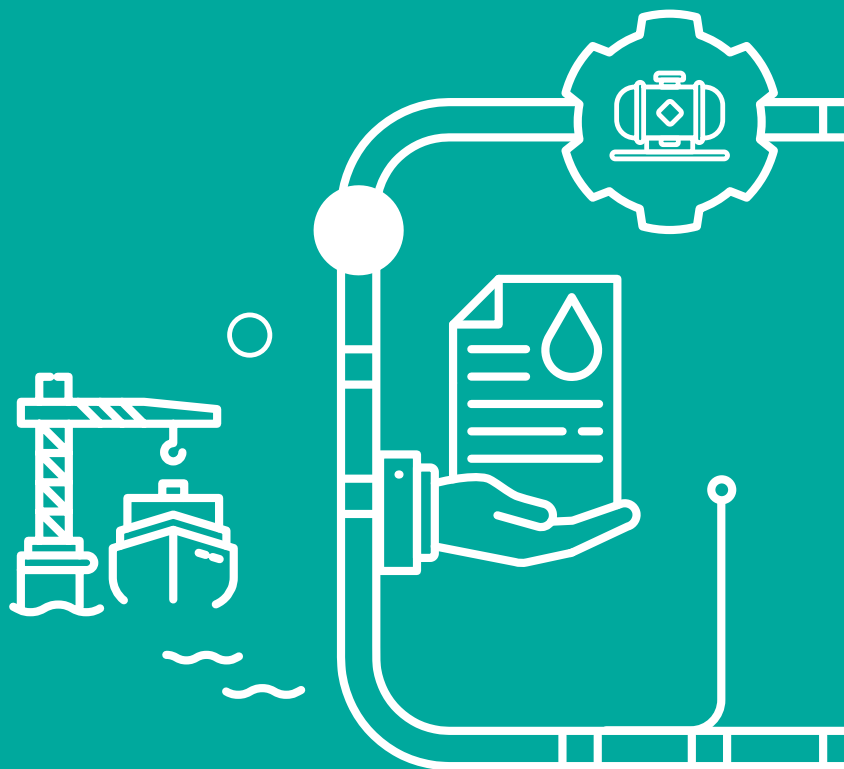
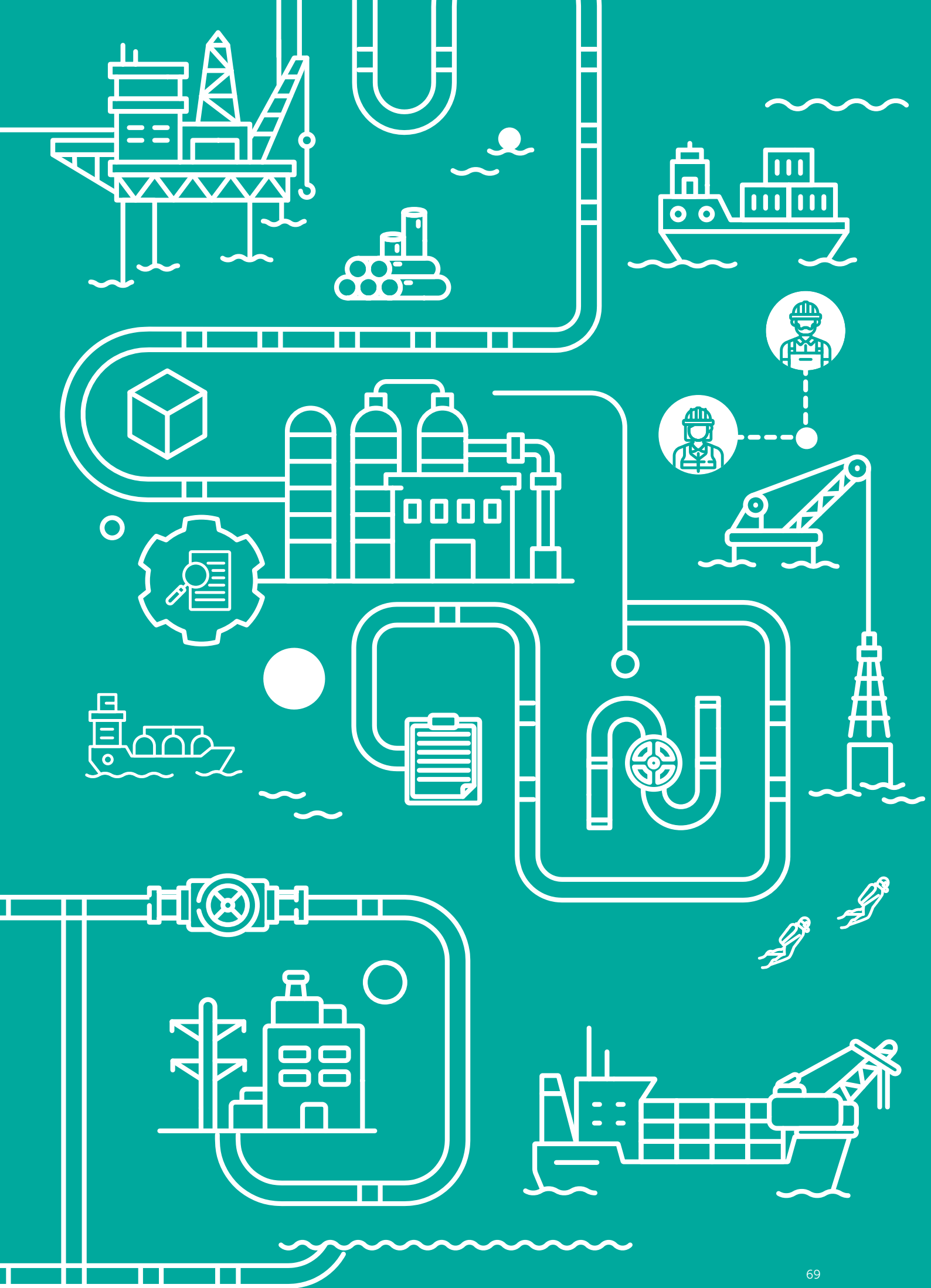


