

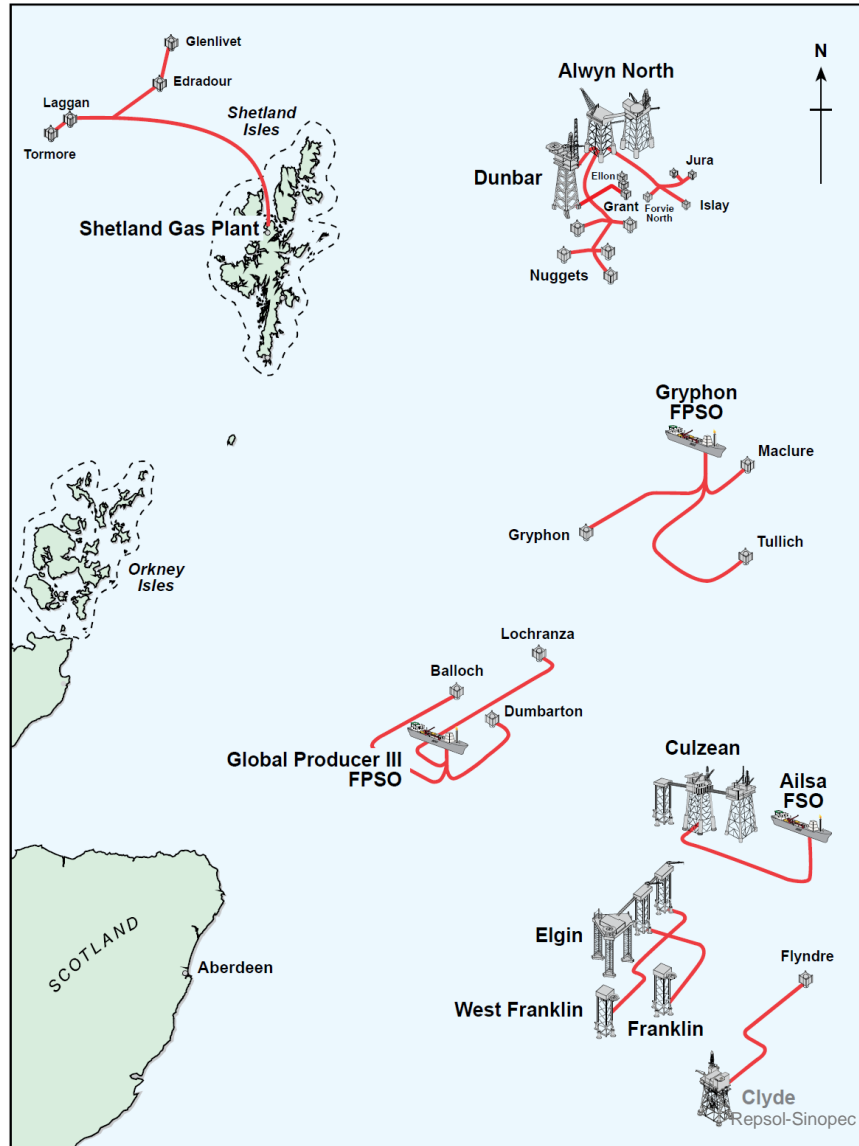


# OIL & GAS UK SHARE FAIR

31 OCTOBER 2018



# TOTAL EXPLORATION & PRODUCTION UK (TEPUK)



- Present in the United Kingdom for more than 50 years
- One of the country's leading oil and gas operators
- Equity production of 171,000 boe/d in the first half of 2018
- Employs approximately 1,000 personnel
- Operated budget of \$842m
- Development capex of \$719m
- Exploration expenditure of \$104m

Figures based on 12 months legacy TEPUK and 10 months legacy MOUK

Our ambition is to be the exploration and production operator, employer and partner of choice in the UKCS.





