollars.
- 13.5 Contractor shall have the right to make direct payments outside of Ghana from its home offices and elsewhere, to its Foreign National Employees, and to those of its Subcontractors and suppliers "not resident in Ghana" (as that term is defined in part IV, Division I, Section 160 of the Internal Revenue Act at 2000, Act 592) for wages, salaries, purchases of goods and performance of services, whether imported into Ghana or supplied or performed therein, for Petroleum Operations carried out hereunder, in accordance with the provisions of this Agreement, in respect of services performed within the framework of this Agreement. Such payments shall be considered as part of the costs incurred in Petroleum Operations. In the event of any changes in the location of Operator's home or other offices, Operator shall so notify GNPC and the State.

Exhibit H to the Unitization and Unit Operating Agreement

H-53

- 13.6 All payments which this Agreement obligates Contractor to make to GNPC or the State, including income taxes, shall be made in U.S. Dollars, except as requested otherwise pursuant to Article 13.4 above. All payments shall be made by electronic transfer in immediately available funds to a bank to be designated by GNPC or the State, and reasonably accessible to Contractor by way of its being able to receive payments made by Contractor and give a confirmation of receipt thereof, or in such other manner as may be mutually agreed.
- 13.7 All payments which this Agreement obligates either GNPC or the State to make to Contractor shall be made in U.S. Dollars. All payments shall be made by electronic transfer in immediately available funds to a commercial bank to be designated by Contractor, and reasonably accessible to GNPC or the State by way of its being able to receive payments made by GNPC or the State and give confirmation of receipt thereof, or in such other manner as may be mutually agreed.

50

Exhibit H to the Unitization and Unit Operating Agreement

H-54

### SPECIAL PROVISIONS FOR NATURAL GAS

### PART 1 - GENERAL

- 14.1 Contractor shall have the right to use Natural Gas produced from any Development and Production Area for Petroleum Operation within the Contract Area such as reinjection for pressure maintenance and/or power generation.
- 14.2 Contractor shall have the right to flare Natural Gas:
  - a) To the extent provided in an approved Development Plan;
  - b) During production testing operations;
  - c) When required for the safety of persons engaged in Petroleum Operations in accordance with international petroleum industry practice;
  - d) Where reinjection is inadvisable from the point of view of good reservoir or petroleum engineering practice; or
  - e) As otherwise authorized by the Minister.
- 14.3 Contractor shall have the right to extract condensate and Natural Gas liquids for disposition under the provisions relating to Crude Oil. Residual Natural Gas remaining after the extraction of condensate and Natural Gas liquids is subject to the provisions of this Article.

### PART II - ASSOCIATED GAS

- 14.4 Based on the principle of full utilization of Associated Gas and without impediment to Crude Oil production, the Development Plan of each Development and Production Area shall include a plan of utilization for Associated Gas.
- 14.5 If Contractor considers production processing and utilization of Associated Gas from any Development and Production Area to be non-economic, GNPC shall have the option to offtake such Associated Gas at the outlet flange of the gas-oil separator at its sole risk and cost for its own use and to that end the Development Plan proposed by Contractor shall include:
  - a) A statement of the facilities necessary for the delivery to GNPC of such Associated Gas; and
  - b) A plan for the reinjection of such Associated Gas into the reservoir.

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Exhibit H to the Unitization and Unit Operating Agreement

- 14.6 A. If GNPC elects to offtake Associated Gas under Article 14.5 above, GNPC shall pay for the cost of any additional facilities and any related production cost required for the delivery of the gas to GNPC, and/or for the reinjection of such Associated Gas for future delivery, provided that:
  - (i) If Contractor subsequently wishes to participate in GNPC's gas utilization programme, it shall reimburse GNPC for the costs of such facilities plus a premium of three hundred percent (300%); or
  - (ii) If Contractor subsequently develops a gas utilization programme and requires the use of such facilities, Contractor shall pay GNPC an agreed fee for such use.
  - B. If Contractor considers that it may be economic to produce Associated Gas for sale, the provision of Articles 14.12, 14.13 and part IV below shall apply as to such Associated Gas.
  - C. The decision of GNPC as to whether or not to exercise the option provided for in Article 14.5 shall be made in a timely manner. In making any such decision and in its subsequent conduct GNPC shall not create obstacles to, or prevent or delay, the orderly start up or continuation of the production of crude oil as envisaged in Contractor's plan of development.

### PART III - NON-ASSOCIATED GAS

- 14.7 Contractor shall notify the Minister in writing as soon as any Discovery of Non-Associated Gas is made in the Contract Area.
- 14.8 As soon as possible after the technical evaluation of the test results of such Discovery is complete and in any event not later than one hundred eighty (180) days from the date of Discovery, Contractor shall by a further notice in writing to the Minister (the "Notice") indicate whether in Contractor's opinion the Discovery merits appraisal.
- 14.9 Where Contractor's Notice indicates that the Discovery does not at that time merit appraisal but may merit appraisal or additional evaluation at a later date during the Exploration Period or during the initial period under a new petroleum agreement made pursuant to Article 14.18A below, then Contractor need not submit a proposed Appraisal Programme at that time but instead shall indicate what other studies or evaluation may be warranted before an Appraisal Programme is undertaken. A timetable for such evaluation or study shall be agreed with the Minister and GNPC within one hundred and twenty (120) days of Contractor's Notice in Article 14.18. Where Contractor's Notice indicates that the Discovery will not merit appraisal at any time during the Exploration Period or during the initial period under a new petroleum agreement made pursuant to Article 14.18A, then GNPC may by notice to Contractor require Contractor to relinquish the rights to the Non-Associated Gas within that Discovery Area.

52

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Exhibit H to the Unitization and Unit Operating Agreement

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- 14.10 Where Contractor's Notice indicates that the Discovery merits the drilling of one or more Appraisal Wells at that time, Contractor shall prepare and submit to the JMC the appropriate Appraisal Programme which programme shall be scheduled to be completed within two (2) years of the submission of the Notice to the Minister.
- 14.11 Not later than ninety (90) days from the date on which the Appraisal Programme relating to a Discovery is concluded, Contractor shall submit to the Minister a report containing the results of the Appraisal Programme. If the report concludes that the Discovery merits commercial assessment, Contractor shall notify the Minister within one hundred and eighty (180) days from the date on which the Appraisal Programme relating to the Discovery was completed of a programme of such assessment and shall conduct such programme during the rest of the Exploration Period and, if applicable, during the initial period under a new Petroleum Agreement made pursuant to Article 14.18. Notwithstanding the above, Contractor may also notify the Minister that commercial assessment of the Discovery is not warranted at that time but the Discovery may merit such assessment at a later date during the Exploration Period or during the initial period aforesaid. If Contractor so notifies the Minister, Contractor shall also indicate what other studies or evaluation may be warranted before a commercial assessment is undertaken.
- 14.12 The purpose of the commercial assessment shall be to study the uses to which production from the Discovery Area, separately or together with any Natural Gas referred to in Part II of this Article 14, can be devoted and whether involving exports or domestic utilization. As part of the assessment, the Parties shall also pursue discussions on the required contractual arrangements for disposition of the Natural Gas to potential purchasers and/or consumers of the Natural Gas, without prejudice to Contractor's right to conduct separate discussions on behalf of the Parties on sales and other contractual arrangements with any potential buyer, transporter or other relevant entity.
- 14.13 Contractor may consult with the other Parties and may make appropriate representations proposing changes in the fiscal and other provisions of this Agreement which may, in the opinion of Contractor, affect the above determinations made pursuant to Articles 14.10 and 14.11. The other Parties may, where feasible and in the best interests of the Parties, agree to make such changes or modifications in the existing arrangements.
- 14.14 Nothing in this Part III of Article 14 shall be read or construed as requiring Contractor to relinquish any area:
  - Which constitutes or forms part of another Discovery Area in respect of which Contractor has given to the Minister a separate notice indicating that such Discovery merits confirmation or commercial assessments;
  - ii) Which Contractor has given the Minister a separate notice indicating that such Discovery is a Commercial Discovery; or
  - iii) Which constitutes or forms part of a Development and Production Area.

53

Exhibit H to the Unitization and Unit Operating Agreement

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### PART IV - NATURAL GAS PROJECTS

- 14.15 If at any time during the commercial assessment Contractor informs the Minister in writing that the Natural Gas Discovery can be produced commercially, it shall as soon as reasonably possible thereafter submit to the Minister and to GNPC its proposals relating to the development of the Discovery in accordance with Article 8.
- 14.16 If at any time during the commercial assessment Contractor has identified a market in Ghana for the reserves of Associated and/or Non-Associated Gas or any part thereof that can be saved without prejudice to an export project, the Parties shall proceed in good faith to negotiate the appropriate contractual arrangements for the disposition of the Natural Gas. In the event of a domestic market for such Natural Gas, Contractor and GNPC shall negotiate in good faith on terms and price for the delivery into the domestic market of Contractor's share of gas. The price and terms offered by GNPC for the Natural Gas shall be fair and reasonable taking into account among other things, the Contractor's risk and cost of developing the Natural Gas and the uses which will be made of the Natural Gas. If the Parties are unable to reach agreement on the price and other terms as aforesaid within sixty (60) days of such negotiations commencing, or such longer period as the Contractor and GNPC may mutually agree, Contractor shall be free to dispose of such gas to one or more third parties on the terms, including price, which are more favourable than those offered by GNPC. GNPC and the State agree to co-operate with and facilitate any proposals for the creating of a market for Natural Gas or for accessing an existing Natural Gas market whether through export, through the supply of Natural Gas for power generation, conversion to liquids or otherwise.
- 14.17 In the event of a Discovery of Natural Gas in the Contract Area which is to be developed and commercially produced, the provisions of this Agreement in respect to interests, rights and obligations of the Parties regarding Crude Oil shall apply to Natural Gas, with the necessary changes in points of detail, except with respect to specific provisions in this Agreement concerning Natural Gas and different or additional provisions concerning Natural Gas which may be agreed by the Parties in the future.
  - a) The system for the allocation of Natural Gas among the Parties shall follow the same general format as Article 10.1 provides for Crude Oil, with the exception that the royalty to be delivered to the State on Natural Gas shall be at the rate of five percent (5%) of the annual Gross Production of Natural Gas as an incentive to enhance the viability of a Natural Gas project on the basis herein provided for;
  - b) The Parties recognize that projects for the development and production of Natural Gas are generally long-term in nature for both the project developers and the customers who purchase the Natural Gas. Substantial investments and dedication of facilities require long-term commitments on both sides. This

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Exhibit H to the Unitization and Unit Operating Agreement

Agreement, being for a specific term of years, may not cover the length of time for which customers in given cases will require commitments on the part of the Parties to this Agreement to deliver their respective shares of the output. Accordingly the Parties agree to consider undertaking such commitments where reasonably required for the efficient and viable development of a Natural Gas project. It is recognized that, unless otherwise agreed by the Parties hereto, Contractor will have no right or interest in the project or the Natural Gas produced and delivered after this Agreement has expired unless a petroleum agreement pursuant to Article 14.18(A) has been entered into;

- c) In the event that Contractor or an Affiliate decides to construct facilities to receive Natural Gas from the Development and Production Area for further processing or for use as a feedstock or fuel in order to convert such a Natural Gas into one or more commercially marketable products, the Contractor shall be entitled to pay GNPC or the State for such gas the price, if any, paid by the State or GNPC under Article 14.16;
- d) The Parties will consider collaboration in obtaining any common external financing available for Natural Gas processing or Natural Gas utilization facilities, including project financing; however, each Party shall remain free to finance externally its share of such facilities to the extent it prefers to do so.
- 14.18 A. Where Contractor has, during the continuance of the Exploration Period, made a Discovery of Non-Associated Gas; but has not before the end of the Exploration Period declared that Discovery to be a Commercial Discovery, the State and GNPC will, if Contractor so requests, enter into a new petroleum agreement with Contractor in respect of the Discovery Area to which that Discovery relates.
  - B. The State and GNPC shall not be under any obligation to enter into an agreement pursuant to Article 14.18(A) unless before the end of the Exploration Period Contractor has carried out an Appraisal Program in respect of that Discovery pursuant to Article 14.10 and submitted to the Minister a report thereon pursuant to Article 14.11, or has notified the Minister of reasonable arrangements to undertake and complete such an Appraisal Program during the period provided for in Article 14.18 (C) (i) below.
  - C. The petroleum agreement entered into pursuant to Article 14.18(A):
    - Shall, unless the Discovery in respect of which the Agreement has been made is declared by Contractor to be a Commercial Discovery, continue in force for an initial period not exceeding five (5) years;
    - ii) Shall in the event that the Discovery is declared by Contractor to a be Commercial Discovery:
      - a) Continue in force for an aggregate period not exceeding thirty (30) years;

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Exhibit H to the Unitization and Unit Operating Agreement

- Include, or be deemed to include, all the provisions which, b) mutatis mutandis, would have applied to a Commercial Discovery of Non-Associated Gas pursuant to Article 14.17 if Contractor had declared such Discovery to be a Commercial Discovery under this Agreement;
- (iii) Shall contain in respect of the initial period or of any renewal period details of the evaluations or studies which Contractor proposes to undertake in order to determine or keep under review the commerciality of the Discovery.
- Shall confer on GNPC pre-emptive rights in respect of the Gas iv) contained in the reservoir to which the Discovery relates substantially in the form of the provisions hereinafter set out in Article 14.18(D).
- D. Where Contractor has not declared the Discovery to be a Commercial Discovery, if GNPC has identified a market for the Gas contained in the reservoir to which the Discovery relates, or any part thereof, it may at any time during the initial period or the aggregate period referred to in Article 14.18C(ii)(a) above serve on Contractor a notice giving particulars of the quantities of Natural Gas required to serve that market and the price offered; and on the basis of the procedure detailed in Article 9, exercise the right referred to in Article 14.18C(iv) above.

### PART V - VALUE OF NATURAL GAS

- 14.19 For the purposes of calculating the State's 5% royalty share on Natural Gas, if the State elects to take its royalty on Natural Gas in cash, the value of such Natural Gas shall be the actual realised price received by the Contractor, less, transportation, compression and marketing costs.
- 14.20 Notwithstanding Articles 14.16 and 14.19 above, in view of the fact that it is the desire of GNPC that the AOE's levied for Crude Oil and Natural Gas are identical, GNPC, the Minister and Contractor shall use their best efforts to ensure that the value of the Natural Gas expressed in British Thermal Units (BTU), shall not be less than the value of the thermal equivalent of the mean average price for the applicable Calendar Year, as the case may be, of a marker crude oil quoted daily by Platt's Oilgram in the London, England futures market; provided, however, if a valuation is required hereunder on a Monthly basis, the mean average price of such crude oil for three months shall be used, such months being the one previous, the current and the succeeding.

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Exhibit H to the Unitization and Unit Operating Agreement

## DOMESTIC SUPPLY REQUIREMENTS (CRUDE OIL)

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- 15.1 Crude Oil for consumption in Ghana (in this Article called the "Domestic Supply Requirement") shall be supplied at the Delivery Point, to the extent possible, by the State and GNPC from their respective entitlements under this Agreement and under any other agreement for the production of Crude Oil in Ghana.
- 15.2 In the event that Crude Oil available to the State pursuant to Article 15.1 is insufficient to fulfil the Domestic Supply Requirement, Contractor shall be, upon notice from the State be obliged, together with any third parties which produce Crude Oil in Ghana, to supply a volume of Crude Oil to be used for such Domestic Supply Requirements, calculated on the basis of the ratio of Contractor's entitlement to Crude Oil under Article 10.1(d) to the entitlements of all such third parties providing Crude Oil in Ghana, and provided that Contractor's obligation to supply Crude Oil for purposes of meeting the Domestic Supply Requirement shall not exceed twenty-five percent (25%) of the total of Contractor's entitlement. The Domestic Supply Requirement shall take effect on the earlier of:
  - (i) The date on which Contractor is free from any pre-existing contractual obligations; and
  - (ii) Six (6) months from the date of the State's notice.

If the State requires such Crude Oil sooner, Contractor shall only be obligated to supply such quantity of Crude Oil as and when it becomes available on expiry of pre-existing contract(s). Contractor shall not enter into any contractual obligations for the sole purpose of precluding such Domestic Supply Requirement. If the State has reason to believe that this has occurred, GNPC or the Minister shall notify Contractor that the matter is in dispute and the issue shall be referred for resolution in accordance with Article 24.

The State shall purchase any Crude Oil supplied by Contractor pursuant to this Article at a price which matches the weighted average Market Price determined under Article 11.7 for the Month of delivery. The State shall pay such prices in accordance with Article 13.7 within thirty (30) days after receipt of Contractor's invoice, failing which Contractor's obligations in respect of the Domestic Supply Requirement under this Article 15 shall be suspended until payment is made good, at which time deliveries shall be resumed, subject to any alternative commitments that may have been reasonably entered into by Contractor to dispose of the Domestic Supply Requirement during the period of default in payment. Contractor shall recover any amount due and unpaid by State, plus interest at the interest rate defined in Article 26.6, from GNPC's share of Crude Oil as provided in Article 10.1(e).

Exhibit H to the Unitization and Unit Operating Agreement

H-61

# INFORMATION AND REPORTS: CONFIDENTIALITY

- 16.1 Contractor shall keep GNPC regularly and fully informed of Petroleum Operations being carried out by Contractor and provide GNPC with all information, data, (film, paper and digital forms), samples, interpretations and reports, produced in or as a result of such operations (including progress and completion reports), including, but not limited to the following:
  - (a) Processed seismic data and interpretations thereof;
  - (b) Well data, including but not limited to electric logs and other wireline surveys, and mud logging reports and logs, samples of cuttings and cores and analyses made therefrom;
  - (c) Any reports prepared from drilling data or geological or geophysical data, including maps or illustrations derived therefrom;
  - (d) Well testing and well completion reports;
  - (e) Reports dealing with location surveys, seabed conditions and seafloor hazards and any other reports dealing with well, platform or pipeline locations;
  - (f) Reservoir investigations and estimates regarding reserves, field limits and economic evaluations relating to future operations;
  - (g) Daily (during drilling and seismic operations), weekly, monthly and other regular reports on Petroleum Operations;
  - (h) Comprehensive final reports upon the completion of each specific project or operation;
  - Contingency programs and reports on safety and accidents; and (i)
  - Procurement plans, subcontracts and contracts for the provision of services to (i) Contractor.

Certain of the above data shall be provided on film, paper and in digital format as indicated by GNPC. In respect of the reports, one (1) diskette copy on an agreed compatible format shall be submitted in addition to the paper copies.

16.2 Contractor shall have the right to retain for its own use in connection with the conduct of Petroleum Operations under this Agreement copies of data, well logs, maps, magnetic tapes, other geological and geophysical information, portions of core samples and copies of reports, studies and analyses, referred to in Article 16.1.

58

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Exhibit H to the Unitization and Unit Operating Agreement

- 16.3 Not later than ninety (90) days following the end of each Calendar Year, Contractor shall submit to GNPC a report covering Petroleum Operations performed in the Contract Area during such Calendar Year. Such report shall include, but not be limited to:
  - (a) A statement of the number of Exploration Wells, Appraisal Wells and Development Wells drilled, the depth of each such well, and a map on which drilling locations are indicated;
  - (b) A statement of any Petroleum encountered during Petroleum Operations, as well as a statement of any fresh water layers encountered and of any other minerals discovered;
  - (c) A statement of the quantity of Petroleum produced and of all other minerals produced therewith from the same reservoir or deposit;
  - (d) A summary of the nature and extent of all Exploration activities in the Contract Area;
  - (e) A general summary of all Petroleum Operations in the Contract Area; and
  - (f) A statement of the number of employees engaged in Petroleum Operations in Ghana, identified as Ghanaian or non-Ghanaian. Contractor will inform the latter that details as to nationality are required by GNPC and that Contractor is available to assist them to supply that information.
- 16.4 All data, information and reports, including interpretation and analysis supplied by Contractor required or produced pursuant to this Agreement, including without limitation, that described in Articles 16.1, 16.2 and 16.3, shall be treated as confidential and shall not be disclosed by any Party to any other person without the express written consent of the other Parties.
- 16.5 The provisions of Article 16.4 shall not prevent disclosure:
  - (a) By GNPC or the State:

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- (i) To any agency of the State or to any adviser or consultant to GNPC or the State; or
- (ii) For the purpose of obtaining a Petroleum Agreement in respect of any , acreage adjacent to the Contract Area.
- (b) By Contractor:
  - i) To its Affiliates, advisers or consultants;

59

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Exhibit H to the Unitization and Unit Operating Agreement

- To a bona fide potential assignee of all or part of Contractor's interest hereunder, provided GNPC is given prior notice of such potential assignce;
- iii) To banks or other lending institutions for the purpose of seeking external financing of costs of the Petroleum Operations;
- iv) To non-Affiliates who shall provide services for the Petroleum Operations, including Subcontractors, vendors and other service contractors, where this is essential for their provision of such services, and provided GNPC is notified about such disclosure;
- v) To any governmental agencies for obtaining necessary rulings, permits, licenses and approvals, or as may be required by applicable law or financial stock exchange, accounting or reporting practices, and provided GNPC is notified about such disclosure; or
- vi) Such persons and for such purposes as the Joint Management Committee may permit from time to time.

(c) By any Party:

- (i) To the extent necessary in any Arbitration Proceedings or proceedings before a Sole Expert or in proceedings before any court;
- (ii) With respect to such data, information and reports, which, through no fault of the disclosing Party, is in the public domain.
- 16.6 Any Party disclosing information or providing data to any third party under this Article shall require such persons to undertake the confidentiality of such data. Promptly after the Effective Date, the Parties shall agree upon a mutually acceptable international petroleum industry standard form of confidentiality agreement. Contractor shall require the execution of such agreement by a potential assignee prior to disclosure of such data; and shall provide copies of all such signed agreements to GNPC.

60

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Exhibit H to the Unitization and Unit Operating Agreement

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# INSPECTION, SAFETY AND ENVIRONMENTAL PROTECTION

- 17.1 The Minister and/or GNPC shall have the right of access to all sites and offices of Contractor and the right to inspect all buildings and installations used by Contractor relating to Petroleum Operations. Such inspections and audits shall take place in consultation with Contractor and at such times and in such manner as not unduly to interfere with the normal operations of Contractor.
- 17.2 Contractor shall take all necessary steps, in accordance with accepted petroleum industry practice, to perform activities pursuant to the Agreement in a safe manner and shall comply with all requirements of the Law of Ghana including labour, health safety and environmental regulations issued by the Ghana Environmental Protection Agency.
- 17.3 Contractor shall provide an effective and safe system for disposal of water and waste oil, oil base mud and cuttings in accordance with accepted international petroleum industry practice in the same or similar circumstances, and shall provide for the safe completion or abandonment of all boreholes and wells.
- 17.4 Contractor shall exercise its rights and carry out its responsibilities under this Contract in accordance with accepted international petroleum industry practice in the same or similar circumstances, and shall take steps in such manner in an effort to:
  - (a) Result in minimum ecological damage or destruction;
  - (b) Control the flow and prevent the escape or the avoidable waste of Petroleum discovered in or produced from the Contract Area;
  - (c) Prevent damage to Petroleum-bearing strata;
  - (d) Prevent the entrance of water through boreholes and wells to Petroleum-bearing strata, except for the purpose of secondary recovery;
  - (e) Prevent damage to onshore lands and to trees, crops, buildings or other structures; and
  - (f) Avoid any actions, which would endanger the health or safety of persons.
- 17.5 If Contractor's failure to comply with the requirements of Article 17.4 results in the release of Petroleum or other materials on the seabed, in the sea, on land or in fresh water, or if Contractor's operations result in any other form of pollution or otherwise cause harm to fresh water, marine, plant or animal life, Contractor shall, in accordance with accepted international petroleum industry practice in the same or similar circumstances, promptly take all necessary measures to control the pollution, to clean up Petroleum or released material, or to repair, to the maximum extent

61

Exhibit H to the Unitization and Unit Operating Agreement

feasible, damage resulting from any such circumstances. If such release or pollution results directly from the Gross Negligence or wilful misconduct of Contractor, the cost of such cleanup and repair activities shall be borne by Contractor and shall not be included as Petroleum Cost under this Agreement.

- 17.6 Contractor shall notify GNPC immediately in the event of any emergency or major accident and shall take such action, as may be prescribed by GNPC's emergency procedures and by accepted international petroleum industry practices in the same or similar circumstances.
- 17.7 If Contractor does not act promptly so as to control, clean up or repair any pollution or damage, GNPC may, after giving Contractor reasonable notice in the circumstances, take any actions which are necessary, in accordance with accepted international petroleum industry practice in the same or similar circumstances and the reasonable costs and expenses of such actions shall be borne by Contractor and shall, subject to Article 17.5 be included as Petroleum Costs.

62



Exhibit H to the Unitization and Unit Operating Agreement

#### ACCOUNTING AND AUDITING

- 18.1 Contractor shall maintain, at its offices in Ghana, books of account and supporting records in the manner required by applicable law and generally accepted accounting principles used in the international petroleum industry and shall file reports, tax returns and any other documents and any other financial returns which are required by applicable law.
- 18.2 In addition to the books and reports required by Article 18.1 Contractor shall maintain, at its office in Ghana, a set of accounts and records relating to Petroleum Operations under this Agreement. Such accounts shall be kept in accordance with the requirements of the applicable law and generally accepted accounting principles used in the international petroleum industry.
- 18.3 The accounts required by Articles 18.1 and 18.2 shall be kept in United States Dollars.
- 18.4 Contractor will provide GNPC with quarterly summaries of the Petroleum Costs incurred under this Agreement.
- 18.5 GNPC shall review all financial statements submitted by the Contractor as required by this Agreement, and shall signify its provisional approval or disapproval of such statements in writing within ninety (90) days of receipt, failing which the financial statements as submitted by Contractor shall be deemed approved by GNPC; in the event that GNPC indicates its disapproval of any such statement, the Parties shall meet within fifteen (15) days of Contractor's receipt of the notice of disapproval to review the matter. In the event that the matter cannot be resolved, any Party may refer it for resolution under Article 24.
- 18.6 Notwithstanding any provisional approval pursuant to Article 18.5 GNPC shall have the right at its sole expense and upon giving reasonable notice in writing to Contractor to audit the books and accounts of Contractor relating to Petroleum Operations within two (2) years from the submission by Contractor of any report of financial statement. GNPC shall not, in carrying out such audit, interfere unreasonably with the conduct of Petroleum Operations. Any such audit shall be undertaken by an independent international auditing firm and shall be completed within six (6) months after commencement, failing which, the books and accounts covering such period shall be deemed approved. Contractor shall provide all necessary facilities for auditors appointed hereunder by GNPC including working space and access to all relevant personnel, records, files and other materials.

If GNPC desires verification of charges from an Affiliate, Contractor shall at GNPC's sole expense obtain for GNPC or its representatives an audit certificate to this purpose from the statutory auditors of the Affiliate concerned. Copies of audit reports shall be provided to the Contractor and GNPC. Any unresolved audit claim resulting

63

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Exhibit H to the Unitization and Unit Operating Agreement

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from such audit, upon which Contractor and GNPC are unable to agree shall be submitted to the JMC for decision, which must be unanimous. In the event that a unanimous decision is not reached in respect of any audit claim, then such unresolved audit claim shall be submitted for resolution in accordance with Article 24. Subject to any adjustments resulting from such audits, Contractor's accounts and financial statements shall be considered to be correct on expiry of a period of two (2) years from the date of their submission to GNPC, unless before the expiry of such two year period GNPC has notified Contractor in writing of any exceptions to such accounts and financial statements failing which they shall be deemed correct.

18.7 Nothing in this Article shall be read or construed as placing a limit on GNPC's access to Contractor's books and accounts in respect of matters arising under Article 23.4 (a).

S. M 64

Exhibit H to the Unitization and Unit Operating Agreement

### TITLE TO AND CONTROL OF GOODS AND EQUIPMENT

- 19.1 GNPC shall be the sole and unconditional owner of
  - Petroleum produced and recovered as a result of Petroleum Operations, except for such Petroleum as is distributed to the State and to Contractor pursuant to Article 10 or 14 hereof;
  - (b) All physical assets, other than those to which Articles 19.3 or 19.4 apply, which are purchased, installed, constructed or used by Contractor in Petroleum Operations, as and from the time that:
    - The full cost thereof has been recovered by Contractor in accordance with the provisions of the Accounting Guide from its proportionate share of Petroleum revenues and any other revenues it receives in respect of Petroleum Operations; or
    - This Agreement is terminated pursuant to Articles 23.4 and 23.5 and Contractor has not disposed of such assets prior to such termination, whichever occurs first.
- 19.2 Contractor shall have the use of the assets referred to in Article 19.1 (b) for purposes of its Petroleum Operations under this Agreement without payment; provided that Contractor shall remain liable for maintenance, insurance and other costs associated with such use in accordance with international petroleum industry practices in the same or similar circumstances.
- 19.3 Equipment or any other assets rented or leased by Contractor or owned by a Subcontractor which is imported into Ghana for use in Petroleum Operations and subsequently re-exported therefrom, which is of the type customarily leased for such use in accordance with international petroleum industry practice or which is otherwise not owned by Contractor shall not be transferred to GNPC. No equipment or assets owned or leased by a Subcontractor shall by reason of the provisions of this Article 19 be deemed to be transferred to GNPC.
- 19.4 Upon the termination of Petroleum Operations in any Area, Contractor shall give GNPC the option to acquire any movable and immovable assets owned by Contractor and used for such Petroleum Operations and not affected by the provisions of Article 19.1 (b) at a reasonable and mutually agreed price, always provided that Contractor does not require such assets for Contractor's Petroleum Operations in the Contract Area.
- 19.5 All assets, which are not affected by Article 19.1(b) nor subject to Articles 19.4 or 19.5 above, and all Subcontractor equipment, may be freely exported by Contractor or its Subcontractor, respectively, at its discretion.

65

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Exhibit H to the Unitization and Unit Operating Agreement

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19.6 Nothing in this Article 19 shall prevent the Parties from entering into arrangements in respect of assets that are jointly owned under this Agreement in which the Parties share in the revenues or other benefits arising out of the use of such assets by other Parties.

Exhibit H to the Unitization and Unit Operating Agreement

H-70

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### PURCHASING AND PROCUREMENT

- 20.1 In the acquisition of plant, equipment, services and supplies for Petroleum Operations, Contractor shall give preference to materials, services and products produced in Ghana, including shipping services provided by vessels owned or controlled by Ghanaian shipping companies, if such materials, services and products can be shown to meet standards generally acceptable to international oil and gas companies and supplied at prices, grades, quantities, delivery dates and on other commercial terms equivalent to or more favourable than those at which such materials, services and products can be supplied from outside Ghana.
- 20.2 For the purposes of Article 20.1, price comparisons shall be made on a C.I.F. Accra delivered basis.

Exhibit H to the Unitization and Unit Operating Agreement

H-71

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#### EMPLOYMENT AND TRAINING

21.1 In order to establish programmes to train Ghanaian personnel for work in Petroleum Operations and for the transfer of management and technical skills required for the efficient conduct of Petroleum Operations, Contractor shall pay to GNPC to maintain and implement such programs, the following sums of money during the respective terms under this Agreement

Period	Annual Training Amount
Initial Exploration Period	US\$ 125,000
First Extension Period	US\$ 100,000
Second Extension Period and after	US\$ 75,000
Development and Production Period	US\$ 100,000

The above amounts shall be payable within thirty (30) days after the beginning of each Calendar Year; provided that the applicable amount shall be *pro rata* for any portion of less than a full Calendar Year (*e.g.* from the Effective Date to the end of the Calendar Year).

GNPC shall prepare and present to the JMC its recommendation for such programs on an annual basis and shall consider any suggestions made by Contractor's JMC representative. The amount paid by Contractor under this Article 21.1 shall qualify for deduction against income tax under the Income Tax Law and shall be considered Petroleum Cost.

- 21.2 Where qualified Ghanaian personnel are available for employment in the conduct of Petroleum Operations, Contractor shall ensure that in the engagement of personnel it shall as fat as reasonably possible provide opportunities for the employment of such personnel. For this purpose, Contractor shall submit to GNPC an employment plan with number of persons and the required professions and technical capabilities prior to the performance of Petroleum Operations. GNPC shall provide the qualified personnel according to the said plan.
- 21.3 Contractor shall, if so requested by GNPC, provide opportunities for a mutually agreed number of personnel nominated by GNPC to be seconded for on-the-job training or attachment in all phases of its Petroleum Operations under a mutually agreed secondment contract. GNPC shall present recommendations and consult with Contractor as to the number of proposed secondees, the nature of their secondment and the estimate of expenses thereof and shall obtain the approval of the JMC

Exhibit H to the Unitization and Unit Operating Agreement

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H-72

thereto. Secondees shall at all times remain employed by, and receive their salaries from GNPC. Expenses of secondment shall not be credited against the training obligation under Article 21.1. Expenses of secondment shall be borne by Contractor and shall qualify for deduction against income tax under the Petroleum Income Tax Law and shall be considered Petroleum Cost.

- 21.4 Contractor shall regularly provide to GNPC information and data relating to worldwide petroleum science and technology, petroleum economics and engineering available to Contractor, and shall assist GNPC personnel in every way to acquire knowledge and skills in all aspects of the petroleum industry including, without limitation, providing for GNPC personnel to attend courses at universities in the United States, such as the University of Oklahoma; and the costs of such shall be credited against the Contractor's obligations in Article 21.1.
- 21.5 It is agreed that there will be no disclosure or transfer of any documents, data, knowhow, technology or other information owned or supplied by Contractor, its Affiliates, or non Affiliates, to third parties without Contractor's prior written consent, and then only upon agreement by the recipients to retain such information in strict confidence.

69



Exhibit H to the Unitization and Unit Operating Agreement

### FORCE MAJEURE

- 22.1 The failure of a Party to fulfil any term or condition of this Agreement, except for the payment of monies, shall be excused if and to the extent that such failure arises from Force Majeure, provided that, if the event is reasonably foreseeable such party shall have prior thereto taken all appropriate precautions and all reasonable alternative measures with the objective of carrying out the terms and conditions of this Agreement. A Party affected by an event of Force Majeure shall promptly give the other Parties notice of such event and also of the restoration of normal conditions.
- 22.2 A Party unable by an event of Force Majeure to perform any obligation hereunder shall take all reasonable measures to remove its inability to fulfil the terms and conditions of this Agreement with a minimum of delay, and the Parties shall take all reasonable measures to minimize the consequences of any event of Force Majeure.
- 22.3 Any period set herein for the completion by a Party of any act required or permitted to be done hereunder, shall be extended for a period of time equal to that during which such Party was unable to perform such actions as a result of Force Majeure, together with such time as may be required for the resumption of Petroleum Operations.
- 22.4 Except in the case of:
  - a) a law of general application
  - b) an action taken in consequence of an emergency arising from a condition of Force Majeure,

GNPC may not claim Force Majcure in respect of any action or provision of the State or any agency of the State.

70 Str

Exhibit H to the Unitization and Unit Operating Agreement

#### TERM AND TERMINATION

- 23.1Subject to this Article 23 and to the Petroleum (Exploration and Production) Law, PNDCL 84 (Section 12) the term of this Agreement shall be thirty (30) years commencing from the Effective Date.
- At the end of the term provided for in Article 23.1, provided that this Agreement has 23.2 not earlier been terminated, the Parties may negotiate concerning the terms and conditions of a further agreement with respect to the Contract Area or any part thereof, but no failure to enter any such further agreement shall give rise to arbitration pursuant to Article 24 hereof.
- Subject to Article 22, termination of this Agreement shall result upon the occurrence 23.3 of any of the following:
  - The relinquishment or surrender of the entire Contract Area; (a)
  - (b) The termination of the Exploration Period, including extensions pursuant to Article 3, without notification by Contractor of commerciality pursuant to Article 8 in respect of a Discovery of Petroleum in the Contract Area; provided, however, termination shall not occur while Contractor has the right to evaluate a Discovery for appraisal or commerciality and/or propose a Development Plan pursuant to Articles 8 or 14, or once a Development Plan has been approved, nor when the provisions of Articles 8.13 through 8.19 are applicable;
  - (c) If, following a notice that a Discovery is commercial the Exploration Period terminates under Article 3 without a Development Plan being approved, provided however that termination shall not occur when the provisions of Articles 8.13 through 8.19 are applicable; or
  - The failure of Contractor through any cause other than Force Majeure, to (d) commence preparations with respect to Development Operations pursuant to Article 8.11.
- 23.4 Subject to Article 22 and pursuant to procedures described in Article 23.5 below, GNPC and/or the State may terminate this Agreement upon the uncorrected occurrence of any of the events (or failures to act listed) below:
  - The submission by Contractor to GNPC of a written statement which (a) Contractor knows or should have known to be false, in a material particular; provided that in the event of intent on the part of Contractor to cause serious damage to GNPC or the State, a period for remedy of such false statement shall not be given;

71

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Exhibit H to the Unitization and Unit Operating Agreement

- (b) The assignment or purported assignment by Contractor of this Agreement contrary to the provisions of Article 25 hereof;
- (c) The insolvency or bankruptcy of Contractor, the entry by Contractor into any agreements or composition with its creditors, taking advantage of any law for the benefit of debtors or Contractor's entry into liquidation, or receivership, whether compulsory or voluntary, and there is thereby justifiable anticipation that the obligations of Contractor hereunder will not be performed; provided, however, if Contractor is comprised of more than one non-Affiliated entity, application of the above condition to less than all entities comprising the Contractor shall not be a cause for termination of this Agreement;
- (d) The intentional extraction by Contractor of any material of potential economic value other than as authorized under this Agreement, or any applicable law except for such extraction as may be unavoidable as a result of Petroleum Operations conducted in accordance with accepted international petroleum industry practice in the same or similar circumstances;
- (c) Failure by Contractor to fulfil its minimum work obligations pursuant to Article 4; save where the Minister has waived the default;
- (f) Substantial and material failure by Contractor to comply with any of its obligations pursuant to Article 7.1 hereof;
- (g) Failure by Contractor to make any payment of any sum properly due to GNPC or the State pursuant to this Agreement within thirty (30) days after receiving notice that such payment is due, except where liability for payment of such sum is disputed in good faith by Contractor in which case the matter shall be referred to arbitration under Article 24.
- (h) Failure by Contractor to comply with any decisions reached as a result of any arbitration proceedings conducted pursuant to Article 24 hereof.
- 23.5 If GNPC and/or the State believe an event or failure to act as described in Article 23.4 above has occurred, a written notice shall be given to Contractor describing the event or failure. Contractor shall have thirty (30) days from receipt of said notice to commence and pursue remedy of the event or failure cited in the notice. If after said thirty (30) days Contractor has failed to commence appropriate remedial action, GNPC and/or the State may then issue a written "Notice of Termination" to Contractor which shall become effective thirty (30) days from receipt of said Notice by Contractor unless Contractor has referred the matter to arbitration. In the event that Contractor disputes whether an event specified in Article 23.3 or Article 23.4 has occurred or been remedied, Contractor may, any time up to the effective date of any Notice of Termination refer the dispute to arbitration pursuant to Article 24 hereof. If so referred, GNPC and/or the State may not terminate this Agreement in respect of such event except in accordance with the terms of any resulting arbitration award.

Exhibit H to the Unitization and Unit Operating Agreement

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- Upon termination of this Agreement, all rights of Contractor hereunder shall cease, 23.6 except for such rights as may at such time have accrued, and without prejudice to any obligation or liability imposed or incurred under this Agreement prior to termination and to such rights and obligations as the Parties may have under applicable law.
- Upon termination of this Agreement or in the event of an assignment of all the rights 23.7 of Contractor, all wells and associated facilities shall be left in a state of good repair in accordance with accepted international petroleum industry practice.

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# Exhibit H to the Unitization and Unit Operating Agreement

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11-77

# CONSULTATION, ARBITRATION AND INDEPENDENT EXPERT

- 24.1 Except in the cases specified in Article 26.4 any dispute or difference arising between the State and GNPC or either of them on one hand and Contractor on the other hand in relation to or in connection with or arising out of any terms and conditions of this Agreement shall be resolved by consultation and negotiation, provided that if no agreement is reached within thirty (30) days after the date when either Party notifies the other that a dispute or difference exists within the meaning of this Article or such longer period specifically agreed to by the Parties or provided elsewhere in the Agreement, any Party shall have the right subject to Article 24.14 to have such dispute or difference settled through international arbitration, in accordance with the terms and provisions set forth below.
- 24.2 The State and GNPC and Contractor hereby consent to submit to the International Center for Settlement of Investment Disputes (hereinafter the "Centre") any dispute arising out of or relating to this Agreement for settlement by final and binding arbitration pursuant to the *Convention on the Settlement of Investment Disputes between States and Nationals of Other States* (hereinafter the "Convention"). The Convention was signed by the State on November 26, 1965, ratified on July 13, 1966, and entered into force in the Republic of Ghana on October 14, 1966.
- 24.3 It is hereby stipulated that the work and expenditure required to be made under this Agreement is an investment.
- 24.4 GNPC is an agency of the State which has not, as of this date, been designated to the Centre by the State in accordance with Article 25(1) of the Convention. Therefore, in accordance with Article 25(3) of the Convention, the State, by being a signatory to this Agreement, does hereby give its approval and consent to designate GNPC in accordance with Article 25(1) of the Convention.
- 24.5 It is hereby agreed that Kosmos is a national of the Cayman Islands, a designee of the United Kingdom, one of the Contracting States under the Convention.
- 24.6 It is hereby agreed that the right of the Contractor to refer a dispute to the Centre pursuant to this Agreement shall not be affected by the fact that the Contractor has received full or partial compensation from any third party with respect to any loss or injury that is the subject of the dispute; provided that the State or GNPC may require evidence that such third party agrees to the exercise of that right by the Contractor.
- 24.7 Any Arbitral Tribunal constituted pursuant to this Agreement shall consist of three (3) arbitrators; one (1) arbitrator appointed by the State or GNPC and the other appointed by the Contractor. The two arbitrators thus chosen shall appoint the third arbitrator, who shall be President of the Tribunal. Failing the agreement of the two arbitrators to appoint a third, the Secretary-General of the Centre shall appoint the third arbitrator who shall not be a citizen or resident of the country of any of the Parties' nationality and who shall have substantial experience in international petroleum industry matters.

74

Exhibit H to the Unitization and Unit Operating Agreement

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- 24.8 Any Arbitral Tribunal constituted pursuant to this Agreement shall apply the laws of the Republic of Ghana in force on the Effective Date, consistent with such rules of international law as may be applicable, including rules and principles as have been applied by international tribunals.
- 24.9 Any Arbitral Tribunal constituted pursuant to this Agreement shall have the power to decide a dispute in justice and in good faith (*i.e. ex aequo et bono*).
- 24.10 It is expressly understood and agreed by the Parties that no Party shall be required to take any steps to pursue or exhaust the judicial remedies available under the laws of Ghana with respect to the dispute before a Party institutes an arbitration proceeding under the Convention.
- 24.11 The State and GNPC each hereby waives any right of sovereign immunity as to it and its property in respect of the enforcement and execution of any award rendered by an Arbitral Tribunal constituted pursuant to this Agreement.
- 24.12 Any arbitration proceeding pursuant to this Agreement shall be conducted in accordance with the Arbitration Rules of the Centre in effect on the date on which the proceeding is instituted. The Parties agree that any arbitration proceeding conducted pursuant to this Agreement shall be held in London, England at the International Centre for Dispute Resolution. The language of the arbitration shall be English. The arbitration proceeding and any award shall be held strictly confidential, except as required for enforcement.
- 24.13 In any arbitration proceeding conducted pursuant to this agreement, the fees and expenses of the members of the Arbitral Tribunal as well as the charges for the use of the facilities of the Centre shall be borne equally by the Parties.
- 24.14 In lieu of resorting to arbitration, the Parties to a dispute arising under this Agreement, including the Accounting Guide, which such Parties by mutual agreement may consider appropriate may be referred for determination by a Sole Expert to be appointed by agreement of the Parties. In such case, the Parties shall agree on the terms of reference for such proceeding, the schedule of presentation of evidence and testimony of witnesses, and other procedural matters. The decision of the Sole Expert shall be final and binding upon the Parties. The Sole Expert shall have ninety (90) days after his appointment to decide the case, subject to any extensions mutually agreed to by the Parties to the dispute. Upon failure of the Sole Expert to decide the matter timely, any Party may call for arbitration under Article 24.1 above.

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Exhibit H to the Unitization and Unit Operating Agreement

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### ASSIGNMENT

- 25.T This Agreement shall not be assigned by any or all of the companies comprising Contractor directly or indirectly in whole or in part without the prior written consent of GNPC, and the Minister, which consent shall not be unreasonably denied, withheld or delayed.
- 25.2 Any assignment of this Agreement shall bind the assignce as a Party to this Agreement to all the terms and conditions hereof unless otherwise agreed, and as a condition to any assignment, Contractor shall provide an unconditional undertaking by the assignee to assume all obligations assigned by the assignor under this Agreement.
- 25.3 Where in consequence of an assignment hereunder Contractor is more than one person:
  - a) any operating or other agreement made between the persons who constitute Contractor and relating to the Petroleum Operations hereunder shall be disclosed to GNPC and the Minister and shall not be inconsistent with the provisions of this Agreement;
  - b) No change in the scope of the Petroleum Operations may take place without the prior approval in writing of GNPC, which approval shall not be unreasonably delayed or withheld; and
  - c) The duties and obligations of Contractor hereunder shall be joint and several except those relating to the payment of income tax pursuant to Article 12 which shall be the several obligation of each such entity or person.
- GNPC's acquisition of additional participating interest pursuant to Article 9 25.4 shall not be deemed to be an assignment within the meaning of this Article 25.

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Exhibit H to the Unitization and Unit Operating Agreement

### MISCELLANEOUS

- 26.1 This Agreement and the relationship between the State and GNPC on one hand and Contractor on the other shall be governed by and construed with the laws of the Republic of Ghana consistent with such rules of international law as may be applicable, including rules and principles as have been applied by international tribunals.
- 26.2 The State, its departments and agencies, shall support this Agreement and shall take no action which prevents or impedes the due exercise and performance of rights and obligations of the Parties hereunder. As of the Effective Date of this Agreement and throughout its term, the State guarantees Contractor the stability of the terms and conditions of this Agreement as well as the fiscal and contractual framework hereof specifically including those terms and conditions and that framework that are based upon or subject to the provisions of the laws and regulations of Ghana (and any interpretations thereof) including, without limitation, the Petroleum Income Tax Law, the Petroleum Law, the GNPC Law and those other laws, regulations and decrees that are applicable hereto. The State further represent and guarantees that the Contract Area is wholly within Ghana's territorial waters and is not subject to any dispute.
- 26.3 This Agreement and the rights and obligations specified herein may not be modified, amended, altered or supplemented except upon the execution and delivery of a written agreement executed by the Parties. Any legislative or administrative act of the State or any of its agencies or subdivisions which purports to vary any such right or obligation shall, to the extent sought to be applied to this Agreement, constitute a breach of this Agreement by the State; provided, however, if the Petroleum (Exploration and Production) Law, 1984 (PNDCL 84) is amended or replaced (superseded), Contractor shall be entitled to enjoy and this Agreement (and any new petroleum agreement referred to herein) shall be deemed to include (or include as applicable) the terms and conditions in such amendment or replacement law that favourably affect the rights and/or obligations of the Contractor under this Agreement.
- 26.4 Where a Party considers that a significant change in the circumstances prevailing at the time the Agreement was entered into, has occurred affecting the economic balance of the Agreement, the Party adversely affected thereby shall notify the other Partics in writing of the claimed change with a statement of how the claimed change has affected such economic balance or has otherwise affected relations between the Parties. The other Parties shall indicate in writing their reaction to such notification within a period of two

H-81

Exhibit H to the Unitization and Unit Operating Agreement

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(2) months after receipt of such notification. If such significant changes are established by the Parties to have occurred, the Parties shall meet to engage in negotiations and shall effect such changes in, or rectification of, these provisions as they may agree are necessary to restore the relative economic position of the Parties as at the date of this Agreement.

- 26.5 No waiver by any Party of any of its rights hereunder shall be construed or implied, but shall be binding on such Party only if made specifically, expressly and in writing.
- Except for payment obligations arising under the Petroleum Income Tax Law, 26.6 any Party failing to pay any amounts payable by it under this Agreement (including the provisions of Annex 2) on the respective dates on which such amounts are payable by such Party hereunder shall be obligated to pay interest on such unpaid amounts to the Party to which such amounts are payable. The rate of such interest with respect to each day of delay during the period of such non-payment shall be the rate which the National Westminster Bank, London, certifies to be the London Interbank offered rate (LIBOR) in the London Interbank Eurodollar market on thirty (30) day deposits, in effect on the last business day of the respective preceding Month, plus five percent (5%). Such interest shall accrue from the respective dates such amounts are payable until the amounts are actually duly paid. The Party to whom any such amount is payable may give notice of non-payment to the Party in default and if such amount is not paid within fifteen (15) days after such notice, the Party to which the amount is owed may, in addition to the interest referred to above, and without prejudice to Article 10.1 (e) seek remedies available pursuant to Article 24.
- 26.7 A. The rights and obligations under this Agreement of the State and GNPC on the one hand and Contractor on the other shall be separate and proportional and not joint. This Agreement shall not be construed as creating a partnership or joint venture, nor an association or trust (under any law other than the Petroleum Law), or as authorizing any Party to act as agent, servant or employee for any other Party for any purpose whatsoever except as provided in Article 10.4.
  - B. The duties and obligations of each party constituting Contractor hereunder shall be joint and several and it is recognized that each such party shall own and be responsible for its undivided interest in the rights and obligations of Contractor hereunder; provided, however, that the following payments shall be the separate obligation of and shall be made by each Party which constitutes the Contractor:
    - i) Payments under the Petroleum Income Tax Law;

Exhibit H to the Unitization and Unit Operating Agreement

H-82

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- ii) Payments of royalty taken in cash under the provisions of Article 10.1(a); and
- iii) AOE share under the provisions of Article 10.1(b).
- Each Party warrants that it and its Affiliates have not made, offered, or authorized and will not make, offer, or authorize with respect to the matters which are the subject of this Agreement, any payment, gift, promise or other advantage, whether directly or through any other person or entity, to or for the use or benefit of any public official (i.e., any person holding a legislative, administrative or judicial office, including any person employed by or acting on behalf of a public agency, a public enterprise or a public international organization) or any political party or political party official or candidate for office, where such payment, gift, promise or advantage would violate (i) the applicable laws of Ghana; (ii) the laws of the country of incorporation of such Party or such Party's ultimate parent company and of the principal place of business of such ultimate parent company; or (iii) the principles described in the Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, signed in Paris on December 17, 1997, which entered into force on February 15, 1999, and the Convention's Commentaries. Each Party shall defend, indemnify and hold the other Parties harmless from and against any and all claims, damages, losses, penalties, costs and expenses arising from or related to, any breach by such first Party of such warranty. Such indemnity obligation shall survive termination or expiration of this Agreement. Each Party shall in good time (i) respond in reasonable detail to any notice from any other Party reasonably connected with the above-stated warranty; and (ii) furnish applicable documentary support for such response upon request from such other Party.
- 26.9This Agreement shall not take effect unless and until it is ratified by the Parliament of Ghana and this Agreement has been executed by the Parties, whichever occurs later (the "Effective Date").

H-83

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Exhibit H to the Unitization and Unit Operating Agreement

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#### NOTICE

27. Any Notice, Application, Requests, Agreements, Consent, Approval, Instruction, Delegation, Waiver or other communication required or permitted to be given hereunder shall be in writing and shall be deemed to have been properly given when delivered in person to an authorized representative of the Party to whom such notice is directed or when actually received by such Party through registered mail, telex or telefax at the following address or at such other address as the Party shall specify in writing fifteen (15) days in advance:

FOR THE STATE:

Minister of Energy Ministry of Energy Private Mail Bag Ministry Post Office Accra, Ghana Telephone: 233 21 667090 Telex: 2436 ENERGY GH Telefax: 233 21 668262 E-Mail: Energy1@ghana.com

FOR GHANA NATIONAL PETROLEUM CORPORATION.

The Managing DirectorGhana National Petroleum CorporationPetroleum HouseHarbour RoadPrivate Mail BagTema, GhanaTelephone:233 22 204726Telex:2188 or 2704 GNPC GHTelefax:233 22 202854E-Mail:mo.boateng@gnpcghana.com

FOR CONTRACTOR:

Kosmos Energy Ghana HC. c/o Kosmos Energy, LLC 8401 N. Central Expressway Suite 280 Dallas, Texas 75225 U.S.A. ATTN: Craig Glick

 Telephone:
 +00 1 214 363 0700

 Telefax:
 +001 214 363 9024

 E-Mail:
 CGlick@kosmosenergy.com

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-57 -1

Exhibit H to the Unitization and Unit Operating Agreement

THE E. O GROUP Private Mail Bag CT 123 Cantonments – Acera. GHANA.

 
 ATTN:
 Mr. George Y. Owusu. Director

 Telephone:
 (001) 832-489-8100 (mobile) (001) 281-470-1784 (Res.)

 Telefax:
 (001) 281-470-9300

 E-mail:
 gyowusu@prodigv.net.

IN WITNESS WHEREOF the Parties have caused this Agreement to be executed by their duly authorized representatives as of the date first written above.

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Its \_\_\_\_\_\_ CHIEF DIRECTOR MINISTRY OF ENERGY

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Exhibit H to the Unitization and Unit Operating Agreement

## FOR CONTRACTOR

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H-86

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Exhibit H to the Unitization and Unit Operating Agreement

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## ANNEX 1 PAGE 1

### **Contract** Area

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The Contract Area of one thousand, nine hundred and fifty-seven point zero five square kilometres (1957.05 sq. km) (483,598.926 acres) based on a WGS-84 spheriod and UTM projection system.

The Contract Area is designated by the Co-ordinates of the following points:

<u>POINT</u>	LONGITUDE	LATITUDE '					
A	2° 55'00"W	4° 55'00"N					
В	2° 37' 30" W	4° 55' 00"N					
С	2° 37' 30" W	4° 22' 9.73''N					
D	2° 55' 00" W	4° 22'9.73''N					

The map of the Contract Area is shown on the following page.

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H-87

Exhibit H to the Unitization and Unit Operating Agreement

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Exhibit H to the Unitization and Unit Operating Agreement

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## ANNEX 2

#### ACCOUNTING GUIDE

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The purpose of this Accounting Guide is to establish equitable methods as between the Parties for determining charges and credits applicable to Petroleum Operations under the Agreement. Principles established by this Accounting Guide shall truly reflect the Contractor's actual cost.

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Exhibit H to the Unitization and Unit Operating Agreement

#### 1.1 GENERAL PROVISIONS

- 1.1.1 Words and terms appearing in this Annex shall have the same meaning as in the Agreement to which this is attached and to that end, shall be defined in accordance with Article 1 of the Agreement. A reference to an Article in this Annex shall, unless otherwise indicated, refer to an Article in the Agreement.
- 1.1.2 This Annex may be amended by written agreement upon a unanimous decision of the JMC.
- 1.1.3 In the event of a conflict between the provisions of the Accounting Guide and the provisions of the Agreement, the provisions of the Agreement shall prevail.

## 1.2 STATEMENTS REQUIRED TO BE SUBMITTED BY CONTRACTOR

- 1.2.1 Within sixty (60) days from the Effective Date, Contractor shall propose to GNPC an outline of the chart of accounts, operating records and reports to be prepared and maintained, which shall describe the basis of the accounting principles and procedures to be used during the term of the Agreement, and shall be consistent with normal practice of the international petroleum industry and Article 18.2.
- 1.2.2 Within ninety (90) days of the receipt of such proposal, GNPC shall either accept it or request such revisions as GNPC deems necessary. Failure to notify Contractor of any requested revisions within a ninety (90) day period shall be deemed acceptance of such proposal.
- 1.2.3 Within one hundred and eighty (180) days from the Effective Date, the Parties shall either agree on such outline or submit any outstanding issue for determination by a Sole Expert pursuant to the provisions of Article 24.
- 1.2.4 Following agreement over the outline, Contractor shall prepare and submit to GNPC formal copies of the chart of accounts relating to the accounting, recording and reporting functions listed in such outline. Contractor shall also permit GNPC to inspect its manuals and to review all procedures which are to be followed under the Agreement.
- 1.2.5 Without prejudice to the generality of the foregoing, Contractor shall make separate statements relating to Petroleum Operations for each Development and Production Area as follows:

86

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a) Cash Call Statement (see Section 5)

b) Production Statement (see Section 6)

c) Value of Production Statement (see Section 7)

Exhibit H to the Unitization and Unit Operating Agreement

- d) Cost Statement (see Section 8)
- e) Statement of Expenditures and Receipts (see Section 9)
- f) Final End-of-Year Statement (see Section 10)
- g) Budget Statement (see Section 11)
- h) Long Range Plan and Forecast (see Section 12)

## 1.3 LANGUAGE, MEASUREMENT, AND UNITS OF ACCOUNTS

- 1.3.1 The U.S. Dollar being the currency unit for investments and compensation hereunder shall therefore be the unit of currency for all bookkeeping and reporting under the Agreement. When transactions for an asset, capital item or liability are in Ghana Cedis or currency other than the U.S. Dollar, amounts in such other currency shall be immediately converted to U.S. Dollars at the rate actually incurred, and accounts required for the purposes of this Agreement shall be maintained only in U.S. Dollars.
- 1.3.2 Measurement required under this Annex shall be in the metric system and Barrels.
- 1.3.3 The English language shall be employed.
- 1.3.4 Where necessary for purposes of clarification, Contractor may also prepare financial reports in other languages, units of measurement and currencies
- 1.3.5 It is the intent of the Parties that no Party shall experience any gain or loss at the expense of or to the benefit of the other as a result of exchange of currency. Where any such currency exchange gain or loss arises it shall be charged or credited to the accounts under the Agreement.
- 1.3.6 The rate of exchange for the conversion of currency shall be the rate actually incurred in the purchase or sale of currencies required in Petroleum Operations as allowed under the Laws of Ghana,
- 1.3.7 To translate revenue received and expenditures made in Ghana Cedis or in U.S. Dollars, the average of the monthly rate between the currencies shall be used.

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H-91

Exhibit H to the Unitization and Unit Operating Agreement

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## CLASSIFICATION AND ALLOTMENT OF COSTS AND EXPENDITURE

- All expenditure relating to Petroleum Operations shall be classified, as 2.1follows:
  - a) Exploration Expenditure;
  - b) Development Expenditure;
  - c) Production Expenditure;
  - d) Service Costs; and
  - e) General and Administrative Expenses

and shall be defined and allocated as herein below provided.

#### 2.2 **EXPLORATION EXPENDITURE**

Exploration Expenditure shall consist of all direct, indirect and allocated costs incurred in the search for and appraisal of Petroleum in the Contract Area, including but not limited to, expenditure for:

- Aerial, geographical, geochemical, paleontological, geological, a) bathymetrical, topographical and seismic surveys, other geophysical studies and all relevant studies and their interpretation;
- Borehole drilling and water well drilling; b)
- Labour, consumables, materials and services used in drilling wells with c) the objective of finding new Petroleum reservoirs or for the purpose of appraising of Petroleum reservoirs already discovered, provided such wells are not completed as producing wells save such wells temporarily abandoned for future use as producing well;
- Facilities used solely for Exploration Operations, including access d) roads, where applicable, and purchased geological and geophysical information;
- All Service Costs allocated to the Exploration Operations on an e) equitable basis;
- f) All General and Administrative Expenses allocated to Exploration Operations based on the percentage share of projected budget expenditure which will be adjusted to actual expenditure at the end of each Calendar Year;
- g) Direct costs of technical work performed by Contractor, Affiliates and Subcontractors in Exploration Operations;

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Exhibit H to the Unitization and Unit Operating Agreement

h) All of the above costs in connection with or related to an Appraisal Programme.

#### 2.3 **DEVELOPMENT EXPENDITURE**

Development Expenditure shall consist of all expenditure incurred in Development Operations, including but not limited to, expenditure for:

- a) drilling wells which are completed as producing wells and drilling wells for purposes of producing a Petroleum reservoir already discovered, whether these wells are dry or producing;
- b) tangible drilling costs for completing wells such as installation of casing or equipment or otherwise equipping a well after it has been drilled for the purpose of bringing such well into use as a producing well;
- c) intangible drilling costs such as labour, consumable material and services having no salvage value which are incurred in drilling and deepening of wells for producing purposes;
- field facilities such as pipelines, flow lines, production and treatment units, wellhead equipment, subsurface equipment, enhanced recovery systems, offshore platforms and production facilities, Petroleum storage facilities (whether offshore or onshore) and access roads for Production Operations;
- e) engineering and design studies for field facilities;
- f) all service costs allocated to Development Operations on an equitable basis;
- g) all General and Administrative Expenses (incurred within and/or outside Ghana) allocated to Development Operations based on the percentage share of projected budget expenditure which will be adjusted to actual expenditure at the end of the year.

#### 2.4 **PRODUCTION EXPENDITURE**

Production Expenditure shall consist of but not limited to all expenditure incurred in Petroleum Operations after the Date of Commencement of Commercial Production, such expenditure being other than Exploration Expenditure, Development Expenditure, General and Administrative Expenses and Service Costs. The balance of General and Administrative Expenses and Service Costs not allocated to Exploration Operations or to Development Operations under Section 2.2 and 2.3 shall be allocated to Production Expenditure.

H-93

Exhibit H to the Unitization and Unit Operating Agreement

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#### 2.5 SERVICE COSTS

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2.5.1 Service Costs shall consist of but not limited to all direct and indirect expenditure incurred in support of Petroleum Operations (within and/or outside Ghana), including but not be limited to the construction, installation, purchase, hire or charter (as applicable) of the following: of warehouses, piers, marine vessels, vehicles, motorised rolling equipment, aircraft, fire security stations, workshops, water and sewerage plants, power plants, offices, housing community and recreational facilities and furniture, fixtures, tools land, equipment used in such construction or installation.

> Service Costs in any Calendar Year shall include the total costs incurred in such year to purchase and construct or install such facilities as well as the annual costs of maintaining and operating such facilities.

2.5.2 All Service Costs will be regularly allocated on an equitable basis to Exploration Expenditure, Development Expenditure and Production Expenditure.

## 2.6 GENERAL AND ADMINISTRATIVE EXPENSES

#### General and Administrative Expenses shall consist of:

- 2.6.1 All main office, field and general administrative costs benefiting Petroleum Operations (whether incurred within and/or outside Ghana) including but not limited to, supervisory, technical, accounting financial, legal, and employee relations services;
- 2.6.2 An overhead charge for the actual unallocated cost of services rendered outside the Republic of Ghana by Contractor or its Affiliates, whether in or outside the Republic of Ghana, for managing Petroleum Operations and for staff advice and assistance, including but not limited to financial, legal, accounting and employee relations services.
- 2.6.3 All General and Administrative Expenses will be regularly allocated as specified in subsections 2.2 (f), 2.3 (g) and 2.4 to Exploration Expenditure, Development Expenditure and Production Expenditure.

90

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Exhibit H to the Unitization and Unit Operating Agreement

### COSTS, EXPENSES, EXPENDITURES AND CREDITS OF CONTRACTOR

- 3.1 Contractor for the purpose of this Agreement shall charge the following allowable costs to the accounts:
  - a) costs of acquiring surface rights;
  - b) labour and associated labour costs;
  - c) transportation costs;
  - d) charges for services;
  - e) material costs;
  - f) rentals, duties and other assessments;
  - g) insurance and losses;
  - h) legal expenses;
  - i) training expenses;
  - j) General and Administrative Expenses;
  - k) utility costs;

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- office facility charges;
- m) communication charges;
- n) ecological and environmental charges;
- o) abandonment cost; and
- p) such other costs necessary for the Petroleum Operations

### 3.2 COST OF ACQUIRING SURFACE RIGHTS AND RELINQUISHMENT

Cost of acquiring surface rights shall consist of all direct costs attributable to the acquisition, renewal or relinquishment of surface rights acquired and maintained in force over the Contract Area.

#### 3.3 LABOUR AND ASSOCIATED LABOUR COSTS

Labour and associated labour costs shall include but not be limited to:

- a) gross salaries wages and benefits including bonuses of those employees of Contractor and of its Affiliates engaged in Petroleum Operations who are permanently or temporarily assigned to Ghana;
- b) costs of holidays, vacation, sickness and disability payments applicable to the salaries and wages chargeable under (a);
- c) expenses or contributions made pursuant to assessments or obligations imposed under the laws of the Republic of Ghana which are applicable to cost of salaries and wages chargeable under (a);

91

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Exhibit H to the Unitization and Unit Operating Agreement

- d) cost of established plans for employees' life insurance, hospitalisation, pensions and other benefits of a like nature customarily granted to employees; and
- e) reasonable travel and personal expenses of employees and families, including those made for travel and relocation of the personnel, all of which shall be in accordance with usual practice of the Contractor.

#### 3.4 TRANSPORTATION COSTS

Transportation costs and other related costs of transportation of employees, equipment, materials, consumables and supplies necessary for the conduct of Petroleum Operations.

### 3.5 CHARGES FOR SERVICES

- 3.5.1 Charges for services shall include but not be limited to:
  - a) actual costs under third party contracts for technical and all other services entered into by Contractor for Petroleum Operations made with third parties, other than Affiliates of Contractor; provided that the prices paid by Contractor are no higher than the prevailing rates for such services in the regional (*i.e.* Gulf of Guinea) market;
  - b) cost of technical and other services of personnel assigned by the Contractor and its Affiliates when performing management, engineering, geological, geophysical, operations, technical, administrative, legal, accounting, treasury, tax, employee relations, computer services, purchasing, and all other functions for the direct benefit of Petroleum Operations.
  - c) cost of general services, including, but not limited to, professional consultants and others who perform services for the direct benefit of Petroleum Operations.
- 3.5.2 Services furnished by Contractor and its Affiliates shall be charged at rates commensurate with those currently prevailing for such services in the regional (*i.e.* Gulf of Guinea) market.

#### 3.6 RENTALS, DUTIES AND OTHER ASSESSMENTS

All rentals, taxes, duties, levies, charges, fees, contributions and any other assessments and charges levied by the Government in connection with Petroleum Operations or paid for the benefit of Petroleum Operations, with the exception of the income tax specified in the Article 12.2 (ii).

92

Exhibit H to the Unitization and Unit Operating Agreement

#### 3.7 INSURANCE AND LOSSES

- a) Insurance premia and costs incurred for insurance, provided that if such insurance is wholly or partly placed with an Affiliate of Contractor, such premia and costs shall be recoverable only to the extent not in excess of those generally charged by competitive insurance companies other than Affiliate; and;
- b) Costs and losses incurred as a consequence of events, which are, insofar as not made good by insurance, allowable under Article 17 of this Agreement.
- c) Costs or expenses necessary for the repair or replacement of property resulting from damage or losses incurred.

#### 3.8 LEGAL EXPENSES

All costs and expenses of litigation, arbitration, mediation and legal or related services necessary or expedient for the procuring, perfecting, retaining and protecting the rights hereunder and in defending or prosecuting lawsuits involving the Contract Area or any third party claim arising out of Petroleum Operations or activities under the Agreement, or sums paid in respect of legal services necessary or expedient for the protection of the joint interest of GNPC and Contractor; provided that where legal services are rendered in such matters by lawyers that are employees of Contractor or an Affiliate of Contractor, such compensation will be included instead under Section 3.3 or 3.5.

#### 3.9 TRAINING COSTS

All costs and expenses incurred by Contractor in training of its employees and nominees of GNPC to the extent that such training is attributable to Petroleum Operations under the Agreement including, without limitations, the amounts referred to in Article 21.1.

### 3.10 GENERAL AND ADMINISTRATIVE EXPENSES

General and Administrative Expenses shall consist of the costs described in Subsection 2.6.1 and the charge described in Subsection 2.6.2.

#### 3.11 UTILITY COSTS

Any water, electricity, heating, fuel or other energy and utility costs used and consumed for the Petroleum Operations.

#### 3.12 OFFICE FACILITY CHARGES

The cost and expenses of constructing, establishing, maintaining and operating offices, camps, housing and any other facilities necessary to the conduct of Petroleum Operations. The cost of constructing or otherwise establishing any

93

Exhibit H to the Unitization and Unit Operating Agreement

operating facility which may be used at any time in operations of more than one Development and Production Area shall be charged initially to the Development and Production Area for which the facility is first used. Costs incurred, thereafter shall be allocated in a reasonable manner, consistent with generally accepted international petroleum industry accounting practice, to the Development and Production Area for which the facility is used.

#### 3.13 COMMUNICATION CHARGES

The costs of acquiring, leading, installing, operating, repairing and maintaining communication systems, including radio and microwave facilities.

## 3.14 ECOLOGICAL AND ENVIRONMENTAL CHARGES

All charges for environmental protection and safety measures conducted in the Contract Area including, without limitation, those in accordance with Article 17 of the Agreement.

#### 3.15 ABANDONMENT COST

Cost relating to the decommissioning and abandonment of Petroleum Operations and facilities, site restoration and other associated operations accrued from a reasonable date in advance based on estimate of such cost (with subsequent adjustments to actuals) as provided in Article 12.10.

#### 3.16 OTHER COSTS

Any other costs not covered or dealt with in the foregoing provisions which are incurred and not mentioned in Section 3.17 for the necessary and proper conduct of Petroleum Operations.

#### 3.17 COSTS NOT ALLOWABLE UNDER THE AGREEMENT

The following costs shall not be allowable under the Agreement:

- a) commission paid to intermediaries by Contractor,
- b) charitable donations and contributions, except where prior approval has been obtained from GNPC;
- c) interests incurred on loans raised by the Contractor, provided that it shall be deductible for income tax purposes pursuant to the Petroleum Income Tax Law;
- d) petroleum marketing costs or costs of transporting petroleum beyond the Delivery Point;
- e) the costs of any bank guarantees under the Agreement and any other costs spent on indemnities with regard to non-fulfilment of contractual obligations, without prejudice to the Petroleum Income Tax Law;

94

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Exhibit H to the Unitization and Unit Operating Agreement

- f) premium paid as a result of GNPC's Sole Risk Operations under Article 9 of this Agreement;
- g) cost of arbitration under Article 24 of the Agreement or dispute settlement by any independent expert under the terms of the Agreement;
- final and unappealable fines and penalties imposed by a competent Court of Law;
- i) cost incurred as a result of Contractor's gross negligence or wilful misconduct chargeable to Contractor or the Operator under the terms of the Agreement.

#### 3.18 ALLOWABLE AND DEDUCTIBILITY

The costs and expenses set forth herein shall be for the purpose of determining allowable or non-allowable costs and expenses only and shall have no bearing on Contractor's eligibility or otherwise for deductions in computing Contractor's net income from Petroleum Operations for income tax purposes or for purposes of Article 10 under this Agreement.

#### 3.19 CREDITS UNDER THE AGREEMENT

The net proceeds of the following transactions will be credited to the accounts under the Agreement:

- a) the net proceeds of any insurance or claim in connection with Petroleum Operations or any assets charged to the accounts under the Agreements when such Petroleum Operations or assets were insured and the premia charged to the accounts under the Agreement;
- b) revenue received from third parties for the use of property or assets charged to the accounts under this Agreement;
- c) any adjustment from the suppliers or manufacturers or their agents in connection with a defective equipment or material the cost of which was previously charged to the account under the Agreement;
- d) the proceeds received for materials imported previously charged to the account under the Agreement and subsequently exported from the Republic of Ghana or transferred or sold to third parties without being used in the Petroleum Operations;
- e) rentals, refunds or other credits received which apply to any charge which has been made to the account under the Agreement, but excluding any award granted under arbitration or sole expert proceedings;
- f) the proceeds from the sale or exchange of plant or facilities from the Development and Production Area or plant or facilities the acquisition

95

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Exhibit H to the Unitization and Unit Operating Agreement

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costs of which have been deducted in the AOE computation for the relevant Development and Production Area.

- g) the proceeds derived from the sale or issue of any intellectual property the development cost of which were incurred pursuant to this Agreement;
- h) the proceeds from the sale of any petroleum information derived from Petroleum Operations under this Agreement.

#### 3.20 DUPLICATION OF CHARGES AND CREDITS

Notwithstanding any provision to the contrary in this Annex, it is the intention that there shall be no duplication of charges or credits in the accounts under the Agreement.

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Exhibit H to the Unitization and Unit Operating Agreement

H-100

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MATERIAL

### 4.1 VALUE OF MATERIAL CHARGED TO THE ACCOUNTS UNDER THE AGREEMENT

Material purchased, leased or rented by Contractor for use in Petroleum Operations shall be valued at the actual net cost incurred by Contractor. The net cost shall include invoice price, less trade and cash discounts, if any, purchase and procurement fees, plus freight and forwarding charges between point of supply and point of shipment, freight to port of destination and on to point of usage or installation, including but not limited to, insurance, taxes, customs duties, consular fees, other items incurred on such material, and any other related costs actually paid.

### 4.2 VALUE OF MATERIAL PURCHASED FROM AN AFFILIATE

Contractor shall notify GNPC of any goods supplied by an Affiliate of Contractor. Materials purchased from Affiliate of Contractor shall be charged at the prices specified in Sections 4.2.1, 4.2.2 and 4.2.3.

#### 4.2.1 New Material (Condition "A")

New material shall be classified as Condition "A". Such material shall be valued at the prevailing market price, plus expenses incurred in procuring such new materials, and in moving such materials to the locations where the material shall be used.

## 4.2.2 · Used Material (Condition "B")

Used material shall be classified as Condition "B" provided that it is in sound and serviceable condition and is suitable for reuse without reconditioning. Such material shall be valued at not more than seventy five percent (75%) of the current price of new material valued according to Section 4.2.1 above.

#### 4.2.3 Used Material (Condition "C")

Used material which is serviceable for original function as good second hand material after reconditioning and cannot be classified as Condition "B" shall be classified as Condition "C". Such material shall be valued at not more than fifty percent (50%) of the current price of new material valued according to Section 4.2.1 above. The cost of reconditioning shall be charged to the reconditioned material provided that that the value of such Condition "C" material plus the

97

Exhibit H to the Unitization and Unit Operating Agreement

cost of reconditioning does not exceed the value of Condition "B" material.

## 4.3 CLASSIFICATION OF MATERIALS

Material costs shall be charged to the respective Exploration Expenditure, Development Expenditure, Production Expenditure accounts at the time the material is acquired and on the basis of the intended use of the material. Should such material subsequently be used other than as intended, the relevant charge will be transferred to the appropriate account.

#### 4.4 **DISPOSAL OF MATERIALS**

Sales of materials and other property shall be recorded at the net amount collected by the Contractor from the purchaser.

#### 4.5 WARRANTY OF MATERIALS

In the case of defective material or equipment, any adjustment received by Contractor from the suppliers or manufacturers of such materials or their agents will be credited to the accounts under the Agreement. Contractor does not warrant any material.

#### 4.6 CONTROLLABLE MATERIALS

- 4.6.1 The Contractor shall control the acquisition, location, storage and disposition of materials which are subject to accounting record control, physical inventory and adjustment for overages and shortages (hereinafter referred to as "Controllable Material").
- 4.6.2 Unless additional inventories are scheduled by the JMC, Contractor shall conduct one physical inventory of the Controllable Material each Calendar Year which shall be completed prior to the end of each such year. The Contractor shall conduct said inventory on a date to be approved by the JMC. Failure on the part of GNPC to participate in a JMC scheduled to approved physical inventory shall be regarded as approval of the results of the physical inventory as conducted by the Contractor.
- 4.6.3 The gain or loss resulting from the physical inventory shall be reflected in the stock records of Controllable Materials. The Contractor shall compile a reconciliation of the inventory with a reasonable explanation for such gains or losses. Failure on the part of GNPC to object to Contractor's reconciliation within thirty (30) days of compilation of said reconciliation shall be regarded as approval by GNPC.

H-102

98

Exhibit H to the Unitization and Unit Operating Agreement

## CASH CALL STATEMENT

- 5.1 In respect of any Production Costs to which GNPC is contributing for any Development and Production Area in which GNPC is contributing for its Participating Interest, and in any case, where Contractor conducts a Sole Risk Operation on GNPC's account, Contractor shall at least fifteen (15) days prior to the commencement of any Month, submit a Cash Call Statement to GNPC for its share of Production Operations, or subject to Article 9.4, Sole Risk Operation expenditures, as applicable. Such Cash Call Statement shall include the following information:
  - a) Due Date;

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- b) Payment Instructions;
- c) The balance prior to the Cash Call being issued;
- d) Amount of US Dollars due; and
- e) An estimation of the amounts of US Dollars required from GNPC for the following month.
- 5.2 Not later than the twenty-fifth day of each Month, Contractor will furnish GNPC a statement reflecting for the previous Month:
  - a) Payments;
  - b) The nature of such payments by appropriate classifications; and
  - c) The balance due to or from GNPC.
- 5.3 Contractor may in the case where a large unforeseen expenditure becomes necessary issue a special Cash Call Statement requiring GNPC to meet such Cash Call within ten (10) days of receipt of such Statement.

