

9 March 2011

## Tullow Oil plc – 2010 full year results



### Disclaimer



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## Contents





Section	Page
Introduction	4
Finance	6
Production and Development	13
Exploration	22
Conclusions	34



Tullow Oil plc – 2010 full year results

Introduction – Aidan Heavey



## A transformational year for Tullow

- First Oil from Jubilee establishes Tullow as a successful deepwater operator
- Portfolio of major new oil fields to be developed
- Frontier exploration to open new basins in 2011
- Business well balanced and well funded to implement exploration-led strategy



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Finance – Ian Springett

## TULLOW #

## Creating shareholder value

### Consistent and repeatable strategy

- Sustainable long term value growth
- · Balance exploration, major projects & funding
- Safety, environment, stakeholders & people

- High-impact exploration portfolio
- Ghana: Jubilee discovery
   & fast track development
- Uganda: commercialisation, pre-emption & farmdown

### Underpinned by financial strategy

- Strong, well funded balance sheet to enable growth
  - Debt and equity funding
  - Portfolio management
- Significant operational cash flow

- \$3.15bn debt facilities
- \$2.1bn equity placings
- Uganda transactions
- Jubilee Phase 1 first oil Nov 2010

## 2010 results summary

	2010	2009	Change
Sales revenue	\$1,090m	\$916m	+ 19%
Operating profit	\$235m	\$151m	+ 56%
Net profit	\$73m	\$31m	+ 137%
Basic earnings per share	6.1c	3.2c	+ 90%
Dividend per share	6.0p	6.0p	No change
Capital investment <sup>1</sup>	\$1,235m	\$1,085m	+ 14%
Cash generated from operations <sup>2</sup>	\$762m	\$588m	+ 30%
Net debt <sup>3</sup>	\$1,943m	\$1,144m	+70%

 $<sup>^{\</sup>rm 1}$  2010 excludes \$1,450m Heritage acquisition and \$340m Ghana FPSO

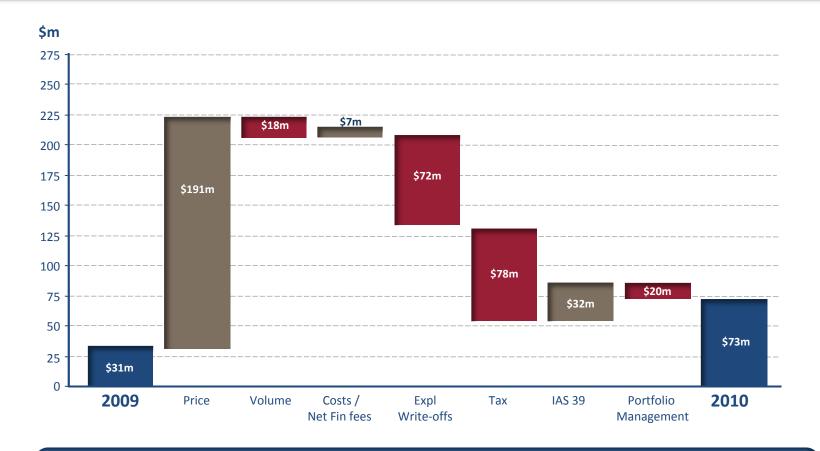
## Financial results significantly improved on 2009

<sup>&</sup>lt;sup>2</sup> Before working capital movements

<sup>&</sup>lt;sup>3</sup> Including all cash balances

## TULLOW #

### Net income 2010 v 2009



2010 Net income improved primarily due to higher prices offset by lower sales volumes and higher exploration write-offs. Jubilee will transform 2011 financials.

### Sources and uses of funds

#### Cash inflow \$3,164m

- Operating cash flow \$818m\* (2009:\$464m\*)
- Disposal of oil & gas assets \$7m (2009:\$17m)
- Equity placing \$1,453m (2009:\$622m)
- Net loan drawdown \$886m (2009:\$326m)

#### Cash outflow \$3,074m

- Advances to contractors \$172m (2009: \$nil)
- Heritage acquisition capex \$1,450m (2009: \$nil)
- Cash Capex \$1,182m (2009:\$1,189m)
- Finance costs & fees, dividends \$184m (2009:\$229m)
- Cash tax paid \$86m (2009:\$187m)

