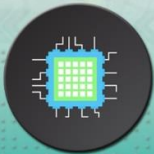


Upstream Downstream Training Plant (UDTP)

Being the first-of-its-kind in the world, UDTP is the suitable testbed to test and pilot new & innovative technology deployment in safe and real-world simulation of Upstream & Downstream plant scenarios.



Why UDTP?



Technology acceleration enabler

Accelerate and support PETRONAS Technology Readiness assessment by testing and piloting new & innovative technology before full commercial application



Safe operating conditions

Simulate real-world Upstream & Downstream plant scenarios in a safe environment



Customisable & Flexibility

Technology deployment customisable according to your schedule without having a shutdown window



Cost Effective

Real-world technology deployment without undergoing plant shutdown

What can you do at UDTP?

01 Experiential Learning

Equipment familiarisation
Plant turnaround
Plant process & coordination



02 Technology Deployment

Technology readiness assessment
Pilot project
Vibration study



03 Competency Development

Competency based assessment
PECAS
RESCISCO



Plant Facilities

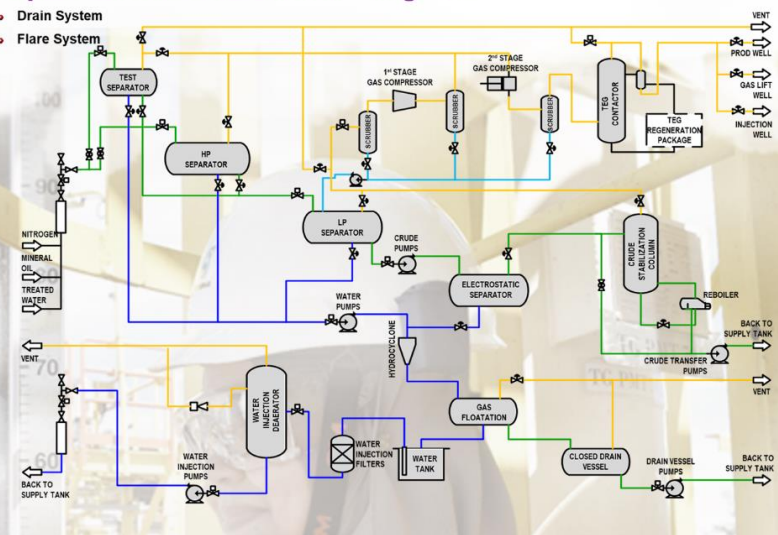
Upstream Facilities

- Central Control Room
- Well System (Production & Injection)
- Well Testing
- Separation System
- Crude Stabilisation System
- Gas Compression System
- Gas Dehydration System
- Produced Water Treatment System
- Pumping System
- Pigging System
- Flare/Vent System
- Drain System

Upstream Flow Medium & Process Parameters

- Flow Medium
 - Nitrogen
 - Non-volatile mineral oil
 - Water
- Design Basis
 - Pressure: 7 - 12 barG
 - Temperature: 15 - 120 degrees Celsius
- Process Parameters
 - Oil flowrate: 1,500 bpd
 - Water flowrate: 1,500 bpd
 - Water-cut: 50% (max)
 - Gas flowrate: 0.5 MMscf/d
 - Gas oil ratio: 333.33 scf/bbl

Upstream Process Flow Diagram



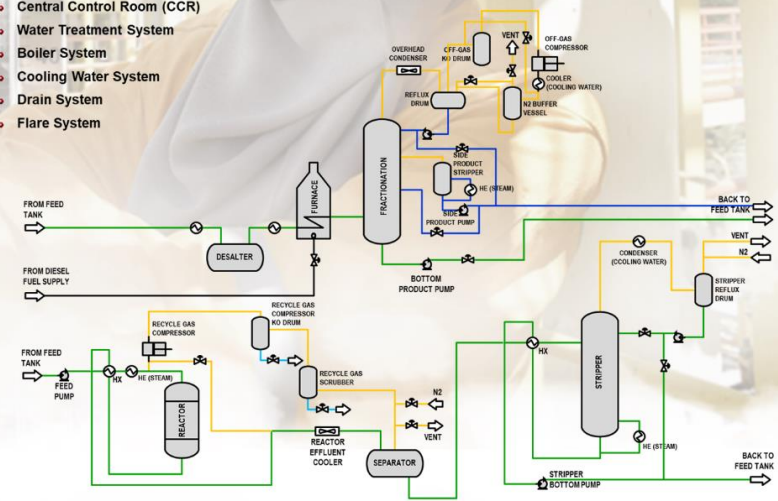
Downstream Facilities

- Central Control Room
- Crude Distillation System
- Hydrocarbon Treatment System
- Water Treatment System
- Boiler System
- Furnace System
- Cooling Water System
- Flare System
- Drain System

Downstream Flow Medium & Process Parameters

- Flow Medium
 - Tri-Ethylene Glycol (TEG)
 - Nitrogen
 - Water
- Design Basis
 - Pressure: 7 - 12 barG
 - Temperature: 15 - 160 degrees Celsius
- Process Parameters
 - Crude Distillation Unit (CDU): 1,500 bpd
 - Hydro Treating Unit (HTU): 750 bpd
 - Gas flowrate (CDU): 0.5 MMscf/d
 - Gas flowrate (HTU): 0.5 MMscf/d

Downstream Process Flow Diagram



Common Facilities

- Air System (Instrument and Service Air)
- Nitrogen System
- Fire Water System
- Emergency Power Generation
- Storage System (Water, Diesel, Base Oil and TEG)

HSE Facility

- Emergency Response Suite

CONTACT US NOW!



Scan QR code above for INSTEP Virtual Tour

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