when partnership meets progress

Contracts Outlook





Contracts Outlook

The outlook comprises the following contracts:

Pan-Malaysia contracts

Joint contracts among PACs in Malaysia for similar scopes of services and material.

Integrated Upstream and Downstream contracts

Joint contracts among PACs in Malaysia for similar scopes of services and material.

Integrated Downstream contracts

Joint contracts among PETRONAS' Downstream OPU for similar scopes of services and material.

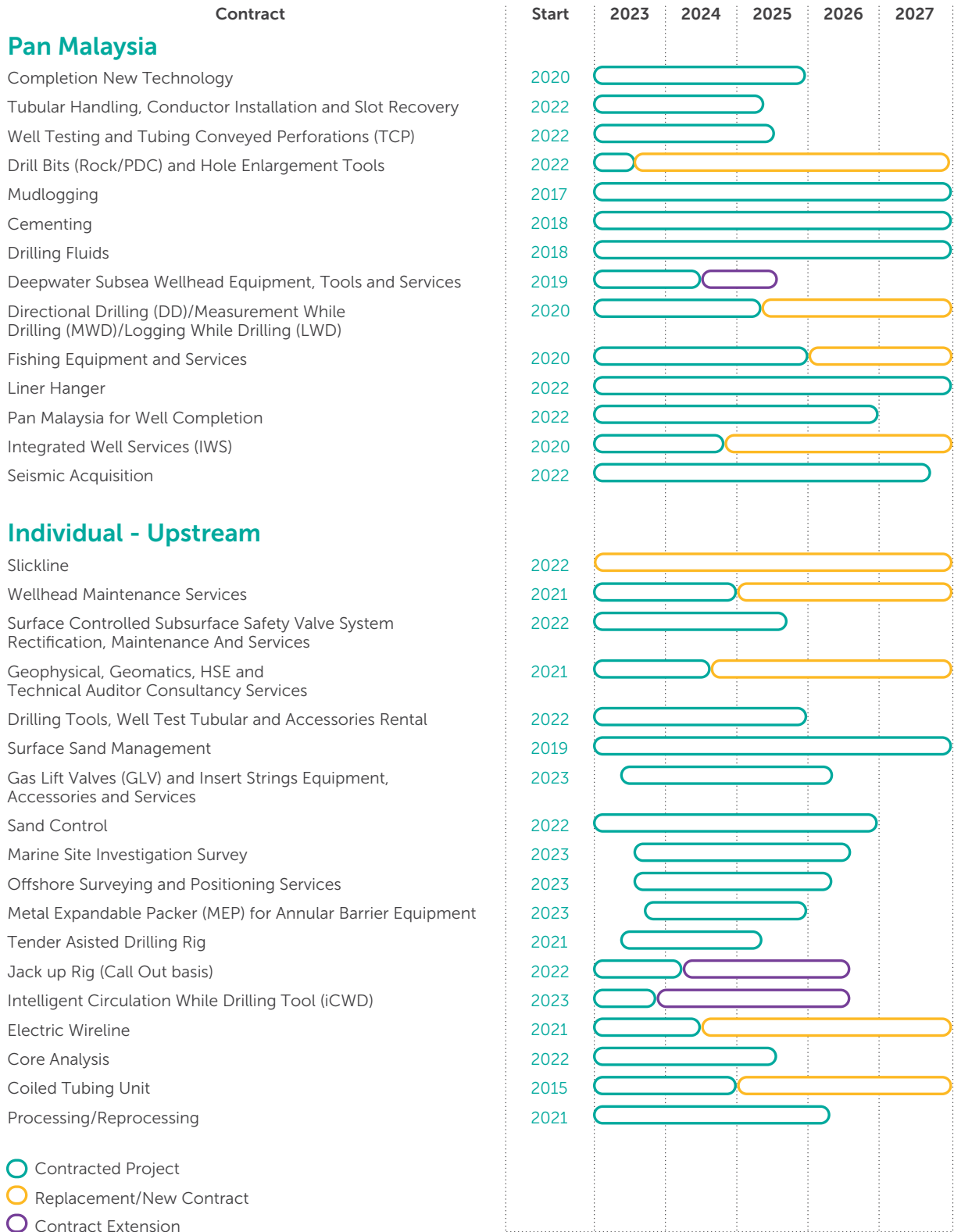
Upstream and Downstream Individual contracts