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Exhibit H to the Unitization and Unit Operating Agreement

#### PRODUCTION STATEMENT

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- 6.1 Subsequent to the Date of Commencement of Commercial Production from the Contract Area, Contractor shall submit a monthly Production Statement to GNPC showing the following information for each Development and Production Area as appropriate:
  - a) the quantity of Crude Oil produced and saved;
  - b) the quantity of Natural Gas produced and saved;
  - c) the quantities of Petroleum used for the purpose of conducting drilling and Production Operations, pumping to field storage and reinjections;
  - d) the quantities of Natural Gas flared;
  - e) the size of Petroleum stocks held at the beginning of the Month;
  - f) the size of Petroleum stocks held at the end of the Month.
- 6.2 The Production Statement of each Calendar Month shall be submitted to GNPC not later than ten (10) working days after the end of such Month.

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Exhibit H to the Unitization and Unit Operating Agreement

## VALUE OF PRODUCTION STATEMENT

7. Contractor shall prepare a statement providing calculations of the value of Crude Oil produced and saved during each Quarter based on the Market Price established under Article 11 of the Agreement as well as the amounts of Crude Oil allocated to each of the Parties during that Quarter. Such Statement shall be submitted to the Minister and to GNPC not later than thirty (30) days following the determination, notification and acceptance of the Market Price to GNPC according to Article 11 of the Agreement.

H-105

101

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Exhibit H to the Unitization and Unit Operating Agreement

#### COST STATEMENT

- 8.1 Contractor shall prepare with respect to each Quarter, a Cost Statement containing the following information:
  - a) Total Petroleum Costs in previous Quarters, if any;
  - b) Petroleum Costs for the Quarter in question;
  - c) Total Petroleum Costs as of the end of the Quarter in question (subsection 8.1 (a) plus subsection 8.1 (b)
  - d) Petroleum Costs for Development Operations advanced in the Quarter in respect of GNPC's Participating Interest pursuant to Article 2.4 of the Agreement;
  - e) Costs as specified in (d) above which have been recovered during the Quarter pursuant to Article 10.1 of the Agreement and the balance, if any, of such costs unrecovered and carried forward for recovery in a later period.

Petroleum Costs for Exploration, Development and Production Operations as detailed above shall be separately identified for each Development and Production Area. Petroleum Costs for Exploration Operations not directly attributable to a specific Development Area shall be shown separately.

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The Cost Statement of each Quarter shall be submitted to GNPC no later than thirty (30) days after the end of such Quarter.



Exhibit H to the Unitization and Unit Operating Agreement

## STATEMENT OF EXPENDITURES AND RECEIPTS

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- 9.1 Subsequent to the Date of Commencement of Commercial Production from the Contract Area, Contractor shall prepare with respect to each Quarter a Statement of Expenditures and Receipts. The Statement will distinguish between Exploration Expenditure and Development Expenditure and Production Expenditure and will identify major items of expenditure within these categories. The statement will show the following:
  - a) actual expenditures and receipts for the Quarter in question;
  - b) cumulative expenditure and receipts for the budget year in question;
  - c) latest forecast of cumulative expenditures at the year end; and
  - d) variations between budget forecast and latest forecast and explanations therefor.
- 9.2 The Statement of Expenditures and Receipts of each Calendar Quarter shall be submitted to GNPC not later than forty-five (45) days after the end of such Quarter for provisional approval by GNPC.

H-107

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Exhibit H to the Unitization and Unit Operating Agreement

#### FINAL END-OF-YEAR STATEMENT

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10. The Contractor will prepare a Final End-of-Year Statement. The Statement will contain information as provided in the Production Statement, Value of Production Statements, Cost Statement and Statement of Expenditures and Receipts, as appropriate. The Final End-of-year Statement of each Calendar Year shall be submitted to GNPC within ninety (90) days of the end of such Calendar Year. Any necessary subsequent adjustments shall be reported promptly to GNPC.

H-108

104

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Exhibit H to the Unitization and Unit Operating Agreement

#### BUDGET STATEMENT

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- 11.1 The Contractor shall prepare an annual Budget Statement. This will distinguish between Exploration Expenditure, Development Expenditure and Production Expenditure and will show the following;
  - a) Forecast Expenditures and Receipts for the budget year under the Agreement;
  - b) cumulative Expenditures and Receipts to the end of said budget year; and
  - c) the most important individual items of Exploration Expenditures, Development Expenditures and Production Expenditures for said budget year.

The budget may include a budget line or lines for unforeseen expenditures which, however, shall not exceed ten percent (10%) of the total budgetary expenditure.

- 11.2 The Budget Statement shall be submitted to GNPC and the JMC with respect to each budget year no less than ninety (90) days before the start of such year, except in the case of the first year of the Agreement when the Budget Statement shall be submitted within ninety (90) days after the Effective Date.
- 11.3 Where Contractor foresees that during the budget period expenditures have to be made in excess of the ten percent (10%) pursuant to Section 11.1 hereof, Contractor shall submit a revision of the budget to GNPC.

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Exhibit H to the Unitization and Unit Operating Agreement

### LONG RANGE PLAN AND FORECAST

- Contractor shall prepare and submit to GNPC the following: 12.1
  - During Exploration Period, an Exploration Plan for each year a) commencing as of the Effective Date which shall contain the following information:
    - Estimated Exploration Costs showing outlays for each of the years 'i) or the number of years agreed and covered by the Plan;
    - Details of seismic operations for each such year; ii)
    - Details of drilling activities planned for each such year; iii)
    - Details of infrastructure utilisation and requirements. iv)

The Exploration Plan shall be revised on each anniversary of the Effective Date. Contractor shall prepare and submit to GNPC the first Exploration Plan for the First Subperiod of eighteen (18) months within ninety (90) days after the Effective Date and thereafter shall prepare and submit to GNPC no later than ninety (90) days before the start of such year during the Exploration Period, a revised Exploration Plan.

- In the event of a Development Plan being approved, the Contractor shall b) prepare a Development forecast for each Calendar Year of the Development Period, which shall contain the following information:
  - forecast of capital expenditure portions of Development i) Expenditures and Production Expenditures for each Calendar Year of the Development Period;
  - forecast of Production Expenditures for each Calendar Year; · ii)
  - forecast of Petroleum production for each Calendar year; iii)
  - forecast of number and types of personnel employed in the iv) Petroleum Operations in the Republic of Ghana;
  - description of proposed Petroleum marketing arrangements; v)
  - description of main technologies employed; and vi)

H-110

description of the working relationship of Contractor to GNPC. · vii)

The Development forecast shall be revised at the beginning of cach Calendar Year commencing as of the second year of the first Development Period. Contractor shall prepare and submit to GNPC the first Development forecast within one hundred and twenty (120) days after the first Date of Commercial Discovery and Contractor commences the implementation of the Development Plan and thereafter shall prepare and submit a revised Development forecast to GNPC no later than thirty (30) days before each Calendar Year commencing as of the second year of the first Development forecast.

## 12.2 CHANGES OF PLAN AND FORECAST

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It is recognised by Contractor and GNPC that the details of the Exploration Plan and Development forecast may require changes in the light of existing circumstances and nothing herein contained shall limit the flexibility to make such changes. Consistent with the foregoing the said Plan and Forecast may be revised when appropriate. The Exploration Plan and Development Forecast are for planning and discussion purposes only.

H-111

107

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Exhibit H to the Unitization and Unit Operating Agreement

## ANNEX 3

## SAMPLE AOE CALCULATION

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Exhibit H to the Unitization and Unit Operating Agreement

## SAMPLE ADDITIONAL OIL ENTITLEMENT CALCULATION

This sample calculation has been prepared to illustrate the Additional Oil Entitlement (AOE) provisions of Article 10 of the Petroleum Agreement to which this Annex 3 is attached and made a part thereof. The assumptions used, year-by-year cash flows, inflation rate, and resulting AOE payments are hypothetical only and are neither based upon nor do they represent an actual situation.

### Sample AOE Calculation:

Contractor's Revenues minus Income Taxes minus "Petroleum Costs"

- Income Tax Rate: 35%
- Petroleum Costs: Contractor's Petroleum Costs including costs advanced on GNPC's behalf

## Additional Oil Entitlement (AOE):

Discounted Cash Flow

Real Rate of Return (%*)	AOE Rate (%)
12½ or less	0
Over 121/2	12
Over 171⁄2	18
Over 221/2	.24
Over 27½	28

H-113

#### \*Rate of Return exclusive of Inflation

Exhibit H to the Unitization and Unit Operating Agreement

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## SAMPLE AOE CALCULATION (MILLION US DOLLARS)

YEAR	CONTRACTOR'S HYPOTHETICAL NET CASH FLOW	FA <sub>N</sub> @ 17.50% P.A.	AOE 1 12%	SA <sub>N</sub> @ 22.50% P.A.	AOE 2 18%	TA <sub>N</sub> @ 27.50% P.A.	AOE 3 24%	ZA <sub>N</sub> @ 32.50% P.A.	AOE 4 28%	TOTAL AOE PAYMEN TS
1	(2.0)	(2.0)		(2.0)	-	(2.0)	-	(2.0)	-	
2	(15.0)	(17.4)		(17.5)	-	(17.6)	-	(17.7)	<u> </u>	<u> </u>
3	(15.0)	(35.4)		(36.4)	-	(37.4)	-	(38.4)	-	-
4	· (20.0)	(61.6)	-	(64.6)	-	(67.7)	-	(70.9)		-
5	(50.0)	(122.4)	-	(129.1)	-	((136.3)	-	(143.9)	-	
6	(75.0)	(218.8)	-	(233.1)	-	(248.7)	-	(265.7)	-	
7	75.0	(182.1)	-	(210.6)	-	(242.1)	-	(277.0)		<u> </u>
8	80.0	(133.9)	-	(178.0)	-	(228.7)	-	(287.0)	-	-
9	100.0	(57.3)	-	(118.0)	-	(191.6)	-	(280.3)	-	
10	150,0	82.6	9.9	(4.5)	-	(104.2)	-	(231.3)		9.9
11	125.0	125.0	15.0	104.5	18.8	(41.7)	-	(215.3)		33,8
12	75.0	75.0	9.0	66.0	11.9	1.0	0.2	(231.4)		21.1
13	40.0	40.0	4.8	35.2	6.3	28,9	6.9	(284.6)	-	18.1
14	20.0	20.0	2.4	17.6	3.2	14.4	3.5	(366.2)		9.0
15	5.0	5.0	0.6	4.4	0.8	3.6	0.9	(482.5)	-	2.3
TOTAL	493		41.7		41.0		11.5		•	94.2

### NOTES

- 1) RATES OF RETURN USED ABOVE INCLUDE INFLATION OF 5%
- 2) YEAR 10: AOE 1 = 0.12 \* \$82.6 MM (i.e. 0.12 TIMES CUMULATIVE CASH FLOWS COMPOUNDED AT 17.5% PER ANNUM) = \$9.9 MM
- 3) YEARS 11 THROUGH 15: AOE1 IN Nth YEAR = Nth YEAR FA \* 0.12
- 4) YEAR 10: SA = \$118 MM \* 1.225 + (\$150 MM \$9.9 MM) = \$4.5 MM
- 5) YEAR 11: AOE2 = 0.18 \* \$104.5 (i.e. AOE RATE TIMES CUMULATIVE CASH FLOW LESS AOE1 PAYMENTS COMPOUNDED AT 22.5% PER ANNUM) = \$18.8 MM

H-114

Exhibit H to the Unitization and Unit Operating Agreement

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## ANNEX 4

## PARENT COMPANY GUARANTEE

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Exhibit H to the Unitization and Unit Operating Agreement

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#### GUARANTY AND SUPPORT AGREEMENT

THIS GUARANTY AND SUPPORT AGREEMENT (herein called this "Guaranty"), dated as of \_\_\_\_\_\_, 2004, is made by Kosmos Energy Holdings, a Cayman Islands Exempted Company limited by guarantee but not having a share capital (herein called the "Parent").

WHEREAS, the Parent is the owner of all of the outstanding equity interests of Kosmos Energy Ghana HC, a Cayman Islands exempted company (herein called the "Subsidiary"); and

WHEREAS, the Subsidiary has executed a Petroleum Agreement with the Ghana National Petroleum Corporation (the "Counterparty") with respect to petroleum exploration, development and production within Ghana (the "Agreement"); and

WHEREAS, the Parent has determined that it is in its best interests to make the guaranties and agreements and provide the support for the Subsidiary with respect to the Agreement as provided herein;

NOW, THEREFORE, in consideration of the premises and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and to induce the Counterparty to execute and deliver the Agreement, and recognizing that the Counterparty would not have executed and delivered the Agreement without receiving the benefit of this Agreement from Parent, the Parent hereby agrees as follows for the benefit of the Counterparty:

I. <u>Terms</u>. Terms used in this Guaranty and not otherwise defined shall have the respective meanings set forth in the Agreement.

2. <u>Guaranty of Performance</u>. The Parent hereby absolutely and unconditionally guarantees the prompt, complete and full performance, when due, of all obligations, agreements and undertakings of the Subsidiary under the Agreement and any other agreement made by the Subsidiary or an Affiliate thereof with the Counterparty. The obligations of the Parent under this Guaranty are independent of the obligations of the Subsidiary and its Affiliates, and the Counterparty may proceed directly to enforce all rights under this Guaranty without proceeding against or joining the Subsidiary or any of its Affiliates or any other person.

. 3. <u>Support</u>. In addition to and without limiting the foregoing, the Parent will provide or will cause to be provided to the Subsidiary such funds as may be required from time to time by the Subsidiary in order for the Subsidiary to pay its obligations in accordance with the terms of the Agreement.

4. <u>Affiliates</u>. The Parent or any of its Affiliates will not take action which would in any manner circumvent the provisions of the Agreement.

5. <u>Term.</u> The obligations of the Parent under this Guaranty shall commence as of the date hereof and shall continue until the earlier to occur of (i) the termination of the Agreement (except with respect to any obligations hereunder as to

112

Exhibit H to the Unitization and Unit Operating Agreement

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any matters arising or occurring prior to such termination, which obligations shall continue until performed or satisfied in full), or (ii) the written waiver of the obligations hereunder by the Counterparty.

6. <u>No Impairment</u>. The obligations of the Parent arising under this Guaranty shall remain in full force and effect without regard to, and shall in nowise be affected or impaired by any of the following, whether or not notice to or consent by the Parent has been given:

(a) Any amendment to or modification of the Agreement;

(b) Any failure, omission or delay to enforce, assert or exercise any right, power, privilege or remedy conferred by the terms of the Agreement;

(c) Any exercise or waiver of any right, power, privilege or remedy conferred by the terms of the Agreement, or the waiver of any default thereunder;

(d) The voluntary or involuntary liquidation, dissolution, sale of all or substantially all assets, marshaling of assets or liabilities, receivership, conservatorship, assignment for the benefit of creditors, insolvency, bankruptcy, reorganization, arrangement or composition of the Subsidiary or any Affiliate thereof, or other proceedings under laws for the protection of debtors affecting the Subsidiary or an Affiliate thereof, or any discharge of the Subsidiary or an Affiliate thereof from liability or rejection of burdensome contracts or obligations in the course of or resulting from any such proceedings; or

(e) Any other circumstances similar in effect to the foregoing.

The provisions of this Agreement shall extend to and be applicable to all renewals, amendments, extensions and modifications of the Agreement, and all references herein to the Agreement shall be deemed to include any renewal, extension, amendment or modification thereof.

7. <u>No Delay or Waiver</u>. No delay on the part of the Counterparty in exercising any right hereunder or any failure to exercise any such right shall operate as a waiver of such right; nor in any event shall any modification or waiver of the provisions hereof be effective unless in writing; nor shall any such waiver be applicable except in the specific instance for which given.

8. <u>Waiver of Notice</u>. The Parent hereby expressly waives notice of acceptance of this Guaranty, notice of default and all other notices whatsoever, any demand hereunder, the prosecution of any suits against the Subsidiary or its Affiliates and diligence in taking any action under this Guaranty.

9. <u>Invalidity of Particular Provisions</u>. If any term or provision of this Agreement shall be determined to be unenforceable, all other terms and provisions hereof shall nevertheless remain effective and shall be enforced to the fullest extent permitted by applicable law.

11. <u>Successors and Assigns</u>. This Guaranty shall be binding upon the Parent and its successors and assigns and shall inure to the benefit of the

113

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Exhibit H to the Unitization and Unit Operating Agreement

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Counterparty and its successors and assigns. Except for the Counterparty and its successors and assigns, no person shall have any interest in this Guaranty or shall be entitled to enforce any of the obligations of the Parent contained herein, and, accordingly, it is specifically agreed there are no third party beneficiaries to this Guaranty.

12. <u>Governing Law</u>. This Guaranty and the rights and obligations created hereunder shall be governed by and interpreted, construed and enforced in accordance with the laws of the \_\_\_\_\_.

13. <u>Specific Performance</u>. The Parent recognizes that it is impossible to measure in money the damages which may accrue to the Counterparty by reason of the Parent's failure to perform any of its obligations under this Guaranty. Therefore, the Parent agrees that, in any action or proceeding instituted to enforce the provisions hereof, specific performance may be sought and obtained for any breach of this Guaranty, provided that nothing contained in this paragraph shall limit or be construed to limit any right, remedy or obligation contained in the Agreement.

IN WITNESS WHEREOF, the Parent has executed this Agreement as of the day and year first above written.

#### KOSMOS ENERGY HOLDINGS

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Exhibit H to the Unitization and Unit Operating Agreement

#### DEED OF ASSIGNMENT

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# THIS DEED OF ASSIGNMENT is made the 1 day of Splember 2006

BY AND AMONG:

- 1. Kosmos Energy Ghana HC a Cayman Islands exempted company ("Assignor");
- 2. Tullow Ghana Limited a Jersey Company ("Tullow");
- 3. Sabre Oil and Gas Limited a Scottish Company ("Sabre");
- 4. The Minister of Energy representing the Government of the Republic of Ghana; and
- 5. The Ghana National Petroleum Corporation, a public corporation established by Provisional National Defence Council Law 64 or 1983 ("GNPC"),

collectively referred to as the "**Parties**" and individually as a "**Party**". Tullow and Sabre are referred to together as "Assignees").

#### WHEREAS

- (A) Assignor has agreed to assign and transfer to Tullow and to Sabre respectively an undivided twenty two point eight nine six percent (22.896%) Participating Interest and an undivided one point eight five four percent (1.854%) Participating Interest in the Petroleum Agreement (the "Subject Interest").
- (B) The prior consent of the Minister of Energy of the Government of the Republic of Ghana and of GNPC to this assignment has been granted pursuant to the letter August 18, 2006 annexed hereto.
- (C) In order to effect the assignments and transfers referred to in Recital (A), the Parties have agreed to the execution of this Deed.

#### THEREFORE it is agreed as follows:

- 1. In this Deed;
  - (a) unless the context otherwise requires, the words, phrases and expressions defined in the Petroleum Agreement shall have the meaning given to them in the Petroleum Agreement.
  - (b) references to clauses are to clauses to this Deed unless otherwise specified;
  - (c) references to the singular shall include the plural and vice versa; and
  - (d) the following terms shall bear the meanings ascribed to them:

"Effective Date" shall have the meaning given to such term in the Farm-out Agreement;

#### Page 1 of 5 H-119

Exhibit H to the Unitization and Unit Operating Agreement

WCTP Deed of Assignment

"Farm-out Agreement"	means the agreement dated February 1, 2006 between Assignor and Assignees;
"Participating Interest"	means an undivided percentage interest in the rights, privileges, duties and obligations of the Contractor under the Petroleum Agreement;
"Petroleum Agreement"	means the Petroleum Agreement dated 22 July, 2004 amongst the Government of the Republic of Ghana, GNPC, Kosmos and the E.O. Group Limited in regards to the West Cape Three Points Block, Offshore Ghana; and
"Subject Interest"	shall have the meaning ascribed thereto in the Recitals.

- 2. By this Deed Assignor assigns and Assignees accept the assignment by Assignor of all of Assignor's rights, entitlements, obligations and liabilities in the Subject Interest, subject to and in accordance with the terms and conditions of this Deed.
- 3. Each of the Assignees separately in respect of its own share of the Subject Interest covenant that with effect on and from the Effective Date, in respect of such share of the Subject Interest, it shall perform and observe all of the terms and conditions contained in, and shall assume all obligations and liabilities arising in and under, the Petroleum Agreement and each Party shall accept such performance and observance by Assignees in place of Assignor. Tullow and Sabre, shall, each pro rata to its share of the Subject Interest, be liable to the other Parties for any claims, fines, proceedings, injury, costs (including reasonable legal costs), loss, damage, or expense incurred by the other Parties as a result of the failure by Tullow or Sabre as the case may be, to comply with its obligation under this clause 3.
- 4. Nothing contained herein shall prejudice the rights and obligations of Assignor and Assignces under or in connection with the Petroleum Agreement and any other documents made between them in relation to the transfer of the Subject Interest.
- 5. Each Party shall keep confidential and shall not disclose to any third party any information provided by the other Parties in connection with the negotiations, execution or performance of this Deed without the prior written consent of the other Parties which shall not be unreasonably withheld or delayed; provided that nothing in this Deed shall prevent the disclosure of information in the circumstances set forth in clause 16.5 of the Petroleum Agreement (subject to clause 16.6 thereof), which shall be deemed to be repeated, mutatis mutandis, herein.
- 6. No Party shall make any announcement to the public or otherwise publicise this Deed or any arrangement entered into under or in connection with this Deed without the prior written consent of the other Parties, such consent not to be unreasonably withheld or delayed.
- 7. This Deed may only be amended or varied by the written agreement of each of the Parties.
- 8. No waiver or failure by a Party to insist on the strict performance of this Deed or to act in respect of the default of another Party and no acceptance of payment or performance during the continuance of any such default shall preclude any right, relief or remedy under or in connection with this Deed available to the non-defaulting Parties and may not be relied upon by the defaulting Party as a consent to that default or to its repetition.

Page 2 of 5 H-120

WCTP Deed of Assignment

Exhibit H to the Unitization and Unit Operating Agreement

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- 9. No Party shall be entitled to assign this Deed without the consent of the other Parties. This Deed shall bind and enure to the benefit of the Parties and their respective successors and permitted assigns.
- 10. All notices and other communications required or permitted under this Deed shall be in writing to the appropriate Party at the address specified below:

## If to Assignor, to:

Kosmos Energy Ghana HC

c/o Kosmos Energy, LLC 8401 N. Central Expressway, Suite 280 Dallas, Texas 75225

#### If to Tullow to:

Tullow Ghana Limited

P.O. Box 532, Channel House, 7 Esplanade, St. Helier, Jersey Channel Islands, JE4 5UW

Attn: Gerry Sheehan

Fax: (353) | 293 0400

Attn: W. Greg Dunlevy

Fax: (001) 214 363 9024

If to Sabre, to:

Sabre Oil and Gas Limited 4 Rubisław Place, Aberdeen, Scotland, AB10 TXn

Attn: Andrew MacDonald

Fax: 44 (0) 1224 649 700

#### If to the Minister of Energy on behalf of The Government of the Republic of Ghana, to:

Minister of Energy

Private Mail Bag Ministry Post Office Accra, Ghana

Attn: Minister of Energy

Fax: (233) 216 682662

## If to GNPC, to:

Ghana National Petroleum Corporation

Petroleum House Harbour Road Private Mail Bag Tema, Ghana

Attn: The Managing Director

Fax: (233) 212 32039

Exhibit H to the Unitization and Unit Operating Agreement

Page 3 of 5 H-121

WCTP Deed of Assignment

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- 11. Any Party may send any notice, request, demand, claim or other communication hereunder to the intended recipient Party at the address set forth above by mail, personal delivery, expedited or overnight courier, messenger service or fax, but no such notice, request, demand, claim or other communication shall be deemed to have been duly given unless and until it actually is received by the intended recipient Party. Any Party may change the address to which notices, requests, demands, claims and other communications hereunder are to be delivered by giving the other Parties notice in the manner herein set forth.
- 12 The Parties agree to promptly execute and deliver all such further instruments and promptly do and perform all such further acts and things as shall be necessary or expedient for the carrying out of the provisions of this Deed.
- 13. This Deed shall not confer any rights or remedies upon any person other than the Parties and their respective successors and permitted assigns.
- 14 The Deed is governed by and shall be construed in accordance with the laws of Ghana.

IN WITNESS WHEREOF this Deed has been executed for and on behalf of the Parties

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**EXECUTED** as a DEED On behalf of KOSMOS ENERGY GHANA HC )

Bi-f Math Director Director/Secretary /

EXECUTED as a DEED On behalf of TULLOW GHANA LIMITED

Director/Secretary A Sila Cash-

Page 4 of 5 H-122

WCTP Deed of Assignment

EXECUTED as a DEED On behalf of SABRE OIL AND GAS LIMITED) Director Director/Secretary )

)

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EXECUTED as a DEED On behalf of THE GOVERNMENT OF THE **REPUBLIC OF GHANA** 

Minister of Energy

EXECUTED as a DEED On behalf of THE GHANA NATIONAL PETROLEUM CORPORATION

) ) ) Director nmhi **^^**^ Director/Secretary

Page 5 of 5

H-123

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Exhibit H to the Unitization and Unit Operating Agreement

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WCTP Deed of Assignment

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FROM ;

FAX NO. :021775361

**MINISTRY OF ENERGY** 

Tel: 667132 / 683961-4 Telex: 2436 ENERGY GH Fax: 668262 IDD Code (233-21) E-mail: moen/denergymin.gov gh



Republic of Ghana

Private Mail Bag Ministries Post Office Acers. Glama. Post Office Box SD.40 Stadium Post Office Acors. Ghana.

August 18, 2006

Kosmos Energy

DA 119/255/01

8401 North Central Expressway Suite 280, Dallas Texas 75225

Re: Petroleum Agreement West Cape Three Points Block, Offshore Ghana Assignment of a Participating Interest to Tullow and Sabre

This Ministry has received your letter dated July 20, 2006 regarding the above.

The Ministry of Energy and Ghana National Petroleum Corporation (GNPC) hereby approve your request to assign 22.896% and 1.854% of the Contractor's Participating Interest in the West Cape Three Points Block, Offshore Ghana to Tullow Ghana Limited and Sabre Oil and Gas Limited, respectively.

We hope this would accelerate the pace of exploration in the block.

Hou Joseph K. Adda (MP) Minister

Cc: The Managing Director G N P C Tema

> The Country Manager Kosmos Energy Accra

Exhibit H to the Unitization and Unit Operating Agreement

2006-60-INT ori

## DEED OF ASSIGNMENT

#### (West Cape Three Points)

THIS DEED OF ASSIGNMENT is made the 1th day of Leptember 2006

## BY AND AMONG:

- 1. Kosmos Energy Ghana HC, a Cayman Islands exempted company ("Assignor");
- 2. Anadarko WCTP Company, a Ghanaian company ("Assignee");
- 3. The Minister of Energy representing the Government of the Republic of Ghana;
- 4. The Ghana National Petroleum Corporation, a public corporation established by Provisional National Defence Council Law 64 of 1983 ("GNPC"); and

collectively referred to as the "Parties" and individually as a "Party".

#### WHEREAS

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- (A) Assignor has agreed to assign and transfer to Assignee an undivided 30.875% Participating Interest in the Petroleum Agreement (the "Subject Interest").
- (B) The prior consent of the Minister of Energy of the Government of the Republic of Ghana and of GNPC to this assignment has been granted pursuant to the letter February 23, 2006 annexed hereto.
- (C) In order to effect the assignment and transfer referred to in Recital (A), the Parties have agreed to the execution of this Deed.

#### THEREFORE it is agreed as follows:

- 1. In this Deed:-
  - (a) unless the context otherwise requires, the words, phrases and expressions defined in the Petroleum Agreement shall have the meanings given to them in the Petroleum Agreement;
  - (b) references to clauses are to clauses to this Deed unless otherwise specified;
  - (c) references to the singular shall include the plural and vice versa; and
  - (d) the following terms shall bear the meanings ascribed to them:

"Effective Date" shall have the meaning given to such term in the Farmout Agreement;

"Farm-out Agreement" means the agreement dated March 9, 2006 between Assignor and Assignee;

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· ·	Page 1 of 4	
		WCTP Deed of Assignment Anadarko
	H-125	- ,
whibit H to the Unitization and Unit Operating Agreement		

## "Participating Interest" means an undivided percentage interest in the rights, privileges, duties and obligations of the Contractor under the Petroleum Agreement;

"Petroleum Agreement" means the Petroleum Agreement dated 22 July, 2004 amongst the Government of the Republic of Ghana, GNPC, Kosmos and the E.O. Group Limited in respect of the West Cape Three Points Block, offshore Ghana; and

"Subject Interest"

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shall have the meaning ascribed thereto in the Recitals.

2. By this Deed Assignor assigns and Assignee accepts the assignment by Assignor of all of Assignor's rights, entitlements, obligations and liabilities in the Subject Interest, subject to and in accordance with the terms and conditions of this Deed.

Assignee covenants that with effect on and from the Effective Date, in respect of the Subject Interest, it shall perform and observe all of the terms and conditions contained in, and shall assume all obligations and liabilities arising in and under, the Petroleum Agreement and each Party shall accept such performance and observance by Assignee in place of Assignor. Assignee shall be liable to the other Parties for any claims, fines, proceedings, injury, costs (including reasonable legal costs), loss, damage or expense incurred by the other Parties as a result of the failure by Assignee to comply with its obligations under this clause 3.

4. Nothing contained herein shall prejudice the rights and obligations of Assignor and Assignee under or in connection with the Petroleum Agreement and any other documents made between them in relation to the transfer of the Subject Interest.

5. Each Party shall keep confidential and shall not disclose to any third party any information provided by the other Parties in connection with the negotiation, execution or performance of this Deed without the prior written consent of the other Parties which shall not be unreasonably withheld or delayed; provided that nothing in this Deed shall prevent the disclosure of information in the circumstances set forth in clause 16.5 of the Petroleum Agreement (subject to clause 16.6 thereof), which shall be deemed to be repeated, mutatis mutandis, herein.

6. No Party shall make any announcement to the public or otherwise publicise this Deed or any arrangement entered into under or in connection with this Deed without the prior written consent of the other Parties, such consent not to be unreasonably withheld or delayed.

7. This Deed may only be amended or varied by the written agreement of each of the Parties.

8. No waiver or failure by a Party to insist on the strict performance of this Deed or to act in respect of the default of another Party and no acceptance of payment or performance during the continuance of any such default shall preclude any right, relief or remedy under or in connection with this Deed available to the non-

	Page 2 of 4	WCTP Deed of Assignment Anadarko
	H-126	WCIT Deeu of Assignment Anausi Ko
Exhibit H to the Unitization and Unit Operating Agreement		· .

defaulting Parties and may not be relied upon by the defaulting Party as a consent to that default or to its repetition.

- 9. No Party shall be entitled to assign this Deed without the consent of the other Parties. This Deed shall bind and enure to the benefit of the Parties and their respective successors and permitted assigns.
- 10. All notices and other communications required or permitted under this Deed shall be in writing to the appropriate Party at the address specified below:

If to Assignor, to:

Kosmos Energy Ghana HC

c/o Kosmos Energy, LLC 8401 North Central Expressway; Suite 280 Dallas, Texas 75225

Attn: W. Greg Dunlevy

Fax: (214) 363 9024

If to the Minister of Energy on behalf of the Government of the Republic of Ghana, to:

Minister of Energy

Private Mail Bag Ministry Post Office Accra, Ghana

Attn. Minister of Energy

Fax. 233 216 68262

If to Assignee, to:

Anadarko WCTP Company

GnG Manager, Africa Captured Assets Anadarko Petroleum Corporation 1201 Lake Robbins Drive The Woodlands, Texas 77380

Attn: Jonathan Leason

Fax: (832) 636-8020

If to GNPC, to:

Ghana National Petroleum Corporation

Petroleum House Harbour Road Private Mail Bag Tema, Ghana

Attn. The Managing Director

Fax. 233 212 32039

Any Party may send any notice, request, demand, claim or other communication hereunder to the intended recipient Party at the address set forth above by mail, personal delivery, expedited or overnight courier, messenger service or fax, but no such notice, request, demand, claim or other communication shall be deemed to have been duly given unless and until it actually is received by the intended recipient Party. Any Party may change the address to which notices, requests, demands, claims and other communications hereunder are to be delivered by giving the other Parties notice in the manner herein set forth.

Page 3 of 4

H-127

WCTP Deed of Assignment Anadarko

- 11. The Parties agree to promptly execute and deliver all such further instruments and promptly do and perform all such further acts and things as shall be necessary or expedient for the carrying out of the provisions of this Deed.
- 12. This Deed shall not confer any rights or remedies upon any person other than the Parties and their respective successors and permitted assigns.
- 13. This Deed is governed by and shall be construed in accordance with the laws of Ghana.

IN WITNESS WHEREOF this Deed has been executed for and on behalf of the Parties.

EXECUTED as a DEED on behalf of KOSMOS ENERGY GHANA HC ) Director Director/Secretary EXECUTED as a DEED on behalf of ANADARKO WCTP COMPANY ) Director CRI Director/Secretary EXECUTED as a DEED ) on behalf of THE GOVERNMENT OF THE **REPUBLIC OF GHANA** 

Minister of Energy

EXECUTED as a DEED on behalf of THE GHANA NATIONAL PETROLEUM CORPORATION

) ì Director Directo

Page 4 of 4 H-128

WCTP Deed of Assignment Anadarko

Exhibit H to the Unitization and Unit Operating Agreement

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#### WEST CAPE THREE POINTS

THIS DEED OF ASSIGNMENT is made the 31st day of March 2008

BY AND AMONG:

- 1. Kosmos Energy Ghana HC a Cayman Islands exempted company ("Kosmos");
- 2. Tullow Ghana Limited a Jersey Company ("Tullow");
- 3. Anadarko WCTP Company a Cayman Islands Company ("Anadarko");
- 4. Sabre Oil and Gas Limited a Scottish Company ("Assignor");
- E.O. Group Limited, a company organised and existing under the laws of the Republic of Ghana ("EO"),
- 6. Sabre Oil & Gas Holdings Limited a British Virgin Islands company ("Assignee"),

collectively referred to as the "Parties" and individually as a "Party".

#### WHEREAS

- (A) In implementation of a group restructuring, Assignor has agreed to assign and transfer to Assignee its entire undivided two point zero six percent (2.06%) Participating Interest in the Petroleum Agreement (the "Subject Interest").
- (B) The prior consent of the Minister of Energy of the Government of the Republic of Ghana and of GNPC to these assignments has been granted.
- (C) In order to effect the assignments and transfers referred to in Recital (A), the Parties have agreed to the execution of this Deed.

THEREFORE it is agreed as follows:

- 1. In this Deed:-
  - (a) unless the context otherwise requires, the words, phrases and expressions defined in the Petroleum Agreement shall have the meanings given to them in the Petroleum Agreement;
  - (b) references to clauses are to clauses to this Deed unless otherwise specified;
  - (c) references to the singular shall include the plural and vice versa; and

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(d) the following terms shall bear the meanings ascribed to them:-

"Effective Date" shall mean 14<sup>th</sup> June 2007:

Exhibit H to the Unitization and Unit Operating Agreement

"Participating Interest"	means an undivided percentage interest in the rights, privileges, duties and obligations of the Contractor under the Petroleum Agreement;
"Petroleum Agreement"	means the Petroleum Agreement dated 22 July, 2004 amongst the Government of the Republic of Ghana, GNPC, Kosmos and EO in respect of the West Cape Three Points Block, offshore Ghana; and
"Subject Interest"	shall have the meaning ascribed thereto in the Recitals.

- 2. By this Deed Assignor assigns and Assignee accepts the assignment by Assignor with effect on and from the Effective Date, of all of Assignor's rights, entitlements, obligations and liabilities in the Subject Interest, subject to and in accordance with the terms and conditions of this Deed.
- 3. Assignce covenants that with effect on and from the Effective Date, in respect of the Subject Interest, it shall perform and observe all of the terms and conditions contained in, and shall assume all obligations and liabilities arising in and under, the Petroleum Agreement and each Party shall accept such performance and observance by Assignee in place of Assignor in relation to the Subject Interest. Assignee shall be liable to the other Parties for any claims, fines, proceedings, injury, costs (including reasonable legal costs), loss, damage or expense incurred by the other Parties as a result of the failure by Assignee to comply with its obligations under this clause 3.
- 4. Nothing contained herein shall prejudice the rights and obligations of Assignor and Assignee under or in connection with the Petroleum Agreement and any other documents made between them in relation to the transfer of the Subject Interest.
- 5. No Party shall make any announcement to the public or otherwise publicise this Deed or any arrangement entered into under or in connection with this Deed without the prior written consent of the other Parties, such consent not to be unreasonably withheld or delayed.
- 6. This Deed may only be amended or varied by the written agreement of each of the Parties.
- 7. No waiver or failure by a Party to insist on the strict performance of this Deed or to act in respect of the default of another Party and no acceptance of payment or performance during the continuance of any such default shall preclude any right, relief or remedy under or in connection with this Deed available to the non-defaulting Parties and may not be relied upon by the defaulting Party as a consent to that default or to its repetition.
- 8. No Party shall be entitled to assign this Deed without the consent of the other Parties. This Deed shall bind and enure to the benefit of the Parties and their respective successors and permitted assigns.
- 9. All notices and other communications required or permitted under this Deed shall be in writing to the appropriate Party at the address specified below:

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H-130

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If to Kosmos, to:

Kosmos Energy Ghana HC c/o Kosmos Energy, LLC 8401 North Central Expressway; Suite 280 Dallas, Texas 75225 USA Attn: W. Greg Dunlevy Fax: (214) 363 9024

## If to Assignor, to:

Sabre Oil and Gas Limited 4 Rubislaw Place, Aberdeen, Scotland, AB10 1XN Att: Andrew MacDonald Fax: 01224 649 700

## If to Tullow, to:

Tullow Ghana Limited c/o 21<sup>st</sup> Floor Metropolitan Centre 7 Coen Steytler Ave Cape Town 8001 South Africa

Attn: Exploration Manager Fax: +27.2.1.400.7660

## If to Anadarko, to:

Anadarko WCTP Company 1201 Lake Robbins Drive The Woodlands, Texas 77380 USA Attn: Manager, Int'l Negotiations Fax: + 832-636-8023 Tel: +1 832/636-2827

If to EO, to:

E. O. Group Limited Private Mail Bag CT 123 Cantonments – Acera, Ghana Attn. Mr. George Y. Owusu Fax. (001) 281 470 9300

## If to Assignce, to:

Sabre Oil & Gas Holdings Limited 18 Avenue Louis-Casai CH-1209 Geneva Switzerland Atm. David Lampe Fax: +41 22 747 7990

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Exhibit H to the Unitization and Unit Operating Agreement

- 10. Any Party may send any notice, request, demand, claim or other communication hereunder to the intended recipient Party af the address set forth above by mail, personal delivery, expedited or overnight courier, messenger service or fax, but no such notice, request, demand, claim or other communication shall be deemed to have been duly given unless and until it actually is received by the intended recipient Party. Any Party may change the address to which notices, requests, demands, claims and other communications hereunder are to be delivered by giving the other Parties notice in the manner herein set forth.
- 11. The Parties agree to promptly execute and deliver all such further instruments and promptly do and perform all such further acts and things as shall be necessary or expedient for the carrying out of the provisions of this Deed.
- 12. This Deed shall not confer any rights or remedies upon any person other than the Parties and their respective successors and permitted assigns.
- 13. This Deed is governed by and shall be construed in accordance with the laws of Ghana.

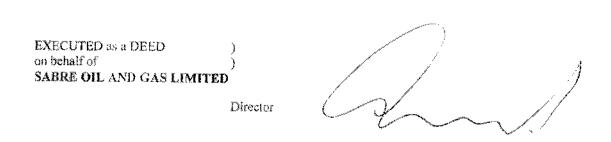
IN WITNESS WHEREOF this Deed has been executed for and on behalf of the Parties.

EXECUTED as a DEED on behalf of KOSMOS ENERGY GHANA HC) Director stor/Secretar EXECUTED as a DEED on behalf of ) TULLOW GHANA LIMITED ) Director EXECUTED as a DEED on behalf of ANADARKO WCTP COMPANY )

Director/Secretary

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Exhibit H to the Unitization and Unit Operating Agreement



Director/Secretary

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H-133

EXECUTED as a DEED on behalf of E. O. GROUP LIMITED

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Director

Director/Secretary

EXECUTED as a DEED ) on behalf of ) SABRE OIL & GAS HOLDINGS LIMITED

mpl Director

Director/Secretary

H-134

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Exhibit H to the Unitization and Unit Operating Agreement

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# DEED OF ASSIGNMENT WEST CAPE THREE POINTS

THIS DEED OF ASSIGNMENT is made as of 10 December 2008 ("Effective Date") made by and among:

- (1) The E.O. Group Limited, a company organised and existing under the laws of the Republic of Ghana ("Assignor");
- (2) KG Group Limited, a Cayman Islands exempted company ("Assignee");
- (3) Anadarko WCTP Company, a Cayman Islands company ("Anadarko");
- (4) Kosmos Energy Ghana HC, a Cayman Islands exempted company ("Kosmos");
- (5) Sabre Oil & Gas Holdings Limited, a British Virgin Islands company ("Sabre"); and
- (6) Tullow Ghana Limited, a Jersey company ("Tullow");

Collectively referred to as the "Parties" and individually as a "Party".

WHEREAS

- (a) In implementation of a group restructuring, Assignor has agreed to assign and transfer the Subject Interest to Assignee.
- (b) The consent of the Ghana National Petroleum Corporation to such assignment and transfer was granted 4 December 2008 and the consent of the Minister of Energy of the Government of the Republic of Ghana to such assignment and transfer was granted 10 December 2008.
- (c) In order to effect such assignment and transfer, the Parties have agreed to the execution of this Deed.

THEREFORE it is agreed as follows:

- (1) In this Deed:-
  - (a) Unless the context otherwise requires, the words, phrases and expressions defined in the Petroleum Agreement shall have the meanings given to them in the Petroleum Agreement;
  - (b) References to clauses are to clauses to this Deed unless otherwise specified;
  - (c) References to the singular shall include the plural and vice versa; and
  - (d) The following terms shall bear the meanings ascribed to them:

"Participating Interest" shall mean an undivided percentage interest in the rights, privileges, duties and obligations of the Contractor under the Petroleum Agreement;

"Petroleum Agreement" shall mean the Petroleum Agreement dated 22 July, 2004 amongst the Government of the Republic of Ghana, GNPC, Kosmos and Assignor in respect of the West Cape Three Points Block, offshore Ghana; and

"Subject Interest" shall mean Assignor's entire undivided three decimal five percent (3.5%) Participating Interest in the Petroleum Agreement.

09-02-04

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Exhibit H to the Unitization and Unit Operating Agreement

- (2) By this Deed Assignor assigns and Assignee accepts the assignment by Assignor with effect on and from the Effective Date, of all of Assignor's rights, entitlements, obligations and liabilities in the Subject Interest, subject to and in accordance with the terms and conditions of this Deed. Assignor and Assignee jointly and severally warrant and represent to the other Parties that (i) the two sole shareholders of Assignor are also the two sole shareholders of Assignee and (ii) each such shareholder owns fifty percent (50%) of the equity interests and fifty percent (50%) of the voting rights in both Assignee.
- (3) Assignee covenants that with effect on and from the Effective Date, in respect of the Subject Interest, it shall perform and observe all of the terms and conditions contained in, and shall assume all obligations and liabilities arising in and under, the Petroleum Agreement and each Party shall accept such performance and observance by Assignee in place of Assignor in relation to the Subject Interest. Assignee shall be liable to the other Parties for any claims, fines, proceedings, injury, costs (including reasonable legal costs), loss, damage or expense incurred by the other Parties as a result of the failure by Assignee to comply with its obligations under this clause 3.
- (4) Nothing contained herein shall prejudice the rights and obligations of Assignor and Assignee under or in connection with the Petroleum Agreement and any other documents made between them in relation to the transfer of the Subject Interest.
- (5) No Party shall make any announcement to the public or otherwise publicise this Deed or any arrangement entered into under or in connection with this Deed without the prior written consent of the other Parties, such consent not to be unreasonably withheld or delayed.
- (6) This Deed may be amended or varied only by the written agreement of each of the Parties.
- (7) No waiver or failure by a Party to insist on the strict performance of this Deed or to act in respect of the default of another Party and no acceptance of payment or performance during the continuance of any such default shall preclude any right, relief or remedy under or in connection with this Deed available to the non-defaulting Parties and may not be relied upon by the defaulting Party as a consent to that default or to its repetition.
- (8) No Party shall be entitled to assign this Deed without the consent of the other Parties. This Deed shall bind and enure to the benefit of the Parties and their respective successors and permitted assigns.
- (9) All notices and other communications required or permitted under this Deed shall be in writing to the appropriate Party at the address specified below:

The E.O. Group Limited Private Mail Bag CT 123 Cantonments – Accra, Ghana Attention: George Owusu Email: georgeyawowusu@yahoo.com Telephone: +233 244 339 059 Copy to: Barnes & Cascio LLP Fax: +1 281 875 0255 Email: james@barnescascio.com Telephone: +1 281 875 0250 KG Group Limited Private Mail Bag CT 123 Cantonments – Accra, Ghana Attention: George Owusu Email: georgeyawowusu@yahoo.com Telephone: +233 244 339 059 Copy to: Barnes & Cascio LLP Fax: +1 281 875 0255 Email: james@barnescascio.com Telephone: +1 281 875 0250

09-02-04

Exhibit H to the Unitization and Unit Operating Agreement

H-136

2

Anadarko WCTP Company	Kosmos Energy Ghana HC
1201 Lake Robbins Drive	Suite 409, 4th Floor
The Woodlands	Century Yard, Cricket Square
Texas 77380	Elgin Avenue, George Town
United States of America	P.O. Box 32322
Attention: Manager International	Grand Cayman KY1-1209
Negotiations	CAYMAN ISLANDS
Fax: +1 832 636 9800	Attention: Mr. Andrew Johnson
Email: john.bostock@anadarko.com	Fax: +345 946 4090
Telephone: +1 832 636 2827	Telephone: +345 814 6703
Copy to: General Counsel Internatio	nal Copy to: General Counsel
Fax: +1 832 636 5587	Fax: +1 972 739 7710
Email: luis.derrota@anadarko.com	Email: whayes@Kosmosenergy.com
Telephone: +1 832 636 7523	Telephone: +1 972 739 7700
Sabre Oil & Gas Holdings Limited	Tullow Ghana Limited
Avenue Louis Casai 18, 5th Floor	Del Mina Place
CH-1203 Geneva, Switzerland	Orphan Crescent
Attention: David Lampe - Director	Labone
Fax: + 41 22 747 7763	Osu Accra, Ghana
Email: david.lampe@sabreoilandgas Telephone: + 41 22 747 7763	s.com Attention: President and General Manager, Tullow Ghana
	Fax: +233 21 768121
	Email: dai.jones@tullowoil.com
	Telephone: +233 21 763 600
Copy to: David Morton - Director	Copy to: General Counsel, Tullow Oil plc
Fax: + 44 (0) 1932 221115	Fax: +44 208 994 5332
Email: david.morton@sabreoilandga	s.com Email: graham.martin@tullowoil.com
Telephone: + 44 (0) 1932 230063	Telephone: +44 208 996 1000

- (10) Any Party may send any notice, request, demand, claim or other communication hereunder to the intended recipient Party at the address set forth above by mail, personal delivery, expedited or overnight courier, messenger service or fax, but no such notice, request, demand, claim or other communication shall be deemed to have been duly given unless and until it actually is received by the intended recipient Party. Any Party may change the address to which notices, requests, demands, claims and other communications hereunder are to be delivered by giving the other Parties notice in the manner herein set forth.
- (11) The Parties agree to promptly execute and deliver all such further instruments and promptly do and perform all such further acts and things as shall be necessary or expedient for the carrying out of the provisions of this Deed.

09-02-04

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This Deed shall not confer any rights or remedies upon any person other than the (12)Parties and their respective successors and permitted assigns.

This Deed is governed by and shall be construed in accordance with the laws of Ghana. (13)IN WITNESS WHEREOF this Deed has been executed for and on behalf of the Parties.

Witnessed:

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ADMIN 5/2109

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February 9,

By:

Name:

Title:

Date:

By: Name: 12

Title:

Date:

Witnessed

By: Name:

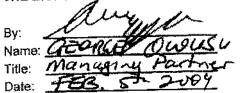
Title:

Date:

Witnessed:

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Executed as a deed on behalf of THE E.O. GROUP LIMITED



Executed as a deed on behalf of KG GROUP LIMITED

Bv:	any	the
Name:	COEORCE L	Duracy
Title: Date:	FEB ST	2009

Executed as a deed on behalf of ANADARKO WCTP COMPANY

By:	Marthel
Name:	Charles A. Meloy
Title:	Director & Senior VP
Date:	February 9, 2009

Executed as a deed on behalf of KOSMOS ENERGY GHANA HC

By: Name: AND Mormon Title: AFED MANASCE Date: Feb - 51 2009

Witnessed: 11.01-ADAIS . By: RESIAN . 121 .. Name: () M Title: COVNICTONT Date:

Reeves

2009

Director & Senior VP & Secretary

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09-02-04

Exhibit H to the Unitization and Unit Operating Agreement

Executed as a dead on behalf of SABRE OIL & GAS HOLDINGS LIMITED

By:	A Starl
Namer	Carrier Strategy
Title:	The second s
Date:	( it i) 100 is

Executed as a deed on behalf of TULLOW GHANA LIMITED

By:	A. Calum Marti-
Name:	PRAHLAM FLARTIN
Title:	DIRECTUR
Date:	10/2/09

Witnessed

By Name: DAVID HORTON Title: DIRECTOR Date: 6"FEB 2009

<b>₩ifness</b>	et IAm
By: Name:	Ton Seawyer ?
Title:	ATTORNEY
Date:	10/2/09

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09-02-04

Exhibit H to the Unitization and Unit Operating Agreement

ATTACHED TO AND MADE PART OF THE UNITIZATION AND UNIT OPERATING AGREEMENT BY AND BETWEEN GHANA NATIONAL PETROLEUM CORPORATION, TULLOW GHANA LIMITED, KOSMOS ENERGY GHANA HC, ANADARKO WCTP COMPANY, SABRE OIL & GAS HOLDINGS LIMITED, AND EO GROUP LIMITED (THE "AGREEMENT")

## EXHIBIT "I"

## **PRE-UNITIZATION EXPENDITURES**

Exhibit I to the Unitization and Unit Operating Agreement I-1

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5, 885, 068 422, 256, 213 744,905 5,292,308 YEAR TO DATE INCEPTION TO USA DATE, USA 72,581 P1,413 9,992 IB,055 490,067 2, &71,273 556,243 504,643 740,283 1,244,926 672,225 478,234 75,447,327 339,147,821 1,775,962 556,243 354,025 206 244,760 244,968 2,543,032 75,25<u>p</u> 75,269 354,025 32,913 (3,563) 209,296 (2,259) 145,986 2.035,568 250,954,216 212,895 1,961,276 386,991 534,782 (18,508) 78,605 51,52) 258,631,772 51,831 12,726 2344.ES 2,868,321 100,079 208 [2,147] [1,939] "" 21°83 85,407,742 CURRENT DONTH USS 2 Drilling Studies Other IPT Sand Control Study IPT Annuker Pressure Bulk US Study Program Andream - and Party - Project Management - Alfocated Timewrite Project & Arthrathon - 20 Ray -Legel & Arthrathon - Managed Timewrite Legel & Arthrathon - Managed Dreest Gala Usence Feas & Browses - Allocated Dreest Gala Usence Feas & Browses - Allocated Treevelle Total Litence Feas & Drevelse TULIOW GHANA LINITED - UWIT OPERATOR JUSTLEE UNIT OEVELOOMINT - TOTAL UO ACTIVITIES NON-IPT STATEMENT OF REMONTURE 18 43 13 MEY 2009 Project Studies - General - Allocated Direct GMA Project Studies - General - Allocated Trnewrite Total Project Studies John-John Jate Manaparant Data Manaparant Data Purchaste & Re-Processing -Mecatel Direct CSA Data Purchaste & Re-Processing -Data Purchaste & Re-Source Wells opment wells Allocated Direct Total Onshore / Offshore Surface Facilities - Equipment & Materials Engineering - Alloceted Direct G&A G6A Development wells - Allocated timewite Total Development Wells Ength<del>ee</del>ring - Allocated Tim<del>e</del>write Total Engineering Party Cated Timewrite Dashare / Offshare Facilities **>** Pipeline Construction Offshare Engineering Canstruction Data Purchase & Re-Processin Studięs – Allocated ent Studies + Allocated Total Development Surveys Development Studies UD BARTER AND A PARTICIDE JUNY OF THE TOP JUNY THE TOP TO A PARTICIPATION AND A PARTIC Total Project Management fotal Onshore / Offshore sacilities & Pipeline Project Studies Project Studies - General Drifting Studies kence Fees & Bon icence Fees & Bonsy DESCRIPTION Total Data P. Processing Geological Geophysical Devel Timer Total 66100 20299 50900 00401 00401 00403 00403 00403 00409 00498 00498 00498 000498 6660J 00101 00102 00103 00104 00196 90199 66E0Q 00798 00799 00799 56000 D0399 D0600 D0601 D0698 D06999 D06999 50804 6680Q 10600 00399 00399 00300 00**6**00 00**6**00 00**6**00 00600 00798 00799 00701 1000 00102 00103 00103 0198 66100 IDEGO 24200 50900 00401 00402 00402 00405 00405 00405 00405 00401 00401 00401 E0800 1080

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Exhibit I to the Unitization and Unit Operating Agreement

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Interview     100.079     212.895       Interview     258.651     1.256.1276       Interview     258.651     1.255.201.2555       Interview     258.651     1.255.201.2555       Interview     351.055     1.775.205       Interview
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Orfling Studies Other       100.079       212.895         IOD.079       212.895         Stand Grundes Other       258.631       1.953.735         PT Amolor Fressure build up study       -       -       -         IT Amolor Fressure build up study       -       -       -       -         IT Amolor Fressure build up study       -       -       -       -       -         IT Amolor Fressure build up study       -       <
Orfling Studies Other       100.079       212.895         IOD.079       212.895         Stand Grundes Other       258.631       1.953.735         PT Amolor Fressure build up study       -       -       -         IT Amolor Fressure build up study       -       -       -       -         IT Amolor Fressure build up study       -       -       -       -       -         IT Amolor Fressure build up study       -       <
IOD.079       212.895         IOD.079       212.895         ISS.6531
IOD.079       212.895         IOD.079       212.895         ISS.6531
Defined Studies Other       100.079       212.895         Defined Studies Other       255.633       1.9591,276         Pri Sand Control Study       3.356.631       1.955,033955       1.         Pri Sand Control Study       1.952,033       1.12,035       1.         Pri Amolor Fressure Build Up Study       1.       75,269       1.       1.         Pri Amolor Fressue Build Up Study       1.       1.32,035       1.       1.         Pri Amolor Fressue Build Up Study       1.       1.00,014       1.       1.00,014       1.         Pri Amolor Fressue Build Up Study       1.       1.00,014       1.       1.00,014       1.       1.       1.00,014       1.       1.00,014       1.       1.00,014       1.       1.00,014       1.       1.00,014       1.       1.00,014       1.       1.00,014       1.       1.00,014
Defined Studies Other       100.079       212.895         Defined Studies Other       255.633       1.9591,276         Pri Sand Control Study       3.356.631       1.955,033955       1.         Pri Sand Control Study       1.952,033       1.12,035       1.         Pri Amolor Fressure Build Up Study       1.       75,269       1.       1.         Pri Amolor Fressue Build Up Study       1.       1.32,035       1.       1.         Pri Amolor Fressue Build Up Study       1.       1.00,014       1.       1.00,014       1.         Pri Amolor Fressue Build Up Study       1.       1.00,014       1.       1.00,014       1.       1.       1.00,014       1.       1.00,014       1.       1.00,014       1.       1.00,014       1.       1.00,014       1.       1.00,014       1.       1.00,014       1.       1.00,014
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100.079 212.855 100.079 212.855 2356.61.776 Prima Studies Other Pri Amulor Fresson build up study Pri Amulor Presson build up study Pri Pri Pri Pri Presson Pri
100.079       212.855         100.079       212.855         2556.631       2556.631         2556.631       2566.1365         Prima Study       1.55.001.3555         Pri Sand Control Study       75.269         Pri Sand Control Study       1.75.269         Pri Sand Control Study       1.95.205         Pri Sand Control Study       1.95.205         Pri Sand Control Study       1.75.205         Pri
Defined Studies Other       100.079       212.895         Defined Studies Other       255.633       1.9591,276         Pri Sand Control Study       3.356.631       1.955,033955       1.         Pri Sand Control Study       1.952,033       1.12,035       1.         Pri Amolor Fressure Build Up Study       1.       75,269       1.       1.         Pri Amolor Fressue Build Up Study       1.       1.32,035       1.       1.         Pri Amolor Fressue Build Up Study       1.       1.00,014       1.       1.00,014       1.         Pri Amolor Fressue Build Up Study       1.       1.00,014       1.       1.00,014       1.       1.       1.00,014       1.       1.00,014       1.       1.00,014       1.       1.00,014       1.       1.00,014       1.       1.00,014       1.       1.00,014       1.       1.00,014
IOD.079       212.895         IOD.079       212.895         ISS.6531
IOD.079       212.895         IOD.079       212.895         ISS.6531
Orfling Studies Other       100.079       212.895         IOD.079       212.895         Stand Grundes Other       258.631       1.953.735         PT Amolor Fressure build up study       -       -       -         IT Amolor Fressure build up study       -       -       -       -         IT Amolor Fressure build up study       -       -       -       -       -         IT Amolor Fressure build up study       -       <
Orfling Studies Other       100.079       212.895         IOD.079       212.895         Stand Grundes Other       258.631       1.953.735         PT Amolor Fressure build up study       -       -       -         IT Amolor Fressure build up study       -       -       -       -         IT Amolor Fressure build up study       -       -       -       -       -         IT Amolor Fressure build up study       -       <
Orfling Studies Other       100.079       212.895         IOD.079       212.895         Stand Grundes Other       258.631       1.953.735         PT Amolor Fressure build up study       -       -       -         IT Amolor Fressure build up study       -       -       -       -         IT Amolor Fressure build up study       -       -       -       -       -         IT Amolor Fressure build up study       -       <

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Commissioning Fivej Total Commissioning							<del></del>
Pre-Operations Pre-Operations - Alocated Direct							
IG&A Pre-Operations - Allocated				16,707	(14,829)	305,896	
Timewrite Total Pre-Operations				71,614 88,521	443,873	593,212 899,108	
Total Land Acquistion							
Minor Capital Works Minor Capital Works - General Onshore Pant				ı	ı	J	
Offshore Plant Supply Bases				- - -	- - -	- - -	
Other Premises / Facilities Capital Works - General - Allocated				2,424,135	5,394,135	5,394,135	
Direct G&A Capital Works - General - Allocated					٠	19,407	
Total Minor Capital Works				2,110,104	5,380,104	5,673,022	
Total Corporate Social Responsibility				-19,536			
Allocated General R							
Administration Cost G & A - General Allocated G & A - General Nirrer				4,039,935	15,464,102	34,985,975	
Total Allocated General &				406'DD1*	1,113,989	5,086,403	
Administration Cost				4,240,900	16,578,090	40,072,377	
				95,876,527	200,005,212	477,756,336	
OVERHEAD				305,192	2,304,124	2,934,110	
GRAND TOTAL				96,181,719	262,309,336	480,692,446	
EARTICIPANTS		*	4 SHARE				_
DEEPWATER TAND OPERATOR	TULION GRAMA LTD KASHOS EREGY GRAMA HC AMADARIO PETROLEYA COMPANY SABRE OIL & GAS	55.50% 20.00% 20.00% 4.50%	27.75% 10.00% 2.25% 50.00%	26,690,427 9,618,172 9,618,172 2,164,089 48,090,860	78,340,841 28,230,934 28,230,934 6,351,960 141,154,668	1.33,392,154 48,069,245 46,069,245 10,815,580 240,346,223	

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Exhibit I to the Unitization and Unit Operating Agreement

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6002/12/60

STATEMENT OF EXPENDITURE	UO ACTIVITIES NON-IPT - PETROLEUM COST	S NON-RECHARGEABLE TO GNPC			
As at 31 May 2009					
DESCRIPTION			CURRENT MONTH USS	YEAR TO DAYE	INCEPTION TO DATE USS
Total Licence Fees & Bonuses			<u> </u>	0	0
Data Purchase & Re-Procussing					
- Total Data Purchase & Re- Processing			<u>0</u>		0
lotal Development Surveys			0		0
Total Development Studius			0		0
iotal Development Wells			d	D	0
fotal Project Management			0	0	0
intal Project Studies			0	0	0
Fotal Engineering			<del>0</del>	0	<u> </u>
Onshore / Offshore Facilities & Pipeline Construction Total Onshore / Offshore					
Facilities & Pipalina Construction			<u> </u>	<u></u>	<u> </u>
Onshore / Offshore Surface Facilities - Equipment & Materials Fotal Onshore / Offshore					
Surface Facilities - Equipment & Materials			<u>0</u>	<u> </u>	0
Commissioning Total Commissioning			D	0	0
Fre-Operations Iotal Pre-Operations			0	<u>0</u>	<u>p</u>
and Acquisition Intel Land Acquisition			0	0	
linor Capital Works Iotal Minor Capital Works			0	q	0
Corporate Social Responsibility					
Corporate Social Responsibility - Seneral Corporate Social Responsibility -			(102,769)	(65,699)	205,243
Seneral - Allocateo Direct G&A Corporate Social Responsibility -			-		
Seneral - Allocated Timewrite Iotal Corporate Social			<u> </u>	<u> </u>	42,435
tesponsibility			-102,769	-65,699	247,677
Allocated General & Administration Cost					
& A - General Allocated & A - General Direct			90 647	90 647	90 647
otal Allocatud General & Administration Cost			737		737
			-102,032		
OVERHEAD			-102,032	-64,962	248,415
RAND TOTAL					
			-102,632	-64,\$52	248,415
ARTICIPANTS	·····				
EEPWATER TAND OPERATOR	TULLOW GHANA LTD	% SHARE 55.50% 27.75%	(20 31 4)	(10.000)	60 D35
	KOSMOS ENERGY GHANA HC ANADARKO PETROLEUM COMPANY	20.00% 10.00% 20.00% 10.00%	(28,314) (10,203) (10,203)	(18,027) (6,496)	68,935 24,642
	SABRE DIL & GAS	4 50% 2 25%	(10,203) (2,296)	{6,496} {1,462}	24,841 5,589
CTP OPERATOR		100.00% 50.00% 50.00%	(51,016) (51,016)	(32,481) (32,481)	124,207 124,207
		0.00%			

Exhibit I to the Unitization and Unit Operating Agreement I-6

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DELETITION UNDER TAX BATTER ALL AND OFFICIAL TO MAKE THE DESCRIPTION TO DELETION OF DELETI	TULLOW GHANA LIMITED - UNIT JUBILEE UNIT DEVELOPMENT - I STATEMENT OF EXPENDITURE As at 31 May 2009	F OPERATÓR JO ACTIVITIES NON-IPT - NON-PETROLEUM C(	DSTS RECHARGEABLE TO PAY	RTNERS		
Tabl Descriptions & A General Surveys Train Descriptions & A General Surveys Train Development Surve	DESCRIPTION			<u>CURRENT</u> MONTH USS		
Precessing by the precessing b				0	0	0
Development Survey Las Develo				0	D	o
atal Javategenent Budjet	Jevelopment Surveys			Q	p	0
Intel Project Honogenerat:         0 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
Teol Frigher Studies         0	Fotbi Dévelopment Wells			<u> </u>	0	
Tead Engineering         0         0         0         0           Dankber / Offshore Facilities & Hydeins Construction         0         0         0         0           Deal-fore / Offshore Surface         0         0         0         0         0         0           Deal-fore / Offshore Surface         0 </td <td>føtel Project Management</td> <td></td> <td></td> <td>0</td> <td>0</td> <td>0</td>	føtel Project Management			0	0	0
Desher / Offshere Tackitles & Spelins Construction satisfies & Province Construction satisfies & Province Construction satisfies - Equipment & Satisfies - Equipment	fotal Project Studies			U	0	0
Pipeline Construction Teal Onhore / Offshore Surface Teal Offshore / Offshore Surface Teal Offshore / Offshore Surface Teal Teal Context Surface Teal Teal Context Surface Teal Teal Teal Teal Teal Teal Teal Teal	fotal Engineering			0	0	0
Packlifes & Pipelina Coostruction	Pipeline Construction					
Doubling / Offibions Surface heat and heat in priment & heat is in priment & heat is in the surface for it is a communication in the surface for it is in the surface f		n		(ş	a	^
Total Delators / Orshord Surface       0       0       0         Commissioning       0       0       0         Total Comparise Social Responsibility       0       0       0         Total Comparise Social Responsibility       0       0       0         Responsibility       0       0       0       0         Ministration Cost       0       0       0       0         Total Constrat & Albertid	Facilities - Equipment L					
Neterials         0         0         0         0           Commissioning ratal Commissioning ratal Semiphicitation         0 <td>Total Dushore / Ofishore Surfac</td> <td>•</td> <td></td> <td></td> <td></td> <td></td>	Total Dushore / Ofishore Surfac	•				
Stati Commissioning         0         0         0         0           Phe-Operations         0         <	facilities - Equipment & Naterials			0	0	0
and Acquisition         0         0         0           and Acquisition         0         0         0         0           dill and Acquisition         0         0         0         0         0           dill and Acquisition         0	Commissioning Tatal Commissioning			0	D	0
Grad Land Acquisition         0         0         0         0           Hinor Capital Works         0	Pre-Operations Fotal Pre-Operations			0	0	<u>0</u>
Cotal Minor Capital Works         0 <td></td> <td></td> <td></td> <td>0</td> <td>0</td> <td></td>				0	0	
Total Corporate Social Steponalbility         0         0         0         0           Ninotated General & Mininistration Coal St A - General Allocated St A - General Direct				0	0	0
Responsibility     0     0     0       Ninceted General & Ministerial Allocated S& A - General Allocated General Allocated General & Administerial Allocated General & Composition Cost     0     0     0       OVERHEAD     0     0     0     0     0       IRAND TOYAL     0     0     0     0       ARTICIPANTS     55.50%     27.75%     0     0     0       VEEPWATER TANO OPERATOR KOSINDS ENERGY GHANA HC KOSINDS ENERGY GHANA HC KO	Corporate Social Responsibility					
Identifiatration Cost       SA - General Allocated         Sa A - General Allocated General Allocated       0         Sa A - General Offset       0         OVERHEAD       0       0         IRAND TOTAL       0       0         ARTICIPANTS       0       0         EEFWATER TANO OPERATOR       TULIOW GHANA LTD MADARKO PETROLEUM COMPANY       20.09%       10.09%       0       0         SAPRE CUL & GAS       100.09%       0       0       0       0       0				0	0	0
Total Allocated General &         0 <td>Administration Cost S &amp; A - General Allocated</td> <td></td> <td></td> <td></td> <td></td> <td></td>	Administration Cost S & A - General Allocated					
OVERHEAD         O         D         D         D           SRAND TOTAL         O         O         O         D	fotal Aliocated General &					
Image: Stand total         0	Administration Cost					
ARTICIPANTS         % SHARE           IEEPWATER TANO OPERATOR         TULLOW GHANA LTD KOSMOS ENERGY GHANA HC         55,50%         27,75%         0         0         0           KOSMOS ENERGY GHANA HC         20,00%         0         0         0         0         0           ANADARKO PETROLEUM COMPANY         20,00%         0         0         0         0         0           SABRE OLL & GAS         4,50%         22,55%         0         0         0         0	OVERHEAD					
DEEPWATER TANO OPERATOR         TULLOW GHANA LTD         55,50%         27,75%         0         0         0         0           KOSMOS ENERGY GHANA HC         20,00%         10,00%         0	IRAND TOYAL			0	<u> </u>	D
DEEPWATER TANO OPERATOR         TULLOW GHANA LTD         55,50%         27,75%         D         O         D           KOSMOS ENERGY GHANA HC         20,00%         10,00%         0						
EEPWATER TANO OPERATOR         TULLOW GHANA LTD         55.50%         27.75%         0						
EEPWATER TANO OPERATOR         TULLOW GHANA LTD         55.50%         27.75%         D         O         D           KOSMOS ENERGY GHANA HC         20.00%         10.00%         0	ADTICIDANTE	· · · ·	وي العدد	n#		
KOSMOS ENERGY GHANA HC         20.00%         10.00%         0         0         0         0           ANADARKO PETROLEUM COMPANY         20.00%         10.00%         0		TULLOW GHANA LTD			0	n
100.03% 50.00% 0 0 0		KOSMOS ENERGY GHANA HC ANADARKO PETROLEUM COMPANY	20.00% 10.0 20.00% 10.0 4.50% 2.3	20% 0 20% 0	0 0	0 0
	CTP OPERATOR		100.00% 50.0	X0% D	0	

Exhibit 1 to the Unitization and Unit Operating Agreement J-7

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A.S. FAM

TULLOW GHANA LIMITED - UNIT OPERATOR JUBILEE UNIT DEVELOPMENT - UO ACTIVITIES NON-IPT - NON-PETROLEUI STATEMENT OF EXPENDITURE As at 31 May 2009	N COSTS NON-RECHARGEABLE TO P	ARTNERS		
DESCRIPTION		CURRENT MONTH USS	<u>YEAR TO DATE</u> <u>USS</u>	INCEPTION TO DATE USS
Total Licence Fees & Bonuses		0	0	·····;
Tota) Data Purchase & Re-				
Processing Total Development Surveys		14,212	94,068	216,748
tetal Development Studios				
Studies Geological Studies Geochysical		•		:
Studies Revolum Engineering Studies Reservolr Engineering		-	-	5,967
Studies Outline Engineering Studies Environmental			:	-
Studies Commercial Studies QHSE		:	-	
Studies Cher Development Studies - Allocated		-	-	-
Direct G&A Development Studies - Allocated		•	-	26,127
Total Development Studies		73,775	1,024,106 1,024,106	2,172,387
Total Development Weijs		D	0	0
Project Management				
Fotal Project Management		0	0	Ö
Total Project Studies Englosering		0	<u> </u>	0
fotal Engineering		- 25,079	67,475	118,466
lotal Onshore / Offenore actifiles & Pipeline Construction		->	Q	o
Total Onahore / Offahore Surface Faclifies - Equipment & Materials		0	<u>0</u>	
Total Commissioning		0	0	0
fetal Pre-Operations		0	<u> </u>	0
Tota/ Land Acquisition		<u> </u>	0	0
Total Minor Capital Works		<u>0</u>	D	<u>0</u>
Total Corporate Social Responsibility				
3 B. A - General Allocated		(21,280)	196,682	813,159
G & A - General Direct Fothi Allocatud Genural &		(3,343)	492,369	1,196,457
Administration Cost		-24,623	689,051	2,009,615
0.50.55		38,284	1,874,700	4,549,311
OVERHEAD GRAND TOTAL		38,284	1,874,700	4,549,311
14 D T ( ^ ) 6 J ( V Z				
	% SHARE			
EEPWATER TAND OPERATOR TULLOW GHANA LTD	55.50% 55.50% 20.00% 20.00%	38,264	1,874,700	4,549,311
VCTP OPERATOR	4.50% 100.00% 100.00%	38,284	1,874,700	4,549,311
		38,284	1,874,700	4,549,311

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Product 2 Mail 10	144	Meringment DGr				CI Dreve	Deged conv	July Steered	V1 Canadrian	Completions and - IMDER	and the second state of th		5-95-L C.C		Diffing Production Cylic	Language and the second second	Descrited Same	Control Provident des		FUL SUPERIN SEASON	The County - And - And -	True created Consistence Analysis	CEA Freedom			Taking the start from the fair of the produced	Tehnon menung tese - Okie workoff In carte	"minute Reas - Rear toch. [Allocacies]	Tart Over Stees - Date costs [Pland]	Theorem Base - take contra - frond Wing		Tariut & Bise - Sale code - Viere Viere	Thirden Mana - Rass capts - Margange	Tairt of the Bree - Phane I Carls uppeds	Menu Local office - CLA OFFICE conte		Sheet Even Even Cover Virginia Cover	Acc's Debry Office Care	horized Granitand	
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100			Sublice Field Non-IPT Cash Call Analysis	r Cash Cañ Analyn	*								
ces Partner	Equity Share	Brought Forward Receipts	Current Month Receipts	Carried Forward Receipts	Brought Forward Expenditure	Current Month Expenditure	Carried Forward Expenditure	Sub-total Aecelpta fear Expenditure	Working capital	Prior Period Interest cashcalle received	ā	Forecast Expenditure	Forecast cash surplue /(dencit)
TULLOW GHANA LTD KOSMOS ENERGY GHANA HC ANADARKO PETROLEUM COMPANY	55.50% 20.00% 20.00%	115,146,688 41,494,301 41,494,301	22,254,645 8,019,693 8,019,693	137,401,333 45,513,994 49,513,994	106,798,976 38,486,117 30,466,117	26,662,113 9,607,969 9,607,969	133,451,069 48,094,036 48,094,086	3,940,244 1,419,908 1,419,908	25,376,903 9,144,859 9,144,859		4.511 [49,7 1,625 [17,9 1,626 [17,9	(677,577,571) [17,923,449] [17,923,449]	(20,415,833) (7,357,057) (7,357,057)
avent our was DEFNATER TANO OPERATOR WCTP OPENATOR Sub-total		<b>1E0'EP6'FIE</b> 605'12 <b>F</b> 207 605'12 <b>F</b> 207	1,003,446 29,093,446 79,595,446	246,968,494 246,968,494 247,569,970 494,538,464	9,009,478 192,430,567 192,430,567 384,861,174	48,039,844 48,039,844 48,039,844 48,039,844	10,821,169 240,470,430 240,470,430 480,940,861	(281,597) 6,490,964 7,099,540 13,597,603	2,057,593 45,724,294 45,724,294 91,448,558	601,477 6 0 6 0 6 0 7 16, 16, 16,	=	(4,032,776) (89,617,245) (89,617,245) 79,234,439)	(1,655,234) (36,765,234) (36,765,234) (73,570,56E)
TULLOW GHANA LTD Total Meter Received	100%	<b>414,943,018</b> 16,255	79,595,445 D	494,538,464 15,255	4,511,027 389,372,201	38,284 96,117,972	4,549,311 112,490,172	(4,549,311) 9,048,292 16,255	91,448,588	4,511,027 5,112,504 16, **	0 16,255 (179,234,489) *****	14,489)	(73,608,851) (73,608,851) 0
Grand Total		414,959,273	79,523,446	494,954,719	105,272,201	96,117,972	455,490,172	9,064,547	91,448,511	5,112,504	D (179,234,489)	34,489)	(73,608,631)
		2089 Forecast Analysia Jun-09 J	ist Analysis Jul-09	60-0a			stevine Anding Analysis	sirytanA	As at 31 May 2009	50			
Werking Capital (evoluting cash and TGL 100%) Merking Capital (evoluting tash and TGL 100%) Werking Capital (evoluting tash and TGL 100%) And Johastructure, Gas Comm Sec. Johastructure, Gas Comm Bending Drifting	190%) 190%)	91,448,588 35,709,154 1,27,530,0742 1,3,530,000 1,19,530,748 1,79,234,489	14,055,000 40,003,169 54,148,369	13,797,500 40,007 53,662,007			Current teach balances Current teach balances Carestar Canho Supporticute for mor Foreceast Canho Balances Current canho balances Current canho balances Correct Canho Carest	Current teach balances Current teach noi yet remouved Freesest expenditure for next month Processt Cash Supplas/(Deficit) Current cash balances Current cash balances Expenditure feas for river			711,512,001 112,5264 112,5264 1205,527 1215,5204 1215,5204 1215,5204 1215,5204 1215,5204 1215,5204 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 1215,504 121	71, 613, 604, 604, 604, 604, 604, 604, 604, 604	

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Exhibit I to the Unitization and Unit Operating Agreement

