



2020 Environmental Report



INEOS UK SNS LIMITED

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Title:

**INEOS Oil & Gas UK
2020 Environmental Report**

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0	10-03-21	R O'Sullivan		P Jones	Head of SHEQ		06-03-21
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Glossary

BMS	Business Management System
EMS	Environmental Management System
HS&EMS	Health Safety & Environment Management System
ISO	International Standards Organisation
NUI	Normally unattended installation
OCNS	Offshore Chemical Notification Scheme
OPEP	Oil Pollution Emergency Plan
OSPAR	Oslo Paris convention for the protection of the marine environment of the NE Atlantic
PLONOR	Poses Little or No Risk to the environment
PON1	Petroleum Operations Notice 1
PWT	Produced water treatment plant
SHE	Safety, health and environment
SNS	Southern North Sea
VOC	Volatile Organic Compounds

1 Introduction

This document is the 2020 Environmental Report for INEOS UK SNS Ltd ('INEOS Oil & Gas UK') and describes offshore operations undertaken throughout the year.

This report is a public statement designed to:

- Describe the scope of the company's offshore activities;
- Provide a description of the INEOS Oil & Gas UK Environmental Management System (EMS);
- State the company's environmental policy, goals, objectives and targets; and
- Provide a performance summary for 2020.

This document is the sixth annual Environmental Report to be issued as a public statement by INEOS UK SNS Limited.

2 Scope of Activities

This Section summarises activities undertaken in 2020.

2.1 Overview of INEOS

INEOS is a global manufacturer of petrochemicals, speciality chemicals and oil products with sales of around \$60 billion. INEOS UK SNS Limited is operator of the Breagh and Clipper South gas production fields during 2020. It was also operator of the non-producing Cavendish, Windermere and Topaz fields which are awaiting full decommissioning.

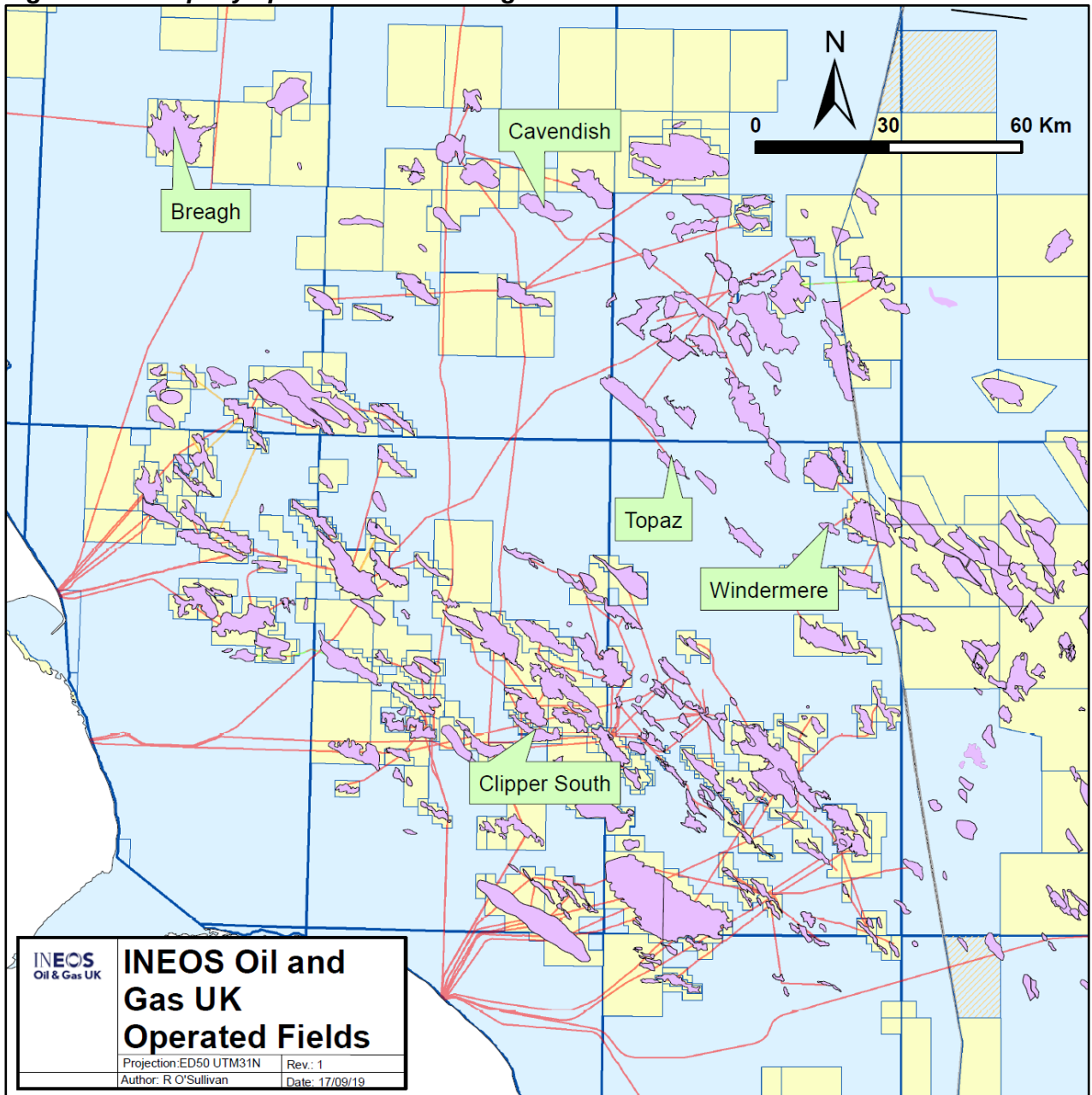
The head office of INEOS Oil & Gas UK is located at:

Anchor House
15-19 Britten Street,
London SW3 3TY,
United Kingdom
Tel +44 20 3935 5355
Fax +44 20 3935 5350

2.2 Location of Offshore Activities during 2020

The locations of INEOS UK SNS Ltd operated fields are shown in Figure 2.1 below.

Figure 2-1 Company operated fields during 2020



2.2.1 Production Operations

At the beginning of 2020 INEOS Oil & Gas UK insourced the operation and maintenance of their offshore facilities that had previously been undertaken by an Offshore Support Contractor. The newly enlarged operations team are based in the Norwich office.

Due to the COVID-19 pandemic offshore visits were reduced with measures put in place to minimise the potential for contraction or spread of the virus when offshore visits were undertaken.

2.2.1.1 Breagh

The Breagh A platform is located in SNS Block 42/13a in a water depth of 62m. The platform was installed in late 2011 and production commenced in October 2013. The platform is normally operated unmanned, typically for periods of 25-30 days in between maintenance visits.

The Breagh platform was controlled, operated and maintained for production purposes in 2020 by INEOS Oil & Gas UK.

During 2020 a project to replace the barred tee was undertaken. This required the installation of temporary accommodation modules on the platform allowing personnel to reside offshore on Breagh. The project ran for 40 days.



2.2.1.2 Clipper South

Production operations commenced at the Clipper South platform in August 2012. It is located in SNS Block 48/19, approximately 100km east of the Theddlethorpe gas terminal, in a water depth of 23.5m. The platform is operated as a NUI and maintenance visits typically occur for approximately ten days per month.

Clipper South originally exported gas via the ConocoPhillips owned LOGGS platform. This was taken out of service in October 2018 and a new pipeline between Clipper South and the Shell owned Clipper platform was installed. A produced water treatment plant was also installed in 2018 due to the liquids handling requirements at the Clipper platform.

During 2020 screens were inserted downhole in two wells in order to reduce the quantity of proppant returned to surface at the installation.



2.2.2 Other Operations

2.2.2.1 Cavendish

The Cavendish platform is a fixed four-legged jacket that produced gas and condensate and is located in SNS Block 43/19a. The platform was tied back via a 47 kilometre long 10-inch pipeline to the ConocoPhillips operated Murdoch host platform however production ceased in 2018 and the wells were shut in. Work was undertaken in 2019 to put the platform into lighthouse mode, where no hydrocarbons are present. Access is via walk-to-work vessel only. No visits were made during 2020.



2.2.2.2 Windermere

The Windermere platform is a NUI located in SNS Block 49/09b. This is now operating in Lighthouse Mode (LHM), following the plugging and abandonment of the two platform wells in 2019. Maintenance visits occur when required by walk-to-work vessel. No visits were made during 2020.