Details of the contracts are based on data as at November 2023.



PETRONAS makes no representation on the accuracy or completeness of any information provided in this report and expressly disclaims any liability whatsoever arising from, or in reliance upon, the whole or any part of its contents.

A - Subsurface



B - Engineering, Construction and Projects

Contract

Pan Malaysia

Engineering, Procurement and Construction (EPC) of Fixed Offshore Structure Works (FFA)

New - Pan Malaysia Contract for the Provision of Transportation and Installation (T&I) of Offshore Facilities

Integrated Upstream and Downstream

Major Engineering Services

Minor/FIP Engineering Services

Minor Construction and Modification Works for PETRONAS (Onshore) (MCMW)

Individual - Upstream

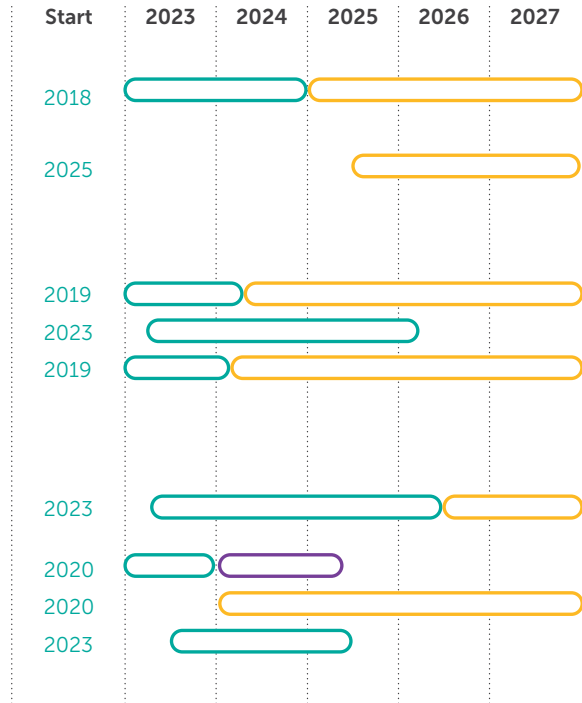
Marine Warranty Survey and Technical Services for Offshore Facilities

Integrated Hook-Up and Commissioning (HUC)

New - Integrated Hook-Up and Commissioning (HUC)

Provision of Transportation and Installation (T&I) of Offshore Facilities

- Contracted Project
- Replacement/New Contract
- Contract Extension



C - General Facilities Maintenance

Contract

Pan Malaysia

- Inspection and Corrosion Monitoring Services (ICMS)
- Underwater Services
- Maintenance, Construction and Modification (PM-MCM)
- Pipeline In-line Inspection Services

Integrated Upstream and Downstream

- Pressurised Welding Habitat Services
- Maintenance Services for Single Point Mooring (SPM) and Supply of Marine Hoses
- Integrated Civil, Steel Structure and Building Maintenance
- Online Leak Sealing Services
- Integrated Turnaround Main Mechanical and Maintenance Mechanical Static
- Atmospheric Storage Tank Maintenance Services
- Pipeline In-line Isolation Services