#### Net cash inflow \$90m

• Increase in cash balances

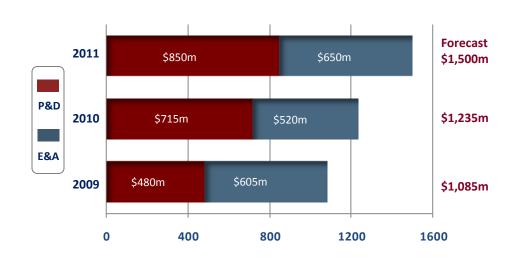
## 2010 Net cash inflow \$90m (2009: \$228m outflow)





<sup>\*</sup> After working capital

## Significant 2011 capital expenditure

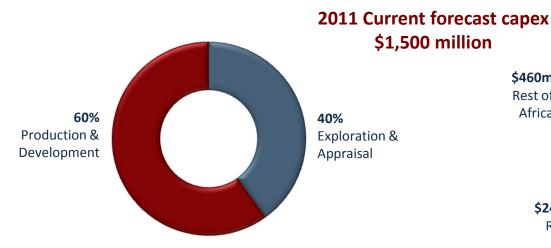


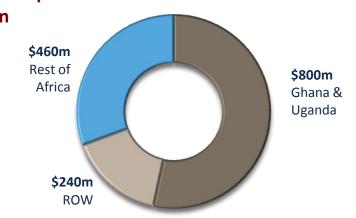
#### • \$1,500m forecast for 2011

- Ghana: Jubilee phase 1a development & Owo/Tweneboa appraisal & development
- Uganda: Exploration drillout and Lake Albert development
- High-impact exploration: Africa & South America

#### • 2011 capital split:

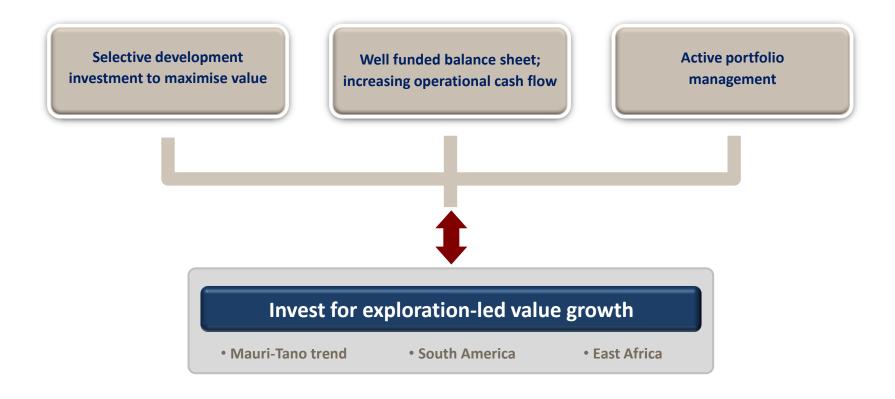
- 60:40 between P&D and E&A
- >50% Ghana & Uganda; >80% Africa





# TULLOW #

## Implementation of financial strategy





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## **Production & Development** – Paul McDade



## Jubilee Phase 1 – World-class project now on production

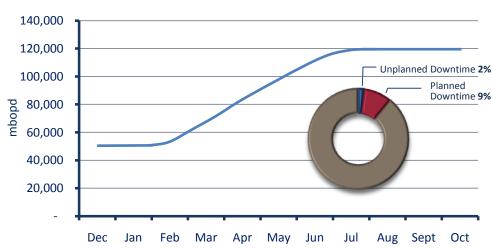
#### **Exceptional delivery**

- Jubilee field discovered June 2007
- FPSO arrived in Ghana on schedule June 2010
- Production commenced 28 Nov 2010
- Presidential First Oil Ceremony 15 Dec 2010
- First cargo lifting 5 Jan 2011
- 40 months from discovery to production
- Capital cost of \$3.30bn within 5% of budget

#### Production ramp up to 120,000 bopd

- Production ~70,000 bopd from 5 wells
- Injection ~110,000 bwpd into 2 wells
- Further 4 producers and 5 injectors planned
- Gas injection to commence in March 2011
- Facilities unplanned downtime 2%
- Plateau production expected in July





## Jubilee and WCTP development opportunities

#### Jubilee Phase 1a

- Infill programme of 5 to 8 wells
- Designed to maintain FPSO plateau
- Sanction in 2011; to commence in 2012

