TRANSFORMING ENTERPRISE-WIDE DEPLOYMENT OF DELFI COGNITIVE E&P ENVIRONMENT

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Crescent Group Structure

Established in 1971, company currently operates two subsidiaries:

Crescent Petroleum and Crescent Enterprises based out of Sharjah, UAE
Driving transformational impact across MENA

**Oil and Gas**

- 78 TCF
- 7 billion boe resources
- 136,000boepd production

**Oil & Gas contribution to local economies**

- US$16bn to Iraq and providing 4 million homes with electricity
- US$2.6bn in Sharjah
- US$1bn in Egypt

**Ports and logistics**

- 1st World’s largest privately owned independent ports and logistics company
- 9 countries of operation across 3 continents

**Other important sectors and activities**

- Power, Aviation, Healthcare, Strategic investments, Business incubation
Crescent Petroleum today

KURDISTAN REGION OF IRAQ – PEARL PETROLEUM
- 94,000 boepd
- Two world-class fields
- 12+ years of historic production
- Supplies three major power stations

EGYPT – DANA GAS
- 35,600 boepd (H1 2018)
- Top five gas producers
- 13 Development Leases and three exploration concessions
- Significant exploration upside

UAE – CRESCENT PETROLEUM CONCESSIONS
- Sharjah Onshore Concession
- Sir Abu Nu’ayr Island

UAE – DANA GAS
- 1,300 boepd (H1 2018)
- Zora – offshore gas field project
Sustainability is a strategic pillar

One of the first in industry to reach carbon neutrality in 2021

- Avoided 42m tonnes of CO2 emissions from 2008 to 2020 by displacing diesel with gas
- Equivalent to removing 1 million cars from the road for 2 years

6.0kgCO2e/boe
Carbon intensity

- Carbon intensity of 6.0 kgCO2e/boe as of 2021, which is one-third the industry average
- Reduction in flaring by 80% to 0.12% of production (as of 2021)

42m tones
CO2 emissions avoided

Avoided 42m tonnes of CO2 emissions from 2008 to 2020 by displacing diesel with gas

- Equivalent to removing 1 million cars from the road for 2 years

One of the first in industry to reach carbon neutrality in 2021

Our commitment
to the environment

- Ensuring operational excellence: Zero significant spills across operations since 2018.
- Reducing waste: 40.21% reduction in liquid hazardous waste in 2019 and 29.91% reduction in non-hazardous waste compared to 2020 as compared to 2018.
- Reduction in Scope 1 emissions: 10% over the last five years to 295k tCO2e.
- Energy intensity: 11.58% reduction in energy intensity in last five years.
- One of the first in industry to reach carbon neutrality in 2021
**Background**

**DISCIPLINES:** Petrophysics | Reservoir Engineering | Geology | Geophysics | Well Planning | D&C Engineering | Production Engineering | Facilities Engineering | Economics

**HISTORY:**
- Discovery
- Start Development
- Final Investment Decision - FID
- First Oil & Gas
- Annual Work Plan
- Field Extension
- Abandonment

**Situation/Challenge**

- **Data:** Large data volumes (Seismic & Well Data), Mixed data quality, Multiple sources
- **Applications:** Additional licenses require a lengthy procurement process, Updates / Patches, Management
- **Infrastructure:** Servers used for storage, and when required were not available!
- **Collaboration:** Restricted geographical collaboration (UAE, Iraq,...)
Deployment Plan and Approach

Comprehensive Security Assessment
- Secure Access
- Data Protection
- Agile Security

Proof of Value
- Domain Workflows
- Collaboration
- Elasticity
- Scalability
- Accessibility

Seamless Migration to Operation
- Cloud Data Migration
- Cloud Infrastructure Customization
- Profile Subscriptions (Applications) and users onboarding
Assess to Operate in Four Months

Cloud Data Migration

Data transfer to DELFI environment/cloud:

- 2+ TB data migrated to cloud
- Crescent G&G, RE and Petrophysics users onboarded
- Operational since early Q1 22
The Experience

✓ **Budget optimization:**
  • Elasticity on demand access to all applications
  • Scalability on demand access to infrastructure resources

✓ **Performance:** 20% Computation Time Saving

✓ **Seamless** Data Ingestion

✓ **Efficiency:** Domains and Workflows Integration

✓ **Collaboration** Between Different Locations

✓ **Accessibility** / Remote Work
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THANK YOU

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