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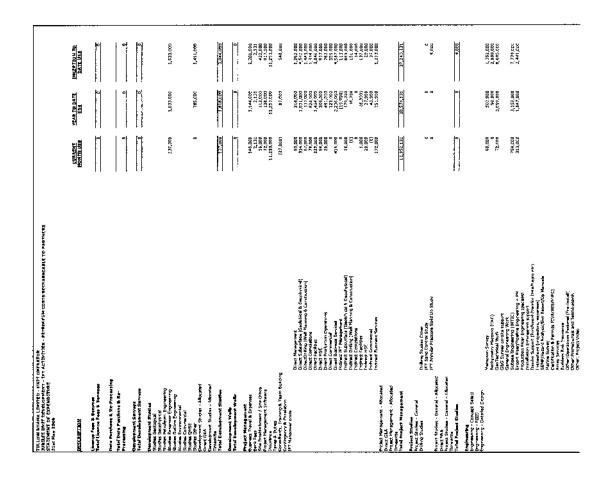


Exhibit I to the Unitization and Unit Operating Agreement

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DESCRIPTION EFGONARY ON ENJOR	(Seronauros - Abrada D. Inc. (1) (Seronauros - Seronauros - Seronauros (Seronauros - Seronauros - Seron	Outon Surfate Kalifika - Giarda Outon Surfate Kalifika - Giarda Outon S Froduction Publica BNT Subsect Trans (Free Trans) - Free Marking Manufactures Build Manufactu	ergs territoria and a construction and a constructi	Tatal Controlment / Offeners Barface Tatalities - Equipments B Mahamida Carmydackoolong	Te (x) Generalizateria. Pre-Dyeraliana Tatal Pre-Operationa	Land Acceptibles Lead Lands Acceptibles Almar Capital Weile Tetal Miner Capital Weile	Corportal Social Responsibility Table Corporate Sevial Responsibility Alternational Constra	o (a A. counted (a A. counted) 2015 Administration Cure Administration Cure Deventuon General Cure	care, franker, confidence care, franker, ord franker, kanner, Careform und Griften Europei Labibitat Vertei Menthey Gaptitat Franker, franker	Legnen action by: Partner Jessenda Talai Par Goog Parati De Alvis	ULTOWER, IMO OFENTIN MALON (DIMALT) ULTOWER, IMO OFENTIN MARKO OFENTIN MCTO OFENTION

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		Juhlige	Juhikee Fleid IPT Carls Call Analysis	Call Analysis									
Equity	I		Currant Wonth	Carried Forward	Brought Forward	Curtent Manth	Carried Forward	Sub-total Receipts here	Working Capital	Prior garlod canhcalla	Internet	Forecant Sepanditure	Forecast cash surplus
Share		kacalpta f	Receipts	Receipts	Expenditure	Expenditure	Expenditure .	Expenditure					/(defficit)
			13,986,801	105,960,855	125,049,270	376,916,7	132,366,646	(26,407,791)	35,633,556		25,570	(14,801,336)	(2,550,000)
KOSMOS ENERGY GHAVA HC 20,00% ANADAPYO PETROL FUM COMPANY 30 2004		33,143,803 141 40 403	5,040,289 C 040,289	38,184,092 78,164,097	45,062,800 46 Act PDD	2,637,613	17,700,413	(9,516,321)	12,640,921		3112 6	(313,815)	(2, 500,000)
		325,356	756,044	200-E12-2	10.139.130	E99'E85	CT1,007,71	(172'015'2)	2,889,207	378.021	EZ072	(310'007'1)	(1000'000'7)
DEEPV/ATER TANO OPERATOR 50%		165,719,016 155,719,016	24,623,423	190,542,439	225,314,000	13,108,066	236,502,066	(47,959,627)	64,204,606	378,021	46,073	(26,669,073)	(10,000,000)
6.0E	۳ ا		50,024,867	361,462,859	150,028,000	161 142 15	121 P00 442	12 E C T 125 5 5	120,409,421	375.021	92.146	(23.338.147)	(20,000,000)
		92,146	•	92,146				92,146			(42, <b>146</b> )		Ð
	155	331,530,176 0 S	50,024,867 0	381,555,045	450,628,000	26,376,131	477,004,131 0	0 (95,449,086)	128,409,212	120,872	•	(33,538,147)	(20,506,000)
												-	
Cashcala 0.115	···	2009 Forecast Analysis Expandits	. Analysia Expanditura Forecaet				Summary Funding Analysis	ng Ana hyais					
Working Cantral (excluding cash and TGL 100%)		128.409.212					Current rash halances	lances				32.960.127	
						<u> </u>	Cashcall not yet received	received			ł	176,022	
381,846,920 381,840,920	11	(75,071,065) 53,338,147	82,949,000	47,944,000 47,944,000			Forectist expen	Forecast expenditure for next month Forecast Cash Surplus/(Deficit)			Ιţ	(195'666'61) (27'356'66'61)	
							Current cash balences Working capital Expenditure leas Pal	current cash balences Working caoital Ekpenditure leus Parther fühding				32,960,127 (128,409,212) (95,449,084)	,

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Exhibit I to the Unitization and Unit Operating Agreement

#### Kosmos Energy Ghere HC West Cape Times Points Expenditures at February 28, 2009

<ol> <li>1.1 Seismic</li> <li>1.3 G&amp;G Si</li> <li>1.3 G&amp;G Si</li> <li>1.3 G&amp;G Si</li> <li>1.3 G&amp;G Si</li> <li>1.4 Direct C</li> <li>2.0 Contract</li> <li>2.1 Surface</li> <li>2.2 Training</li> <li>2.3 Bornst b</li> <li>3.0 Drilling</li> <li>3.2 Drill Equ</li> <li>3.4 A Direct C</li> <li>3.0 Drilling</li> <li>3.4 Shorebi</li> <li>3.6 Mahoga</li> <li>3.7 Mahogi</li> <li>3.8 Mahoga</li> <li>3.10 Drilling</li> <li>3.2 Drill Equ</li> <li>3.10 Cotum V</li> <li>3.11 Aban Ai</li> <li>3.12 Enginee</li> <li>3.13 Direct C</li> <li>8.0 Inventor Inventor Inventor</li> <li>4.1 Main OI</li> <li>4.1 Main OI</li> <li>4.1 Main OI</li> <li>4.1 Main OI</li> <li>4.1 Fixed A</li> <li>5.1 Fixed A</li> </ol>	Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Stu	723304 723309 723312 823307 823307 823315 823315 823315 823320 823321 723301 723301 723310 723310 723319 723325 723324 823334	183,887.00 7,192.00 190.00 18,300.00 (500.00) 168,605.00 28,911,442.19 1,227.50 794,925.19	(18,293,45) 15,809,13 30,770,00 (142,070,15) (56,672,43) 133,770,00 79,711,14 24,368,67 65,342,47 (427,885,49) 86,796,53	165,393.55 16,809,13 30,770.00 7,162.00 (141,880.15) 18,300.00 (57,072.43) 292,275.00 <b>79,711.14</b> 24,388.67 55,342.47 26,483,758.70	49,181,344.82 5,190,940,90 452,632.00 16,964,111.33 133,450,08 21,462,032.50 342,610,50 166,301.56 102,386.47 151,689.16 103,986.84 76,437,50 492,968.79 2,435,747,73 1,045,483.87 200,486.64 596,017.33 260,000,00 281,106,895,73 1,442,294.12	759,401.83 58,010.00
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<ol> <li>1.3 G&amp;G St</li> <li>1.3 G&amp;G St</li> <li>1.3 G&amp;G St</li> <li>1.3 G&amp;G St</li> <li>1.4 Direct C</li> <li>2.0 Contract</li> <li>2.1 Surface</li> <li>2.1 Surface</li> <li>2.2 Training</li> <li>2.3 Bornas b</li> <li>3.0 Drilling</li> <li>3.2 Drill Eq.</li> <li>3.4 Shorebi</li> <li>3.6 Mehogi</li> <li>3.7 Mahogi</li> <li>3.8 Mehogi</li> <li>3.9 Mahogi</li> <li>3.9 Mahogi</li> <li>3.0 Odum V</li> <li>3.11 Aban Al</li> <li>3.12 Enginee</li> <li>3.13 Direct C</li> <li>8.0 Inventoi inventoi inventoi inventoi inventoi inventoi</li> <li>4.1 Main OI</li> <li>4.1 Main OI</li> <li>4.1 Main OI</li> <li>4.3 Travel</li> <li>4.4 Direct C</li> <li>5.0 Region</li> <li>5.1 Fixed A</li> </ol>	Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Studies Stu	823315 823318 823320 823320 823321 723301 723301 723310 723319 723325 723324 823334	190.00 18,300.00 (500.00) 168,505.00 28,911,442.19 1,227.50	(56,572.43) 133,770.00 79,711.14 24,358.67 66,342.47 (427,885.49)	18,300,00 (57,072,43) 292,275,00 79,711,14 24,388,67 55,342,47 26,483,758,73	161,889.18 173,985,84 170,437,50 492,968.19 2,435,747,73 1,045,483,87 200,486,54 596,017,33 260,000,00 281,106,895,73 1,442,284.12	
<ol> <li>1.3 G&amp;G Si, 1.3 G&amp;G Si, 1.3 G&amp;G Si, 1.3 G&amp;G Si, 1.4 Direct C</li> <li>2.0 Contract</li> <li>2.1 Surface</li> <li>2.2 Training</li> <li>2.3 Bornal: 0</li> <li>3.0 Drilling</li> <li>3.0 Drilling</li> <li>3.4 Shorebi</li> <li>3.6 Mahoga</li> <li>3.7 Mahogi</li> <li>3.7 Mahogi</li> <li>3.7 Mahogi</li> <li>3.8 Mahoga</li> <li>3.10 Colum V</li> <li>3.11 Aban Ai</li> <li>3.12 Enginee</li> <li>3.12 Enginee</li> <li>3.13 Direct C</li> <li>8.0 Invento Inventoi Inventoi</li> <li>4.1 Main Oi</li> <li>4.1 Fixed A</li> <li>5.1 Fixed A</li> </ol>	Studies Studies Studies Studies Studies t Charges G&G actual Coats actual Coats to EO Cost po Deligations to EO Group 10 iguipment gany Well #1 igany Well #2 igany Well #2 igany Well #2 igany Well #2 igany Well #2 igany Well #2 igany Well #3 iwai #1 Neal #1 Neal #1	623318 823379 823320 823321 723301 723301 723310 723379 723324 823334	18,300,00 (500,00) 168,605,00 28,911,442,19 1,227,50	(56,572.43) 133,770.00 79,711.14 24,358.67 66,342.47 (427,885.49)	18,300,00 (57,072,43) 292,275,00 79,711,14 24,388,67 55,342,47 26,483,758,73	195,995,84 76,437,50 492,968,19 2,435,747,73 1,045,483,87 200,496,54 596,017,33 260,000,00 281,106,895,73 1,442,294,12	
<ul> <li>1.3 Git Str</li> <li>1.3 Git Git Str</li> <li>1.4 Direct C</li> <li>2.0 Contract</li> <li>2.1 Surface</li> <li>2.2 Training</li> <li>2.3 Borns to</li> <li>3.0 Drilling</li> <li>3.2 Drill Equilibrium</li> <li>3.6 Mahoga</li> <li>3.4 Shorebi</li> <li>3.6 Mahoga</li> <li>3.7 Mahoga</li> <li>3.10 Antong</li> <li>3.7 Mahoga</li> <li>3.10 Antong</li> <li>3.11 Aban Ai</li> <li>3.12 Enginee</li> <li>3.13 Direct C</li> <li>8.0 Inventor</li> <li>8.0 Inventor</li> <li>1.1 Main Oi</li> <li>4.1 Fixed A</li> <li>5.1 Fixed A</li> </ul>	Studies Studies Studies Studies Charges G&G actual Coats ce Rentais ng Obligations is to EO Group Ig gany Well #1 base Operations igany Well #2 gany Well #2 DST gany Well #2 DST gany Well #2 DST gany Well #3 DST gany Well #3 DST gany Well #3 Nell #1	823379 823320 823321 723301 723301 723310 723379 723325 723324 823324	18,300,00 (500,00) 168,605,00 28,911,442,19 1,227,50	(56,572.43) 133,770.00 79,711.14 24,358.67 66,342.47 (427,885.49)	18,300,00 (57,072,43) 292,275,00 79,711,14 24,388,67 55,342,47 26,483,758,73	70,437,50 422,988,19 2,435,747,73 1,045,483,87 200,486,54 596,017,33 260,000,00 281,106,895,73 1,442,294,12	
<ul> <li>1.3 G&amp;G Si</li> <li>1.3 G&amp;G Si</li> <li>1.4 Direct C</li> <li>2.0 Contrace</li> <li>2.1 Surface</li> <li>2.2 Training</li> <li>2.3 Bornas b</li> <li>3.0 Drilling</li> <li>3.2 Drill Eq.</li> <li>3.4 Shorebi</li> <li>3.6 Mehogi</li> <li>3.7 Mahogi</li> <li>3.8 Mahogi</li> <li>3.9 Mahogi</li> <li>3.9 Mahogi</li> <li>3.10 Colum V</li> <li>3.11 Aban Al</li> <li>3.12 Enginee</li> <li>3.13 Direct C</li> <li>8.0 Inventoi</li> <li>1.12 Enginee</li> <li>3.13 Direct C</li> <li>8.0 Inventoi</li> <li>1.1 Main Oi</li> <li>4.1 Fixed A</li> <li>5.1 Fixed A</li> </ul>	Studies Studies Studies t Charges G&G actual Costs to Rentais og Obligations is to EO Group Ig gulpment gany Well #1 bises Operations igany Well #2 DST igany Well #2 DST igany Well #2 DST igany Well #2 DST igany Well #3 Neti #1 Abratsim-Allocated Rig Upgrade	823320 823321 723301 723301 723310 723319 723325 723324 823334	18,300,00 (500,00) 168,605,00 28,911,442,19 1,227,50	(56,572.43) 133,770.00 79,711.14 24,358.67 66,342.47 (427,885.49)	18,300,00 (57,072,43) 292,275,00 79,711,14 24,388,67 55,342,47 26,483,758,73	492,988.19 2,435,747.73 1,045,483.87 200,485,54 596,017.33 260,000.00 281,106,995.73 1,442,294.12	
<ol> <li>3 G&amp;G SI</li> <li>1.3 G&amp;G SI</li> <li>1.4 Direct C</li> <li>2.0 Contract</li> <li>2.1 Surface</li> <li>2.2 Training</li> <li>2.3 Bornat b</li> <li>3.0 Drilling</li> <li>3.3 Mahoga</li> <li>3.4 Shorebut</li> <li>3.6 Mahoga</li> <li>3.7 Mahoga</li> <li>3.7 Mahoga</li> <li>3.10 Colum V</li> <li>3.11 Aban Al</li> <li>3.12 Enginee</li> <li>3.12 Enginee</li> <li>3.13 Direct C</li> <li>8.0 Inventor</li> <li>Inventor</li> <li>Inventor</li> <li>Inventor</li> <li>4.0 Region</li> <li>4.1 Main OI</li> <li>4.1 Main OI</li> <li>4.1 Main OI</li> <li>4.1 Main OI</li> <li>4.2 Engineet</li> <li>5.0 Region</li> <li>5.1 Fixed A</li> </ol>	Studies t Charges G&G ectual Costs the Rentais ng Obligations is to EO Group iguipment gany Well #1 base Operations gany Well #2 igany Well #2 DST igany Well #2 DST igany Well #2 DST igany Well #2 AST igany Well #3 Net #1 Net 141	723301 723301 723301 723310 723379 723325 723324 823334	(500.00) 158,505.00 28,911,442.19 1,227,50	133,770.00 79,711.14 24,368,67 66,342.47 (427,885.49)	(57,072,43) 202,275,00 79,711,14 24,388,67 55,342,47 26,483,758,73	2,435,747.73 1,045,483.87 200,486,54 596,017.33 250,000.00 281,106,895.73 1,442,294.12	
<ol> <li>1.4 Direct C</li> <li>2.0 Contract</li> <li>2.1 Surface</li> <li>2.2 Training</li> <li>2.3 Borna b</li> <li>3.6 Drilling</li> <li>3.8 Mahoga</li> <li>3.4 Shorebi</li> <li>3.6 Mahoga</li> <li>3.7 Mahoga</li> <li>3.7 Mahoga</li> <li>3.10 Colum V</li> <li>3.11 Aban AI</li> <li>3.12 Enginee</li> <li>3.13 Direct C</li> <li>8.0 Inventoo</li> <li>Inventoo</li> <li>Inventoo</li> <li>Inventoo</li> <li>Inventoo</li> <li>Inventoo</li> <li>Inventoo</li> <li>Inventoo</li> <li>1.1 Main Ci</li> <li>4.1 Fixed A</li> <li>5.1 Fixed A</li> </ol>	t Charges G&G actual Costs to Rentais ng Obligations is to EO Group fulgement gany Well #1 house Operations igany Well #2 gany Well #2 DST igany Well #2 DST igany Well #2 DST igany Well #2 AST igany Well #3 Nell #1 Neti #1 Neti #1	723301 723301 723310 723319 723325 723324 823334	168,605.00 28,911,442.19 1,227.50	133,770.00 79,711.14 24,368,67 66,342.47 (427,885.49)	292,275.00 79,711.14 24,358.67 55,342.47 26,483,758.70	1,045,483.87 200,486.54 596,017.33 260,090.00 281,106,895.73 1,442,294.12	59,010.00
<ul> <li>2.1 Surface</li> <li>2.2 Training</li> <li>2.3 Borns ID</li> <li>2.3 Borns ID</li> <li>3.6 Drilling</li> <li>3.2 Drill Eq</li> <li>3.8 Mahoga</li> <li>3.4 Shorebut</li> <li>3.7 Mahoga</li> <li>3.7 Mahoga</li> <li>3.7 Mahoga</li> <li>3.10 Odum V</li> <li>3.11 Aban Al</li> <li>3.12 Enginee</li> <li>3.13 Direct C</li> <li>8.0 Inventoo</li> <li>Inventoo</li> <li>In</li></ul>	ce Rentais ng Obligations is to EO Group Iguipment gany Well #1 house Operations gany Well #2 ggany Well #2 DST ggany Well #2 DST ggany Well #2 DST ggany Well #2 AST gany Well #3 ) Well #1 Abratsam-Allocated Rig Upgrade	723301 723310 723319 723325 723324 823334	1,227.50	24,368.67 66,342.47 (427,685.49)	24,388.67 55,342.47 26,483,758.70	200,486.54 596,017.33 250,000.00 281,106,895.73 1,442,294.12	
<ul> <li>2.1 Surface</li> <li>2.2 Training</li> <li>2.3 Borns ID</li> <li>2.3 Borns ID</li> <li>3.6 Drilling</li> <li>3.2 Drill Eq</li> <li>3.8 Mahoga</li> <li>3.4 Shorebut</li> <li>3.7 Mahoga</li> <li>3.7 Mahoga</li> <li>3.7 Mahoga</li> <li>3.10 Odum V</li> <li>3.11 Aban Al</li> <li>3.12 Enginee</li> <li>3.13 Direct C</li> <li>8.0 Inventoo</li> <li>Inventoo</li> <li>In</li></ul>	ce Rentais ng Obligations is to EO Group Iguipment gany Well #1 house Operations gany Well #2 ggany Well #2 DST ggany Well #2 DST ggany Well #2 DST ggany Well #2 AST gany Well #3 ) Well #1 Abratsam-Allocated Rig Upgrade	723301 723310 723319 723325 723324 823334	1,227.50	66,342.47 	55,342,47 26,483,758.70	596,017.33 250,000.00 281,106,895.73 1,442,294.12	
<ul> <li>2.2 Training</li> <li>2.3 Bornas b</li> <li>3.0 Drilling</li> <li>3.2 Drill Eq.</li> <li>3.8 Mahoga</li> <li>3.4 Shorebi</li> <li>3.6 Mahoga</li> <li>3.7 Mahoga</li> <li>3.8 Mahoga</li> <li>3.9 Mahoga</li> <li>3.10 Colum V</li> <li>3.11 Aban Ai</li> <li>3.12 Enginee</li> <li>3.13 Direct C</li> <li>8.0 Inventor</li> <li>Inventor</li> <li>Invent</li></ul>	ng Obligations s to EO Group (quijoment gany Well #1 bises Operations gany Well #2 DST gany Well #2 DST gany Well #2 Studies gany Well #3   Well #3   Well #1	723301 723310 723319 723325 723324 823334	1,227.50	- (427,885.49)	- 26,483,758.70	250,000.00 281,108,995.73 1,442,294.12	
<ul> <li>2.3 Bornus b</li> <li>3.0 Drilling</li> <li>3.2 Drill Eq.</li> <li>3.8 Mahoga</li> <li>3.4 Shorebi</li> <li>3.6 Mehogn</li> <li>3.7 Mehoga</li> <li>3.7 Mehoga</li> <li>3.8 Mehoga</li> <li>3.9 Mahoga</li> <li>3.10 Cdum V</li> <li>3.11 Aben AI</li> <li>3.12 Enginee</li> <li>3.12 Enginee</li> <li>3.13 Direct C</li> <li>3.14 Main OI</li> <li>4.1 Main OI</li> <li>5.1 Fixed A</li> </ul>	to EO Group guipment gany Well #1 ibase Operations gany Well #2 gany Well #2 DST igany Well #2 DST gany Well #2 Studies gany Well #3 I Well #1 I Well #1	723301 723310 723319 723325 723324 823334	1,227.50		•	281,106,895.73 1,442,294.12	
<ul> <li>3.2 Drill Eq.</li> <li>3.3 Mahoga</li> <li>3.4 Shorebi</li> <li>3.6 Mahogi</li> <li>3.7 Mahogi</li> <li>3.7 Mahogi</li> <li>3.7 Mahogi</li> <li>3.8 Mahogi</li> <li>3.8 Mahogi</li> <li>3.9 Mahoga</li> <li>3.10 Cdum V</li> <li>3.11 Aban Al</li> <li>3.12 Enginee</li> <li>3.13 Direct C</li> <li>3.13 Direct C</li> <li>4.0 Region</li> <li>4.1 Main O</li> <li>5.1 Fixed A</li> </ul>	gulpment gany Well #1 bisso Operations gany Well #2 DST gany Well #2 DST gany Well #2 DST gany Well #2 Studies gany Well #3 Well #1 Abraham-Allocated Rig Upgrade	723301 723310 723319 723325 723324 823334	1,227.50		•	1,442,294.12	
<ul> <li>3.3 Mahoga</li> <li>3.4 Shorebu</li> <li>3.6 Mahoga</li> <li>3.7 Mahoga</li> <li>3.7 Mahoga</li> <li>3.8 Mahoga</li> <li>3.8 Mahoga</li> <li>3.9 Mahoga</li> <li>3.10 Colum Vi</li> <li>3.11 Aban Ai</li> <li>3.12 Enginee</li> <li>3.12 Enginee</li> <li>3.13 Direct C</li> <li>8.0 Inventoo</li> <li>Inventoo</li> /ul>	gany Well #1 hbuso Operations iggany Well #2 ggany Well #2 DST iggany Well #2 DST iggany Well #2 Studies gany Well #3 i Well #1 Abraham-Allocated Rig Upgrade	723301 723310 723319 723325 723324 823334	-		۰		
<ul> <li>3.3 Mahoga</li> <li>3.4 Shorebu</li> <li>3.6 Mahoga</li> <li>3.7 Mahoga</li> <li>3.7 Mahoga</li> <li>3.8 Mahoga</li> <li>3.8 Mahoga</li> <li>3.9 Mahoga</li> <li>3.10 Colum Vi</li> <li>3.11 Aban Ai</li> <li>3.12 Enginee</li> <li>3.12 Enginee</li> <li>3.13 Direct C</li> <li>8.0 Inventoo</li> <li>Inventoo</li> /ul>	gany Well #1 hbuso Operations iggany Well #2 ggany Well #2 DST iggany Well #2 DST iggany Well #2 Studies gany Well #3 i Well #1 Abraham-Allocated Rig Upgrade	723310 723319 723325 723324 823334	-				
<ul> <li>3.4 Shorebi</li> <li>3.6 Mahogi</li> <li>3.7 Mahogi</li> <li>3.7 Mahogi</li> <li>3.8 Mahogi</li> <li>3.9 Mahogi</li> <li>3.9 Mahogi</li> <li>3.10 Cotum V</li> <li>3.11 Aban Ai</li> <li>3.12 Enginee</li> <li>3.13 Direct G</li> <li>8.0 Inventoi Inventoi</li> <li>1.13 Direct G</li> <li>8.0 Inventoi</li> <li>8.0 Inventoi</li> <li>1.14 Main Oi</li> <li>4.1 Fixed A</li> <li>5.1 Fixed A</li> </ul>	buse Operations gany Well #2 igany Well #2 DST gany Well #2 DST gany Well #2 Studies gany Well #3 i Well #1 Neti #1	723319 723325 723324 823334	794,925.19	00 700 20	1,227.50	31,015,379.40	
<ul> <li>3.6 Mehogi</li> <li>3.7 Mehogi</li> <li>3.7 Mehogi</li> <li>3.8 Mehogi</li> <li>3.8 Mehogi</li> <li>3.9 Mehogi</li> <li>3.10 Colum V</li> <li>3.11 Aban Al</li> <li>3.12 Enginee</li> <li>3.12 Enginee</li> <li>3.13 Direct O</li> <li>8.0 Inventoi</li> <li>Inventoi</li> <li>Inventoi</li> <li>Inventoi</li> <li>Inventoi</li> <li>Mehogi</li> <li>4.1 Mein O</li> <li>4.2 Travel</li> <li>4.4 Direct O</li> <li>4.5 Interest</li> <li>5.0 Region</li> <li>5.1 Fixed A</li> </ul>	gany Well #2 gany Well #2 DST igany Well #2 DST gany Well #2 Studies gany Well #3   Well #1 Abrahsm-Allocated Rig Upgrade	723319 723325 723324 823334	794,925,19	00,796.03	86,799.53	333,390.64	
<ul> <li>3.7 Mahogi</li> <li>3.7 Mahogi</li> <li>3.7 Mahogi</li> <li>3.8 Mahogi</li> <li>3.9 Mahogi</li> <li>3.10 Colum V</li> <li>3.11 Aban Al</li> <li>3.12 Enginee</li> <li>3.12 Enginee</li> <li>3.13 Direct C</li> <li>8.0 Inventoi Inventoi</li> <li>8.0 Inventoi</li> <li>8.0 Inventoi</li> <li>8.0 Inventoi</li> <li>4.1 Main Oi</li> <li>4.5 Interest</li> <li>5.0 Region</li> <li>5.1 Fixed A</li> </ul>	gany Well #2 DST gany Well #2 DST gany Well #2 Studies gany Well #3 1 Weil #3 Abraham-Aliocated Rig Upgrade	723325 723324 823334	· -	11,034.54	805,959.73	70,953,524.96	
<ul> <li>3.7 Mahogi</li> <li>3.8 Mahogi</li> <li>3.9 Mahogi</li> <li>3.9 Mahogi</li> <li>3.10 Odum V</li> <li>3.11 Aban Ai</li> <li>3.12 Enginee</li> <li>3.12 Enginee</li> <li>3.13 Direct G</li> <li>8.0 Inventoi</li> <li>8.0 Inventoi</li> <li>1.1 Main Oi</li> <li>4.1 Main Oi</li> <li>5.1 Fixed A</li> </ul>	gany Well #2 DST gany Well #2 Studies gany Well #3 Well #1 Abraham-Allocated Rig Upgrade	723324 823334		-	•	3,997,139.22	
<ul> <li>3.8 Mehogi</li> <li>3.9 Mahogi</li> <li>3.10 Colum V</li> <li>3.11 Aban Al</li> <li>3.12 Enginee</li> <li>3.13 Direct C</li> <li>8.0 Inventor</li> <li>9.1 Allored C</li> <li>9.0 Region</li> <li>6.1 Fixed A</li> <li>5.1 Fixed A</li> </ul>	gany Well #2 Studies gany Well #3 h Well #1 Abraham-Allocated Rig Upgrade	723324 823334	275,000.16	(776,170.58)	(501,170.42)	49,889,450.20	
<ul> <li>3.9 Mahoga</li> <li>3.10 Colum Vi</li> <li>3.11 Aban Ai</li> <li>3.12 Enginee</li> <li>3.12 Enginee</li> <li>3.13 Direct C</li> <li>8.0 Inventor</li> <li>8.1 Fixed A</li> <li>5.1 Fixed A</li> </ul>	ganý Well #3   Well #1 Abraham-Allocated Rig Upgrade	823334	· ·	•	-	97,250.00	124,737,364.38
<ul> <li>3.10 Cdum<sup>7</sup> V</li> <li>3.11 Aban Al</li> <li>3.12 Enginee</li> <li>3.12 Enginee</li> <li>3.13 Direct C</li> <li>8.0 Inventoo</li> <li>8.13 Direct C</li> <li>8.0 Inventoo</li> <li>8.14 Main Ci</li> <li>4.1 Main Ci</li> <li>5.0 Region</li> <li>5.1 Fixed A</li> </ul>	Weil #1 Abraham-Allocated Rig Upgrade		25,609,939,19	(1,780.65)	25,608,158,64	62,565,905.45	
<ul> <li>3.11 Aban Al</li> <li>3.12 Enginee</li> <li>3.12 Enginee</li> <li>3.13 Direct C</li> <li>8.0 Inventor</li> <li>4.1 Main Ol</li> <li>4.3 Travel</li> <li>4.4 Direct C</li> <li>4.5 Interest</li> <li>5.0 Region</li> <li>5.1 Fixed A</li> </ul>	Abraham-Allocated Rig Upgrade		(253,14)	- 1	(253.14)	55,631,342.54	
<ul> <li>3.12 Enginee</li> <li>3.13 Direct 0</li> <li>3.13 Direct 0</li> <li>8.0 Inventor inventor inventor</li> <li>4.1 Main Oi</li> <li>5.1 Fixed A</li> </ul>			139,313.29	137,171.57	276,484.88	2,971,117.27	
<ul> <li>3.12 Engines</li> <li>3.13 Direct (</li> <li>3.13 Direct (</li> <li>8.0 Inventor inventor inventor</li> <li>4.0 Region</li> <li>4.1 Main Oi</li> <li>5.0 Region</li> <li>5.1 Fixed A</li> </ul>			73,185.00	93,585.00	156,770.00	460,035.00	
<ul> <li>3.13 Direct 0</li> <li>8.0 Inventor Inventor Inventor</li> <li>4.0 Region</li> <li>4.1 Main Oi</li> <li>4.3 Travel</li> <li>4.4 Direct O</li> <li>4.5 Interest</li> <li>5.0 Region</li> <li>5.1 Fixed A</li> </ul>		723313				114,535.93	
Inventor Inventor Inventor Inventor A.1 Main Ol A.1 Main Ol A.1 Main Ol A.1 Main Ol A.1 Main Ol A.1 Main Ol A.3 Travel A.4 Direct C A.5 Interest S.0 Region S.1 Fixed A S.1 Fixed A	t Charges Drilling		18,105.00	21,075,00	39,780,00	634,630.00	455,895.00
Inventor Inventor Inventor Inventor A.1 Main Ol A.1 Main Ol A.1 Main Ol A.1 Main Ol A.1 Main Ol A.1 Main Ol A.3 Travel A.4 Direct C A.5 Interest S.0 Region S.1 Fixed A S.1 Fixed A	tanı		(174,903.38)	1,217,381.27	1,042,477.89	4,859,722.23	
inventor inventor inventor 4.0 Region 4.1 Main Oi 4.1 Main Oi 4.1 Main Oi 4.1 Main Oi 4.1 Main Oi 4.3 Travel 4.4 Direct C 4.5 Interest 5.0 Region 5.1 Fixed A 5.1 Fixed A			(174,903,38)	1.217.381.27	1,042,477.89	1,042,477.89	
firventol 4.0 Region 4.1 Main O 4.1 Main O 4.1 Main O 4.1 Main O 4.1 Main O 4.3 Travel 4.5 Interest 5.0 Region 5.1 Fixed A 5.1 Fixed A		723305	(114,000,00)			3,668,390.61	
<ul> <li>4.1 Main Oi</li> <li>4.3 Travel</li> <li>4.4 Direct C</li> <li>4.5 Interest</li> <li>5.0 Region</li> <li>5.1 Fixed A</li> </ul>		823318		-	-	128,853.59	
<ul> <li>4.1 Main Oi</li> <li>4.3 Travel</li> <li>4.4 Direct C</li> <li>4.5 Interest</li> <li>5.0 Region</li> <li>5.1 Fixed A</li> </ul>	mai Office G&A		413,135.14	462,323.23	875,459,37	12,079,830,49	
<ul> <li>4.1 Main O:</li> <li>4.1 Main O:</li> <li>4.1 Main O:</li> <li>4.1 Main O:</li> <li>4.3 Travel</li> <li>4.4 Direct O:</li> <li>4.5 Interest</li> <li>5.0 Region</li> <li>5.1 Fixed A</li> </ul>			198,352,84	212,582.33	408,935.17	7,571,645.63	
<ul> <li>4.1 Main OJ</li> <li>4.1 Main OJ</li> <li>4.1 Main OJ</li> <li>4.1 Main OJ</li> <li>4.3 Travel</li> <li>4.4 Direct C</li> <li>4.5 Interest</li> <li>5.0 Region</li> <li>5.1 Fixed A</li> </ul>		723315			-	228,617.67	
<ul> <li>4.1 Main Oi</li> <li>4.1 Main Oi</li> <li>4.3 Travel</li> <li>4.4 Direct C</li> <li>4.5 Interest</li> <li>5.0 Region</li> <li>5.1 Fixed A</li> </ul>		723316	1		-	469,248,45	
4.1 Main Ol 4.3 Travel 4.4 Direct C 4.5 Interest 5.0 Region 5.1 Fixed A 5.1 Fixed A		723317				18,840,50	
4.9 Travel 4.4 Direct C 4.5 Interest 6.0 Region 6.1 Fixed A 5.1 Fixed A		823302	1	_		(86,560.00)	
4.4 Direct C 4.5 Interest 5.0 Region 5.1 Fixed A 5.1 Fixed A		020302	10,430.63	29,196.61	39,627.44	2,272,701.44	
4.5 Interest 5.0 Region 5.1 Fixed A 5.1 Fixed A			208,362.50	220,545.00	426,897.50	1,935,211.93	
5.1 Fixed A 5.1 Fixed A			(0.03)	(0.71)	(0.74)	(328,074.73)	
5.1 Fixed A 5.1 Fixed A	onal Fixed Assets		7,980.51	3,591.12	11,671.63	1,162,965.93	
5.1 Fixed A 5.1 Fixed A			7,980.51	3,591.12	11,571.63	295,632,74	
5.1 Fixed A 5.1 Fixed A		723314	1 .			211,107.16	
5.1 Fixed A 5.1 Fixed A 5.1 Fixed A 5.1 Fixed A 5.1 Fixed A 5.1 Fixed A 5.1 Fixed A		723316	· ·	- 1		200,058.33	
5.1 Fixed A 5.1 Fixed A 5.1 Fixed A 5.1 Fixed A 5.1 Fixed A 5.1 Fixed A		723816	· ·		- 1	1,206.19	
5.1 Fixed A 5.1 Fixed A 5.1 Fixed A 5.1 Fixed A 5.1 Fixed A		723317	· ·			284,601.16	
5.1 Fixed A 5.1 Fixed A 5.1 Fixed A 5.1 Fixed A		723323	· ·			42,573.12	
5.1 Fixed A 5.1 Fixed A 5.1 Fixed A		823303	· ·			26,946.47	
5.1 Fixed A 5.1 Fixed A		823304	· ·		- I	68,717.22	
5.1 Fixed A		623309	-		•	40,145.07	
6.D Direct		823310	-	•		21,978.47	
	t Charges		.	-	-	1,527,441.00	
6.1 G&G			· ·	- 1		1,191,587.00	l .
6.2 Drilling			· ·	-	- [	264,707.00	1
6.3 Other			-	-	- [	71,147.00	
Subtot	r		27,341,342.48	1,317,027.82	28,668,370. <u>28</u>	350,983,564.07	126,011,580.91
••				7,800.37		5,051,769.32	
	otal		672,943.49	7,800.31	860,843.86 250,000,00	1,098,394.71	
	otal head Allocation		250,000.00	-	250,000.00		
	otal head Allocation 5 \$5,000,000) 5%		300,000.00 122,943.49	7,900.37	300,000.00 130,843.85	975,009.95 2,978,364.65	1,260,115.81
(Addive	otal head Allocation		28,014,285.95	1,324,928.19	29,339,214.14	368,035,353.39	127,271,696.72

Exhibit I to the Unitization and Unit Operating Agreement I-18

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ATTACHED TO AND MADE PART OF THE UNITIZATION AND UNIT OPERATING AGREEMENT BY AND BETWEEN GHANA NATIONAL PETROLEUM CORPORATION, TULLOW GHANA LIMITED, KOSMOS ENERGY GHANA HC, ANADARKO WCTP COMPANY, SABRE OIL & GAS HOLDINGS LIMITED, AND EO GROUP LIMITED (THE "AGREEMENT")

#### EXHIBIT "J"

### PART 1(A)

# EXISTING DATA IN WHICH ALL PARTIES HAVE INTERESTS AS OF THE EFFECTIVE DATE

1. 3D Seismic Dataset obtained on behalf of Kosmos Energy Ghana HC by WesternGeco International, Ltd. pursuant to Agreement for Marine Seismic Data Acquisition dated effective as of September 17, 2007, over both the DWT Tract and the WCTP Tract comprising approximately 939 square km.

J-1 Exhibit J to the Unitization and Unit Operating Agreement

-7

#### EXHIBIT "J"

#### **PART 1(B)**

# EXISTING DATA LICENSED AS OF THE EFFECTIVE DATE AMONG THE PARTIES

#### WCTP JOA Group

#### 1. Seismic Data

3D Seismic Dataset obtained on behalf of Kosmos Energy Ghana HC by Veritas-DGC Limited pursuant to Agreement dated effective January 12, 2005, over the WCTP Tract comprising approximately 1200 square km.

#### 2. Well Data

All data acquired from the Mahogany-1 and Mahogany-2 well operations, which shall include, but not be limited to, all electrical logs, mudlogs, geophysical surveys, deviation surveys, samples, cuttings, sidewall cores, conventional cores, recordings, measurements and analyses, such as all predrilling reports and all post-drilling reports, including any subsequent analysis of data.

#### **DWT JOA Group**

3. Well Data

All data acquired from the Hyedua-1 and Hyedua-1 BP well operations, which shall include, but not be limited to, all electrical logs, mudlogs, geophysical surveys, deviation surveys, samples, cuttings, sidewall cores, conventional cores, recordings, measurements and analyses, such as all predrilling reports and all post-drilling reports, including any subsequent analysis of data.

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#### EXHIBIT "J"

### PART 1(C)

# EXISTING DATA LICENSED AS OF THE EFFECTIVE DATE BY GNPC TO THE OTHER PARTIES

- 1. 3D Seismic Dataset obtained by CGG on behalf of Dana Petroleum pursuant to the Seismic Acquisition Agreement dated September 13th, 2000 over the West Tano Tract comprising approximately 1139 square km.
- 2. Processed 3D Seismic Dataset processed by CGG Veritas on behalf of Tullow Oil pursuant to the Seismic Processing Agreement dated November 9, 2006 with respect to the CGG Dataset listed in Paragraph (1) of Part 1(C) above.

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#### EXHIBIT "J"

#### PART 2

# FORM OF DATA LICENSE AGREEMENT

#### SEISMIC DATA LICENSE AGREEMENT

THIS SEISMIC DATA LICENSE AGREEMENT (this "License Agreement") is entered into this \_\_\_\_\_\_ day of \_\_\_\_\_\_\_, 2009, by and among Ghana National Petroleum Corporation, a public corporation existing under the laws of the Republic of Ghana and established by Provisional National Defence Council Law 64 of 1983 (hereinafter referred to as "Licensor"), Tullow Ghana Limited, a company existing under the laws of Jersey, Channel Islands; Kosmos Energy Ghana HC, a company existing under the laws of the Cayman Islands; Anadarko WCTP Company, a company existing under the laws of the Cayman Islands; Sabre Oil & Gas Holdings Limited, a company existing under the laws of the British Virgin Islands; and EO Group Limited, a company existing under the laws of the Cayman Islands. The companies named above, excluding Licensor, are hereinafter sometimes referred to as "Licensees", and Licensor, the Licensees and their respective successors and assigns (if any), may sometimes individually be referred to herein as a "Party" and collectively as the "Parties".

WHEREAS, Licensor, as licensor, and certain of the Licensees, as licensees, are parties to those certain seismic data license agreements or authorizations described in Schedule A attached hereto and made a part hereof for all purposes (the "Existing Data License Agreements") covering the seismic data described in Schedule B attached hereto and made a part hereof for all purposes (the "Existing Data"); and

WHEREAS, of even date with this License Agreement, the Parties have entered into that certain Unitization and Unit Operating Agreement dated as of \_\_\_\_\_\_, 2009, providing for unitization and development of a petroleum field consisting of multiple reservoirs located offshore the Republic of Ghana (the "UUOA"), upon the terms and conditions set forth therein; and

WHEREAS, Article 4.6 of the UUOA provides that the Parties shall enter into a new data license agreement under which Licensor shall grant to all of the Licensees the right to use the Existing Data upon the terms hereinafter set forth;

NOW, THEREFORE, in consideration of the premises and the mutual covenants and agreements and obligations set out below and to be performed, the Parties agree as follows (capitalized terms used and not otherwise defined herein shall have the respective meanings ascribed to them in the UUOA):

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Exhibit J to the Unitization and Unit Operating Agreement

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- 1. <u>Grant of License</u>
- 1.0 Licensor grants the Licensees a non-exclusive limited right license for the use (subject to the restrictions herein) of the Existing Data.
- 1.1 Licensees acknowledge that the Existing Data licensed pursuant to this License Agreement is the proprietary property of Licensor and therefore each Licensee (separately) hereby agrees to indemnify Licensor for any breach by such Licensee of the terms of this License Agreement.
- 1.2 Licensor warrants that it has the full right, power and authority to grant the license granted to Licensees hereunder.
- 1.3 Licensees acknowledge that Licensor has the right to sell, trade, loan, and grant a license to use or otherwise make the Existing Data available to other parties.
- 2. Delivery of Data
- 2.0 Licensees acknowledge receipt of delivery of the Existing Data in accordance with the Existing Data License Agreements. Copies of the Existing Data may be made by any of the Licensees, at their expense, and delivered to other Licensees for their use in accordance with Article 4.
- 3. <u>No License Fee</u>
- 3.0 Licensor acknowledges receipt of all license fees payable under the Existing Data License Agreements. No further license fees shall be due or payable by Licensees to Licensor for use of the Existing Data under the terms of this License Agreement.
- 4. <u>Use of Data</u>
- 4.0 Subject to Article 4.1, the Existing Data may be used by the Licensees solely for the purposes of evaluating the hydrocarbon potential of the Unit Interval and conducting Unit Operations under the UUOA.
- 4.1 Nothing contained in this License Agreement shall diminish or impair a Licensee's right to use Existing Data covered by any Existing Data License Agreement to which such Licensee is a party to the full extent such use is permitted in accordance with the terms of such Existing Data License Agreement. Further, no termination of this License Agreement shall terminate any Existing Data License Agreement or the right of use of Existing Data covered thereby by any Licensee who is a party thereto.

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4.2 No Licensee may sell or trade the Existing Data.

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Exhibit J to the Unitization and Unit Operating Agreement

## 5. <u>Confidentiality</u>

- 5.0 All of the Existing Data licensed under this License Agreement is deemed by Licensor to be strictly **CONFIDENTIAL** information and Licensees undertake to use such Existing Data only as stipulated in this License Agreement. Disclosure to persons other than those defined in this License Agreement shall be deemed to be a material breach of this License Agreement.
- 5.1 Licensees shall not make available the Existing Data to third parties except to:
  - (i) consultants for the purposes of interpreting and reprocessing the Existing Data for any Licensee or Licensees;
  - (ii) their respective affiliates and the employees, officers and directors of Licensees or any of their respective affiliates. "Affiliate" means, with respect to any Licensee, any company or entity which (a) controls such Licensee either directly or indirectly, or (b) is controlled either directly or indirectly by such Licensee, or (c) is directly or indirectly controlled by a company or entity which directly or indirectly controls such Licensee, or (d) holds any share capital or voting rights in such Licensee or is otherwise a shareholder or partner in such Licensee. The word "control" means the right to exercise 50% or more of the voting right in a company or entity;
  - (iii) bona fide potential assignees of all or part of a Licensee's Unit Interest provided Licensor is given prior notice of such potential assignee;
  - (iv) any banks or other lending institutions for the purposes of financing the Unit or any Licensee's or Licensees' participating interests in the Unit;
  - (v) Governmental Authorities to the extent required by law, provided GNPC is notified about such disclosure; and
  - (vi) the extent necessary in any arbitration proceedings or proceedings before an Expert or proceedings before any court;

provided that such persons referred to in clauses (i), (iii) and (iv) of this Article 5.1 shall agree in writing for the benefit of Licensor to keep such Existing Data confidential; and provided further that any assignee pursuant to clause (iii) to which any Existing Data is made available by any Licensee upon such an assignment of a Unit Interest to such assignee shall make payment to Licensor for such Existing Data under the same terms and conditions set forth in the Existing Data Licensee Agreement covering such Existing Data to which such Licensee is a party.

5.2 The **CONFIDENTIALITY** obligation of this License Agreement shall be a continuing one and survive termination of this Agreement.

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## 6. <u>Term of Agreement</u>

- 6.0 This License Agreement shall be in effect from the Effective Date and shall continue in effect as to a Licensee until such time as any one of the following events occur with respect to such Licensee:
  - (i) such Licensee ceases to have any Unit Interest;
  - (ii) such Licensee becomes insolvent, goes into liquidation or makes assignment to its creditors;
  - (iii) the ownership and/or control of such Licensee comes under the control of a previously unnamed third party subsequent to the Effective Date; or
  - (iv) the UUOA is terminated in accordance with its terms.
- 6.1 Subject to each Licensee's right of use under any Existing Data License Agreement to which such Licensee is a party, upon termination of this License Agreement, each Licensee to whom Existing Data was previously delivered by Licensor as mentioned in Article 2 shall promptly return such Existing Data to Licensor and each Licensee shall destroy all copies and reproductions (both written and electronic) of the Existing Data in its possession and in the possession of persons to whom it was disclosed.
- 7. Assignment
- 7.0 Subject to Article 7.1, the rights and obligations under this License Agreement may not be assigned in whole or in part by any Licensee without the prior written consent of Licensor.
- 7.1 Each Licensee may assign its rights and obligations under this License Agreement to any assignee to whom such Licensee Transfers its Unit Interest pursuant to and in accordance with the UUOA. No such assignment of rights and obligations under this License Agreement shall be effective, however, unless and until such Licensee shall have notified all the Parties of such assignment in writing.

### 8. <u>Applicable Law</u>

- 8.0 This License Agreement shall be subject to and construed in accordance with the laws of Ghana and the Courts of Ghana shall have jurisdiction to hear all disputes that cannot be amicably settled between the Parties. The Parties waive their rights to claim or recover any indirect, special or consequential damages or punitive, multiple or other exemplary damages (whether statutory or common law).
- 9. Execution in Multiple Counterparts
- 9.0 This License Agreement may be executed in any number of counterparts and each such counterpart shall be deemed an original License Agreement for all purposes;

J-7

Exhibit J to the Unitization and Unit Operating Agreement

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provided that no Party shall be bound to this License Agreement unless and until all Parties have executed a counterpart. For purposes of assembling all counterparts into one document, Unit Operator is authorized to detach the signature page from one or more counterparts and, after signature thereof by the respective Party, attach each signed signature page to a counterpart.

10. <u>Entirety</u>

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10.0 With respect to the subject matter contained herein, this License Agreement (together, where applicable, with the Existing Data License Agreements) (i) is the entire agreement of the Parties; and (ii) supersedes all prior understandings and negotiations of the Parties.

IN WITNESS WHEREOF, the Parties have, on the respective dates stated below, appended their signatures.

GHANA NATIONAL PETROLEUM CORPORATION
Ву:
(Print or type name) Title:
 Date:
 TULLOW GHANA LIMITED
By:
(Print or type name) Title:
 Date:
 KOSMOS ENERGY GHANA HC
By:
(Print or type name) Title:
Date:



ANADARKO WCTP COMPANY
By:
 Date:
SABRE OIL & GAS HOLDINGS LIMITED
By:
(Print or type name) Title:
 Date:
EO GROUP LIMITED
By:
(Print or type name) Title:
Date:

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# SCHEDULE A

# Attached to and made a part of Seismic Data License Agreement between Ghana National Petroleum Corporation, Tullow Ghana Limited, et al

# (Existing Seismic Data License Agreements)

- 1. License Agreement dated 19 February, 2004, between The Ghana National Petroleum Corporation, as Licensor, and Kosmos Energy L.L.C., as Licensee.
- 2. Data Transmittal Letter from Ghana National Petroleum Corporation to Kosmos Energy LLC, dated May 13, 2005.
- 3. Data Transmittal Letter from Ghana National Petroleum Corporation to Kosmos Energy LLC, dated August 9, 2005.
- 4. Data Transmittal Letter from Ghana National Petroleum Corporation to Tullow Oil Plc, dated November 10, 2005.
- 5. Data Transmittal Letter from Ghana National Petroleum Corporation to Tullow Oil Plc, dated December 8, 2005.
- 6. Data Transmittal Letter from Ghana National Petroleum Corporation to Tullow Oil Plc, dated May 30, 2006. [Referenced, but no copy delivered].
- 7. Data Transmittal Letter from Ghana National Petroleum Corporation to Tullow Oil Plc, dated June 6, 2006.
- 8. Data Transmittal Letter from Ghana National Petroleum Corporation to Kosmos Energy LLC, dated June 8, 2006.
- 9. Data Transmittal Letter from Ghana National Petroleum Corporation to Tullow Oil Plc, dated June 22, 2006.
- 10. Data Transmittal Letter from Ghana National Petroleum Corporation to Tullow Oil Plc, dated August 2, 2006.
- 11. Data Transmittal Letter from Ghana National Petroleum Corporation to Tullow Oil Plc, dated August 29, 2006.
- 12. Data Transmittal Letter from Ghana National Petroleum Corporation to Tullow Oil Plc, dated September 7, 2006.
- 13. Data Transmittal Letter from Ghana National Petroleum Corporation to Tullow Oil Plc, dated January 9, 2007.

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14. Data Transmittal Letter from Ghana National Petroleum Corporation to Tullow Ghana Limited, dated January 29, 2008.

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J-11 Exhibit J to the Unitization and Unit Operating Agreement

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#### **SCHEDULE B**

# Attached to and made a part of Seismic Data License Agreement between Ghana National Petroleum Corporation, Tullow Ghana Limited, et al

#### (Existing Data)

- 1. 3D Seismic Dataset obtained by CGG on behalf of Dana Petroleum pursuant to the Seismic Acquisition Agreement dated September 13th, 2000 over the West Tano Tract comprising approximately 1139 square km.
- 2. Processed 3D Seismic Dataset processed by CGG Veritas on behalf of Tullow Oil pursuant to the Seismic Processing Agreement dated November 9, 2006 with respect to the CGG Dataset listed in Paragraph (1) above.



ATTACHED TO AND MADE PART OF THE UNITIZATION AND UNIT OPERATING AGREEMENT BY AND BETWEEN GHANA NATIONAL PETROLEUM CORPORATION, TULLOW GHANA LIMITED, KOSMOS ENERGY GHANA HC, ANADARKO WCTP COMPANY, SABRE OIL & GAS HOLDINGS LIMITED, AND EO GROUP LIMITED (THE "AGREEMENT")

#### EXHIBIT "K"

### **EXISTING FACILITIES**

HOU03:1184159 K-1 Exhibit K to the Unitization and Unit Operating Agreement

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#### Mahogany-1

The Mahogany-1 well was a vertical exploration well drilled in the West Cape Three Points Block approximately 57 kilometers south of the Ghanaian coastline. The well, drilled by Operator Kosmos Energy Ghana HC, was located in the west-central portion of the block at the following coordinates:

Latitude:	004° 32' 08.730" North
Longitude:	002° 54' 34.731" West
X:	510,022.7m East
Y:	501,348.7m North

UTM Zone 30, Northern Hemisphere, Datum WGS 1984, Ellipsoid WGS 1984

Mahogany-1 spud May 31, 2007 in 1,322 meters of water and reached a total depth of 3,826m MD (3,802m TVDSS) on June 23, 2007. The 9 5/8" production casing was run to 3,816m MD.

#### Hyedua-1

The Hyedua-1 well was drilled in the east-central portion of the Deepwater Tano Contract Area by Operator Tullow Ghana Limited approximately 60 kilometers south of the Ghanaian coastline and 5.2 kilometers southwest of the Mahogany-1 well. The well was located at the following coordinates:

Latitude:	004° 30' 47.776" North
Longitude:	002° 57' 01.921" West
<b>X</b> :	505,487.41m East
Y:	498,862.59m North

#### UTM Zone 30, Northern Hemisphere, Datum WGS 1984, Ellipsoid WGS 1984

The well spud on July 30, 2007 in 1,521 meters of water and reached a total depth of 4,002m MD (3,978m TVDSS) on August 15, 2007. The well was plugged back and twinned for the purpose of acquiring conventional cores in the Lower Mahogany reservoir interval. The Hyedua-1BP1 reached a total depth of 3,850m MD (3,826m TVDSS) on September 5, 2007. The 9 5/8" production casing was run to 3,843m MD and the well suspended.

#### Mahogany-2

The Mahogany-2 well was a vertical appraisal well drilled in the West Cape Three Points Block approximately 50 kilometers south of the Ghanaian coastline and 6.1 kilometers northeast of the Mahogany-1 well. The well was drilled by Operator Kosmos Energy Ghana HC in the west-central portion of the block at the following coordinates:

Latitude:	004° 33' 43.64" North
Longitude:	002° 51' 42.12" West
X:	515,340.81m East
Y:	504,263.49m North

UTM Zone 30, Northern Hemisphere, Datum WGS 1984, Ellipsoid WGS 1984

HOU03:1184159 K-2 Exhibit K to the Unitization and Unit Operating Agreement

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The Mahogany-2 spud March 8, 2008 in 1,080 meters of water and reached a total depth of 3,443m MD (3,431m TVDSS) on May 1, 2008. The 9  $^{5}/_{8}$ " production casing was run to 3,432m MD. Drill stem testing operations commenced May 16, 2008 and were completed July 12, 2008. The well was suspended to be used as a future oil producer.

#### Hyedua-2

The Hyedua-2 well was drilled in the northeast portion of the Deepwater Tano Contract Area by Operator Tullow Ghana Limited approximately 55 kilometers south of the Ghanaian coastline and 4.8 kilometers north-northeast of the Hyedua-1 well. The well was located at the following coordinates:

Latitude:	004° 33' 17.982" North
Longitude:	002° 56' 19.062" West
X:	506,807.71m East
Y:	503,474.74m North

UTM Zone 30, Northern Hemisphere, Datum WGS 1984, Ellipsoid WGS 1984

Hyedua-2 spud on October 21, 2008 in 1,246 meters of water and reached a total depth of 3,663m MD (3,621m TVDSS) on December 2, 2008. The 9  $^{5}/_{8}$ " production casing was run to 3,652m MD. Drill stem testing operations commenced December 17, 2008 and were completed January 10, 2009. The well was suspended to be used as a future oil producer.

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HOU03:1184159 K-3 Exhibit K to the Unitization and Unit Operating Agreement

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ATTACHED TO AND MADE PART OF THE UNITIZATION AND UNIT OPERATING AGREEMENT BY AND BETWEEN GHANA NATIONAL PETROLEUM CORPORATION, TULLOW GHANA LIMITED, KOSMOS ENERGY GHANA HC, ANADARKO WCTP COMPANY, SABRE OIL & GAS HOLDINGS LIMITED, AND EO GROUP LIMITED (THE "AGREEMENT")

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# EXHIBIT "L"

### EXISTING CONTRACTS

HOU03:1208171 Exiting the Unitization and Unit Operating Agreement L-1

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	TOR CONTRACTS AS AT JULY 7TH 2009		
Contract Number	Scope	Contractor	"Effoct Date
TGL00003	Reprocessing 3D Seismic Data	Compagnie General de Geographique	9-Nov-
TGL00041	Antrak Logistics Services	SDV/Antrak Ghane Ltd	1-Jul-(
TGL00055	Site Survey Interpretation	Gardline Surveys Inc	1-Jul-(
TGL00059	2D CSEM data processing	Offshore Hydrocarbon Mapping plc/OHM	tbc
TGL00088	Crane Hire Services	Mobicrane LId	ibc
TGL00089	Forklift Truck Services	Golden Gate Services Etd	fbc
TGI_00091	Seismic Acquisition	Kosmos (Western Geco)	13-Aug
TGL00096	Rock Physics & Seismic Modelling	Rock Solid Images	27-Aug
TGL00113	Environmental Impact Assessment	ERWESL	18-Nov
TGL00117	Weil Testing	Expro	1-Feb-
TGL00119	Tripartite Agreement	RIL/TGL/DDL	20-Dec
TGL00120	Rig Audit	Moduspec	10-Dec
TGL00121	Liner Hanger Equipment	Westherford	10-Dec
TGL00122	Casing 10 3/4", 9 5/6" & X - Overs	Vallourec & Mannesmann Tubes	11-Jan-
TGL00123	Wellhead Services	Dril-Quip (Europe) Limited	29-Feb
TGL00124	Anchor Handling Vessels	Gulf Offshore NS Limited	28-Feb
TGL00125 TGL00126	Rig and Anchor Positioning	Fugro TopNav	1-May-
TGL00126	Offices & Rigs TeleCommunications Weather Forecasting	GS Telecoms GH	13-May-
TGL00127 TGL00128	ROV	NowCasting	15-Feb-
TGL00128		Oceanearing	1-Mar-0 6-Mar-0
TGL00130	Drilling Fluids Cementing	MI Overseas Ltd ((MI Sweco)	
TGL00131 TGL00132	Fishing & Abandonment Tools	Schlumberger Serco	31-Mar- 2-Apr-0
TGL00132 TGL00133	DD/MWD/LWD & Downhole tools	Serco Schlumberger Sesco Inc.	2-Apr-0 3-Mar-0
TGL00134	Coring		
TGL00135	Electric Logging - Blacford Dolphin	Baker Hughes (Ghana) Limited Schlumberger Seaco Inc.	15-Mey-
TGL00135	Mud Logging		19-Apr-0
TGL00137	Winlog Course	international Logging Inc.	17-Sep-
TGL00138	Casing Running	BJ Services Company Africa Ltd	1-Jun-C
TGL00139	Helicoptera	International Aircraft Services Limited	1-May-0
TGL00140	Bits (and Hole Openers)	Reed Hycalog	15-Mar-
TGL00141	Rock Mechanic Testing - Hysdua 1	Schlumberger Oilfiled Services UK pic	20-Jun-
TGL00142	Inspection Services	GEV Ghana Limited	4-Mar-(
TGL00143	Down Hole Testing Tools	Baker Oil Tools	14-Feb-
TGL00144	Well Intervention Study	Douglas-Westwood Limited	16-Jan-
TGL00145	Drilling SuperIntendent	ZÓL Lid	25-Feb-
TGL00146	Containers	Ferguson Seacabs Limited	14-Feb-
TGL00147	Casing Accessories	Haliburton Manufacturing & Services Limited	19-Feb-
TGL00148	Casing 13 3/6" & 9 5/8" Chrome	Peseco	6-Feb-C
TGL00150	Casing 7" Chrome	Petroleum Pipe	16-Jan-(
TGL00151	Lifting Equipment	Midcontinent Aberdeen fimited	13-Feb-
TGL00152	Completion Equipment	Baker Hughes ( Ghana) Ltd	1-Sep-0
TGL00153	"20" Connector Pins	Vetco Gray UK Limited	28-Jan-(
TGL00154	Freight Forwarding and Shipping	RGR Shipping	11-Apr-0
TGL00155	Bore Hole Stability Analysis	GMI Geomechanics International	15-Apr-0
TGL00156	PSV	Gulf Offshore	24-Jul-0
TGL00157	Tubing L- 80 5 1/2"	Peseco	14-Jan-0
TGL00158	Rig Move Optimisation Study	Noble Denton	14-Feb-(
TGL00160	АНТ	Gulf Offshore NS Limited	10-Mar-0
TGL09161	Turbodnilling	Smith International (North Sea) Limited	1-Apr-0
TGL00162	Drill Bits	Smith International Inc.	15-Mar-0
TGLD0163	Drill Bits	Baker Hughes (Ghana) Limited	17-Mar-0
TGL00164	Drill Brts	Halliburton Worldwide Limited GhanaDC/O Halliburtor	1-Jun-0
TGL00165	Lifting Slings	Viking Moorings Limited	6-Mar-0
TGL00167	Completion Tubing	Vallourec & Mannesmann Tubes	16-May-(
	Recking & Consumables	Midconlinent (Aberdeen) Limited	20-Mar-0
TGL00168			23-May-(
TGL00168 TGL00169	Cementing Unit Hire/Maintenance	Halliburton Worldwide Limited	
TGL00168 TGL00169 TGL00171	Cementing Unit Hire/Maintenance On Board Geologists	Swiftdale Geological	,
TGL00168 TGL00169 TGL00171 TGL00172	Cementing Unit Hire/Maintenance On Board Geologists Helicopter Audit	Swiftdale Geological Wyvern Aviation Consulting (UK) Limited	10-Apr-0
TGL00168 TGL00169 TGL00171 TGL00172 TGL00173	Cementing Unit Hire/Maintenance On Board Geologists Helicopter Audit Technicel support for assessment of FPSO	Swiftdale Geological Wyvern Aviation Consulting (UK) Limited Crondall Energy Consultants Limited	10-Apr-0 1-Apr-0
TGL00168 TGL00169 TGL00171 TGL00172 TGL00173 TGL00174	Cementing Unit Hire/Maintenance On Board Geologists Helicoptar Audit Technical support for assessment of FPSO Completions Engineering	Swiftdale Geological Wyvern Aviation Consulting (UK) Limited Crondall Energy Consultants Limited H G Wells Ltd	10-Apr-0 1-Apr-0 31-Mar-0
TGL00168 TGL00169 TGL00171 TGL00172 TGL00173 TGL00174 TGL00175	Cementing Unit Hire/Maintenance On Board Geologists Helicoptar Audit Technical support for assessment of FPSO Completions Engineering Rig Positioning QAVQC	Swiftdale Geological Wyvern Aviation Consulting (UK) Limited Crondall Energy Consultants Limited H G Wells Ltd Honbird Geosearch	10-Apr-0 1-Apr-0 31-Mar-0 5-Sep-0
TGL00168 TGL00169 TGL00171 TGL00172 TGL00173 TGL00174 TGL00175 TGL00176	Cementing Unit Hire/Maintenance On Board Geologists Helicoptar Audit Technical support for assessment of FPSO Completions Engineering Rig Positioning QA/QC Well Control Plan	Swiftdale Geological Wyvern Aviation Consulting (UK) Limited Crondall Energy Consultents Limited H G Wells Ltd Honbird Geosearch Wild Well Control, Inc.	10-Apr-0 1-Apr-0 31-Mar-0 5-Sep-0 25-Sep-0
TGL00168 TGL00169 TGL00171 TGL00172 TGL00173 TGL00174 TGL00175 TGL00176 TGL00177	Cementing Unit Hire/Maintenance On Board Geologists Helicopter Audil Technical support for assessment of FPSO Completions Engineering Rig Positioning QA/QC Well Control Plan Subsea Wellheads	Swiftdale Geological Wyvern Aviation Consulting (UK) Limited Crondall Energy Consultents Limited H G Wells Ltd Honbird Geosearch Wild Well Control, Inc. Dril-Quip (Europe) Limited	10-Apr-0 1-Apr-0 31-Mar-0 5-Sep-0 25-Sep-0 11-Jul-0
TGL00168 TGL00169 TGL00171 TGL00172 TGL00173 TGL00174 TGL00175 TGL00175 TGL00177 TGL00178	Cementing Unit Hire/Maintenance On Board Geologists Helicopter Audil Technical support for assessment of FPSO Completions Engineering Rig Positioning QAVQC Well Control Plan Subsea Wellheads 3 1/2" Tubing/Pups/Test Caps	Swiftdale Geological Wyvern Aviation Consulting (UK) Limited Crondall Energy Consultents Limited H G Wells Ltd Honbird Geosearch Wild Well Control, Inc. Dril-Quip (Europe) Limited Peseco Limited	10-Apr-02 1-Apr-02 31-Mar-02 5-Sep-00 25-Sep-00 11-Jul-00 8-May-00
TGL00168 TGL00169 TGL00171 TGL00172 TGL00173 TGL00175 TGL00175 TGL00176 TGL00177 TGL00178 TGL00180	Cementing Unit Hire/Maintenance On Board Geologists Helicopter Audit Technical support for assessment of FPSO Completions Engineering Rig Positioning QAVQC Well Control Plan Subsea Wellheads 3 1/2° Tubing/Pups/Test Ceps Laser Jet Photocopier	Swiftdale Geological Wyvern Aviation Consulting (UK) Limited Crondall Energy Consultants Limited H G Wells Ltd Honbird Geosearch Wild Well Control, Inc. Dril-Quip (Europe) Limited Peseco Limited Lene Business Systems Limited	10-Apr-0 1-Apr-0 31-Mar-0 5-Sep-0 25-Sep-0 125-Sep-0 11-Jul-0 8-May-0 31-Mar-0
TGL00168 TGL00169 TGL00171 TGL00172 TGL00173 TGL00174 TGL00176 TGL00176 TGL00177 TGL00178 TGL00180 TGL00181	Cementing Unit Hire/Maintenance On Board Geologists Helicopter Audil Technical support for assessment of FPSO Completions Engineering Rig Positioning QA/QC Well Control Plan Subsea Wellneads 3 1/2" Tubing/Pups/Test Caps Laser Jet Photocopier Supply of Pressure/Temperature Gauges	Swiftdale Geological Wyvern Aviation Consulting (UK) Limited Crondell Energy Consultants Limited H G Wells Ltd Honbird Geosearch Wild Well Control, Inc. Dril-Ouip (Europe) Limited Peseco Limited Lane Business Systems Limited Metrol Technology Ltd	10-Apr-C 1-Apr-O 31-Mar-C 5-Sep-O 25-Sep-C 11-Jul-O 8-May-O 31-Mar-C 10c
TGL00168 TGL00169 TGL00171 TGL00172 TGL00173 TGL00174 TGL00175 TGL00176 TGL00177 TGL00178 TGL00180 TGL00181 TGL00185	Cementing Unit Hire/Maintenance On Board Geologists Helicopter Audil Technical support for assessment of FPSO Completions Engineering Rig Positioning QA/QC Well Control Plan Subsea Weilheads 3 1/2° Tubing/Pups/Test Caps Laser Jet Photocopier Supply of Pressure/Temperature Gauges Intervention Tree/Cleen up Services	Swiftdale Geological Wyvern Aviation Consulting (UK) Limited Crondall Energy Consultants Limited H G Wells Ltd Honbird Geosserch Wild Well Control, Inc. Dril-Quip (Europe) Limited Peseco Limited Lane Business Systems Limited Metrol Technology Ltd Expro	10-Apr-C 1-Apr-O 31-Mar-C 5-Sep-O 25-Sep-C 11-Jul-O 8-May-O 31-Mar-C 12-Sep-C
TGL00168 TGL00169 TGL00171 TGL00172 TGL00173 TGL00174 TGL00175 TGL00176 TGL00177 TGL00178 TGL00180 TGL00181 TGL00185 TGL00186	Cementing Unit Hire/Maintenance On Board Geologists Helicoptar Audil Technical support for assessment of FPSO Completions Engineering Rig Positioning QA/QC Well Control Plan Subsea Wellheads 3 1/2" Tubing/Pups/Test Caps Laser Jet Photocopier Supply of Pressure/Temperature Gauges Intervention Tree/Clean up Services Transport Services	Swiftdale Geological Wyvern Aviation Consulting (UK) Limited Crondell Energy Consultants Limited H G Wells Ltd Honbird Geosserch Wild Well Control, Inc. Dril-Quip (Europe) Limited Peseco Limited Lente Business Systems Limited Metrol Technology Ltd Expro Antrak Ghana Limited	10-Apr-C 1-Apr-O 31-Mar-C 5-Sep-O 25-Sep-C 11-Jul-O 8-May-O 31-Mar-C 12-Sep-C 7-Apr-O
TGL00168 TGL00169 TGL00171 TGL00172 TGL00173 TGL00174 TGL00175 TGL00176 TGL00176 TGL00178 TGL00180 TGL00185 TGL00185 TGL00187	Cementing Unit Hire/Maintenance On Board Geologists Helicoptar Audil Technical support for assessment of FPSO Completions Engineering Rig Positioning QA/QC Well Control Plan Subsea Wellheads 3 1/2" Tubing/Pups/Test Caps Laser Jet Photocopier Supply of Pressure/Temperature Gauges Intervention Tree/Clean up Services Transport Services House Lease	Swittdale Geological Wyvern Aviation Consulting (UK) Limited Crondell Energy Consultants Limited (H G Wells Ltd Honbird Geosearch Wild Well Control, Inc. Dril-Quip (Europe) Limited Pessco Limited Lene Business Systems Limited Metrol Technology Ltd Expro Antrak Ghana Limited Africanus Mensah	10-Apr-0 1-Apr-0 31-Mar-C 5-Sep-0 25-Sep-0 11-Jul-0 8-May-0 31-Mar-0 12-Sep-0 7-Apr-08 1bc
TGL00168 TGL00169 TGL00171 TGL00172 TGL00173 TGL00175 TGL00175 TGL00176 TGL00177 TGL00178 TGL00180 TGL00185 TGL00185 TGL00187 TGL00190	Cementing Unit Hire/Maintenance On Board Geologists Helicoptar Audil Technical support for assessment of FPSO Completions Engineering Rig Positioning QA/QC Well Control Plan Subsea Wellheads 3 1/2" Tubing/Pups/Test Caps Laser Jet Photocopier Supply of Pressure/Temperature Gauges Intervention Tree/Clean up Services Transport Services House Lease Ghana Communication System	Swittdale Geological Wyvern Aviation Consulting (UK) Limited Crondell Energy Consultants Limited (H G Welts Ltd Honbird Geosearch Wild Well Control, Inc. Dril-Quip (Europe) Limited Peseco Limited Løne Business Systems Limited Metrol Technology Ltd Expro Antrak Ghana Limited Africanus Mensah refer TGL 00126	10-Apr-0 1-Apr-0 31-Mar-0 5-Sep-0 25-Sep-0 11-Jul-0 8-May-0 31-Mar-0 10- 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-Jul-0 10-J
TGL00168 TGL00169 TGL00171 TGL00172 TGL00173 TGL00175 TGL00176 TGL00176 TGL00177 TGL00178 TGL00180 TGL00180 TGL00185 TGL00187 TGL00190 TGL00191	Cementing Unit Hire/Maintenance On Board Geologists Helicoptar Audit Technical support for assessment of FPSO Completions Engineering Rig Positioning QA/QC Well Control Plan Subsea Wellheads 3 1/2" Tubing/Pups/Test Caps Laser Jet Photocopier Supply of Pressure/Temperature Gauges Intervention Tree/Clean up Services Transport Services House Lease Ghana Communication System Coiled Tubing Eq & Sifektine Services	Swittdale Geological Wyvern Aviation Consulting (UK) Limited Crondall Energy Consultants Limited (H G Wells Ltd Honbird Geosearch Wild Well Control, Inc. Dril-Quip (Europe) Limited Peseco Limited Lene Business Systems Limited Metrol Technology Ltd Expro Antrak Ghane Limited Africanus Mensah refer TGL 00126 Q Serve	10-Apr-0 1-Apr-0 31-Mar-0 5-Sep-0 25-Sep-0 11-Jul-0 8-May-0 31-Mar-0 10- 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-Sep-0 12-S
TGL00168 TGL00169 TGL00171 TGL00172 TGL00173 TGL00175 TGL00175 TGL00176 TGL00176 TGL00177 TGL00178 TGL00180 TGL00180 TGL00187 TGL00187 TGL00190 TGL00191 TGL00191	Cementing Unit Hire/Maintenance On Board Geologists Helicopter Audit Technical support for assessment of FPSO Completions Engineering Rig Positioning QAVQC Well Control Plan Subsea Wellheads 3 1/2" Tubing/Pups/Tast Caps Laser Jet Photocopier Supply of Pressura/Temperature Gauges Intervention Tree/Clean up Services Transport Services House Lease Ghana Communication System Coiled Tubing Eq & Stickline Services Pumping Equipment	Swittdale Geological Wyvern Aviation Consulting (UK) Limited Crondall Energy Consultants Limited H G Wells Ltd Honbird Geosearch Wild Well Control, Inc, Diil-Quip (Europe) Limited Peseco Limited Lane Business Systems Limited Metrol Technology Ltd Expro Antrak Ghane Limited Africanus Mensah refer TGL 00126 Q Serve Schlumberger	10-Apr-0 1-Apr-0 31-Mar-0 5-Sep-0 25-Sep-0 25-Sep-0 11-Jul-0 8-May-0 31-Mar-0 10c 12-Sep-0 7-Apr-06 Ibc 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0 18-Sep-0
TGL00168 TGL00169 TGL00171 TGL00172 TGL00173 TGL00175 TGL00176 TGL00176 TGL00177 TGL00178 TGL00180 TGL00180 TGL00185 TGL00187 TGL00190 TGL00191	Cementing Unit Hire/Maintenance On Board Geologists Helicoptar Audit Technical support for assessment of FPSO Completions Engineering Rig Positioning QA/QC Well Control Plan Subsea Wellheads 3 1/2" Tubing/Pups/Test Caps Laser Jet Photocopier Supply of Pressure/Temperature Gauges Intervention Tree/Clean up Services Transport Services House Lease Ghana Communication System Coiled Tubing Eq & Sifektine Services	Swittdale Geological Wyvern Aviation Consulting (UK) Limited Crondall Energy Consultants Limited (H G Wells Ltd Honbird Geosearch Wild Well Control, Inc. Dril-Quip (Europe) Limited Peseco Limited Lene Business Systems Limited Metrol Technology Ltd Expro Antrak Ghane Limited Africanus Mensah refer TGL 00126 Q Serve	12-Sep-0 7-Apr-08 tbc tbc 18-Sep-0

