Infrastructure Code of Practice

Judy/Joanne

The **Judy** and **Joanne** fields are located in Quadrant 30 of the United Kingdom Continental Shelf, approximately 150 miles south-east of Aberdeen. Hydrocarbons were first discovered in the Joanne field in 1980 and in 1992 extensive geological work determined that development should be pursued.

Commercial oil production and gas from Judy/Joanne began in 1997. After being processed on the Judy Platform, gas is transported through the Central Area Transmission System (CATS) pipeline and liquids are transported to Teesside through the Norpipe system.

Production commenced from Talbot, a three-well subsea tieback located 16 kilometres southeast of the Judy platform in November 2024. The Talbot development has the same ownership as Judy/Joanne and includes a subsea manifold, a 12” by 18” insulated pipe-in-pipe production pipeline, and an electro-hydraulic and chemical umbilical. Gas and oil are transported to the Judy platform for processing and onward transportation.

The Affleck re-development, a third-party subsea tie back to Judy via Talbot and owned 100% by NEO, commenced production in January 2025. Production from the Affleck wells is transported via a dedicated 20km 8” by 12” pipe in pipe pipeline to the Talbot subsea manifold, where fluids are metered before comingling with Talbot production before flowing onwards to the Judy platform for processing and onward transportation.

Key Facts	
Field	Judy/Joanne
Block	30/7a, 30/12a, 30/6a, 30/13d, 30/7c
Sector	U.K. Central North Sea
Approx. distance to land	130 nautical miles SE of Aberdeen
Water Depth	Judy Platform – 75 metres (246 feet) Joanne Manifold – 79 metres (259 feet)
Hydrocarbons Produced	Gas and oil/liquids
Export Method	Gas - goes to Teesside via the CATS pipeline Liquids – go to Teesside via the Norpipe system
Manned / Unmanned	Manned
Operated /Non-Operated	Operated
% of Harbour Energy Equity	67.0%
First Production	June 1997
Accommodation On Board	143
Key Commercial Terms	Affleck – see Published Key Terms. Third parties also tie-in directly into the J-Block Spurline for onward transportation to Norpipe - see Published Key Terms.

Infrastructure Information	
Entry Specification:	The entry specification for any future third-party production is dependent upon the point at which such production would enter the Judy facilities and the composition of production already being processed at that time. The entry specification will cover areas that affect onward transportation as well as those which impact the Judy platform itself e.g., slugging limitations and contaminants.
Exit Specification:	Liquids – any liquids processed on the Judy facilities would be transported to Teesside through the J-Block Spur to the Norpipe System. The exit specification from the Judy facilities is the Norpipe entry specification, which is directly negotiable between any prospective user and the Norpipe operator. However, any exit specification must be achievable with the processing facilities available on Judy. Gas – any gas processed on the Judy facilities would be transported through the CATS Pipeline via the T6 entry point. The exit specification from the Judy facilities is the CATS entry specification which is directly negotiable between any prospective user and the CATS operator. However, any exit specification must be achievable with the processing facilities available on Judy. Following on from transportation through CATS further processing would be required at either the CATS processing facility or TGPP.

Outline details of primary separation processing facilities:	Primary oil and gas separation is achieved by HP separators. The oil is conditioned by a second stage LP separator to the pipeline entry specification (145 psia true vapour pressure at 100oF) prior to export.
Outline details of gas treatment facilities:	The gas from the separators is compressed and dehydrated by a triethylene glycol system to achieve a maximum water content of 15kg per million cubic metres. The hydrocarbon dewpoint of -2oC at all pressures greater than 92 barg is achieved by NGL removal at the suction scrubbers of the second compression stage. Judy has limited H2S removal facilities.

High Level Capacity Information

The basic capacity information is portrayed by colour coded 'traffic lights' that reflect thresholds of availability over the next 5 years.

>25% capacity available		5% - 25% capacity available		< 5% capacity available	

Judy Platform Firm Processing Capacity Available	**Ullage as % of System Capacity**					**Comment**
	2025	**2026**	**2027**	**2028**	**2029**	
Oil export capacity (1)						
Oil export pipeline capacity (1)						
Gas compression capacity (2, 3)						Capacity assumes dual train operation at circa. 15.5 barg suction pressure.
Gas export capacity						
Gas export pipeline capacity						
Gas lift capacity (4)						
Produced water handling capacity (6)						
Dehydration capacity (5)						
H2S removal capacity						
Water injection capacity						

Notes:
(1) The design capacity of the Judy oil export system is 100,000 bbls/d from two booster and main oil line pumps. However, there is also the ability to tie directly into the J-Block Spur, then onwards to the Norpipe system. The capacity of the J-Block spur line is dependent on the combined throughputs of the J-Block spur and Norpipe trunk line.
(2) Two compression trains. With both trains operating, the system has a total capacity of 320 MMSCFD at 15.5 barg separator pressure.
(3) Compressor optimisation was implemented in Q2 2017, re-wheeling both compression trains to reduce the separator pressures. Post-optimisation, the compressors can deliver 320 MMSCFD at 15.5 barg separator pressure. The nameplate capacity of 450 MMSCFD is maintained at around 26 barg separator pressure.

(4) Gas is available at compressor second stage discharge pressure, typically about 150 barg. A gas lift manifold was installed in 2018 with capacity to inject to six wells. Gas lift is currently only provided to one of the Judy wells.
(5) Achieves a maximum water content of 15 kg per million cubic metres.
(6) Produced water is separated at the LP separator; the system has a hydraulic capacity of 20,000 bbl/day. Treatment is by hydrocyclones, compact flotation unit and a degasser. There are no reinjection facilities. Please note, modifications required on Judy for new business may be limited due to facilities constraints.

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Contact Information

Email: icop@harbourenergy.com