# ACTIVITIES AND OPPORTUNITIES



# WEST OF SHETLAND ASSET



## ASSET OVERVIEW

- **Laggan, Tormore, Edradour and Glenlivet** fields developed by subsea tieback to the **Shetland Gas Plant**
- 300 to 600m water depth
- **60% TEPUK (Operator)**
- **~80k boepd**
  
- **2018 Glendronach discovery**

## FOCUS AREAS

- Additional Laggan development well in 2019
- Appraisal of Glendronach
- SGP Maintenance Optimisation
- Potential synergies with Sullom Voe Terminal

## DEVELOPMENT OPPORTUNITIES

- Development of Glendronach discovery through existing infrastructure
- Further exploration drilling planned

# WORK PROGRAMME – WEST OF SHETLAND

## SCOPES

ROAD REPAIRS & EMBANKMENT WORKS

GENERAL FABRIC MAINTENANCE

STRUCTURAL PFP DEFECT RETECTIFICATION

EQUIPMENT THERMAL INSULATION REMEDIAL WORKS

HEAT EXCHANGER CLEANING

BIOCIDE DOSING SYSTEM INSTALLATION

ON-LINE CHEMICAL OXYGEN DEMAND ANALYSER INSTALLATION

SUDS POND CLEANING

PIPELINE CATHODIC PROTECTION REMEDIAL/ UPGRADE WORKS

18" FLOWLINES INTELLIGENT PIGGING

SUBSEA PIPELINES AUV INSPECTION

POWER MANAGEMENT SYSTEM LOAD-SHEDDING IMPROVEMENTS

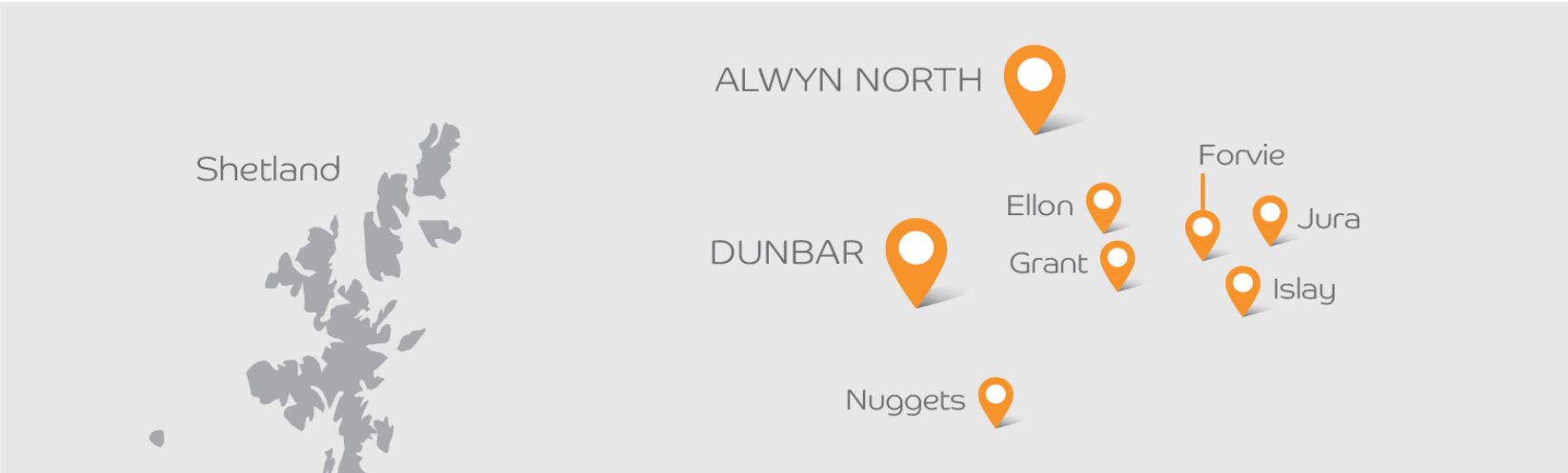
INSTRUMENT HEALTH MONITORING SYSTEM REFRESH

COMPRESSOR GAS DETECTION UPGRADE

TURBINE ENCLOSURE LIGHTING UPGRADE

EQUIPMENT AND SAFETY SIGNAGE ENHANCEMENTS

# NORTHERN NORTH SEA ASSET



## ASSET OVERVIEW

- **North Alwyn A and B** bridge-linked platforms
- **Nuggets, Forvie, Jura and Islay** tiebacks to Alwyn
- **Dunbar** platform produces to Alwyn
- **Ellon** and **Grant** subsea tiebacks to Dunbar
- ~130 to 150m water depth
- **100% Total**
- ~ **35k boepd**

## FOCUS AREAS

- Mature assets with a focus on optimising operating costs and maintaining production to extend life and maximise economic recovery
- Maintenance programme optimisation
- Late life field management studies and decommissioning strategy definition