HOU03:1208171 L-2 Exhibit L to the Unitization and Unit Operating Agreement



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Contract	OR CONTRACTS AS AT JULY 7TH 2009		MEMAAN ST
Contract Number	Scope	Contractor	"Effective Date"
TGL00200	Supply of Timber / Dunnage	West Tropic Trading Ent	18-Арг-ОВ
TGL00201	Wellbore Clean Up Tools	Baker Oil Tools	tbc
TGL00202 TGL00203	Provision of Baker Engineers Wellhub Access	Baker Oil Tools	1-Sep-08
TGL00206	Paraffin Wax Inhibitor	International Logging Technology Limited	9-jun-08
TGL00205	Onboard Geologists	Beker Petrolite RPS Energy	24-Apr-08 tbc
TGL00208	Temporary Abandonment Cap	Dril-Quip (Europe) Limited	30-Apr-D8
TGL00208	Temporary Abandonment Cap	Dril-Quip (Europe) Limited	lbc
TGL00209	Handling and Ainfreight		(bc
TGL00210	OST-D1 Down Hole Data Acquisition	Metrol Technology Limited	14-Apr-08
TGL00211	Sythetic Flat Slings	Bertaroema E'Prise	12-May-08
TGL00212	43/2" Tubing VAM ACE	Marubeni Itochu Tubulars Europe pic	8-May-08
TGL00215	Cementing Equipment & Services	BJ Services Company Africa Ltd	30-Jul-08
TGL00219	Civils work at Airbase	· · · · · · · · · · · · · · · · · · ·	tbc
TGL00222	Frac Pack/DST Equipment	Baker Hughes (Ghana) LimitedOc/o Baker Oil tools	11-Aug-08
TGL00224	Dispersant Spray Systems	Ayles Fernie International Limited	14-May-08
TGL00225	Meet & Greet Services	Stellar Ghana Limited	1-Jun-08
TGL00227	Rental of Drilling Office Accra		tbc
TGL00228	Float Equipment & Casing Accessories		tbc
TGL00229 TGL00230	In Country Medical and evacuation services	West African Rescue Association	1-May-08
	Core Preservation and Testing	Core Laboratories	5-Jun-08
TGL00232 TGL00233	ROV Services	Oceancering Internationa A.G.	24-Jul-08
TGL00233 TGL00234	Mud Logging & Pressure Detection DD/MWD/LWD & Downhole tools.	Geoservices	25-Jul-08
TGL00235	Drilling Fluids, Solids Control, Liguid Mud/Brine & Dry Butk Ptents &	Minternational (RVI) 1 initiate Ohene Press	tbc tbc
TGL00236	Fishing Equipment	MI International (BVI) Limited -Ghana Branch Weatherford Services and Rentals Limited	tbc t_Sec_08
TGL00237	Electric Logging		1-Sep-08
TGL00238	Tubular Running Services	Weatherford Services and Rentals Limited	ibc 4-Aug-08
TGL00239	Rig Audit Services	Moduspec	4-Aug-08 tbc
TGL00241	Turbodrilling	Smith International (North Sea) Limited	toc tbc
TGL00244	Solids Control Audit	Cagle Ollfield Services Inc	1-Aug-08
TGL00246	Frac Pack Design Engineer	Baker Hughes Limited	23-Mey-08
TGL00251	External Lawyer	Alan Reece	23-1/189-06
TGL00252	Supply Chain Management services	ASCO UK Limited	1-Jun-06
TGL00253	Laserjet Printer & Scannar	Lane Business Systems Limited	5-Jun-08
TGL00254	Freight Forwarding and Shipping	Pentagon Freight Services pic	10-Jun-08
TGL00255	Purchase of IWOCS Equipment	FMC Technologies	Ibc
TGL00256	Biostratographic Analysis	Petrostrat Limited	tbc
TGL00257	Stencil Machine	Midcontinent (Abendeen) Limited	10-Jun-08
TGL00258	5 Laptops	Dell	tbc
TGL00259	Metrol Field Personnel	Metro: Technology (.(d	tbc
TGL00260	Lease of Dockside	Port Authority	the
	PSV	Swire Pacific Offshore Operations Pte Ltd	17-Jun-08
	Ghana Audio Visual setup	C Hear Limited	lbc
	Freight forwrading	Pentagon	tbc
	Commerciality consulting services	Poten & Pariners	tbc
	Quality Control	Global Resources Group limited	1-Jun-08
	Dríll Analysis	Smith Technologies I-Drill	22-Jul-08
	Fatigue Analysis	2H Offshore	18-Jul-08
	Operating Agreement	M.I. Overseas	tbc
	Operating Agreement	Schlumberger	tbc
	Freight Forwarding and Shipping	Pentagon Freight Services plc	27-Jun-08
	Site Survey/Civil Engineering	Savantes Engineering	lbc
	Landmark Software Purchase	Landmark Graphics Limited	30-Jun-08
	Sun Systems Software	Conseils Gestion Assistance	tbc
	Fluid Compatibility Analysis	Beker Hughes Oilfield services Inc.	8-Jul-08
	Takoradi office furniture Lease of Airbase - 2007/9		lbc
	Lease of Airbase - 2007/9 Lease of Airbase - 2008/9	Ghana Air Force	8-Sep-07
	Lease of Airbase - 2008/9 First Aid Training	Ghena Air Force	29-May-08
	First Aid Training Banksman Slinger Training	Health link	tbo
	Banksman Slinger I raining Supply of PPE	Global Energy Ventures	1-Jul-08
	Refurbishment of Offices	E-tech Group	libo;
	Rendrousrinteent or Critices Dreinage Covers at Takoradi		lbc
	Madical Kits		lbc
	Medical Kits	WARA	7-Jul-08
	Blinds	Kingdom Books	7-Jul-08
	T Equipment	Rich K	7-Jul-08
	Road Works	Willmark Globel	8-Jul-08
	Hotel	Rainbow Holel	3-Jul-08
	Printing Services	Canon Image	18-Aug-08
	T Equipment	IPMC	3-Jui-08
	AC Units	Tumman	8-Jul-08
	Pallats	Maneba Supply	7-jul-08
	Racking	Maneba Supply Midcontinent	10-Jul-08
TGL00308 R	ABX for additional equipment for Takoradi	SCL Higher ground Business Systems	10-Jul-08 11-Jul-08

·····	ATOR CONTRACTS AS AT JULY 7TH 2009		
Contract	Scope	Contractor	"Effectiv Date"
Number TGL00310	Cable and tools for IT department	Danash	11-Jui-0
TGL00311	Base lease	Ghanaian Air Force	7-Sep-0
TGL00312	Fire Extinguishers	Crystal Bell Company	11-Jul-0
TGL00313	Office furniture	Exbou	14-Jul-0
TGL00314	Well interpretation	Orion	
TGL00315	Fire detection equipment Del Mina	Crystal Bell Company	11-Jul-0
TGL00317	DST Risk Analysis	Mansergh Safety Consultancy Limited	18-Jui-0
TGL00319	Reservoir Simulation Forecasts	Energy Scitech Limited	11-Jul-0
TGL00320	Marine Fuel for Towage	Scandinavian Bunkering AS	tbc
TGL00321	Office Rental	Manet Towar limited	1-Oct-0
TGL00322	OST Equipment	Kosmos Energy LLC	11-Aug-(
TGL00323	Tubing Stress Analysis	TRACS International	1-Aug-0
TGL00324	Small projector (Deil)	IPMC Ltd.	22-Jul-0
TGL00325	Safety Signs	The Sign Maker	22-Jul-0
TGL00325	PPE	B.Y.A. LId	22-Jul-0
TGL00327	Audit of PSV'S	Noble Denton Consultants Limited	1-Jun-0
TGL00328	Condition Survey of Subsea Equipment	West Engineering Services	1-Aug-0
TGL00329	Renovation of Science Block (Half Assini Secondary School)	Willmark Global Ltd	lbo
TGL00330	Fluorescent fitting and other electric equipment	Tumenn	25-Jul-0
TGL00331	IT equipment (cables etc.)	Danash	24-Jul-0
TGL00332	Hardware	Deil	the
TGL00333	Forklift Truck Services	Golden Gale Services Ltd	the
TGL00334	Recruitment Services	KPMG	8bc
TGL00335	Lease of Quay Side at Navy Base Sekondi	Ghanaian Navy	tbc
TGL00336	Lease on House at 8 Orchid Gardens	Dr. Samuel G. Amoo	8-Aug-0
TGL00337	Reat Estate Services	Penny Lane (Gh) Ltd	28-Jul-0
TGL00338	Ghana Telecommunication Lines	Higher Ground Business Systems	31-Jul-0
TGL00341	ID Card printers	Ribbonsselect	5-Aug-0
TGL00342	Local Staff Recruitment Assistance	KPMG	tbc
TGL00343	Supply of 20 Bays of Dexion Speedlock P90 Pallet Racking	Midcontinent Ltd	5-Aug-0
TGL00344	Safely Clothing	Midconlinent Ltd	5-Aug-0
TGL00345	Dispenser Machines, Dispenser Bottles	Laskas Ventures	6-Aug-0
TGL00346	Various kitchen equipment	Keg Kwatson Electricals GH Ltd	6-Aug-0
TGL00347	Air Conditioning Del Mina Place	Yenrich Enterprise	7-Aug-0
TGL00348	Security Guards Cabins	Doe Fumilure Works	7-Aug-0
TGL00349	HR Consultancy Services	Zormelo Associates	22-Aug-C
TGL00350	Hotel Rooms	Planter's Lodge Hotel	tbc
TGL00351	GNPC		
TGL00351 TGL00352		Labour Supply	tbc
TGL00352 TGL00353	Stacking Wood for the next casing shipment	West tropic Tracing Enterprise	14-Aug-0
TGL00353 TGL00354	Diving Survey, End of Quay, Birth 6 Takoradi Port Corporate Room Rate Agreement	Honet Development Limited	16-Aug-0
TGL00355	Port switches and additional cables and wall boxes	African Regent	lbc
TGL00355 TGL00355		IPMC Ltd, Accra, Ghana	10-Aug-0
TGL00356 TGL00357	New PABX, additional equipment and cables	Higher Ground Business Systems	16-Jul-0
TGL00357	Hiring of Cranes and other equipment - Framework Agreement	Mobicrane Ltd	24-Apr-0
	8 X Laptops	IPMC Ltd, Acora, Ghana	tbc
TGL00359	Additional furniture	Exhou Offices Supplies	tbc
TGL00361	17,500metres of 7" Casing GRE lined	Vallourec	1-Nov-08
TGL00362	New door for computer room, new coded locking mechanism, automatic	Bertaroema Enlerprise	lbc
TGL00363	Stationery & Office supplies	Office Essentials	lbG
TGL00364	Lease on House at 1 Orchid Gardens	Mr. Joe Mensah	15-Aug-0
TGL00365	Real Estate Services	Penny Lane (Gh) Ltd	tbc
TGL00366	Company Signs	Midcontinent Ltd	tbc
TGL00367	Supply of MGO	UBI	tbe
TGL00368	Additional furniture for Takoradi Base	Kingdom Books and Stationery Limited	tbc
TGL00369	20tt containers	Førguson Seacabs Ltd	toc.
TGL00370	Loading services	R.G.R. Shipping & Forwarding b.v.	lbc
TGL00371	Staff House at Beach Road, Takoradi	Paragon Investments (Kwaski Siriboe)	tbc
TGL00372	Apartment for iT & Premises Project Manager	Charles & Beatrice Kwenin	1-Sep-06
TGL00373	Renovation of Half Assini Secondary School Science Resource Centre -	Colan Enterprise Limited	tbc
TGL00374	Security Solutions Proposal	Group 4 Securicor	tbc
TGL00375	Fresh Water Service Line	Ghana Port & harbour Authority	tbc
TGL00376	Cranes and Forklifts		lbc
TGL00377	IT Equipment	IPMC Ltd, Accra, Ghana	lbc
TGL00378	Office Furniture	Exbou Office Supplies Ghana Ltd	tbc
TGL00379	Structural Survey Manet Towar	C D Gray & Associates	tbo
TGL00380	Takoradi Harbour Area Operating Agreement	BJ Services	tbc
TGL00381	Crane and Forklift Services	Golden Gate Services Ltd.	tbc
TGL00382	Security Services	Golden Panther Security Limited	tbc
TGL00383	Paper Towei Holders and Towels	Everpack Ltd.	tbc
TGL00384	ACs to slaff house Takoradi	B&D Consultancy Ltc.	lbc
TGL00385	Freight Forwarding Service	Pentagon Freight Services plc	lbc
TGL00386	vessel loading charges	Euroline	
TGL00387	Logo Slickers		tbc
TGL00388	MGO Highland Velour	Ferguson Seacabs	lbc
	Architectural Services		tioc
FGL00389	The model of Children and Chi	1	i toc

HOU03:1208171 L-4 Exhibit L to the Unitization and Unit Operating Agreement

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	ATOR CONTRACTS AS AT JULY ITH 2009		
Contract	Scope	Contractor	"Effect
Number TGL00391	Crossovers		Date
TGL00391	Rental of 42" Hole Opener	Huntings	9-Sep-
TGL00393	Rental of Drill Pipe	Tasman Oiltools	22-Sep
TGL00394	Refurbishment of selected offices & conversion of an existing Cinema		tbc
TGL00395	Flat 12D Villagio	John Blavo	(DC tbc
TGL00396	Generalor 100kVA	G&J Technical Services Ltd	the
TGL00397	Dahoma Beams	West tropic Trading Enlerprise	lbc
TGL00398	VSAT Internet	Ostec	tbc
TGL00399	Block of rooms	Golden Tulip Accra	tbc
TGL00400	Cross Over Subs	Drilltech	
TGL00401	Motorola Communication Equipment	DWA Dizengoff Ghana Ltd	
TGL00402	Real Estate Services		tbc
TGL00403	Back up exec and tape drive	Penny Lane (Gh) Lto	tbc
TGL00404	Photocopier and other items	IPMC Ltd, Accra, Ghana	lbc
TGL00405	Pumping Services M1 Well	IPMC Ltd, Accra, Ghana	Ibc
TGL00406	Crossovers	Baker	tbc
TGL00406		Peseco	29-Sep-
	Drill String Test Rental Tools	Baker Oil Tools	1-Jan-0
TGL00408	Ring Gaskets & O Rings	Vetco Gray	17-Ocl-
TGL00409	Pipe Mate System	Sylaco	28-Oct-0
TGL00410	Jubilee Cost Comparisons	I-Quantum	18-Aug-
TGL00411	Crude Assay Testing	Inspectorate	1-Jan-0
TGL00412	Weilbore Clean Up Services	Tetra International	24-Nov-
TGL00413	Well Analysis	Task Geoscience	1-Oct-0
TGL00414	Reservoir Survey	Chemostrat	1-Nov-0
TGL00415	HAZOP & Risk Analysis	NCOE	24-Sep-
TGL00416	5 1/2" & 7" Tubing	Vailourec Mannesman	16-Jan-
TGL00417	Crude Analysis	Schlumberger Oliphase	17-Nov-
TGL00418	Engineering Study	Noble Denton	18-Nov-
TGLD0419	Deta Survey	RPS Energy	18-Nov-
TGL00420	EIKOS Training	IDS (UK) Ltd	18-Nov-
TGL00421	Burst Disc Subs	Huntings	19-Dec-0
TGL00422	Well Intervention Tools - 80	Baker Oil Tools	3-Dec-0
TGL00423	Inspection Services	J P Kenny	4-Dec-0
TGL00424	Crossover subs	Peseco	6-Dec-0
TGL00425	9 5/8" Wellbore Suspension Plugs	Baker Oil Tools	9-Dec-0
TGL00426	VACS System & Services	Baker Oil Tools	15-Dec-6
TGL00427	FMC Interface Cards	Baker Hughes	15-Jan-0
TGL00429	WCBU & Cement Stinger Crossovers	Peseco	18-Dec-0
TGL00430	Chemical Engineering Support	Maxoil	12-Jan-0
TGL00434	Biostratigraphic Analysis	Petrostral	0-nat-0
TGL00435	Core Description Services Master Agreement	Task Geoscience	6-Feb-0
TGL00436	Geochemical Studies		tbc
TGL00437	Frac Design Verification		tbc
TGL00438	Master Service Contract - Wellheads Services	FMC	tbc
TGL00439	Through Tubing Intervention	Baker Hughes	tbc
TGL00440	SUR Set Plugs	Baker Oit	
TGL00441	Equalisation Devices	Red Spider	1-Aug-0
TGL00442	Zertech Plugs	Baker Oil	1-Aug-0
TGL00443	Workwear	Kirklands	1-Aug-0
TGL00445	Pipeline Engineer in Houston		12-Mar-0
TGL00446	Supply of Production Chemicals	Pegasus	tbc
TGL00447	HAZOP Consultant & Scribe	NCOE	tbc
TGL00448	ICAMS System	JJ Black	23-Mar-0
TGL00449	Engineering services		tbc
TGL00445	Hydrocarbon Allocation Technical Support	Integrated Production Technologies	tbc
TGL00450 TGL00451		Smith Rea	lbe
TGL00451	Jubilee Deferment Management Interpretation of NMR Logs	Flair Consultants	lbc
TGL00452		RPS Energy	21-May-0
TGL00453	Fixed Wing & Helicopter Services		tbe
rGL00457	Evaluation of Jublice Water Injection Scheme	NSI Technologies	8-Jul-09
TGL00458	Fixed Wing Aircraft Services		tbc
	Communications Equipment aboard Blackford Dolphin	Vitol Upstream	tbs
GL00461	Rig #2		toc
GL00462	Well Analysis - Framework Agreement	Chemostrat	16-Jun-09
FGL00463	Operations Modelling Services	HIS Global	30-Jun-09
GL00464	Performance Coaching Assessment	The Angelina Group	1-Jul-09
GL00465	Production Universe	Shell Research Ltd	6-Jul-09
'GL20000	20 X Nokia 2600 Classic Phone	Fone Plazza (GH) Ltd	18-Sep-08
GL20001	Collection from Drilltech Services (North Sea) Limited	Pentagon Freight Services pic	19-Sep-08
GL20002	Furniture and Household Effects 3 bed house Takoradi	FM24	tbc
GL20003	Lease Agreement for 17 Cedar Court Accra	MIKE TWUM BARIMAH	26-Sep-08
GL20004	Corporate Agreement, Hillcrest Hotel, Takoradi	Hillcrest Hotel	1-Oct-08
GL20005	Equipment, Plen and Training	Lamor Swire Environmental Solutions (LSES)	8-Oci-08
GL20006	Phases 1, 2 & 5	JEK-J Engineering Co Ltd	15-Oci-08
GL20007	50 X 18 kilo buckets of Rust Vito AS casing thread storage compound	Peseco Ltd	30-Sep-08
01.00000	Computer Equipment	IPMC	30-Sep-05
GL20008			

HOU03:1208171 L-5 Exhibit L to the Unitization and Unit Operating Agreement

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Contract	Scope	Contractor	"Effective
Number			Date"
TGL20010	Advertising Services	MMRS OGILVY	20-Oct-06
TGL20011	Pre-coated Aluminium for the room in the old office	Rocksters Limited	3-Oct-08
TGL20012	Satellite phones	Globalcom Sateflite	10-Oct-08
TGL20013	Tidal forecasting services	Nowcasting International	1-Oct-08
TGL20014	Herd Hals	TBC	7-Oct-08
TGL20015	Building Works	JEK-J Engineering Co Ltd	13-Oct-08
TGL20016	Computer Equipment	IPMC	7-Oct-08 tbc
TGL20017	Real Estate Services	Penny Lane	10-Oct-08
TGL20018 TGL20019	Furniture and Fittings Circular Road and Totlet Block Takoradi Airfreight costs of 45 X 18 kilo buckets of Rust Vito AS casing thread	Peseco Limited	10-Oct-08
TGL20019	Furnigation & Pest Control - Office premises and staff houses	Klintech Limited	10-Oct-08
TGL20021	Airfreight costs of safety signs	Pentagon Freight Services plc	25-Sep-06
TGL20021	Furniture & stationery for Takoradi offices	Kingdom Books and Stationary Limited	15-0d-08
TGL20023	Provision of meat (Corporate Supplies)	NAB & Company	5-Sep-08
TGL20024	Provision of various electrical itams (Corporate Supplies)	Szjew Electricals	5-Sep-08
TGL20025	Provision of various proceries (Corporate Supplies)	Abrewaba Kitchen	5-Sep-08
TGL20026	Provision of various proceries (Corporate Supplies)	Hamroza Enterprises	5-Sep-08
TGL20027	Provision of various procerties (Corporate Supplies)	My Home Supermarket	5-Sep-08
TGL20028	Provision of various groceries (Corporate Supplies)	Garden Mart Enterprise	5-Sep-08
GL20029	Prefabricated toilet block (Takoradi Base)	FM24	15-Oct-08
TGL20030	Freight forwarding services for FMC Xmas Trees		tbc
TGL20030	Fixed wing charter Accra/Takoradi	City Link	tbc
TGL20032	Toner for main colour printer	Wincom Systems	16-Ocl-08
TGL20033	Printer for Takoradi base	IPMC	14-Ocl-08
TGL20034	Safety boots	B.Y.A. Limited	20-Oct-08
TGL20035	Safety equipment	ETG	20-Oct-08
FGI.20036	Computer Equipment for Takoradi and Accra offices	IPMC	20-Oct-08
TGL20037	Computer Equipment for Tekoradi and Accra offices	IPMC	20-Oct-08
FGL20038	Light weight fire master coveralls	The Trading Solution Co Ltd	21-Oct-08
FGL20039	300.000 litres of MGO	UBI Energy	21-Oct-08
FGL20040	Dell Hardware	IPMC	22-Oct-08
1GL20041	MGO for Atlas Tide	UBI Energy	27-Oct-08
GL20042	Fishery Patrol Veasel	Smit	lbç
GL20043	Civil Works Takoradi		lbc
FGL20044	Corporate Gym Membership	Aviation Social Centre Lld.	1-Nov-08
rGL20045	Caleriog		tbg
GL20046	furniture etc.	FM24	tbc
GL20047	Promotional Goods	Aspire Work Clothing UK	lbc
GL20048	Upgrade of PABX systems	Higher Ground Business Syselms	6-Nov-08
	Data and Telephone Cabling	Ultra Laser Network Systems	6-Nov-08
GL20050	Telephone Conference Call Sets	IPMC	6-Nov-08
	Rental of Portaloos	House of Casthuri & Sons Ltd	5-Nov-08
GL20052	Refurbishment of Aliforce Storage Room and Fencing	JEK Engineering Co. Ltd.	6-Nov-08
GL20053	Communications Equipment	Dizengoff Ghana Ltd.	6-Nov-08
GL20054	Fitting out Containers and Construction of Sling Rack	Webb Construction	6-Nov-08
	Supply of Lifting Equipment	Safelift Offshore Ltd	6-Nov-08
GL20055	MGO Highland Courage, Valour and Irresistible	UBI Energy	7-Nov-08
GL20057	ATA & IMDG books and CD's	Labeline	10-Nov-08
GL20058	Hire of 7 Tonne Front Loader	SDV Antrak	10-Nov-08
	Payroll Software Upgrade	Giobodime	11-Nov-08
	Additional Cabling Del Mina	Utra Laser Network Systems	12-Nov-08
	Additional Work to Generators	G&J Technical Services	12-Nov-08
	Generators Takoradi	FM24	12-Nov-08
	Routers	Microstar Computers	12-Nov-08
	UPS system Blackford Dolphin	IPMC	12-Nov-08
	Former SA Embassy Building Rental	Bavimah	1-Dec-08
	Hotel Acommodation	Mercy Lodge	tbc
	Hotel Acommodation	Fiesta Royale	tbc
	Catering and Housekeeping 4th Circular Road	FM24	17-Nov-08
	Hotel Acommodation	Labadi Beach	tbc
	Supply of Various Items	ETG Ghana	tbc
-	Electrical Services	JEK Engineering Co. Ltd.	18-Nov-06
	Management consulting Services	Fugro Geoconsulting Inc.	tbc
	Water Tank	Fernside Concepts Limited	19-Nov-08
	Marine Gas Oil	UBI Energy	20-Nov-08
	Circulating Sub	Drilltech	20-Nov-08
	Redline Radio (108 Mbps Capacity)	CIS	20-Nov-08
	HP Printer Toners & Catridges	Globodime Interactive Solution	20-Nov-08
	IT Equipment for Labore Terrace and Sherwood Park	IPMC	20-Nov-08
GL20079	Apartment 10E Villegio	R. E. Quist	22-Aug-08
GL20080	5 Staff Houses 4th Circular Road	Dr. Yaw Qsei	1-Oct-08
GL20081	Shalom 1 Fishery Patrol Vessel		tbc
GL20082	CSR Consultant	Okyeame Ampadu	1-Dec-08
GL20083	Security Consultant	Ling Enterprises	7-Dec-06
	Office Furniture	Exbou Office Supplies	tbs
GL20085	12tonne Forklift	House of Casthuri & Sons Ltd	lbc

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Contract Number	Scope	Contractor	"Effe Da
TGL20086	Dahoma Hardwood 12 x 12 x 20	West Tropic Trading	
TGL20087	Coveratis Logo	ETG Ghana	tb
TGL20088	U Canon Log Printer	The Imaging System	tt
TGL20089	Import of 1 pce oil well SS	Stellar Ghana Limited	ťt
TGL20090	Consultancy service (VAT, WITHHOLDING TAX)	Conseils Gestion Assistance	Ա
TGL20091	Mobile phones	Fone Plaza (Gh) Ltd	lt
TGL20092	Freight Cost for Laser Tally Machine & Coveralls	Penlagon Freight	!!
TGL20093	420.7m3 Marine Gas Oll	UBI Petroleum Ghana Ltd	tt
TGL20094	Broadband Services	Broadband Home Limited	tt
TGL20095	Brine Filtration Services	Techniques Int'l Co. Ltd	5-De
TGL20096 TGL20097	Mast Building MGO (Tender)	CIS	1-De
TGL20097	Consultants Services	Penny Lane (Gh) Ltd	tč
TGL20099	Christmas gifts and EHS incentives	IR and R Business	2-De
TGL20100	Integration of PABX systems bin the offices	RayCom Technologies	2.00
TGL20101	4 1/2" PH5 Tubing.	Certified Oilfield Rentals, Ghana	
TGL20102	Cleaning of 5 1/2" tubing	Certified Oilfield Rentais, Ghana	tb
TGL20103	X mas party for Tuliow children (Event Organiser)	Signature	14-De
TGL20104	X'mas party for Tullow children (Venue)	Labadi Beach Hotel	14-De
TGL20105	Canteen Facilities	FM24	80
TGL20106	Modular Unit	FM24	~~ 
TGL20107	Flexi Banner for staff christmas party	Legend Design House	12-0
TGL20108	Decorations for Tulkow Staff Christmas Party	E-Rite Decorations & Flowers Ent	ib
TGL20109	Venue, Menu and Drinks for Christmas Party	La- Pelm Royal Beach Hotel	12-De
TGL20110	Safety boots, Heimet, work gloves, safety glasses	Crystal Bell	tb
TGL20111	200 joints of 5 1/2" Hydril 563 20 pp/ L-80 Tubing	Services Algoa International	tb
TGL20112	2 Reception desk	Exbou	tb
TGL20113	Budgetary Estimate	West Engineering Services	tt
TGL20114	ISDN Lines at Sherwood Park	Ghana Telecom	(č
TGL20115	Splint A/C , Piping materials and Labour	Elymak Engineering services	
TGL20116	Freight charges	Pentagon Freight Services	tb
TGL20117	X Mas Hampers	Classique Ventures	18-De
TGL20119	Furniture for Tuilow Office-Labone, Accra	Kingdom Bks & Stationery Ltd	16-De
TGL20120	Furnigation & Past Control - Office premises and steff houses Wifi router	JNRS Pest Control	tb
TGL20121 TGL20122	End of year party (Takoradi)	Cross Roads IT Systems	(b
TGL20122	UPS for Tadi & Labone Cresent	Reybow Hotel Sollatek Electronics	18-De
TGL20124	PABX systems, installation & configuration	RayCom Technologies	18-De
TGL20125	LAN Cebling	Ultra Laser Network Systems	18-De
TGL20126	Refurb. Of Kitchen & Office At Takoradi Air Base	FM 24	tb
TGL20127	20" casings	Afren Energy Ghana Ltd	22-De
TGL20128	Additional Kitchen items supplied to 4th Circular	FM 24	10
TGL20129	Sea Freight Shipment of 6 bundles etc	Pentagon	22-De
TGL20130	Vertical Blinds	Rich K Ventures	22-De
TGL20131	Gym Equipment	Sollutions to Exercise Life Ltd	23-De
T <b>GL2013</b> 2	Installation of New fire alarm systems	Crystal Bell Company	23-De
TGL20133	1400m3 MGO	UBI Petroleum Ghana	23-De
TGL20134	Dipslides for detecting bacterials activity in fuel	Commercial Microbiology Ltd	tb:
TGL20135	4000m <sup>*</sup> Marine Gas Oil (MGO)	UBI Petrolsum Ghana	27-De
TGL20136	1 x 9 5/8" Crossover pup	Huntin Oilfield Services	29-De
TGL20137	Osei Adusei Venyures	Painting and Sanding of containers	29-De
TGL20138	120 coveralls	The workclothing	29-De
FGL20139	Dehoma Hardwood	West Tropic Trading	tbe
TGL20140	Condimination & Rediator Monitor	Tracerco	5-Jan
TGL20141	Paint Sticks & Markers, Aerosol Paint	ETG Ghana	5-Jan
IGL20142	Safety bool-Click & Smoke Detector	ETG Ghana	tbo
TGL20143	Dallas Safety Rigger Bools	ETG Ghana	5-Jan
TGL20144	Labels	ÉTG Ghana	5-Jan
FGL20145	Door and Safety Signs	Standard Safety & Specification	5-Jan
IGL20146 IGL20147	Line Paint, wheelie Sins	ETG Ghana	5-Jan
	210/tr clip top drum, wheet trolley	ETG Ghana	6-Jan
GL20148	Airfreight cost	Pentagon	6-Jan
GL20149	Air frieght cost on dipstides	Zeal Envital Technologies Ltd	S-Jen
GL20150	Lifting equipments	Penlagon Rathy Engineering & Lifting	8-Jan
GL20151	Prov. & Installation of 3 A/C units at 4th Circular	Selby Engineering & Lifting	tbo
GL20152	Servicing of A/C Units at Del Mina	F & A Refrigerator &Air Condition F & A Refrigerator &Air Condition	9-Jan
GL20154	Supply and Install electricals cables for heaters	Hope Electricals Works	tbc 9-Oct
GL20155	Buildeg Clamps	Misak Ent	9-Oct- 9-Oct-
GL20156	Fishery Patrol Vessel	Smit	9-Oct- 11-Jan
GL20157	2 x 3 Bedroom Unit	Hess Lid Ghana	13-Jan 12-Jan
GL20158	Pacific Parakeet Charter	Swire Pacific	12-Jar 12-Jar
GL20159	Airbase Lease	Ghana Air Force	12-Jai 1-May
GL20160	Navy Base Lease	Ghana Navy	1-Sep

HOU03:1208171 Exhibit L to the Unitization and Unit Operating Agreement

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Cantonat	TOR CONTRACTS AS AT JULY 7TH 2009	A	"Effect
Contract Number	Scope	Contractor	"Effect Date
TGL20163	Wash Room Mirrors	Annoited Touch Ent.	14-Jan
TGL20164	Fittings and Fixtures	Hess Ghana Limited	14-Jan
TGL20165	Sample Containers	Corelab	14-Jar
TGL20166	Electrical materials	Murab Ventures	14-Jar 14-Jar
TGL20167 TGL20168	Radio Equipment, pole & installation	Micro Stars Computers Pentagon	14-Jan 15-Jan
TGL20169	Supply & Installation of Drainage Covers	Webb Construction West Africa	ibo
TGL20170	320ils double door whiripool fridge	Edenick Limited	tbo
TGL20171	20" RL4S Casing	BOMA	17-Jan
TGL20172	Safety equipment	FM24	19-Jan
TGL20173	Lease - No. 26, 4th Circular Road	Patrick Osei	tbo
TGL20174	Trucks, Trailers and Drivers (Request for Quotation)		tbo
TGHA0000008	ID & Business Cards	Call Prints Limited	20-Jan
TGHA0000009	Toilet accessories for Det Mina & Labone Offices	Aipha Kakra	21-Jan the
TGHA0000010 TGHA0000011	Supply & Installation of Carpets at staff Houses Provision of Aviation Audit Services	RICH K. VENTURES	17-Jan
TGHA0000012	Supply of Extention Boards	Sollatek	22-Jan
TGHA0000013	Supply & installation of cooker, work tops, sink,tiling	FM24	tbe
TGHA0000014	Supply of Laserlet calridges	Delpo Ventures	22-Jan
TGHA0000015	Suply of 20 & 40 KVA UPS	Jprompt	23-Jan
FGHA0000016	Server Dell for Del Mina Ofice	IPMC	23-Jen
FGHA0000017	104 KVA AVR for Sherwood	Solialek	23-Jan
TGHA0000019	supply & fillout of furnishings for 4th circular Road	FM24	26-Jan
FGHAD000020	Office Stationery	Kingdom Books Limited	28-Jan
FGHA0000021	Airfreight cost for CD Rom, Contaminations, jackets & Bag	Pentagon Freight Services	23-Jan
CGHA0000022	Airfreight cost for Nico Hottings personal effect Relocation of Prefabricated Toilet Block	Project Freight	23-Jan
GHA0000023	Stationery Items	Fm24 Wincom Systems	tbo 26-Jan
GHA0000025	Fire Alram System & Emergency Alert	Crysial Bell Company Ltd	20-Jan Kbc
GHA0000026	Provision of dedicated warehouse space	Heas Ghane Limited	tbc
GHA0000027	Sefety glasses, Ear Dispensers & Plugs, Palm Gloves	Stendard Safety	27-Jan
GHA0000028	Brine Filtration Services	Techniques int Co. Ltd	18-Jan
GHA0000029	Internet Services at Alan's Residence	Broadband Home	1-Feb-
GHA0000030	Provision of Aviation Fuel for Helipcopter	Antrak Ghana Limited	tbc
(GHA0000031	Internet Services at Linda (Travel) Residence	Broadband Home Limited	2-Feb-
GHA0000032	Office Stationery	Wincom Systems	26-Jan
GHA0000033	Erwircomental Permit	Environmental Protection Agency	30-Jan
GHA0000034	Provision of Electricals/Painting/Carpantry	JEK 'J' Electricals & Civil Eng, Work	lbc
GHA0000035	Health and Safety Courses Advertisement publication in the local newspapers	DM Training New Times Corporation	9-Feb- 2-Mar-
GHA000037	Secretary Chairs	Kingdom Books & Stationery	∠-man- lbc
GHA0000038	Advertisement publication in the local newspapers	Graphic Communications Group Ltd.	2-Mar-
GHA0000039	Hotel Acommodation	Hillcrest Hotel	2-jan-
GHA0000040	Hotel Service Agreement	Planter's Lodge	2-Jan-
GHA0000041	Business Cards	Call Prints Limited	2-Apr-
GHA0000042	Safety Items	Standard Safety & Specification	3-Feb-
GHA0000043	Hotel Service Agreement	Lebadi Beach Hotel	2-Jan-4
GHA0000044	Design of Mediba House & Sherwood Park Sites	Prodesign Limited	ibc
GHA0000045 GHA0000046	Sandblasting, coating and Stencilling Services	Cor International Limited	15/2/20
GHA0000047	A4 Size, Foolscap & Quetto envelopes Design concept of reception area-Sherwood Park office	Fino "T Arts Portfolio Company Limited	1-Jun-4
GHA0000048	Shipping of Materials	Maritime Overseas Corp	11-Feb 18-Feb
GHA0000051	Renovation of Hse No. 26 Cantonments (Gen, Mgr's Res.)	Glasten Supplies & Building Services	2-Feb-l
GHA0000052	Geha Paper Shredder for Accounts Dept	Kingdom Books	2-Feb-
GHA0000053	MG0 2000m3	UBI Energy	12-Feb
GHA0000054	Various class of Labels	ETG Ghana	28-Feb
GHA0000055	MGO 1700m3	UBI Energy	10-Ево-
GHA0000056	Stationery for Drilling leam, EHS, C & P, Finance Depts	Kingdom Books & Stationery Limited	11-Feb
GHA0000057	Provision of 3 phase power at Del Mina Place	Richard Prepreh Electrical Works	9-Feb-(
GHA0000058	Supply & installation of LG Split AC 2.0 HP and Nova heavy duty	FM24	11-Feb-
GHA0000059	Dell servers & Ricoh Toners	IPMC	11-Feb-
GHA0000060	Blackberry Server and 6 Blackberry phones	Scancom Limited (MTN)	11-Feb-
GHA0000061 GHA0000062	Bit Operator Crossover, Casing	Halliburton Secrurity DBS	1-Apr-0
GHA0000063	Switches	Huntin Olifield Services	tbc
GHA0000064	Sourcing of a Tax Advisor & Learning and Development Manager	Microster Computers PricewsterhouseCoopers Ghane Ltd	13-Feb-
GHA0000065	Provision of three articulated trucks, trailers & drivers	Antrak Ghana Ltd	tbc
	Consultancy Services for a Provident Fund	Tri-Star	28-Jan-
GHA0000066	Tubing Cross Overs	Peaeco	14-Feb-
GHA9000065 GHA0000067			
	Hydril 563 Pressure Test Swage	Peseco	15-Feb-
GHA0000067	Hydril 563 Pressure Test Swage 5 1/2" Couplings	Peseco	
GHA0000067 GHA0000068 GHA0000069 GHA0000070	5 1/2" Couplings Provision of QA/QC Services for rig & well positioning		15-Feb- 16-Feb- 3-Jan-0
GHA0000067 GHA0000068 GHA0000069 GHA0000070 GHA 0000071	5 1/2" Couplings Provision of QA/QC Services for rig & well positioning Supply of 13 3/6" & 9 5/6" Casing	Peseco	15-Feb-
SHA0000067 SHA0000068 SHA0000069 SHA0000070	5 1/2" Couplings Provision of QA/QC Services for rig & well positioning	Pesseco Schultz Geomatics	15-Feb- 3-Jan-0

HOU03:1208171 Exhibit L to the Unitization and Unit Ogerating Agreement

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Contract Number	Scope	Contractor	"Effec Date
TGHA000075	Audit and Inspection of BOP & Associated Well Control Equipm't	Hands on Subsea Engineering Int	19-Feb
TGHA0000076	Coupling, Casing	Valourec & Mannesmann Tubes	19/02/2
TGHA0000078	Wearbushing running and retrieval tools for Mahogany 1 & personnel	Pressure Control Systems	23-Fet
TGHA0000079	Repair of roof gutter at Takoradi base Station Office	Facility Mgt & Maintenace Limited	17-Fel
TGHA0000082	Pup joint	Valourec & Mannesmann Tubes	21-Fei
TGHA0000083	Crossover, Tubing	Valourec & Mannesmann Tubes	21-Fet
TGHA0000084	CCTV and ACCESS Control Systems	G4S Security Services	15-Ma
TGHA0000085	Automatic Vollage Regulators and Stabilizers	Soliatek	24-Fet
TGHA0000086	PHS brand toilet sanitizers, toilet roll holders and soap dispensers	Alpha Kakra	24-Fet
TGHA0000087	3 X D - Ling DWL 2700AP Router for Tuliow Aviation Dept	Dita - Dang Micro Systems Ltd	27-Fet
TGHA0000088	Supply & installation of fire extinguishers, fire blankets and exil signs at	Crystal Ball Company Ltd	27-Fet
TGHA0000091	While board and Magic Board	Kingdom Book shop	25/02/2
TGHA0000092	Supply & installation of plasma tv, dvd player & cordless phones at	Kumesh Ghana Ltd	27-Fet
TGHA0000093	Provision of fridge guard, TV guard, AVS and SVS at President & Gen.	Sollatek	27-Fet
TGHA0000094	Supply & installation of top load washing machine, dryer, fridge and built	Ederick Limited	27-Feb
TGHA0000095	Network cable and Switches	Wincom Systems	28-Feb 2-Mer
TGHA0000096	Lacie 5 big network with professionel 5 bay raid controller Fire Airam System & Emergency Alert	Oealer Computers	2-MBP 17/02
GHA0000098	33 KVA Standby Power Generator	Crystal Bell Company Ltd G & J Technical Services	23-Fet
GHA000098	Tenacy Agreement for Paul Westgate Residence	Neil Theodore Agble	23-Pec 15-Ma
TGHA0000100	Refute of Takoradi IT office	JEK 'J' Electricals & Civil Eng. Work	3-Mar
FGHA0000101	Provision of QA/QC Services for Electric Wireline Logging	Gaia Earth Science Limited	3-1761 4-Mar
FGHA0000101	49" x 40" x 6" Pallets Hardwood	John Doughan	12-Mer
GHA0000102	Electronic Security system at the Pres. & General Mgr Residence	G4S Security Services	16-Mar
GHA0000104	Secretary Swivel Chairs	Kingdom Books & Stationery Limited	9-Mar-
GHA0000105	Nokia 6300 Cellular phones	Fone Plaza (Gh) Ltd	9-Mar
FGHA0000106	Supply and installation of Blinds & Curtains at Sherwood Park Office	Rich K. Ventures	9-Mar
GHA0000107	Slationery Items	Kingdom Books	9-Mar
GHA0000108	Stationery Items	Wincom	9-Mar
GHA0000109	Ricoh photocopier and Laptops	IPMC	9-Mar-
GHA0000110	Hard Hat and Rain coal	Stendard Safety	10-Mar
GHA0000111	Supply of 13 3/8" DINO VAM Pup Joints	Huntin Oiffield Services	3-Oct-
GHA0000112	Supply and instaltation of Metal Grill Cover at Del Mina Office	Glasten Supplies & Building Services	13-Mar
GHA0000113	Refurb of Account & Travel offices at Tekoredi Airbase	FM24	13-Mar
GHA0000114	Samsung S1050 with 10.1 mega pixels and 1GB memory card	Kwatsons Electricals Ltd	13-Mar
GHA0000115	Provision of LRAD 500X, including training an installation	Hart Security	tbc
GHA0000116	Provision of Emergency Response Vehicle	Evens Limited	tbc
GHA0000117	To Febricate, paint and Install Fire Escape ladder	Webb Construction West Africa	16-Mar
GHA0000118	Supply and installation of Signage for Sherwood Park Office	FM24	17-Mar
GHA0000119	British Admirally Charts of Ghanaian coast line & Jubilee field for use by	Inchape Shipping Services Nigeria Ltd	20-Mar
GHA0000120	Supply of Crockery for Sharewood board meetings	International Catering Services	18-03-2
GHA0000121	Safe and double door cabinet	Krif Ghana	18-03-2
GHA0000122	UPS 800VA	Sollatek	16-03-2
GHA0000123	Air and Sea freight cost	Pentagon	18-Mer
GHA0000124	Sandblasting, coating and Stenciling Services (5 1/2 " Tubing)	Cor International Limited	20-Mar
GHA0000125 GHA0000127	Sandblasting.coating and Stenciling Services (3 1/2 " Tubing) SAFETY SIGNS	Cor International Limited Standard Safety	23-Mar 20-Mar
GHA0000129	7" API Q125 & TSH 563 Casing and Pup joint	Tenaris Global Services Ltd	tbc
GHA0000130	Drilling Bit, PDC, Varel, Type VY2816PDGX, 12-1/4IN	Varel Europe SAS	20-Mar
GHA0000132	Updated rock Geomechanical model, well bore stability Analysis	Geomechanics International	20-Ma the
GHA0000133	Coveralls	The Workclothing Group	22-May
GHA0000135	Survey and Building plan	FM24	22-May 23-Mar
GHA0000136	4No. Short wooden cupboards and 1No. Flip chart stand	Kingdom Books and Stationery Limited	26-Mar
GHA0000137	Back up radio link	Planet Mail Technology	24-Mar
GHA0000138	Law software for Legal Advisor	Datacanta Limited	26-Mar
GHA0000139	Healthcare	Managed Healthcare Company Limited	15/04/2
GHA0000140	Electrical appliances for President	Ederick Limited	3-Apr-
GHA0000141	Mobile Unit Air condition	West Wings Consult	26-Mar
GHA0000142	Vehicle Leesing	•	the
GHA0000143	Stationery Items	Wincom Systems	26-Mar
GHA0000144	Kitchen Utensils	Napev	26-Mar
GHA0000145	Telephone Handset	RayCom Technologies	26-Mar-
GHA0000146	Training Courses on Manual Handling	Pelrofac Training	18-May
GHA0000147	Stationery for Staff Training at African Regent Hotel	Wincom Systems	30-Mar
GHA0000148	Diesel Biocide Chem 7 and freight Charges	Fleetreat Technical Ship Supplies	31-Mar-
GHA0000149	Supply of 5 1/2"Protectors, Box x Pin Sets	Cor International Limited	31/03/20
GHA0000150	Logistics Services	Pentagon Frieght	1-Apr-l
GHA0000151	Aviation fuel Installation at Takoradi Logistics air base	Ghena Oil Company Ltd (GOIL)	1-May-
GHA0000152	Toilet accessories for Sherwood Park Offices	Alpha Kakra	2-Apr-0
GHA0000153	Chefing Dish and Plate mat for Staff house(Accre & Tadi) Sherwood	Napev	2-Apr-0
GH0000154	Additional works on "The View" Beach Road, Takoradi staff house	Paragon Investments Ltd	tbc
GHA0000155	Supply and installation of curtains at Pres. & Gen. Mgr's Residence	Rich K. Ventures	2-Apr-(
GHA0000156	Supply and installation of bulk fuel tank with stand for generator set	Hak-Paks	2-Apr-(
GHA0000157	Hardwood and wedge 3" x 3 " x 15"	West Tropic Trading	3-Apr-0
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HOU03:1208171 Exhibit L to the Unitization and Unit Operating Agreement

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Contract Number			"Effec
HUIEDOL	Scope	Gontractor	Dat
TGHA0000162	5000 TY400 363MM and Hellermann TY 385mm 7.6mm	ETG Ghana	7-Ap
TGHA0000163	Other works at Sherwood Park Office	Glasten Supplies & Building Services	27-Ma
TGHA0000164	Gym Equipment for Takoradi office	Solutions to Exercise Through Life Limited	4-Sej
TGHA0000187	Logistics Services	Penlagon Freight	t4-Ap
TGHA0000168	9 5/8" Pup Joints 53.3/b/ft P110 VAM TOP Pin x Box 20 feet long	Peseco	ťð
TGHA0000169	Woolen Blanket	UNA Agencies	14-Ap
TGHA0000170	Digital safes, Pillow cases, Mirror, Duvet, Hangers, Lundry Basket	Game Discount	14-Aç
TGHA0000171	Sanitary Materials for TGL Offices in Accra	Alpha Kakre	17-Ac
TGHA0000172	Electrical Home Appliances	Somovision	15-Ap
TGHA0000173	Cutains (Materials , Sewing and fitting)	Eekka Co. Lid	15-Ap
TGHAD000174	Envelopes, Letter Heads & Compliment Slips for Sherwood Park	Call Prints Limited	17-Ap
TGHA0000175	Wardrobe in 3 Parts and chast of drawers for Dai Jones' Res.	Fumert Ghana Ltd	20-Ap
TGHA0000176	Supply of Furnishing items for Staff House (Paloma) at Takoradi	Orca Deco (Ghane) Limited	17-Ap
TGHA0000177	Men and Ladies Office Shirts, and Tshirts	Beatrice Edna Sunnah	15-Ap
TGHA0000178	Rental of Residential Property for Cease Molina	Afare Donkor	22/04/
TGHA0000179	6300 Nokia Mobile Phones	Fone Plaza (Gh) Lld	15-Ap
TGHA0000180	Containers for 2 site offices	Webb Construction Wast Africa	15-Ap
TGHA0000181	Vessel Charter	Pacific Askari	15-Ap
TGHA0000182	Stationery for Staff Training at African Regent Hotel	Wincom Systems	(Airead) 17-Ap
TGHA0000183	Notice Boards and White Boards for Sherwood Park Office	Kingdom Books and Stationery Limited	
TGHA0000184	Water dispensers and extractors for Takoradi Staff House	Ederick Limited	17-Ap
TGHA0000185	At Paintings	Wild Apple Vanlures DM Training	16-Ap
GHA0000186	Training course on Elementry food hygene	PW (Already doing works at the Base)	27-Ap
GHA0000187	Provision of Airline Ticket	KLM	1-Apr
GHA0000188	200 KVA Generator	Mentrac	20-Ap
GHA0000189	Pocket Spring Mattress	Ash Foam	20-Ap
GHA0000191	Docking Station	IPMC	20-Ap
GHA000D192	HP LaserJet CM 1312nfi Printer	Ultimate Supplies	20-Ap
GHA0000193	New Pipe Yard	PW (Already doing works at the Base)	22-Ap
GHA0000194	Zebra Printer Ribbon for ID printer	DigitalD	22-Ap
GHA0000195	Stationery Items	Wincom Systems	22-Ap
GHA0000196	Electronic Security system at Cesar Molina's Residence	G4S Security Services	23-Ap
GHA0000197	Transportation of Cesar's personal belongings	AGS Guillaume DEHEM	23-Ap
GHA0000198	Holdell Travelling bag	The Workclothing Group	8-Ma
GHA0000199	Electric Fencing	Nationwide Security	23-Ap
GHA0000200	Supply of Aviation Buel Bowser	Bosserman Aviation Equipment Inc	5-Jan
GHA0000209	Shredder, Binding machines, catridges, DVD-R,	Wincom Systems	28-Ap
GHA0000210	I-DRILL study of Smith bits	Smith Technologies	30-05-
GHA0000211	Fire certificate , drawing and registration fees	Notex Group Limited	22-05-
GHA0000213	Hard broom head, wooden handle, adhesive barrier, Tarpaulin	ETG Ghana	30-Ap
GHA0000214	Dahoma and Wedges	West Tropic Trading	30-Ap
GHA0000215	Signage, Fire Blankel	Standard Specification	30-Ap
GHA0000216	Safety and Technical Inspection/Auadit on IAS 365N helicopter	Henri Vincent Canal	5-Jan
GHA0000217	Digital Camera	P C Direct	29-Ap
GHA0000218	Supply of muliguard and svs for office and residential use	SOLLATEK	30-Ap
GHA0000219	Provision of Immigration related services	Koma Consult	1-Jan
GHA0000220	IT Training course for 5 days	IPMC	4-May
GHA0000221	Supply of crockery, mugs kitchen items	Naben	30-Ap
GHA0000223	Water treatment at President's residence	Bizgeo Company Limited	14-Ap
GHA0000224	Weilbore Clean Up Equipment and Services	Tetra Technologies	tbo
GHA0000225	Electrical Installations at Gen Mgr's residence	Hope Electricals Works	5-May
GHA0000226	Training for Neil Lewis	Petrofac Training	6-May
GHA0000227	Leasing of warehouse for a period of one year	Bay Developers	lbo
GHA0000228	3 Blackberry 3 Settle with size for Care Marte emistered	Ultimate Fon	7-May
GHA0000229	3 Split unit air for Gen Mgr's residence	Cold Temperatures	8-May
GHA0000230	Freezer, LG Fridge and fryer for T'di Staff house Refurbishment of Staff House	Somovision	8-May
GHA0000231		Glasten Supplies & Building Services	11-Ma
GHA0000232 GHA0000233	Construction of power house at Sherwood Office	Glasten Supplies & Building Services	8-May
GHA0000233 GHA0000234	3 Heliport signs with hanging chains Projectors for Sherwood park	Standard Specification	11-Ma
GHA0000235	Projectors for Sherwood park Metal shelves at Takoradi staff hse kitchen	Glasten Supplies & Building Services	11-Mey
GHA0000235	Kitchen liems	Napev	11-May
GHA0000237	Electrical works on LRAD equipment	JEK 'J' Electricals & Civil Eng. Work	11-May
GHA0000238	Aluminium 8ft ladder	ETG Ghana	11-Ma)
GHA0000239	Pallet Wrap and 12.5Ton Compactor Sack	ETG Ghana	11-Ma)
GHA0000240	Assoretd Cartridges		11-May 11-May
GHA0000240	Training of EHS Advisor	SGS Ghana Ltd	11-May
GHA0000241 GHA0000242	Cargo Taos	Printagraph	11-May
UN IN WOVVETZ	Cargo rags Name plate signage for sherwood park	FM24	13-May
GHA0000243			13-Mey
	Participing of a portion of Delmine office		1 40.14
GHA0000244	Partioning of a portion of Delmina office	Glasten Supplies & Building Services	18-May
GHA0000244 GHA0000245	Lease for Gordon Harina's Residence for 24mths	Gold Crown Grp Haldings(Mr, Anton )	8-May
GHA0000244 GHA0000245 GHA0000246			

HOU03:1208171 L-10 Exhibit L to the Unitization and Unit Operating Agreement

1-Jun-09 I-Jun-09 I.J. Dr Altr

Contract	Cana	Contractor	"Effect
Gontract Number	Scope	Contractor	Date
TGHA0000251	Vessel Charter	DO REDERI AS	27-May
TGHA0000253	Logistics services (Bore Protectors from Dril Quip)		22-May
TGHA0000254	Logistics Services (Oil well drilling equipment from Dril Quip)	Pentagon Services	ubc.
TGHA0000255	Supply of 3 1/2" & 5 1/2"Protectors, Box x Pin Sets	Cor International Limited	22-May
TGHA0000255	Hiring of oit spill equipment on the Shalom 1 vessel (including training	Oil Spill Response	lbc
TGHA0000257	Telephone connectivity in the Pres & General Mgr Residence Metat sheives for food storage, buffel table, Canopies	Higher Grounds Business Sys Glasten Supplies & Building Services	28-May
TGHA0000259	Servicing of all staff house Air condition	F & A Refrigerator & Air Condition	28-May 28-May
TGHA0000261	Cutains fixed at Gen Mgr and Pres. Residence	Rich K. Ventures	28-May 28-May
GHA0000262	IT Training course for 4 days (all IT staffs)	CIPD (GIMPA)	15-Jun
TGHA0000263	Luggage tags and Barrier tape with stencil on tape	Standard Specification	29-May
TGHA0000264	Bankers boxes flat pack, bubble wrap, cardboard, brown parcel tape	ETG Ghana	28-May
TGHA0000265	Up grading of Internet bandwidth (ON HOLD)	Vodaphone	lbc
TGHA0000266	LG DVD, Fridge, LCD TV for Airport Ridge Staff house	Somovision	29-May
TGHA0000267	Mattress and Pillows for Airport Ridge Residence	Ash Foam	29-May
FGHA0000268	2 Poly tanks (30, 000 and 20,000 itrs) for staff house	Diaspora	29-May
FGHA0000269	Participation in Oil and Gas	West Africe Business Association	2-Jun-l
GHA0000270	4 Digital safes	Krif Ghana	2-Jun-
FGHA0000271	1 Dish washer and 7 water dispensers for Airport Staff hee	Ederick Limited	2-Jun-l
GHA0000272	Professional advertising and communication mkling services	MMRS Ogilvy	5- <b>Ja</b> n-I
GHA0000273	Tier 1 & 2 oil spill equipment includes maintenance and training	Oil Spill Response	1-Mar-
GHA0000274	Cleaning of Internally rusted 36" conductor joints Painting, Electrical works, and replacement of boardroom glass table	Cor International Limited Glasten Supplies & Building Services	7-May-
GHA0000275	The supply and installation of bulk fuel tanks	Hak-Paks	2-Jun-4
GHA0000277	Bed shael and woolen blanket for Airport Ridge Tak, Staff hse	UNA Agencies	4-Jun-4
GHA0000278	Carpets laid at boardroom, Reception, Visitors room @ sherwood	Paragon Fashion & Int Designing	4-Jun-4
GHA0000279	Strenghtening of security services at Alen's Res. & Acc Staff House	G4S Security Services	4-Jun-0
GHA0000280	Safea, Mosquito net, mirrors, hangers for Airport Ridge- Takoradi	Game Discount	2-Jun-l
GHA0000281	Glass sliding cabinel for C&P office	18th July Limited	3-Jun-f
GHA0000282	Metal beds, mats, other furnishes for Airport Ridge staff hse - Tadi	Orca Deco (Ghana) Limited	4-Jun-4
GHA0000283	Drilling Bit, Breaker, Nozzle, Security DBS (Ref to TGL 00164)	Halliburton Security	lbc
GHA0000284	Hiring of Vessel to recover 8 deep anchor moorings from B/ford Dol	Gulf Offshore N.S LId (Highland Valour)	2-Jun-6
GHA0000285	Specialised painting for Emergency Response Vehicle	Pat Media	4-Jun-(
GHA0000286	Coating of Free Issued 7" Casing	Tuboscope NOV UK Ltd	1-Aug-I
GHA0000287	Emergency response dedicated marker boards for Emergency Response	Petrofac Training	4-Jun-0
GHA0000288	Cleaning of Bulk Dry tanks on the Pacific Askari Vessel	Zeal Technologies limited	28-May-
GHA0000289 GHA0000290	4 OFF 30ltr drum A/C Gear and rope lube	ETG Ghana	8-Jun-(
GHA0000290 GHA0000291	Vessel Charter for loading shipping baskets from Baker Huges yard to Tubing, Pups, Crossovers and Coulpros	Antrak Ghana Vallourec & Mannesmann	7-Jun-0
GHA0000292	Inspection of Helideck on the Eirik Raude	Helldeck Certification Agancy	tbc
GHA0000293	Third & Final Payment for Mectizen distribution and Ophthalmic nurse	Sightsavers	16-Jun-
GHA0000294	150 PCS of unbrella with Tullow logo for office use and as promotional	BTC Group	9-Jun-0
GHA0000295	Gym equipment for Takoradi Airport Ridge Residence	Solutions to Exercise Through Life Limited	9-Jun-0
GHA0000296	Cordless drill, Ratchels, drill bits, spanners, long reach socket	Letamens Engineering	11-Jun-
GHA0000297	Partition of large office used by Accounts into Travel and Finance	Glasten Supplies & Building Services	18-Jun-
GHA0000298	Computeres for new employees' - Takoradi	IPMC	18-Jun-
GHA0000299	For the procurement of 65KVA and 220KVA power generating set for	Mantra Ghana Limited	28-May-
GHA0000300	Drilling Bit & Breaker Bit (Ref to TGL 00162)	Smith International inc	tbc
GHA0000301	Supply of Chemicals for Injectivity Test on Well W-10 (H-1)	Nalco Energy Services	6-Nov-0
GHA0000302	RFID Access Control Cards	G4S Security Services	16-Jun-(
GHA0000303	provide canopies and replace two main entrance doors at the Del Mina	Glasten Supplies & Building Services	22-Jun-(
GHADOOD304	Purchasing and Shipping of 3 trailers for the use with Takoradi	IFOR Williams Trailers LTO	lbc
GHA0000305 GHA0000306	Rental of 2×3 bed rooms froom Hess in a secred compound at Airport	Muari Sirihaa	12-Jun-(
GHA0000305 GHA0000307	Rental of 2×3 bed rooms froom Hess in a secred compound at Arpon Stationery for Sherwood and Wangara office and 2 cross cut shredders	Kwasi Siriboe Wincom Systems	1-Jui-0
GHA0000308	Same and the original and the graders of the still a close out sixed ders		18-Jun-(
GHA0000309	Purchase of MFP Printer (RICOH) including toners for Accountant		23-Jun-( 16-Jun-(
GHA0000310	Cover the training cost for Mark Netson	Petrofac Training	lbc
GHA0000311	Venetian Blinds for President's residence	Rich K Ventures	18-Jun-(
GHA0000312	25 Directional signs (Back&Front) double size(AMA rental	RYK ADS Ltd	18-Jun-0
GHA0000313	Gas & Electric burner, Hot plate and hood	Ederick Limited	16-Jul-0
SHA0000314	5 Black berry phones	Ultimate Supplies	17-Jun-0
3HA0000315	Furnishing of the Takoradi Airport Ridge Residence	Orce Deco (Ghana) Limited	18-Jun-0
GHA0000316	Sofa set, ward rope and TV stands for Airport Ridge Res Takoradi	Furnart Ghana Ltd	16/6/200
GHA0000317	Security Strategy and Management	Drum Cussac	1~Jul-05
3HA0000318	Payment of money spent on advertistment for Finance Dept.	PricewaterhouseCoopers Ghana Ltd	15-Jun-0
GHA0000320	7 Medical First Aid Boxes	WARA	18-Jun-0
SHA0000321	Safety googles, Yellow furniture, Dust masks.	GTG Ghana	18-Jun-0
SHA0000322	Provision of Life Insurance coverage for National Employees	Tri-Star Insurance Services (Gh) Ltd	11-May-0
GHA0000323		Westlink	lbc
SHA0000324		PricewaterhouseCoopers Ghana Ltd	lbc
SHA0000325 SHA0000325	Purchase and installation of wireless system devices to implement an	CIS Ghana	lbc
GHA0000325	Stationery Items Curtains for Aircord Ridge (Takorodi) residence	Kingdom Books and Stationery Limited	25-Jun-0
SHA0000327	Curtains for Airport Ridge (Takoradi) residence Lightening Arrester for Takoradi Base office	Anaji Curtain Design Shop	25-Jun-0
, muuuuuu20	CALIFICATION OF A CONTRACT	JEK 'J' Electricals & Civil Eng. Work	25-Jun-0

HOU03:1208171 L-11 Exhibit L to the Unitization and Unit Operating Agreement

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Contract Number	Scope	Contractor	"Effective Date"
TGHA0000330	4 leg slings and 3.5 lns shackles	Pelican	25-Jun-09
TGHA0000331	Buildog Clamps, Wire rope cutters, Barrel crusher, Shackles	Seiby Engineering & Lifting	7-Jul-09
TGHA0000332	See bed survery approx 30 x 80m at knuckle benth Tak Port	Hornet Development Lid	30-Jun-09
TGHA0000333	Training course for Graham Jackson on Dangerous goods by Air & sea	Petrotac Training	tbc
TGHA0000334	Sollatek	Sollatek UK	tba
TGHA0000335	Motorola equipment for communication btn Ports & Base	Dizengoff Ghana Lld.	29-Jun-09
TGSL00180	Wellhead Equipment	Dril-Quip (Europe) Limited	17-Jul-07
TGSL00355	Napthenate Study	Oil Plus	1-Mar-08

HOU03:1208171 L-12 Exhibit L to the Unitization and Unit Operating Agreement

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O: Provide vessel, moor, commission	conversion/build engineering, procure, conversion/build construction, transit to ing, startup and production operation.	MODEC	
ollicals, Flowline	s and Risers	TECHINIP	12-San-08
for Supelvor	sers, Flowlines and Jumpers	TECHNIP	
<ul> <li>N 1 1</li> <li>N 1</li> </ul>		FMC	
ifolds, Riser		FMC	26-Aug-08
s 12-19		FMC	26-Aug-08
ilar pressu	re build un study	FMC	23-Dec-08
Ises for L	velink software		8-Apr-08
ndment t		Upen lext	tbc
tees for D		Open Text	the
tepe for Co	ef Control Codinore	Innovative Management Solutions	7-May-08
indian Suc		Kildrummy	19-May-08
		AKER	8-Aug-08
		AKER	11-Aug-08
cean Buoy		Anadarko	21.44au-08
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ilicals		AKER	
ilicals			90-6nv-87
Annular pres	sure build un study		3-NOV-08
nutators to s	librint FMC testine in Mexico		14-Apr-08
		Aker Solutions	13-Nov-08
They want		VL Project Services LLC	29-Oct-08
to current of		Ploneer Pipe	9-Sep-08
		Fugro GEOS	11-Nov-08
		Open Text	15-Dec-08
		Open Text	15-Dec-08
Jegree Ben	d festing on 10° and 12"	Turner Industries	10-Nov-08
tional Bend	Tests	Turner Industries	14-Anr-00
hase of te	n joints of 12" x 1" complete and shipped to Petrovalve Italy and Aker Norway.	Tube Developments	16.Der-08
ide seamle 7 and in Ne	ass line pipe with approval mill certs and saw cut and deliver various to two Aker fabricator. onway	s Tube Developments	19-Jan-08
ich 12" pi	oing bends and 7 each 10" nioinn hands		
inter inter	rnal blasting on select 10" and 12" tabricated olive bande		20-Feb-09
ove the	FBE coating from the exterior of nine from ADC involution listed on DOV		23-Apr-09
rm interr	al wave characterization study to be associated in the direct direct on FO)		5-Feb-0
t,	ization study to be conjuncted in two distinct stages.		2-Mar-09
ove Coa	ting 10" and Truck	The Bayou Companies	20-Eeh-00
Teering Sv	vcs - Flexible Risers	Walistream	
ints Study	/ Report	Finte GEOS	
are and Cu	rt 16 special lengths of 5" heavy wal! V & M Smls	Tithe Developments	Z/-1-0-03
3 Check V	alve 4-1/16", API 10ksi, API16A/17D, PSL3G, weld ends. material class EF temn -20F		10-Mar-09
F, forged b	ody		12-Mar-09
ily Aker N		Tube Developments	10 100-10
ort Renewa		Oren Text	DIA1-01
er Survey co	ntract for geophysical survey	C.R.C. Tachoologies	
esting on Pisto	in & Box Cores	Card Technologies	11-Mar-08
1000     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1	PSO: PSO: PSO: PSO: PSO: PSO: PSO: PSO:	FiPPO. Frovide vessel, conversion/build engineering, procure, conversion/build construction, transit to Umblicity Flowings and Risens. Uning Flowing Flowings and Small Bore Values Flexible Pipe for Risens. Flowines and Jumpers Res for Shipty of Goots Frees 12:19 Frees 12:19 Anneintent to POL 5002. Listed additional software that was included in prices. Frees 12:19 Anneintent to POL 5002. Listed additional software that was included in prices. Frees 12:19 Anneintent to POL 5002. Listed additional software that was included in prices. Frees 12:19 Anneintent to POL 5002. Listed additional software that was included in prices. Control Software Control Softw	eering, procure, conversion/build construction, transit to tilon operation. core Valves or Valves of Valves of Valves of Particulated in price. Chara that was included in price. Chara that was the content of the chara that the chara the chara th

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I DI Brooks	TDI Brooks	TDI Brooks	TDI Brooks	TDI Brooks	Evans Hamilton	Evens Hamilton	Evans Hamilton	Evans Hamilton	PetrolValves	PetrolValves	MARSH	FRAMO	AKER	Sko-Flo	Boldbrink Limited	Boldbrink Limited	Boldbrink Limited GeoRep	Bureau Veritas North America	Burban Veritae North America	Bureau Veritas North America	Deep Down Inc.	Tuboscope	Tuboscope	Structural Inspection Services, inc	Structural Inspection Services, inc	Structural Inspection Services, Inc	Edigeon Inspection Services Inc.	DTI Olversifiech	DTI DiversiTech	Subsea Innovative Solutions	Subsea Innovative Solutions	VELOSI America LLC	VELOSI America LLC	Offshore Risk and Lechnology Consulting Inc	Olisriore Risk and Technology Consulting Inc ARSC Consulting Inc	ABSG Consulting Inc	ABSG Consulting Inc	CPSI	CPSi	FMC	FMC	Task Geoscience	Task Geoscience		
Т		-	-		Metocean Buoys	-	-1	03 Provision of additional Metocean Buoy Equipment in accordance with proposal 5760B			-	-		-		Inspection of Supper Duplex Tubing for Umbilicals	use introvide vermication services of the mexicles to be manufactured at Letrait, France by Technip 00 Provide on board navigation service on the vessel Edda Fjord whick will be supporting bottom survey Monte	00 2nd party verification services	01 3rd party venfication services		t			Review monitoring and witness inspection of EMC	Review monthoring and withess inspection of nine to		1		01 Perform review, momitoring and witness inscrection of FMC contract trees 2, 3, &4 at FMC, Singapore	T&C's	01 Subsea consulting services. In-country Ghana	Ju Imonitoring & Vertication Services			T&Cs			-	+				21   Suructural and sedimentological interpretation study		
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- - -		TGLU	TGLU	TGLJ	TGLJ				ביות פרח	10	1917		161	161.1			1GLJ	TGLJ	TGLJ	TGLJ			191	TGLJ	TGLJ	TGLJ	TGLJ	TGLJ	TGLJ	TGLJ	161	191	TGLJ	TGLJ	TGLJ	TGLJ	TGLJ	IGL.	1GLJ	161.1				FA	
-								317 he		tiza	atio	n a	and	l Ur	nit (	) Dpe	rating	Agr	ee	mer	i-	i L	-14			1	1				£		- 4			<b></b> 4	. <u> </u>			ſ	ις	<u> </u>		A	И

thc	30-Mar-09	6-Apr-09	1-Apr-09	16-Apr-09	29-Mar-09	30-Mar-09	11-Feb-08	11-Feb-08	tbc	1-Mar-08	1-Feb-08	19-May-08	19-May-08	24-Apr-US	14-14ay-00	16-Mar-09	17-Jul-08	17-Jul-08	7-Jul-08	6-Aug-08	on-finy-zz	22-Aug-08	8-Sep-08	8-Sep-08	15-Dec-08	15-Dec-08	17-Feb-09	5-Sep-08	5-Sep-08	10-Nov-08	1-Jun-08	1-Jun-08	1-Oct-08	1-Oct-08	TBA		N/A	16-Jan-09	ţţ	2-Feb-09	2-Feb-09	15-Feb-09	15-Feb-09	
Grand Hyatt Singapore	PetroTel	PetroTel	GATE	GATE	ABSG Consulting Inc	ABSG Consulting Inc	Intec	Intec	Intec	Mustang	Mustang	Open Text	Open Text	ENABLE Gerdline	Gardine	Gardline	Fugro Geoconsulting	Fugro Geoconsulting	Alitek	Africk	The Annalina Group	Reed Consulting	Petroplan	Petroplan	WiSco	WiSco	WISco	T. J. Willard & Assoc.	T. J. Willard & Assoc.	T. J. Willard & Assoc.	Blade Energy	Blade Energy	Stress Engineering Inc.	Stress Engineering Inc.	IRC Global Risk Mgt PC Clobal Biot Mat	ino diotal niek ikgt Gamline	Gardine	Fugro	Fugro	2H Offshore	2H Offshare	PVA Global	PVA Global	
rate rates for hotel accommodations in Singapore	L & CS	e consulting services to build geocellular models for the Jubliee Field.	T&Cs	Provide consulting services for Subsea and Topsides production systems related to production chemistry, water injection, corrosion and production start-up.	T&Cs	technical resource to conduct oversight verification in Singapore and Indonesia	T&CS	WO: Concept and FEED engineering	UZ Hewsed scope to take through next stages of subsea engineering	likus Muon Energyineenee Bratter Production Bratter Production Bratter Production Bratter Production Bratter Production			Solutions and support services for Livelink	Counters and support set vices To provide vessel and eminiment to acquire CPT data for the EPSO monitor duritar locations	Shallow Hazards Analysis	Manifold location assessment	T&Cs	Prediction of axial soil capacity			01 Workshop facilitation for Peer review of Aubilee Subsurface work	00 T&Cs	T&Cs	Mansour Tabaie	T&Cs		02 3rd party verification of dynamic cables at NSW for Umbilicats supplied by Aker	00 T&Cs	01 Workshop planning and facilitation	Management Consulting services as required by Company to include but not limited to: Workshop planning and facilitation and individual coaching.	T&Cs	Review of casing design and provision of APB analysis		1 01 Access riser & well system component strength/integrity study	) UU I (KUS) 01 Trachnical musikitiva and musukitativa rick anakasia	8	5	T&Cs	01 Specific Tullow contract form used for CPT's and borehole surveys of bottom	T&Cs	01 Review of the riser design	00 T&Cs	01 Livelink support to Analyn Morales	
	+	-+	5030		-		-+	+	5000	+	╉	4000	+	+	╞	$\vdash$		-+	2008	+	5009	+					-	5015	-		-	╉	╋	┉╋	5018		╉╾	-	$\left  \cdot \right $			_	5025	
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TGLJ	IGLU	TGLJ												TGLJ	TGLJ	TGLJ	TGLJ	TGLJ	- 19		TGLU	L LGLJ		TGLJ	TGLJ	TGLJ	TGLJ	TGLJ	TGLU	19	TGLJ	TGLJ	TGLJ			TGLJ	TGLJ	TGLJ	TGLI	TGLU	TGLJ	TGLU	TGLU	JA EN AV

6-Apr-09	6-Apr-09	3-Apr-09	3-Apr-09	21-Apr-09	21-Apr-09	7-Apr-09	thc	18-Feb-09	18-Feb-09	9-Mar-09
Acumen LLC	Acumen LLC	Proceanic Ltd	Proceanic Ltd	ODL, Inc.	ODL, Inc.	Matthews Daniel	B.I.E. Intern'	Deepsea QCI	Deepsea OCI	BPP - Tech
	01  Conduct Risk Assess on Schedule /Cost		Technical Assurance Oversight to the FPSO	C's	01  Develop Ops procedure for subsea infrastructure	00   Marine Warranty surveyor T&Cs	00 Provide Monitoring and Verification	00 Verification / Oversight Services	Verification / Oversight Services	00   Flexible Pipe Engineering Support
00 [T&C's	31 Conduct R	00  T&Cs	01 [Tech	00 T's&C's	01 De	N OC	а р	2 2	7 10	1 <b>9</b> 00
026 00 T&C's	$\vdash$	8	01	. 00		_			10	
5026	5026	5027 00	5027 01	5028 00	5028	5029	5030	5031	5031 01	5032
	$\vdash$	8	01	. 00		_			10	

HOU03:1208171 Exhibit L to the Unitization and Unit Operating Agreement L-16

IS. JANB

 ATTACHED TO AND MADE PART OF THE UNITIZATION AND UNIT OPERATING AGREEMENT BY AND BETWEEN GHANA NATIONAL PETROLEUM CORPORATION, TULLOW GHANA LIMITED, KOSMOS ENERGY GHANA HC, ANADARKO WCTP COMPANY, SABRE OIL & GAS HOLDINGS LIMITED, AND EO GROUP LIMITED (THE "AGREEMENT")

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#### EXHIBIT "M"

# **EXISTING WORK PROGRAMS AND BUDGETS**

AT MANE .1.1

M-1 Exhibit M to the Unitization and Unit Operating Agreement

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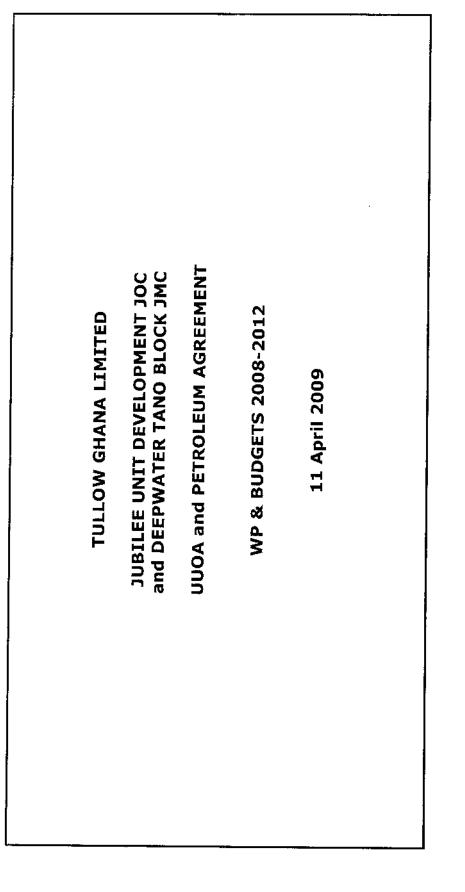


Exhibit M to the Unitization and Unit Operating Agreement

<u>М-</u>2

Summary Development Expenditure Budget - Jubilee Field : Accruals basis

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	Jubliee Expenditure Budget 2008-12 (Overheads per UUOA)	2008	2009	2010	2011	2012	Grand
_		FYF		Firm	-		Total
	Pre-Sanction and Development phase						
	General & Administration - IPT	72,312	71,613	46,523	32,131	0	222,579
	Facilities	2,576	34,655	83,461	8,186	ö	128,878
	Subsea & Gathering Systems	198,440	571,442	339,691	0	0	1,109,572
	Commissioning - Subsea & Facilities	0	0	29,558	O	0	29,558
	<i>Unit operator</i> Well Engineering (drilling and completions) Rig mobilisation allocation	68,453 68,354	586,116 (38,713)	503,937 (22,777)	148,776 (6,864)	00	1,307,282
	Well Engineering pre-rig mob allocations	136,807	547,403	481,159	141,912	0	1,307,282
	Operations Incl. G&A - UO (Pre-First Oil)	24,224	83,185	121,785	0	0	229,193
	Transportation Systems Sub-total Development - Firm	0 434,359	0 1,308,298	0 1,102,176	0 182,229	00	3,027,062
-	Production and operations phase Operations Incl. G&A - UO (Post-First Oil) Sub-total pre Overheads	0 434,359	0 1,308,298	62,552 1,164,728	315,346 <b>497,574</b>	279,572 279,572	657,469 <b>3,684,531</b>
	Overtheads	1,361	3,546	4,156	6,407	5,032	20,502
	Total Jubikee Phase 1 Expenditure - Firm	435,720	1,311,844	1,168,885	503,981	284,604	3,705,033
				Contingent			
	Development phase Well Engineering (DSTs and contingent wells)	37,931	46,904	Ċ	96,100	· o ·	180,935
	Total Jubilee Phase 1 Expenditure - Contingent	37,931	46,904	0	96,100	0	180,935
	Total Jubilee Phase 1 Expenditure	473,651	1,358,748	1,168,885	600,081	284,604	3,885,969
	Capital expenditure Operating expenditure	473,651 0 <b>473,651</b>	1,358,748 0 <b>1,358,748</b>	1,105,207 63,678 <b>1,168,885</b>	279,059 321,022 <b>600,081</b>	0 284,604 <b>284,604</b>	3,216,665 669,304 <b>3,885,969</b>
	Reconciliation to POD Development - Firm Development - Contingent Less: Pre-Sanction costs estimate Total Development Expenditure	434,359 37,931 (56,582) <b>415,708</b>	1,308,298 45,904 <b>1,355,202</b>	1,102,176 0 <b>1,102,176</b>	182,229 96,100 0 <b>278,329</b>	0000	3,027,062 180,935 (56,582) <b>3,151,415</b>
6.5	IPT AFE UO AFE Total Development Expenditure AFE	216,746 198,962 <b>415,708</b>	677,710 677,492 <b>1,355,202</b>	499,232 602,944 <b>1,102,176</b>	40,317 238,012 <b>278,329</b>	• • •	1,434,004 1,717,411 <b>3,151,415</b>
` ~x	Equity scenario	100.000%					
ATT OF THE	Note - there is a \$5m adjustment between Well Engineering/Operations in 2008 versus the Plan of Development Figure 117 which does not affect the overall total of \$3,151m.	Plan of Developme	nt Figure 117 whi	ch does not affect	the overall total of \$	<b>ξ</b> 3,151m.	
Exhibit M to d	ie Unitization and Unit Operating Agreement	ማ ጆ					

Summary Development Expenditure Budget - Jubilee Field : Accruals basis

	SX	5	5002			4114	Grand
	Pre-Sanction and Development phase						Intel
	General & Administration - IPT	72,312	71,613	46,523	32,131	-0	222,579
	Facilities	2,576	34,655	83,461	8,186		128,878
	Subsea & Gathering Systems	198,440	571,442	339,691	0	0	1,109,572
	Commissioning - Subsea & Facilities	0	0	29,558	Q	0	29,558
	<i>Unit operator</i> Well Engineering (drilling and completions) Rig mobilisation allocation Well Engineering pre-rig mob allocations	68,453 68,453 68,354 136,807	586,116 (38,713) 547,403	503,937 (22,777) 481,159	148,776 (6,864) 141,912	000	1,307,282 0 1.307,282
	Operations ind. G&A - UO (Pre-First Oil)	24,224	83,185	121,785		0	229,193
	Transportation Systems Sub-total Development - Firm	0 434,359	0 1,308,298	0 1,102,176	0 182,229	00	3,027,062
	Production and operations phase Operations incl. G&A - UO (Post-First Oil) Sub-total pre Overheads	434,359	0 1,308,298	62,552 1,164,728	315,346 497,574	279,572 279,572	657,469 3,684,531
	Overheads per UUOA (Dev+Ops)	1'361	3,000	3,431	1,231	500	9,523
	Total Jubilee Phase 1 Expenditure - Firm	435,720	1,311,298	1,168,160	498,805	280,072	3,694,054
	Development phase Well Engineering (D57s and contingent wells)	169,75	46,904	Contingent 0	96,100		180,935
	Total Jubilee Phase 1 Expenditure - Contingent	37,931	46,904	0	96,100	0	180,935
	Total Jubilee Phase 1 Expenditure	473,651	1,358,202	1,168,160	594,905	280,072	3,874,990
	Capital expenditure Operating expenditure	473,651 0 4 <b>73,651</b>	1,358,202 0 <b>1,358,202</b>	1,105,176 62,983 <b>1,168,160</b>	279,059 315,846 <b>594,905</b>	0 280,072 <b>280,072</b>	3,216,089 658,901 <b>3,874,990</b>
	Reconciliation to POD Development - Firm Development - Contingent Less: Pre-Sanction costs estimate Total Development Expenditure	434,359 37,931 (56,582) <b>415,708</b>	1,308,298 46,904 1, <b>355,202</b>	1,102,176 0 <b>1,102,176</b>	182,229 96,100 <b>0</b> <b>278,329</b>	<b>e</b> o o <b>e</b>	3,027,062 180,935 (56,582) <b>3,151,415</b>
D.	IPT AFE UO AFE Total Development Expenditure AFE	216,746 198,962 <b>415,708</b>	677,710 677,492 <b>1,355,202</b>	499,232 602,944 <b>1,102,176</b>	40,317 238,012 <b>278,329</b>	<u> </u>	1,434,004 1,717,411 <b>3,151,415</b>
۶.	Equity scenario	100.000%					
H JA FN	Note - there is a \$5m adjustment between Well Engineering/Operations in 2008 versus the Plan of Development Figure 117 which does not affect the overall total of \$3,151m.	re Plan of Development F M-4	igure 117 which	does not affect th	e overail totai of \$3,	,151m.	