#### Jubilee Phase 1b

- Concepts include tie-back to existing FPSO or new cluster development
- Selection subject to Jubilee performance, FPSO capacity and nearby E&A success
- Sanction likely in 2013+

### Mahogany East Area (MEA)

- MEA resource range 40 80 200mmbo
- Declaration of Commerciality September 2010
- POD & further appraisal being discussed with GoG
- Prospectivity provides additional upside ~200mmbo

#### Teak Area

- Successful Teak-1 with Teak down-dip underway
- Potential contributor to Phase 1b or Mahogany East cluster development

	Jubilee Unit Area Reserves and Resources (mmbo)			
	Phase 1	ase 1 Phase 1a Phas		
	17 wells	5-8 wells	10-20 wells	
Low	250	60	160	
Mid	370	100	205	
High	590	215	260	





## Enyenra & Tweneboa – Ghana's next major development

#### Extensive appraisal and testing

- Successful Enyenra-2A and Tweneboa-3
- Further appraisal in 2011 ~ 2-4 wells
- Well Testing planned to establish reservoir communication, well productivity & fluid data
- Appraisal data will allow refinement of development options

#### **Development options**

- Joint Enyenra/Tweneboa FPSO development being considered
- Combined liquid production 75-125,000 bopd
- Gas utilised for gas cycling and export
- Declaration of Commerciality end 2011
- Submission of Plan of Development 1H 2012
- First oil ~ 2.5 years post Project Sanction

	Resources		
	P90	P50	P10
Enyenra oil (mmbo)	100	200	550
Tweneboa hydrocarbons (incl Enyenra gas condensate - mmboe)	100	200	650



## Uganda – Preparing for an active 2011

#### Memorandum of Understanding (MOU)

- Delay in recent weeks due to Ugandan elections
- MOU terms agreed and documentation being finalised

#### **Operational Restart**

- Drilling operations restarted in Block 2 Kigigole 6, Ngege-2
- Ogec rig on standby for restart of operations in Block 1
- Weatherford slant rig en-route from Mombassa, further two rigs being contracted
- Extended Well Test equipment in field for a 2Q start-up

#### **Basin Development**

- FEED completed for Nzizi and Kasamene fields
- Nzizi gas to power start-up expected late 2012
- Kasamene development may be rolled into overall basin development
- Working actively with partners to advance the basin-wide development plans
- Significant oil production still anticipated in 2015



## Good development progress across global portfolio

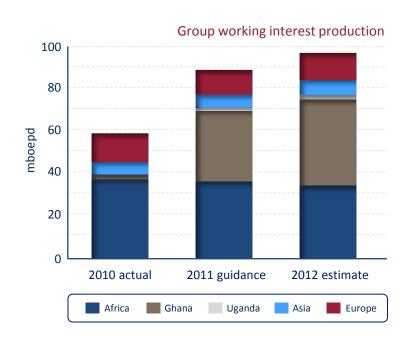
#### **Africa**

- Côte d'Ivoire FPSO upgrade completed in 2010 in preparation for infill drilling in 2012-2013
- Equatorial Guinea 4-D time lapse seismic acquired in preparation for further infill drilling and tie backs
- Gabon Production performance maintained; 50 wells in 2011 infill drilling and incremental developments
- Mauritania Banda oil tie-back to Chinguetti and Banda gas to power under review
- Namibia Kudu gas pricing discussions being progressed with Nampower

### **Europe & Asia**

- UK further Ketch infill drilling and three near field exploration wells planned
- Pakistan Shekhan-1 Extended Well Test under way

### Strong production growth in 2011

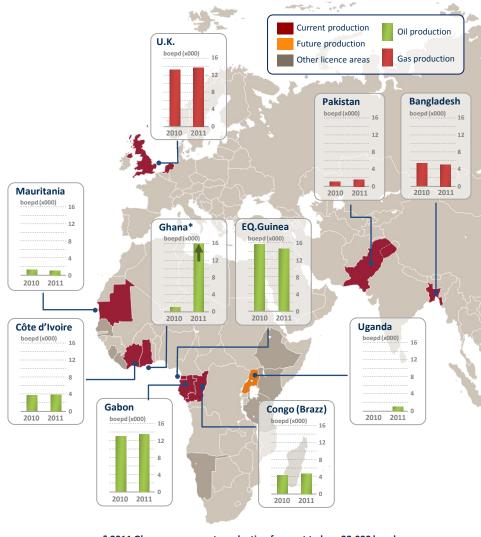


### Strong 2010 production – 58,100boepd

 Excellent performance from existing assets versus initial 2010 guidance of 55-57k boepd