## DEVELOPMENT OPPORTUNITIES

- Alwyn infill well in progress
- Alwyn well workovers planned in 2019
- Exploration well planned in 2019
- Dunbar seismic survey planned for 2019
- Potential for further development being studied



# WORK PROGRAMME – NORTHERN NORTH SEA

## ALWYN

OBSOLETE ANTISURGE CONTROL SYSTEM REPLACEMENT

EXPORT METERING COMPUTER REPLACEMENT

DELTA V UPGARDE

TRIM CHANGE FOR LV 41190

MATRIKON DATALOGGER REPLACEMENT

FUEL GAS SOV OBSOLESCENCE

DIESEL CENTRIFUGE PACKAGE

SMARTSHIMS IN CONDUCTOR GUIDES

REPAIR TO NAA SWL CAISSONS

UPS REPLACEMENT OF P0603

LV SWITCHGEAR OVERHEATING

SWITCH GEAR ASBESTOS REMOVAL

CRANE CAB REPLACEMENT

LIFEBOAT RECONDITIONING

SEAWATER DUMP CAISSON REPLACEMENT

CRITICAL CAISSON INSPECTION

JACKETS CP MONITORING & RETROFIT ANODE

CONDUCTOR SPLASHZONE COATING / ARMAWRAPS REPAIRS

NAB VOID – INSTALL INFILL PLATES P02 & P03

## DUNBAR

OBSOLETE NUCLEONIC INSTRUMENTATION

CONDUCTOR SEAL-CLAMP

REPLACE OBSOLETE FLAME DETECTORS

BIOCIDE PACKAGE

TIE-BACK CONDUCTORS MONITORING SYSTEM

REPLACEMENT OF CRACKED CONDUCTOR GUIDES

INTERNAL CAISSON INSPECTIONS

MPP VSD ONSOLESENCE

NAVAGATIONAL AID REPLACEMENT

CONDUCTOR SPLASHZONE COATING / ARMAWRAPS REPAIRS

STRUCTURAL MONITORING SYSTEM

# EASTERN NORTH SEA ASSET



## ASSET OVERVIEW

- **Gryphon FPSO** producing Gryphon, Maclure and Tullich fields
- **~14k boepd**
- **GPIII FPSO** producing Dumbarton, Balloch and Lochranza fields
- **~10k boepd**
- **Flyndre** subsea tieback to Clyde platform
- **~6k boepd**

## FOCUS AREAS

- **Ballindalloch** development project – tieback to Gryphon FPSO
- Mature assets with a focus on optimising operating costs and maintaining production to extend life and maximise economic recovery
- Ongoing inspection and maintenance
- Late life field management

## DEVELOPMENT OPPORTUNITIES

- Potential for further development wells
- Potential for seismic survey on Quad 9 in 2019
- Quad 9 Gas development with area partners