Summary Appraisal Expenditure Budget - Jubilee Field : Accruals basis

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Jubilee Expenditure Budget 2008-12	2008	2009	2010	2011	20	2012	Grand
5× · · · · · · · · · · · · · · · · · · ·	FYF			Firm			Total
Pre-Sanction and Appraisal phase							
Well Engineering - transfer of M-2+DST from WCTP Appraisal	0	125,985	0		Ģ	0	125,985
Total Jubilee Phase 1 Expenditure - Firm	0	125,985	0		0	0	125,985
Capital expenditure Operating expenditure	0 0	125,985 0	00		00	00	125,985 0
	, <b>0</b>	125,985			0	0	125,985
IPT AFE	G	0	0		0	0	0
UO AFE	-	125,985	0	_	0	0	125,985
Total Development Expenditure AFE	0	125,985	0		0	0	125,985
Fairly conario	100 000%						

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IPT WBS

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96,100

0 189,093

46,904 1,124,954

366,005 37,931 1,347,011

Total Development Jubilee Phase 1 Expenditure

Exhibit M to the Unit Operating Agreement

Jubilee Phase 1 - General & Administration & Gathering Systems Expenditure

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IPT WBS UO BLI	0 811	Description	Activity	2008	2009	2010	2011	2012	Grand
				Firm	Firm	Firm	Firm	Firm	Total
				56,582					56.582
	D.05.08.01			6,810	27,240	27,440	20,594	•	82.084
	D.05.08.10			801	3,204	3,204	2,437		9.646
1210 D.	D.05.01	IPT Services, Overhead & Expenses	Expenses	1,035	4,140	4,140	2,988	,	12,303
	D.05.03	IPT Services, Overhead & Expenses	Equipment, IT & Comms	•	175	175		1	350
	D.05.05	IPT Services, Overhead & Expenses	Taxes	ı	250	250		ı	200
	D.05.06	IPT Services, Overhead & Expenses	Consultants		250	250	ŀ	,	500
	D.05.06		Training & Team Bullding	99	240	240	60	ŀ	600
	D.05.04.01	_	Insurance	6,750	20,259	•	ı		27,009
	D.05.04.02	-	Bank fees	24	96	66	81	,	DOE
	D.02.46	Subsurface	Selsmic Proc & 3D modelling	•	600	400	ŀ	I	1,000
1440 D.I	D.03.02	Subsurface FEED	Subsurface Studies	250	1,450	006	400		3,000
		Sub-total	•	72,312	57,904	37,098	26,559	•	193,874
		Contingency			13,709	9,425	5,572	•	28,705
1000		Total General & Administration & Gat	& Gathering Systems	72,312	71,613	46,523	32,131		222,579

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Exhibit M to the Unitization and Unit Operating Agreement

М-7

Jubilee Phase 1 - Well Planning & Construction - Accounting:Allocated rig mobilisations

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District	IPT WBS UO BLI	Description	Activity	2008 Firm	2008 Continent	2009	2009	2010	2010	2011	2011	2012	2012	Grand	Start	Finish
														10101		
Mark         Mark         Mark           000000         1         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         0000         000		Development - Jubilee Unit			i											
0.00001         11         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000		Eirik Raude														
0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12         0.0000         12 <th< td=""><td>D.04.D3.0.</td><td></td><td>Drilling</td><td></td><td></td><td>30,669</td><td></td><td></td><td>,</td><td></td><td>,</td><td>,</td><td></td><td>30,869</td><td>14-Jan-09</td><td>08-Feb-09</td></th<>	D.04.D3.0.		Drilling			30,669			,		,	,		30,869	14-Jan-09	08-Feb-09
0.00000         0         0.0000         0         0.0000         0         0.0000         0         0.0000         0         0.0000         0         0.0000         0         0.0000         0         0.0000         0         0.0000         0         0.0000         0         0.0000         0         0.0000         0         0.0000         0         0.0000         0         0.0000         0         0.0000         0         0.0000         0         0.0000         0         0.0000         0         0.0000         0         0.0000         0         0.0000         0         0.0000         0         0.0000         0         0.0000         0         0.0000         0         0.0000         0         0.0000         0         0         0.0000         0         0         0.0000         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0 <th0< th="">         0         <th0< th=""> <th0< th=""></th0<></th0<></th0<>	0.60.00.0		Driling		'	38,045					,	,		38,045	08-Feb-09	L1-Mar-D9
0.000000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         0.00000         <	D.04.03.0		Drilling	•	•	47,381	•	•		,	'			47,381	11-Mar-09	19-Apr-09
Control         Contro <thcontrol< th=""> <thcontrol< th=""> <thco< td=""><td>D.04.03.0.</td><td></td><td>Drilling</td><td>,</td><td></td><td>33,002</td><td></td><td></td><td></td><td>,</td><td></td><td></td><td></td><td>33,002</td><td>19-ADT-09</td><td>15-Mav-09</td></thco<></thcontrol<></thcontrol<>	D.04.03.0.		Drilling	,		33,002				,				33,002	19-ADT-09	15-Mav-09
Control         Control <t< td=""><td>D.04.DS.0.</td><td></td><td>Drilling</td><td>•</td><td>•</td><td>33.042</td><td></td><td></td><td></td><td></td><td></td><td></td><td>,</td><td>33,042</td><td>15-May-19</td><td>60-unit-01</td></t<>	D.04.DS.0.		Drilling	•	•	33.042							,	33,042	15-May-19	60-unit-01
0.000.01         10/2         0.000         3.239         2.239         2.239           0.000.01         1         0.000         2.239         2.239         2.239           0.000.01         1         0.000         2.239         2.239         2.239           0.000.01         1         0.000         2.239         2.239         2.239           0.000.01         1         0.000         2.239         2.239         2.239           0.000.01         1         0.000         2.239         2.239         2.239           0.000.01         1         0.000         2.239         2.239         2.239           0.000.01         1         0.000         2.239         2.239         2.239           0.000.01         1         0.000         2.239         2.239         2.239           0.000.01         1         0.000         2.239         2.239         2.239           0.000.01         1         1         2.239         2.239         2.239           0.000.01         1         1         2.239         2.239         2.239           0.000.01         1         1         2.239         2.239         2.239           0.00	D.04.D6.0.		Drilling	,	,	34,215		,						216 45	50-584-07 50-01-01	50-101-20
0.44.0.01         3         0.100         3.000           0.44.0.01         31         0.100         3.000           0.44.0.01         31         0.000         3.000           0.44.0.01         31         0.000         3.000           0.44.0.01         0.000         3.000         3.000           0.44.0.01         0.000         3.000         3.000           0.44.0.01         0.0000         3.000         3.000           0.44.0.01         0.0000         3.000         3.000           0.44.0.01         0.0000         3.000         3.000           0.44.0.01         0.41.00         0.41.00         3.000           0.44.0.01         0.41.00         0.41.00         0.41.00           0.44.0.01         0.41.00         0.41.00         0.41.00           0.44.0.01         0.41.00         0.41.00         0.41.00           0.44.0.01         0.41.00         0.41.00         0.41.00           0.44.0.01         0.41.00         0.41.00         0.41.00           0.44.0.01         0.41.00         0.41.00         0.41.00           0.44.0.01         0.41.00         0.41.00         0.41.00           0.44.0.01         0.41.	0.04.06.0	_	Drilling	,		505 65		·	•						50-Int-20	
C044010         15         Cuthing         1000           C044010         15         Cuthing         1000           C044010         15         Cuthing         1000           C044010         15         Cuthing         1000           C044010         1000         1000         1150         1150           C044010         Cuthing         1150         1150         115	D.04.03.0		Drilling			420 SF	• •							נלל אנ	50,000,000	-
0.400000         H         Contrinue         2.000           0.400000         H         2.000         2.000           0.400000         H         2.000         2.000           0.400000         H         2.000         2.000           0.400000000         H         2.000         2.000           0.40000000000         H         2.000         2.000           0.400000000000000000000000000000000000	D.04.03.0		Deiling			202 20									KA-BAY-TA	
0.000000         1         0.000000         1.000000         1.000000         1.000000           0.0000000         1.000000         1.000000         1.000000         1.000000         1.000000           0.0000000         0.000000         1.000000         1.000000         1.00000         1.00000           0.000000         0.000000         1.000000         1.00000         1.00000         1.00000           0.000000         0.000000         1.000000         1.000000         1.00000         1.00000           0.000000         0.000000         0.00000         1.000000         1.00000         1.00000           0.000000         0.000000         0.00000         1.000000         1.000000         1.000000           0.000000         0.000000         0.00000         1.000000         1.000000         1.000000           0.000000         0.00000         0.00000         1.000000         1.000000         1.00000           0.000000         0.00000         0.00000         1.00000         1.00000         1.00000           0.000000         0.00000         0.00000         1.00000         1.00000         1.00000           0.000000         0.00000         0.00000         0.00000         1.00000         1.	D. PG. 03.01	<u> </u>	Completion			1/6/00	•							14/42	51-Aug-09	
0.000000         5         Contraction         37,400         36           0.000000         20,400         31,400         31,500         31,500           0.000000         20,400         21,900         21,900         21,900           0.000000         20,400         21,900         21,900         21,900           0.000000         20,400         21,900         21,900         21,900           0.000000         20,400         21,900         21,900         21,900           0.000000         20,400         21,900         21,900         21,900           0.00000         20,400         21,900         21,900         21,900           0.00000         21,900         21,900         21,900         21,900           0.00000         21,900         21,900         21,900         21,900           0.00000         21,900         21,900         21,900         21,900           0.00000         21,900         21,900         21,900         21,900           0.00000         21,900         21,900         21,900         21,900           0.00000         21,900         21,900         21,900         21,900           0.000000         21,900         21,900 <td>D 04 03 01</td> <td></td> <td>Construction</td> <td>•</td> <td>•</td> <td>700'75</td> <td>•</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>32,662</td> <td>Z6-Sep-09</td> <td></td>	D 04 03 01		Construction	•	•	700'75	•							32,662	Z6-Sep-09	
0.44010         0.4         0.4401         0.4         0.4401         0.4         0.4401         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4         0.4	D 04 03 01		Completion	•	•	407.14 402 r r	•		•		•	•		41,564	16-Oct-09	
District         Currents		÷		•	•	762'9C	•					•		36,892	15-Nov-09	
Control         Control <t< td=""><td></td><td></td><td></td><td></td><td></td><td>512,579</td><td>•</td><td>13,651</td><td></td><td></td><td></td><td></td><td></td><td>37,229</td><td>12-Dec-09</td><td>01-ne[-11</td></t<>						512,579	•	13,651						37,229	12-Dec-09	01-ne[-11
Control         Control <t< td=""><td></td><td>_</td><td></td><td>•</td><td>•</td><td>•</td><td>•</td><td>43,299</td><td></td><td></td><td></td><td></td><td></td><td>43,299</td><td>01-neC-11</td><td>10-Feb-10</td></t<>		_		•	•	•	•	43,299						43,299	01-neC-11	10-Feb-10
Discretion         Completion         Completion <thcompletion< th="">         Completion         Completi</thcompletion<>			Completion					41,543						41,543	10-Feb-10	
District (H)         District (H)<					•	•	•	43,265				,		43,265	12-Mar-10	
District		_	COMPARIEN				•	38,856	1		•	•		38,856	11-Apr-10	·
Operation (0.00000)         Difficit (0.00000)         Dominant (0.00000)         Difficit (0.00000)         Difficit (0.00000)         Difficit (0.000000)         Difficit (0.000000)         Difficit (0.0000000)         Difficit (0.00000000000000000000000000000000000		_	Completion		•		•	42,515						42,515	08-May-10	·
Option         With         Option         With         Option         With         Option           0.44 KK0         WS         0.44 KK	0.00.00.0		Completion					40,544	•					40,543 51,543	01-unc-20	
Octools:         With Miles         Definition Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market Definition (Market (	0.04.06.0		Priling			•		19/25	ı			r		38,781	07-Jul-70	05-Aug-10
0.04.86.00 0.04.86.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.82.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.93.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.83.00 0.04.93.00 0.04.04.00 0.04.04.00 0.04.04.00 0.04.04.00 0.04.04.00 0.04.04.00 0.04.04.00 0.04.04.00 0.04.04.00 0.04.04.00 0.04.04.00 0.04.04.00 0.04.04.00 0.04.04.00 0.04.04.00 0.04.04.00 0.04.04.00 0.04.04.00 0.04.04.00 0.04.04.00 0.04.04.00 0.04.04.00 0.04.04.00 0.04.04.00 0.04.04.00 0.04.04.00 0.04.04.000 0.04.04.04.00 0.04.04.00 0.04.0	D 04 05 01		Dividing Dividing					14, 140					•	34,790	02-00-30	
Divide contrigation         Mit         Completion         Mit (1)           Divide contrigation         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1	D.04.06.0	<u> </u>	Completion	,			•	457,55						33,254	01-Sep-10	
0.04.03.02 0.04.03.02 0.04.03.02 0.04.03.02 0.04.03.01 1.04 53.02 0.04.03.01 1.04 53.01 1.04 1.04 1.05 1.01 1.04 1.04 1.01 1.04 1.04 1.01 1.04 1.04 1.	D.04.06.01		Completion		• •			40.317						40,347	2/-Sep-10	
0.04 03.07         17         Completen         29,000           0.04 05.01         0.04 05.01         0.04 05.01         29,000           0.04 05.01         0.03 01         0.04 05.01         0.04 05.01         29,000           0.04 05.01         0.03 01         17         0.04 05.01         23,501         23,501           0.04 05.01         0.04 05.01         17         0.04 05.01         11,564         23,501           0.04 05.01         17         17         14,156         14,1564         23,500           0.04 03.01         17 (05)         0.04 03.01         14,1564         23,500         14,1564           0.04 03.01         12 (05)         0.04 03.01         14,1564         23,531         23,531         23,531         23,531         23,531         23,531         23,531         23,531         23,531         23,531         23,531         23,531         23,531         23,531         23,531         23,531         23,531         23,531         23,531         23,531         23,531         23,531         23,531         23,531         23,531         23,531         23,531         23,531         23,531         23,531         23,531         23,531         23,531         24,44         23,511         24,44 <td>D.04.03.01</td> <td></td> <td>Convoletion</td> <td>3</td> <td></td> <td></td> <td>•</td> <td>192 GE</td> <td></td> <td></td> <td>•</td> <td></td> <td></td> <td>066,14</td> <td>01-100-67</td> <td></td>	D.04.03.01		Convoletion	3			•	192 GE			•			066,14	01-100-67	
Distriction         Example of the First Raude Contrigency Well         Completion         Example of the First Raude Contrigency Well         Example of the First Raude Contrigency DST's         Example of the First Raude Contrigency Start up)         Example of the First Raude Raud	D.04.03.01		Completion						•			•		100,25	01-ADN-47	
Dividing and compared point         Dividing and compared point <t< td=""><td>D.04.D3.02</td><td></td><td>Completion</td><td></td><td></td><td></td><td></td><td>74, 77</td><td>•</td><td></td><td></td><td>•</td><td></td><td>41,472</td><td>11-320-77</td><td>11-UBC-17</td></t<>	D.04.D3.02		Completion					74, 77	•			•		41,472	11-320-77	11-UBC-17
0.04.05.02 D/4.03.01         Draft frik Raude Contrigency Well         Completion         1         4,1564         1           0.04.03.01         Pror Eirk Raude Contrigency Well         1         1         1         37,500         1           0.04.03.01         Pror Eirk Raude Contrigency Well         1         1         1         37,500         1           0.04.03.01         Prov Eirk Raude Contrigency Well         1         1         1         1         37,500         1           0.04.03.01         Providency DST's         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1	D,04.05.01	_	Drilling			,	•			26,510					TT-UPF-TZ	
SL03         Definition (Contrigency Well         S1,500	D.04.05.01		Completion			,		,		41 564				210'DC	11.02J-02	1 <b>[</b> -1 <b>0</b> ]=127
0.04.01.01       One Eick Raude Contrigency Weil       2.44.01.01       Strate Contrigency Weil       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500       2.7500<	5.09		•											-	77_101-77	du-07
0.04.0303       Two Erick Raude Contingency DSTs       -       -       -       -       56,600         0.44.030       Harchford Delphin Rig       Drilling       48,126       -       -       -       56,600         0.44.030       H21 (J8)       DST       -       -       -       -       56,600         0.44.0303       H21 (J8)       DST       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -	D.04.03.01			•	•	•	,	ı	·		37.500			37.500		
Ritederford Polphin Rig D.64.0303         District (16) (12,16)         Diffing DST         48,125         37,931         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -	0.04.03.01						•			,	58,500	ı		58,600		
D.64.03.01         H2 (B)         Drilling         43,126         2,761         1         2           D.64.03.01         H2 (B)         Drilling         ET         37,931         2,761         E         E         E           D.64.03.01         H3         Drilling         E         37,931         2,761         E         E         E           D.64.03.01         13         Drilling         E         45,544         2,761         E         E         E           D.64.03.01         13         Drilling         E         45,544         2,761         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E </td <td></td> <td>Electford Deletin Ric</td> <td></td>		Electford Deletin Ric														
D.04.65.03       H2       DST       2.761       2.761       2.761         D.04.03.01       H1       DST       2.761       2.761       2.761         D.04.03.01       H1       DST       2.761       2.761       2.761         D.04.03.01       H1       DST       2.761       2.761       2.761         D.04.03.01       G2       DN10rg       -       -       4.544         D.04.05.01       G2       DN10rg       -       -       4.543         D.04.05.01       G2       DN10rg       -       -       4.553       -       -         D.04.03.01       Hackford Dophnin Contringency (Start up)       13.227       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -	D.04-03.01		Drilling	48.126	•									361.95	31-Act-06	00-100
0.44-63.03       Mi       DST       DS	D.04.03.01		DST	-	37.931		2 761							40,140	00-100-10	
D:04.0301       13       Diffing       -       +2.663       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -	D.04.03.0		057			49.544								49 544	02-Jan-00	
D.04.05.01       G2       Drilling       -       37,511       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       - <td>D.D4.03.01</td> <td></td> <td>Drilling</td> <td>'</td> <td></td> <td>42,663</td> <td></td> <td>•</td> <td></td> <td></td> <td></td> <td>,</td> <td></td> <td>199 24</td> <td>08-Feh-09</td> <td></td>	D.D4.03.01		Drilling	'		42,663		•				,		199 24	08-Feh-09	
0.04.05.03     G2     DST     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -<	D.04.05.01		Drilling		•	37.511		,				,		115 66	17-Mar 10	
0.04.03 /retroit doughtin Contringency (Start up)       13,227       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -	D.04.05.0		D51		'	'	44,143				•	,		44, 143	21-Apr-09	
Pre-drilling D.06.01.02 Prefie D.06.01.02 Drilling studies D.06.01.02 - 738	50.2 D.D4.03.01			13,227		,	,	ı	,	,	'			766 21	11- <i>1</i> 0-11	00-00-12
D.06.01.01 TFED D.06.01.02 TFED 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.362 5.3625 5.3625 5.3625 5.3625 5.3625 5.362																
	D.D6.01.03			5,362							ı	ı		6,362		
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	00	Tetal Development Well Engineering	inn	60 400							:					

Exhibit M to the Unitization and Unit Operating Agreement

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Phase
Jubilee

IPT WBS UO BLI		Description	Activity	2008	2009	2010	2011	2012	Grand
				Firm	Fìrm	Firm	Firm	Firm	Total
4180	D.09.03.17	FPSO	FPSO Installation		4	41,600			41,600
4180	D.09.03.17	FPSO	Bunker @ shipyard to first oil	•	•	7,504		ı	7,504
4513	D.07.02.13	Engineering, Studies, Surveys	Geotechnical work	•	4,750	. '			4,750
4515	D.07.02.15	General Engineering Work		750	3,050	3,950	1,751		9,501
4516	D.07.02.16	Subsea Engineering		650	7,200	6,500	1,750		16,100
4517	D.07.02.17	Export, Riser & Pipeline	Engineering & Project Mgmt		1,200	1,425		,	2,625
4518	D.07.02.18	Production Riser	Engineering Specialist	٠	120	80			200
4519	D.07.02.19	Installation Engineering Support			096	262	,		1,750
4520	D,07.02.20	Design Support		126	504	504	366		1,500
4521	D.07.02.21	Inspections	Inspectors & Expenses	006	3,600	3,600	2,500		10,600
4522	D.07.02.22	SEMP/HAZIDs/Envir. Rep./Oper. Manuals		150	600	600	400	,	1,750
4523	D.07.02.23	Manine Surveys		•	850				850
4524	D.07.02.24	Certificates & Permits (CVA, ABS, GNPC)			2,500	1			2,500
4525	D.07.02.25	Array Services			1,000				1,000
4527	D.07.02.27	Other	Operations personnel (pre-first oil)	ı	1,688	ı	I	,	1,688
		Sub-total		2,576	28,022	66,553	6,767		103,917
		Contingency			6,634	16,908	1,419	ı	24,961
4000		Total Facilites & Gathering Systems	51	2,576	34,655	83,461	8,186	1	128,878

Exhibit M to the Unitization and Unit Operating Agreement

Jubilee Phase 1 - Subsea & Gathering Systems Expenditure

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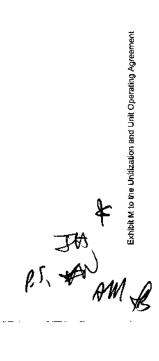
			JULINILY STATE		2003	0107	1707	7107	DEPID
				Firm	Firm	Firm	Firm	Firm	Total
5110	D.09.03.11	Subséa Trees & Controis	Provincement & Fahrication	301.01	UCK 03	0CF CC			
				C71/CT	00+'60	074,07	•		112,283
	D.09.03.12	Subsea Control System	Procurement & Fabrication	9,750	20,590	•			30,340
	D.08.03.01	Subsea Control System	Integration Support	1	194		,		194
	D.08,03,02	Subsea Control System	Installation support	,		765	•		765
5310 [	D.09.03.13	Subsea Manifolds & Riser Bases	Procurement & Fabrication	41.100	86.780		ŀ		127,880
	D.08.03.03	Subsea Manifolds & Riser Bases	Integration & Testing	. •	243		•	I	544 544
	D.08.03.04	Subsea Manifolds & Riser Bases				288	ſ	,	288
	D.09.03.14	Misc. Subsea Items	Procurement & Fabrication	7.716	16.294	• • •			010 44
	D.08.03.05	Misc. Subsea Items	Installation support			211	,	•	110
	D.09.03.15	Umbilicals	Procurement & Fabrication	7.599	16.051	1	r		73 650
	D.08.03.06	Umbilicals	Installation support		1	1 166			1 155
	D.09.03.16	Flexible Risers	Procurement & Fahrication	19 960	RE ARE	035 E F			
	D DR 03 07	ifievikle Dicars	Tentalineties entront				I	I	
				•	•	C0C	•	ŀ	565
	D.08.03.08-13	Subsea System Installation	Installation support	92,890	91,834	167,131	•	ı	351,854
	D.08.03.14-21	Subsea System Installation Additionals	Installation support	•	70,702	63,968		I	134,670
0069	D.08.03.21	Subsea & Gathering System	SIT	•	3,450	•	ı	,	3,450
		Sub-total		198,440	462,053	270,876		1	931,368
		Contingency			109,389	68,815	ı	ŧ	178,204
5000		Total Subsea & Gathering Systems	51	198,440	571,442	339,691			1,109,572

Exhibit M to the Unitization and Unit Operating Agreement

<b>IPT WBS</b>	UO BLI	IPT WBS UO BLI Description Act	Activity	2008	2009	2010	2011	2012	Grand
				Firm	Firm	Firm	Firm	Firm	Total
7110	D.10.01	General ROV Boat Access				11,400			11,400
		Diesel Fuel For Displacement				5,000			5,000
7120	D.10.02	De-watering Activities				4,200			4.200
7130	D.10.03	Transportation				1,500			1,500
7140	D.10.04	Additional FPSO Commissioning				1,470			1,470
		Sub-total	I			23,570	.		23,570
		Contingency		I		5,988			5,988
7000		Total Commissioning	I		•	29.558	1	-	29.558

Jubilee Phase 1 - Commissioning of Subsea & Facilities

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7.01       Weil Intervention       5,300       5,005       5,005         7.01.09       Subsea       Ammal impaction (includes 1 Fealer cycle)       5,300       5,005         7.01.09       Subsea       Ammal impaction (includes 1 Fealer cycle)       5,010       5,005         7.01.09       Subsea       Ammal impaction (includes 1 Fealer cycle)       5,010       5,005         7.01.09       Subsea       Ammal impaction (includes 1 Fealer cycle)       5,010       5,005         7.01.09       Subsea       Ammal impaction (includes 1 Fealer cycle)       5,010       5,025         7.01.09       Subsea       Subsea       11,025       255       250       250         5.005       Subsea       Subsea       11,026       250       250       250       250         5.005       Subsea       Subsea       111       11       11       11       11         5.005       Subsea       Subsea       1,015       250       250       250       250       250       250       250       250       250       250       250       250       250       250       250       250       250       250       250       250       250       250       250       250       2	P.04 P.01.09 P.01.09 P.01.09 P.01.09 S.00.05	Aviation Freduction SV Gil offbading Tug Multi-purpose SV Ontroir else (from Alocations) Other logistics		3,670 4,351 7,895 1,365 6,899 161	8,807 8,705 16,894 6,827 4,736 700	7,741 11,603 15,967 6,827 9,472 600	20,218 24,657 41,758 15,019 21,106
7.01.06         Subset         Ammai impection (includes 1 read: cycle)	50.10.4 20.10.4 20.00.8				23,900	36,025	- 89,925
Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stories Stori Stories Stori Stories Stories Stories Stories Stories Stories Sto	S.00.05	Annual inspection (includes 1 repair cycle) Separate repair Intervention spread visit Replacement equipment and refurbishment			3,394 11,684 3,808	3,394 11,908 4,624	6,788 23,592 8,432
Unit Operator Infrastructure         B,607         44,145         40,620           5.66         Capital Investment         London         135         120           5.66         Capital Investment         London         135         120           5.66         Astribute         Accoa         135         120           5.66         Actoa         135         120           5.66         Accoa         135         120           5.66         Accoa         147         889         889           5.60         Cost         Takoradi         167         1,000         1,000           5.60         Cost         Takoradi         24.54         83,433         315,346         279,572           401t Operatione         Z4.224         83,435         135,346         279,572         15,572         15,572         15,572				11 250 750 750 1,150 750	250 275 250 250 255	250 275 275 275 275 275 275 275 275 275 275	750 1,575 3,040 3,040
Unit Operator Infrastructure - post-first oil Total Operations Total Operations	6,00 5,05 5,05 6,00 0,255,04 0,255,04 0,00 0,00 0,00 0,00			8,607 445 167	44,145 - 1355 889 1,000	40,620 - 120 - 885 1,000	53,372 255 252 252 252 252
Total Operations	Unit Operator Infras	tructure - post-first oil		62,552	315,346	279,572	657,469
	Tolai			184,337	315,346	279,572	855,662

Jubilee Phase 1 - Operations

Jubilee Phase 1 - Unit Operator Infrastructure Expense & Capital Investment

IPT WBS	IPT WBS UO BLI Description	Activity	2008 Eim	2009	2010 Eim	2011 Firm	2012 Eirm	Grand
	Unit Operator Gross infrastruc	<u>ifrastructure costs</u>						
	Unit Operator G&A Expense G&A Expense G&A Expense C&A Expense	Personnel Costs Travel Droferetoristices	15,259 3,574	33,638 8,242 5,000	42,826 9,170 2,685	38,395 7,759 877 7	31,054 7,659 5 740	161,172 36,404 17 185
	G&A Expense G&A Expense		337 1,343	799 799 503,4	1,047	3,623	3,623	3,852
	G&A Expense G&A Expense	it & Communications Other Costs	543 13	619 22	394 23	420 25	420 25	2,396
	Sub-total - G&A Expense		22,050	53,122	60,692	53,931	49,261	239,055
	Unit Operator Operating Base Operating Expense	<b>1g Base Expense</b> Takoradi	2,675	10,609	9,198	9,472	9,472	41,426
	Total G&A and Operating Expense	inse	24,724	63,731	69,890	63,403	58,733	280,481
	Unit Operator Capital Investment Capital Investment Capital Investment Capital Investment Ta	<b>tent</b> London Accra Takoradi	950 895 2,248	600 2,707 12,510	300 509 3,215	- 135	120	1,850 4,366 17,973
	Total Capital Investment		4,093	15,817	4,024	135	120	24,189
	Total G&A and Capital Expenditure	iture	28,817	79,548	73,914	63,538	58,853	304,670
	Allocations							
	Jubitee Unit Expense Well Engineering Production constantons	Wells, DSTs and Completions Overation have Takoradi	4,298 2.675	5,881 10.609	5,863 6,899	9,719 4.736	4,290 9.477	30,050 34,340
	Production operations Facilities	Non- operating base London/Accra	561 561 1.028	2,548	7,054	5,862	5,473	21,498
	Sub-surface Project Manacement		1,211	2,999	4,546 797	3,924 586	3,489	16,169
			5,980	14,114	15,213	13,043	12,130	60,479 45 204
			1,308	3,528	3,962	3,224	2,811	14,833
	Lommergal Legal and Govt External Retations		374	1,176	1,426	1,466	1,479	5,921
	Total Jubilee Unit Expense		21,544	25,910	64,405	58,599	54,382	254,840
	Exploration- Deepwater Tano Well Engineering		I	ı	,		,	
	Production operations							۲ I
			135	333	802	692	616 1 035	2,578
	Uther Support Services Total Exploration- Deepwater Tano		135	1,843	2,197	1,836	1,051	2,661
	Unit Operator 100% Well Engineering		r	ı	ı	,		
	Production operations		•					
f.	Facilities Sub-surface		1,028 2,018	2,646 3,332	1,505	1,539	1,368	10,040
Ľ	Other Support Services Total Unit Operator 100%		3,046	5,979	3,268	2,968	2,700	17,980
4	Total Expenses Allocated		24,724	63,731	69,890	63,403	58,733	280,481
t to to	t to							
M			¥	M-13				
Exhibit M to	the Unitization and Unit Operating Agreement							
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ATTACHED TO AND MADE PART OF THE UNITIZATION AND UNIT OPERATING AGREEMENT BY AND BETWEEN GHANA NATIONAL PETROLEUM CORPORATION, TULLOW GHANA LIMITED, KOSMOS ENERGY GHANA HC, ANADARKO WCTP COMPANY, SABRE OIL & GAS HOLDINGS LIMITED, AND EO GROUP LIMITED (THE "AGREEMENT")

EXHIBIT "N"

### **EXISTING AFEs**

Exhibit N to the Unitization and Unit Operating Agreement



N-I

# Exhibit N to UUOA - AFEs issued for Jubilee Unit

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IPT Pre-Sanction	D06001IPT	9-May-08	68,017		14-May-08
IPT Pre-Sanction (Supp 1)	D08001IPT	13-Jun-08	26,200	1	26-Aug-08
PT Pre-Sanction (Supp 2)	D08001IPT	5-Aug-08	45,000		26-Aug-08
IPT Pre-Sanction (Supp 2)	D08001IPT	24-Sep-08	76,450		16-Oct-08
	D08001IPT	1-Oct-08	35,333		16-Oct-08
IPT Pre-Sanction (Supp 3)	D06001IPT	28-Oct-08	91,400		28-Oct-08
PT Pre-Sanction (Supp 4)		27-Nov-08	133,498		01-Dec-08
IPT Pre-Sanction (Supp 5)	D08001IPT		149,596		25-Feb-09
IPT Pre-Sanction (Supp 6)	D08001IPT	22-Dec-08			25-Feb-09
IPT Pre-Sanction (Supp 7)	D08001IPT	26-Jan-09	89,238		20-May-09
IPT Pre-Sanction (Supp 8)	D08001IPT	24-Feb-09	146,218	1	
IPT Pre-Sanction (Supp 9)	D06001IPT	31-Mar-09	110,000		20-May-09
IPT Pre-Sanction (Supp 10)	D08001IPT	30-Apr-09	124,943		20-May-09
IPT Pre-Sanction (Supp 11)	D08001 PT	8-Jun-09	99,895		Unapproved
Sub - total				1,197,789	
Phase 1 LLI's	D08JBF406	19-Jun-08	68,750		26-Aug-08
Phase 1 LLI's	D08JBF406 Rev 1	20-Jun-08	20,257		28-Apr-09
Sub - total				69,007	
Phase 1 -Support Services	D08JBF407	19-Jun-08		78,365	26-Aug-08
Gas Commercialisation	D08JBF801	18-Jun-08	1,213		26-Aug-08
Gas Commercialisation	D08JBF801	03-Jul-D8	1,224		26-Aug-08
Sub - total	2000E1 001	00 00. 00	- <b>,</b> :	2,437	
Environmental Studies	D08JBF802 Rev1	24-Nov-08		1,100	03-Dec-08
		0.4 km 00	14.500		26-Aug-08
In-Country Infrastructure	D08JBF901	24-Jun-08			Unapproved
In-Country Infrastructure	D09JBF901	22-May-09	14,480		Unapproved
Sub - total				28,980	
Eirik Raude Mobilisation	DOBJBF401	08-Oct-08		56,618	22-Oct-06
Blackford Dolphin Mobilisation	D08JBF409 Rev1	23-Oct-08		36,183	23-Ocl-08
WDCS, XT Taoling and Control Tooling	D08JBF403	14-Jan-09		27,528	10-Feb-09
Blackford Dolphin DST Planning/LLI	D08JBF404 (prev 411)	16-Oct-08		6,896	18-Nov-08
Hyedua-2 well	D08JBF410 Rev1	30-Oct-08	49,263		20-Nov-08
Hyedua-2 well	D08JBF410 Rev2	14-Jan-09	13,157		29-Jan-09
	D0038F410 Nev2		10,101	62,420	
Sub - total					
Hyedua-2 DST AFE	D08JBF411 Rev1	12-Dec-08		38,595	13-Jan-09
J-4 well	D08JBF424	14-Jan-09		49,179	29-Jan-09
DST Campaign Non-Operational costs	D08JBF446	14-Jan-09		11,296	10-Feb-09
J4-z sidetrack	D06JBF447	24-Feb-09		20,035	26-Mar-09
J4 gauge	D08JBF448	24-Feb-09		14,248	26-Mar-09
J-1 well	D08JBF417 Rev 1	16-Mar-09		38,559	26-Mar-09
J-2 weil	D08JBF418 Rev 1	16-Mar-09		40,350	26-Mar-09
Well Completion Equipment	D09JBF451	15-Apr-09		9,255	20-May-09
,	D09JBF412 Rev 1	01-May-09		55,510	26-May-09
J-9 (M-1) DST		-		13,574	20-May-09
J-2 Gauge	D09JBF449	21-Apr-09			
J-11 Top Hole Drilling	D09JBF453	12-May-09		6,020	14-Jun-09
J-12 Top Hole Drilling	D09JBF454	12-May-09		7,888	14-Jun-09
	D09JBF455	12-May-09		7,994	14-Jun-09
J-15 Top Hole Drilling					I
J-15 Top Hole Drilling Blackford Dolphin Demob	D09JBF456	12-May-09		5,079	26-May-08
		12-May-09 18-May-09		5,079 49,978	
Blackford Dolphin Demob	D09 <b>JBF</b> 456	-			26-May-09 14-Jun-09 Unapprove



ATTACHED TO AND MADE PART OF THE UNITIZATION AND UNIT OPERATING AGREEMENT BY AND BETWEEN GHANA NATIONAL PETROLEUM CORPORATION, TULLOW GHANA LIMITED, KOSMOS ENERGY GHANA HC, ANADARKO WCTP COMPANY, SABRE OIL & GAS HOLDINGS LIMITED, AND EO GROUP LIMITED (THE "AGREEMENT")

## EXHIBIT "O"

## JUBILEE OPERATING COMMITTEE MINUTES

O-1 Exhibit O to the Unitization and Unit Operating Agreement

1.2 - AM A

### Jubliee Operating Committee Meeting 1

# Minutes of Meeting

09h00, 16<sup>th</sup> April 2008 Tullow plc Board Room, Chiswick, London

### Atiendees

GNPC	Tullow	Kosmos	Anadarko	Sabre	EO	IPT Team
T Manu M Boateng	P McDade A Fisher S Wheaton R White D Carr (p/t)	B Maxled B Hayes M Garrelt G Dunleavy	C Provost	D Morton A MacDonald	G Owusu	D McLaughlin D Vardeman

No	Minute	Action By	Completion Date
1.0	Introductions	· · · · · · · · · · · · · · · · · · ·	
	A Fisher introduced the meeting and participants. The agenda was reviewed, as sent out prior to the meeting, and was adopted.		
2.0	Nomination of JOC Representatives		
	Representative and alternatives for the JOC were nominated as follows:		
	Tullow (TLW) - A Fisher, S Wheaton alt		
	Kosmos (KE) - B Maxted, M Garrett alt		
	Anadarko (APC) – C Provosi, D Vardeman alt		
	Sabre (SE) - D Morton, all TBA		
	EQ ~ G Owusu, Dr Edusie alt		
	It was noted that GNPC are not formally represented on the JOC		
	but are invited as observers. The principle licence reporting		
	meetings remain the respective JMCs.		
3.0	Sub-committee Updates		
	3.1 IPT Project Update		
	D McLaughlin and D Vardeman (joint IPT directors) presented a comprehensive overview of the work completed to date by the project team in Dallas. The following specific items and actions were discussed and are minuted here;		
	P McDade requested that the IPT introduce some formality to the major project decisions being made through a Partner sign-off process. This could include example major items such as FPSO design specification or sub-sea layout and specification. Similar will apply to major Unit Operator recommendations. GNPC stated that major project decisions must be documented and explained in support of and as part of the sanction process. P McDade	D McLaughlin / D Vardeman	End April 2008
	suggested that a technical sub-committee of all partners was required to ensure alignment and sign-off. B Maxted endorsed this view to ensure that all parties and not just the 3 main equity		

O-2

Exhibit O to the Unitization and Unit Operating Agreement

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· · · · · · · · · · · · · · · · · · ·	holders were included in this process. The IPT Directors agreed		
	to revert with a process for the sign-off but it must be limely to ensure continued fast-track progress. Similar communication and documentation also applies to Unit Operator decision making regarding significant work scope outside of the IPT.		
	There was a discussion over what was the project sanction case that the IPT was focussing on. There was agreement that a Phase 1 A as presented was satisfactory but also that "what-ifs" implications must also be included (Anadarko - C Provost) as part of the sanction requirement, whilst Tullow (S Wheaton) requested that the upside reserve/investment cases requiring further financing were also explained in some detail in the POD as the sanction of these extra works may well follow very shortly after the initial Phase 1A sanction, e.g. Phases 1.A.1 or even Phase 1.B. These scenarios and related information will be included in the Plan of Development (POD).	D McLaughlin / D Vardeman	As part of POD preparation currently planned 3C 2008
	The IPT Directors requested approval for the generic sub-sea tayout with its initial focus on lower Reservoir Development in the "core" area (minimum Phase 1A + Phase 1.A.1 case) to continue the project work in detail. Partners agreed to this layout as Phase 1A layout and conceptual planning basis. Details regarding the URF specification are on-going, e.g. sizing and thermal insulation requirements, and will be discussed further at technical review and approval level of the major contracts.	Closed	Closed
	The IPT Directors presented an AFE summary for the IPT direct costs, with some indirects, plus also long lead equipment items and related manufacturing slots. The AFE includes the Kosmos previously purchased 4x FMC production trees. The AFE will be formally issued by Tullow to partners with a narrative and detail supplied by the IPT; asap.	D McLaughlin/D Vardeman issue supporting summary narrative and AFE detail to R White (TLW) for issue to partners.	end April 2008
	Note; Tullow said they would approve as long as we also worked together (IPT + Unit Operator) to document and present to all partners, through the JOC, the single sourcing justification to FMC of the trees and potentially further SPS workscope which will amount to a significant sum.	D Vardeman/J Ingram (TLW) to jointly develop sole source FMC justification for JOC approval.	May 2008
	Partners requested that the Plan of Development (POD) contents structure be issued to all partners including GNPC for review and approval. Note; TLW have commented previously through IPT.	D McLaughlin/D Vardeman	May 2008
	The JOC requested that the Unit Operator (TLW) take the IPT pre-sanction AFE cost estimate and integrate into an overall Unit budget for the project covering all facets including Unit operator costs such as drilling. TLW agreed to report back within 2-3 weeks and certainly in time for the proposed JMC.	R White	Early May 2008 or by first JMC
· · · · · · · · · · · · · · · · · · ·	There was a discussion in detail of the pre-sanction schedule and ensuring alignment between all parties. It is clearly an aggressive schedule to meet that will require all parties to participate actively and ensure alignment. All parties must understand risks and benefits from such an approach (C Provost – Anadarko). P McDade (TLW) stated he thought it may be very difficult to achieve sanction as shown in the presented schedule and hence crucial to ensure that major decisions made had involved all parties at an early stage (see previous formal close-out/sign-off process requirement minuted above). S Wheaton (TLW) stated	Note only	

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O-3 Exhibit O to the Unitization and Unit Operating Agreement



that the Unit operator had been working effectively to understand the IPT approach and endorse major decisions as they arose, examples included the sub-sea layout and the process to approve FMC for the sub-sea layout and the process to system supply. An area for further consideration was the critical path gas compression on the FPSO which Tullow stated they would wish to see inside the scope of the FPSO provider and not Company sourced and assigned. IPT Directors stated this was work-in-progress and no decision made on this key item though TLW view noted. IPT Directors stated that they expected a total project schedule to first oil to be firmed up by July 2008 once the status of the major contracts (FPSO and URF in particular) had been understood in detail with Contractors.		
GNPC requested that the Unit must provide copies of all contracts taken out to them and also documentation in support of award.	B Traylor (IPT) and J Ingram (TLW) to map out contractual administration process	mapped by early May 2008 On-going thereafter
EO recommended (all Partners agreed) a very early EHS driven visit to Ghana to review requirements on the ground and with the Ghanaian authorities now that S Zrake (EHS) has joined the IPT.	D McLaughlin/D Vardeman	May 2008
GNPC stated that as part of the sanction process they may employ an external consultancy to assist them. Partners stated they were very open to this as part of the peer review and project sanction process.	Note only	
GNPC requested that the project Emergency Response Plan (ERP) must integrate with the Ghana country plan, Unit Operator (TLW) to take up with GNPC requirements in this area.	S Wheaton	End 2008 as part of overall Unit safety planning work
3.2 Production and drilling Update		
Kosmos and Anadarko expressed at the start of this report that they had not seen any of this work beforehand and in that light that the Unit Operator (Tullow) should now instigate forthwith a formal sub-committee process for the area of production operations and drifting. Tullow (S Wheaton and A Fisher) expressed that its focus had been to see the project shape established by the IPT to then enable an initial production organisation requirement to be developed for discussion; as would be presented here. Meanwhile, the related drifting requirements had been shared at the working level between TLW and IPT Drilling group and had progressed very well in such a short period of time.		
Partners were asked by Tullow (S Wheaton) if they would rather wish to defer the presentation or at least show the work that had been conceptually carried out. Partners agreed that the presentation should be made but reserved the right, pending the prodn optns/drilling sub-committee deliberations to come, for significant changes to this initial plan to be requested. Tullow presented the material in this light and stated that this had been intended at the outset. D Vardeman (IPT) confirmed that TLW (S Wheaton) had wanted to discuss Unit Operator organisation in February when the IPT organisational design had commenced		

O-4 Exhibit O to the Unitization and Unit Operating Agreement



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	at efforts at that time had concentrated, rightly, on IPT ion alone.		
done a for the produc intention preser	fore, Tullow (S Wheaton) presented the initial work it had as only an outline of the type of organisation that is required a Jubilee Unit – its main requirements to fit the project and ction phase execution. TLW stated it had not been its on to present a formal proposal and moreover, the intation material stated in several places an expectation of r involvement.		
	esentation also provided an update of drilling preparations 2008 program using the Blackford Dolphin and latterly the laude.		
	and following the presentation the following discussions arried out and actions were agreed;		
for the	perator (TLW) to instigate a formal sub-committee process Unit Operator organisation and related in-country infra- ire build, requirements. This will involve all partners.	S Wheaton	Commence w/c 28 <sup>th</sup> April 2008
and re Operat this, ar Garret extens is able the Un whatev drilling activitie Partne	by (B Maxted) requested that their in-country infra-structure lated investment and capabilities be considered in the Unit for organisation build. TLW stated that it is committed to do and discussions were well advanced with Kosmos (M t) in particular, where it makes sense for the future ive long term operation that is required and where Kosmos to make the personnel-facilities available for transfer into it Operator organisation. Kosmos also requested that yer was built for Unit Operator activities in supply base and capability should be suitable and available to non-Unit es in West Cape Three Points and Deepwater Tano blocks; rs agreed that this would be incorporated into sational and in-country plans.	S Wheaton / M Garett	ASAP
regardi related proces Januar related	ing rig share requirements for the Eirik Raude rig and the I mobilisation AFE. Tutlow agreed to re-instate the rig share s with Partners (as was commenced with Partners in y 2008) and assignment of the rig to the Jubilee Unit and Ghana blocks. Tutlow also to bring Eirik Raude contract to C (Jubilee Contracts Committee) for approval and then on JOC.	S Wheaton	End May 2008
infra-st constru suppor scale fr a facilit	requested that as part of the assessment of the in-country ructure plans that Jubilee Unit partners will examine the oction of a port and related supply facility that would enable t to wider oil&gas offshore activities in-country, i.e. a large acility. Partners agreed to investigate the potential for such y and the commercial arrangements that would be d if not solely dedicated to Jubilee Unit activities.	S Wheaton	End June 2008 – as part of overall recommend ed action plan for Jubilee Unit infra- structure
Kosmo the imn Wheato	requested that the GNPC employees involved in the s well operation be strongly considered for transfer over to ninent Tullow operated two rig program. Tullow (S on) said that such plans were already underway in sion with Kosmos.	S Wheaton	End May 2008

Exhibit O to the Unitization and Unit Operating Agreement

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 Kosmos (B Hayes) questioned the status of personnel contracts that could be potentially transferred over to the Unil Operator (TLW) operation from current Kosmos Ghana employment, and what would constitute a secondment into the Unit Operator organisation as was intended in the Pre Unit Agreement? Tullow (S Wheaton) replied that it would plan to transfer contracted personnel over to TLW Ghana contracts and that secondments would be considered as direct Kosmos or other Partner employees into the Unit Operator (TLW Ghana) organisation.	Note only	
 3.3 Accounting Sub-committee update		
TLW as Unit Operator (R White) presented a summary of the minutes and discussions of the PUA Accounting SubCommitee meetings to date including accounting organisation charts, key issues identified and status of budgets/AFEs.		
<ul> <li>In particular,</li> <li>Cost Recovery was noted as a key objective which would require changes to internal controls and procedures</li> <li>FCPA where the Unit operator would apply best endeavours to comply with the provisions</li> <li>Accounting workflows for accounting information such as budgets, AFEs, cashcalls etc which would be consolidated for the Jubilee area by the UO before being allocated to the operators of WCTP and Tano Deep, Kosmos and Tullow resp. in proportions per the PUA (e.g. IPT would not issue AFEs direct to JVPs)</li> <li>Work Program (WP) narrative to be drafted for IPT AFE (and similarly WPs and Budgets to be presented at JMC in late April)</li> </ul>	R White/S Manor	ASAP
<ul> <li>Delegation of Authority (DoA) for the IPT to be drafted by Tullow based on Tullow's corporate DoA</li> </ul>	R White	ASAP
It was noted that the AFE for the mobilization of the Eirik Raude rig had not been approved. KE requested the rig be dedicated to Unit Operations. TLW (P McDade) noted that TLW had been proactive in securing rig capacity prior to a PUA being agreed and would retain a small element of flexibility for use of this rig in other licence. It was agreed to restart previous discussions on a rig share agreement for the Eirik Raude.	S Wheaton/M Garrett	ASAP
 3.4 Gas Commercialisation Sub-commmittee Update	······································	
D Carr presented an update. The Sub-committee is seeking a mandate to pursue objectives as presented; mandate agreed with no mandate for sub-committee to review export options for Jubitee gas outside Ghana		
Concern raised by Anadarko and Kosmos about lack of coordination with, and involvement of, partners on gas commercialisation issues; sub-committee most recently formed, but improved communication process to initiated ASAP		
State of Ghana and GNPC looking for a single gas purchaser, with ownership of the pipeline and export infrastructure potentially outside the Jubilee partner group, and sales potentially from the flange of the FPSO.		
GNPC want any export pipeline capacity oversized to accommodate potential additional gas from third parties.		

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O-6 Exhibit O to the Unitization and Unit Operating Agreement

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	It was noted that no flows of gas through West Africa Gas		
j	Pipeline had been achieved to date; GNPC stressed importance		
	of domestic gas for Ghana, and of getting first gas with first oil.		
	Field Development Plan will incorporate capacity for full gas re- injection; supported by GNPC if required for reservoir management. GNPC also requested that partners should submit		
	Gas Commercialisation Plan early enough to allow for planning.		
	APC (C Provost) stated their interest is in the upstream, with no specific interest in midstream/downstream gas business. APC preferred gas export infrastructure to be built and owned by third parties.		
	Tuliow raised concern about lack of engineering or planning for an onshore gas terminal, with scope of engineering through IPT limited to date on two export pipeline options, with routing, preliminary hydraulic analysis and cost/scheduling to be provided. Tullow offered to provide pre-FEED engineering for a terminal, with own team who recently completed a full study for an onshore terminal in Namibia.		
Ì	Actions:		
	D Carr to initiate communication structure and forward plan for		
	sub-committee	D Carr	w/c 21 April
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	Tullow to provide pre-FEED scoping proposal to sub-committee		
	for onshore gas terminal	D Carr	ASAP
	3.5 Financing Sub-committee Update		
	It was noted that the Finance Sub-committee reps had been indentified and were due to meet for the first time week commencing 21 April.		
	3.6 Legal / UOA		
	A Fisher gave an progess report on the development of a Unit Operating Agreement. Good progress had been made using the AIPN model as a basis, with a thorough first draft to be produced end April.		
1	It was noted that the objective was to have an executed UOA		
	prior to project sanction, although there was no legal requirement for this, it was agreed this is a very challenging target, but that		
	this must not delay project sanction. GNPC (T Manu) noted that	-	
	they, the Ministry of Energy and IRS will require and signed UOA.		
	APC (C Provost) noted that they will required this too.		
1	- , , , ,		
1	It was agreed that the Unit Operator convey the urgency to the	A Fisher / P Sloan	w/c 21 April
<b></b>	Legal/UOA team.	· · · · · · · · · · · · · · · · · · ·	
1	3.7 Contracts Sub-committee Update		
	B Hayes reviewed progress with establishing agreed Contracts		ļ
	and Procurement processes for the Unit.		
	It was recommended that TLW is signatory on all contracts, and		
	this was approved. This should be an automatic step provided		
	the agreed process had been followed and DOA's were in place,		
	rather than a further approval level.		
	It was noted that C&P Strategy and Policy documents had been prepared and were in a nearly agreed final form, and that these would be finalized, agreed and issued as soon as possible.	C&P Sub-comm	ASAP
L I	mene eo intenceo, egrece ano issuee as soon as possible.		

O-7 Exhibit O to the Unitization and Unit Operating Agreement



It was agreed that detailed C&P procedures will be developed based on the APC and TLW internal procedures,	C&P Sub-comm	ASAP
It was noted that the Accounting DOA process needs to be agreed and incorporated into the C&P process.	C&P Sub-comm	ASAP
There was a discussion of the C&P process illustrated by a flow chart. A JCC Contracts Committee, would formally approve contracts over \$25m, to ensure compliance with agreed process rather than approving the recommendation to award.		
Project schedule and Government approvals process		
GNPC discussed the approval process. The Petroleum Agreements define a sequential process of exploration, appraisal declaration of commerciality and development, whereas the approach agreed for Jubilee was phased development and parallel appraisal. GNPC requested that the partnership declare the core area of Jubilee as commercial prior to submission of the phased Development Plan.		
GNPC noted that they had written to the main Jubilee partners that week in respect of this.		
Schedule for JOC and Sub-committee meetings		·····
It was agreed that the JOC should meet monthly, alternating between London and Dallas, as per the PUA, and that the Unit Operator should advise a date towards the end on May for the next JOC meeting in Dallas.		
The Unit Operator will also issue a forward schedule of meetings at least through to sanction.	A Fisher	End April
АОВ		
There being no other business the meeting was adjorned at		
	<ul> <li>based on the APC and TLW internal procedures.</li> <li>It was noted that the Accounting DOA process needs to be agreed and incorporated into the C&amp;P process.</li> <li>There was a discussion of the C&amp;P process illustrated by a flow chart. A JCC Contracts Committee, would formally approve contracts over \$25m, to ensure compliance with agreed process rather than approving the recommendation to award.</li> <li>Project schedule and Government approvals process</li> <li>GNPC discussed the approval process. The Petroleum Agreements define a sequential process of exploration, appraisal declaration of commerciality and development, whereas the approach agreed for Jubilee was phased development and parallel appraisal. GNPC requested that the partnership declare the core area of Jubilee as commercial prior to submission of the phased Development Plan.</li> <li>GNPC noted that they had written to the main Jubilee partners that week in respect of this.</li> <li>Schedule for JOC and Sub-committee meetings</li> <li>It was agreed that the JOC should meet monthly, alternating between London and Dallas, as per the PUA, and that the Unit Operator should advise a date towards the end on May for the next JOC meeting in Dallas.</li> <li>The Unit Operator will also issue a forward schedule of meetings at least through to sanction.</li> </ul>	based on the APC and TLW internal procedures.       C&P Sub-comm         It was noted that the Accounting DOA process needs to be agreed and incorporated into the C&P process.       C&P Sub-comm         There was a discussion of the C&P process illustrated by a flow chart. A JCC Contracts Committee, would formally approve contracts over \$25m, to ensure compliance with agreed process rather than approving the recommendation to award.       C&P Sub-comm         Project schedule and Government approvals process       GNPC discussed the approval process. The Petroleum Agreements define a sequential process of exploration, appraisal declaration of commerciality and development, whereas the approach agreed for Jubilee was phased development and parallel appraisal. GNPC requested that the partnership declare the core area of Jubilee as commercial prior to submission of the phased Development Plan.       GNPC noted that they had written to the main Jubilee partners that week in respect of this.         Schedule for JOC and Sub-committee meetings       It was agreed that the JOC should meet monthly, alternating between London and Dallas, as per the PUA, and that the Unit Operator should advise a date towards the end on May for the next JOC meeting in Dallas.       A Fisher         AOB       AOB       A

Date of Next Meeting: Venue:

24<sup>th</sup> May 2008 Kosmos Offices, Dallas

Time: 09:00

Approved as a record of the Jubilee Operating Committee Meeting 18<sup>th</sup> April 2008 for and on behalf of:

Tullow Ghana Limited

Ghana National Petroleum Corporation

Kosmos Energy Ghana HC

Anadarko WCTP Company

Sabre Oil and Gas Limited

The EO Group

R.I. AM B

O-8 Exhibit O to the Unitization and Unit Operating Agreement

### Jubilee Operating Committee Meeting 2

### Minutes of Meeting 9h30, 23<sup>rd</sup> May 2008 Kosmos Board Room, Dallas, Texas

#### Attendees

GNPC	Tullow	Kosmos	Anadarko	Sabre	EO	IPT Team
S Abankwa T Manu	P McDade A Fisher M Simpson S Wheaton R White D Carr	B Maxted M Garrett K Black p/t P Dailly p/t G Dunleavy J Musselman p/t	C Provost	D <del>Morton</del>	G Owasu	D Vardeman D McLaughlin G Fox C Weinbel p/t B Traylor p/t M Hopkinson p/t B Miller p/t E Haas p/t S Brashier p/t S Zrake p/t f Blotchway

No	Minute	Action By	Completion Date
1.0	Introductions		
	A Fisher Introduced the meeting and reviewed the agenda, which was adopted.		
2.0	Review of previous Minutes and General		
	A Fisher reviewed past minutes of JOC#1. GNPC had sent some comments which will be incorporated and the minutes re-issued for formal approval.	A Fisher	ASAP
	It was agreed that GNPC would be formally invited to be a member of the JOC. GNPC were requested to provide names of its Representative and Alternate.	A Fisher T Manu	ASAP ASAP
	It was agreed that the weekly IPT report to be issued to all JV parties as part of improved communication. It was also discussed that minutes of other subcommittees be circulated to	via A Fisher/D McLaughlin	ASAP
	include partners not represented on those groups.	Sub-comm chairs	ASAP
	It was agreed that a formally approved logo for the Jubilee Unit was required. Tullow agreed to develop a number of options and present to the JOC for agreement. The informal logo adopted by the IPT would be the starting point.	A Fisher	By next
			JOC
3.0	Sub-committee Updates		
•	3.1 IPT Project Update		

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O-9 Exhibit O to the Unitization and Unit Operating Agreement

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P.S. AM A

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	D McLaughlin introduced the IPT presentation, presented the updated pre-sanction schedule and review key project risks.		
	E Hass presented subsurface update. Recent modelling and longer well step-outs have identified potential to reduce the well count for Phase 1.		
	Simulation modelling also shows the benefit of gas injection for increased oil recovery.		
,	A revised Phase 2 was shown comprising 13 wells (8P, 3WI, 2GI) vs. 16 wells in previous case. Tuliow questioned whether this would provide sufficient water injection and it was agreed that this might be insufficient if large quantities of gas are exported.		
	An alternative Phase 1 subsurface case was also presented in the case that development drilling west of the seafloor canyon is disappointing, with some wells located east of the canyon. [was there not a significant action on IPT to look at cost/time implications of having Eastern leg flexibility in Phase 1A]		
1	IPT sub-surface group to examine robustness of sub-surface plan to varying levels of available gas for re-injection versus sales, and evaluate relative economics under various scenarios.	E Hass	June
	A drilling schedule, including development appraisal and exploration wells was presented, but noted that this was under discussion amongst the partnership, and dependent on the time of arrival of rigs.		
	When drill rig sailaway dates are confirmed (see 3.2 below) review and agree rig schedule.	E Haas (IPT) to lead, with partners and exploration groups	By next JOC
t c	An update of the evaluation of EWT options was presented, concluding this doesn't offer benefits or value, and recommended that this is deferred for later consideration in peripheral areas of the field. All parties agreed.	exploration groups	
E	3 Miller gave an update on high level well design.		
	M Hopkinson gave an update of completion design and procurement and the Mahogany-2 DST.		
	C Weinbel presented an update of facilities (FPSO, URF, SPS) lesign and procurement.		
	3 Traylor presented an overview of the Business Services structure of the IPT.		
	S Zrake gave an overview of the EHS workshop held over the previous three days.		
Ь	t was agreed that CSR activities of Jubilee Unit partners should be combined into one recommended approach and presented to IOC for approval.	M Early (TLW) / S Zrake (IPT)	By next JOC
e	GNPC asked whether the success of Mahogany-2 had led to an expanded scope that could impact the timing of first oil. It was confirmed that Phase 1 would not change significantly.		

Exhibit O to the Unitization and Unit Operating Agreement



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3.2 Production and Drilling Update		
S Wheaton presented an overview of the work of the Unit Operator (UO) sub-committee since the previous JOC. Work has concentrated on the operations philosophy (high level) and organisation plan for the Unit Operator in-country for the Jubilee Unit.		
GNPC (T Manu) requested their involvement in the UO sub- committee now that they are formally invited to join the JOC. Sabre and EO also invited to join at the same time. GNPC - particularly important to review organisation in-country and opportunity for national staff employment and training, at a very early stage. Agreed.	S Wheaton	June
APC (C Provost) requested a plan for the operator business systems to run the operation as per the IPT Business Services planning and this should be included in the organisation plan (rev4). TLW (S Wheaton) agreed and will also review APC systems for synergy.	S Wheaton/R White	Next JOC
The UO operating philosophy and organisation plan (now in Rev3) document to be reviewed by Anaderko/Kosmos/Tullow for internal organisation feedback and then updated by TLW. Then to be issued to Sabre, EO and GNPC for further review. TLW made comment that this was a living document which will evolve as project requirements become further defined, e.g. further Jubilee development phases and the requirements of the IPT for project execution and later handover. Kosmos (B Maxted) re-iterated that whatever the philosophy and plan covers it must honour the wording of the Pre-Unit Agreement regarding partner secondment nomination/opportunity. TLW agreed and sub-committee will ensure that is the case.	S Wheaton	June
GNPC requested that the Jubilee partners lead work on the setting up of emergency air-sea rescue capabilities in Ghana across the industry as part of the Emergency response Planning for the project. This would integrate the Jubilee Unit ERP with the Ghana national ERP, as already planned	S Wheaton	Y/e 2008 update
GNPC made clear that they require all contractors and sub- contractors that will work on the project to be pre-registered at GNPC, Jubilee Unit will make this requirement clear in its contracting tenders and awards processes.[	D McLaughlin (IPT) S Wheaton (UO)	Asap
GNPC requested a set of the Unit (including IPT) contract procedures, strategy and related C&P procedures for review (including DoA). Also let contracts with evaluation reasons for award to provided/collated.	S Wheaton (UO) to co-ordinate, A Fisher / Bill Hayes (Chair of C&PSC)	By next JOC
Office Update A Fisher presented an overview of the recommended in-country infra-structure plan for the Unit Operations and to support the IPT project execution. A Fisher requested approval of the outline plan and there was agreement within the JV to proceed in-principle, subject to final approval following issue of an AFE with detailed narrative. AFE to be issued by TLW to partners covering interim Takoradi requirements, interim Accra requirements and longer	A Fisher	By next JOC

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Drilling Update S Wheaton presented an update regarding well engineering covering the Blackford Dolphin and Eirik Raude schedules, the		
status of well planning/resourcing/contracting and the content of the planned well engineering workshop of the following week between all parties. It was confirmed that the Eirik Raude rig (ER) was on schedule to be operating in Ghana early Q408, but that the Blackford Dolphin (BD) had been delayed by shipyard works by 1-2 months, with earliest date in Ghana now early September.		
Concern was raised by GNPC that the delay on the Blackford Dolphin might impact the first oil date – it was confirmed that it would not, but that it might affect the order and priority of exploration, appraisal and development drilling.		
Anadarko (C Provost) stated the Ocean Star rig offered by Anadarko might have been a better option than the Blackford Dolphin, as it had been under long-term operations with Anadarko. It was noted that it was only considered as an alternative to the Eirik Raude and that a comprehensive comparison had shown that the Eirik Raude was a better option, with which all parties agreed.		
Given the importance and the delay of the BD rig partners requested attendance at the next meetings with Dolphin drilling in w/c 2 <sup>nd</sup> June, and an opportunity to visit the shipyard. TLW will provide full access so that all parties can gain confidence in the mitigation plan and the schedule for sailaway. Potential direct partner assistance may also be recommended to expedite works.	S Wheaton / M Williams (TLW Group Drilling Manager)/ M Garrett lead	asap
All parties to investigate longer term rig requirements in order to meet E&A and development requirements for both the Unit and the two exploration blocks. Tullow will co-ordinate the sharing and agreement of this information and a forward plan, with recommendations to secure additional rig capacity as deemed necessary.	S Wheaton / M Williams (TLW Group Drilling Manager)/ M Garrett lead	By next JOC
Other APC (C Provost) requested a plan that integrates the UO planning (infra-structure, organisational build) work with the IPT project schedule to first oil.	S Wheaton/A Fisher	June
GNPC secondees to be invited to London as part of the Unit Operator build. Across various disciplines.	A Fisher	By next JOC
UO to provide regular communication (weekly/monthly?) to all parties regarding status of work of preparations for production.	S Wheaton	June
3.3 Accounting and Financing Sub-committees update	<u></u>	
R White presented an overview of progress by the Accounting Sub-committee.		
The Sub-committee is well established and working well. The Unit Operator finance team structure and recruitment progress was presented.		

O-12 Exhibit O to the Unitization and Unit Operating Agreement

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This had been presented to t	of Authority process was presented, he Accounting SubCommittee and r points to be addressed, DoA to be y C&P SubCommitee	R White	ASAP
The PA's were reiterated as a workflows. The UOA lawyers need to be addressed.	a key documents for accounting have raised some questions which	R White	ASAP
A draft Accounting Procedure and under review by the Account before next JOC.	es for the UOA has been prepared ounting SubCommitee. To be agreed	R White	ASAP
Coding structures have been provided to Unit Operator and	agreed, with full WBS for IPT to be de decounting SubCommittee.	8 Traylor	ASAP
presented, incorporating the	for the Unit and tract areas was Deepwater Tano and WCTP budget IC's adjusted for some minor Iton Budget and Gas		
which will need to be revised was approved by the JOC, a	ned due to the status of the project regularly. The proposed Budget and agreed that this should be rdget for approval by the respective	Tuilow and Kosmos as Operators of Deepwater Tano and WCTP	ASAP and next JMC or circular resolution
initially agreed not to pursue Morton) requested backgroun involved in the first meeting - include Sabre on this sub-co	najor contracts, foreign exchange		
3.4 Gas Commercialisation	Sub-commmittee Update		
engaged, with sub-teams inc team to review all technical o gas and liquids from the FPS planned for the next few wee	date. The Sub-committee is fully luding a commercial and a technical ptions with regards to the export of O infrastructure. Key workshops is include a technical workshop in and an Infrastructure Survey trip to <sup>1</sup> June.		
As part of the presentation, a technical team to POD was p JOC.	budget and scope of work for the presented for the approval of the		
identifying scenarios, which v	tertaken was work in progress in would be the basts for future amittee looking at the best technical		
separate project to the oil de-	ure, and with the ability to tie-in		
	en to see commercial gas flowing ndfut of the technical merits of gas	   	

O-13 Exhibit O to the Unitization and Unit Operating Agreement

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<b>D,</b> U	AUB         It was agreed that the Unit Area would be expanded to include         Mahogany-2 as it was agreed it was in pressure comincation with         Jubilee.       Tullow had made a proposal on this. Partners to revert         with agreement or propsed amendment to Tullow's proposal.         There being no other business the meeting was adjorned at         14h00.	All Partners	Agreement by next JOC
5.0	АОВ		
	It was agreed that the next meeting should be end June. Tullow to revert with a programme of JOC's linked to key project decision points.	A Fisher	ASAP, by next JOC
4.0	Schedule for JOC and Sub-committee meetings		
	In the interests of time this presentation was omitted, although a presentation is available to read.		
	would also need to shepherd the Governemnt approvals process for the UOA.		
	A Fisher gave an update of progress on the UOA. Good progress was being made and a detailed draft was under discussion and many issues had already been agreed. It was proposed to invite GNPC to aprticipate in the negotiations for a planned session commencing 23 <sup>rd</sup> June, starting with an overview of principles and the Agreement developed to date. GNPC would be asked to sign the agreemtn as a JV partner, and	A Fisher	End May
	included. 3.6 Legal / UOA		
	GNPC requested that they are brought into discussions as they will ikely preform then own lifttings, and this was agreed. GNPC to notify A Fisher of Lifting/Marketing contact, to be	GNPC / A Fisher	ASAP
	K Black presented, on behalf of Julia Ross the Tullow sub- committee lead, an overview of the work to date, the interface with the IPT, plans assays of Mahogany-2 and subsequent samples, Unit lifting agreement and early marketing plans.		
	3. Oil Offtake and Marketing Sub-Committee		
	GNPC is keen to work closely with the Gas Commercialisation Sub-Committee and will be sending three attendees to the Houston technical workshop. This was welcomed by the other parties.		
	re-injection into the reservoir for production purposes, they want to see a balance between gas re-injection and export, and will study this technical merits critically. They don't want to see any compromise on the schedule for first oil, but do want to see gas flowing to shore.		

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O-14 Exhibit O to the Unitization and Unit Operating Agreement

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## Date of Next Meeting: 26<sup>th</sup> June 2008 Venue: Tullow Offices, Chiswick Time: 09:00

Approved as a record of the Jubilee Operating Committee Meeting 23<sup>rd</sup> May 2008 for and on behalf of:

Tollow Ghana Limited

Ghana National Petroleum Corporation

Kosmos Energy Ghana HC

Anadarko WCTP Company

Sabre Oil and Gas Limited

The EO Group

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O-15 Exhibit O to the Unitization and Unit Operating Agreement

## Jubilee Operating Committee Meeting 3

## Minutes of Meeting 9h00, 26<sup>th</sup> June 2008 Tullow Board Room, Chiswick, London

### Attendees

GNPC	Tullow	Kosmos	Anadarko	Sabre	EO	IPT Team
S Abankwa M Boateng T Manu	P McDade A Fisher M Simpson S Wheaton R White D Carr (p/t) G Brunton (p/f) M Early (p/t) B Williams (p/t) P Dickerson (p/t) M Williams (p/t) B Teggart (p/t)	B Maxted M Garrett W G Dunlevy W Hayes	C Provost	A MacDonald D Morton	G Owusu	D Vardeman D McLaughlin

No	Minute	Action By	Completion Date
1.0	Introductions		***
	A Fisher introduced the meeting and reviewed the agenda, which was adopted. B Maxted		
2.0	Review of previous Minutes and General		
	The minutes of meeting#1 and meeting#2 were formally signed off by partners as an accurate record of the previous JOC's, the following actions are outstanding from the meeting#2 minutes;		
	Sub-committee minutes to be circulated to all partner JOC representatives for information and update – pro-active information flow.	A Fisher plus Sub- comm chairmen	ASAP
	Final short-list of Jubilee project logo to be issued to JOC representatives for a confirmed/agreed selection	A Fisher	Mid-July
	APC (C Provost) requested a plan for the operator business systems to run the operation as per the IPT Business Services planning and this should be included in the organisation plan (rev4). TLW (S Wheaton) agreed and will also review APC systems for synergy.	S Wheaton	Next JOC
	GNPC requested a set of the Unit (including IPT) contract procedures, strategy and related C&P procedures for review (including DoA). Also let contracts with evaluation reasons for award to provided/collated. Specific request for copy and evaluation of the Eirik Raude contract.	A Fisher	July

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O-16 Exhibit O to the Unitization and Unit Operating Agreement

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	APC (C Provost) requested a plan that integrates the UO planning (infra-structure, organisational build) work with the IPT project schedule to first oil.	S Wheaton	ASAP
	GNPC secondees to be <u>formally</u> invited to London as part of the Unit Operator build. Across various disciplines. Was re-iterated verbally in JOC#3 but a formal invitation requested by GNPC indicating available opportunities.	A Fisher	ASAP
	UO to provide regular communication (weekly/monthly?) to all parties regarding status of work of preparations for production.	A Fisher/S Wheaton	ASAP
3.0	Sub-committee Updates		
	3.1 IPT Project Update		
	D McLaughlin presented an update of the work of the IPT focussing on sub-surface (implications of Mah-2 well test), major tender evaluation proceedings and schedule/commitment requirements of partners.		
	An update of the sub-surface had been presented also in greater details to partners by video-conference the day previously by E Haas (IPT sub-surface team leader). The Mah-2 Lower reservoir test had shown that the sands were relatively isolated. All parties agreed that a re-work was required of the PO sub-surface aspects and primarily the location and efficiency of gas injection viz a viz gas sales balance. T Manu (GNPC) stated that the JV must demonstrate that gas injection is proved before project sanction could occur by GNPC/Ghana Government. This would most likely require a well. B Maxted (Kosmos) requested clarification on this important point whether this would require truly require a well or detailed sub-surface working. GNPC replied that they would be open to seeing a re-worked model and sub-surface data but this would be required to be presented in full before a decision could be made on the same. GNPC confirmed that they believed that all previous models had been too optimistic and did not account for compartmentalisation. IPT will be re-working models over coming weeks in the light of this well test result. T Manu (GNPC) requested that partners should revert on the impact of an ~2 month delay on the project sanction by GNPC given this issue. D Vardeman stated that we could not be certain but at ~25-50 million per month spend ahead of sanction	E Haas and team – sub-surface re- working JOC (sanction schedule impact)	Next JOC and plan further sub- surface peer review (tbc)
	was likely as soon as the FPSO commitment was made. A drilling schedule, including development appraisal and exploration wells was presented, but noted that this was under discussion amongst the partnership, and dependent on the time of arrival of rigs. IPT to present updated schedule for confirmation.	Via A Fisher E Haas	ASAP
	D McLaughlin requested approval by partners of the base case sanction (at this time of JOC) to be moved to one of 17 wells and subsea lay either side of the "canyon". In principal, all parties agreed to this change pending the outcome of further sub-surface work related primarily to gas injection. Various comments made by all parties of expecting further change in well location and well count, and need for plan flexibility wrt water and gas injection volumes.	JOC	Closed

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D McLaughlin reviewed the initial results of the detailed bathymetry survey data. This confirmed that the general layout that had been recommended in conceptual work had been confirmed – canyons to be avoided and that some relatively minor re-routing would be required for the installation planning.		
D McLaughlin reviewed the status of the major contracts including FPSO and URF. It was made clear that the level of commitments that would be required prior to sanction would be considerably higher - potential >\$100 million. This would also	B Williams (Finance Sub-comm chair) and IPT Directors	ASAP
impact financing requirements (see also later finance committee update). All parties agreed to negotiate wherever possible no Letter of Credit financial guarantees with Contractors given this world-class project. The immediate Modec LLI required attention by cob this week. Closer liaison between IPT and Finance sub- committees required.	Modec LLI PCG and letter approval – S Wheaton	27 <sup>th</sup> June (complete)
D McLaughlin requested approval of the project sanction schedule change to permit the sub-surface plan re-work post Mah-2 in the coming weeks. JV partners agreed but GNPC reserved right to reply later after assessment of project sanction further deferral to potentially drill a further well or consider the sub-surface in detail.	JOC to revert on project sanction deferral impact to GNPC (A Fisher or P McDade)	ASAP
	GNPC (T Manu) on GNPC project sanction approach	ASAP
This section of the JOC closed with further discussion of the		
ramifications of the Mah-2 well test result and what this meant for gas injection/sales. T Manu (GNPC) stated that they did not see project sanction proceeding until ability to gas inject and support production could be proven by drilling a further well and so		
reducing sub-surface uncertainty. This could have a significant impact all parties agreed in many project areas. S Abankwa (GNPC) also stated that the requirement for gas sales plan was also not being discussed and needed to be covered here, and		
what this meant to the POD. Did the JV wish to inject all gas or reserve for gas sales also? S Wheaton (TLW) requested that JOC did need to decide this or it would be virtually impossible for the sub-surface team (IPT) to be able to specify the plan for development with respect to reservoir voidage replacement by gas or water injection given the time pressures that they were now under. GNPC agreed and requested JOC to provide details		
on their gas sales plan. Did the JV wish to participate in a gas project that Ghana required?		
At this point all parties then agreed to advance the gas sub- committee presentation.		
3.2 Gas Commercialisation Sub-commmittee Update		
M Simpson presented an update. Significant progress has been made since the last JOC in reviewing existing infrastructure and designing options for offtake facilities, with key technical workshops in Houston and a survey trip in Ghana, and economic analysis under way. The pipeline configuration was being developed as best for all purposes, with tie in points, and the processing plant on a modular expandable basis.		
As part of the presentation, a budget for an NGL/LPG survey by Poten & Partners and satellite imagery/land searches activities to POD was presented for the approval of the JOC, and was		
O-18 Exhibit O to the Unitization and Unit Operating Agreement		P.I. DAM

O-19 Exhibit O to the Unitization and Unit Operating Agreement		J N
Tullow and Kosmos to complete rig share agreement discussions and make final. In basis of making this agreement final and	S Wheaton / M Garrett	July 2008
Tullow to continue to advise partners of the deployment of the Blackford Dolphin in the light of the yard work delays and the pending court case between Dolphin Drilling and Keppel's. Planning basis at this time remains a September spud.	S Wheaton / M Williams	Continuous
S Wheaton presented an update of the rig capacity available now to carry-out the Ghanaian Block E&A and development programs. The Eirik Raude, Blackford dolphin, Atwood Hunter and Aban Abraham amount to between 5-8.5 years of deepwater rig capacity from a very tight rig market now assigned to the Ghana work programs.		
3.3 Unit Operator / Production and Drilling Update		
GNPC directed that phase one gas commercialisation should involve a wet gas pipleine to Effasu, to deliver 50% of net gas to the Balkan Energy plant. Re-injection of gas should be limited to 50% of volumes, with an ability to re-inject 100% in the event of any interruptions at Effasu. Gas sub-comm and IPT to work closely together to effect this requirement as soon as possible.	M Simpson (gas sub-comm) IPT Directors	w/c 7 <sup>th</sup> July hold workshop to close
GNPC confirmed that the ownership structure of the gas infrastructure was clear, and that it should be separate from the oil project, outside the Petroleum Agreements, with Jubilee partners involvement and other Ghanaian parties. There would be no issues in preserving capacity rights for the Jubilee project.		
S Abankwa stressed the importance of getting gas to Ghana in commercial volumes, at a price that is cheaper than purchases of crude oil, in the earliest phases of the project, and confirmed demand from VALCO and for bauxite mine development. He suggested that LPG demand in country was significant, and was being held back through a lack of distribution capabilities and a lack of product.		
T Manu requested that the team should look at onshore options for a pipeline link between Effasu and Takoradi, for access and maintenance issues. GNPC said that the government would assist land acquisition both on pipeline routing and site locations for a processing plant, GNPC will assist with land search activities.	D Carr to liaise with Genesis (pipeline options) and Peter Sloan (land acquisitions)	ASAP
GNPC confirmed that BOST was to be the gas aggregator, and that the Ghanaian government would be likely to support it with payment guarantees.		
GNPC advised that the Ministry of Energy was in discussions with the WAGP Authority regarding access to WAGP for Ghanaian gas and for connectivity in Tema and the potential for gas swaps – guidance would be provided before project sanction.		
A draft stretch schedule to first commercial gas was presented, showing first gas in 2011. M Simpson confirmed that the technical group was reviewing the option of a wet gas pipeline to Effasu to deliver earlier gas to the Balkan project, subject to the plant being able to take lean gas.		
approved in principle. Approval for an offshore pipeline survey will be sought once proposals have been received by the group.		