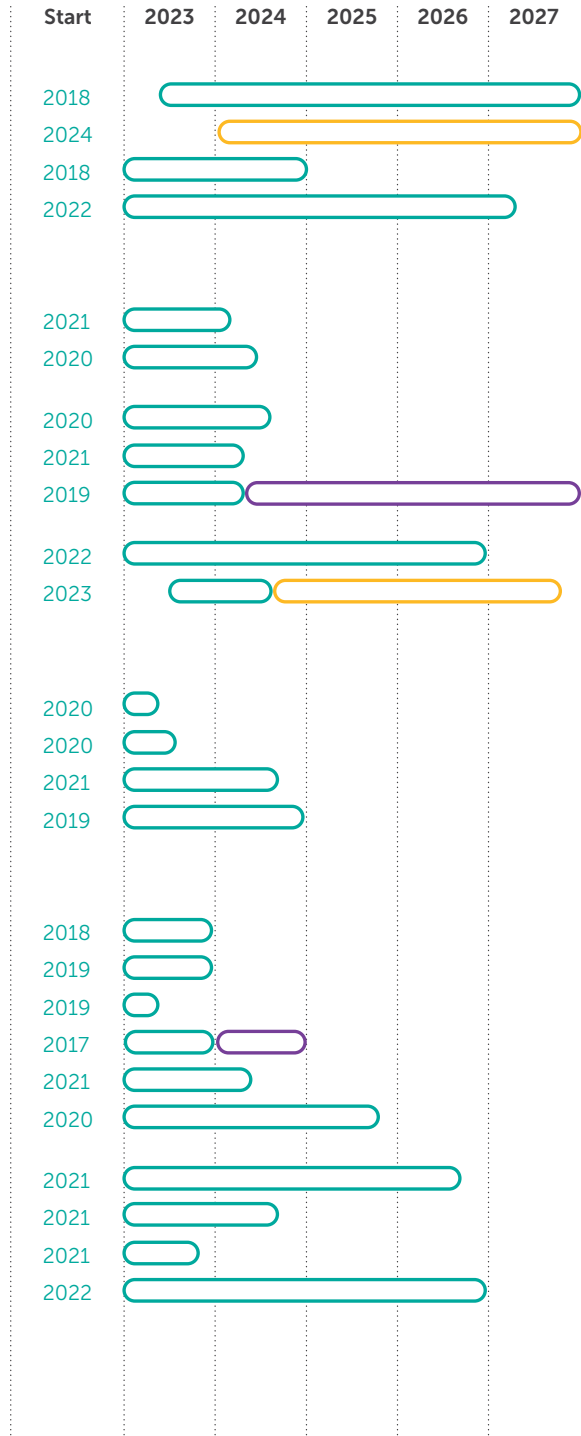
Integrated Downstream

- Civil Maintenance Work for Process and Non-Process Area
- Fire and Gas Maintenance Services
- Support Services for TA, Shutdown and Catalyst Change
- Mechanical Pipelines Maintenance

Individual - Upstream

- Maintenance, Construction and Modification (OnMCM)
- Marine Operations and Maintenance for Floating LNG
- Integrity and Fitness for Service (FFS) Assessment of Pipelines
- Maintenance, Construction and Modification (OffMCM)
- Soil Investigation Services - Offshore (PCSB)
- Living Quarters (LQ) and Modularised Offshore Buildings Maintenance and Fire Rated Doors (FRD)
- Operational Pigging Services
- Alternative Blasting and Painting
- Remotely Operated Vehicle (ROV)
- Single Point Mooring (SPM) Refurbishment Work

- Contracted Project
- Replacement/New Contract
- Contract Extension



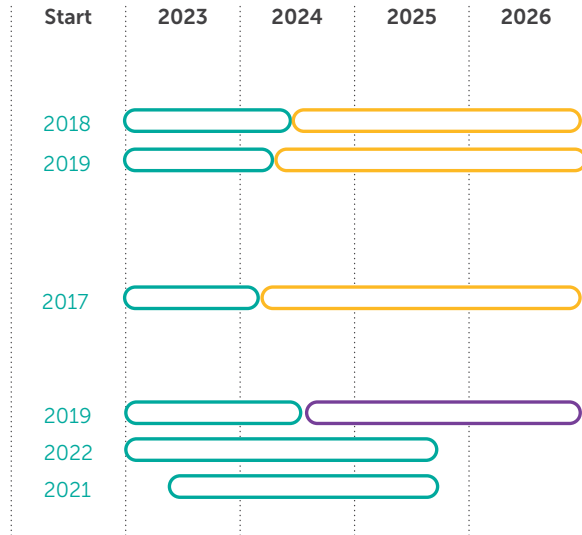
D - Logistics and Warehousing

Contract

Pan Malaysia
 Offshore Support Vessels for PACs' Production Operations
 Offshore Support Vessel (OSV) Services for Drilling and Project Activities

