

India Offshore O&G Projects

DIT High Value Campaign



Department for
International Trade

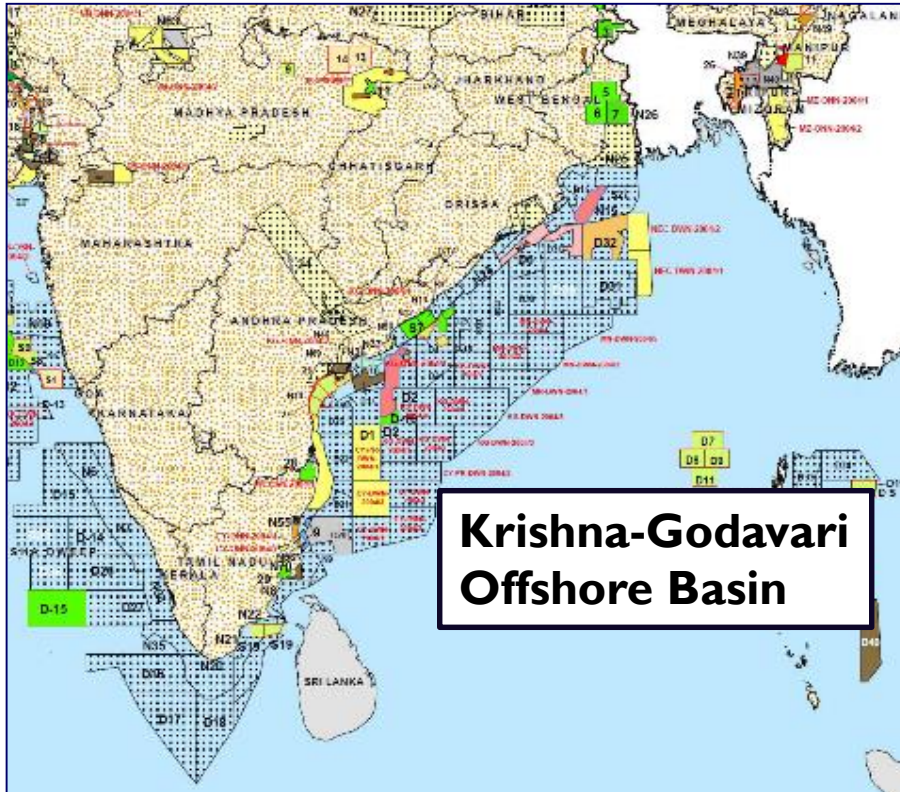
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A New Important Oil & Gas Opportunity: East Coast offshore