# WORK PROGRAMME – EASTERN NORTH SEA

## GLOBAL PRODUCER III

IRM CAMPAIGN

FUNNEL ROOF REPAIR

SCM REPAIR

MIGRATION OF SIMPLEX TO DUPLEX SIGNALS

SECONDARY OVER PRESSURE PROTECTION FOR SEPARATION

ESD LOGIC MODIFICATIONS

REPAIR WHRU DAMPER

INTEGRITY RELATED FABRIC MAINTENANCE & CORROSION-ARREST

## GRYPHON

NEW SCRUBBER INTERNALS

RECONFIGURE 2<sup>ND</sup> STAGE TO 3<sup>RD</sup> STAGE PIPING

MULTIPHASE FLOW METER REPLACEMENT

P33 SCM REPLACEMENT & REPAIR

HIPPS & ESD RESDV INTERLOCK LOGIC MODS

PCS & ESD SMALL SOFTWARE MODS

SMART ROOM HARDWARE & SOFTWARE

UPGRADE OF AUTONICA SYSTEM FROM AS3 TO AS4

## GRYPHON CONT..

TTLS HMI COMMS UPGRADE TO FIBRE OPTIC

NEW WATER RETURNS PUMP

ACCOMODATION CHILLER UNIT

SMOKE & FIRE DAMPER RELOCATION

FORWARD LOCAL EQUIPMENT ROOM PIPING RECONFIGURATION

REPLACEMENT OF GAS COMPRESSOR B MOTOR

REPLACEMENT OF UPS E18452

HEAT TRACING UPGRADES

NEW GRIPPER BUILD

POWER GENERATION RELIABILITY PROJECT

BALLAST TANK ANODES

INERT GAS CONTROL PANEL REPLACEMENT

PURGING OF EX N HV MOTORS

PROCESS DECK PIPE RACK STEELWORK

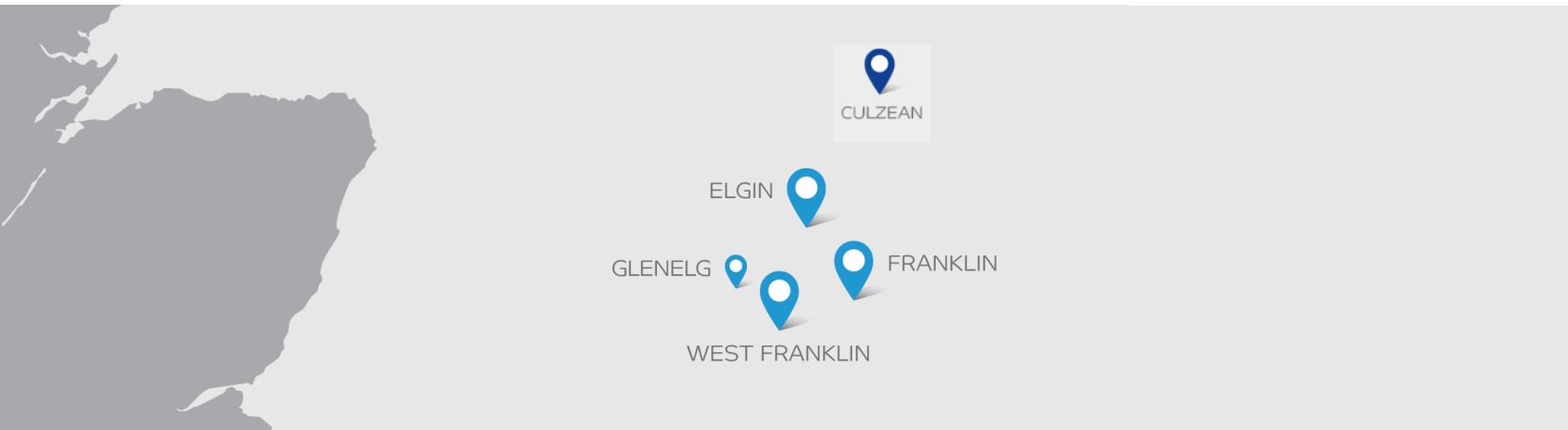
MEANS OF DOSING BIOCIDES TO SHIPSIDE VALVES & SEACHESTES

MH-0401/2 INSPECTION & REPAIR/REPLACEMENT

NITROGEN SYSTEM PSVS

IRM CAMPAIGN

# CENTRAL GRABEN AREA ASSET



## ASSET OVERVIEW

- **Elgin, Franklin and West Franklin** fields developed by wellhead platforms connected to Elgin PUQ platform
- **Glenelg** developed by Elgin platform well
- **HP/HT**
- ~90m water depth
- ~ **125k boepd**

## FOCUS AREAS

- Franklin infill well drilling
- Elgin infill well drilling
- Ongoing inspection, maintenance and minor modifications scopes
  - Flotel support anticipated in 2020
- Integration of **Culzean** in 2019 to form a new **Central North Sea** asset

## DEVELOPMENT OPPORTUNITIES

- Potential for further development wells post ongoing infill campaign
- Potential hub for third-parties

# WORK PROGRAMME – CENTRAL GRABEN AREA

## ELGIN FRANKLIN

EF DIESEL CENTRIFUGE FAILURES

HVAC PLC REF SYSTEM (WF & ELB)