Integrated Upstream
 Intra-Plant Transportation and Related Services

Individual - Upstream
 Vessel Tracking System (VTS)
 Marine Services and Marine Related Activities
 Offshore Support Vessel and Rig Tank Cleaning Services



- Contracted Project
- Replacement/New Contract
- Contract Extension



E - Chemicals

Contract

Integrated Upstream

- Chemical Treatment and Chemical Cleaning Services
- Supply of Production Chemicals
- Supply of Integrity Chemicals

Individual Upstream



- Supply and Delivery of Triethylene Glycol (TEG) and Monoethylene Glycol (MEG) for PACs
- Supply and Delivery of Base Oil for PACs

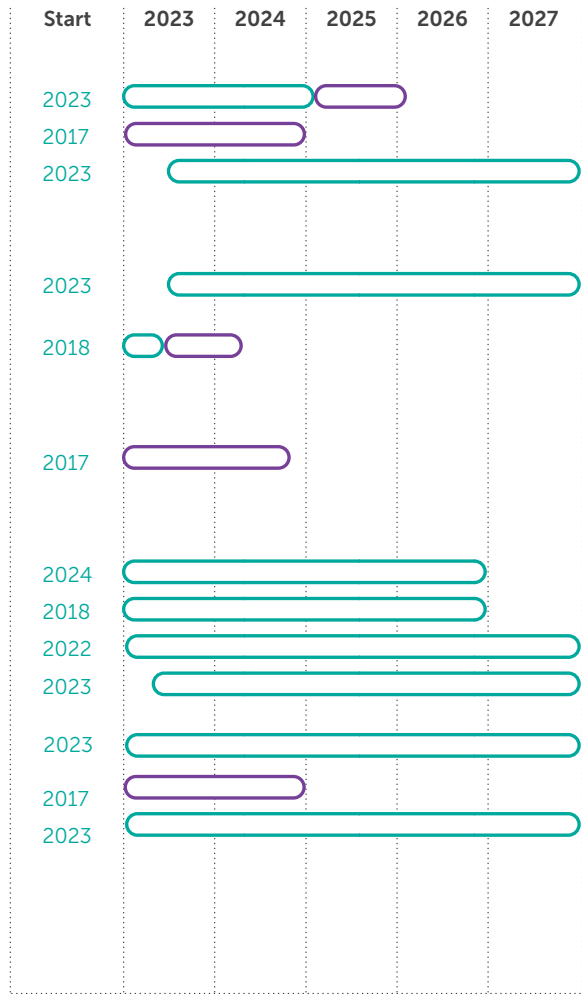
Individual Upstream & Downstream

- Supply and Delivery of PETRONAS Lubricants

Individual Downstream

- Supply of Chloroalkali
- Supply of Sulphuric Acid
- Supply of Ceramic Balls
- Supply and Delivery of Activated Carbon
- Umbrella Contract for the Provision of Precious Metal Recovery (Palladium and Platinum) Services for PETRONAS OPUs
- WTSP for Boiler and Cooling Water
- Catalyst and Adsorbent Change Out