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integrating all rigs together across a combined program, S Wheaton confirmed that the Eirik Raude was dedicated to Jubilee Unit development work with potential early Ghana E&A work, when asked by S Abankwa (GNPC).		
T Manu (GNPC) asked of the status of integration of personnel at the shorebase. Both S Wheaton (TLW) and M Garrett(Kosmos) reported that this was being worked upon to bring under the UO organisation and bring efficiencies for all parties.	As above action	As above action
S Wheaton requested partner approval of recently presented drilling related AFE's of supply vessels, long lead items (e.g. casing/wellheads) and Raude mobilisation. C Provost (APC)	JVP's for AFE Approvals	Asap
challenged the basis of the increased mobilisation costs for the AFE which B Teggart confirmed was due to increased scope and raised fuel costs, and last but not least due to the very early submission of the original Raude AFE shortly after the contract had been signed by Tullow. C Provost and D Morton both expressed concern about apparent rising costs and budgeted/AFE values – was this true cost/spend rise or lack of project controls? P McDade replied that this was in some part a result of the pace at which the project was being pursued in all areas and that it is likely that accurate budgeting will remain a challenge in the short term. Whilst every effort will be made by all parties to improve budget estimates we may need to increase contingency levels. S Abankwa confirmed a need to minimise contingency levels as much as possible. When requested partners gave in-principal approval for the supply vessel and LLI's (which TLW committed to immediately after the meeting due to urgency especially on vessels), and also would consider the Eirik Raude mobilisation AFE again in the light of the reasons for apparent growth and now its dedication to the Jubilee Unit (C	TLW (R White, A fisher and S Wheaton) on planning/budgeting rigour and resourcing	Report next JOC
Provost comment) S Wheaton presented an update of the status of the in-country infra-structure initial projects and a summary of the content of the AFE recently issued to partners. Partners agreed to revert as soon as practicable. M Garrett and D Vardeman visiting Ghana in following week and will convene a meeting (in Ghana) with S Wheaton and T Manu following visits to the various sites in Accra and Takoradi, to provide any feedback on same. There was a planned Unit Operator sub-committee the following day at Tullow office, London which would be attended by GNPC and Sabre for the first time. The agenda for the meeting was presented to the JOC by S Wheaton.		
3.4 Accounting and Financing Sub-committees update		
Accounting Subcommittee		
R White presented an overview of progress by the Accounting Subcommittee.		
The Subcommittee is well established and working well. The Unit Operator Finance team structure and recruitment progress was presented with proposed additions to in-country and IPT operations.		
A summary of the key elements of the final draft IPT Delegation of Authority (DoA) was presented. Prior to the meeting the full		
O-20 Exhibit O to the Unitization and Unit Operating Agreement		Jet N 1.5. DA
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O-21 Exhibit O to the Unitization and Unit Operating Agreement		JA AM
"LW noted that there was disagreement amongst the Jubilee eartners on credit support mechanics amongst the jv partners for the forthcoming FPSO contract. While all agreed that LCs should be avoided, "LW will nonetheless sign the Modec LLI letter igreement which may trigger a future LC need. There is lisagreement on JV partner collateralization of obligations initially aken on by TLW as Operator. APC's Chuck Provost expressed oncern at the potential size of LC needs on the Jubilee project.	Modec LLI letter closed/signed by TLW	Closed Fri 27 <sup>th</sup>
"LW outlined Credit Support issues: The Eirik Raude LC, posted by the Jubilee Operator TLW, will be urther considered by jv partners once rig shares and rig sourcing or Jubilee has been finalized.		
FLW described the latest partner positions on funding for Jubilee Phase 1; funding arrangements are being pursued by Jubilee jv partners on an individual basis.		
Brian Williams (TLW) presented the current Finance s/c structure.		
Budget analyses are appended.		
returned to the UO accordingly. It was agreed that this should be incorporated into the JMC Budget for approval by the respective JMCs in due course.		
This revised proposed Budget was approved in principle by the JOC. Corresponding AFEs had already been circulated prior to the meeting and were requested to be reviewed, signed and	JVPs	ASAP
It was agreed that in certain areas Budget estimates are understandably not well defined due to the status of the project which will need to be revised regularly.		
A revised consolidated 2008 Budget for the Unit and tract areas was presented, incorporating the Deepwater Tano and WCTP budget as presented at the JOC #2 with updates to the IPT Pre- Sanction Budget, Phase 1 Drilling LLIs and Support Services commitments and Gas Commercialization studies.		
UO took a reporting commitment to provide monthly report for UO activities. First report to be prepared for June.	RWhite	By mid-late July
Progress has been made to rationalise the WBS coding structures. The Unit Operator is currently reviewing and will revert to the Accounting Subcommittee during July.	R White	ASAP
Draft Accounting Procedures for the UOA have been prepared and reviewed by the Accounting Subcommittee and provided to the UOA lawyers. These are subject to final review and approval by the Accounting Subcommittee		ASAP
The accounting workflows questions previously raised by the UOA lawyers in relation to the PA's have been addressed and closed out.		
of points to be finalised with the aid of the lawyers. Approval of the DoA was requested.		

It was agreed that a further Finance s/c should be urgently convened to further consider credit support matters (TLW to action).	B Williams	w/c 30 <sup>th</sup> June
 3.5 Oil Offtake and Marketing Sub-Committee		
Julia Ross presented an update on oil marketing and valuation including the planning of assay and valuation of oils recently sampled in the Mah-2 well.		
No actions required		
 3.6 EHS Sub-committee		
Graham Brunton presented the first update from the newly formed EHS Sub Committee. Introducing the key people and the overall agenda, the presentation focussed on the key issues facing the sub committee going forward.		
The first point was to develop and agree the RACI charts for Jubilee. This had been progressed positively following the sub committee meeting earlier in the week and a draft RACI chart is in place.		
An EHS plan for Jubilee is to be prepared and some preparatory work has been completed. This will be updated at the next JOC.	G Brunton/S Zrake	next JOC
An update was provided on the Environment impact Assessment (EIA) process which is proceeding along with the additional Strategic Environmental Assessment which will be run in conjunction with the EIA.		
CSR will be a key issue for Jubilee and a summary of the ongoing work was presented. There was agreement on the two topics of support for the fishermen and improving the medical facilities at Takoradi but an urgent need to develop and overall CSR programme for Jubilee.		next JOC
An update on the EHS resources highlighted the increased manning being achieved to address the ongoing EHS issues. The expat EHS Manager starts in early Sept with a temporary Manager mobilising in early July. One EHS Advisor has been identified and mobilised at the end of June. A second Advisor has to be identified. GNPC highlighted the need to ensure local content in the Ghana Team and this will be dealt with as a matter of priority while recognising the urgent need to use oil industry experienced professionals to get the initial EHS systems up and running. TLW confirmed its attention to ensure national recruitment practice will be pursued with urgency.	G Brunton / J Young (TLW HR)	report next JOC
The new mission statement was tabled and will be rolled out over the coming weeks.		
 3.7 Legal / UOA	······································	
A Fisher presented a summary update of the status of the Legal/UoA sub-committee. A schdule for the future drafting work of the UA was presented. The next UA sub-committee will be hosted in Houston and will be attended by a GNPC and Govt delegation. Partners to assist with arrangements	A Fisher / Gert-Jan Smulders	w/c 7 <sup>th</sup> July
 3.8 Legal / UOA	· · · · · · · · · · · · · · · · · · ·	

O-22 Exhibit O to the Unitization and Unit Operating Agreement

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	Legal/UoA sub-committee. A schdule for the future drafting work of the UA was presented. The next UA sub-committee will be hosted in Houston and will be attended by a GNPC and Govt delegation. Partners to assist with arrangements	A Fisher / Gert-Jan Smulders	w/c 7 <sup>th</sup> July
	3.9 Contracts Sub-committee Update		······································
	Bill Hayes (Kosmos) presented a summary of the status of the C&P sub-committee work. The IPT C&P high level procedure and procurement strategy for major contracts has been agreed but requires issue to the JOC and GNPC for approval. Similar documents to now be circulated by the Unit Operator. When complete work of this sub-committee may then be complete (tbc).	A Fisher	asap
4.0	Schedule for JOC and Sub-committee meetings	······	
	It was agreed that the next meeting should be early August given need for sub-surface re-working and sanction schedule deferral (2 weeks requested at this JOC) and vacation of several JOC members.	A Fisher to confirm exact future schedule	ASAP
5,0	АОВ		
	GNPC (S Abankwa) requested that APC provide more support to the JV, particularly in terms of their financial capacity, access to rigs which they have on long-term contracts at below current market rates, and technical skills and experience. APC (C Provost) responded that they have provided a lot of support and resources. They can only provide financial support in accordance with their working interest and role as a non-operated partner, as they do not have the protection given to the block Operators under the JOAs. Furthermore they had offered the Ocean Star rig for use by the partnership but that it was not taken-up. In terms of personnel APC have provided large numbers of highly qualified personnel to the IPT, and had made available other technical experts to particulate in for peer reviews. Their contribution is far more than usual by a non-operating partner, and there is not much more they can do without a formal		

## Date of Next Meeting:

Venue: Kosmos Offices, Dallas, Texas Date / Time: tbc 09:00

Approved as a record of the Jubilee Operating Committee Meeting 26<sup>th</sup> June 2008 for and on behalf of:

Tullow Ghana Limited

Ghana National Petroleum Corporation

Kosmos Energy Ghana HC

Anadarko WCTP Company

Sabre Oil and Gas Limited

The EO Group

O-23 Exhibit O to the Unitization and Unit Operating Agreement STAT AM

## Meeting 4

## Minutes of Meeting 11h00, 13<sup>th</sup> August 2008 Kosmos Board Room, Dallas

### Attendees

st D Morton G Owusu D Vardeman er D McLaughlin C Weinbell R Cain B Traylor G Fox L Coulumberg E Haas S Sills

No	Minute	Action By	Completion Date
1.0	Introductions	<u>-</u>	· · · · · · · · · · · · · · · · · · ·
	A Fisher introduced the meeting and reviewed the agenda, which was adopted.		
2.0	Review of previous Minutes and General		
	The minutes of meeting#3 were formally signed off by partners as an accurate record of the previous JOC's. the following actions are outstanding from the meeting#2 and #3 minutes;		
	APC requested that the minutes reflect comments made by them and GNPC regarding APC contribution to the Joint Venture.	A Fisher / C Provost to add comments and re- circulate for approval	By next JOC
	Sabre (DM) requested copies of signed minutes are circulated	A Fisher	By next JOC
3.0	Sub-committee Updates		
	3.1 EHS Sub-committee		······································
	Maree Early presented an update from the EHS Sub Committee.		
	GNPC requested details of how the EHS sub-committee interface with the FPSO Contractor. ME explained there were two phases – construction and engineering. Plans were being developed. In the Operations Phase, ME explained that operations manuals would be reviewed and accepted or improved (eg PTW system)		
	EIA update - development now registered with EPA		
ł	O-24 Exhibit O to the Unitization and Unit Operating Agreement		11 -

The forward work plan was described.		
replacement. GNPC asked what data was used in the Eclipse nodal analysis. EC responded that it was based on Mahogany 2 rock data etc. and that the project had good core data to support the predictions. The need for DST's in the next gas injection well was discussed.		
and the work flow. The recommendation for the POD is as follows: Phase 1 – Most likely Case ultimate recovery estimate of 261MMBO (simulation), based on 100% voidage replacement with 50% available gas injected updip though sensitivities will be carried out for less		
Government PoD approval. Subsurface: Eric Haas provided an update on the subsurface work and described the proposed Phase 1		
IPT focussing on proposed reserves, schedule, costs, commitments. GNPC requested the 4 week period be maintained for		
3.2 IPT Project Update D McLaughlin presented an update of the work of the		
GNPC (Thomas Manu) asked about waste management. ME explained that this was a key issue and TLW had been tooking at this. GNPC expressed view that a hazardous waste management facility is established/sponsored by all Operators, co-ordinated by GNPC.	GNPC to revert with a proposal for all operators.	
Kosmos (BM) asked whether it was planned to get independent certification of ER plans. TLW (PMcD) responded that TLW have ISO14001 certification for all EHS aspects of most of its sites, but that Ghana had not yet been included.		
Kosmos (BM) asked if ER exercises were planned. It was confirmed that desk-top ER exercise had been done in-country, and that it was the intention to test the ER plan full exercises including JVP's, agencies etc.		
TLW (PMcD) requested plan to be discussed for project activities too, with a focus on the interface between the UO and Technical Operator. A pre-JOC presentation discussion of an integrated ERP was requested.	EHS Committee to present details of integrated ERP at the next JOC	
ER Partner notification – ME explained that Tullow, Kosmos and Anadarko ER requirements were aligned. GNPC (Thomas Manu) noted that the there a Ghanaian national ER plan and that the UO ER plan needs to interface. Will interface a plan with the Government Plan,	Thomas Manu to provide contacts in Govt re ER Plan	
SEA is seen as an EIA for Jubilee (single project). Work continued to clarify the scope. GNPC suggested a meeting with the EPA to determine the requirements.	M Early to meet with EPA.	

DMcL described the cost and schedule information to be provided in the PoD. A Class 2 estimate of \$3488.1MM was proposed. The contingency number was explained as being developed from best/worst cost outcomes for most activities/purchases. Similarly the schedule was risked (again by Wesney) and the P50 date derived was 31 <sup>st</sup> October.			
The recommendation to award the URF installation scope to Technip was reviewed and approved unanimously.		-	
The need for further pre-sanction funds for sub-sea LLI's and pre-commitments was discussed. A previous request had indentified these at \$45mm, although now estimated to be \$38.7MM. These funds were unanimously approved and the UO is to re-issued AFE for the reduced amount.	B Traylor/ R White to re- issue AFE	22 Aug	
3.3 Unit Operator / Production and Drilling Update			
Brian Teggert described the drilling status and campaign planning, and confirmed that staff were fully in place for both rigs, and updated JOC with the arrival dates of the 2 rigs.			
Kosmos (BM) asked what contingency was included in cost estimates, and whether "learning curve" efficiencies were built-in – BT responded that NPT and dry hole allowances were included, no specific performance improvements had been assumed, and that the costs estimate were a sound Budget estimate.			
NH presented an update of the status of the in-country infra-structure initial projects and a summary of the content of the ASCO Logistics Report (which will now be distributed for comment).			
T Manu (GNPC) requested confirmation that Manet Towers leased premises was proposed as a short- medium term solution. This was confirmed; an owned office is expected after 4-5 years.			
NH presented the Integrated Schedule which builds on the IPT schedule with details on in country work, drilling, governance, EHS activities, etc. Tullow's planner has been working with the IPT in this area spending time in Dallas to ensure full integration. The UO will issue this plan monthly.			
AF described the UO staffing progress; good progress has been made on initial priority positions, with many staff now in place. Jane Young (personnel manager) spent 2 weeks in country to spearhead the local recruitment drive which will be extended to international job fairs etc. The UO is working with GNPC on local staffing, and graduate recruitment/training programmes			
3.4 Accounting and Financing Sub-committees update			
O-26 xhibit O to the Unitization and Unit Operating Agreement		AZ 11	ANN ANN
update		HE 1.1.1	

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	RW presented an overview of progress by the Accounting Subcommittee.		
	Reported that recruitment in Ghana, London was a high priority as is local content. Ghana expected to be 100% local content except expatriate Finance Manager. IPT Secondee started July 08.		
	It was reported that the accounting workflow between the 3 equity groups and 2 PA's was working well and had covered cashcalls, AFEs and billings to date.		
	The initial Unit Operator monthly report was noted as having been issued for June 08. Feedback was requested from partners in order to enhance UO reporting.	R White	To be completed on same time lines as UUOA
	The UO DoA had been issued for review and completion before the next JOC. The IPT DoA has been completed and approved by both C&P and Accounting Subcommittees.	R White	To be completed on same time lines as UUOA
	UUOA Accounting Procedures had been drafted by the Accounting Subcommittee and forwarded to the UUOA lawyers and was expected to be returned by 15 Aug for further review.	R White	To be completed on same time lines as UUOA
	Technical Services Agreement and Secondee Agreements with UUOA lawyers.		
	The 2008 UO Budgeted expenditures were presented along with unavoidable commitments for 2009+ years to be made in 2008. It was indicated that alignment with this schedule and the IPT project plan was imperative and that work had commenced to ensure reconciliations align.		
	A Fisher gave a brief update of the Financing Committee.		
	3.5 Oil Offtake and Marketing Sub-Committee Kevin Black updated the JOC on progress to date. Lifting Agreement discussions are to be held in London on 26th August. A Fisher re-iterated the Committee's desire to have GNPC involve in these discussion and GNPC confirmed they would participate.		<u>.</u>
	<b>3.6 Legal / UOA</b> AF present an status update and review of outstanding commercial issues. It was reiterated by GNPC and APC that an executed UUOA is a sanction requirement. All parties were requested to empower representalive to ensure closure duiting the next meetings scheduled for 27/28 <sup>th</sup> August in London.		
	GNPC (SA) commented that some the FCPA priciples being promoted by APC were unacceptable as they could require certain Jubilee shareholders to dispose of their interest.		

O-27 Exhibit O to the Unitization and Unit Operating Agreement

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	Bill Hayes gave an update on the C&P subcommitee. The IPT and UO, DOA's are aligned and close to being signed and issued.	W Hayes / Rob White to issue DOA's for approval.	
	3.8 Gas Commercialisation Sub-commmittee Update		
	The Gas Commercialisation presentation/discussion was held with a reduced complement of JOC's and one other company representative.		
	Mike Simpson reviewed progress on selection of the optimum technical solution for gas export. The Genesis and Intec work had been completed allowing a full technical and economic review of offshore/onshore processing and pipeline configurations, both to Effasu and Takoradi landing points.	Mike Simpson	
	The recommended solution involved a 12" pipeline to Effasu with limited gas conditioning offshore. This produced a dry gas stream of ca. 30mmcfd available for export, the balance would be reinjected until the market developed in the Effasu area. Following which the pipeline would be run in dense phase with processing facilities installed to separate and export liquids.		
	Commercial terms such as tariff, ownership, and gas price were highlighted as issues to address urgently.		
	GNPC expressed a desire for the infrastructure to be owned by an independent entity with GNPC owning a majority stake. GNPC also suggested that engagement was needed with the Jubilee owners to agree a way forward on these issues.		
	GNPC also requested confirmation from the Jubilee owners that 50% of the gas produced would be made available for export. Jubilee owners confirmed this was the case.		
	Mike Simpson noted the request from GNPC to survey an additional pipeline route to Bonyeri.		
4.0	Schedule for JOC and Sub-committee meetings		
	It was agreed that the next meeting should be mid- September in Ghana combined with JMCs for each licence.		
	There is a need to ensure the POD and Budgets are formally approval for each of DWT and WCTP JMCs.		
5.0	AOB There being not other business the meeting adjourned at 18:30		:

O-28 Exhibit O to the Unitization and Unit Operating Agreement

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Date of Next Meeting: Mid September Venue: GNPC, Petroleum House, Tema, Ghana Date / Time: tbc

Approved as a record of the Jubilee Operating Committee Meeting 13<sup>th</sup> August 2008 for and on behalf of:

**Tullow Ghana Limited** 

Ghana National Petroleum Corporation

Kosmos Energy Ghana HC

Anadarko WCTP Company

Sabre Oil and Gas Limited

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O-29 Exhibit O to the Unitization and Unit Operating Agreement

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#### Ref TGJ-MOM-0005-JOC-08

## Jubilee Operating Committee Meeting 5

# Minutes of Meeting 10h00, 28<sup>th</sup> October 2008 Tullow Offices, Chiswick, London

#### Attendees

GNPC	Tullow	Kosmos	Anadarko	Sabre	EO	IPT Team
T Manu N Adzei-Akpar	P McDade S Wheaton	B Maxted	C Provost D Vardeman	D Morton	G Owusu	D McLaughlin
F Ackah	M Simpson R White W Cox G Brunton (part) B Teggert (part) J Ross (part)					By phone for IPT report; E Haas (part) C Weinbel (part)

No	Minute	Action By	Completion Date
1.1	Introductions		
	P McDade introduced the meeting and reviewed the agenda, which was adopted.		
1.2	Review of previous Minutes		
	The minutes of meetings #3 and #4 were formally signed off by partners as an accurate record of the previous JOCs.	W Cox to circulate signed copies to parties	30/10/08
2.0	Unit EHS Report		
	The function of the EHS Sub Committee is to be reviewed and a plan presented on the way forward.	G Brunton	For next JOC
	The waste management plan is being implemented. The main challenge is how to deal with hazardous waste and a solution is being developed. It was proposed that the long term plan should be to have a specific facility in Ghana.		
	On EHS resources, the need for local content was emphasised and this was agreed as the EHS resourcing moves forward. Specifically GNPC requested a full overview of the resourcing plan for EHS personnel.	C Molina, Tullow Ghana	End Nov 2008
	The monthly EHS report will commence from the end of October.		
	The CSR Strategy for Jubilee will be issued shortly for JV partner comment. It is important to get the strategy right before implementing. This will be aligned with the CSR	G Brunton	For next JOC

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Exhibit O to the Unitization and Unit Operating Agreement

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	activities of the individual companies working in Ghana. JMC wishes to take a holistic view for tract and Jubilee CSR works. Anadarko stressed the need for a comprehensive EHS Management System that clearly shows the Unit Operator's oversight accountability role and in particular		
	in overlap areas with the Technical Operator		
3.0	Sanction Schedule.		
	W Cox presented the proposed sanction schedule, based upon the requirements of the Petroleum Exploration and Production Law, the Petroleum Agreements, Joint Operating Agreements, and the Pre- Unitisation Agreement, and taking into account letters received from GNPC. The schedule was agreed as presented, with a final date for approval of the Jubilee Phase 1 Development Plan and execution of the UUOA on 5/12/2008. There was a discussion of whether it would be possible shorten the time to approval, and Tullow agreed to make immediate copies of the Development Plan available to GNPC, ahead of the formal submission date of 31/10/08. GNPC said that it was not possible to bring forward submission to the Minister for Energy ahead of JMC approval, or to shorten the permitted 30 day approval period, but they undertook to feed back any questions as soon as they arose during the approval process.		
	GNPC confirmed that a meeting between the Attorney General and the Legal Sub-Committee, that was drafting the UUOA, had been arranged for 5/11/2008.		
:	Tuliow and Kosmos agreed that the Interim Appraisal Reports and Declarations of Commerciality for the Deepwater Tano and West Cape Three Points blocks should be submitted by the tract operators to the Minister for Energy, as required by the relevant Patroleum Agreements, on 31/10/2008. EO agreed to the submissions in principle subject to confirmation by email by 30/10/2008. Sabre agreed to submission of the Interim Appraisal Reports, and in principle to the Declarations of Commerciality subject to confirmation by email by 30/10/2008. Anadarko agreed to submission of the Declarations of Commerciality and in principle to the Interim Appraisal Reports subject to confirmation by email by 30/10/2008.	Anadarko, Sabre, EO to confirm their approval, as noted	30/10/2008
	Tullow, Kosmos and Anadarko agreed that the Jubilee Phase 1 Development Plan should be submitted by the tract operators to GNPC on 31/10/2008. Sabre and EO agreed to the submission in principle subject to confirmation by email by 30/10/2008.	Sabre and EO to confirm their approval, as noted	30/10/2008
4.0	IPT Report		
	D McLaughlin presented an update of the work of the IPT. Key items of discussion were extension of Lol, status of MODEC FPSO conversion works and schedule, and gas project impacts on the FPSO.		
1	P McDade requested that the IPT Director should report		1

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Exhibit O to the Unitization and Unit Operating Agreement

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back to JOC with options and requirements regarding MODEC contractual position and schedule. GNPC and remainder of JOC reserve position until further information available.		1-2 weeks post this JOC
JOC questioned the status of IPT resourcing. Dennis McLaughlin replied that except Quality Manager and Deputy Project Director positions (on-going) all significant roles were now covered.		
Stuart Wheaton asked if the surface/sea-bed locations for production wells would require moving in the light of the new seismic studies work reported in the JOC. Eric Haas replied that sufficient flexibility existed in the current design but review for updip gas injection may result in an extension recommendation.		
There was discussion of the potential impact of the proposed GNPC gas import/export scheme to the FPSO. Thomas Manu stated that this must be resolved ahead of POD approval by the Minister. IPT will report back to the JOC in 1 - 2 weeks regarding initial review of impacts, including technical (design and operability), safety, schedule, and cost aspects. A discussion between GNPC and the Unit Operator will then be required to close-out inside the 30 day approval window.	D McLaughlin	1-2 weeks post this JOC
There was a discussion of the impact of the potential switch of construction of the FPSO from a Chinese to a Singapore yard, and the possible impact on the tender process. IPT believed the move could cause a delay of between 4 to 6 weeks, which was within the programme contingency. It was agreed that any decisions on the potential move would need to be deferred until a formal proposal had been received from the contractor and discussed by the JOC parties.		
Thomas Manu asked whether the now expected arrival date of the Eirik Raude could impact the first oil schedule as it is later than shown in the POD. Eric Haas reported that at face value, with no improvement in Eirik Raude performance ahead of POD benchmarks, then it could lead to one less well completion than planned prior to first oil. Efforts would be made with improved performance to bring the program forward.		
Thomas Manu requested details of the Skoflo chemical valve and Gardline survey vessel sole source justifications are presented to GNPC.		Nov 2008
5.0 Gas Commercialisation		
W Cox presented an update on the work of the Gas Commercialisation Sub-Committee. The work with Genesis and Intec had been completed, and this had demonstrated that the production, processing and utilisation of natural gas from Jubilee was economic, subject to the necessary commercial agreements being in place.		
GNPC's document entitled "A Profile of Jubilee Gas Project" had been received on October 14th and, as		
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Exhibit O to the Unitization and Unit Operating Agreement

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	requested by GNPC, the description of their proposal had been included in the Development Plan, which also reflected the work carried out by the Gas Commercialisation Sub-Committee, referred to above. It was noted, however, that the interface with and ramifications on the FPSO still needed to be studied by the IPT, and this work was underway. GNPC said that these issues would need to be addressed in the Development Plan before it could be approved by the Minister for Energy.	IPT and Unit Operator	Before approval of Development Plan
6.0	Accounting Sub-Committee		
	R White presented an overview of progress by the Accounting Subcommittee in particular the various documents prepared and reviewed in relation to the UUOA.		
	The 2008 YTD Sept and FYF were presented for the Unit.		
-	The current AFE status was presented highlighting the outstanding approvals required by partners.		
	The 2008-12 5-year plan profiles were presented with comparison against the Sanction Case		
	D McLaughlin requested that the Well Engineering and Commissioning budget line elements be presented under the IPT rather than Unit Operator responsibility. The Commissioning request was accepted.		
	The well engineering request along with the corollary that the IPT controls and is responsible for the well engineering budget was rejected by Unit Operator and an agreed solution to be presented at the next JOC.	P McDade, B Maxted and D McLaughlin	Asap and report at next JOC
	The Work Programmes and Budgets for 2008 and 2009 for the Jubilee Unit were presented and approved by all partners and hence JOC as submitted. Approved Firm budget expenditures were 2008 - \$458.8million and 2009 - \$1,260.1million and Contingent budgets 2008 - \$37.9million and 2009 - \$46.9million as per appended slide.		
	The JOC approved an additional \$91 million of funding to cover extension of the LOIs through November.		
	GNPC requested a further breakdown of the IPT budget.	R White	7/11/2008
7.0	Drilling Operations Update		
	B Teggart presented a status report on the Blackford Dolphin and the Eirlk Raude. (This was presented earlier in the meeting schdule ahead of the IPT report due to timings for call-in by IPT participants from Dallas)		
	Although operations on Hyedua-2 had progressed to the point of setting the 13-3/8" casing, there remain significant issues with the Blackford Dolphin due to its ongoing post construction rig *shake down", which are currently delaying operations.		

Exhibit O to the Unitization and Unit Operating Agreement

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	The EHS culture on the rig on arrival was unacceptable and a period of 'stand down for safety' (rig on zero rate) was made. Significant efforts have been made to change safety behaviours and the situation has improved considerably.		
	There have been further periods where the rig has been placed on zero rate due to incomplete commissioning and Tullow are controlling costs to minimise expenditure in these periods. The rig will be down for ~96-hours to replace BOP mini-panels damaged in transit due to their late arrival.		
	Anadarko asked whether the issues with the Blackford Dolphin had been discussed with Dolphin at senior management level. Tullow responded that this discussion had not yet taken place but that such a discussion would be take place at an appropriate time.		
	The Eirk Raude is currently in Trinidad for thruster replacement and re-fueiling. The works are progressing well and the rig should depart on Thursday 30 <sup>th</sup> October with arrival in Ghana forecast to be late-November.		
8.0	Unit Operator's Preparations Summary		
-	Stuart Wheaton presented a summary with respect to in- country infra-structure, production operations preparedness and Unit Operator project controls.		
	Unit Operator undertook to present an updated in- country infra-structure plan and AFE/cost outlook in light of changes at Takoradi and Accra offices.	S Wheaton	Prior to next JOC
	C Provost requested that the Unit Operator report on aviation strategy and audit plans or reports as they currently are for fixed wing and helo operations.	S Wheaton	Report next JOC. Exchange summary before on
	There are numerous Unit Operator and IPT interfaces and it clear that working level relationships are the best way to Improve interfaces. All parties agreed and would foster improved communication. Examples include logistics requirements (aviation, shorebase, marine etc) and related services.		status.
9.0	Oll Marketing Update		
	S Wheaton presented an update on the lifting agreement and the assay results of M-2. The excellent results were noted by all with the possibility of Jubilee trading at a premium to Brent, although it was cautioned that M-2 may not be representative of the whole field and a better understanding of Jubilee will be attained as further wells are tested.		
	The lifting agreement is progressing, although finalization of the UUOA and further understanding of the FPSO commercial arrangements are required.	J Ross to resend a redraft of Article 7 of the Lifting Agreement to all partners.	
10.	AOB It was agreed that a review of the future role of each of the existing Sub- Committees – including that for EHS	Unit Operator	Next JOC

Exhibit O to the Unitization and Unit Operating Agreement

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Jubilee Expenditure Budget 2008-12 \$k	2008 FYF	2009	2010 Etra	2011	2012	Grand
Pre-Sanction and Development phase				-		10141
rpt General & Administration - 1Pt	72,317	71,613	46.523	121 CF		333 670
Facilities	2,576	34,655	83,461	8.186	, o	
Subsea & Gathering Systems	287,794	482,087	169'6EE	Ð	0	1,
Commissioning + Subsea & Facilities	C	G	29,558	ð	0	
<i>Unit operator</i> Well Engineering (drilling and completions)	68,4S3	586,116	503,937	148.776	¢	E) E
Operations Incl. G&A - UO (Pre-First OII)	26,224	82,528	126,838	O	0	
Transportation Systems	o	C	0	0	Q	0
Production and operations phase Operatons incl. G&A - UO (Post-First Oil)	0	Ċ	62,552	315,346	272,272	657,469
Overheads	1,418	3,142	3,951	6,149	5,032	
Total Jubilee Phase 1 Expenditure - Firm	458,777	1,260,142	1,196,510	510,588	284,604	3,71.
Development phase			Contingent			
Well Engineering (DSTs and contingent welts)	126'28	46,904	Ð	96,100	ð	160,935
Total Jubilee Phase 1 Expenditure - Contingent	37,931	46,904	0	96,100	0	180,935
Total Jubilee Phase 1 Expenditure	496,709	1,307,046	1,196,510	606,688	284,604	3,891,556
Capital expenditure Operating expenditure	496,709 0	1,307,046	1,132,832 53 578	285,666	0	<u> </u>
	496,709	1,307,046	1,196,510	605.688	284.604	3.891 556

0-35 Exhibit O to the Unitization and Unit Operating Agreement

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referred to above – should be carried out by the Unit Operator, with input from the other parties and the IPT, and the results presented to the next meeting of the JOC. The review should consider the original terms of reference, performance against objectives, the need to continue in operation and proposed process going forward. It should also consider whether there was a need for new Sub Committees in the next phase, for instance to cover reservoir management, or local content/contract administration.		
G Owusu said that EO was not always included on circulation lists for project documents. Tullow and IPT agreed that they would ensure this did not happen in luture.		1 
P McDade introduced the work that had been commissioned to design a new Jubilee project logo. The alternatives were well received, and it was agreed that GNPC should make the final selection. GNPC said they preferred those shown on slides 5 and7, and they agreed to revert with their overall preference by 7/11/2008	GNPC	7/11/2008
GNPC requested improved timing of JOC presentation materials ahead of future JOCs. P McDade committed to improve wherever we could, though noting that in some areas final numbers necessarily often came in late. It was accepted that some improvement should still be made for all sections of JOC reporting.	P McDade	Next JOC
GNPC requested technical support to improve their ability to communicate via email and conference call with the partners.	P McDade	Next JOC

Date of Next Meeting:

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Neeting: 11<sup>th</sup> December at 14:00 hrs Venue: London, with teleconferencing

Approved as a record of the Jubilee Operating Committee Meeting 28<sup>th</sup> October 2008 for and on behalf of:

Tullow Ghana Limited

Pril Epade

Ghana National Petroleum Corporation

Kosmos Energy Ghana HC

Anaderko WCTP Company

Sabre Oil & Gas Holdings Limited

The EO Group

O-36 Exhibit O to the Unitization and Unit Operating Agreement

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made tor ensections of acto reporting.		
GNPC requested technical support to improve their	P McDade	Next JOC
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the partners.		

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Date of Next Meeting:

11<sup>th</sup> December at 14:00 hrs

Venue: London, with teleconferencing

Approved as a record of the Jubilee Operating Committee Meeting 28<sup>th</sup> October 2008 for and on behalf of:

Tullow Ghana Limited

Ghana National Petroleum Corporation

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	referred to above - should be carried out by the Un Operator, with input from the other parties and the IPT and the results presented to the next meeting of the JOC. The review should consider the original terms of reference, performance against objectives, the need to continue in operation and proposed process going forward. It should also consider whether there was a need for new Sub Committees in the next phase, for instance to cover reservoir menagement, or local content/contract administration		
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· · · · · · · · · · · · · · · · · · ·	P McDade introduced the work that had been commissioned to design a new Jubilee project logo. The alternatives were well received, and it was agreed that GNPC should make the final selection. GNPC said they breferred those shown on stides 5 and7, and they agreed to revert with their overall preference by 7/11/2008	GNPC	- 7/11.2028
	GNPC requested improved timing of JOC presentation materials ahead of luture JOCs P McDade committed to improve wherever we could, though noting that in some areas final numbers necessarily often came in late. If was accepted that some improvement should still be made for all sections of JOC reporting	P McDade	Next JOC
	GNPC requested technical support to improve their ability to communicate via email and conference call with the partners.	P McDade	Next JOC

Date of Next Meeting: 11<sup>th</sup> December at 14:00 hrs

Venue: London, with teleconferencing

Approved as a record of the Jubilee Operating Committee Meeting 28<sup>th</sup> October 2008 for and on behalf of:

Tullow Ghana Limited

Ghana National Petroleum Corporation

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Kosmos Energy Ghana HC Anadarko WCTP Company

Sabre Oil & Gas Holdings Limited

The EO Group

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O-38 Exhibit O to the Unitization and Unit Operating Agreement

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Approved as a record of the Jubilee Operating Committee Maeting 28th October 2008 for and on behalf of:

Tullow Ghans Limited

Ghana National Petroleum Corporation

Kosmos Energy Ghana HC

Anadarko WCTP Company

Sabre Oil & Gas Roldinge Limited

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Date of Next Meeting: 11<sup>th</sup> December at 14:00 hrs Venue: London, with teleconferencing

Approved as a record of the Jubilee Operating Committee Meeting 28th October 2008 for and on behalf of:

Tullow Ghana Limited

Ghana National Petroleum Corporation

Kosmos Energy Ghana HC

Anadarko WCTP Company

Sabre Oil & Gas Holdings Limited

The EO Group

O-40 Exhibit O to the Unitization and Unit Operating Agreement

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Approved as a record of the Jubilee Operating Committee Meeting 28<sup>th</sup> October 2008 for and on behalf of:

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Tullow Ghana Limited

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Ghana National Petroleum Corporation

Kosmos Energy Ghana HC

Anadarko WCTP Company

Sabre Oil & Gas Holdings Limited

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O-41 Exhibit O to the Unitization and Unit Operating Agreement

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# Jubilee Operating Committee Meeting 6

# Minutes of Meeting 14h00, 11<sup>th</sup> December 2008 Tullow Offices, Chiswick, London

## Attendees

GNPC	Tullow	Kosmos	Anadarko	Sabre	IPT Team
T Man⊔ N Adzei-Akpar F Ackah T Ahwireng	P McDade S Wheaton W Cox D Hanley D Jones A Fisher B Teggert (part)	B Maxted W Hayes J Mathews	C Provost D Vardeman	D Morton	D McLaughlin M Garrett E Haas C Weinbel B Traylor S Bergeron

No	Minute	Action By	Completion Date
1.1	Introductions		
	The meeting was chaired at Tullow's offices in London, with video links to Kosmos' office in Dallas, and Anadarko's office in Houston, and a telephone link to Tullow's office in Accra.		
	P McDade introduced the meeting and reviewed the agenda, which was adopted.		
1.2	Review of previous Minutes		
	The minutes of Meeting #5 were formally agreed as an accurate record of the previous JOCs.	W Cox to circulate copies for signature and send out assembled signed	Prior to next JOC
	Matters Arising	version to parties	
	Item 6. P McDade and D McLaughlin reported that it had been agreed that the Well Engineering budget line element should remain under Unit Operator responsibility. However, strategic decisions affecting the overall project budget, where there is a conflict between facilities and well engineering, especially during concurrent well and offshore installation activities, will be the IPT's responsibility.		
	Item10: Logo, T Manu said that he would report GNPC's conclusions on the project logo at the next JOC meeting. Previously GNPC have advised that they preferred those shown on slides 5 and 7 of the AOB slides used at JOC#5.	T Manu	Next JOC
	Item 10: JOC Papers P McDade undertook to maintain efforts to improve timing of send out of JOC materials ahead of meetings.	P McDade	Next JOC
	Item 10: Jubilee Sub-Committees A Fisher presented a review of the structure of Jubilee		

O-42

Exhibit O to the Unitization and Unit Operating Agreement

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	Sub Committees. It was proposed that, following the signing of the UUOA there should be three new Sub Committees;		
	<ul> <li>Technical Sub Committee, combining IPT, well engineering and production operations</li> <li>Commercial SubCommittee, initially focusing on gas commercialisation but covering other commercial and economic topics</li> <li>Jubilee Contracts Committee</li> <li>It was also proposed that the Financing and Treasury, and the OII Offtake and Marketing Sub Committees should continue in operation for a period until their tasks were complete.</li> </ul>		
	Following discussion it was agreed that a smaller group of senior representatives from the JOC parties should meet to discuss the proposed structure and terms of reference for each Sub Committee. The Sub Committees should then provide more detailed proposals for the next JOC.	S Wheaton to convene the proposed meeting and co-ordinate report for next JOC	Next JOC
	B Maxted suggested that consideration should be given to continuing the Gas Commercialisation Committee to cover non Unit issues.		
	P McDade requested that the structure should require there to be a formal EHS report to each JOC meeting, though a dedicated EHS Sub Committee may not be required.		
2.0	Status of the Development Plan (PoD), including gas utilisation		
	P McDade updated the Committee on the status of the PoD. GNPC and the Minister had not accepted the gas commercialisation section of the Pod as drafted. There had been extensive further discussions amongst the parties, culminating in meetings during the current week between Tullow, Kosmos, EO and GNPC in Ghana, during which a new draft gas section had been agreed. This had been presented to Anadarko and Sabre, but they had not yet had time to consider it fully.		
	Also, earlier in the week GNPC had submitted comments on the other sections of the PoD. These had been circulated to partners and the intention was for a team from the IPT and Unit Operator to travel to Ghana and discuss these with GNPC during the week of 15 <sup>th</sup> December. The Intention was to agree an updated version of the PoD, including an agreed gas commercialisation section and taking account of GNPC's other comments by. Further, the aim was for the PoD to be submitted to the JMCs for approval and resubmission to the Minister for Energy by the end of the week of 15 <sup>th</sup> December.		
	Meetings between the partners were also scheduted for 15 <sup>th</sup> and 16 <sup>th</sup> December to finalise the UUOA.		
	This timetable for the PoD and related documents was agreed by the JOC.		

Exhibit O to the Unitization and Unit Operating Agreement

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	IPT for the PoD discussions the following week. It was agreed that he should prepare a draft for discussion and agreement between Tullow, Kosmos, Anadarko, Sabre and EO ahead of the meetings.		
3.0 3.1	Unit operator report Drilling Performance B Teggart reported that, following a difficult start, as reported at the previous meeting of JOC, the performance of the Blackford Dolphin was now generally satisfactory. Action had been taken to ensure that operations were in line with proper management practices, and appropriate EHS training programmes had been put in place.		
	There were no concerns in relation to the operation of the Eric Raude. Arrival on location had been delayed by by approximately 24 hours to carry out additional work carried out in Trinidad, but this had been made up by ensuring that the rig arrived in Ghana ready to commence operations, and the M3 well had been spudded within 18 hours of arrival. There had been substantial savings on mobilisation costs.		
	There had been downward movement of the conductor of the H2 well. It had nevertheless been possible to continue operations, and data logging had been successfully concluded. The foundation now seemed solid, but it was recognised that further tests might be necessary before conducting the DST. A meeting was scheduled for later that day with Anadarko and the IPT to agree a forward plan, and this would be reported to JOC.	B Teggart	10/01/2009
	Lessons had been learned from H2 for future wells and these were being applied to M3. An extra joint had been jetted, and strokes had been restricted to 4 metres. Jetting was a little slower than planned, but the resultant cost increase was offset by lower pre-spud preparation costs.		
	There had been a saving of around \$13.1m in the mobilisation budget for the Eric Raude, largely due to lower transit time, fuel costs, and saving of contingency.		
	Overspend on the H2 well was estimated to be \$8.6m, with a time overrun of 20 days – largely associated with downtime. A supplemental AFE would be issued.		
	A chart showing performance and future programme for each rig was requested for the next JOC.	B Teggart	Next JOC
	In country infrastructure S Wheaton reported on progress with in country infrastructure. There had been good progress at the Takoradi shore base and ports. A new water tank and fuel line would be installed in Q1 2009, and a tender would be awarded for fencing, lighting and civil works in December 2008. The geotechnical survey prior to repairs to the quayside and road widening had been competed.		
	GNPC asked whether sufficient space had been allowed for subcontractors in the Phase 2 facilities, and it was responded that this was felt to be more than adequate.		

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Exhibit O to the Unitization and Unit Operating Agreement

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	A safety audit of aero facilities had been carried out, and a longer term planning review would be carried out in 2009.		
	There is a long term plan to have a purpose built office in Accra, and a report will be made to JOC on this in Q1 2009. In the meantime, until the purpose built solution was in place, use would be made of the two existing buildings, and the new facility at Sherwood House. P McDade said that it was a challenge to find a suitable plot, and suggestions from partners would be welcome.		Q1 2009
3.3	HR Report S Wheaton reported that recruitment was progressing well in Ghana. 42 Ghana nationals were now in place, 4 more had accepted offers, and 18 more positions were targeted for Q1 2009. The careers fair in Houston had been very successful, discovering good candidates who wished to return to Ghana.		
	Dai Jones had taken up his post as General Manager for Tullow in Ghana. This appointment was welcomed by GNPC.		
	Up to 15 GNPC staff and graduates were joining the Unit Operator on secondment, A structured programme had been put in place in each case.		
3.4	EHS – Safety Case S Wheaton outlined the rationale for the Safety Case. This was not a legal requirement in Ghana, but is regarded as good industry practice to assemble all safety issues into a single place. MODEC will be delivering a Safety Case based on their existing model for Baobob in Cote D'Ivoire. A draft would be available at the end of Q2 2009.		Q2 2009
3.5	Finance Report S Wheaton presented the finance report.		
	Good progress had been made in completing the Exhibits for the UUOA. At the UUOA meeting scheduled for 15 <sup>th</sup> and 16 <sup>th</sup> December there would also be a discussion of the overhead rates to be charged, and a proposal had been tabled by the Unit Operator, to which no objections were raised.		
	It was reported that the full year project cost estimated at \$491m was within the approval level.		
	All AFE approvals were up to date and complete for 2009. Budgets were approved for 2008, and AFEs were in preparation, to be distributed for approval shortly.		
4.0 4.1	IPT Report Facilities C Weinbel updated the meeting on the status of facilities. The FPSO vessel had reached the Jurong shipyard and work had begun. The first milestone had been reached around 40 days late, using up all the contingency for slippage. The revised project execution plan/schedule	IPT (D McLaughlin/C Weinbel) issue updated schedule and related PEP to JOC	Prior to next JOC

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Exhibit O to the Unitization and Unit Operating Agreement

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would be ready by end year.		
Subsea facilities were progressing according to plan, with all schedule changes absorbed or mitigated.		
A Quality Manager had been appointed and would commence work on the quality plan.		
It was reported that the contractors were generally becoming concerned about continued delays in project sanction in the current environment. The MODEC FPSO contract was of particular concern as the current LOI expired on December 15 <sup>th</sup> 2008. Additional security was being requested in the form of cash payments of \$77m and Parent Company Guarantees from partners. In return for cash payments, security over finished work was being obtained. The partners' position was to stay with the current position of providing only a Tullow PCG and no cash, but seeking to reassure MODEC on the financial strength of Tullow and the contractual relationship between the parties.		
P McDade said that additional payments should only be agreed to in return for achievement of schedule targets – i.e. getting the FPSO on site by March 2010.		
There was a general discussion of the issues relating to the MODEC LOI. It was generally felt that the contractor should absorb some of the cost increase resulting from the move to Singapore, as this was largely a consequence of their misjudgement. This was particularly the case in the current environment where the market was declining. We might also be prepared to relax the schedule to save cost. Although there was a desire amongst the partners to take a harder line it was recognised that there was also a need to reserve the good relationship with the contractor, and a degree of compromise was required. It was also felt by the IPT team that it was very unlikely that MODEC would walk away from the contract.		
It was agreed that the negotiations should continue to secure an extension to the MODEC LOI, as the PoD would not be concluded by December 15 <sup>th</sup> .	D McLaughlin	
It was also agreed that Tullow would contact MODEC to discuss issues related to its financial strength and relevant contractual arrangements between the parties.	P McDade	
It was reported that in the case of the Technip flexible riser contract around \$70m out of the total contractual value of \$100m would be paid by end January. It was agreed that IPT should now execute the contract.	D McLaughlin	
It was also agreed that the Technip URF contract, for a total of \$435m should be executed to secure the Deep Blue vessel.	D McLaughlin	
It was agreed that C Weinberg and R White would work together to issue AFEs for the extension payments to be issued to partners. Approval of the extension would be signified by approval of the relevant AFE.	C Weinberg and R White	December 2008

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Exhibit O to the Unitization and Unit Operating Agreement

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	There is a key technical concern related to the turret- swivel load capacity and future expansion capability – riser number and sizes. This is a key part of the functional specification. Work is on-going.	JOC a recommendation	January 2009
4.2	Subsurface E Haas briefly updated the meeting on subsurface activities and described the proposed Batch I well plan. The H2 results had confirmed the IPT mapping of the reservoir pre-drill, as robust.		
4.3	The parties unanimously agreed to approve the Batch 1 Plan. Expenditures will be approved on an individual well basis.		
4.0	Schedule and Budget B Traylor updated the meeting on the project schedule. It was noted that, following late arrival of the FPSO vessel to the yard, there was currently no float in the project schedule.		
	It was agreed that a Supplemental AFE should be issued to cover the projected expenditure of \$128m to the end of January.	D McLaughlin/R White	By end Dec
5.0	EHS Report S Wheaton updated the meeting on EHS matters. A regular teleconference had been established between IPT and Tullow EHS, and this would replace the EHS Sub Committee. The key issues currently being addressed were the Safety Case, already discussed, current offshore operations, and preparations for start up of operations.		
	A CSR strategy document was in draft and being discussed between Tullow and Kosmos. A new draft would be available in January.	G Brunton issue to JOC	Early January
6.0	Oil Marketing Report S Wheaton updated the meeting on the progress on oil marketing. Work on the Lifting Agreement was scheduled to resume in Q1 2010, following agreement of the PoD. At the same time, work would commence on the related issues of allocation and accounting.		

Venue: To be decided

Approved as a record of the Jubilee Operating Committee Meeting 11<sup>th</sup> December 2008 for and on behalf of: Mª Dade.

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Tullow Ghana Limited

Ghana National Petroleum Corporation

Kosmos Energy Ghana HC

Anadarko WCTP Company

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Exhibit O to the Unitization and Unit Operating Agreement

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Venue: To be decided

Approved as a record of the Jubilee Operating Committee Meeting 11<sup>th</sup> December 2008 for and on behalf of:

Tullow Ghana Limited	
Ghana National Petroleum Corporation	4 Domingtalling
Kosmos Energy Ghana HC	<u>6</u> 1 5 2
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Vanue: To be decided

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Tullow Gbana Limiled

Ghana National Petroleum Corporation

Kosmos Energy Ghana HC

Anedarko WCTP Company

Sabre Oil & Gas Holdings Limited

The EO Group

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#### Date of Next Meeting: in late January, exact date to be agreed Venue: To be decided

Approved as a record of the Jublice Operating Committee Meeting 11<sup>th</sup> December 2008 for and on behalf of:

Tullow Ghana Limited

Ghana National Petroleum Corporation

Kosmos Energy Ghana HC

Anadarko WCTP Company

Sabre Oil & Gas Holdings Limited

The EO Group

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O-50 Exhibit O to the Unitization and Unit Operating Agreement

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	There is a key technical concern related to the turret- swivel load capacity and future expansion capability – riser number and sizes. This is a key part of the functional specification. Work is on-going.	C Weinbel to issue to JOC a recommendation for approval	January 2009
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Approved as a record of the Jubilee Operating Committee Meeting 11<sup>th</sup> December 2008 for and on behalf of:

Tullow Ghena Limited

Ghana National Petroleum Corporation

Kosmos Energy Ghana HC

Anadarko WCTP Company

Sabre Oil & Gas Holdings Limited

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O-51 Exhibit O to the Unitization and Unit Operating Agreement

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4.2	Subsurface E Haas briefly updated the meeting on subsurface activities and described the proposed Batch I well plan. The H2 results had confirmed the IPT mapping of the reservoir pre-drill, as robust.		
4.3	The parties unanimously agreed to approve the Batch 1 Plan. Expenditures will be approved on an individual well basis.		
*+, <i>C</i>	Schedule and Budget B Traylor updated the meeting on the project schedule. It was noted that, following late arrival of the FPSO vessel to the yard, there was currently no float in the project schedule.		
	It was agreed that a Supplemental AFE should be issued to cover the projected expenditure of \$128m to the end of January.	D McLaughlin/R White	By end Dec
5.0	EHS Report S Wheaton updated the meeting on EHS matters. A regular teleconference had been established between IPT and Tullow EHS, and this would replace the EHS Sub Committee. The key issues currently being addressed were the Safety Case, already discussed, current offshore operations, and preparations for start up of operations.		
	A CSR strategy document was in draft and being discussed between Tullow and Kosmos. A new draft would be available in January.	G Brunton issue to JOC	Early January
6.0	Oil Marketing Report S Wheaton updated the meeting on the progress on oil marketing. Work on the Lifting Agreement was scheduled to resume in Q1 2010, following agreement of the PoD. At the same time, work would commence on the related issues of allocation and accounting.		

# Venue: To be decided

Approved as a record of the Jubilee Operating Committee Meeting 11th December 2008 for and on behalf of:

Tullow Ghana Limited

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Ghana National Petroleum Corporation

Kosmos Energy Ghana HC

Anadarko WCTP Company

Sabre Oil & Gas Holdings Limited

The EO Group

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Exhibit O to the Unitization and Unit Operating Agreement

## Jubilee Operating Committee Meeting 7

# Minutes of Meeting 14h00, 19<sup>th</sup> December 2008 The La Palm Hotel Accra, Ghana

#### Attendees

GNPC	Tullow	Kosmos	Anadarko	Sabre	EO	IPT Team
S Abankwa	D Jones	A Mormon	C Provost	D Morton	G Owusu	D McLaughlin
M Boateng	S Wheaton	M Garrett	D Vardeman			S Davis
T Manu	W Cox		G Fox			
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No	Minute	Action By	Completion Date
1	Introductions		
	The meeting was chaired by D Jones at the La Palm Hotel Accra, Ghana, with telephone links to Anadarko's office in Houston, Kosmos' office in Dallas and Sabre's office in London.		
	D Jones introduced the Agenda. There was only one item, which was the approval of the revised Jublice Phase 1 Development Plan. The agenda was agreed and adopted.		
2	Approval of the Jublise Phase 1 Development Plan		- <u> </u>
	D McLaughlin introduced the revised Jubliee Phase 1 Development Plan, draft number 25.2g, and summarized the changes since the previous draft. The new draft had been produced during the course of the week by the work team present in Accra, comprising members of the Integrated Project Team, representatives from GNPC and the Unit Operator, and circulated to the partners the previous day with the final version issued the morning of Meeting #7. Earlier drafts had been made available to the partners during the course of the week, and comments received had been considered.		
	D Jones asked the partners to vote on the resolution that the revised Jubilee Phase 1 Development Plan, draft 26.2g, should be submitted to GNPC for onward submission to the Minister for Energy for his approval. The resolution was approved by Tullow, Kosmos, Sabre, EO, and GNPC, but Anadarko did not approve the resolution. The resolution did not therefore achieve the required Passmark Vote, and was not approved.		
	C Provost said that Anadarko had three conditions precedent to approval, which had not been satisfied, namely: • Satisfactory resolution of its FCPA due diligence • A fully agreed UUOA • A fully agreed Development Plan		
	On the FCPA due diligence, T Manu said that this should have been carried out at the time that Anadarko entered the parinership. There had also been ample time to complete the process in the two years since their		

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O-53 Exhibit O to the Unitization and Unit Operating Agreement

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loining. If there was an outstanding requirement for further due diligence this could not be allowed to hold up the project, rather it should be carried	
out in parallel and any appropriate actions could then be taken depending	
on the findings.	
On the UUOA, D Jones salp that he underslood that there had been only	
one algoificant outstanding issue following the meeting that week of the	
Legal Sub Committee, which related to change of operatorship, and that	
an agreement in principle on this base had been reached at CEO level on	
18" December. The plan was to finalise the wording of that today so that	
each of the partners could read through the full document for final	
agreement on Monday 22 <sup>n3</sup> December on the version to be executed.	
On the Development Plan itself C Provost said that Anadarko had two	
main issues:	
<ul> <li>Their comments had not been reflected in the gas section of the</li> </ul>	
PoD, which did not in their view recognize the Contractors rights	
under the Potroloum Agreements and, because of the scale of the	
investment required, would represent an unacceptable burden that	
would likely be borrie by the Contractor.	
<ul> <li>The Development Plan should cover only Phase 1, and not include the Impact of hypothetical later phases of development.</li> </ul>	****
houge the impact of hypothetical after pilases of development.	
T Manu said that the gas plan had been arrived at as a compromise	
solution, in negotiation with the Contractor, and that it fully recognized The	
Contractor's rights. The gas plan had since been agreed with the Minister	
for Energy, and could not be revised at this stage.	
T Manu said that the Petroleum Law required the Development Plan to	
Include long term production forecasts, so it was necessary to include a	
description of possible later phases of development. GNPC accepted that	
the Contractor could not commit to anything beyond Phese 1 at this time,	
and the wording of the Development Plan reflected that,	
S Abankwa said that it was not acceptable for one party to hold up the	
project in this way. If the resultant delay to the project caused any cost	i i
increases, GNPC's position was that these should be borne by Anedarko	
(as the party holding up the project). If Anadarko had mispivings about	i i
proceeding they should negotiste their way out of the project. He would	
write to the CEO of Anaderko setting out GNPC's position immediately	
following the meeting. He urged Anadarko to reconsider their position. C	ł
Provost said that Anadarko would review the documentation and any laster that might arrive over the weekend.	
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It was agreed that a juritier meeting of JDC should be held at 2 pm Ghana	
time on Monday 22 <sup>rd</sup> December. The egenda would be the same as for	ſ
this meating.	

Approved as a record of the Jubilee Operating Committee Meeting 19<sup>th</sup> December 2008 for and on behall of:

Tullow Ghane Limited

Ghana National Petroleum Corporation

Kosmos Energy Ghana HC

Anadarko WOTP Company

Sabre Oll & Gas Holdings Limited

The EO Group

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out in parallel and any appropriate actions could then be taken depending	
on the findings.	
On the UUOA, D Jones said that he understood that there had been only	
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an agreement in principle on this issue had been reached at CEO level on	
18 <sup>th</sup> December. The plan was to finalise the wording of that today so that	
the becamper. The partners could read brough the full document for final	
agreement on Monday 22 <sup>rd</sup> Occember on the version to be executed.	
On the Development Plan Isself C Provost said that Anadarko had two	
On the Development Plan have o Provide due the state	
the assessment but not been connoted in the ass section of the	
and which did not in their view recognize the Contractors rights	1
under the Petroleum Agreements and, because of the scale of the	
investment required, would represent an unacceptable burden that	
uould likely be home by the Contractor.	
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include the impact of hypothelical later phases of development.	
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for Energy, and could not be revised at this stage.	
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and the wording of the Development Plan reflected that.	
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) Julianing the meeting De Urged Anaberko to reconsider the position. O	
Provost said that Anadarko would review the occumentation and any letter	<b>i</b>
that might arrive over the weekend.	
Il was agreed that a further meeting of JOC should be held at 2 pm Ghana	
time on Monday 22 <sup>M</sup> December. The agenda would be the same as for	
this meeting.	

Approved as a record of the Jubilee Operating Committee Meeting 19<sup>th</sup> December 2008 for and on behalf of:

Tullow Ghana Limited

Ghana National Petroleum Corporation

Kosmos Energy Ghana HC

Anadarko WCTP Company

Sabre Oil & Gas Holdings Limited

The EO Group

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O-55 Exhibit O to the Unitization and Unit Operating Agreement

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	joining. If there was an outstanding requirement for further due diligence into could not be allowed to hold up the project, rather it should be carried out in parallel and any appropriate actions could then be taken depending on the findings.	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	On the UUDA, D Jones said that he understood that there had been only one significant outstanding issue following the meeting that week of the Legal Sub Committee, which related to change of operatorship, and that an agreement in principle on this issue had been reached at CEO level on 18 <sup>th</sup> December. The plan was to finalize the wording of that today so that each of the partners could read through the full document for final agreement on Monday 22 <sup>th</sup> December on the version to be executed.	a service of the serv
	<ul> <li>On the Development Pien Itself C Provest seld that Anadarko had two main issues:</li> <li>Their comments had not been reflected in the gas section of the PoD, which did not in their view recognize the Contractors rights under the Petroleum Agreements and, because of the scale of the investment required, would represent an unacceptable burden that would likely be borne by the Contractor.</li> <li>The Development Pian should cover only Phase 1, and not</li> </ul>	
	include the impact of hypothetical later phases of development. T Manu said that the gas plan had been arrived at as a compromise solution, in negoliation with the Contractor, and that if fully recognized. The Contractor's rights. The gas plan had since been agreed with the Minister for Energy, and could not be revised at this stage.	
	T Manu said that the Petroleum Law required the Development Plan to include long term production forecasts, so it was necessary to include a description of possible later phases of development. GNPC eccepted that the Contractor could not commit to anything beyond Phase 1 at this time, and the wording of the Development Plan reflected that.	
	S Abankwa said that it was not acceptable for one party to hold up the project in this way. If the resultant delay to the project caused any cost increases, GNPC's position was that these should be borne by Anadarko (as the party holding up the project). If Anadarko had misgivings about proceeding they should negotiate their way out of the project. He would write to the CEO of Anadarko setting out GNPC's position immediately following the meeting. He urged Anadarko to reconsider their position. C Provost said that Anaderko would review the documentation and any latter that might arrive over the weekend.	
	It was agreed that a further meeting of JOC should be held at 2 pm Ghana time on Monday $22^{50}$ December. The agenda would be the same as for this meeting.	

Approved as a record of the Jubilae Operating Committee Meeting 19th December 2008 for and on behalt of:

Tullow Ghana Limited

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Ghana National Petroleum Corporation

Kosmos Energy Ghana HC

Anadarke WCTP Company

Sabre Oil & Gas Holdings Limited

The EO Group

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O-56 Exhibit O to the Unitization and Unit Operating Agreement

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## Jubilee Operating Committee Meeting 8

## Minutes of Meeting 14h30, 7<sup>th</sup> February 2009 Tullow Office, Accra, Ghana

#### Attendees

Tullow	Kosmos	Anadarko	Sabre	EO/KG	IPT Team
D Jones S Wheaton W Cox	A Mormon B Maxted	D Vardeman	D Morton	G Owusu	D McLaughlin

No	Minute	Action By	Completion Date
1	Introduction		
	The meeting was chaired by D Jones at the Tullow Office, Accra, Ghana, with telephone links to other participants in Accra, Houston, Dallas and London.		
	D Jones introduced the Agenda. There was only one item, which was to approve versions 28.2d, 30.1 and 32.1b of the Jubilee Phase 1 Development Plan for possible submission to The Minister for Energy in Ghana.		
	The agenda was agreed and adopted.		
2	Approval of the Jubilee Phase 1 Development Plan		
	D Jones introduced the item. Following negotiations with GNPC earlier in the year, Version 28.2d of the Jubilee Phase 1 Development Plan ("PoD") had been agreed by the Partners and with GNPC on 16 <sup>th</sup> January 2009. It was understood that this version had been submitted by GNPC to the Energy Sub Committee of the Transition Team of the Government in Ghana. Subsequently, following initial informal feedback from the Energy Sub Committee that they would prefer to see a version without GNPC's Gas Plan, Version 30.1 had been created and agreed among the Partners. Finally, version 32.1b had been created in response to comments received from the Energy Sub Committee attached to a letter from GNPC dated 28 <sup>th</sup> January 2009. Further discussions had been held with GNPC over the past week but it had not been possible to reach full agreement with them.		
	It was now likely that the new Minister for Energy would be appointed in the near future, and this could lead to a requirement to submit a PoD. D Jones requested JOC to approve the proposal that the Operator should select, from those described above, the version of the Jubilee Phase 1 Development Plan that it adjudged would give the best chance of approval and submit it to The Minister for Energy in Ghana, at the appropriate time following the Minister's appointment. The proposal was unanimously approved by Tuliow, Kosmos, Anadarko, Sabre, and EO/KG. The proposed draft submission letter, as circulated with the notice of the meeting was also unanimously approved.		

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O-57 Exhibit O to the Unitization and Unit Operating Agreement

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	G Owusu requested that references to E.O. Group in the document should be changed to KG Group. This was unanimously approved, subject to each party obtaining legal opinion that there was no objection. Each party undertook to provide feedback to the Operator as rapidly as possible	Kosmos, Anadarko and Sabre to confirm to Tullow that they have no objections to changing references from E.O. Group to KG Group	8 <sup>41</sup> February 2009
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Approved as a record of the 8<sup>th</sup> Jubilee Operating Committee Meeting on 7<sup>th</sup> February 2009 for and on benalf of:

Tullow Ghana Limited

Kosmos Energy Ghana HC

Anadarko WCTP Company

Sabre Oil & Gas Holdings Limited

The EO Group/KG Group

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O-58 Exhibit O to the Unitization and Unit Operating Agreement

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#### TGJ-MOM-0009-JOC-09

# Jubilee Operating Committee Meeting 9

#### Minutes of Meeting 09h00, 20<sup>th</sup> February 2009 Kosmos's Office, Dallas, Texas

#### Attendees

GNPC	Tullow	Kosmos	Anadarko	Sabre	KG	IPT Team
T Manu F Ackah K K Eyiah T Acwireng N Adzei-	D Jones S Wheaton R White W Cox	B Maxted W Hayes A Mormon J Matthews	C Provosi D Vardeman	M Welch (by telephone)	G Owusu	D McLaughlin S Bergeron E Haas

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No	Minute	Action By	Completion Date
1	Introduction		
	The meeting was chaired by D Jones at the Kosmos Office in Datlas		
	D Jones introduced the Agenda which was agreed and adopted.		
2	Approval of previous minutes and review actions	(·····································	· · · · · · · · · · · · · · · · · · ·
2.1	Status of Minutes for meetings # 6, #7 & #8 D Jones thanked JOC members for returning signed copies of the Minutes of previous meetings.	2 	
2.2	Matters Arising from the Minutes T Manu reported that GNPC were considering the proposed project logo designs, and had also been working on an alternative. He would report back to JOC with their conclusions as soon as possible.	Т Малы	08/03/2009
2.3	<ul> <li>Review of Sub Committees</li> <li>S Wheaton introduced the item. Following consultation with the IPT and partners a Sub Committee structure consistent with that in the latest draft UJOA was proposed for immediate implementation. In summary it was recommended that:</li> <li>"The Technical Committee would meet quarterly, and be chaired jointly by the IPT Technical Operator (D McLaughlin) and Unit Operator (S Wheaton) until first oil, and subsequently by the Unit Operator. However, if there are further activities conducted under a Unit Development Plan, then the TCM will continue to be co-chair re-instaled when that plan is being created." Its terms of reference will include EHS.</li> <li>The JCC should be set up to manage contracting and procurement as envisaged in the UUOA, to be chaired by the Unit Operator. Parties were requested to notify the operator of their proposed representatives as soon as possible</li> <li>The Gas Commercialisation Committee should continue under the chairmanship of the Unit Operator, covering technical optimisation with GNPC, and commercial negotiation (with parties participating depending on buyer seller confidentiality issues)</li> </ul>	B Maxted, C Provost to notify S Wheaton of their JCC representatives	Next JOC
	<ul> <li>Finance and accounting committee to continue under</li> </ul>		

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Exhibit O to the Unitization and Unit Operating Agreement

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r	chairmanship of Unit Operator - to meet as required.		l
	<ul> <li>The Oil Offtake and Marketing Committee should continue under the chairmanship of the Unit Operator, with its main tasks being to complete the Off-take Agreement and develop a joint approach to promotion of Jubilee oil</li> <li>The Financing and EHS sub committees will be held in</li> </ul>		
	abeyance until required. The above recommendations were unanimously approved.		
	It was unanimously agreed that the TCM held during the week had		
	been highly successful and that it should continue in the same manner.		
3	EHS report S Bergeron introduced the item. Official Incident tracking had commenced on December 8 <sup>th</sup> 2008. There had been no LTIs since then in the IPT, but one drilling LTI, which had already been reported to the partners.		
	Interface meetings had been held with Modec in Jurong, and between the Unit Operator and IPT in Ghana, and these had been successful, with no significant adverse issues. Co-operation between IPT and Unit operator was now functioning well. There had been good progress with emergency response planning.		
	GEPA had requested a very low drill cuttings discharge limit of 1% for development wells, which was not obtainable. The matter was under discussion with them and it was expected to be resolved satisfactorily the following week.		
	T Manu said that GNPC wanted more detail on CSR in the PoD. D Jones reported that further drafting had been discussed amongst the partners. D Vardeman stated that Anadarko had not been involved or consulted on EIS and CSR work even though the company has experience and robust systems and processes from which the partners can leverage. C Provost requested greater involvement of Anadarko in CSR planning, and it was agreed that IPT and Unit operator would take this on board in future.		
	There was a discussion of the interface with regulatory agencies in Ghana. It was agreed that GNPC should be fully involved in the permit submittal process. There was strong unanimous support for the Regulatory Workshop proposed for April, which all the regulatory agencies would attend to learn about the project, and to present their role. GNPC was assisting in the planning of the event.	4 5 6 1	
	T Manu confirmed that offshore security needed to be discussed with the Navy and MoD, and that this issue needed to be closely co- ordinated with GNPC	1	
4	IPT Report D McLaughlin introduced the IPT report. Since the last JOC there had been very good progress with the Production Operations Team. The Operations Manager was now a pert of the IPT management team.		
	Regarding the subsurface, the H2 well results had been excellent, confirming expectations about the reservoir. The J4 well result had not been so successful and a sidetrack was planned. E Haas said that there had been extensive discussions at the TCM meetings about the location, with full partner involvement, and he anticipated reaching a conclusion later that day.		
	There was a discussion of the process for Anadarko to charge for technical work carried out for the project. It was agreed that the correct process was as described in the Technical Services Agreement. Work to be carried out under a TSA should be discussed and agreed up		

O-60 Exhibit O to the Unitization and Unit Operating Agreement

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front, and should cover only work carried out for the benefit of the project, as opposed to the individual party. It was agreed by all that it was advantageous for the project to use skills and expertise from the pertners where possible.		
D McLaughlin said that the IPT was reviewing the Anadarko EEI work and would revert shortly with its decision about purchase for the sum of \$50,000.		
On project facilities a wide range of issues had been discussed at TCM, of which the most significant related to the use of MeOH or MEG for gas conditioning. T Manu said that GNPC was concerned that the EPA would come out against the use of MeOH, as currently planned. D McLaughlin said that a change to a MEG based system would present a major challenge to the project timescale, as it required a different plant, with a large footprint. C Provost said that Anadarko had substantial experience with MEG plants, which had proved problematic. D McLaughlin undertook to prioritise the review of this item and report back to JOC at the next meeting.	D McLaughlin to report back to JOC on review of MEG/MeOh plants.	Next JOC
D McLaughlin reported that the Master Schedule was now fully operational. It was a major project control tool and would form the basis of future reporting. The critical path, which ran through the FPSO, now had zero float in respect of the August 1 <sup>st</sup> 2010 stretch target for first oil. There was some float for all subsea construction items, but only 2 weeks in some cases.		
D McLaughlin reported that IPT continued to monitor costs rigorously against budget. Costs were running at approximately \$23m below budget, and this amount had been transferred to contingency. Also, there had been slippage of around \$114m out of 2008 and 2009 into later periods.		
T Manu asked whether the project would benefit from the downturn in world upstream activity. D McLaughlin said that there would be no significant cost benefit as we were working under existing LOIs.		
D McLeughlin said that a further \$146m would be required to continue the project beyond the end of February 2009. This would need to include extension of the Modec LOI to end March, which would increase the project's exposure on this LOI from \$340m to \$400m. If this was approved, AFE supplement #8 would need to be issued to cover the period to end March, on the above basis.		
5 Unit Operator Report S Wheaton introduced the Unit Operator Report. Well engineering performance had improved markedly as a result of lessons learnt from the earlier wells, and the most recent well had been ahead of plan on cost and schedule. All JOC members expressed their appreciation of this achievement and supported the planned continued performance improvement efforts. Unit Operator thanked partners for their positive comments.		
Good progress had been made in rig sharing discussions amongst the partners and it was hoped to reach agreement over the coming month.	S Wheaton	Next JOC
Operational readiness and organisational readiness were also progressing well. Out of 79 Unit Operator positions in Ghana, 62 were designated for nationals and 17 for expatriates. A number of senior nationals has already been appointed, including the Head Legal Counsel and HR Manager. Attention would be given to operational issues with Modec over the coming month.		
R White presented the Finance Report. Approval was requested for:		

Exhibit O to the Unitization and Unit Operating Agreement

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	<ul> <li>the Jubilee 2008 and 2009 Development Budgets as detailed in Slide 4 of the Budget presentation (attached)</li> <li>the Jubilee 2008-12 5-year Plan of Development budget and outlook figures, being \$3,705million firm and \$181million contingent for a total of \$3,886million JOC approved the two resolutions unanimously.</li> </ul>		
6	Update on Project Status D Jones updated the meeting on project status. The key issue remained the need to obtain approval of the PoD. Following negoliations with GNPC, draft 28.2d of the PoD had been agreed with them on 16 <sup>51</sup> January and submitted by GNPC to the Government Transition Team. Comments had been received back via GNPC in 9 areas. A number of meetings had been held and an understanding had been reached with GNPC on all of those areas except for one, which was Section 12, on ges, for which substantial changes had been proposed by the Transition Team which were not acceptable to the partners. Whilst all parties were aligned on the need for gas infrastructure to be put in place, the partners could not accept the pricing structure proposed by the Transition Team because it was an open ended price expectation with no boundaries. At the same time it was not possible for the partners to continue the project indefinitely on an LOI basis without PoD approval.		
	There were 9 LOIs (in addition to the Modec LOI if it is renewed) coming up for renewal at the end of March. Negotiating lead times meant that decisions would need to be taken in mid March about the future of the project.		
	The proposed plan of action was therefore to hold a JOC meeting on 12 <sup>6</sup> March in London to consider all the possible options for the Jubilee project, including suspension, cancellation and potential legal courses of action. In the meantime, it was proposed that the Modec LOI should be extended to end March to allow time for a last chance to resolve the gas issues, provided that this could be achieved without additional commercial concessions. Funding for the IPT team was also	D McLaughlin to negotiate extension of Modec LOI as described	End February
	recommended for approval until the end of March. Following discussion, the above course of action including extension of the Modec LOI, was unanimously approved by the partners.	D McLaughlin to provide evaluation of options	10 <sup>th</sup> March
	T Manu said that GNPC had been articulating the gas policy supported by Government and Parliament. He requested the partners to make a formal response with a price proposal.		
1	D Mclaughlin was requested to evaluate the cost and benefits of the various courses of action. The Gas Commercialisation Team was asked to provide input to the Gas Plan negotiations as required.	D McLaughlin/R White to issue updated AFE to cover costs to end March	End February
7	Approval of the agreed form of the UUOA D Jones proposed that the Jubilee Unitization and Unit Operating Agreement (UUOA) should be agreed emongst the parties so that it would be ready for signature at short notice in the event that the PoD was approved by Government. Accordingly he requested that JOC should approve the form of Unitization and Unit Operating Agreement Draft 20 Dated January 23rd to be executed as soon as reasonably practicable by all parties and to be submitted to the Ministry for approval in accordance with the Minister's letter of 25 November 2008.		
	W Hayes said that minor amendments had been agreed to Article 7.7, relating to insurance; however, GNPC had not yet responded to such amendments. G Owusu said that the "Authorized Exception" for EO/KG		

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O-62 Exhibit O to the Unitization and Unit Operating Agreement

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	in Article 14.32 could now be removed and partners confirmed that this was now approved. Subject to finalization of the drafting relating to the above two issues the UUOA was approved as requested.	,
8	Date of the Next Meeting It was agreed that the next meeting would be held in London on 12 <sup>10</sup> March 2009.	 

