THE OKUME COMPLEX PROJECT

August 25, 2005
Population ~ 500,000
Size ≥ Maryland
Former Spanish colony – Spanish, tribal languages and English spoken
Major increases in petroleum revenues over last 5 years – ExMo Zafiro, MOC Alba, AHC Ceiba
International spotlight – issues with transparency of budgets and oil revenues
Limited indigenous service infrastructure, but considerable interest to develop

Okume Complex
SUB SURFACE

- Deepwater turbidites
- EUR ~ 200 mmbbls

Ebano
Okume
Oveng
 Elon
• AHC W.I. : 85%
• OPERATOR : AHC
• 43 WELLS (26 Prod, 17 Inj), 71 Slots
• 60 kbopd, 120 kbfpd
• 135 kbswpd, SO₄ removal
• 10-15 mmcf/d gas injection/disposal/storage
• Full field gas lift
# CAPITAL BUDGET

## FACILITIES

<table>
<thead>
<tr>
<th>Description</th>
<th>Forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Team, CAR, Studies</td>
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<tr>
<td>Elon CPF, Satellites</td>
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<tr>
<td>Oveng, Okume/Ebano TLPs</td>
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<tr>
<td>Subsea</td>
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</table>

Total Facilities: 653.0

## D&C

<table>
<thead>
<tr>
<th>Description</th>
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<tbody>
<tr>
<td>Drilling</td>
<td></td>
</tr>
<tr>
<td>Completion</td>
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</table>

Total Drilling / Completion: 453.4

**TOTAL**: 1106.4
COMMITMENT STATUS

Planned and Actual Commitment Status for the years 2004 and 2005.

<table>
<thead>
<tr>
<th>Month</th>
<th>2004</th>
<th>2005</th>
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<tbody>
<tr>
<td>Planned</td>
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<tr>
<td>Actual</td>
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July, 2005

MTS 8-25-05
COMPONENT FABRICATION LOCATIONS

- CPF & Satellite Deck & Jacket Fabrication
- Facilities Equipment Skids
- TLP Tendon and Pipe Fabrication
- Tendon SJs & Pipe
- Flexible Risers
- Prod. Risers & Line pipe
- TLP Hull & Deck Fabrication
- Tendon Pipe & Casing
- Line Pipe
<table>
<thead>
<tr>
<th>Contractor</th>
<th>Man-Hours</th>
<th>Recordable Injuries</th>
<th>Lost Time Injuries</th>
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<tr>
<td></td>
<td>Month</td>
<td>ITD</td>
<td>Month</td>
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<tr>
<td>Mustang Eng.</td>
<td>13,266</td>
<td>164,199</td>
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<tr>
<td>Intec Eng.</td>
<td>1,103</td>
<td>11,721</td>
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<tr>
<td>MODEC</td>
<td>10,586</td>
<td>47,247</td>
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<tr>
<td>Gulf Island</td>
<td>32,332</td>
<td>159,520</td>
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<tr>
<td>Kiewit</td>
<td>25,467</td>
<td>72,419</td>
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<td>Samsung H.I.</td>
<td>158,454</td>
<td>720,312</td>
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<tr>
<td><strong>Total</strong></td>
<td>241,208</td>
<td>1,175,418</td>
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**Contractor Safety Performance**
## Project Schedule

<table>
<thead>
<tr>
<th>Task Name</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
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<tr>
<td><strong>MTS 8-25-05</strong></td>
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<tr>
<td><strong>Task Name</strong></td>
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<td>FEED and Project Approvals</td>
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<td>PoD Approval</td>
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<td><strong>Execution Phase</strong></td>
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<td>CPF Structural Design</td>
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<td>Satellites Structural Design</td>
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<td>Satellite Process/E &amp; I</td>
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<td>Equipment Procurement/Deliveries</td>
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<td>Satellite Deck Fabrication &amp; Outfitting</td>
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<td>CPF Fabrication Bid Process</td>
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<td>TLP Bid Process</td>
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<td>Design/Purchase Subsea/Support</td>
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<td>Installation Services Bid Process</td>
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<td>Offshore Installation CPF Jacket &amp; Satellites</td>
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<td>Offshore Installation TLPs</td>
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<td>Offshore Hook-ups</td>
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<td><strong>First Oil</strong></td>
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<td>12/31</td>
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### Notes
- **MTS 8-25-05**: MTS 8-25-05
- **7/29**: PoD Approval Date
- **12/31**: First Oil Date
- **MTS 8-25-05**: MTS 8-25-05