2.2.2.3 Topaz

The Topaz subsea well head and protective structure was a gas producing seabed installation located in SNS Block 49/02a. The facility was tied back to the Schooner host platform via a 15.2 kilometre long 6-inch gas export line, with associated methanol feed line and control and communications cable. Due to low flow rates, the Topaz well has been shut in and production ceased on 31st October 2017. Operations were undertaken in 2019 to flush and flood the pipelines between Topaz and Schooner and to cut and remove a section of the pipeline at the Topaz wellhead end.

2.2.2.4 Drilling

No drilling operations were undertaken during 2020.

3 EMS Summary

This Section provides a brief description of the company's EMS as it operated in 2020.

3.1 Introduction

The EMS is a component of the overall Business Management System (BMS) that defines the organisational structure, planning activities, responsibilities, procedures, business processes and resources required for developing, implementing, achieving, reviewing and maintaining the environmental policy.

The EMS is a tool for identifying and managing the impact the business has on the environment. It works to reduce this impact by controlling the quantity of materials and energy used and the amount of waste produced. As well as facilitating the management of environmental impacts in a credible way, the EMS provides a practical tool to help evaluate and improve performance.

The following guiding principles and methodologies are incorporated into the OSPAR Strategy and integrated, as appropriate, into the EMS:

- the precautionary principle;
- the polluter pays principle;
- best available techniques and best environmental practice, including, where appropriate, clean technology;
- sustainable development;
- the application of an integrated ecosystem approach; and
- the waste management hierarchy of avoidance, reduction, re-use, recycling, recovery, and residue disposal.

3.2 Verification

The offshore operations undertaken by the business have had ISO 14001 certification since 2010, which was first obtained by previous owners of the business, and has continued through into INEOS Oil & Gas UK ownership. This covers the management of all the company's exploration, drilling, development and production operations. Recertification was achieved in December 2019 and a verification audit was undertaken in September 2020.

3.3 Review

A formal review of SHEQ performance is conducted annually. This is an essential step required to assess the effectiveness of the HS&EMS in achieving the aims of the company's policy and objectives and to achieve continuous improvement in the control system.

The review process enables the company to:

- review progress against existing objectives and targets;
- consider evidence of performance, such as audits and other reports;
- consider the sufficiency of the organisational structure, the available resources, the policy and the management system in general; and
- agree new objectives and targets.

Internal auditing is used to objectively investigate how each element of the management system is being applied. Internal audit reports provide input to management review, along with other performance indicators.

4 Environmental Policy

This Section provides a brief description of the company's environmental policy, including relevant environmental goals, objectives and targets set for significant environmental aspects and impacts.

4.1 Introduction

In line with the OSPAR Strategy, the company has established an environmental goal of protecting and conserving the maritime area against any potentially adverse effects resulting from its activities. To achieve this goal, programmes and measures to identify, prioritise, monitor and prevent/reduce/eliminate any emissions, discharges or losses of substances which could cause pollution have been developed.

Non-polluting activities, that may have potentially adverse effects on the ecosystems and biological diversity of the maritime area, include exploration activities and the installation or decommissioning of structures, cables and pipelines.

4.2 SHE Policy Statement

The components of the SHE Policy Statement that relate to environmental management are stated in the remainder of this Section.

The Company recognises its moral and legal obligations to conduct all activities in a manner which protects the natural environment with the prevention of pollution. All employees are required to act responsibly so as to protect the environment.

In relation to environmental management, the company will:

- annually set SHEQ objectives, seeking to achieve continual improvement;
- ensure that a competent workforce is established and receives all necessary information, instruction and training and that all personnel have a clear understanding of their roles and responsibilities;
- provide all personnel with opportunities for participation in SHE decisions, risk assessments and aspects of SHE management as well as undertaking consultation and communication regarding SHE issues;
- monitor and record SHEQ performance and assess compliance through internal audits;
- annually conduct management review of performance against objectives, including review and development of the Policy and BMS and communicate the results of this review with the workforce;
- ensure that sufficient resources are provided to achieve its objectives.

For all business activities and projects, the company will;

- comply, as a minimum, with all SHE legislation applicable in the UK, to discharge its Duty of Care, applying best industry practice and undertaking steps to improve safety or environmental protection levels where appropriate;
- ensure that systematic hazard identification, assessment of risk and incorporation of measures to minimise and control risks are central to all our activities;
- apply all necessary control measures in the design, construction and operation of offshore facilities to prevent the occurrence of major accident events;
- select competent contractors with regard to their SHEQ management capability and provide them with all necessary information, including definition of INEOS Oil & Gas UK's SHEQ requirements;
- monitor and audit contractors as necessary to ensure satisfactory quality assurance and SHE performance; and
- maintain emergency and contingency plans.

