Dredging for Oil and Gas
CEDA UK Seminar
Dredging for the Offshore Industries
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Company Profile
Leading international contractor, specialising in:
• Dredging and Reclamation
• Offshore Oil and Gas
• Marine Engineering
• Offshore Wind Farms
• Infrastructure
• Soil Improvement
Oil and Gas Sector Related Activities

- Dredging and Reclamation
- Trenching and Backfilling
- Pipeline (and Cable) Installation
- SPM System Installation
- Subsea Rock Installation
- Protection and Stabilisation of Pipelines, Cables and Structures
- Ballasting of Structures
- Scour Protection
- GBS Installation

Dredging and Reclamation

Das Island, United Arab Emirates

- New platform for airport extension and accommodation
- 160 km offshore
- 16 million m³ sand (including soil improvement by vibro-compaction)
- 7 km of revetment
- 3.5 million tonnes Rock
- 140,000 m³ Concrete
- 39,000 No. X-blocks
Trenching and Backfilling

Typical Equipment Types:
- Trailing Suction Hopper Dredgers
- Cutter Suction Dredgers
- Backhoe Dredgers

Selection Criteria:
- Soil Properties
- Water Depth
- Disposal Area
- Environmental Considerations

Pipeline Installation
On-bottom Pull

The pipeline is pulled from an onshore stringing yard into the water with the aid of Linear Pulling Winches mounted on an offshore construction barge.
Pipe Lay

In the near shore area, the pipeline is pulled from a Shallow Water Lay Barge moored offshore to the shore with the aid of Linear Pulling Winches.

In deeper water, the pipeline is installed on the seabed by a Shallow Water Pipe Lay Barge.

Shallow Water Pipe Lay Barge

- Shallow water applications (up to 100m)
- 6” to 60” diameter pipe
- 7 Stations:
  - 3 Welding
  - 1 Non Destructive Testing
  - 3 Field Joint Coating
Single Point Mooring (SPM) System Installation

- Pipe Line End Manifold (PLEM) Installation
- CALM Buoy Installation:
  - Subsea and Floating Hoses (including Umbilicals)
  - Anchor and Chains
  - Mooring Hawser

Subsea Rock Installation

- Stabilisation
- Free-span Support
  - Pre-lay
  - Post-Lay
  - Crossings
- Upheaval Buckling Mitigation
- Protection
  - Anchors
  - Dropped Objects
  - Spudcan Pugmark Filling
  - GBS Related Applications
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Work Safe
Flexible Fall Pipe Vessels

- DP-2
- Highly accurate installation
- Large capacity (up to 28,000 tonnes)
- Installation in water depths of up to 1,200m
- Ability to work close to live structures
Side Stone Dumping Vessels

- DP-2
- Accurate installation in water depths of up to 50m
- Ability to work close to or under live structures
Pipeline Stabilisation
Trench Backfilling

Thermal Insulation
Free-span Correction

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Pre and Post Lay Installation

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Anchor Protection

Dropped Objects
Infill of Spudcan Pugmarks

Gravity Based Structure (GBS) installations
• Sea Bed Preparation
• Tow Out
• Sinking
• Ballasting
• Scour Protection
Seabed Preparation

Tow-Out and Sinking
Ballasting

Scour Protection
Thank you for your attention

Are there any questions?

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