Approved as a record of the  $9^{th}$  Jubilee Operating Committee Meeting on  $20^{th}$  February 2009 for and on behalf of:

GNPC

Tullow Ghana Limited

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Kosmos Energy Ghana HC

Anadarko WCTP Company Sabre Oil & Gas HoldIngs Limited

The EO Group/KG Group

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O-63 Exhibit O to the Unitization and Unit Operating Agreement

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	in Article 14.32 could now be removed and partners confirmed that this was now approved.	
	Subject to finalization of the drafting relating to the above two issues the UUOA was approved as requested.	
8	Date of the Next Meeting It was agreed that the next meeting would be held in London on 12 <sup>th</sup> March 2009.	

Approved as a record of the 9<sup>th</sup> Jubilee Operating Committee Meeting on 20<sup>th</sup> February 2009 for and on behalf of:

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GNPC

Tullow Ghana Limited

Kosmos Energy Ghana HC

Anadarko WCTP Company

Sebre Oil & Gas Holdings Limited

The EO Group/KG Group

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	in Article 14.32 could now be removed and partners confirmed that this was now approved.	
	Subject to finalization of the drafting relating to the above two issues the UUOA was approved as requested.	
8	Date of the Next Meeting It was agreed that the next meeting would be held in London on 12 <sup>th</sup> March 2009,	

Approved as a record of the 9<sup>th</sup> Jubilee Operating Committee Meeting on 20<sup>th</sup> February 2009 for and on behalf of:

GNPC

Tullow Ghana Limited

Kosmos Energy Ghana HC Anadarko WCTP Company

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Sabre Oil & Gas Holdings Limited

The EO Group/KG Group

0-65 Exhibit O to the Unitization and Unit Operating Agreement

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	In Article 14.32 could now be removed and partners confirmed that this was now approved.	
	Subject to finalization of the drafting relating to the above two issues the UUOA was approved as requested.	
8	Date of the Next Meeting It was agreed that the next meeting would be held in London on 12 <sup>th</sup> March 2009.	

Approved as a record of the 9<sup>th</sup> Jubilee Operating Committee Meeting on 20<sup>th</sup> February 2009 for and on behalf of:

GNPC

Tuilow Ghana Limited

Kosmos Energy Ghana HC

Anadarko WCTP Company

Sabre Oil & Gas Holdings Limited

The EO Group/KG Group

O-66 Exhibit O to the Unitization and Unit Operating Agreement

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#### TGJ-MOM-0010-JOC-09

### Jubilee Operating Committee Meeting 10

# Minutes of Meeting 14h00, 12<sup>th</sup> March 2009 Tullow's Office, London

#### Attendees

GNPC	Tullow	Kosmos	Anadarko	Sabre	KG	IPT Team
T Manu	D Jones S Wheaton R White W Cox	B Maxted W Hayes G Dunlevy M Garrett A Mormon J Matthews	C Provost D Vardeman R Scott	D Morton M Welch	G Owusu	D McLaughlin

No	Minute	Action By	Completion Date
1	Introduction		
	The meeting was chaired by D Jones at Tullow's Office in London. GNPC, Kosmos, Anadarko, KG and the IPT participated by telephone.		
	D Jones introduced the Agenda which was agreed and adopted.		
2	Approval of previous minutes and review actions		
2.1	Minutes of Meeting #9 Anadarko, Sabre and GNPC said that they would provide any comments on the minutes of Meeting #9 by the end of the week. Comments had already been received form Kosmos and were under discussion.		
2,2	Matters Arising from the Minutes T Manu reported that the Government of Ghana was providing its input to the logo design and he hoped to be able to report back soon. It was agreed by all that it would be highly desirable to have an agreed logo at PoD approval.	T Manu	27/03/2009
	Anadarko undertook to nominate their JCC representative formally before the end of the week.	D Vardeman	13/03/2009
3	Approval of the Plan of Development and the way forward		· · · · · · · · · · · · · · · · · · ·
	D Jones said that since the previous meeting of JOC there had been further negotiations and exchange of correspondence with GNPC, particularly on the gas section of the PoD, but that there was no agreed draft of the PoD ready for approval. He understood that GNPC were currently producing a response to the proposal that had been made by the partners.		
	T Manu said he believed that much progress had been made towards agreement of the PoD, GNPC was working with the Government and hoped to provide a response to the partners' proposal the following day, 13 <sup>th</sup> March, or shortly thereafter. This would include some clarifications and GNPC's interpretation of what had been agreed so far, and he did not anticipate any deal breakers. The Minister for Energy had confirmed that he wanted to approve the UUOA and the PoD together, so both needed to be progressed on the same	T Manu	14/03/09

O-67 Exhibit O to the Unitization and Unit Operating Agreement

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timescale, as did the Attorney General's letter of approval of the UUOA. The draft letter was being reviewed by lawyers at the offices of the Attorney General and the Minister. T Manu undertook to deliver the PoD and UUOA to the Minister for Energy on behalf of the partners, when they had been approved by	
Energy on behalf of the partners, when they had been approved by	
JOC and the JMCs.	
The following outline target timetable was agreed:	
<ul> <li>PoD response to be received from GNPC</li> <li>Resolution of outstanding UUOA and PoD issues between partners and GNPC</li> <li>16/03/09 – 18/03/09</li> </ul>	
JOC and JMC meetings to approve PoD     and UUOA     18/03/09	
Submission of PoD and UUOA to Minister for approval     19/03/09	
Government approval obtained 23/03/09 – 27/03/09	
AG letter received 23/03/09 - 27/03/09	
4 Review of project options	
It was agreed that discussion of this item would be adjourned to the next meeting of JOC.	
5 AOB	
C Provost asked for an update on issues relating to environmental approvals.	
D Jones said that a development drilling permit had been obtained from the EPA. However there were issues associated with the disposal of cuttings which were being addressed with the EPA, and it was hoped that these would be resolved over the coming 2 to 3 weeks. Other development activities would follow after approval of the EIA. It had been agreed with the EPA that the EIA would be completed by the end of September, according to an agreed scope. This activity was progressing on schedule. T Manu stated that in order to progress the drill cuttings issue a repty was now required from Tulkow; Tulkow reported that this was in preparation.	
T Manu said that although completion of the EIA by end September was likely to be referred to as a condition in the Minister for Energy's letter of approval of the PoD he did not anticipate any problems, as long as the EIA was completed properly according to the agreed scope.	
C Provost requested greater involvement for Anadarko in future on environmental issues, including the EIS and CSR, and this was agreed by the Unit Operator. It was also agreed that T Manu or F Ackah should be present at future meetings with EPA.	/09
C Provost pointed out that Anadarko had not been involved in the IFC funding that Tuliow and Kosmos participated in and therefore had little knowledge of requirements with respect to environmental concerns (such as those currently ongoing with percent oil in the drill cuttings). He asked Tuliow and Kosmos if there were any specific covenants or requirements that the funding might place on the partnership which are incremental to the plans and programs as laid out in the POD. Tuliow and Kosmos responded that there were no such additional requirements over and above those of the Ghanalan authorities.	
C Provost requested that D Vardeman, M Garrett and S Wheaton	

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[		should meet to review EPA issues and identify any potential cost or schedule issues, and this was agreed.	
	6	Date of the Next Meeting	
		It was agreed that the next meeting would be held 18 <sup>th</sup> March 2009. The details would be arranged nearer the time.	

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Approved as a record of the 10 Jubilee Operating Committee Meeting on 12" March 2009 for and on benalf of

GNPC

Tullow Ghana Limited

Kosmos Energy Ghana HC

Abadarke WC1P Company

Sabre OH& Gas Holdings Limited

The EO Group/KG Group

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O-70 Exhibit O to the Unitization and Unit Operating Agreement



Approved as a record of the 10<sup>th</sup> Jubilee Operating Committee Meeting on 12<sup>th</sup> March 2008 for and on behalf of:

GNPC

Tullow Ghana Limited

Kosmos Energy Ghana HC

Anadarko WCTP Company

Sabre Oll & Gas Holdings Limited

The EO Group/KG Group

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O-71 Exhibit O to the Unitization and Unit Operating Agreement

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Approved as a record of the 10<sup>th</sup> Jubilee Operating Committee Meeting on 12<sup>th</sup> March 2009 for and on behalf of:

GNPC

Tullow Ghana Limited

Kosmos Energy Ghana HC

Anadarko WCTP Company

Sabre Oil & Gas Holdings Limited

The EO Group/KG Group

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Approved as a record of the 10<sup>th</sup> Jubilee Operating Committee Meeting on 12<sup>th</sup> March 2009 for and on behalf of:

GNPC

Tullow Ghana Limited

Kosmos Energy Ghana HC

Anadarko WCTP Company

Sabre Oil & Gas Holdings Limited

The EO Group/KG Group

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O-73 • Exhibit O to the Unitization and Unit Operating Agreement

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#### TGJ-MOM-0011-JOC-09

#### Jubilee Operating Committee Meeting 11

### Minutes of Meeting 15h00 UK, 8<sup>th</sup> April 2009 Tullow Offices in London base call - teleconference

#### Attendees

GNPC	Tullow	Kosmos	Anadarko	Sabre	EO	IPT Team
M Boateng T Ahwireng N Adzel-Akpor F Ackah KK Ayiah	S Wheeton P Sloan A D]okoto R White I Springett (p/lime)	B Maxted P Dailly A Mormon B Hayes G Dunlevy	C Provost D Vardeman R Scott M Wagner D Vardeman (p/time)	D Morton M Welch	G Owusu Dr. Edusei	D McLaughlin

No	Minute	Action By	Completion Date
1	Introductions + Previous Minutes The meeting was chaired by S Wheaton at Tullow's offices in London with telephone links to Tultow Cape Town, Anadarko's office in Houston, Kosmos's office in Dallas, Sabre's office in London, and GNPC's office in Tema, Ghana. S Wheaton apologised on behalf of Dai Jones (Joc Chairman) who was on vacation at the time of this meeting. The minutes of previous meetings JOC#9 and JOC#10 had been sent to partners just prior to the meeting for final confirmation and sign-off. Tullow will issue pdf versions for signatures post meeting. JOC#9 and JOC#10 minutes incorporate comments received from Kosmos and APC, and agreed. M Wagner (APC) recommended review back through previous minutes as JOC#7 sign-off not thought to be completely signed-off. Summary – circulate complete set-of outstanding minutes for partner approval/housekeeping/sign-off. S Wheaton confirmed the agenda and also that this JOC would be immediately followed by a Deepwater Tano JMC and West Cape Three Points JMC (hosted by Kosmos Energy in Dallas) in order to submit the POD to the Minister for Energy as soon as practicable.	D Jones	By 17 <sup>th</sup> April 2009
2	Approval of the Jubilee Phase 1 Development Plan The Jubilee Phase 1 Development Plan, draft number 32.1h, was unanimously (all parties agreed) approved for submission to GNPC, to the	Tullow to immediately submit the Development Plan to the respective JMCs, for onward	8/04/2009

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	WCTP and Deepwater Tano JMCs.	transmission to GNPC and the Minister for Energy. See following JMC minutes.	
	T Ahwireng read through the highly supportive cover letter that GNPC would submit with the Initialed POD document copies to The Minister for Energy. Received with thanks by partners. S Wheaton requested a copy for Partners; GNPC to confirm that they would make available for Partner files.	T Ahwireng/ M Boateng to D Jones	asap
	T Anwireng read a letter just received from The Minister for Energy stating that KG Group was required to revert to the original EO Group entity before the UUOA would be considered for approval. It was unclear whether this requirement also applied to the POD at the time of the meeting.		
	N.B. A copy of this letter was subsequently sent by GNPC (M Boateng) to all Partners on 9 <sup>th</sup> April 2009, and It was confirmed by GNPC on also Thursday 8th April that the POD and UUOA would both require this change. Therefore, during 9 <sup>th</sup> April a POD "Version 32.1h + KG to EO" was created, initialed and submitted by GNPC to The Minister for Energy by cob 9 <sup>th</sup> April 2009, in Accra, after KG Group confirmed there would be a reversion to name EO Group Limited.		
3	ΑΟυγ		
	The form of and submission to JMC, was unanimously agreed by the JV-Contractor parties of the Jubilee Unitization and Unit Operating Agreement (UUOA), draft Dated 7 <sup>th</sup> April 2009. Final GNPC review was on-going but GNPC did not expect any further issues to arise. It will then be submitted to the WCTP and Deepwater Tano JMCs, for onward submission to the Minister for Energy for approval, and that it should then be executed as soon as reasonably practicable by all parties (including GNPC).	Tuliow to submit the UUOA to the respective JMCs and thereafter by the JMC's to the Minister for Energy, as agreed. All parties to Execute the UUOA and related documents when Ministerial approval is provided.	10/04/2009 As soon as possible
	The process of UUOA close-out was discussed at some length by all parties, and the following was agreed at the meeting;	P Sloan/A Djokoto	By 17 <sup>sh</sup> April 2009
	<ul> <li>GNPC to complete final review of Draft dated 7<sup>th</sup> April downloaded from Baker Botts website and confirm same to Peter Sloan/Tony Djokoto. Any changes to be reviewed with JV, as/if arise.</li> <li>Final execution version to then be created and issued by Baker Botts/Tullow to GNPC and JV Partners as the Execution Copy.</li> <li>GNPC to forward UUQA to The Minister for Energy for his approval, elongside Attorney General "opinion letter" and Letters of Incumbency permitting parties to sign. (Tony Djokoto/P Sloan assist).</li> <li>Joint Venture Partners and GNPC to prepare for execution pending the Minister's feedback. Nominal date set for sign-off ceremony in Accta on Friday 17<sup>th</sup> April permitting time for print off and binding of execution coples in</li> </ul>		

Exhibit O to the Unitization and Unit Operating Agreement



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1	Houston/London by Baker Botts and		
	subsequent transport of same, to Ghana.		
	Peter Stoan to advise Partners of progress,		
	timing, location etc		ł
	N.B. by Tuesday 14 <sup>th</sup> April this process had		
	proceeded to point of GNPC submission to		
	Minister for Energy. KG group party was changed		
	to EO Group Limited for execution version.		
4	Finance Status/Budget		
	Rob White provided to the partners a summary		
	update of total Jubilee Unit budget for 2008 and		
	2009 for approval post Mahogany-2 transfer into		
	the Unit out of West Cape Three Points E&A		
	budget. R White also presented the profile out look		1
	to partners up to 2012.	-	
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	JV Contractor Parties agreed to the 2008 and		
	2009 budget for Jubilee Unit (Development and		
	Appraisal) as presented plus also the 2008-2012		
	profile as a planning basis.		[
	GNPC requested a review of the budget be held	R White	By end April
	between their finance group and TLW now that the		2009 visit to
	POD and UUOA were agreed they can bring	1	Ghana or vice
	attention to this.		versa London
	R While presented the AFE's for the Jubilee Unit	R White to issue AFE's	Post
	Development project (IPT sanction and overall		POD/UUOA
	total project including UO works) and appraisal		approval
	(M2 transfer). These AFE's do not yet reflect		
	GNPC back-in pending confirmation of effective		
	date when this would be carried out. Kosmos,	4	
	Sabre, EO and Tullow confirmed readiness to sign.		
	APC said they would sign-off, as before, when the		
	POD and UUOA are closed out. GNPC will review		
	alongside above budget work (see previous) but		
l	said they do not anticipate any issues in approval		
	given POD approval alongside. R White/D Jones		•
	to issue AFE's to partners for approval		•
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<b>t</b> )	AOB Resolutions Review		
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Exhibit O to the Unitization and Unit Operating Agreement

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All parties spread that this was the status achieved by this meeting.       MODEC FPSO Letter of Intent (LoI) and Variation Order Request - Long term Financing/VOR - LTP.         Status was reviewed by ian Springett who joined the meeting at this point. Lan stated that the process was at end stage with an interim 24 hour Lol extension in place to permit Replat review of an inconsistency between previous LoI Amendments and VORs to be corrected. When this was apreed he expected an extension to be in place to end June to permit the LTF of the project by MODEC to be reviewed in detail by the Senior Financial Group now in place. The senior Financial Sabre requested latest copies of MODEC LoI and VOR documents.       S Wheston       5" April 2009 (complete)         EPA status wrt Environmental impact Assessment (EIA) and specifics of oli-on-cutitings SWheaton provided an update to pathers on EIA progress (satisficatory end to schedule) and oli-on- cutiltings permit compliance and a meeting planned already with the EPA of the folkowing day on this matter. During this same week of this JOC there had been a media report regarding the project's EIA submission where an EPA staft member had been quoted and several areas appered regative as reported in written media (but not as per the original audio report). B Maxted & G Dunlevy (Kosmos) emphasised that they see the EIA and environmental compliance with the issued EPA permit, finde at time ER rig operations are not development with discharge from the EIA kand development with discharge from the EIA kand development with discharge for the EIA kand development with discharge to sea). Both Kosmos and Anadarko (C Provosi) requested that the Unit Operator increase communication permit - not diffing out in 12 Y hou unless a satisfactory status the following day can be astisfactory status the following day can be astatisfactory with the EPA and also a communication plan f
MODEC FPSO Letter of Intent (Loi) and Variation Order Request - Long term Financian(VOR - LTF) Status was reviewed by lan Springelt who joined the meeting at this point. I an stated that the process was at end stage with an Interin 24 hour Loi extension in place to permit legal review of an inconsistency between previous Loi Amendments and VOR to be corrected. When this was agreed he expected an extension to be in place to end Jume to permit the LTF of the project by MODEC to be reviewed in detail by the Sentor Financial Group now in place. The sentor learn will be visiting Tokyo MODEC In the week ahead for initial stage of LT review.       S Wheston       S <sup>th</sup> April 2009 (compfele)         Sabre requested latest copies of MODEC Lol and VOR documents.       S Wheston       S wheston         EPA latus wrt Environmental Impact Assessment IEIA and agreeities of olicon-cutifues S Wheaton provided an update to partners on EIA progress (satisfactory and to schedule) and oli-on- cuttings permit compliance and a meeting planned already with the EPA for the following day on this matter. During this same week of this JOC there had been a media report regarding the projecits EIA submission where an EPA staff member had been quoted and everal areas appeared negative as reported in written media (but not as per the original audio report). B Maxted & 6 Durleyy (Kosmos) emphasicate that they see the EIA and environmental compliance as one of the biggest rinks to the project. They were extremely uncomfortable wilk verbal approval only of the current cuttings discharge from the EIA's Raude development well drilling out in 12 X' hole unless a saliafactory slatus the following day on the assertion big area regarding ful compliance for the cuttings.       S Wheaton – immediate cuttings plan       S <sup>th</sup> April 2009 (near term plan issued to parinters; noti arite ergarding the report to actifing a
Order Request - Long term Financing/CVR - LTF)         Status was reviewed by ian Springelt who joined         the meeting at this point. Ian stated that the         process was at end stage with an interim 24 hour         Loi extension in place to permit legal review of an         inconsistency between previous Loi Amendments         and VORs to be corrected. When this was agreed         he expected an extension to be in place to end         Juma to parmit the LTF of the project by MODEC to         be reviewed in detail by the Schior Financial         Group now in place. The senior learn will be         visiting Tokyo MODEC In the week ahead for initial         stage of LT review.         Sabre requested latest copies of MODEC Lol and         VOR documents.         EPA status wrt Environmental Impact Assessment         (EIA) and supecifies of ob-on-cultings         S Wheaton provided an update to partners on EIA         progress (satisfactory and to schedule) and oil-on- cultings parmit compliance and a meeting planned         aiready with the EPA for the following day on this         matter bad basen a media report regarding the projecit's         EIA submission where an EPA staff member had         been quoted and several stress appeared hegative         as reported in written meetia (but not as per the original audio report). B Maxted & Dunley         (Kosmos) emph
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S Wheaton/D Jones – EIA process and partner involvement	24 <sup>th</sup> April 2009

Approved as a record of the Jubilee Operating Committee Meeting 8th April 2009 for and on behalf of:

Tullow Ghana Limited

Ghana National Petroleum Corporation

Kosmos Energy Ghane HC

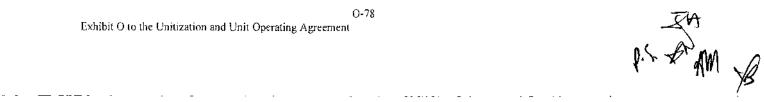
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Sabre Oil & Gas Holdings Limited

The EO Group

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O-79 Exhibit O to the Unitization and Unit Operating Agreement

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Exhibit O to the Unitization and Unit Operating Agreement

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O-80

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#### EXHIBIT "P"

#### UNIT DEVELOPMENT PLAN

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P-1

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### Phase 1 Development Plan

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### TABLE OF CONTENTS Phase 1 Plan

#### 1.0 EXECUTIVE SUMMARY

- 1.1 Introduction
- 1.2 Jubilee Field
  - 1.2.1 Unitization and Unit Operating Agreement
  - 1.2.2 Development and Production Area
  - 1.2.3 Field History
  - 1.2.4 Oil in Place
- 1.3 Development Plan Summary
- 1.4 Schedule and Cost
- 1.5 Production Forecast and Reserves
- 1.6 Development Risk and Mitigation
- 1.7 Definitions

#### 2.0 SUBSURFACE

- 2.1 Geological Setting
  - 2.1.1 Field Location
  - 2.1.2 Tectonic Setting
  - 2.1.3 Stratigraphic Setting
  - 2.1.4 Jubilee Play Description
- 2.2 Jubilee Field Data
  - 2.2.1 Geophysical Data
  - 2.2.2 Petrophysical Data
- 2.3 Reservoir Description
  - 2.3.1 Formation Age
  - 2.3.2 Correlation of Reservoirs
  - 2.3.3 Depositional Environment
  - 2.3.4 Petrophysical Methodology
  - 2.3.5 CPI Plots
  - 2.3.6 Petrophysical Summary
- 2.4 Reservoir Limit
  - 2.4.1 Reservoirs and Oil-Water Contacts
  - 2.4.2 3D Seismic Interpretation
  - 2.4.3 Velocity and Time to Depth Mapping
- 2.5 Field Mapping / Static Models
  - 2.5.1 Static Model Methodology
  - 2.5.2 LM2 Static Model
  - 2.5.3 UM3 Static Model

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version

### TABLE OF CONTENTS (contd) Phase 1 Plan

- 2.6 Reservoir Engineering
  - 2.6.1 Well Results
    - 2.6.1.1 Mahogany 1
    - 2.6.1.2 Hyedua 1
    - 2.6.1.3 Mahogany 2
  - 2.6.2 MDT Results
  - 2.6.3 Special Core Analyses
  - 2.6.4 Reservoir Fluid Analyses
    - 2.6.4.1 PVT Summary
    - 2.6.4.2 Oil Typing
    - 2.6.4.3 Water Analyses
  - 2.6.5 Drill Stem Test Results
  - 2.6.6 Reservoir Simulation
    - 2.6.6.1 Model Type
      - 2.6.6.2 Gridding
      - 2.6.6.3 Reservoir Properties
      - 2.6.6.4 Fluid Contacts
      - 2.6.6.5 Lateral Flow Barriers
      - 2.6.6.6 PVT Data
      - 2.6.6.7 Relative Permeability Data
      - 2.6.6.8 Well and Facility Constraints
      - 2.6.6.9 Pressure Maintenance Strategy
  - 2.6.7 Field Analogs
    - 2.6.7.1 Development Type
    - 2.6.7.2 Field Size / Recovery
    - 2.6.7.3 Well Count / Type
    - 2.6.7.4 Pressure Maintenance
    - 2.6.7.5 Recovery Per Well
    - 2.6.7.6 Interference Testing
    - 2.6.7.7 Key Uncertainties / Lessons Learned
  - 2.6.8 Oil in Place and Ultimate Recovery
    - 2.6.8.1 Volumetric Estimate
    - 2.6.8.2 Reservoir Simulation Estimate
  - 2.6.9 Development Plan
    - 2.6.9.1 Well Locations
    - 2.6.9.2 Gas Injection Wells
      - 2.6.9.2.1 Area 1 Location
      - 2.6.9.2.2 Area 2 Location
      - 2.6.9.2.3 Optimization Plan

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version 08/07/2009

-2-

### TABLE OF CONTENTS (contd) Phase 1 Plan

2.6.9.3 Drilling Plan and Schedule

2.6.9.4 Well Completions

- 2.6.9.5 Production Well Surveillance
- 2.7 Production Forecast
  - 2.7.1 Reservoir Management
  - 2.7.2 Maximum Efficient Rate
  - 2.7.3 Production Forecast
- 2.8 Subsurface Uncertainties

#### 3.0 FACILITIES AND EQUIPMENT

- 3.1 Recommended Approach and Alternatives Considered
- 3.2 Subsea System
  - 3.2.1 Design Philosophy
  - 3.2.2 Seabed Layout
  - 3.2.3 Production Wells
    - 3.2.3.1 Production Manifolds
      - 3.2.3.2 Production Trees
      - 3.2.3.3 Artificial Lift
      - 3.2.3.4 Flowlines and Risers
      - 3.2.3.5 Subsea Controls and Umbilicals
  - 3.2.4 Injection Wells (Gas and Water)
    - 3.2.4.1 Injection Manifolds
    - 3.2.4.2 Injection Trees
    - 3.2.4.3 Flowlines, Risers and Umbilicals
- 3.3 Topsides Equipment
  - 3.3.1 FPSO
    - 3.3.1.1 Station Keeping
    - 3.3.1.2 Mooring System
    - 3.3.1.3 Riser Connections
    - 3.3.1.4 Hull Structure and Accommodation
    - 3.3.1.5 Coatings and Corrosion Protection
    - 3.3.1.6 Deck Cranes
    - 3.3.1.7 Electrical Power Generation
    - 3.3.1.8 Availability Modeling
  - 3.3.2 Processing Equipment
  - 3.3.3 Water Injection
  - 3.3.4 Gas Injection, Compression and Riser Gas-Lift
  - 3.3.5 Gas Export and Processing

# TABLE OF CONTENTS (contd)Phase 1 Plan

#### 3.3.6 Production Operations

- 3.3.6.1 FPSO Production Operations
- 3.3.6.2 Logistics Support
- 3.3.6.3 Subsea and Well Intervention Operations
- 3.4 Fluids and Flow Assurance

#### 4.0 SCHEDULE AND COSTS

#### 4.1 Schedule

- 4.1.1 Subsea and Topsides Equipment
- 4.1.2 Drilling and Completions
- 4.2 Development (Capital) Expenditures
- 4.3 Production (Operating) Expenditures
- 4.4 Project Risk and Mitigation

#### 5.0 ECONOMICS

- 5.1 Base Case
- 5.2 Sensitivity Analysis

#### 6.0 FINANCING OF DEVELOPMENT

#### 7.0 ENVIRONMENTAL, HEALTH AND SAFETY

- 7.1 Mission
- 7.2 EHS Management System
- 7.3 Programs, Plans and Procedures

#### 8.0 COMMUNITY DEVELOPMENT AND SOCIAL RESPONSIBILITY

- 8.1 CSR Values
- 8.2 CSR Strategy

#### 9.0 **PROJECT EXECUTION**

- 9.1 Organization
- 9.2 Project Execution Plan
- 9.3 Interface Management

#### **10.0 PROCUREMENT STRATEGY**

#### 11.0 NATIONAL TRAINING AND EMPLOYMENT PLAN

- 11.1 Overview
- 11.2 Employment Plan and Training



### TABLE OF CONTENTS (contd) Phase 1 Plan

12.0 GAS UTILIZATION

£~-

13.0 DECOMMISSIONING PLAN

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version

08/07/2009

- 5 -



### TABLE OF CONTENTS (contd) Phase 1 Plan

#### FIGURES

- 1. Field Locator Map
- 2. Field Locator Map
- 3. Unit Area Locator Map
- 4. Stratigraphic Framework Regional
- 5. Regional Horizons
- 6. Biostratigraphic Section
- 7. Type Log
- 8. 3D Seismic Surveys
- 9. Structural Cross Section
- 10. Depositional Model
- 11. Log Porosity Core Porosity Cross Plot
- 12. Porosity Permeability Transform
- 13. Porosity Permeability Cross Plot
- 14. Mahogany 1 CPI
- 15. Hyedua 1 CPI
- 16. Hyedua 1BP1 CPI
- 17. Mahogany 2 CPI
- 18. Petrophysical Summary by Zone
- 19. Depth Structure Map with Amp on UM
- 20. Depth Structure Map with Amp on LM
- 21. Inline 2064 Seismic Traverse
- 22. Inline 4500 Seismic Traverse
- 23. Mahogany 1 Well to Seismic Tie
- 24. Hyedua 1 Well to Seismic Tie
- 25. Mahogany 1 AVO Model
- 26. SW-NE Well Tie Line
- 27. SW NE Well Tie Line Flattened
- 28. UM Time Structure Map
- 29. UM Isochron Map
- 30. LM Time Structure Map
- 31. LM Isochron Map
- 32. Time-Depth Curve
- 33. Features Affecting Depth Conversion
- 34. Seafloor Canyons
- 35. UM Depth Conversion Methodology
- 36. Top & Base LM2 Structure Maps
- 37. LM Facies Model
- 38. Lower Mahogany Lineaments
- 39. Porosity Comparison Upscale to Well Logs
- 40. Porosity Permeability Relationship

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version





### TABLE OF CONTENTS (contd) Phase 1 Plan

#### FIGURES

- 41. Sw-Porosity Relationship
- 42. UM Depositional System
- 43. UM3 Gross Isopach Map
- 44. UM Scaled Isopach Maps
- 45. North Channel Area Static Model
- 46. UM3 and North Channel Area Lineaments
- 47. UM3 Facies Model
- 48. North Channel and UM3 Net Pay Isopach
- 49. Conventional MDT Pressure Plot
- 50. Excess Pressure Plot
- 51. PVT Analysis Summary
- 52. SARA Analysis Summary
- 53. Alkyl Benzene Ratios Various
- 54. Alkyl Benzene Ratios UM
- 55. Alkyl Benzene Ratios LM
- 56. Water Analysis Summary
- 57. Nodal Analysis Summary
- 58. LM2 DST Interval
- 59. LM2 DST Summary
- 60. UM3 DST Interval
- 61. UM3 DST Summary
- 62. UM3 Model Basis
- 63. LM2 Model Basis
- 64. LM2 Net to Gross Volume
- 65. LM2 Porosity Volume
- 66. LM2 Permeability Volume
- 67. UM3 Net to Gross Volume
- 68. UM3 Porosity Volume
- 69. UM3 Permeability Volume
- 70. LM2 Saturations / Contacts
- 71. UM3 Saturations / Contacts
- 72. PVT Data
- 73. Relative Permeability Data
- 74. Recovery by Mechanism
- 75. Jubilee Field Analogs
- 76. UM2 Time Structure Map
- 77. LM2 Time Structure Map
- 78. UM2 Depth Structure Map
- 79. UM3 Depth Structure Map
- 80. LM2 Depth Structure Map

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version

# TABLE OF CONTENTS (contd)Phase 1 Plan

#### FIGURES

- 81. UM3 Structure with Amp Map
- 82. LM2 Structure with Amp Map
- 83. Northern Channel Net Pay Isopach
- 84. UM3 Net Pay Isopach
- 85. Northern Channel / UM3 Net Pay Isopach
- 86. LM2 Net Pay Isopach
- 87. STOOIP and EUR Summary
- 88. Phase 1 Base Map
- 89. Phase 1 Base Map with Bathymetry
- 90. Phase 1 Base Map with Seismic Inlines
- 91. LM2 Takepoint Intersection Seismic Inlines
- 92. LM2 Takepoint Intersection -- Seismic Inlines
- 93. LM2 Takepoint Intersection Seismic Inlines
- 94. UM3 Takepoint Intersection Seismic Inlines
- 95. Phase 1 Gas Well Location
- 96. Phase 1 Drilling Schedule
- 97. Typical Well Diagram
- 98. Days versus Depth
- 99. Typical Completion Schematic
- 100. Phase 1 Oil Production Forecast
- 101. Phase 1 Gas Production Forecast
- 102. Phase 1 NGL Production Forecast
- 103. Phase 1 Available Gas Forecast
- 104. Subsurface Uncertainties
- 105. FPSO / Subsea Schematic
- 106. Phase 1 Subsea Layout
- 107. Phase 1 Manifold P&ID
- 108. Production Tree Diagram
- 109. Injection Tree Diagram
- 110. FPSO Hull Dimensions and Tonnage
- 111. FPSO Process Plant
- 112. FPSO Oil Sales Characteristics
- 113. FPSO Gas Injection / Export Characteristics
- 114. FPSO Seawater Injection and Produced Water Characteristics
- 115. Phase 1 Project Schedule
- 116. Phase 1 Development (Capital) Expenditures
- 117. Phase 1 Development (Capital) Expenditures by Year
- 118. Phase 1 Total Expenditures
- 119. Project Risk and Mitigation
- 120. Phase 1 Revenues

Jubilee Field Jubilee Phase 1 POD Final Version



# TABLE OF CONTENTS (contd)Phase 1 Plan

#### **FIGURES**

- 121. Phase 1 Economic Results
- 122. Phase 1 Revenue Allocation
- 123. Phase 1 Sensitivity Analysis
- 124. Phase 1 Sensitivity Analysis
- 125. Project Execution Organization

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version

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#### 1.0 EXECUTIVE SUMMARY

#### 1.1 Introduction

The Jubilee Phase 1 Development Plan is submitted pursuant to the Deepwater Tano Contract Area Petroleum Agreement and the West Cape Three Points Block Petroleum Agreement (Petroleum Agreements). Successful exploration and appraisal drilling under the terms of the referenced Petroleum Agreements resulted in one discovery overlapping both blocks, during 2007. The one discovery was determined to comprise a large accumulation of oil underlying areas within both blocks. In consultation with Ghana National Petroleum Corporation (GNPC), the accumulation was named Jubilee Field, see Figures 1 and 2.

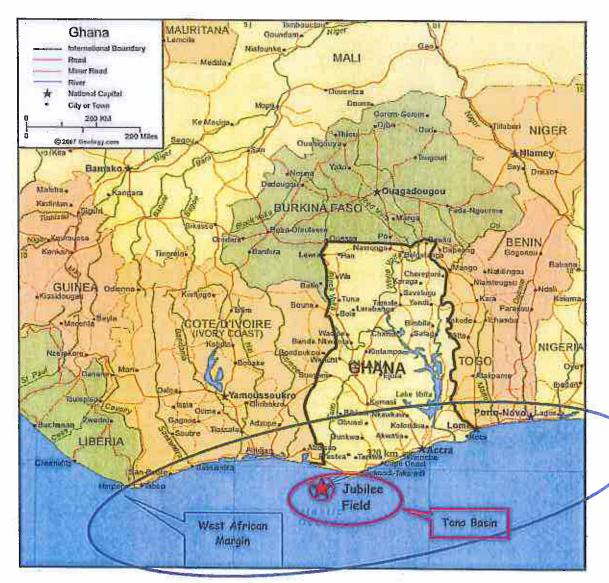


Figure 1: Field Locator Map

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version

08/07/2009

- 10 -

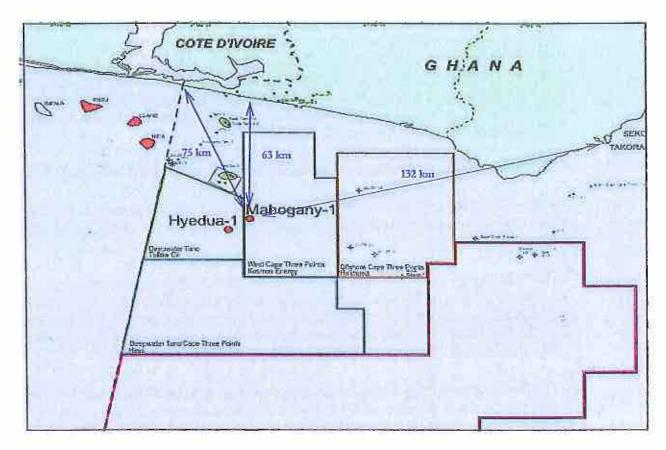


Figure 2: Field Locator Map

Participants in the Petroleum Agreements are the Republic of Ghana, GNPC, Tullow Ghana Limited, Kosmos Energy Ghana HC, Anadarko WCTP Company, Sabre Oil & Gas Holdings Limited, and the EO Group Limited.

This Phase 1 Development Plan is submitted to the Minister of Energy (Minister) pursuant to Article 8.10 of the Petroleum Agreements. The Minister had earlier been notified of the Mahogany 1 exploration well discovery (notice June 2007) in the West Cape Three Points Block and the Hyedua 1 appraisal well discovery (notice September 2007) in the Deepwater Tano Contract Area. The Hyedua 1 well encountered oil and was interpreted to be in pressure communication with the Mahogany 1 discovery; at the time of the drilling of both wells there was a "gap" between the two locations in the available 3D seismic coverage. The later (4Q 2007) acquisition of the Jubilee High Resolution 3D seismic "gap" between the Mahogany 1 and Hyedua 1 wells, confirmed that the Mahogany 1 and Hyedua 1 reservoirs were at the same stratigraphic level.

Within the requisite 100 days from the discovery notices, the Minister was notified that the discovery warranted appraisal and Appraisal Programs were separately submitted for

each block. In the West Cape Three Points Block the Appraisal Program was composed of the acquisition of the hi-resolution 3D seismic survey and the drilling of two Appraisal Wells (Mahogany-2 and Mahogany-3). In the Deepwater Tano Contract Area, the Appraisal Program included a continuation across the two block boundaries of the same 3D seismic survey from West Cape Three Points, and the drilling of one firm Appraisal Well (Hyedua-2), and potentially of a contingent Appraisal Well (Hyedua-3) if warranted by the results of Hyedua-2 and the 3D seismic.

The 3D seismic was acquired over both Blocks between October-December 2007.

Based on agreement with GNPC in January 2008, the Contractor parties for both blocks are pursuing a phased and parallel appraisal and development program for the Jubilee field.

The Mahogany-2 well drilling was completed in May 2008 and was then tested successfully in June 2008. The Hyedua-2 well commenced drilling in October 2008 and completed successful drilling and testing operations by January 2009. The Mahogany-3 well was spudded in November 2008 and completed operations at end January 2009; the time of final compilation and submission of this Development Plan.

Whilst the Appraisal Programmes were being executed in both blocks and before a fasttracked development plan could be submitted, the Contractor parties were advised by GNPC to submit an Interim Appraisal Report in support of the required Declaration of Commercial Discovery for the "core area" of the Jubilee Field, which would also support the Contractor's request for the discovery to be unitized given that it crossed the boundary between the two Blocks. This step was also required given the active work program and commitment made by all Jubilee Field partners to proceed with both parallel appraisal and a fast-tracked Phase 1 development. Therefore, in October and November 2008 the Minister was presented with the Interim Appraisal Reports and Declarations of Commercial Discovery for the Jubilee field "core area" covering parts of each of Deepwater Tano and West Cape three Points, now defined herein as the current "Unit Area." The Interim Appraisal Reports re-stated the Deepwater Tano and West Cape Three Points appraisal programs as submitted in January 2008 and September 2007 respectively, as well as the results obtained to the time of submittal of the interim reports.

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Based on the Hyedua-2 and Mahogany-3 well results, the Contractor parties for each block will now submit updated Appraisal Reports and forward new Appraisal Programs for consideration by the Minister in April 2009. As required under the Petroleum Agreements, within 90 days after completing these programs the Contractor parties for each block will submit final Appraisal Reports, and if deemed commercial, will follow with Development Plans within 180 days. The steps taken of submitting phased appraisal programs by the Contractor parties aligns with the fast-track commitment to undertake in parallel the Phase 1 Development, as described in this Plan of Development, whilst the continuing appraisal may then delineate the field in full to support potential future expansion phases of development; in accordance with the Petroleum Agreement(s).

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version

08/07/2009

no

- 12 -

Consequently, the Phase 1 Development Plan is based on the analysis of engineering, geological and geophysical data, including the results of the first two wells; Mahogany 1 and Hyedua 1, and one appraisal well, Mahogany 2 (drilled in the West Cape Three Points Block). The wells encountered hydrocarbon reservoirs that have been determined to be commercially producible within the Phase 1 development. Although this Phase 1 Development Plan addresses the resource base and subsurface uncertainties associated with a high confidence region of the potential field area, it is recognized that there is upside reserves potential beyond the currently defined development area. Subsequent phases of development would be defined by a combination of prevalent economic conditions, later appraisal and development drilling results and the production performance information from Phase 1 wells, as well as, ongoing exploration and appraisal operations in the Contract Areas outside of the Unit Area.

The Partnership has currently assessed a simulation based Most Likely original oil in place volume of 1,814 MMBO for the two most significant of the five known hydrocarbon pools in the Phase 1 Development Area, the UM3 and LM2 pools. The estimated original oil in place for the three remaining pools (UM1, UM2 and LM1) in the Phase 1 Development Area ranges from an additional 300 to 600 MMBO. The petrophysical parameters for this initial range are as per Fig.18, page 51 with approximate review only of areas from seismic amplitudes. However, these zones/pools based on Hyedua-1 and Mahogany-1 data are relatively thin and they are in a different pressure regime to both UM3 and LM2. Therefore additional data from the Phase 1 development drilling program combined with new studies will be necessary to fully assess the resource potential of these UM1, UM2 and LM1 pools. Deepwater turbidite fields analogous to the Jubilee Field typically have recovery factors when fully developed of 30-50%, so it is reasonable to expect that given some further technical appraisal well success, reasonable production behavior post start-up, and suitable economic conditions to justify high cost deepwater investment, that a potential future recovery target of the order of 544 – 907 MMBO may be realized from the UM3 and LM2 when fully developed. The partnership shares the goal with all stakeholders to strive for an ultimate target and maintain a maximized production profile for as long as technically and economically practicable.

This document sets forth a plan by which to initiate development of the Jubilee Field at an early stage as Phase 1 with a view towards the possibility of further development work in the future. The Phased approach significantly reduces development risk for a fasttracked project through improved understanding of reservoir behavior during the early production phase and provides for incorporation of lessons learned into possible subsequent phases of development.

This Phase 1 Development Plan describes the reservoirs within the Phase 1 Development and Production Area and the drilling, completions and facilities that will constitute the initial development of this portion of the potential Jubilee Field area.

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version

The guiding principles which have underpinned the Phase 1 Development Plan are:

- First oil produced as soon as prudently possible for the benefit of Ghana and JV partners
- Adherence to national and international environmental standards.
- Employ industry best-practices and proven technology for a deepwater FPSO scheme
- Fast-track development of the already appraised "core" portion of the Jubilee Field
- Ongoing data acquisition during the development drilling phase to optimize the plan on a continuous basis
- Phase 1 would be used to frame future phases of development data obtained and early performance
- Focus on development of the reservoirs that the partnership currently has the highest confidence in (specifically the LM2 and UM3 reservoirs)
- Subsea system and topsides facility design that provides expansion capability and flexibility in response to the gain of further sub-surface knowledge and a range of production-injection outcomes
- Reservoir management consisting of 100% voidage replacement through injection of both water and associated gas given the near saturated oil
- Fit for purpose documentation including the POD itself
- Ability to dispose of all associated gas without flaring through injection and/or sales, and have an oil development timeline independent of the subsequent gas commercialization plan
  - It is acknowledged that there is significant uncertainty regarding the location and effectiveness of gas injection wells. The effectiveness of gas injection on ultimate recovery will be evaluated on an ongoing basis and adjustments to the plan will be made, if justified

Moreover, the Phase 1 facility scheme deliberately allows for potential later Expansion Phases through combinations of any of the following;

- infill drilling through available extra empty well slots installed subsea as part of the Phase 1 network
- expansion of the subsea system to tie-in new reservoir areas using either the Phase 1 installed tie-in points subsea, or through new risers to the Phase 1 FPSO which has extra riser slots available

08/07/2009

- 14 -



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• and in the event of major appraisal success at Jubilee the potential for the installation of a second subsea network and related FPSO vessel

Therefore, in early 2008, the Jubilee Field partners including GNPC confirmed their commitment to execute a quality Phase 1 project to combine earliest production without gas flaring and with prudent reservoir management, whilst continuing parallel appraisal. This commitment to this goal has been a tenet of the creation of the Plan of Development project execution. The POD is therefore presented as a Phase 1 investment plan whilst field appraisal continues in parallel. It is this approach that will also provide important dynamic field production data as early as possible to guide future reservoir management and development/operational practices; static field appraisal well data alone cannot possibly provide this key information. Therefore, early development in parallel with field extension appraisal activity is highly recommended for combined technical and commercial reasons. The performance of the first production phase will be used to optimise the subsequent steps.

Favourable appraisal results may lead to extension and further development opportunities of the Jubilee Field, or other separate pools, yet to be defined. The Contractor parties are then committed to investigate, as soon as practicable, means which are technically and commercially feasible, to accrete reserves and extend/increase production levels to the benefit of all parties. Moreover, the Phase 1 design has deliberately in-built flexibility as listed above to respond to the field performance – tangible examples include extra subsea well slot locations and manifold tie-in points, extra riser space/slots in the FPSO turret and a subsea layout permitting further subsea loop tie-ins. The Phase 1 subsea layout is sympathetic to the sea bed topography which has several deep canyons and therefore further tie-ins either side of these features subsea can be accommodated to both east and west.

It was acknowledged, as with all projects, that data would continue to be acquired and would be used to make refinements to the plan as it progressed. This is especially true of this fast-paced project. As an example the Final Q seismic volume that was acquired in late 2007 was received by the partnership post the major build of this POD. The next generation of subsurface model build has since commenced, but the new data is being actively used already to optimize development well locations. The partnership will provide regular field updates as significant new data and analysis work completes. This will be combined with new well data as the well count increases.

With respect to the contents detailed, our preference with regard to the Plan of Development document has been to reference other documents, such as the Basis of Design for the FPSO and subsea system, rather than including that information in the POD document. We saw benefit in maintaining the POD to a size that was manageable, while providing sufficient detail to describe the purpose and intent of the Phase 1 Development.

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version

# **1.2** Jubilee Field

# 1.2.1 Unitization and Unit Operating Agreement

Analysis of the results of the first two wells, Mahogany 1 and Hyedua 1, indicates that the wells encountered an accumulation of hydrocarbons that extends across the boundary between the West Cape Three Points Block and the Deepwater Tano Contract Area. GNPC advised and the Minister requested that the operators of West Cape Three Points Block and the Deepwater Tano Contract Area form a unit, pursuant to Article 8.20 of the Petroleum Agreements. In recognition of this and with the objective of optimized development of the accumulation and with the approval of the Minister , the parties comprising Contractor under each of the Petroleum Agreements are unitizing the Jubilee Field and, as such, have defined the Unit Area, see Figure 3, to encompass the Jubilee Field. The Unit Area comprises some 27,090 acres. To effectuate this unitization and to assist in the timely completion of this Development Plan, such parties comprising Contractor under each of the Petroleum Agreements will execute a Unitization and Unit Operating Agreement (UUOA) that will govern operations within the Unit Area.

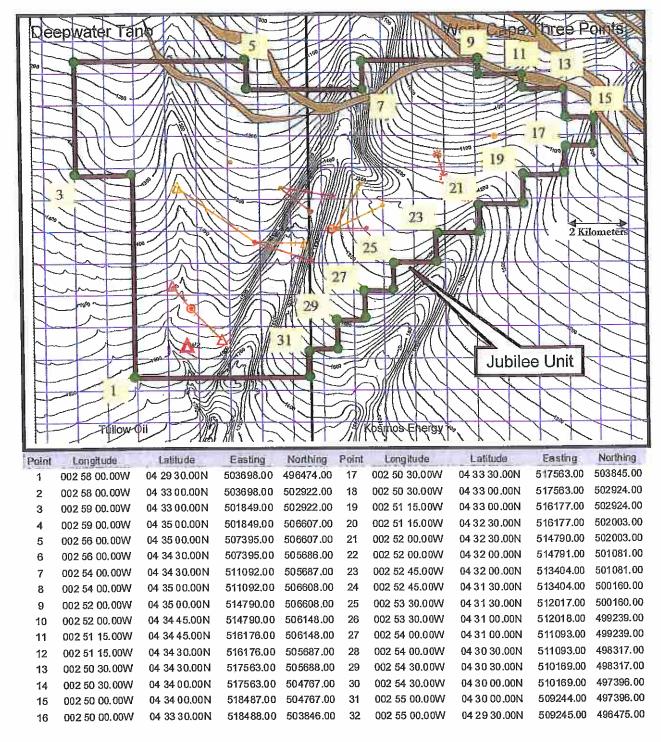
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#### **1.2.2** Development and Production Area

For Phase 1, the boundaries of the proposed Development and Production Area of the Jubilee Field are the same as the Unit Area described in Figure 3. The ongoing appraisal program will ultimately define the full extent of the field. Future drilling may warrant an extension of the Unit Area beyond the boundaries shown in Figure 3, in accordance with the procedures set out in the Unitization and Unit Operating Agreement. In that event, the Development and Production Area would be modified accordingly.

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version 08/07/2009

- 16 -





Jubilee Field Jubilee Phase 1\_POD\_Final\_Version

08/07/2009

- 17 -

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#### 1.2.3 Field History

The Mahogany 1 was drilled as an exploration well in June, 2007 to a total depth of 3,802m TVDSS (true vertical depth below sea level). The location of the well was selected to test Turonian fan objectives, which were identified with 3D seismic data. The well encountered an estimated 98m of net oil bearing pay within a 271m gross interval in the Turonian section. A wireline MDT sampling program recovered reservoir oil samples which were found to have a gravity of 36° API and a solution GOR of approximately 1,100 Scf/Stb.

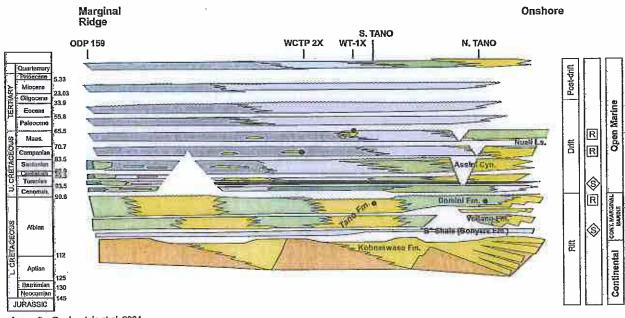
The Hyedua 1 was drilled as an appraisal well in July, 2007 to a total depth of 3,978m TVDSS. The location of the well was selected to test similar Turonian fan objectives discovered by the Mahogany 1 and was identified with 3D seismic data. The well encountered an estimated 42m of net oil bearing pay within a 239m gross interval in the Turonian section. A wireline MDT sampling program recovered reservoir oil samples which were found to have a gravity of 35° API and a solution GOR of approximately 1,000 Scf/Stb.

During late 2007 and early 2008, a high resolution "Q" 3D seismic survey was acquired over the Jubilee Field and surrounding areas for purposes of improved understanding of the subsurface, optimized development planning, and as a first step in potential application of 4D seismic for future reservoir management.

Figure 4 shows the regional stratigraphic framework of the Tano Basin, where the discoveries were made. The hydrocarbon bearing reservoirs have been named the Upper Mahogany and Lower Mahogany. Analysis of the well data indicates there are at least five major oil pools in the Upper and Lower Mahogany reservoirs. The most volumetrically significant are the UM3 in the Upper Mahogany and the LM2 in the Lower Mahogany reservoir.

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version





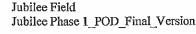
Ages after Gradenstein et al, 2004

Figure 4: Stratigraphic Framework - Regional

The Mahogany 2 appraisal well was drilled in May 2008 and confirmed that the same hydrocarbon bearing intervals as found in Mahogany 1 and Hyedua 1 also occur to the Northeast of the field. A drill stem test (DST) was performed in both the UM3 and LM2 intervals and full PVT samples were acquired, see Section 2.6.5.

The LM2 samples exhibited similar fluid properties to those in Mahogany 1 and Hyedua 1. The UM3 sample, while exhibiting a similar API gravity, has a higher gas-oil ratio, when compared to the Mahogany 1 sample. The oil typing analysis of UM3 appears to indicate different fluids to Mahogany 2.

The interpretation of the DST results is inconclusive and presents a number of alternative interpretations. Taken together with the potential for different oils, this could indicate greater complexity in the Jubilee Field and if confirmed by further drilling could impact the ultimate number of wells required to efficiently recover the hydrocarbons.





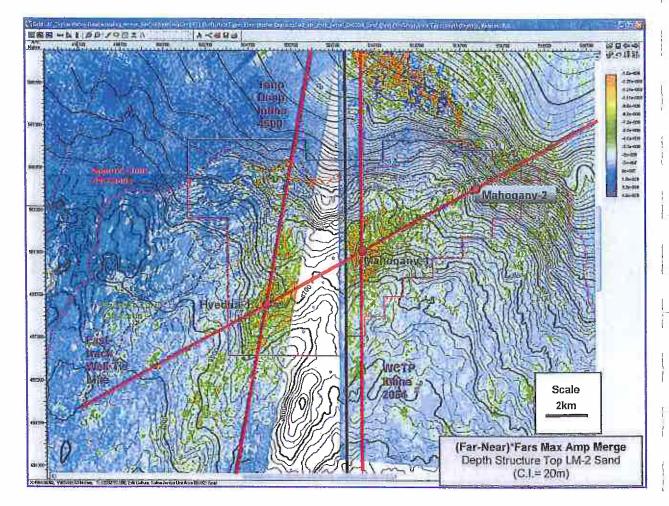


Figure 20: Top LM Depth Structure Map with AVO Amplitude Interval Extraction

# 1.2.4 Oil in Place

Figure 20 shows the depth structure map for the top of the Lower Mahogany, superimposed on an amplitude extraction for the Lower Mahogany interval. The map shown here is based on the original WCTP and Tano Deep seismic surveys. Preliminary analysis of the new Q dataset confirms event continuity across the data gap. Data collected from the three wells in conjunction with the original 3D seismic and drill stem test results from Mahogany 2 indicate that sufficient reserves are present to warrant initial commercial development of the Phase 1 area. The pressure data indicate that at least five separate oil pools are present in the field. Since the UM3 and LM2 reservoirs represent the most significant hydrocarbon accumulations appraised in the Jubilee Field to date, these are the focus of the Phase 1 development. The Upper and Lower Mahogany reservoirs contain undersaturated oil and will have associated gas production. The Most Likely Case STOOIP for UM3 and LM2 reservoirs is 1,814 MMBO, based on the current reservoir simulation model, see Figure 87.

#### **Basis for Volumetric Estimate**

Sand	Area Acres	h Feet	Porosity %	Sw %	FVF rb/stb	STOOIP MMBO	Phase 1 EUR MMBO	Recovery Factor, %
UM3	16,271	68	22.0%	22.0%	1.6	960	63	6.5%
LM2	14,888	75	23.0%	20.0%	1.6	983	203	20.6%
Total / Average	31,159	71	23.0%	21.0%	1.6	1,943	265	13.6%

Comparison of Volumetric and Simulation Estimates

	-	Volur	netric Estiı	nate		Simulation Estimate							
1	MM	BO			Per Well			ММВО			Per Well		
Sand	STOOIP	EUR	R.F.	Wells			STOOIP	EUR	R.F.	Wells	ММВО		
UM3	960	63	6.6%	3	21		884	59	6.7%	3	20		
LM2	983	203	20.6%	6	34		930	219	23.5%	. 6	37		
Total / Average	1,943	265	13.7%	9	29		1,814	278	15.3%	9	31		

Figure 87: STOOIP and EUR Summary

### 1.3 Development Plan Summary

This Phase 1 Development Plan describes the development work planned for the Unit Area, consisting of up to seventeen wells, including the Hyedua 2 well, to be completed over a three year period. The actual number and location of the Phase 1 development wells will be refined during the ongoing drilling program and evaluation of the final processed volume from the Q Survey. The total well count may be reduced from the planned seventeen wells, based on drilling program results. Phase 1 will focus on the development of the UM3 and LM2 reservoirs and provide data which will be useful for possible further development of the Jubilee Field. Additional drilling will help quantify the resource potential of the other hydrocarbon pools identified in the field. The UM1, UM2 and LM1 will be considered for development in future phases, if it can be justified. In the event the UM3 and LM2 production performance does not meet expectations, these pools will be considered to supplement production. Phase 1 development of the UM3 and LM2 consists of up to nine production wells (including the Hyedua 2 well), up to five water injection wells and up to three gas injection wells (if gas injectivity and reservoir continuity are satisfactory, the target is two gas injection wells).

Jubilee Field wells in Phase 1 will be tied back to an FPSO via subsea infrastructure. Production will be gathered through subsea manifolds and conveyed by subsea flowlines to an FPSO, which will be moored in the Jubilee Field area. The production rates from each well will be regulated with adjustable chokes and continuously monitored with downhole pressure and temperature gauges. Data from current and future development

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version

wells will be used as the basis for determining the initial maximum efficient rate (MER). The initial MER will be refined during the production of the Jubilee Field, using production performance data in conjunction with dynamic simulation models. Dynamic reservoir modeling has indicated that 100% voidage replacement consisting of downdip water injection and updip gas injection will maximize ultimate recovery. Riser gas-lift will be utilized to assist in fluid recovery from the Jubilee Field, as water production increases later in life. The FPSO will have associated processing, injection and compression capability for gas injection and export. The initial processing capacity of the FPSO is planned to be 120,000 BOPD, 160,000 MCFD and 160,000 BLPD. The initial water and gas injection capacities will be 232,000 BWPD and 160 MMCFD.

While reservoir modeling indicates that oil recovery from Phase 1 would be maximized by utilization of associated gas for reinjection into the reservoir, this Phase 1 Development Plan provides a technically viable solution for export of a portion of the associated gas from Phase 1, with capacity for much larger volumes from possible subsequent phases. Implementation of the technical solution for gas export will require reasonable commercial terms reflecting the costs and uses of the gas.

The Jubilee Field development will ensure Environmental, Health and Safety considerations are a high priority during design, construction and operation. We will conduct our business with respect and care for our employees, subcontractors, communities and the environments in which we operate. We will accomplish this by creating enduring value, practicing stewardship through corporate social responsibility and operating in an environmentally sustainable manner.

The project and subsequent operation will develop a Safety Case to manage and adapt to changing risks and mitigate these risks to as low as reasonably practicable.

An Environmental and Social Impact Assessment (ESIA) has been commissioned for the development area and the process initiated for this fast-track development in parallel with development activities. It will compare the scale, duration and intensity of the development activities to the current environmental conditions and identify potential risks. An Environment Management Plan will be developed to establish mitigation measures to minimize risks to the environment. The ESIA will cover all aspects of the project including drilling, project construction and later operational states for life of field.

The timeline for developing the ESIA and its scope has been reviewed with Ghana EPA and includes: baseline data gathering which is currently nearing completion (at Dec 2008), followed by a scoping phase to be completed in late-February 2009, a public and stakeholder engagement process to take place from the beginning of January to late May 2009, and a target for the draft final ESIA to be submitted to Ghana EPA in early June 2009. A 2-3 month approval process is expected – this would lead to an anticipated August 2009 approval ahead of major subsea installation works.

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version 08/07/2009



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# 1.4 Schedule and Cost

Development drilling, completions, subsea equipment installation and FPSO installation are planned to occur between late 2008 and early 2011. A risked schedule analysis indicated an expected first production window of Fourth Quarter, 2010, although the intention is to achieve first oil earlier as is prudently possible. Figure 115 is a high level depiction of the Jubilee Field Phase 1 development schedule.

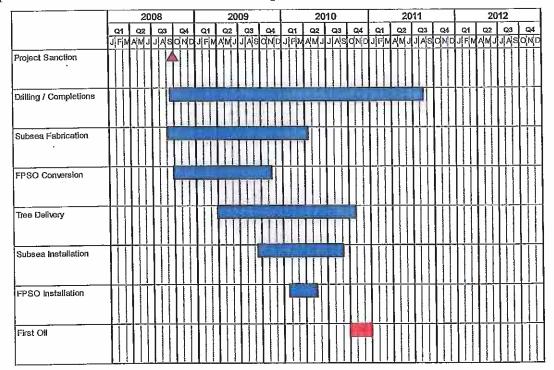
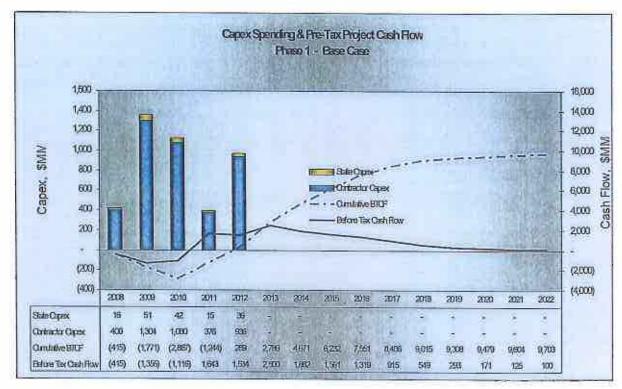


Figure 115: Phase 1 Project Schedule

Figures 116 and 117 detail the development (capital) expenditures by year, which correspond to the development schedule shown in Figure 115 and exclude historical costs related to exploration, appraisal and pre-sanction activities. Total gross development (capital) expenditures, excluding capital expenditures for provision of the FPSO which will be initially leased from the subcontractor, are estimated to be USD 3,151 MM for the Phase 1 development, see Figure 117. Figure 116 includes the FPSO lease cost for the first two years and the FPSO purchase cost.

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version



Note: Capex indicated above includes USD 226 MM in lease cost for a two year period and a notional purchase of the FPSO in Year 2012 assuming a purchase price of USD 878 MM. Purchase of the FPSO is an option in any given year and is not part of the USD 3,151 MM Phase 1 sanctioned budget. The notional FPSO purchase is included in the economics as a hypothetical case for economic analysis purposes only.

Figure 116: Phase 1 Development (Capital) Expenditures

		Total Capital Expenditures, USD MM										
Year	Drilling & Completion	SS Systems	Installation	Start-up	Capitalized G&A	Capitalized Operations	Total					
2008	180	198	3	-	16	19	415					
2009	594	571	35	-	· 72	83	1,355					
2010	481	340	83	30	47	122	1,103					
2011	238		8	-	32	_	278					
2012												
Total	1,493	1,110	129	30	166	224	3,151					

Excludes historical E&A costs of USD 211 MM and pre-sanction costs of USD 32 MM.

Figure 117: Phase 1 Development (Capital) Expenditures by Year

Total production (operating) expenditures, for the full field life of twenty-three years, including USD 412 MM abandonment costs, are estimated to be USD 3,435 MM in 2008 terms, or USD 12.37/BOE. For the initial ten years of production, the estimated costs of production operations equate to approximately USD 6.20/Bbl, after which time

production rates decline and unit operating costs rise. Included in the first ten year unit opex estimate is USD  $\sim$ 1.2/Bbl, for organisation G&A. It should be noted that total unit production operating costs (including G&A), when at plateau of 120,000 bbl/day, are less than USD 5/Bbl.

The forecast level of operating cost performance for Phase 1 has been benchmarked to other deepwater West African and world-wide developments and is considered competitive as a forecast basis. A detailed operating cost model has been developed and subjected to scrutiny by experienced personnel from the Joint Venture. A critical performance parameter for maintaining reasonable operating costs will be well and subsea systems reliability given that workover and intervention are very high cost items if reliability was poor. The project is designing for high reliability using proven designs and equipment to assure as much as practicable, reliable performance.

Note that no escalation or inflation has been applied to the estimates for operating cost and G&A and these may be reasonably assumed to be 5-10% per annum in reality. Unit Operator operating expenses and G&A approval will be subject to an annual approval process with the Joint Operating Committee and Joint Management Committee, commencing in 2008.

		· · · · · · · · · · · · · · · · · · ·	Base Gase Oll Price	\$65 / BBL	2		Jurrent Oll Pri	ce \$45 / BBI	a \$45 / BBL			
Phone 1 - Holes Cube Industries Committee (Post-760)	de si	POPEL	Sale	COMPACT COMPACT	Summarius	anipeli	sente:	(publ) Enably	Gennentier			
Total Production	MMBoe	278	-	54	224	278	-	52	226			
Gross Revenue Royalty Post Royalty Revenue	SMM SMM SMM	18,056 0 18,056	0 903 903	2,483 0 2,483	15,573 (903) 14,670	12,500 0 12,500	0 625 625	1,719 0 1,719	10,781 (625) 10,156			
Total Capex (incl E&A) Total Opex Total Project Cost	\$MM \$MM \$MM	(4,565) (3,435) (8,000)	0 0 0	(161) (472) (633)	(4,404) (2,963) (7,367)	(4,565) (3,435) (8,000)	0 0 0	(161) (472) (633)	(4,404) (2,963) (7,367)			
Gross Operating Margin ("Rent")	\$MM	10,055	903	1,850	7,303	4,500	625	1,086	2,789			
Income Tax <sup>2</sup> AOE	\$mm \$mm	-	2,561 101	0 0	(2,561) (101)	- -	1,000 D	0 0	<b>(1,000)</b> 0			
After Tax NCF	\$MM	-	3,566	1,850	4,640	-	1,625	1,086	1,790			
% Take (as % of Project Rent)	%	-	54%		46%	-	60%		40%			

Allocations are estimates only based on the most likely Phase 1 development case presented in the Plan of Development

Income Tax and ADE shown are provisional only and dependent on, among other things: oil price, cost structure and field performance

Total development (capital) expenditures include: FPSO lease of USD 226 MM, FPSO purchase of USD 878 MM and Phase 1 development of USD 3,151 MM

 Total project costs of USD 4,565 MM include USD 4,255 MM in development (capital) expenditures, USD 278 MM in historical costs and USD 32 MM in presanction costs.

#### Figure 122: Phase 1 Revenue Allocation

Costs used in the economic analysis of the Phase 1 development are for the oil plan going forward and do not include the GNPC Gas Plan. The economic analysis indicates the project is economically robust at current oil prices. At the base price of \$65/bbl, the project generates USD 3,566 MM of revenues (Royalty, AOE and Income Tax) to the government of Ghana in addition to USD 1,850 MM in net cash flow from GNPC's

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version

equity interest in the Field. Together, this represents a total government take of 54% of net revenues. Capital costs attributable to GNPC's interest are USD 161 MM.

# 1.5 **Production Forecast and Reserves**

Figure 100 depicts a forecast of oil production through 2030 of the Phase 1 development and two possible production forecasts for: 1) a notional infill development (new wells and/or subsea tie-ins) and 2) a notional expansion phase project. At this time, the infill and second FPSO cases have no technical basis, but are presented to illustrate potential future phases of development. This Phase 1 Development Plan makes no commitment to any potential future phases of development. The production forecast is based on well productivity estimates from nodal analysis, tuned by the drill stem test in Mahogany 2. Figure 101 depicts a forecast of gas production through 2030 of the Phase 1 development. The initial full year average production rate in 2011 from the Jubilee Field, including downtime, is estimated to be 112,000 BOPD and 113 MMSCFD (net of fuel).

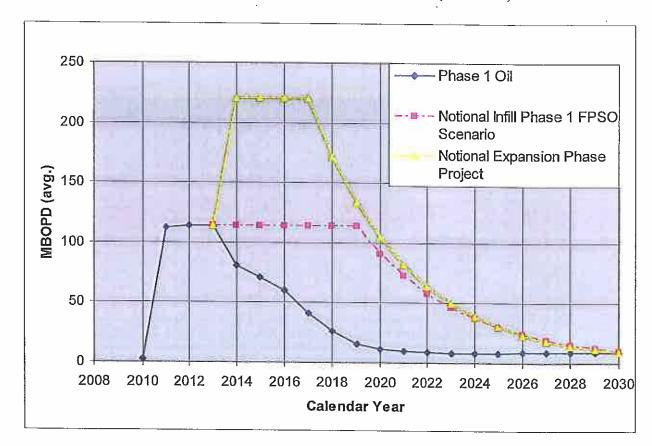


Figure 100: Phase 1 Oil Production Forecast

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version



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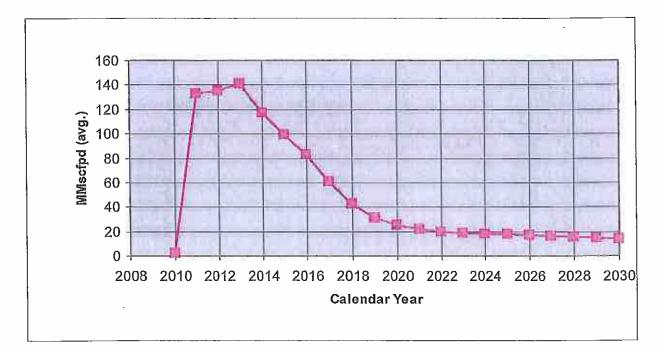


Figure 101: Phase 1 Gas Production Forecast

The Most Likely ultimate recovery for the Phase 1 development, based on the current reservoir simulation model, is 278 MMBO, which represents a 15.3% recovery factor, based on the STOOIP value of 1,814 MMBO. The low recovery factor reflects ultimate recovery from Phase 1 relative to the STOOIP from the entire structure, illustrating the future upside potential in the Jubilee Field. A typical range of recovery factors of 30% - 50% applied to the Most Likely area would yield recoveries of 544 MMBO to 907 MMBO. The Most Likely ultimate recovery of gas for the Phase 1 development is 277 BCF before any required use for petroleum operations on the FPSO or subsequent re-injection or export. This recovery factors (30%-50%) are applied to the Most Likely area, then the related associated gas volume could then be in the range of approximately 544 to 907 BCF before any required use for petroleum operations on the FPSO or subsequent re-injection or export.

### 1.6 Development Risk and Mitigation

An analysis of key project risks for the Phase 1 development was made to identify areas with significant potential for cost or schedule impact. A mitigation strategy was then identified for each project risk. In several cases, steps have already been taken to mitigate the likelihood of occurrence. For the eight risks identified, three were assessed a low probability of occurrence, four were assessed a medium probability of occurrence and one was assessed a high probability of occurrence, see Figure 119. In addition,

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subsurface uncertainties, risks and mitigation actions were identified for the Phase 1 development. Reservoir compartmentalization, fluid quality, reservoir quality, aquifer strength and pressure maintenance efficiency were identified as the key subsurface uncertainties, see Figure 104.

Category	Risk to Project	Probability of Occurrence	Potential Cost Impact	Potential Schedule Impact	Mitigation
Subsea	Revised metocean data causes change in subsea system	Medium	Medium		Metocean buoys were installed early in project. Acquired data from drilling contractors. Design margins.
Subsea	Late delivery of equipment	Medium	Medium	High	Staggered delivery strategy. Could spill installation between east and west to align with equipment deliveries. Use expediters,
Subsea	Dropped objects	Low	Low	Low	Strict procedures while lowering equipment. Sparing strategy, redundancy and interchangeability.
Facilities	Shipyard schedule slippage, incomplete pre- Facilities commissioning		Low	High	Ordering of longlead items. Added float in contractor schedule. Ensure pre-commissioning is completed in shipyard to access personnel and equipment. Pre-commissioning during low and after riser hook-up will reduce impact.
Facilities	Interface problems between subsea and FPSO	Medium	Low	High	Facilifate interface definition, early in project, 3 - 6 months after LOI.
Drilling / Completions	Weilblowout	Low	Medium	Medium	Good englneering practices. Experience in region. Two rigs in area. Emergency response plan.
Drilling / Completions	Simuitaneous Operations	High	Low	Medium	Planned occurrence. A focus during execution mode.
Weather	Weather effects in shipyard or during installation,	Low	Low	Medium	Contingency in schedule and planning.
	L			L	
Cost Impac	Medîum	<\$ 40 MM \$ 40 MM - \$ 200 M > \$ 200 MM	IM		
Schedule Impact Low Medium		< + 2 weeks + 2 to +4 weeks > +4 weeks			

Figure 119: Project Risk and Mitigation

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version 08/07/2009

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- 28 -

Uncertainty	Risks	Mitigation				
Reservoir Compartmentalization	- Sub-seismic scale features / faults - Sandbody continuity and extent	<ul> <li>Detailed seismic mapping</li> <li>Geochemical stratigraphic studies</li> <li>Development drilling program</li> <li>Acquisition of dynamic production / pressure data</li> <li>from DSTs, interference testing and Phase 1 start-up</li> <li>Phase 1 subsea system can accommodate up to</li> <li>fifteen additional wells</li> </ul>				
Fluid Qualify	- Asphaltene plugging	<ul> <li>Acquisition of core material</li> <li>Ashpaltene flocculation testing</li> <li>Reservoir management</li> </ul>				
Reservoir Quality	- Adverse Diagenetic effect - Low N/G	<ul> <li>Petrographic studies</li> <li>Seismic attribute calibration</li> <li>Acquisition of core material</li> <li>Development drilling program</li> </ul>				
Aquifer Strength	- Aquifer support is greater than expected	- Acquisition of dynamic production / presure data to reduce injection well requirements in future phases.				
Gas/Water Injection Efficiency	- Injectivity - Reservoir compartmentalization	<ul> <li>Perform water injectivity test</li> <li>Relocate wells / sidetrack</li> <li>Acquisition of dynamic production / pressure data from DSTs, interference testing and Phase 1 start-up</li> </ul>				

Figure 104: Subsurface Uncertainties

# 1.7 Definitions

Capitalized terms used and not otherwise defined in this Development Plan shall have the meanings given such terms in the Petroleum Agreements; and the capitalized terms below shall have the following meanings:

*IPT Technical Operator* means the technical operator of the unit formed by the unitization of the Jubilee Field that performs the IPT Technical Operations with respect to the Jubilee Field acting in accordance with the Unitization and Unit Operating Agreement.

*IPT Technical Operations* means certain technical operations conducted with respect to the Jubilee Field as further set out in the Unitization and Unit Operating Agreement.

*Unit Interest* means the participating ownership interest of a party in the unit formed by the unitization of the Jubilee Field.

*Unit Operator* means the operator of the unit formed by the unitization of the Jubilee Field that performs operations related to such unit acting in accordance with the Unitization and Unit Operating Agreement.

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# 2.0 SUBSURFACE

# 2.1 Geological Setting

## 2.1.1 Field Location

The Jubilee Field is located in the West Cape Three Points Block and the Deepwater Tano Contract Area approximately 63 km from the Ghanaian coastline. The field is 75 km south-southeast of the Cote D'Ivoire (Ivory Coast) and Ghana border and is 132 km southwest of the port city of Takoradi, see Figures 1 and 2. Water depth ranges from 1,000m to 1,700m within the Jubilee Unit Area, see Figure 3. Reservoir objectives in the Jubilee Field range in depth from 3,150m to 3,755m TVDSS.

