

Environmental Performance Public Statement for 2014 Operations

June 2014

E.On Exploration and Production UK Ltd

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1. INTRODUCTION

Under the OSPAR Recommendation 2003/5 the Department of Energy and Climate Change (DECC) require that all existing United Kingdom Continental Shelf (UKCS) oil and gas operators undertaking offshore operations during 2014 prepare an annual statement of their environmental performance, covering that calendar year, and make that statement available to the public. This document represents the E.On Exploration and Production United Kingdom Ltd (hereafter referred to as E.On E&P UK) annual public statement for 2014 exploration and production operations.

2. E.ON E&P UK BACKGROUND

E.On E&P UK is a 100% owned subsidiary of the E.On E&P Gesellschaft mit beschränkter Haftung (GmbH), a subsidiary of E.On Societas Europea (E.On SE), headquartered in Essen, Germany. E.On E&P UK has a primary focus on North Sea oil and gas in the central and southern North Sea, however holds a number of exploration licences within the West of Shetland area.

Central North Sea (CNS)

In 2014 E.On E&P UK held production interests in four third party operated assets in the UK CNS. These comprise: Elgin-Franklin (Elgin, Franklin and West Franklin fields), Glenelg, Scoter and Merganser. E.On E&P UK also operates the Huntington field which is tied back to the Voyageur Spirit Floating Production Storage and Offloading (FPSO) vessel and has been producing since April 2013.

Southern North Sea (SNS)

In the SNS E.On E&P UK operates the Babbage, Johnston, Hunter and Rita producing fields, and holds interests in the third party operated Caister, Minke, Orca and Ravenspurn North fields, as well as the Caister Murdoch Pipeline System. E.On E&P UK holds an interest in eleven exploration licences in the region.

3. THE HEALTH SAFETY ENVIRONMENT AND QUALITY (HSEQ) MANAGEMENT SYSTEM (MS)

The E.On E&P UK HSEQ MS applies to all activities carried out or managed by E.On E&P UK. The HSEQ MS is used to deliver the E.On E&P UK HSEQ Policy (Figure 3.1).

All E.ON Management Units implement and maintain an external certified HSE Management System according to the international standards of OHSAS 18001 (Health & Safety) and ISO 14001 or EMAS (Environmental Protection). These robust HSE Management Systems drive continual improvement and, as a minimum, ensure compliance with all HSE legislation, regulations and other applicable national and local requirements. E.On E&P UK maintains a HSEQ MS to ensure that all of its activities are managed in a safe, environmentally sensitive and effective manner. The HSEQ MS:

- Enables HSEQ risks to be reduced to a level that is 'As Low as Reasonably Practicable' –
 ALARP,
- Is used to manage compliance with legal and other requirements,
- Facilitates personnel fulfilling their responsibilities effectively,



• Provides assurance to stakeholders such as regulators, partners, licensing authorities and insurers that E.On E&P UK is managing compliance and HSEQ risks.

Interfaces

E.On E&P UK is a wholly owned subsidiary of the parent company, E.On SE. Parent company health, safety and environmental standards and requirements are integrated into the E.On E&P UK HSEQ MS.

The E.On E&P UK HSEQ MS has been developed in line with the requirements of the internationally recognised standards: ISO 9001, ISO 14001 and OHSAS 18001.

The HSEQ MS has been designed to interface with other Management Systems within E.On E&P UK, including the Integrity Operations Management System (IOMS) and the Well Design and Operations Management Process (WDOM). A planned improvement is the development of an integrated Business Management System (BMS) which incorporates HSEQ aspects and functional processes including Development and Production. BMS development and roll-out progressed significantly during 2014, and various company processes have been fully integrated and standardised across the company e.g. Risk. The BMS programme will continue to advance during 2015.

The E.On E&P UK HSEQ MS also interfaces with external Management Systems such as those of contractors, suppliers and business partners. These interfaces are managed using various bridging documents.



Figure 3.1. E.On E&P UK HSEQ Policy

E.ON E&P Policy Statement for Health, Safety, Environment and Quality (HSEQ) Management

E.ON Exploration & Production (E.ON E&P) is the Global Unit in E.ON responsible for the group's exploration and production business. The HSEQ Vision for the global unit is:

"E.ON E&P aims for Zero Harm to people and the environment whilst ensuring operational excellence."

We work towards this aim by implementing our leadership principles which include:

- · We are all personally responsible for working safely and safeguarding others,
- We minimise our environmental footprint,
- HSEQ is a line management responsibility,
- · We ensure the integrity of our assets and systems.

Everyone engaged in our business is vital to the success of this policy. All E.ON E&P personnel work towards Zero Harm by complying with all applicable regulatory requirements and company procedures, acting responsibly to prevent injury and ill health, protecting the environment and promoting the quality of our work.

At E.ON E&P, our commitments to Zero Harm and continual improvement are realised through:

People and Culture - Continually developing competence and desirable behaviours,

Enhancing our HSEQ Processes and Systems - Ensuring consistent implementation of this policy throughout the business,

Improving Quality - Ensuring fit-for-purpose facilities and organisational capability towards exceptional business performance.

The management at E.ON E&P is fully committed to this policy and accepts line management responsibility for its implementation.