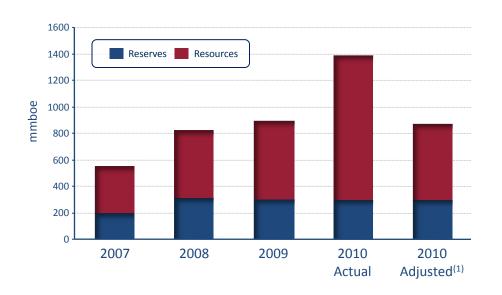
### 2011+ production to grow significantly

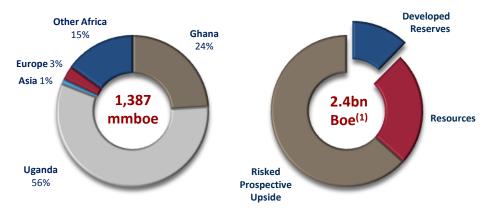
- 2011 production guidance 86-92k boepd
- Jubilee ramp up throughout 1H 2011



<sup>\* 2011</sup> Ghana average net production forecast to be c.33,000 bopd

### Reserves and Resources summary





#### Reserves and Resources 1,387 mmboe

- Commercial reserves 294 mmboe
- Contingent resources 1,093 mmboe
- Ghana & Uganda Resources to migrate to Commercial Reserves in short term

#### **Total resource potential 2.4 billion boe**

- Developed reserves 12% of total
- Reserve and Resource life > 25 years
- Risked prospective upside c.1.5 billion boe

Three year reserves replacement – 250%

### Conclusion

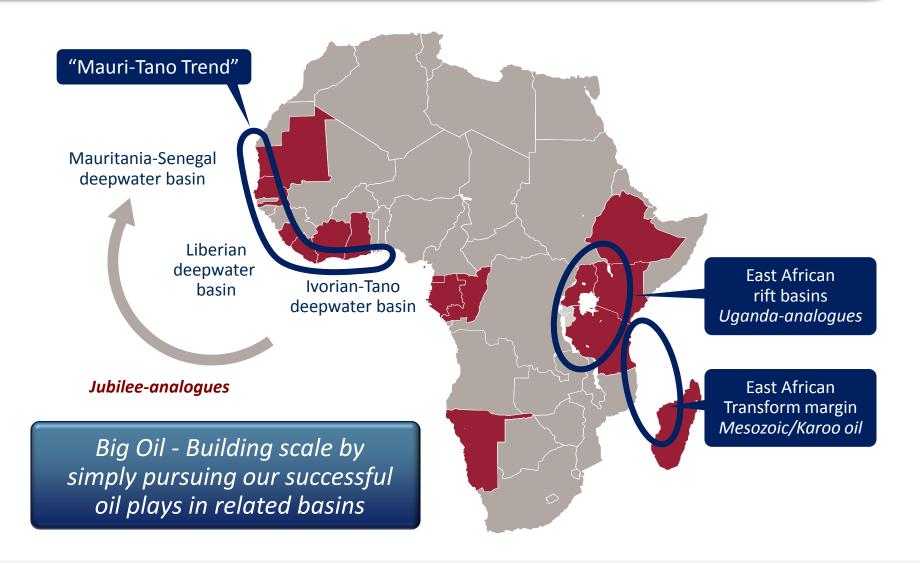
- Strong safety and environmental performance
- Tullow established as a competent deepwater operator
- Enyenra/Tweneboa next Operated deepwater mega-project
- Five rig programme planned for Uganda E&A drillout
- Global development portfolio fuels significant production growth