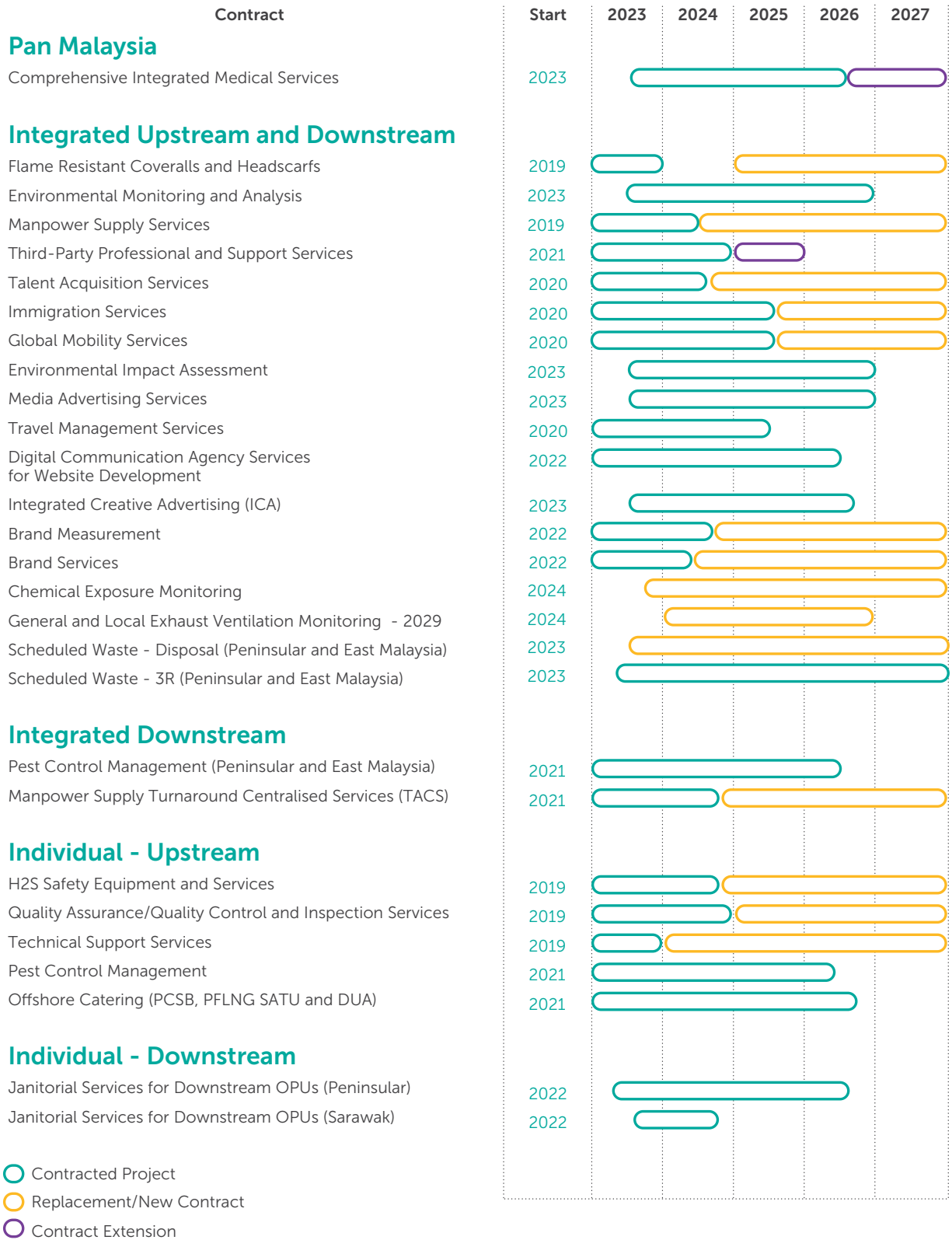
-  Contracted Project
-  Contract Extension



F - Equipment and Materials

Contract	Start	2023	2024	2025	2026	2027
Pan Malaysia						
Mechanical Rotating Equipment Services and Parts	2019	█				
Supply and Delivery of Gas Turbines	2023	█				
Centrifugal and Reciprocating Type Gas Compressors	2019	█				
Supply and Delivery of API 610 Process Pumps	2021	█				
Supply and Delivery of Oil Country Tubular Goods (OCTG) and CWC	2023	█				
Supply and Delivery High Strength Structural Carbon Steel Plates	2021	█				
Coating Services for Linepipes & Bends	2022	█				
Supply and Delivery of Switchgears (Up to 52KV)	2021	█				
Supply and Delivery of Transformers	2021	█				
Supply and Delivery of Induction Motors	2021	█				
General Electrical Equipment Services	2020	█				
Supply of Distributed Control System (DCS)	2021	█				
Bently Nevada Maintenance and Support	2020	█				
Supply and Delivery of Control Valves	2022	█				
Integrated Upstream and Downstream						
Maintenance and Services of HV/LV Motors and Alternators	2023	█				
Transmitter and Manifold	2021	█				
Master Service Agreement for Mercury and Pyrophoric Decontamination		█				
Maintenance and Services of Heat Ventilation and Air Conditioning (HVAC)	2023	█				
Supply and Delivery of Pressure Relief Valves (PRV)	2019	█				
Supply and Delivery of Swagelocks	2022	█				
Integrated Downstream						
Digital Inventory Management System	2023	█				
Maintenance for Switchgears and Transformers	2021	█				
Individual - Upstream						
Detronics Site Support and Services	2022	█				
Supply and Delivery of Oil Country Tubular Goods (OCTG) and CWC for PCSB	2023	█				
Coating Services for Linepipes and Bends for PCSB	2022	█				
Master Service Agreement for Lifting Equipment for PCSB	2023	█				
Master Service Agreement for Lifting Equipment for PCSB (Package B)	2022	█				
Master Service Agreement for Lifting Equipment for PCSB (Package C)	2022	█				
Heat Exchanger, Pressure Vessel and Utility Tank Maintenance	2023	█			█	
Individual - Downstream						
Mobile Crane and Other Lifting Equipment for PCG and PGB	2023	█				