### Diagram
- The diagram illustrates the project timeline with tasks and their corresponding timelines.
- Different colors indicate different phases and milestones.
OVENG & OKUME TLPs

- MODEC (EPC)
- 280, 500 meters
- 18 slots, top tensioned risers
- 10 initial wells planned at Oveng
  13 at Okume/Ebano
- Front-end process facility on each

UNIQUE CHALLENGES

- Two TLPs Concurrently (AHC’s first)
- Drill with tender-assist platform rig
- High angle (i.e. 60-70° +) wells with multiple completions, including “Smart Wells”
TLP HULL FABRICATION

Okume TC 41 Block

Okume TS 30 Block

Oveng TS 10 Block

Oveng BS showing well slots
TLP DECK FABRICATION

Oveng Cellar Deck

Okume Cellar Deck

Oveng Main Deck

Okume Main Deck
ELON FACILITIES

Satellite 1
Tripod Platform
228 Ft
8 Slots
-

Satellite 2
4-Leg Platform
206 Ft
15 Slots
-

CPF
4-Leg Platform w/ Skirt Piles
205 Ft
- Processing

Satellite 3
4-Leg Platform
145 Ft
12 Slots Separation

Elon Reservoir
ELON JACKET FABRICATION

Satellite 1 Jacket

Satellite 2 Jacket

Satellite 3 Jacket

CPF Jacket
ELON DECK FABRICATION

Installation of Well Head Access Platform

CPF cellar deck framing

Main deck float – Sat. 2

CPF main deck framing

July, 2005 MTS 8-25-05
PIPELINES

Induction welding - CORUS

Installation Vessel - Seaway Falcon

Pipe coming out of the expander

Tamsa pipe in transit to Port Gentil
DRILLING / COMPLETION

Tender Assist Drilling Rig – Atwood Seahawk
• Commence ~ Sept 1, 2006 for ~ 30 months

Jack Up Drilling Rig – Noble Earl Fredrickson
• Commence ~ Oct. 1, 2006 for ~ 20 months

Integrated Contract for Drilling & Completion Services/Products
• LOIs issued to Schlumberger (Drilling) and Baker Hughes (Completions) – Ceiba included.
• Some services sub-contracted

Wellheads/Trees - FMC
OPERATIONAL READINESS PLANNING

- Key production operations resources embedded in project team from day 1

- OC will more than double production and activity levels for AH in EG

- Recruiting efforts ongoing in earnest, including for field supervision and onshore engineering resources

- Procurement process underway for EG-wide O&M contractor

- Formulating preliminary commissioning plans

- Developing plan to hire local services and employees (including training)
KEY INTERFACE ISSUES

- TLP/TADU interfaces
  - tandem/relative motions, man-way, weights, space requirements

- Flex riser pull-ins
  - TADU, winch, TLP I-tubes

- Sub-sea install/tie-ins
  - Installation around Jack-up, TADU

- Pre-commissioning, commissioning
  - Choreography around rig, pipeline installation, simultaneous operations

- Remote environment
LOOKING AHEAD

KEY RISKS / CHALLENGES
• Fabrication of TLPs at Samsung is on schedule, but critical path
• Fall 2006 installation choreography (Thialf, Falcon, J/U and TADU)
• Drilling / completions planning and execution (high angle wells, complex geology, numerous completion drivers, services cost optimization)
• Planning, execution, optimization of pipeline tie-ins
• Managing challenging contractors

OPPORTUNITIES
• Early life rate upside (need well productivity)
• Okume SE area
• Extra well slots, prices
KEY MESSAGES

• The Okume Complex project is one of the most challenging and complex AHC has undertaken, and is critical for us to deliver successfully
  – fortunately, well positioned for success

• Competent project team, and realistic schedule and budget are an essential foundation
  – fortunately, we have them on OC

• Q1 Safety performance requires continuous commitment and reinforcement
  – fortunately, we have that dedication and quality contractors

• Successful project execution also requires constructive production engagement and planning
  – fortunately, we have that on OC
Thanks for your attention!

Any questions?