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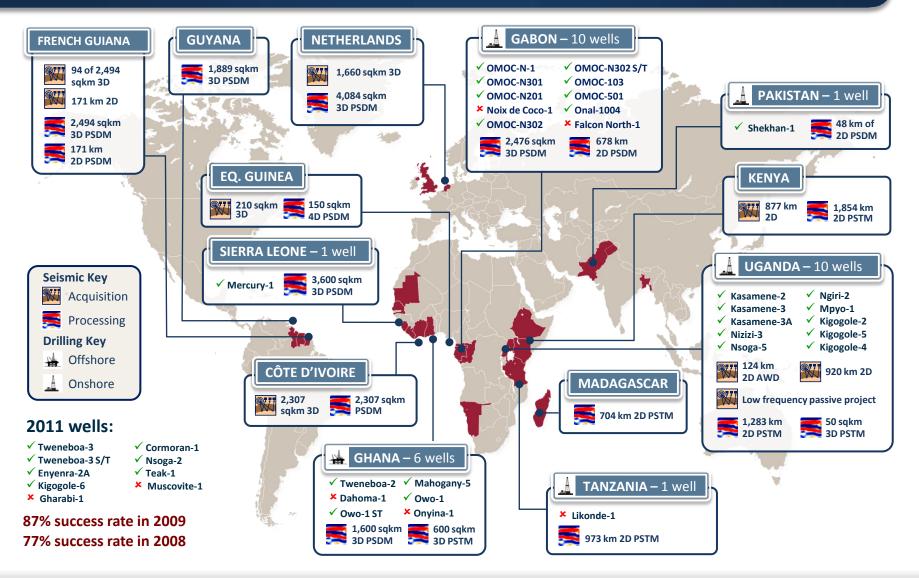
## **Exploration and Appraisal** – Angus McCoss

## Exploration-led value growth continues to "move the needle"



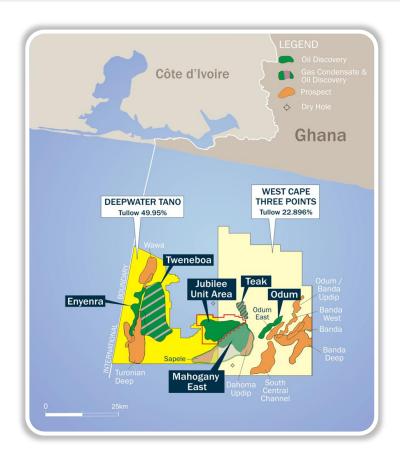


## 83% global exploration and appraisal success rate in 2010



## TULLOW #

## Ghana E&A programme delivering excellent results



Ghana gross resource upside potential ~4.0 billion barrels

#### Six fields discovered since 2007

- Jubilee world-class producing oil field
- Mahogany East appraised tie back to Jubilee
- Odum potential satellite development
- Tweneboa significant oil and gas-condensate field
- Enyenra major new light oil field under appraisal
- Teak significant oil & gas-condensate discovery
- 21 E&A wells 2 water-bearing (Dahoma & Onyina)

#### Deepwater Tano 2011 appraisal programme

- Deepwater Millennium drill-ship contract extended
- Tweneboa-4 appraisal well
- Enyenra-3A up-dip & Enyenra-4A down-dip appraisal wells
- Enyenra/Tweneboa flow and interference testing

#### West Cape Three Points 2011 high-impact wells

- Atwood Hunter semi-sub contracted; additional rig planned
- Teak-2 exploratory appraisal well between Teak & Jubilee
- Banda Deep exploration well
- South Central Channel exploration well
- Dahoma Up-dip Mahogany East appraisal well

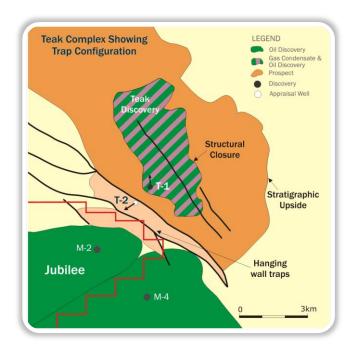


## Two new fields in Ghana – Enyenra & Teak



#### Enyenra-Tweneboa Area

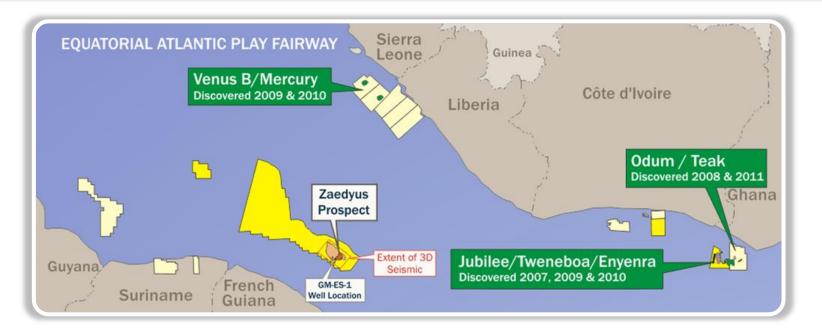
- Turbidite channels & fans in vast 200 sqkm system
- Excellent quality reservoirs
- Tweneboa significant oil and gas-condensate field
- Enyenra major new light oil field
- Critical geological risks removed by En-2A & Tw-3/3ST