The company requires each of its contractors and suppliers to:

- operate effective SHEQ management systems; and
- comply with INEOS Oil & Gas UK's SHEQ requirements including appropriate SHEQ planning, hazard identification, risk control, performance monitoring and reporting.

4.3 Objectives and targets for 2020

The environmental management objectives and targets for the period between January and December 2020 were determined in order to progressively achieve the commitments set out in the SHEQ Policy Statement. Section 5.2 provides further detail.

5 Performance Summary

This Section provides a summary of performance in relation to compliance with relevant legislative requirements and compliance with the environmental policy, goals, objectives and targets. A summary of offshore environmental aspects, and their associated emissions and impacts, is also provided.

5.1 Introduction

The company's internal and external auditing processes enabled reporting on the areas of environmental performance defined in Section 4, i.e. the extent to which the environmental goals listed below have been achieved:

- compliance with legislation;
- progress made in achieving environmental goals; and
- continual improvement in environmental performance.

5.2 2020 Environmental Performance Summary

Progress against the identified objectives and targets for 2020 is considered in the annual Management Review. Key objectives and targets are related to incidents, BMS development and certification, competence, emergency preparedness and response, audit and review and the offices. The majority of objectives were achieved with two not achieved; these related to reportable incidents and completing an emergency exercise. This was delayed due to COVID-19. The audit schedule continues throughout the year in order to ensure that progress against objectives and targets is maintained.

5.2.1 Production Activities

Production operations during 2020 were undertaken at Breagh and Clipper South.

5.2.1.1 PON1 Incidents

There were no PON1 incidents during 2020.

5.2.1.2 Chemical use and discharge

During 2020, Breagh production operations used methanol gas hydrate inhibitor in order to undertake well start-up operations. The methanol remained within the production system and therefore was not discharged to sea at the platform.

The barred tee operation at Breagh required the discharge of the hydrate and corrosion inhibitors which usually remain in the pipe (MEG (PLO, E) and CRW85689 (Gold, SUB)). A full justification was provided for this operation and the one off discharge.

Three products are used regularly for Clipper South operations: EC66721A (colour band White), Ethylene Glycol (OCNS category E) and SURFLO PLUS® SFPEC1610A (colour band Gold). These products inhibit the formation of hydrates and prevent corrosion in the pipeline between Clipper South and Clipper and must be added to ensure pipeline integrity. Usually these products are not discharged, however emergency shut down dump valve testing was required during 2020 during which the chemicals in the pipeline between the storage tank and the ESD valve had to be discharged. A safe means of capturing this discharge was not available at the time of the scheduled testing, however it is considered that a solution could be engineered prior to the next scheduled test to prevent the discharge in the future.

SOBO S GOLD 08 (colour band Gold) rigwash detergent was also used on Clipper South for platform cleaning. No other chemicals were used or discharged.

Table 5-2 below presents the quantities of chemicals used and discharged at Breagh and Clipper South during 2020 based on label and ranking categories.

Table 5-1 Chemicals Used and Discharged during normal platform operations

OCNS category or colour band ranking	Additional Label	Quantity (kg)	
		Use	Discharge
E	PLONOR	38,557	10,047
Gold	-	60,507	183
Gold	SUB	0	3
White	-	22,040	135

5.2.1.3 Produced water discharges

The Breagh platform utilises a closed production system and there are no separation facilities or disposal caissons; therefore there are no discharges of produced water.

Clipper South has a produced water treatment (PWT) plant to remove produced water prior to export to Clipper. Table 5-3 below presents the volume of water that was processed by the PWT plant and the results of the sampling of the water that is discharged once treated. The PWT plant reduced oil in water concentrations to well below the permitted quantities and only 0.28 tonnes of oil was discharged to sea.