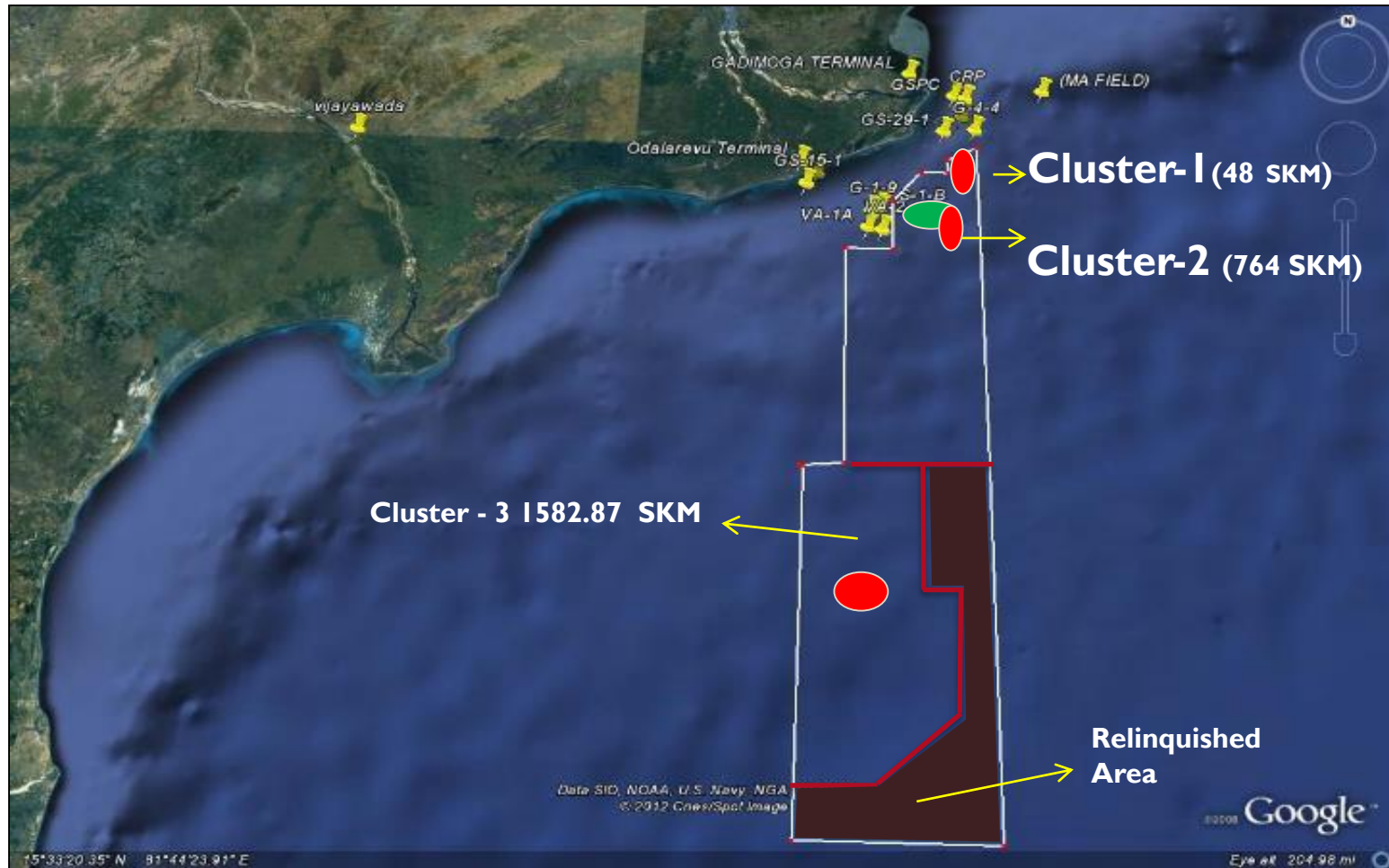


DIT's **High Value Campaign** for India in 2018/19 will focus on the deep-water East Coast region where investment in exploration and appraisal, field development and operational projects is expected to exceed **US\$ 40 billion** within the next 10 years.

ONGC Focus:

- Development of Cluster II of KG-DWN-98/2 block
- Development of Cluster I of KG-DWN-98/2 block
- Development of Cluster III of KG-DWN-98/2 block
- Development of KG-OSN-2004/1 fields

Location map of KG-DWN-98/2 block

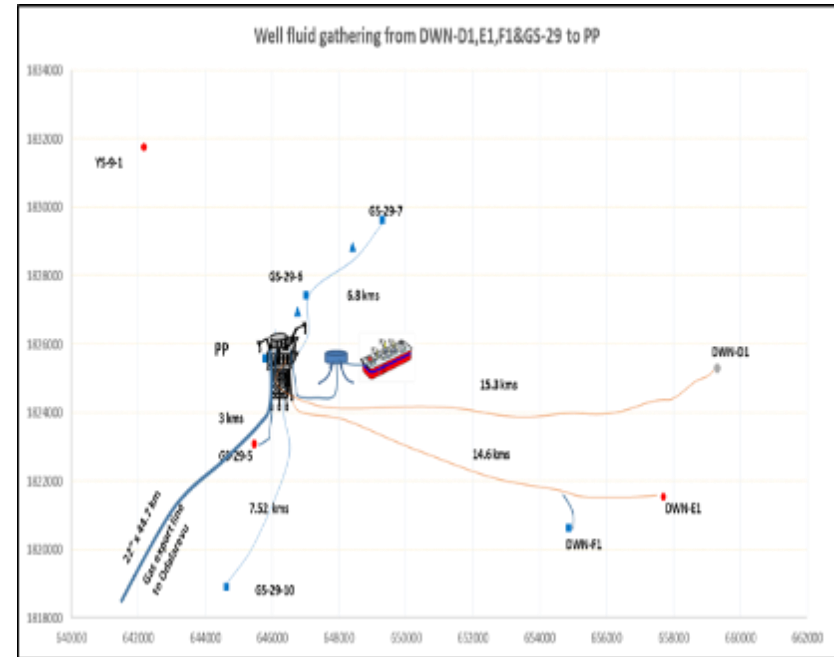


Cluster II development details

- 34 wells (15 oil, 8 gas and 11 Water Injection)
- Water Depths 280 – 1300 meters
- Peak free gas 12.25 MMSCMD
- Peak Associated Gas: 2.96 MMSCMD
- Peak Oil Production: 78069 BOPD
- Approved CAPEX: USD 5076.37 Million
- Early Monetization of 5.75 MMSCMD of gas from U1 & U3 fields utilizing Infrastructure of VA & S1 Project.