#### Teak

- 73m net hydrocarbons in Campanian & Turonian
  - 50-100-200 mmboe (~70% liquids)
- Excellent quality reservoirs
- 50sqkm structural closure up-dip from Teak-1
- Reviewing down-dip stratigraphic upside potential
- Teak-2 drilling fault block between Teak & Jubilee

## Jubilee play pursued throughout Equatorial Atlantic region

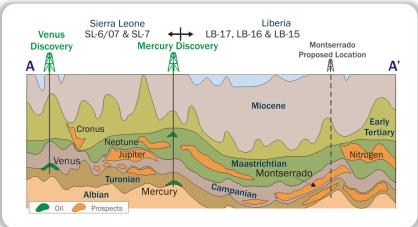


- Industry-leading acreage on Late Cretaceous turbidite sweet spots throughout Equatorial Atlantic region
- Geological model being successfully tested
  - Turbidite channels & fans deposited during Late Cretaceous continental drift
    - Drilled offshore Ghana, Côte d'Ivoire, Liberia & Sierra Leone
    - Turbidites imaged in high-quality 3D seismic on both sides of Atlantic
  - Widespread marine source-rock & effective seals
    - Now established through drilling offshore West Africa
    - Extent of Cretaceous oil in Suriname being tested along "Guyanas Trend"

# TULLOW #

### Following up on Liberian basin discoveries





#### Mercury & Venus follow up in Liberian Basin

- Critical Jubilee-play risks overcome through immediate success at Venus B-1 & Mercury-1
- Operator has confirmed Discoverer Spirit drill-ship to start follow-up 2011 campaign
  - Sierra Leone Mercury appraisal well & Jupiter exploration well
  - Liberia Montserrado-1 wildcat to drill high-impact
     Jubilee-scale Cobalt prospect

## Testing the Jubilee-play in South America



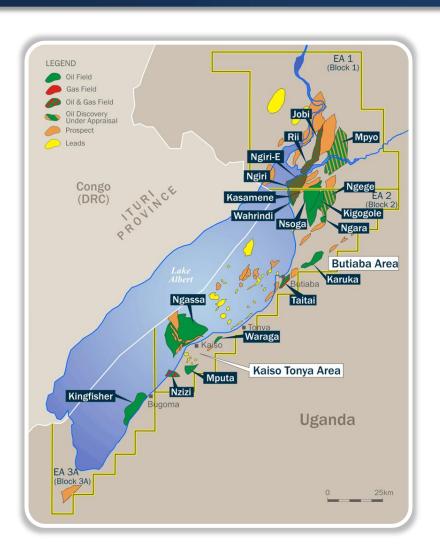
#### Drilling Zaedyus in French Guiana

- Giant turbidite fan system confirmed by 3D seismic
  - Bigger than the Ghana fan system
  - Numerous prospects mapped
  - High risk with high reward potential
  - Extensive regional follow-up
- Zaedyus currently being drilled by ENSCO-8503 semi-sub; 70-100 day well

### Jaguar prospect to be drilled Q3 2011

- Deeply buried Jubilee-sized turbidite fan offshore Guyana
- Jaguar to be drilled by Atwood Beacon HPHT jack-up rig; estimated 130 day well

### Uganda: Lake Albert Rift Basin E&A success continues



#### High success ratio through technical excellence

- 38 out of 39 wells found hydrocarbons
- High quality seismic & FTG unlock basin potential
- Main play fairways mapped in detail
- Ramping up to 5 rigs, including slant rig

#### Prolific oil basin under appraisal

- >1 billion barrels discovered (P50)
- Appraisal results generally better than P50 prognosis
- Well #33 (Nigiri-2) finds thickest oil pay (40m)

### **Exploration potential**

- 1.5 billion barrels yet to find (P50)
- Additional 1 billion barrels in upside potential (P10)
- Basement play potential studied through global analogues