Table 5-2 Clipper South PWT Discharge Results

Month	Total Volume of Water (m ³)	Average Oil in Water (mg/l)	Weight of Oil (t)
January	6,084.00	5.21	0.032
February	5,786.77	6.06	0.035
March	7,056.09	4.07	0.029
April	5,927.00	3.09	0.018
May	4,750.95	3.00	0.014
June	3,850.58	3.49	0.013
July	4,454.28	5.34	0.024
August	4,964.21	5.17	0.026
September	4,013.48	3.41	0.014
October	3,521.12	9.43	0.033
November	2,817.86	7.27	0.020
December	1,655.82	11.68	0.019
Total	54,882.16	-	0.277

5.2.1.4 Waste

A total of 65.91 tonnes of waste was generated by the Clipper South and Breagh during 2020. A summary is provided as Table 5-4 below. No waste was directed to landfill. This includes any waste generated during the Breagh barred tee replacement project.

Table 5-3 Summary of Waste from Production Operations (tonnes), 2020

Asset	Group	Type	Reuse	Re-cycling	Waste to Energy	Incinerate	Landfill	Other	Total	Comments
Breagh	Group I	Chemicals / paints	0	6.02	0	0.21	0	0	6.23	
		Drums / Containers	0	0.04	0	0	0	0	0.04	
		Oils	0	0.31	0	0	0	0	0.31	
		Misc	0	0.20	0.23	0	0	0	0.43	
		Sludges/ Liquids/ Washings	0	0	0	0	0	1.60	1.60	Treatment
	Group II	Scrap Metal	0	2.48	0	0	0	0	2.48	
		Drums / Containers	0	0.02	0	0	0	0	0.02	
		Segregated recyclables	0	2.10	0	0	0	0	2.10	
		Misc	0	0.37	0	0	0	0	0.37	
		General	0	0.96	3.86	0	0	0	4.82	
Clipper South	Group I	Chemicals / Paints	0	35.01	0	0	0	0	35.01	
		Drums/ Containers	0	0.01	0	0	0	0	0.01	
		Oils	0	0.37	0	0	0	0	0.37	
		Misc	0	0.18	0.15	0	0	0.10	0.43	Treatment
		Sludges/ Liquids/ Washings	0	3.21	0	0	0	0.01	3.22	
	Group II	Drums/ Containers	0	0.07	0	0	0	0	0.07	
		Scrap Metal	0	0.15	0	0	0	0	0.15	
		Segregated Recyclables	0	1.85	0	0	0	0	1.85	
		Misc	0	0.29	0	0	0	0	0.29	
		General	0	2.57	3.54	0	0	0	6.11	
TOTAL			0	56.21	7.78	0.21	0	1.71	65.91	

In addition to the above wastes, the liquid waste generated at the Breagh platform during routine maintenance visits and the barred tee project was limited to small volumes of wastewater, from the sink and shower, as well as sewage from the toilets, which was discharged to sea. The Clipper South platform has a macerator for all black waste. The small amounts of domestic waste generated during NUI visits is bagged and returned onshore. Company policy states that no garbage, including plastic, is to be disposed of overboard.

5.2.1.5 Atmospheric emissions

The Breagh and Clipper South platforms have self-sufficient power supplies in the form of standalone diesel generators. Operational emissions to air from combustion of diesel to power generators is summarised in Table 5-45 below.

Table 5-4 Emissions to Air from Breagh and Clipper South (tonnes), 2020

Asset	Diesel Used	Emissions to Air						
		CO ₂	CO	NO _x	N ₂ O	CH ₄	VOC	SO _x
Breagh	64.5	206	1.0	4	0.01	0.01	0.13	0.26
Clipper South	126	403	2.0	7	0.03	0.02	0.25	0.50

Atmospheric emissions relating to production operations at Breagh and Clipper South were also generated as a result of the combustion of fuel on board the helicopters and supply/standby vessels utilised during planned maintenance visits.

In addition to the above, emissions to air from operational facilities emanated from the manual venting of produced gas for maintenance purposes. The calculated emissions of direct gas from operational facilities in 2020 comprised the following from maintenance venting:

- Breagh – 7.99 tonnes
- Clipper South – 0.85 tonnes

5.2.1.6 Oil spills

Oil Pollution Emergency Plans (OPEPs) were in place to cover all operations at Breagh, Clipper South, Cavendish, Topaz and Windermere during 2020. Each OPEP lists the required offshore and onshore actions and responses, defines roles and responsibilities in the event of an oil spill and provides a risk assessment.

5.2.2 Other activities

No other activities were undertaken during 2020 due to the COVID-19 pandemic.