G - Indirect Category



- Contracted Project
- Replacement/New Contract
- Contract Extension

List of Abbreviations

Abbreviations used in the report

Definition	Used for
AHTS	Anchor Handling Tug Supply
CBAM	Carbon Border Adjustment Mechanism
CBD COP15	Kunming-Montreal Global Biodiversity Framework
CCS	Carbon Capture and Storage
CCUS	Carbon Capture, Utilisation and Storage
CE	Competitive Edge
CO2	Carbon Dioxide
COVID-19	2019 Novel Coronavirus (or 2019-nCov)
CPP	Central Processing Platforms
CPTPP	Comprehensive and Progressive Agreement for Trans-Pacific Partnership
DPDSV	Dynamic Positioning Diving Support Vessel
DPS	Discover PETRONAS @Schools
eCHEMS	e-Chemical Management System
EE	Energy Efficiency
EIF	Entered Into Force
EPCC	Engineering, Procurement, Construction and Commissioning
EPCIC	Engineering, Procurement, Construction, Installation and Commissioning
ESG	Environmental, Social and Governance
EU	European Union
EV	Electric Vehicle
FA	Frame Agreement
FEED	Front-end Engineering Design
FIP	Facilities Improvement Plans

List of Abbreviations

Abbreviations used in the report

Definition	Used for
FP	Future Positioning
FPSO	Floating Production Storage and Offloading
FSO	Floating Storage and Offloading
FTA	Free Trade Agreement
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GPV	General Purpose Vessel
HRD Corp	Human Resource Development Corporation
HRDF	Human Resources Development Fund
HSE	Health, Safety and Environmental
HUC	Hook-Up and Commissioning
HWU	Hydraulic Workover Unit
iG@P	Innovation Gateway @ PETRONAS
IRA	Inflation Reduction Act
IRM	Inspection, Maintenance and Repair
JUR	Jack-up Rigs
LCT	Landing Craft Tank
LNG	Liquefied Natural Gas
MCM	Maintenance, Construction and Modification
MEG	Monoethylene Glycol
MITI	Ministry of Investment, Trade and Industry
MOGSC	Malaysian Oil, Gas & Energy Services Council
MOPU	Mobile Offshore Production Units

List of Abbreviations

Abbreviations used in the report

Definition	Used for
MPM	Malaysia Petroleum Management
MTJDA	Malaysia-Thailand Joint Development Area
NDCs	Nationally Determined Contributions
NDT	Non-Destructive Testing
NETR	National Energy Transition Roadmap
NZCE	Net Zero Carbon Emissions
O&M	Operations and Maintenance
OE	Operational Excellence
OEM	Original Equipment Manufacturer
OGSE	Oil and Gas, Services and Equipment
OPEC	Organisation of the Petroleum Exporting Countries
OPU	Operating Plant Unit
OSV	Offshore Support Vessel
OTOBOSOV	On Time, On Budget, On Scope, On Value
P&A	Plug and Abandonment
PACs	Petroleum Arrangement Contractors
PCG	PETRONAS Chemicals Group
PD&T	Project Delivery and Technology
PDB	PETRONAS Dagangan Berhad
PESP	PETRONAS Education Sponsorship Programme
PIC	Pengerang Integrated Complex
PLI	PETRONAS Lubricants International
PM	Peninsular Malaysia

List of Abbreviations

Abbreviations used in the report

Definition	Used for
PSV	Platform Supply Vessel
RE	Renewable Energy
ROV	Remotely Operated Vehicle
SAF	Sustainable Aviation Fuel
SB	Sabah
SBV	Standby Vessel
SK	Sarawak
SME	Small and Medium-sized Enterprises
SOE	State-Owned Enterprise
SR	Self Regulation
SSV	Straight Supply Vessel
STEM	Science, Technology, Engineering and Mathematics
SURF	Subsea Umbilical, Riser and Flowline
SVB	Silicon Valley Bank
T&I	Transportation and Installation
TEG	Triethylene Glycol
TPP	Trans-Pacific Partnership Agreement
TVET	Technical and Vocational Education and Training
UV	Utility Vessel
VISTA	Vocational Institutions Sponsorship and Training Assistance
WHP	Wellhead Platform

