EVOLUTION OF COLOMBIA’S OFFSHORE SUPPLY CHAIN
Contents

• Who we are
• Where we come from (logistics)
• Our progress
• What could be achieved
Coremar Offshore Division

Coremar has executed projects throughout Latin America and is strategically located to support offshore campaigns in the Caribbean.
Colombia’s potential is being acknowledged.
Colombia´s Offshore Logistics in 2007-2008

Logistics Capacity and Experience
• Established companies with HSE programs and culture.
• Logistics Bases with O&G Standards
  • 180 mts of docks
  • 6-8 mts draft
  • Storage facilities with carrying capacity for extra-heavy loads
• Mud plants and storage over 7000 bls.
• Offices
• Tank cleaning, and other services

Regulation and Knowledge:
• Customs process clarity?
• Environmental and Ops Regulations?
• Requirements for ships
• Logistics disturbances: Roadblocks, road conditions, other?

Source: BHP Billiton
Conclusions (re supply chain)

- Need to establish a “club” to share resources:
  - Rig, shore bases, LLI, supply vessels.

- Lack of knowledge for customs clearance for rigs and supply vessels.

- Port capacity available, but not interested in exploring O&G market (just another client)

- Limited knowledge of HSE and operational standards.

- Established service companies (30+ Yrs)

- Local companies had started seeking offshore experience and certifications

- Local Talent available (but deployed)

Main takings:

- 1 year required for planning to establish minimum logistics for an exploration project.

- Alternatives: Operate based in other countries
Significant developments

- Drilled Exploration Wells
- Drilled Exploration Wells (Coremar shorebase)
- Exploration well (Exp. 2016-2020)
- Exploration well (Exp. 2016-2020, Coremar shorebase)
- Performed seismic campaign
- Performed seismic campaign, supported by Coremar vessels
## Significant developments

### ORCA 1

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<thead>
<tr>
<th>Category</th>
<th>Details</th>
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<tr>
<td>Spud in:</td>
<td>July, 2014</td>
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<td>Water depth:</td>
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<td>Well test:</td>
<td>Oct 11 – Dic 10, 2014</td>
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<tr>
<td>Finding:</td>
<td>Gas</td>
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FUENTE: Petrobras
Significant developments

KRONOS

- Bolette Dolphin Drillship
- Completed first two deepwater exploration wells in Colombia
- Significant gas Discovery
Significant developments

PURPULE ANGEL AND GORGON

- Bolette Dolphin Drillship
- Announced gas finding in Purple Angel
- Currently drilling Gorgon
Spend distribution (offshore drilling)

Shallow Water
- Drilling Rig: 25%
- Equip Rental and Tools: 19%
- Well Services: 14%
- Supply Vessels (Including ERV): 12%
- Others (diesel, personnel, etc): 11%
- Air Logistics: 7%
- Shorebase + Logistics: 5%
- Others: 1%

Deep Water
- Drilling Rig: 49%
- Equip Rental and Tools: 16%
- Well Services: 15%
- Freight (Local and International): 11%
- Supply Vessels: 8%
- Shorebase: 6%
- HSE: 2%
- Others (diesel, personnel, etc): 1%

Layers of required services
Offshore FTZ

Offshore Activities:
- Technical evaluation, compression, processing, gas production and liquefying.
- Logistics activities, compression, processing, gas production and liquefying.
- Any other activity directly related with O&G offshore sector

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<th>TRIBUTO</th>
<th>REGIMEN GENERAL</th>
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<td>31%</td>
<td>15%</td>
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AWARENESS
- Workshops lead by DIMAR-ANH: Maritime regulation and training
- Offshore diploma for authorities and operators (Escuela Naval de Cadetes)
- Socialization to offshore activities with regulators
Our progress – Available infrastructure
Our progress – Work standards

- Security
- Certified personnel
- Certified lifting equipment, slings, CCUs
- Emergency response
- Draft
- Docks with 10+ Ton/m²
- Mud plants (lodos 15,000 bls)
- Waste Management
Our Progress – Experience

+ 82,000 Tons load to rigs
+ 9,200 crane moves
+ 13 mov/hr productivity

+ 391 load/unload ops
+ 961 hours of maritime ops

+ 35,143 m³ delivered water
+ 1,992 m³ served water managed
+ 140 Tons of waste disposed

0 Down time on rigs due to Shore Base
Our Progress – Safety

- People working in project simultaneously: 327
- Simops: 30
- Visits to base: +73,000
- Man hours: +1,100,000
- Operational days w/o high potential incidents: 851
Layers of required services
Our Progress – New Services

First tank cleaning operation in Colombia:

- Colombian staff and equipment
- International standards - Training
- Own equipment: Vacuum unit, pressure washers, pumps, compressors, generators, etc
- 24x7 Job
- 0 HSSE Incidents.

Previously, clients needed to mobilize staff and equipment from overseas, with significant additional costs.
Our Progress – Improved services

- Rig and supply vessels’ Customs Clearance in < 24 hrs
  - Dedicated support from customs authority (DIAN)
- Rig reexporation in 1 hr
- Ordinary imports and exports within 8 days (as per law)
- Savings due to increased customs speed: 3 - 8 días (US$ 1.8M - US$ 4.8M)
Our Progress – Strengthened services

- Supporting Colombia’s Offshore since 2011
- Investments in aircrafts >US$ 60M
- + 3,000 hrs flown offshore
- +11,000 PAX transported
- +50 Ton transported
- 30 Colombian certified crewmen
- 16/02/2016: Longest offshore flight in Colombia: 172 nmi (344 round trip)
Our Progress – Local high-end services

First Colombian-flagged DP2. Onboard equipment for Geophysical, Geothnical, ROV, etc.
- 2014 Model: AHTS, BP 88 MT, 42 camas, FiFi, Dispersion system, etc
- ROV 3000 mts depth
- No mob/demob costs (US$ 1M per campaign)
Raphael Trotman, the South American country’s minister of governance, said in an interview: “The prospect would be on par with a recent Exxon find at the Hadrian formation in the Gulf of Mexico, and would be worth about $40 billion at today’s international crude price. A find of this magnitude for a country like ours, which sits on the lower end of the scale of countries in this hemisphere, this could be transformational,”.
What if we succeed?
What if we succeed?
What could be achieved

Port Fourchon:

• Support 70% of all Exploration, development, production in GoM.

• World’s biggest operators and service companies located there.

• Aprox 500 hts
We’ve already started

- **Vision:** 1st O&G Cluster
- **Investment:** >US$ 150M
- **Investment plan for next 5-7 Years:** Additional US$ 150 M
Final messages

• Offshore exploration is quickly becoming a reality.

• The bleak outlook of our supply chain 10 years ago has started to change.

• The Colombian Offshore supply chain is still on early stages of maturity:
  • Has delivered for previous exploration wells
  • Is strengthening for upcoming exploration
  • And needs to prepare for potential developments

• The supply chain needs to keep improving its offering by
  • Building on success stories (North Sea, GoM)
  • Alliances with world class companies
  • Understand Oil & Gas customer needs
  • Leveraging and strengthen local environment (infrastructure, service offering, institutions, academy)
  • Making bold multi-purposed investments
Thank You