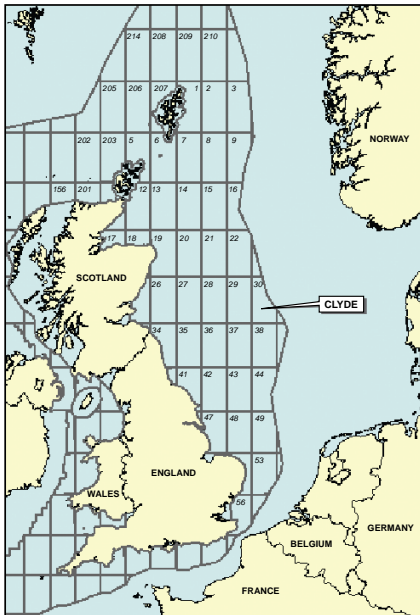


CLYDE



Last Updated:

March 2019

The Clyde platform was installed in 1986 with first oil production in 1987. The installation is located approximately 175 miles south east of Aberdeen. It is an eight-leg fixed steel jacket and module support frame has facilities for drilling, production, accommodation and associated utilities.

The Clyde platform's processing facilities separate production from the Clyde, Levin, Medwin and Nethan fields, and the Orion and Flyndre subsea tiebacks, into oil and dried natural gas.

Oil is transported to the Fulmar platform and exported via the Norpipe system for onward delivery to the Teesside terminal.

Gas exported from the Clyde platform is transported via the Fulmar platform to the Fulmar gas pipeline which runs into the SEGAL system to the St Fergus terminal.

OPERATIONAL INFORMATION

Licence	P.266
Licensees	Repsol Sinopec Resources UK Limited (Op) 100%
Platform Type	Eight-leg fixed steel jacket and module support frame
Platform Weight	Topsides: 25,764 Tonnes Jacket: 10,700 Tonnes
Drilling	Well Slots: 30
Wells	Production: 23 Injection: 5
Nearest Installations	Fulmar: 11 km Auk: 13 km

CAPACITY PROJECTION

The platform process system is nominally designed for the following quantities:

Description	Unit	Max. Cap.	Projected Ullage (% of maximum capacity)				
			2019	2020	2021	2022	2023
1 st Stage Separator	BPD	122,000	●	●	●	●	●
2 nd Stage Separator	BPD	95,000	●	●	●	●	●
Orion Separator	BPD	10,265	●	●	●	●	●
3 rd Stage Separator	BPD	60,000	●	●	●	●	●
Oil Export	BPD	60,000	●	●	●	●	●
Produced Water Treatment	BPD	97,000	●	●	●	●	●
Water Injection	BPD	73,000	●	●	●	●	●
LP Compressor	MMscfd	11.4	●	●	●	●	●
IP Compressor	MMscfd	22.7	●	●	●	●	●
HP Compressor	MMscfd	42	●	●	●	●	●
Gas Dehydration	MMscfd	42	●	●	●	●	●
Export/Lift Compressors	MMscfd	36	●	●	●	●	●
Flyndre Separator	BPD	17,600	●	●	●	●	●
Flyndre Produced Water	BPD	10,000	●	●	●	●	●

No dedicated H₂S facilities installed

Available Capacities:	●	> 25%
	●	5% to 25%
	●	< 5%

PIPELINES

Oil Export	16-inch * 11 km oil export pipeline from Clyde to Fulmar platform Oil is then routed via the Norpipe system to the Teesside Terminal
Gas Export	16-inch * 11 km gas export pipeline from Clyde to Fulmar platform Gas is then routed via the “SEGAL” system to the St. Fergus Terminal
Clyde / Orion Interfield	10 inch * 16.3 km subsea production pipeline from Orion to Clyde
Flyndre Interfield	8 ^{1/2} inch 20km subsea production pipeline from Flyndre to Clyde

ENTRY / EXIT SPECIFICATION

Crude Mixture Entry	Flowing Wellhead	up to 121°C up to 140 bara
Crude Oil Export	TVP (True Vapour Pressure)	145 psia @ 100°F
	Base Sediment & Water	2 % vol
	Salt	250 lb/Mbbl
	H ₂ S	10 ppm wt
	Total Sulphur	0.19 % wt
	Nickel	10 ppm wt
	Vanadium	10 ppm wt
	Viscosity	20 cP @ 3°C
	pH	> 5
	Mercury	10 ppb wt
Gas Export	Water Content	35 ppm vol
	Cricondenbar	< 105 bara
	Total Sulphur	15 ppm vol
	CO ₂	1.6 % mol
	O ₂	10 ppm vol
Produced Water		<30 ppm oil in water