Glossary

Industry terms used in the report

Definition	Used for
Barrel	A standard unit of measurement for oil and production. One barrel contains 159 liters of oil.
Barrels of Oil Equivalent (boe)	A unit of measurement to quantify amount of crude oil, condensates and natural gas. Natural gas volumes are converted to barrels on the basis of energy content.
Brent Price	The benchmark crude oil price in Europe, as traded on the International Petroleum Exchange in London. Brent Crude refers to a particular grade of crude oil, which is slightly heavier than WTI crude. See WTI price.
Brownfield	Field that has been previously developed and has reached its peak oil/gas production level.
Catalyst	One that precipitates a process or event, especially without being involved in or changed by the consequences.
Clean Energy	Energy gained from sources that do not release air pollutants, while green energy is energy derived from natural sources.
Decarbonisation	The term used for removal or reduction of carbon dioxide (CO ₂) output into the atmosphere.
Deepwater	Projects in water depths exceeding 450ft. The Unique methods are required to produce the oil and gas from ocean bed at such depths. See Floating Production Unit.
Development	Activities following discovery that are necessary to begin production and transportation of crude oil and natural gas.
Downstream	All segments of the value chain that add value to the crude oil and natural gas produced, for example refining, gas processing, gas liquefaction, gas distribution, petrochemical manufacturing, marketing of petroleum and petrochemical products, storage and transportation.
Energy Transition	The energy transition is the ongoing process of replacing fossil fuels with lower-carbon energy sources.
Exploration	The search for crude oil and/or natural gas by geological and topographical studies, geophysical and seismic surveys and drilling of wells.
Feedstock	Raw material used in manufacturing a product, e.g. crude oil is a feedstock in the refining process to produce gasoline.
Field	A geographical area overlying a hydrocarbon reservoir.

Glossary

Industry terms used in the report

Definition	Used for
Greenfield	Field that has proven oil/gas reserves but has never been developed.
Hydrocarbon	A compound of hydrogen and carbon, such as any of those which are the chief components of petroleum and natural gas.
Hydrogen	Hydrogen is a clean alternative to methane, also known as natural gas. It is the most abundant chemical element, estimated to contribute 75 per cent of the mass of the universe.
Infill Drilling	Drilling of new wells in an existing field within the original well patterns to accelerate production.
Linepipes	A high strength carbon steel pipe used for transporting crude oil, petroleum products, natural gas and water.
Liquefied Natural Gas (LNG)	Natural gas that is liquefied under extremely cold temperatures of about 260 degrees Fahrenheit to facilitate storage or transportation in specially designed vessels.
National Energy Policy 2022-2040	The National Energy Policy was formulated to achieve the following objectives: ensuring adequate, secure, quality and cost-effective supply of energy; promoting efficient utilisation of energy; and ensuring factors pertaining to environment protection are taken into consideration in the production and utilisation of energy.
National Energy Transition Roadmap	NETR is crucial for Malaysia's Energy Transition, enabling the country to transition from a traditional fossil fuel-based economy to a high-value green economy on a large scale.
Net Zero Carbon Emissions	Achieved by balancing carbon dioxide (CO ₂) emissions by removal (for example, through carbon capture and sequestration) or simply eliminating (CO ₂) emission altogether (for example, decarbonisation of energy systems through solar and wind energy).
New Energy	Sources of energy that are renewable and environmentally friendly, such as solar energy, wind energy and biofuels.
Petrochemicals	Organic and inorganic compounds and mixtures derived from petroleum, used principally to manufacture chemicals, plastics and resins, synthetic fibres, detergents, adhesives and synthetic motor oils.
Refining	A purification process for natural resources which includes hydrocarbons, using distillation, cooling and/or compression.
Regasification	Process of converting LNG temperature back to natural gas at atmospheric temperature.
Renewable Energy	Energy that is generated from natural processes that are continuously replenished.

Glossary

Industry terms used in the report

Definition	Used for
Resources	The total estimated quantities of petroleum at a specific date to be contained in or that have been produced from known accumulations of hydrocarbon.
Subsurface	Relating to or being something located beneath a surface and especially underground.
Sustainable Aviation Fuel	A biofuel used to power aircraft that has similar properties to conventional jet fuel but with a smaller carbon footprint.
United Nations Sustainable Development Goals	17 interlinked goals adopted by all United Nations Member States in 2015 as a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030. Also known as the Global Goals.
Upstream	The segment value chain pertaining to finding, developing and producing crude oil and natural gas. These include oil and gas exploration, development and production operations; also known as Exploration and Production (E&P).
Wellhead	A component at the surface of an oil or gas well that provides the structural and pressure-containing interface for the drilling and production equipment.

Unit	Definition	Used for
bbl	Barrels	Volume
hr	Hour	Time
kb/d	Kilo barrels per day	Production Rate
km	Kilometre	Distance
MMboe/d	Million barrels of oil equivalent per day	Production Rate
MMscf/d	Million metric standard cubic feet per day	Production Rate
MT	Metric tonne	Weight
mtpa	Million metric tonnes per annum	Capacity
MW	Megawatt	Power
USD	United States Dollar	Currency