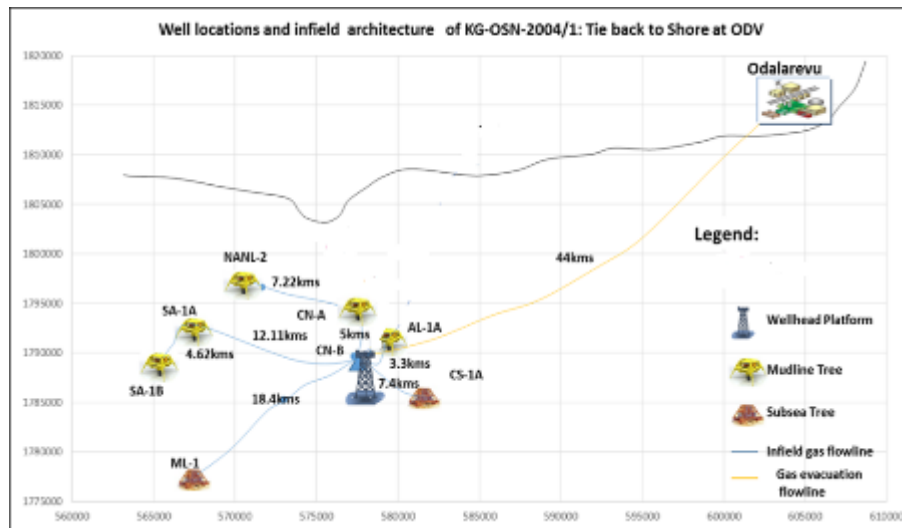
Development of KG-DWN-98/2 cluster I

- Integrated development along with GS-29 nomination block in the vicinity
- Development of 3 wells in Cluster I along with 4 wells in GS-29 field.
- Water Depths from 90 to 670 m
- Peak Gas production of 5 MMSCMD and Peak oil production of 9450 BOPD
- Estimated CAPEX of USD 744.12 Million. (as per DOC)
- FDP preparation in progress.



Development elements KG-OSN 2004/1

| Elements | KG-OSN-2004/1 |
|----------------------------|-------------------------------|
| Drilling & Completion | 8 wells |
| Well Head Platforms | 1 Four legged platform |
| Mud Line Completion System | 5 |
| Sub-Sea Completion | 2 |
| Infield lines | 58.05 kms |
| Main trunkline | 20"x44 kms |
| Shore Facilities | Onshore Terminal at Odalarevu |



- Gas discoveries with a cumulative in-place of 17.31 BCM.
- CAPEX: USD 519 million
- Water Depth : 12- 320 meters ts
- Infield distances : ~25 kms
- Dist.to shore : 44 km

Reliance KG-DC update

Monetization Plan

- JV to monetize three discovered deep water gas fields
- Combined discovered resource potential of 3 TCF
- Total planned investment of **US\$6 billion**
- Expected to bring on stream total of 30-35 MMSCMD gas production, phased over 2020-2022

R-Series development

- **R-Series**, first of the three projects, is a dry gas development in water-depths of more than 2,000 metres, approximately 70 kilometres offshore.
- First Gas by 2020 and is expected to produce up to 12 MMSCMD of gas
- Bid evaluation and negotiations for long lead item is currently in advanced stage

MJ and Satellite Cluster

- To submit development plans for MJ and Satellite cluster for MC approval by end of 2017



DIT O&G Technology Workshop Programme

- ❑ Launched in October 2016
- ❑ **Aim:** to help UK companies form long term relationships with India's oil & gas operators based on 'added value propositions'
- ❑ **2018/19 focus:** technical workshops to introduce 'supplier led' advances encompassing:
 - Subsea Technology
 - Umbilical's and Risers
 - Advanced Control Systems
 - Field Integrity Enhancement (intervention technology)
 - EOR
 - Training and Skills Development- Drilling, Asset Mgmt.
 - Visit programme timing: May 2018





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