PHR MODIFICATIONS

AMS ICSS SET POINT CHANGES

ICSS MINOR MOD BATCH WORKS

FIRE PUMP PLC UPGRADE

MAIN POWER GEN DIFF PROTECTION RELAY

UPS ALARM ISSUES

CMAC UPGRADE

ELEC POWER SUPPLY OPTIONS FOR GLYCOL – TRANSFORMER

F&G UPGRADE

MARINE FOULING MANAGEMENT

FRANKLIN CRANE BOOM FABRIC MAINTENANCE

PUQ CLOSED DRAINS PACKAGE FM

THERMOWELL REPLACEMENT

STRUCTURAL REPAIRS

PIPING REPAIRS

PUQ NORTH BOOM REPAIR

CHE 8E2220B REPAIR PROJECT

RETROFIT PFP VESSELS WITH INSPECTION FRIENDLY JACKETS

ELB BRIDGE BEARING REPLACEMENT

UPS OBSOLESCENCE STUDY

AVR MAINTENANCE SURVEY FOR MAIN GENS & FWPs

LV CUBICLE REPLACEMENTS

INSTALLATION OF OBSOLETE BREAKERS ON 8P8200

DENSITY SENSORS-METERING REPLACEMENT

MECHANICAL HANDLING OF PUQ SEAWATER FILTERS

REPLACEMENT MOTOR COOLER FOR 1 HV MOTOR

CONDUCTORS – INSTALL SMARTSHIMS & REPLACE ARMWRAPS

G10 COATED INSERT VALVE INSTALLATION

D10 DHSV – WASP TOOL & COIL HOSE

G10 SISQ

ROV PIPELINE / PLAFORM

F4 SOLVENT PUMP

ACID WASH CAMPAIGN

*TEPUK have an extensive drilling programme planned for 2019. Scope covers Exploration, Appraisal, Development and P&A, with activity across all operated assets.*



**TEPUK are open to looking at new ways of working and introducing new technologies, can you help?**

- Well abandonment – any new novel techniques.
- Drilling equipment – improved efficiency of drilling or well interventions especially downhole tools.
- Logging tools – improved insights into cement bond or annular seals.
- Novel techniques for improving well productivity – chemical or equipment.
- New water shut-off methods which can be deployed through tubing.
- New ways of working or new materials that allow for quicker and more cost effective subsea tie-back operations.





# CONTRACTS & PROCUREMENT PRIORITIES



# WHAT TEPUK LOOKS LIKE POST MOUK ACQUISITION – C&P PRIORITIES

£1.02bn  
orders placed  
(ytd)

64  
live frame  
agreement

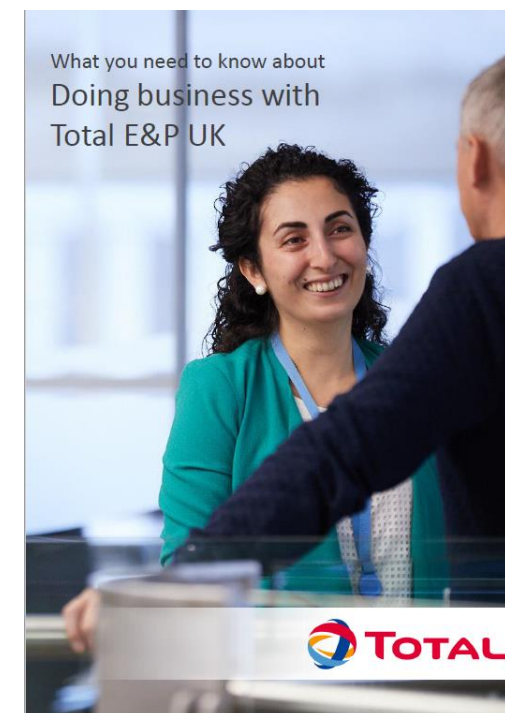
716  
live  
contracts

8952  
purchase  
orders created  
(ytd)

- Procurement plans are being worked at present with two major objectives:
  - Reduce the combined number of contracts and frame agreements.
  - Realise synergies.
- Global Synergies Targets have been set and are focused to achieve operational and commercial synergies.
- Global Synergies Team has been set up in Copenhagen to ensure that North Sea is looked at as one area now (UK, Netherlands and Denmark). Examples scopes:
  - North Sea IRM tender to be launched Oct/Nov 2018.
  - North Sea Vessel Based Stimulation tender to be launched Oct/Nov 2018.
- Local initiatives – TEPUK are going “back to basics” and taking a category level approach to look at how to we want to contract going forwards. Fresh start and we are open to new ways of working.
- Procurement Plans will begin to be shared with the market place in Q4 2018/Q1 2019. Forward Workplans will be published on FPAL.

# KEY CONTACTS

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Further contacts can be found in the booklet

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