### Exploring in Kenya & Ethiopia to replicate Ugandan success

#### Three Major Rift Trends

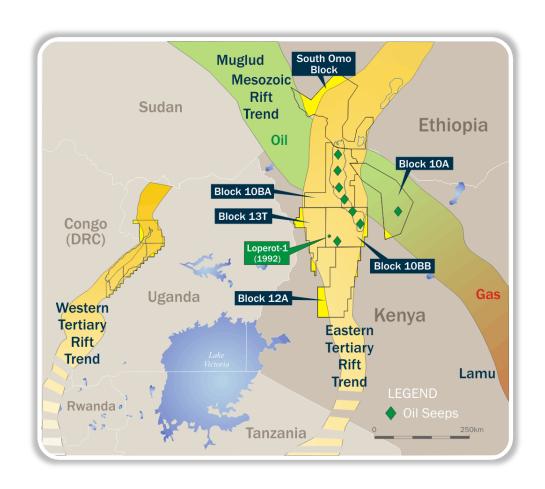
- Western Tertiary Rift Trend
  - Lake Albert Rift Basin 2.5 Bbo
  - Prolific Victoria Nile Delta Play
- Eastern Tertiary Rift Trend
  - More volcanic less prospective?
  - Loperot-1 (1992) 13m oil pay
- Mesozoic Rift Trend (Sudan-Kenya)
  - Sudan Muglud Basin 6.8 Bbo
  - Kenya Block 10A Oil seeps

#### "X" marks the sweetspot

- Oil Trends cross in Tullow acreage
- Omo Delta like Victoria Nile Delta

#### Transformational potential

- Kenyan-Ethiopian acreage 10x Ugandan
- Regional geological insights leveraged



## 2011 Exploration and Appraisal programme

Country	Block	Prospect	Interest	Gross upside*	Spud Date
		Tweneboa-4	40.050( /)	650 mmboe**	Q2 2011
		Tweneboa-DST	49.95% (op)	650 mmboe***	Q2 2011
	Deepwater Tano	Enyenra-3A		550 mmbo**	Q3 2011
		Enyenra-DST	49.95% (op)		Q3 2011
Ghana		Enyenra-4A			Q4 2011
		Teak Downdip		40 mmboe	In Progress
	West Cons Thorn Deints	Banda Deep/Cenomanian	22.9%	260 mmboe	Q2 2011
We	West Cape Three Points	South Central Channel		280 mmboe	Q2 2011
		Dahoma Updip		95 mmboe	Q3 2011
<u> </u>	SL-06/07	Jupiter	10%	250 mmboe	2H 2011
Sierra Leone	SL-06/07	Appraisal	10%	50 mmboe	2H 2011
Liberia	Block 15	Montserrado (Cobalt)	25%	650 mmboe	2H 2011
Mauritania	Block 6	Sidewinder	22.4%	800 mmboe	2H 2011
Câta diberie	CI-103	Fan 4 West	45%	230 mmboe	2H 2011
Côte d'Ivoire	CI-105	Lower Bandama Channel	22.37%	300 mmboe	2H 2011

**Continues on next slide** 

<sup>\*</sup> Estimated P10

<sup>\*\*</sup> Includes discovered and prospective volumes

## 2011 Exploration and Appraisal programme (cont.)

Country	Block	Prospect	Interest	Gross upside*	Spud Date
Uganda	Block 1&2	Butiaba E&A	Various	1,000 mmboe	In progress
Kanya	10BB	North Kerio	50%	75 mmboe	2H 2011
Kenya	10A	Paipai	50%	230 mmboe	2H 2011
Tanzania	Mtwara	Sudi	50%	200 mmboe	2H 2011
French Guiana	Guyane Maritime	Zaedyus	27.5% (op) <sup>#</sup>	700 mmbo	In Progress
Guyana	Georgetown	Jaguar	30%	700 mmboe	Q3 2011
Suriname	Coronie	5 Well Campaign	40%	250 mmbo	Q2 2011
Pakistan	Kohat	Jabbi	40%	60 mmboe	1H 2011
UK	44/19b	Cameron	22.5%	20 mmboe	Q2 2011
J OK	49/29d	Foxtrot	100%	25 mmboe	Q3 2011

<sup>\*</sup> Estimated P10

<sup>\*</sup> Tullow will have a 27.5% interest once Shell receive Government consents for their additional interest



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## **Conclusions**– Aidan Heavey

## A transformational year for Tullow

- First Oil from Jubilee establishes Tullow as a successful deepwater operator
- Portfolio of major new oil fields to be developed
- Frontier exploration to open new basins in 2011
- Business well balanced and well funded to implement exploration-led strategy

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