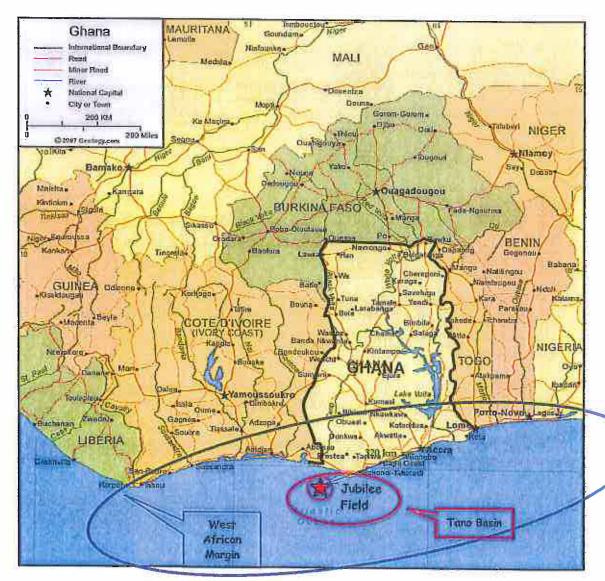


Figure 1: Field Locator Map

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version



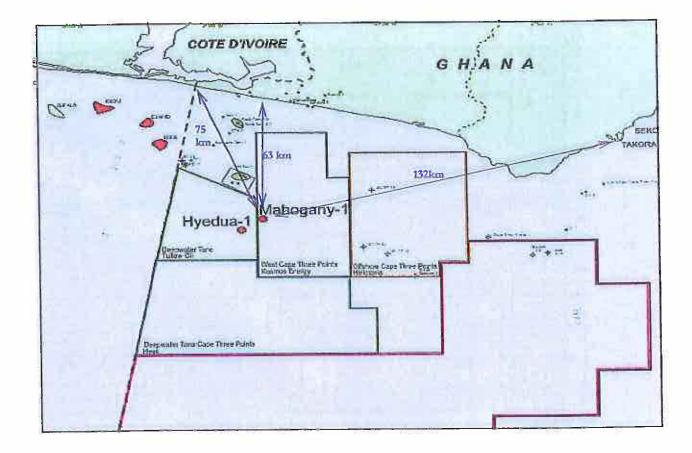


Figure 2: Field Locator Map

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version 08/07/2009

- 31 -

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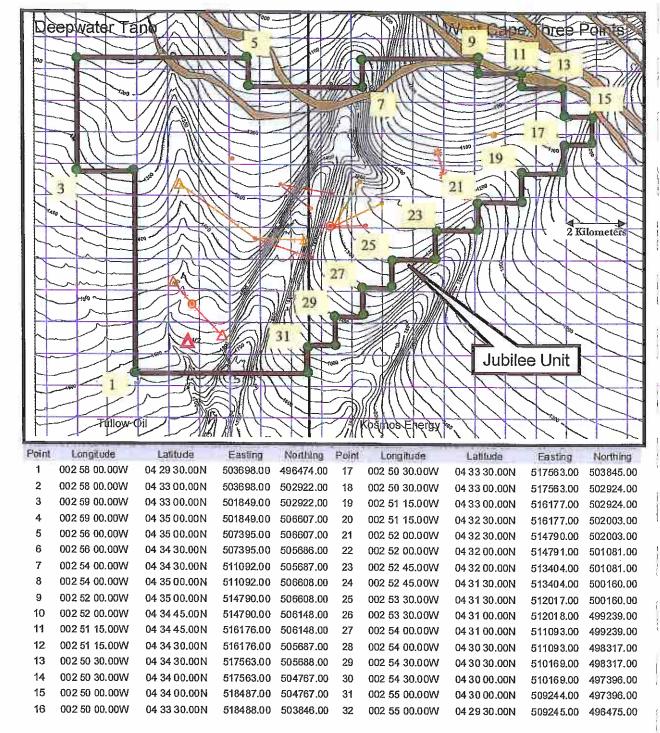


Figure 3: Unit Area Locator Map

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version



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- 32 -



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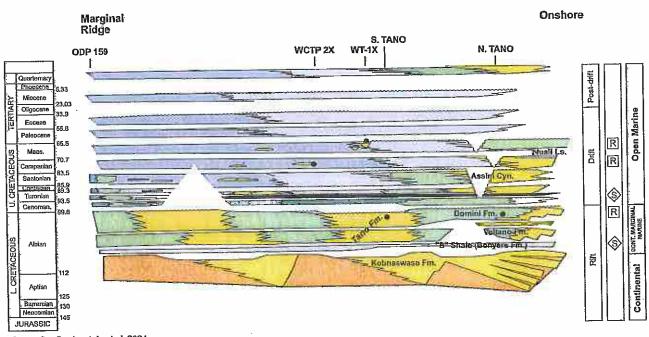
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### 2.1.2 Tectonic Setting

The Tano Basin of Ghana is contiguous with the Deep Ivorian basin and consists of an Albian to Tertiary aged transform margin subdivided into a series of NW-SE oriented half grabens related to the development of extensional horsetail fault splays at the termination of NE-SW strike slip faults. Early development of these features occurred in the Albian and resulted in the deposition of thick syn-rift sequences; these are overlain by Cenomanian through Maastrichtian deepwater turbidite sequences which are ponded between transpressional highs formed as a consequence of Santonian and younger reactivation of the transform faults. This Late Cretaceous reservoir bearing megasequence is overlain by a clay rich Tertiary sequence which resulted from the redirection of major river systems away from the Tano basin and into the Voltaian basin to the east thus reducing clastic input into the Tano basin in the Tertiary. The Jubilee Field forms a combination fault/pinch out trap on the flank of one of these Albian extensional fault blocks, the South Tano high.

#### 2.1.3 Stratigraphic Setting

Figure 4 depicts the stratigraphic sequence for the Tano basin. The red highlighted Upper Cretaceous interval, shown in Figure 5, will be discussed below. A biostratigraphic cross-section for the Mahogany 1 and the Hyedua 1 wells is shown in Figure 6.



Ages after Gradenstein et al, 2004

Figure 4: Stratigraphic Framework - Regional

The <u>Upper Cretaceous Campanian</u> stratigraphic section ranges in age from 70.7ma to 83.5ma. Sand prone depositional elements can be mapped within the Campanian

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version

sequence. The channelized Campanian turbidite sediments were deposited, northeast to southwest, into the basin through shelf margin canyon systems. Enhanced development of channel-levee geometries exist as the primary sedimentation process for the Campanian. The Mahogany 1 encountered 500m of Campanian section from 2620m to 3120m MD; however, no reservoir quality sand was found. Large Campanian turbidite complexes exist to the east and west of the Jubilee Field and are expected to contain reservoir quality sands. Additional undrilled Campanian exploration potential has been identified on the West Cape Three Points Block and in the Deepwater Tano Contract Area.

The <u>Upper Cretaceous Santonian</u> stratigraphic section ranges in age from 83.5ma to 85.9ma. The Santonian deepwater turbidites were deposited from north to south through shelf canyon feeder systems into the deepwater Tano Basin. The Santonian section thins over the top of the Jubilee Field. Mahogany 1 encountered 200m of Santonian section, but encountered no reservoir quality sands. Reservoir quality sands may be basinward of the Jubilee Field.

The <u>Upper Cretaceous Coniacian</u> stratigraphic section ranges in age from 85.9ma and 89.3ma. The Coniacian section is very thin in the Jubilee Field Area, with only 80m of Coniacian interval in Mahogany 1 and no reservoir quality sands. Reservoir quality sands may be present basinward of the Jubilee Field. The Sa3/Col unconformity marks the top of the Coniacian stratigraphic section. This unconformity is one of the major sequence boundaries just above the Jubilee Field pay sands.

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version

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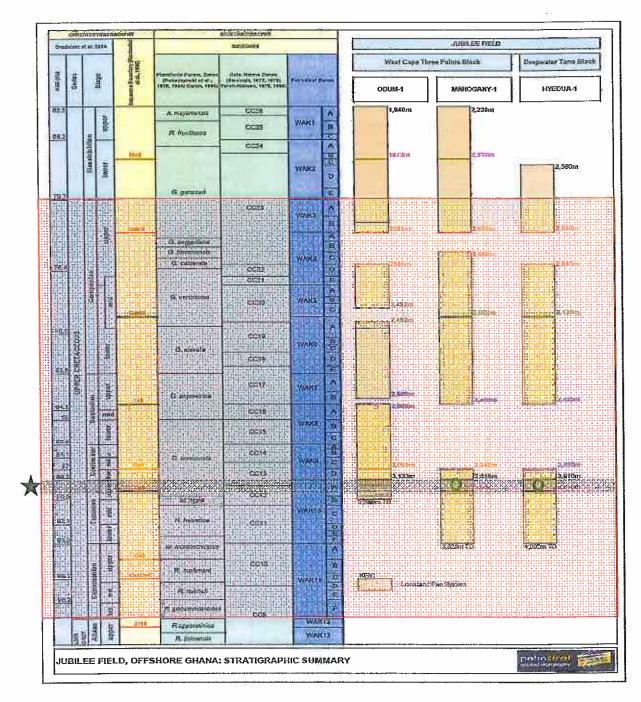


Figure 5: Regional Horizons

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version

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08/07/2009



44

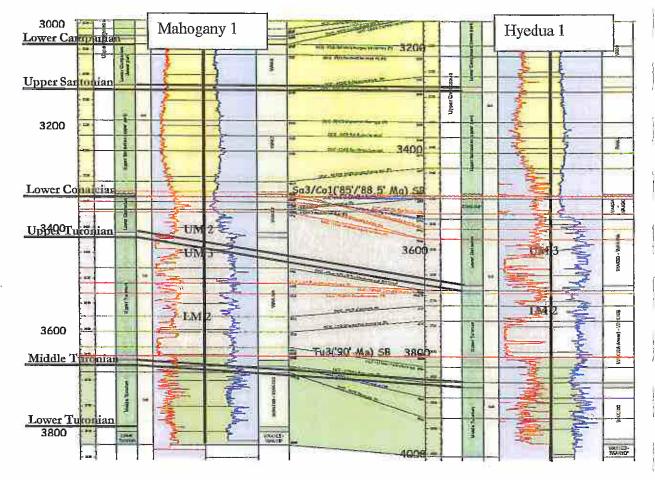


Figure 6: Biostratigraphic Section

The <u>Upper Cretaceous Turonian</u> stratigraphic section consists of deepwater turbidite sand and shales, ranging in age from 89.3ma to 93.5ma. The Mahogany 1 well penetrated more than 400m of Turonian section and reached total depth in the Lower Turonian. The Tu3 sequence boundary, at the base of the Upper Turonian, is the major sequence boundary, prior to Jubilee Field pay deposition.

The <u>Upper Cretaceous Cenomanian</u> stratigraphic section ranges in age from 93.5ma to 99.6ma. The Cenomanian deepwater turbidite sediments are highly influenced by the underlying deep-seated Albian structure. The primary sediment transport is from north-northwest to south-southeast. The Cenomanian has not been penetrated in Jubilee Field to date.

# 2.1.4 Jubilee Play Description

The Mahogany 1 exploration well was drilled to test a strong AVO (amplitude versus offset) anomaly within the Upper Cretaceous Turonian section. Middle to lower slope turbidite channel and fan architectures were interpreted on 3D seismic data. The Jubilee



Field stratigraphic fan complex was high-graded as the highest quality prospect in the area. The combination structural-stratigraphic prospect was mapped to have structural conformance and an updip stratigraphic sand pinch-out. Mapping indicated a thick turbidite section (250m) and was subdivided into the Upper Mahogany and Lower Mahogany sections, which were the primary targets of the Mahogany 1 well. The five oil bearing reservoir sands encountered in the Mahogany 1 are: Upper Mahogany 1 Sand (UM1), Upper Mahogany 2 Sand (UM2), Upper Mahogany 3 Sand (UM3), Lower Mahogany 1 Sand (LM1) and the Lower Mahogany 2 Sand (LM2), see Figure 7. Phase 1 will focus on the development of the UM3 and LM2 reservoirs and provide data which may be used in the event of future development phases of the Jubilee Field. Additional drilling will help quantify the resource potential of the other hydrocarbon pools identified in the field. In the event the UM3 and LM2 production performance does not meet expectations, these pools will be considered to supplement production.

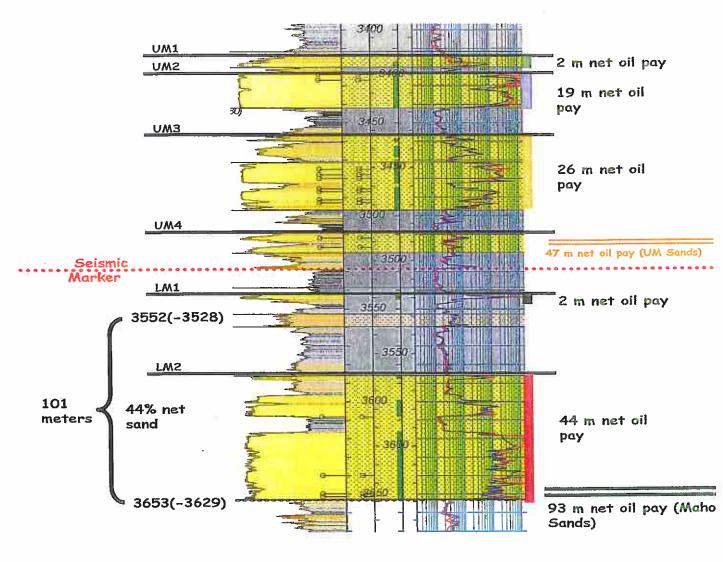


Figure 7: Mahogany 1 Type Log of the Reservoir Sands

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version 08/07/2009

- 37 -



# 2.2 Jubilee Field Data

### 2.2.1 Geophysical Data

Three 3D seismic datasets provide geophysical coverage over the Jubilee Field area, see Figure 8. In 2000, CGG acquired approximately 1133 square km of 3D seismic data over the Deepwater Tano Contract Area for Dana Petroleum, with inlines oriented NNE-SSW. In 2004, Veritas-DGC acquired approximately 1200 square km of 3D seismic data over the West Cape Three Points Block for Kosmos Energy, with inlines oriented N-S. A 2 km wide gap in seismic coverage existed across the central portion of the field area between these two surveys. Both 3D datasets were pre-stack, time-migrated and processed for AVO, with multiple offset-stack and attribute volumes derived from each. The Mahogany 1 targeted three strong AVO anomalies within the Jubilee Field fan system on the WCTP survey and found oil bearing sands at each level. The Hyedua 1 targeted a strong Lower Mahogany 1 and encountered oil-bearing sand. In 2007 WesternGeco acquired 939 square km of long-offset 3D seismic data across the Jubilee Field area, with inlines

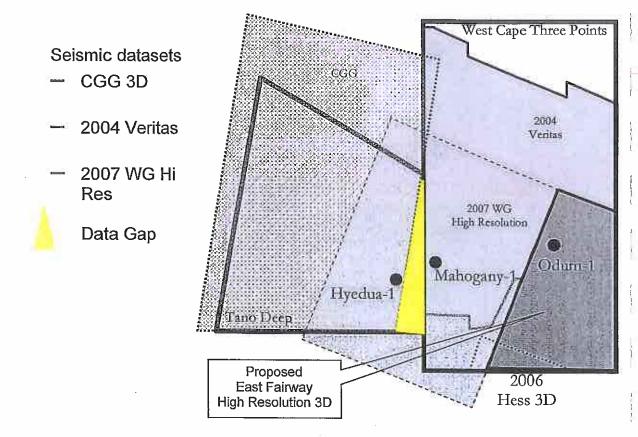


Figure 8: Jubilee Field 3D Seismic Surveys

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version

08/07/2009

- 38 -

oriented NE-SW, covering the gap between the two previous surveys. A fast-track version of this dataset was delivered to partners in late 2007. The final processed volumes, including multiple angle-stack migrations for AVO analysis, full-stack migration with surface related multiple elimination (SRME), and detailed stacking and migration velocities were delivered in July, 2008.

#### 2.2.2 Petrophysical Data

To date, three wells have been drilled in the Jubilee Field. The Mahogany 1, Hyedua 1, and Mahogany 2 were drilled between June 2007 and May 2008. In addition, Hyedua 1 was sidetracked for the purpose of bypass coring through the Lower Mahogany reservoir section and referred to as Hyedua 1BP1. These wells were drilled with mineral oil-base mud through the reservoir sections, resulting in excellent hole conditions for formation evaluation purposes. Conventional cores were acquired in the Hyedua 1 and Mahogany 2 wells and sidewall cores were recovered from all three wells. Post-well analyses of the cores, drilled cuttings, fluid samples, log data and MDT pressure data are ongoing.

### 2.3 **Reservoir Description**

#### 2.3.1 Formation Age

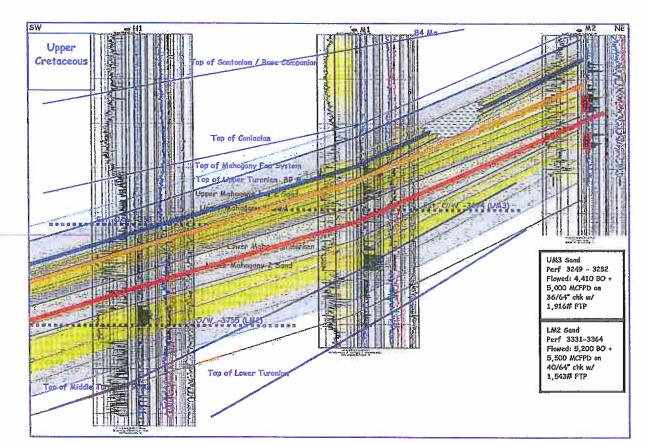
The reservoir sands are Turonian age and range in age from 89.3ma to 93.5ma. A major sequence boundary above the pay section is the unconformity between the Upper Santonian and Lower Santonian (Sa3/Co1) section which ranges in age from 83.5ma to 85.9ma. This unconformity is approximately 50m above the UM1 Sand in the Mahogany 1. The major sequence boundary below the pay section is at the base of the LM2 Sand. This sequence boundary is between the Upper Turonian and Middle Turonian (Tu3) at 90ma. Biostratigraphic and paleontological evaluation were conducted by Petrostrat Applied Stratigraphy on all samples, sidewall cores and whole cores from the Mahogany 1 and Hyedua 1, see Figure 6.

Distal marine, slope paleo-environments prevailed throughout the Upper Cretaceous Turonian to Campanian sections. Deposition during Lower Turonian to Upper Campanian occurred in upper bathyal water depths (1000m to 2000m). During the Upper Turonian to Lower Turonian high numbers of radiolarians and diatoms were recorded. These high numbers of radiolarians and diatoms are characteristic of regional biosiliceous events associated with upwelling of nutrients. Substantial sands were deposited during the Upper Turonian between 3413m and 3672m MD in the Mahogany 1. These sands had superabundant freshwater algae, indicative of significant freshwater runoff associated with lowering of the erosional base due to fall in sea level. Deposition of the lowstand sands was periodically interrupted by more quiescent, hemipelagic sedimentation.

#### 2.3.2 Correlation of Reservoirs

Figure 9 depicts a well log cross-section through the three wells in the Jubilee Field. The structural cross-section shows the correlation of the reservoir. The internal correlation of

- 39 -



the sands was based on 3D seismic interpretation, log character, biostratigraphy and MDT pressure data.

Figure 9: Well Log Cross Section

MDT pressure and regional seismic correlation shows that two distinct zones exist, the Upper Mahogany (UM) and Lower Mahogany (LM). A regionally extensive sealing shale section separates the two zones. The UM1 Sand was present in the Mahogany 1 and Mahogany 2, but absent in the Hyedua 1. The UM2 Sand was present in the Mahogany 1 and Mahogany 2, but absent in the Hyedua 1. The UM3 Sand was present in all three wells. The LM1 sand was present in the Mahogany 1, but absent in the other wells. The LM2 Sand was present in all three wells.

### 2.3.3 Depositional Environment

The depositional environment for the Upper Cretaceous, Turonian sands is interpreted as a deep water turbidite, see Figure 10. The paleo-environment is interpreted as upper bathyal with water depths ranging from 1000m to 2000m. The Upper and Lower Mahogany sands were deposited from the north to the south across the shelf through feeder canyons which supplied sediment from the African Continent. The feeder canyons were deflected around the Tano nose and spilled out with a transport direction from the northeast to southwest. The Upper and Lower Mahogany Sands in the Mahogany 2 are

- 40 -

interpreted to reside in middle to lower slope setting. The LM2 Sand in the Hyedua 1BP1 was also cored. The blocky sand packages encountered in the Hyedua 1 are believed to have been deposited in an unchannelized or weakly channelized setting. These sands seem to have been more through going, bypassing flows than flows that had reached their final sites of sedimentation.

In conclusion, the dominant reservoir facies in all three wells drilled in the Jubilee Field is a slope confined conduit sand package with proximal submarine fan facies just down dip of the Hyedua 1 well.

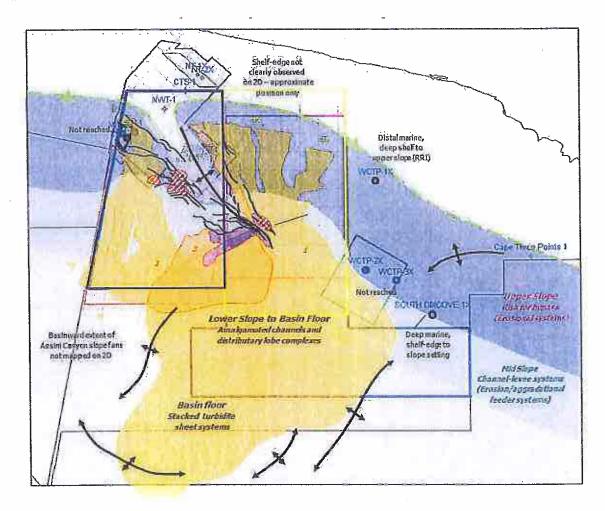


Figure 10: Turonian Slope Depositional Model

#### 2.3.4 Petrophysical Methodology

Full petrophysical analysis has been carried out on the Mahogany 1, Hyedua 1, Hyedua 1BP1, and Mahogany 2. The Petcom Power-log ® program was used to analyze raw wireline log data. Wireline log data quality in the four penetrations is considered good to excellent.

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version

- 41 -



The petrophysical evaluation methodology consists of three primary steps: preparation, quality control, and evaluation. Data preparation includes the loading, splicing, and merging of the raw digital log data. Data quality control involves review of the log data, editing of the log data, and depth shifting of the curves as required. Data evaluation is a multi-step process which includes the calculation of: shale volume, porosity, saturations, and permeability and net pay. The interpretation is then compared to pressure, PVT sample, core, and test data to develop an integrated petrophysical interpretation.

The shale volume is derived using a combination of the gamma ray, resistivity, and density/neutron logs. The shale volume from the gamma ray and resistivity logs are derived using the Fugro-Jason Petcom Power-log ® curved relationship module. The shale volume from the density/neutron logs is derived using the Fugro-Jason Petcom Power-log ® density/neutron Xplot porosity module. Initially, clean sand and 100% shale depth trend values are established using log plots. Shale volume is then calculated independently from gamma ray, resistivity, and density/neutron logs. A final shale volume is then derived from the minimum value of all three volumes at a given depth.

Total porosity is calculated from a weighted average of the density and neutron data using an adaptation of the Gaymard-Poupon hydrocarbon correction method. A shale correction factor is applied to the total porosity to derive effective porosity. The effective porosity is then corrected as necessary to account for borehole effects. A comparison of log-derived effective porosity versus core porosity for Jubilee Field wells is shown in Figure 11.

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version

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- 42 -

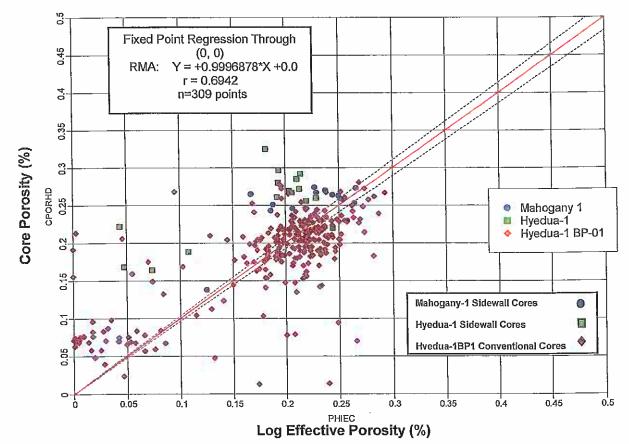
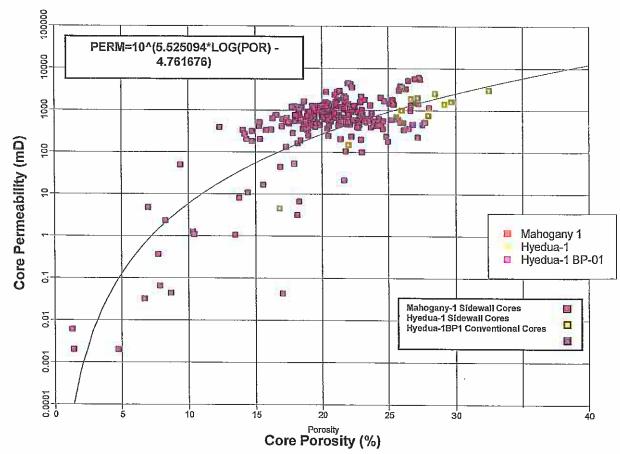


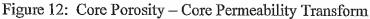
Figure 11: Effective Log Porosity – Core Porosity Cross Plot

Water saturation is calculated using a dynamic dual water model with a variable Rw, taking into account water samples recovered in the Mahogany 1, Hyedua 1, and Mahogany 2. As special core analysis data is not yet available from the Hyedua 1BP1 and Mahogany 2 conventional cores, standard Archie parameters have been used to date with m=2, n=2, and a=1. The water saturation calculation involves multiple steps and includes corrections for clay effects and borehole effects.

Permeability estimates are derived from the magnetic resonance logs and porositypermeability cross-plots based on a permeability-porosity transform derived from available core plug data, see Figures 12 - 13.

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version





Net pay was determined on the basis of the following cut-offs:

- Porosity greater than or equal to 15.0%
- Shale volume less than or equal to 50.0%
- Water saturation less than or equal to 65.0%

The cut-off values are based on global analogs for similar rocks. Given that 15% porosity equates to a permeability value of 80mD, these cut-off values may be conservative and will be evaluated with additional core acquisition. The preliminary Jubilee Field petrophysical model matches the core and DST results reasonably well. However, the petrophysical parameters will continue to be refined as additional data is acquired in the development phase of the project.

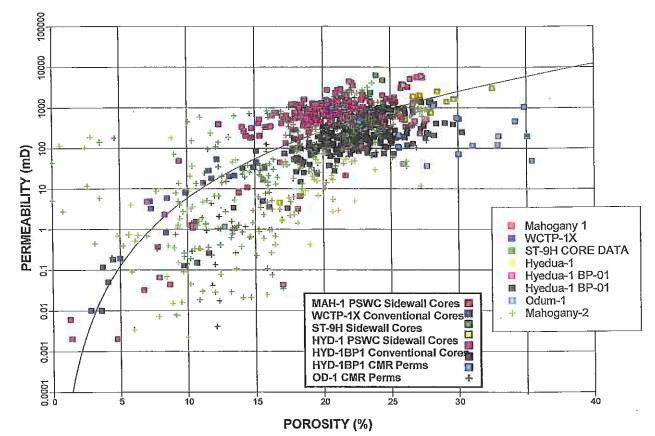


Figure 13: Porosity – Permeability Cross Plot

#### 2.3.5 CPI Plots

The CPI (Computer Processed Image) Plots for the Mahogany 1, Hyedua 1, Hyedua 1BP1, and Mahogany 2 are shown in Figures 14 - 17. The CPI presentation format is described below with Track 1 at the left margin and Track 9 at the right margin.

Track 1 shows lithology, porosity, and computed bulk volume fluids. Sands are colored yellow and the shales gray, while hydrocarbons are shown in red. The gamma ray curve is plotted in red. The measured depth in meters is shown in Track 2. This track also contains a reservoir flag shown in yellow identifying zones with greater than 15% porosity and less than 50% shale volume. The red pay flag indicates reservoir zones where the water saturation in less than 65%. The subsea true vertical depth in meters is displayed in Track 3. Track 4 contains the resistivity curves RT and RXO. The bulk density curve (RHOBUSE), neutron limestone porosity (NPHIUSE), and sonic (DTCO) curves are plotted in Track 5. Track 6 shows total porosity (PHITTDL), effective porosity corrected for clay content and washouts (PHIEC), and bulk volume water (BVWC) corrected for washouts, along with the differential caliper (DIFCAL). The CMR interpretation is included in Track 7. Water saturation (SWC) is plotted in Track 8. Zones with water saturations less than the 65% cut-off are colored red. Track 9 shows

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version

the calculated permeability index curve (PERM) along with the apparent water resistivity (RWATDL), and the actual Rw (RWUSE) used in the analysis.

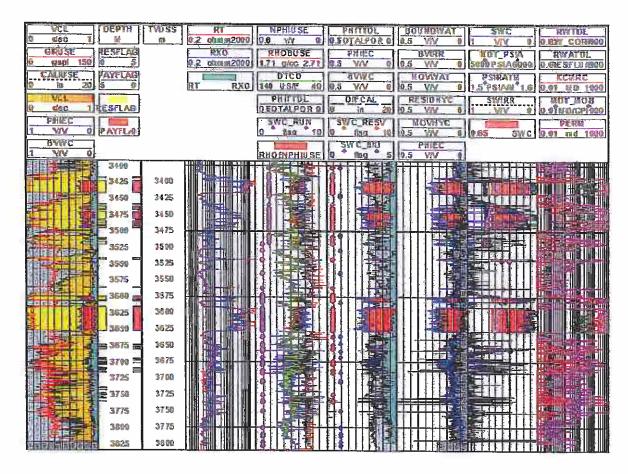


Figure 14: Mahogany 1 CPI Plot

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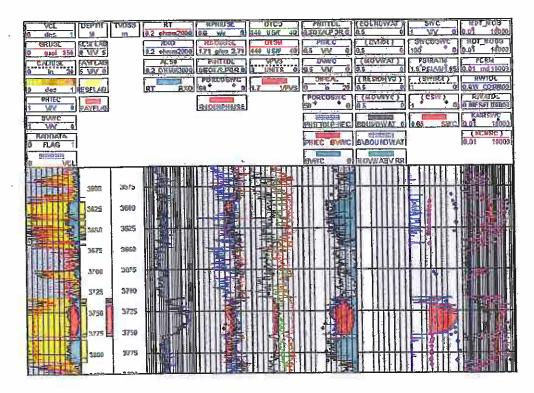


Figure 15: Hyedua 1 CPI Plot

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version 08/07/2009

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Figure 16: Hyedua 1BP1 CPI Plot

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version

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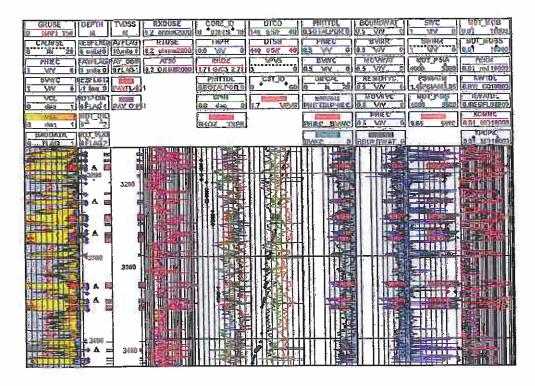


Figure 17: Mahogany 2 CPI Plot

#### 2.3.6 Petrophysical Summary

The log-derived petrophysical properties by zone for the Mahogany 1, Hyedua 1, and Mahogany 2 are shown in Figure 18. Upper Mahogany log derived porosities in the pay sands range from 19.1% to 25.1%, water saturations vary from 10.8% to 50%, and log-derived geometrically-averaged permeabilities range from 192 mD to 941 mD. The reservoir net to gross varies from 33.5% to 100.0%.

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version

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UMI	Gross Interval	Net Reservair	Net Pay	Ave. PHI	Ave. PHI	Ave. Sw	Ave. K	Reservair / Gross	Pay/Gross
	(m)	(m)	(m)	(Reservoir)	(Pay)	(Pay)	(mD)	(%)	(%)
MAH-2	12.9	4,3	4.1	19.0%	19,2%	23.1%	192.3	33,50%	31,80%
MAH-1	6.1	2.4	1.B	20.2%	21.2%	50.0%	278.9	40.00%	30.00%
HYD-1	3.5	0.0	Q,D	N/A	NIA	N/A	N/A	N/A	N/A
	Gross Interval	Net Reservoir	Net Pay	Ave. PHI	Ave. PHI	Ave. Sw 1	Ave, K	Reservoir / Gross	
UM2	(m)	(m)	(m)	(Reservoir)	(Pay)	(Pay)	(mD)	(%)	Pay / Gross (%)
MAH-2	21.0	10.7	7.0	21.9%	19.1%	25.8%	409.4	50.95%	33.33%
MAH-1	19.1	19.1	18,7	25.0%	25,1%	10.8%	941.3	100.00%	98.40%
HYD-1	9.9	0.0	0.0	N/A	. N/A	N/A	N/A	N/A	NA
						,			· ·
UMJ	Gross Interval	Net Reservoir	Net Pay	Ave, PHI	Ave. PHI	Ave. Sw	Ave. K	Reservoir / Grass	Pay / Gross
	(m)	(m)	(m)	(Reservoir)	(Pay)	(Pay)	(mD)	(%)	(%)
MAH-2	65.8	24.6	24.4	20.1%	20.1%	21.4%	258.0	37,40%	37.10%
MAH-1	39.9	27.9	25.8	22.2%	22.6%	25.8%	469.5	69.80%	64.50%
HYD-1	63,2	36.4	0.0	21.2%	N/A	N/A	344.9	60.70%	N/A
UM4	Gross Interval	Net Reservoir	Net Pay	Ave Fill	Ave. PHI	Ave, Sw	Ave. K	Reservoir / Gross	Pay / Gross
0184	(m)	(m)	(m)	(Reservely)	(Pay)	(Pay)	(mD)	(%)	(%)
MAH-2	10.0	2.3	0.0	20,2%	N/A	N/A	272.2	22,70%	NA
MAH-1	11.9	5.3	0.0	19,6%	N/A	N/A	247,5	44.90%	N/A
HYD-1	1.1	0.0	0,0	N/A	N/A	N/A	N/A	0.00%	0.00%
	Creas Interval	Red Planettymer	NetTay	Ave. F34	AVE FRU	AVE.SW	Ave.6	Reservoir/Great	E VENUE
EMI	pug	finit	Imi	(Hieverynic)	(Pag)	(Park)	(mta	CU	Pay/ firest
MAH-2	0.0	0.0	0.0	NIA	NA	N/A	N/A	1///	NIA
MAH-1	10.8	2.0	2.0	20.37	20,3%	32.1%	292.9	18,30%	18.30%
HYD-1	9,9	0.0	.0.0	N/A	N/A	NA	N/A	N/A	
1000	Cross Internet	Net linestruit	HatPag	AVA PHI	Ave. PM	Ave For	Arr. 6	Haustraly / Grass	
1.Mil	6nU	0HP	Int	(Hearrys))	Way!	(Pas)	(inte	00	Pay/Grass-
MAH-2	34.0	17.0	16.0	22.7%	22 7%	15.15	-45 1	50.20	49.60%
MAH-1	67.1	44,5	44.3	23 27	23.2%	14.0%	607.5	65.40%	66.10%
INPAR-F									

Figure 18: Petrophysical Summary by Zone

In the Mahogany 1, Hyedua 1, and Mahogany 2 wells, the UM1 Sand gross interval ranges from 3.5m to 12.9m. No reservoir is present at the UM1 level in the Hyedua 1. The UM1 Sand is oil-bearing in both the Mahogany 1 and Mahogany 2. Net reservoir in the Mahogany 1 and Mahogany 2 varies from 2.4m to 4.3m, with log-derived average porosities ranging from 19.0% to 20.2%, average water saturations of 23.1% to 50.0%, and log-derived geometrically-averaged permeability values ranging from 192 mD to 279 mD. In the Mahogany 1 and Mahogany 2, the reservoir net to gross varies from 33.5% to 40.0%.

The UM2 Sand gross interval ranges from 9.9m to 21.0m in the Mahogany 1, Hyedua 1, and Mahogany 2. No reservoir is present at the UM2 level in the Hyedua 1. The UM2 Sand is oil-bearing in both the Mahogany 1 and Mahogany 2. Net reservoir in the Mahogany 1 and Mahogany 2 varies from 10.7m to 19.1m, with log-derived average porosities in the reservoir sands ranging from 21.9% to 25.0%. The average water saturation varies from 10.8% to 25.8%, with log-derived geometrically-averaged permeability values of 409 mD to 941 mD. In the Mahogany 1 and Mahogany 2, the reservoir net to gross varies from 51.0% to 100.0%.

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The UM3 Sand is well developed in all three penetrations, with a gross interval ranging from 39.9m to 65.8m and a reservoir net to gross of 37.4% to 69.8%. The UM3 Sand is oil-bearing in the Mahogany 1 and Mahogany 2, and water-bearing in the Hyedua 1. In the three wells, net reservoir varies from 24.6m to 38.4m, with log-derived average

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version 08/07/2009

- 50 -



porosities in the reservoir sands ranging from 20.1% to 22.2%. The log derived geometrically-averaged permeability values range from 258 mD to 470 mD. In the Mahogany 1 and Mahogany 2, average water saturations vary from 21.4% to 25.8%. The UM3 Sand was drill stem tested in the Mahogany 2.

The UM4 Sand gross interval ranges from 1.1m to 11.9m. No reservoir is present at the UM4 Sand level in the Hyedua 1, and water-bearing in the other two wells. Net reservoir in the Mahogany 1 and Mahogany 2 varies from 2.3m to 5.3m with log derived average porosities in the reservoir sands ranging from 19.8% to 20.2%. The log derived geometrically-averaged permeability values range from 248 mD to 272 mD. The reservoir net to gross varies from 22.7% to 44.9%.

Lower Mahogany log derived porosities range from 20.3% to 23.2%, oil saturations vary from 67.9% to 86.0%, and geometrically-averaged permeability values range from 293 mD to 608 mD. Where developed, the reservoir net to gross varies from 18.3% to 87.5%.

The LM1 Sand gross interval ranges from 9.9m to 10.8m in the Mahogany 1 and Hyedua 1 and was not present in the Mahogany 2. In addition, no reservoir is attributed to the LM1 in the Hyedua 1. The LM1 Sand is oil-bearing in the Mahogany 1 with a net reservoir of 2m, log derived average porosity of 20.3%, average water saturation of 32.1%, and a geometrically-averaged permeability of 293 mD. The reservoir net to gross was 18.3%.

The LM2 Sand is well developed in all three wells with a gross interval ranging from 34.0m to 77.0m and a reservoir net to gross of 50.2% to 87.5%. The LM2 Sand is oilbearing in all three Jubilee Field wells. The net reservoir varies from 17.0m to 67.4m with log derived average porosities in the reservoir sands ranging from 22.1% to 23.2%, average water saturations ranging from 14.0% to 22.0% and geometrically-averaged permeability values range from 435 mD to 608 mD. The LM2 interval was drill stem tested in the Mahogany 2.

### 2.4 Reservoir Limit

### 2.4.1 Reservoirs and Oil-Water Contacts

MDT pressure data indicate that at least five separate oil accumulations exist in the Jubilee Field: UM1 and UM2 in Mahogany 1; UM3 in Mahogany 1; UM1, UM2 and UM3 in Mahogany 2; and LM1 and LM2 in Mahogany 1, Mahogany 2 and Hyedua 1. Although, the oil typing analyses support most of the conclusions above, oil typing has not been completed on the UM1 sample from Mahogany 2 at this time. Consequently, three oil-water contacts have been inferred from MDT pressure analysis in the Jubilee Field: 3,494m TVDSS for the UM3 Sand in Mahogany 1, 3,531m TVDSS for the UM2 Sand in Mahogany 1 and 3,755m TVDSS for the LM Sand. No gas-oil contact has been found in any reservoir in the Jubilee Field.

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version 08/07/2009

- 51 -

### 2.4.2 3D Seismic Interpretation

Seismic interpretation of the Jubilee Field has been made on the three 3D surveys available: the 2004 Veritas WCTP dataset, the 2000 CGG Deepwater Tano dataset, and the 2007 WesternGeco "Q" fast-track volume. Both the WCTP and Deepwater Tano surveys have offset-stack and AVO volumes available in addition to full-stack PSTM data. The far-stack and (Far Envelope-Near Envelope)\*Far volumes were extensively used to define the Upper and Lower Mahogany sand systems and the reservoir-related anomalies associated with the Jubilee Field, see Figures 19 - 20. All maps displayed in this Plan have as their geodetic reference UTM Zone 30, N. Hemisphere, WGS 84 Datum, WGS 84 Ellipsoid.

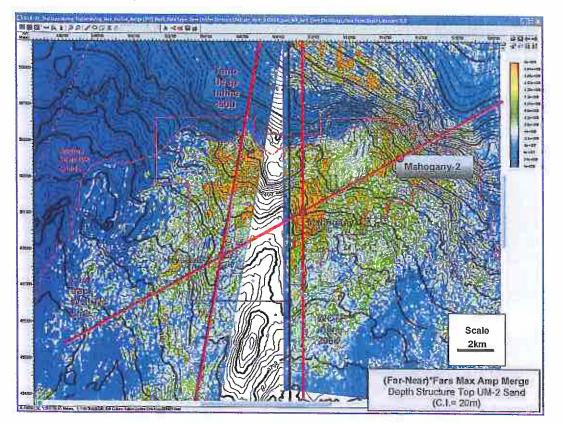


Figure 19: Depth Structure Map with Amp on UM

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version 08/07/2009

- 52 -

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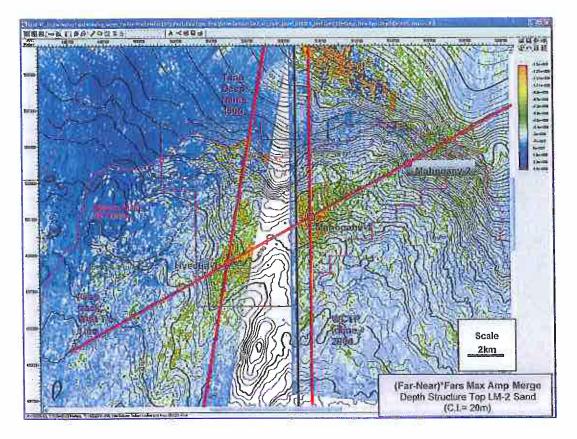


Figure 20: Depth Structure Map with Amp on LM

The orientation of these two surveys created a 2 km gap in data coverage, in the middle of the Jubilee Field area between the Mahogany 1 and Hyedua 1 wells. The 2007 WesternGeco "Q" survey provided continuous high-resolution 3D seismic coverage over the entire Jubilee Field area; however, only a fast-track version of the dataset was available for interpretation prior to submittal of the Phase 1 development plan. Final data volumes from the WesternGeco "Q" survey, including offset-stack and Far-Near products were delivered in July, 2008, but were not used. Well data have been tied to seismic data using synthetic seismograms and well seismic data (i.e. VSP data). Figure 21 shows Inline 2064 from the Veritas WCTP survey and the location of the Mahogany 1 exploration well on that line.

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version 08/07/2009

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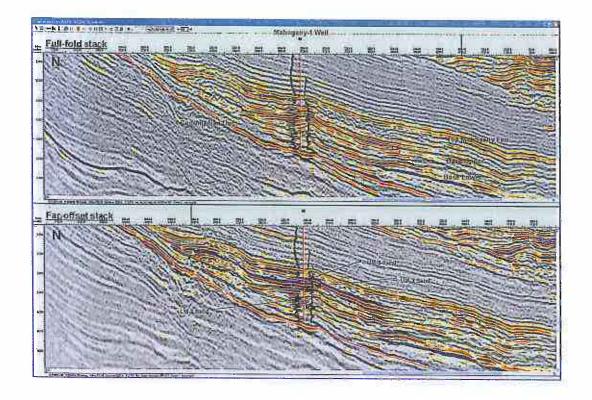


Figure 21: Inline 2064, Veritas WCTP 3D – Full stack vs. Far stack

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- 54 -



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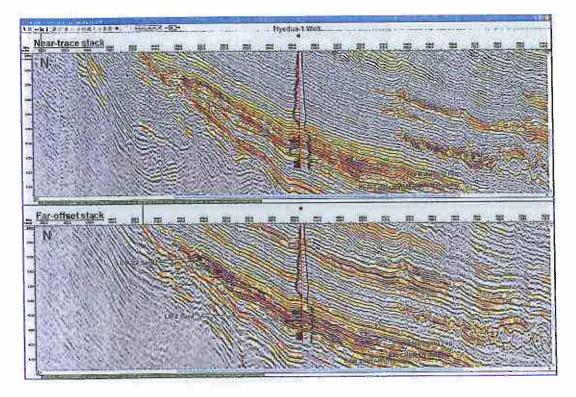


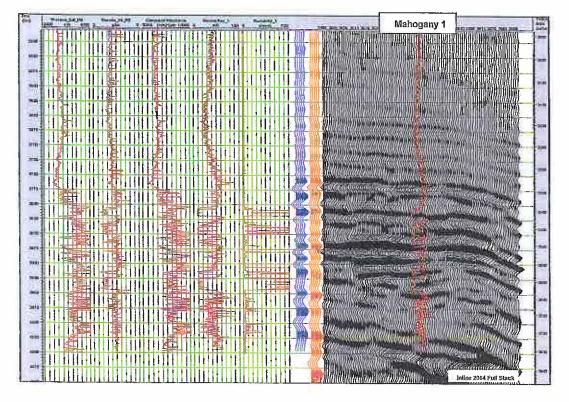
Figure 22: Inline 4500, CGG Tano Deep 3D – Near vs. Far

Figure 22 shows Inline 4500 from the CGG Deepwater Tano survey and the location of the Hyedua 1 on that line.

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version 08/07/2009

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Figure 23: Mahogany 1 Well to Seismic Tie

Figures 23 and 24 show the synthetic seismograms generated from these two wells and their correlation to the 3D data.

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version

08/07/2009

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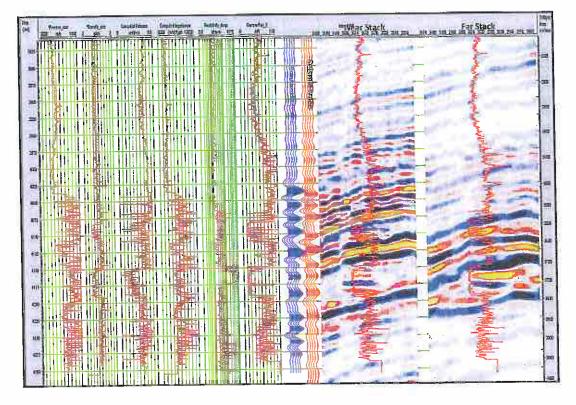


Figure 24: Hyedua 1 Well to Seismic Tie

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version 08/07/2009

- 57 -

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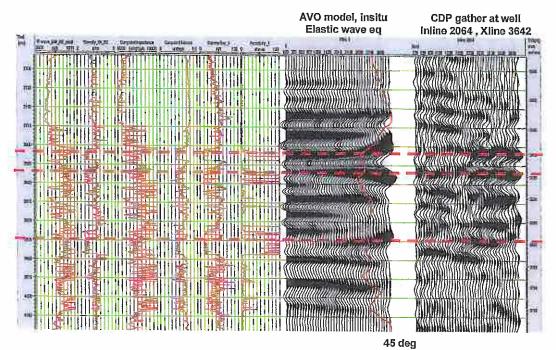


Figure 25: Mahogany 1 AVO Model

AVO modeling was also applied in conjunction with analysis of seismic gathers to discriminate thick oil sands from wet or thin sands, see Figure 25. Initial seismic interpretation on the WCTP and Deepwater Tano surveys identified and characterized the prospective Turonian and Campanian fan systems, resulting in the respective discoveries at Jubilee and Odum. Detailed seismic interpretation on the WesternGeco "Q" fast-track dataset has helped with initial understanding of the stratigraphic complexities and structural continuity of the Upper and Lower Mahogany sand systems.

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version

08/07/2009



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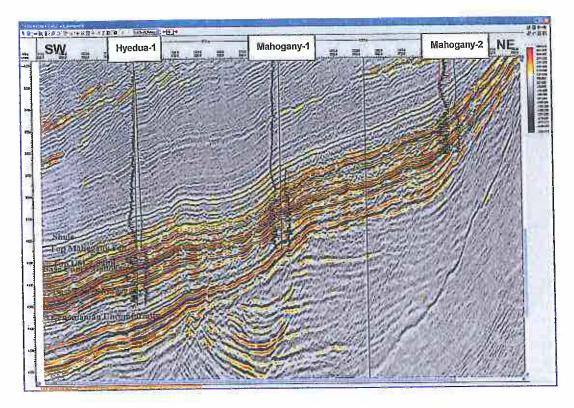


Figure 26: Well Tie Line, WesternGeco "Q" Fast-track Data

Figure 26 shows a seismic well tie line from the fast-track data that connects the three wells drilled to date. When flattened on the Top Mahogany Fan marker, fan geometries and thickness variations in the Upper and Lower Mahogany sand intervals become apparent, see Figure 27.

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version 08/07/2009 - 59 -

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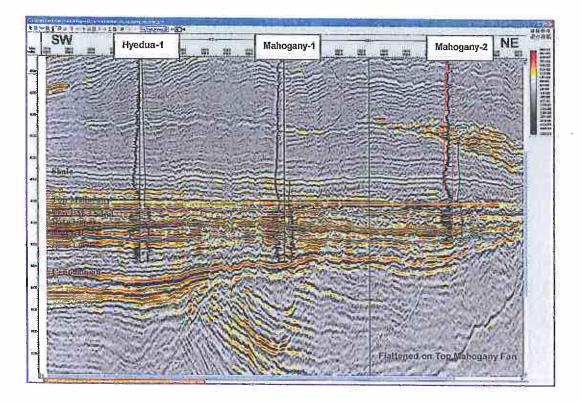


Figure 27: Well Tie Line (flattened), WesternGeco "Q" Fast-track

Current interpretation on the WesternGeco "Q" fast-track has focused on structural and isochron mapping of the Upper and Lower Mahogany reservoir intervals, see Figures 28 - 31. Future mapping on final migration products from this dataset, including various angle-stack migration and AVO volumes, will provide a greater level of detailed reservoir characterization across the Jubilee Field area.

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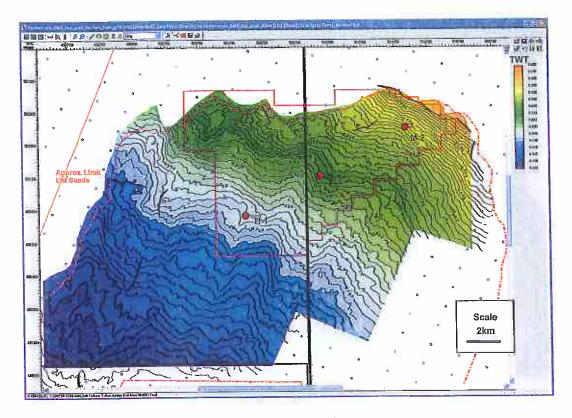


Figure 28: Time Structure Map on UM (Fast-track data)

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- 61 -

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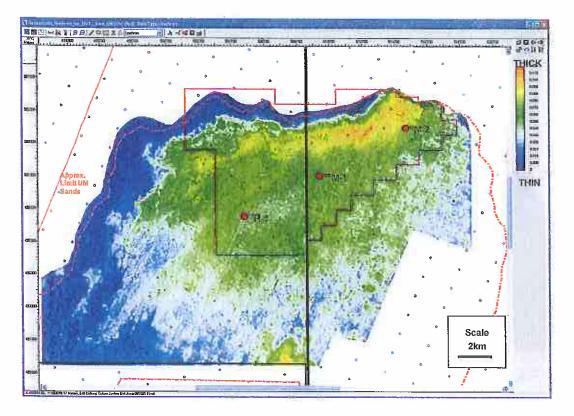


Figure 29: Isochron Map of UM Interval (Fast-track data)

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- 62 -

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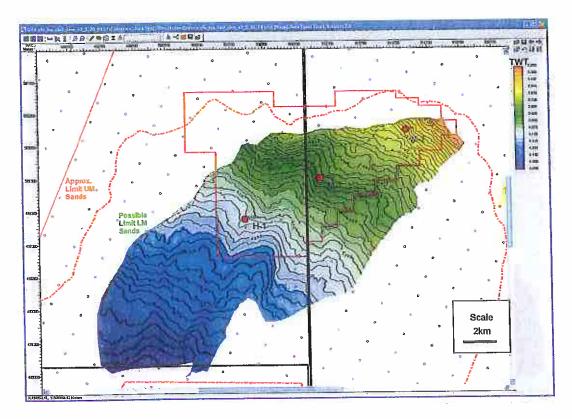


Figure 30: Time Structure Map on LM (Fast-track data)

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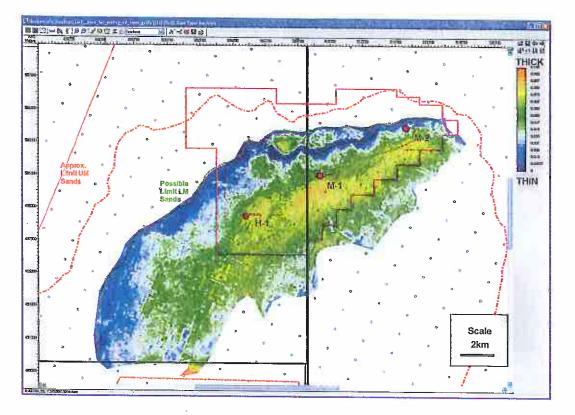


Figure 31: Isochron Map of LM Interval (Fast-track data)

# 2.4.3 Velocity and Time to Depth Conversion

Velocity information from the three Jubilee Field wells and Odum 1 were incorporated into the time-to-depth conversion of the seismic horizons that define the Jubilee Field reservoirs. As shown in Figure 32, the time-to-depth relationship of the sediments below the mudline is very uniform across the Jubilee Field area, to the top of the Mahogany fan system.

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version 08/07/2009

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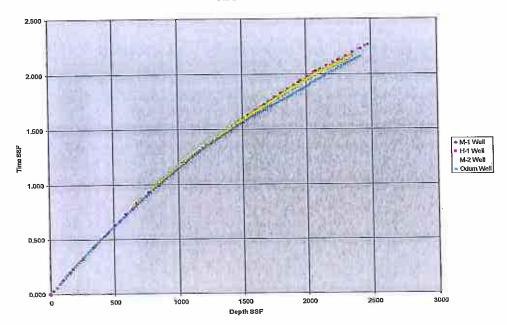


Figure 32: Time-Depth Curve (below mudline) for Jubilee Field Wells

The higher velocity Campanian fans, that partially overlie the Mahogany fan system, distort the time-depth relationship, requiring a corrective adjustment to deeper horizons where the Campanian fans are present, see Figure 33. Seafloor canyons that trend NE-SW across the Jubilee Field area see Figure 34 also induce structural artifacts in time-to-depth conversion.

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version 08/07/2009 - 65 -

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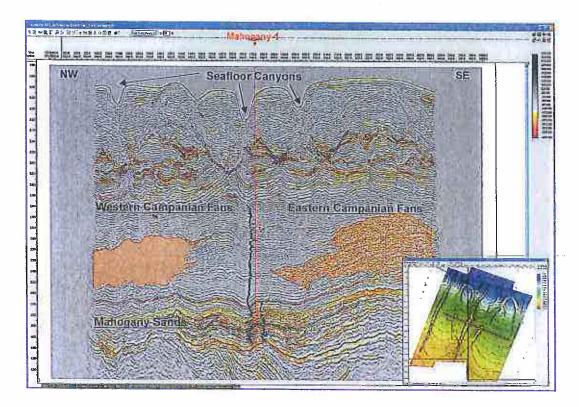


Figure 33: Features Affecting Depth Conversion, Jubilee Field

08/07/2009

- 66 -

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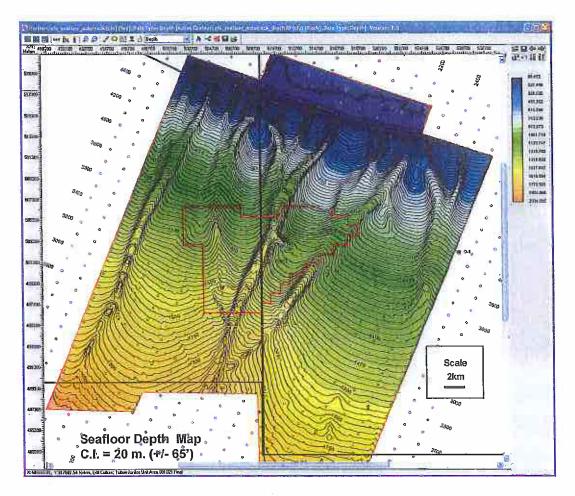


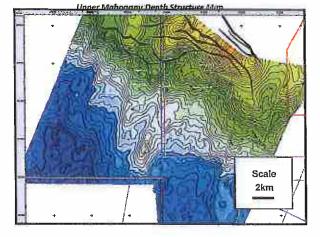
Figure 34: Seafloor Canyons that Affect Depth Conversion

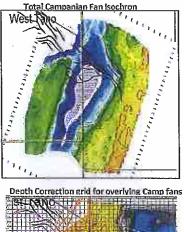
A number of methods have been attempted to filter out the seafloor overprint on the subsurface structure. Depth conversion for the Jubilee Field reservoirs was performed in the following manner. The seafloor was smoothed with a 2 x 2 km filter to minimize seafloor canyon effects on subsurface reflectors and was converted to depth with a 1500 m/sec interval velocity. The isochron from the smoothed seafloor down to the top of the Mahogany fan system was converted to an isopach using a single velocity function derived from the Mahogany 1 and Hyedua 1, since neither well encountered high-velocity Campanian fans. The isopach was then combined with the seafloor depth. The overlying Campanian fans were mapped and the combined isochrons were converted to a depth-correction grid, based on velocity data from the wells, see Figure 35.

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version 08/07/2009 - 67 -

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- Mahogany 1 Polynomial velocity function used to create depth structure map
- Depth map correction required to account for effect of overlying fan systems
- Total Campanian Fan isochron converted to a depth correction grid (scaled to 80m at the Odum 1 well, 0m at Mahogany 1)
- Depth correction grid added to Upper Mahogany depth map to compensate for overlying Campanian fans
- Correction grid and depth structure to be updated after final log data from M2





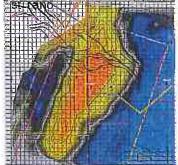


Figure 35: Upper Mahogany Depth Conversion Methodology

This depth correction grid was applied to the depth structure map for the Top Mahogany fan marker. Isochron thicknesses from the Top Mahogany fan down to the Upper and Lower Mahogany sands were converted to isopachs using velocities observed in the wells. Finally, these isopachs were layered from the Top Mahogany fan depth structure map to create reservoir level maps for input into the static reservoir model. The smoothing and correction factors applied to depth conversions are preliminary estimates. Depth conversions will improve with additional well control and with incorporation of a detailed velocity field from the new WesternGeco 3D dataset in the future.

# 2.5 Field Mapping / Static Models

Fundamental field mapping for reservoir definition and field limits was based on the interpretation of the seismic data from the fast-track Q, WCTP and Deepwater Tano surveys as noted in the geophysical mapping sections above. These maps define the fundamental structural configuration of the Upper and Lower Mahogany reservoir intervals and include:

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version 08/07/2009





- Top Mahogany Fan
- Top UM2.
- Base UM3
- Top Lower Mahogany
- Base Lower Mahogany

These maps form the basis for the structural framework and internal architecture of the Mahogany static reservoir models. Two discrete static models were constructed using Petrel and provide input for the dynamic modeling of reservoir behavior. The first model describes the main sand body encountered in the Lower Mahogany interval, the LM2 Sand. The second model characterizes the zones to be developed initially in the Upper Mahogany, the UM3 and Northern Channel zones.

### 2.5.1 Static Model Methodology

The methodology employed to develop the UM3 and LM2 static models includes:

- Construction of a structural framework.
- Construction of a three-dimensional grid model within the defined framework
- Scale-up of well log properties
- Construction of a facies model
- Population of the facies model with reservoir properties
- Calculation of STOOIP
- Scale-up of static model to a coarser scale framework for input into Eclipse, a reservoir modeling software

The static model incorporates the following aspects: northeast to southwest trend in the sand body and reservoir property distributions; a relatively high degree of sand and shale continuity to reflect the interpreted depositional setting; and, the potential for stratigraphic or sub-seismic scale compartmentalization. At the present time, no faults have been mapped within the Upper or Lower Mahogany reservoir sections.

### 2.5.2 LM2 Static Model

The Lower Mahogany interval may be characterized as having three units: an uppermost, relatively thin sand, present in the Mahogany 1, the LM1 Sand, an intervening shale section and a thick sand-rich interval, the LM2 Sand. Future drilling and seismic interpretation may indicate the LM1 Sand is volumetrically significant; however, the LM2 Sand is the focus of the Phase 1 development.

#### Structural framework

Two seismically mapped events provide the initial input for the structural framework of the LM2 model. These events are the top of the Lower Mahogany and a "near" base of the Lower Mahogany interval. Since no seismically mapped event was available to

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version 08/07/2009

- 69 -

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define the top of the LM2 Sand, a simple gross isopach as shown in Figure 36 based on well data, was utilized to create a structure map at the top of the LM2 Sand. This isopach, from the top of the Lower Mahogany to top LM2, was added to the top Lower Mahogany structure map to create a top LM2 structure map. This map was flexed to the well tops at each of the intersected wells.

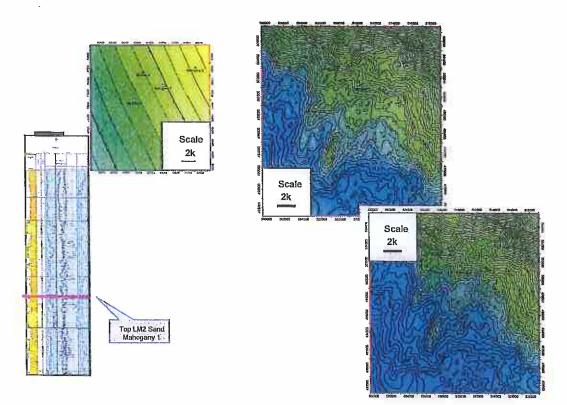


Figure 36: Top & Base LM2 Depth Structure showing OWC

An event near the base of the Lower Mahogany interval was interpreted from the fast track data set. When tied back to the well, this surface was some 40 m below the base of the reservoir sequence. Due to the rugose nature of this surface, it was deemed that a bulk shifting would result in a less constrained map. Therefore, a different approach was adopted to create the basal LM2 structural surface. This involved using the gross isochron of the entire Lower Mahogany (Figure 31) as a proxy for the LM2 gross isopach. The Lower Mahogany isochron was normalized (zero to one) and used as a scalar to adjust the gross isopach until it approximated the thickness at the wells. This work was actually completed ahead of the drilling of the Mahogany 2 and the resultant map very closely approximated the gross thickness encountered. As mapped, the

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version 08/07/2009

- 70 -



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northern edge of this interval appears to thin or pinch-out to a zero thickness. Mapping available during the model build to define the southeastern limits did not extend significantly beyond the area of primary development. The general trend in the southeast suggested a progressive thinning, and is assumed to thin to zero for modeling purposes.

Subsequent mapping has revealed that the southeastern region of the LM2 model pinchout appears to thicken again. Future LM2 static model updates will take this into consideration. A similar thinning and ultimate pinchout assumption was made to the southwest. The resultant gross isopach was added to the Top LM2 structure map to create a lower bounding surface and was flexed to the well ties. These two surfaces form the basis of the LM2 structural framework.

### **Grid Dimensions**

A three dimensional grid framework was established for the LM2 Sand. The lateral dimension of the grid cells was set at 100m by 100m and a vertical cell thickness of 1m was used.

### Log up-scaling

Prior to facies modeling and property distribution, log data was scaled-up to the corresponding vertical grid cell of the static model. The LM2 static description required a discrete log to depict the reservoir facies, as a primary input. A simplistic approach was adopted in-lieu of a more sophisticated sedimentologic facies based description that will be used in future models. The gross reservoir interval is comprised of two primary facies: sand and shale. The facies log is a discrete log, zero indicating shale and one indicating sand. The log was generated using a GR log cut-off. A GR value of less than 20 units was considered sand; and, a value greater than 20 units was considered shale. The facies log as "most-of" calculation; the porosity log was scaled-up using an arithmetic average.

### **Facies Modeling**

This model assumed the LM2 reservoir consists of two primary regions: a central region, corresponding to the high amplitude area and a surrounding region with lower net to gross and more heterogeneity.

The central region was defined by the max amplitude of the Far Envelope minus the Near Envelope multiplied by the Far Amplitude Map, see Figure 20.

The data was based on the Veritas WCTP and reprocessed Deepwater Tano surveys. Despite the data gap between the Mahogany 1 and Hyedua 1, the maps give the best proxy for the distribution of hydrocarbons in the field at this time.

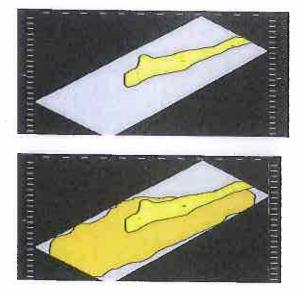
For the three wells, the average sand to shale ratio ranged from 49%–66%. Sequential indicator simulation (SIS) was the geostatistical method employed to generate the first order facies model. The correlation length was chosen to be approximately half the well

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version

08/07/2009

distance in the longest axis (northeast to southwest) 3000m and the shortest axis was set at 1500 m. The intent was to create a description that was relatively continuous both in shale length and sand continuity. The resultant bodies are ellipsoidal with a preferred orientation from northeast to southwest.

The surrounding region has been modeled with a lower net to gross and less connected reservoirs than the central region. Future drilling would test this hypothesis. The surrounding region is an area outside the central core area and extends to the zero isopach line, see Figure 37.



Sand body defined by amplitude only n/g based on well data + stochastic sh. Encased in shale

Sand body defined by amplitude only n/g based on well data Encased in low n/g (40%) sand shale

Figure 37: Lower Mahogany Facies Model

A reservoir property was constructed where the central core was assigned one, the surrounding region out to the zero isopach line was assigned a zero and the area beyond the zero isopach line was assigned a two. Facies modeling was conducted in two phases. First the central core area conditioned to the wells and then the surrounding area was modeled. SIS was again used here however the correlation lengths were less than the central core and the net to gross was set at 40% (i.e. lower than the lowest net to gross observed in any of the wells). A northeast-southwest trend of the variogram was employed to mimic the depositional fabric of the reservoir. Beyond the zero isopach line, facies were set to shale.

### **Reservoir Compartmentalization**

At the time of construction of the LM2 static model no reservoir maps were available that depicted any "mappable" internal boundaries or faults. In light of the apparent reservoir

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version

08/07/2009 - 72 -



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discontinuity revealed by the Mahogany 2 drill stem test, additional complexity was incorporated into the description. This was accomplished after a series of discrete lineaments were mapped in the Lower Mahogany interval, see Figure 38.

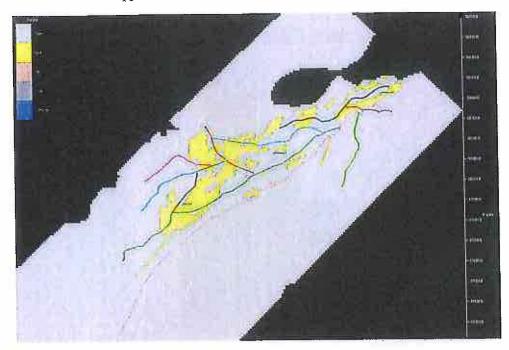


Figure 38: Lower Mahogany Lineaments

It is unclear exactly what these features represent; however, they may represent channel edges, sandbody pinch-outs, tuning or some other phenomenon. In the LM2 static model, they served as a proxy for defining reservoir compartments. These features were loaded into Petrel as polygons, converted to vertical faults, scaled up into the coarse model and exported to Eclipse as fault transmissibility files.

#### **Property Modeling**

Once the facies model was constructed, the appropriate reservoir properties were distributed into the three dimensional grid conditioned to the facies.

#### Porosity

The computed effective porosity log (PHIE) was used as the basis for the porosity volume. Sequential Gaussian Simulation (SGS) was the geostatistical technique used. Correlation lengths of up to 1000m in the long axis and 600m in the minor axis were used. An orientation of 51° was used to approximate inferred patterns of NE-SW trending property trends. Figure 39 shows the comparison between the raw well log data,

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version 08/07/2009

- 73 -

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the blocked well data and the distribution model. Porosity is distributed within the sand facies only, shales are assumed to have no porosity.

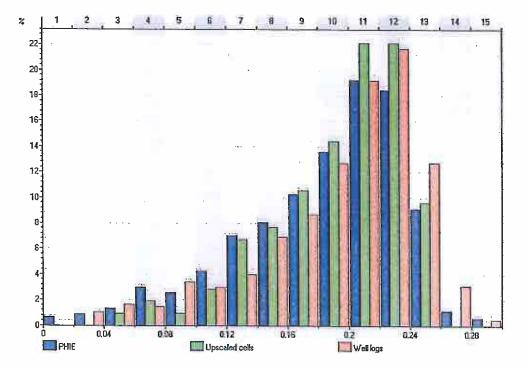


Figure 39: Lower Mahogany Porosity - Model to Well Tie

## **Permeability**

Figure 40 shows the established porosity-permeability cross-plot from the available core data. The relationship defines the permeability property used in the static model. Future model builds will include permeability distributed in a similar fashion to the porosity. All shales in the static description are set to zero permeability.

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Jubilee Field Jubilee Phase 1\_POD\_Final\_Version

08/07/2009

- 74 -

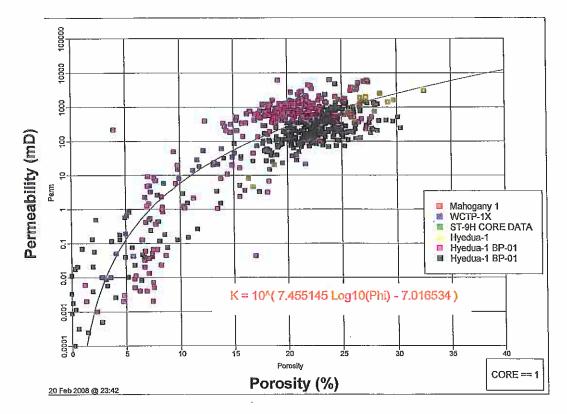


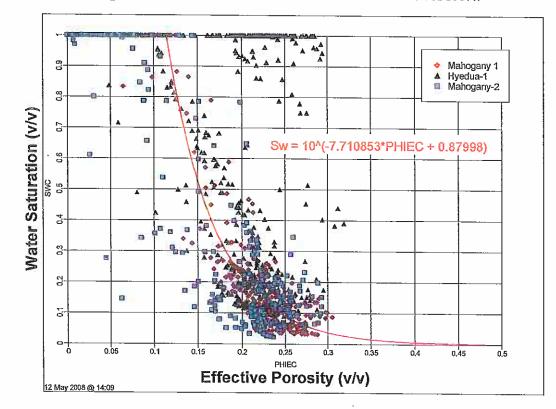
Figure 40: Porosity / Permeability Relationship

08/07/2009 - 75 -

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### Water Saturation

Water saturation is the final reservoir property computed as part of the fine scale static modeling. The property is created in a manner similar to porosity through the use of a transform, see Figure 41. All shales are assumed to have a water saturation of 100%.



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Figure 41: Sw / Porosity Relationship

### **Volumetric Estimation**

Prior to scale-up into the coarse model, a volumetric estimate was computed, based on an OWC of 3,755m TVDSS. The table below shows the computed STOOIP for the LM2 static model.

Zone BRV	NRV	PV (ac-ft)	STOOIP 10 <sup>6</sup>
(ac/ft)	(ac/ft)		Bbl
2,818,100	1,122,500	238,313	1,335

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version

08/07/2009

- 76 -



### Scale-Up

A coarser three dimensional grid was constructed to provide primary input parameters to Eclipse. The resultant three dimensional grid was 200m x 200m laterally and consisted of 10 vertical layers. Future generations of simulation models will employ a finer scale layering. Each grid layer represented an average 5-8m of vertical thickness in the reservoir. The total number of active cells was 37,564. Reservoir property scale-up is discussed in Section 2.6.6.

### 2.5.3 UM3 Static Model

Seismic definition of the internal architecture of the Upper Mahogany interval is limited to the interpretation of the fast-track seismic volume. Therefore, "near" top reservoir structure maps defined the structural framework of the Upper Mahogany. Pressure and fluid data have shown that the Upper Mahogany is comprised of at least three separate hydrocarbon pools. The current static model description has focused on the UM3 Sand and the region to the north of field referred to herein as the "northern channel". The Phase 1 development plan focuses on UM3 in the Upper Mahogany. Therefore, no attempt was made to model the UM2 or UM4 zones.

## **Definition of UM3 and Northern Channel**

The Upper Mahogany sequence is clearly pressure separated from the Lower Mahogany sequence. The shale separating these two intervals represents a major change in basin conditions and could have been a eustatic highstand event or a prolonged localized cessation of coarse sediment input. The basic geometry of the Upper and Lower Mahogany intervals result in gross isopachs that are quite similar. Both intervals appear to represent components of a larger Turonian fan complex that lay in a mid to lower slope environment and received sediment input from around the Tano nose. Unlike the Lower Mahogany, the sediment entry points updip of the northern faults, are more readily evident on the fast-track data set.

The Upper Mahogany sequence does have a distinctly thicker interval along the northern pinch-out line. This northern sequence exhibits a different seismic character from anything seen in the Upper Mahogany interval. When viewed on flattened timeslices, the region exhibits relatively linear features that trend east-west in the WCTP Block. Seismic cross-sections across this belt show apparent continuity of reflectors from the main Upper Mahogany interval, while there appears to be an obvious discordance that has a channel like geometry in other areas. The channel geometry is somewhat more evident in the Deepwater Tano Contract Area. To the southwest, this system exhibits features akin to lateral accretion sets and well defined meander loops, see Figure 42. The data suggests this zone of thickening represents a channel complex that is younger than the UM3 and may be time equivalent or younger than UM2. Post-depositional movement may have also enhanced the localized thickening along the northern channel. This region represents an area of high uncertainty in the reservoir description and is the target of the Hyedua 2 appraisal well. Consequently the static model description has significant inherent heterogeneity in this region.

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version 08/07/2009 - 77 -

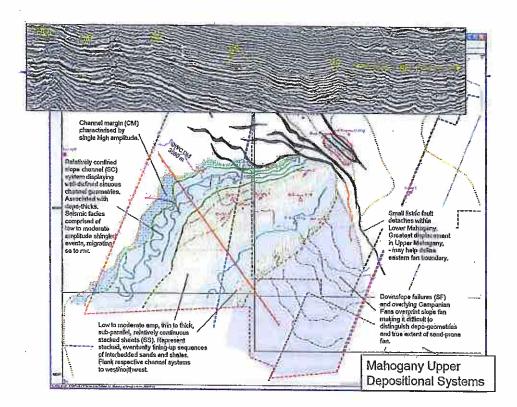


Figure 42: Upper Mahogany Depositional Model

### Structural Framework

Two key mapped surfaces in the Upper Mahogany provide the basis for the structural framework of the static model description, the top UM2 and base of UM3 structure maps.

To construct a top UM3 structure map, the UM2 top structure map was depth shifted by scaling the top UM2 to base UM3 gross isopach see Figure 43 by an average ratio of the thickness of the top UM2 to base UM3 well tops, approximately 37%. The resulting scaled isopach (Figure 44a) was added to the UM2 top structure and flexed to the well tops.

The reservoir description incorporates the ability to simulate the impact of the northern channel region being in communication or separated from the main UM3 interval. Therefore, a separate zone in this region was created, since time did not permit discrete mapping. Consequently, the northern region of the top UM2 to base UM3 gross isopach was "cut-out" to form a proxy isopach map, representing the northern channel, see Figure

Jubilee Field Jubilee Phase 1\_POD\_Final\_Version 08/07/2009



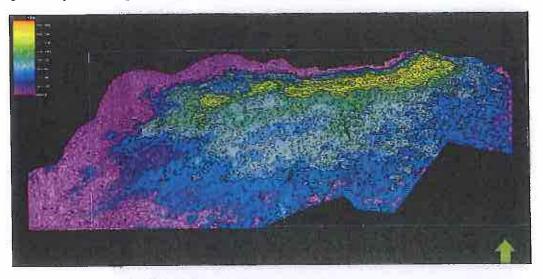
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44b. This isopach was then added to the UM2 top structure map, truncating the previously created top UM3 sand and base UM3 structure maps.



Top UM2 to base UM3 gross isopach



Jubilee Field Jubilee Phase 1\_POD\_Final\_Version 08/07/2009 - 79 -

AM

65