The Chief Executive Officer (CEO) has ultimate responsibility for the implementation and regular update of this HSEQ Policy Statement. The CEO ensures the ongoing suitability and effectiveness of the policy, communication of the policy to all personnel and its availability to stakeholders.

neulolihur Date: 4/3-2013

Approved by:

Frank Sivertsen CEO E.ON E&P

MC-CP-GENR-ADMN-ER-S-KA-0025

Revision 1, March 2013



4. 2014 UKCS OFFSHORE ACTIVITIES

The HSEQ MS is integrated fully into E.On E&P UK business processes. On an annual basis the company produces a plan detailing the extent of its intended activity for the current year. E.On E&P UK operations undertaken during 2014 are listed in Table 4.1 and location maps of E.On E&P UK's operations are illustrated in Figure 4.1 and Figure 4.2.

Table 4.1. Summary of Operations Carried Out in 2014

Field / Development /Block	Permit	DECC Perm	it Reference
Huntington Development Field	PETS Production MAT & SAT	PRA122	CP/3/3/1
Blocks 22/14a and 22/14b			CP/3/5/1
			CP/3/9/1
			CP/3/10/2
Babbage Development Field	Production Permit PON15D	PON15D	775/13/3
Block 48/02a	PETS Production MAT & SAT	PRA112	CP/299/0/1
			CP/299/1/2
Babbage (P456)*	PETS Well Intervention Operation	WIA/73	CP/173/0/3
Block 48/02-1	MAT and SAT		ML/8/0
Johnston (P686)	PETS Well Intervention Operation	WIA/74	CP/174/0/3
Block 43/27-1	MAT and SAT		ML/7/0
Tolmount Infield	PETS Marine Survey MAT & SAT	SA/245	GS/151/0
Tolmount Pipeline Route	PETS Marine Survey MAT & SAT	SA/212	GS/156/0
Survey			GS/156/1

^{*}Nb. This operation involved mechanical intervention work only. No chemicals were used or discharged.



Figure 4.1. Location map of E.On E&P UK activities in the SNS

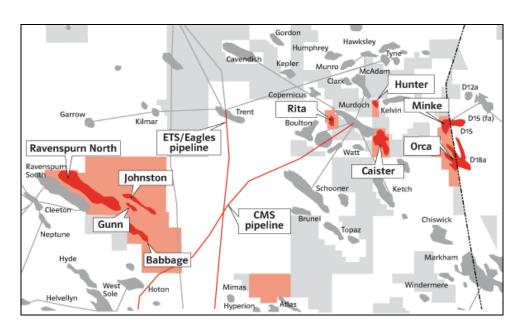
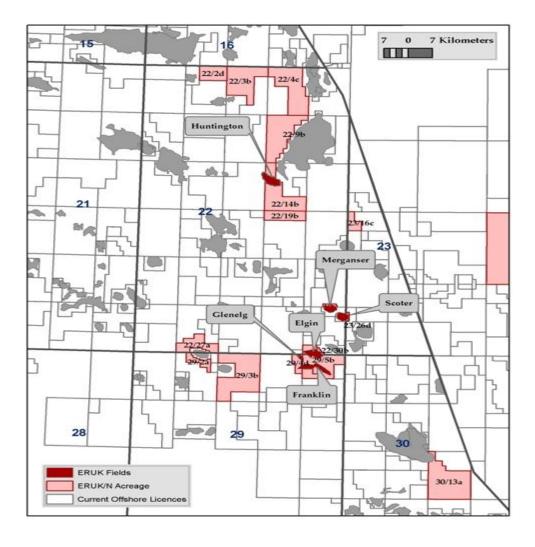


Figure 4.2. Location map of E.On E&P UK activities in the CNS



5 SUMMARY OF ENVIRONMENTAL PERFORMANCE 2014

The environmental performance relating to operations carried out during 2014 is summarised in the following sections.

Chemical Use and Discharge into the Marine Environment

The use and discharge of chemicals within the UKCS oil and gas industry are controlled by the Offshore Chemicals Regulations (OCR) 2002, as amended. This means that all operators planning to use and/or discharge chemicals to the marine environment must obtain a chemical permit from the Department of Energy and Climate Change (DECC) before operations begin. Chemicals that have been used and discharged during 2014 operations are categorised in Table 5.1, 5.2 and 5.3.

Table 5.1. Chemical Consumption – Johnston Well Intervention 2014 Operations

Environmental Indicator	Johnston (Well Enhancer) 43/27-1 Permit Number: CP/174/03			
Chemical HQ or OCNS Category	Used (kg)	Discharged (kg)		
Gold	0.525	0.525		
Silver	0.00	0.00		
White	0.00	0.00		
SUB Warning	0.00	0.00		
А	0.00	0.00		
В	0.00	0.00		
С	0.00	0.00		
D	0.00	0.00		
Е	57.75	57.75		



Table 5.2. Chemical Consumption - Babbage Platform 2014 Production

Environmental			Babbage Platform Production Permit - PRA/112							
Indicator	PON15D/775/12/1 Q1		CP/299/0/1 Q2		CP/299/0/1 Q3		CP/299/1/2 Q4			
Chemical HQ or OCNS Category	Used (kg)	Discharged (kg)	Used (kg)	Discharged (kg)	Used (kg)	Discharged (kg)	Used (kg)	Discharged (kg)		
Gold	50.00	25.00	78.75	78.75	26.25	26.25	0.00	0.00		
Silver	5,869.87	0.00	8,731.86	0.00	5,606.91	0.00	6,632.28	0.00		
White	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
SUB Warning	5,869.87	0.00	8,731.86	0.00	5,606.91	0.00	6,632.28	0.00		
Α	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
В	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
С	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
E	5,913.50	3.00	12,435.91	12,435.91	22,244.37	22,233.87	7,199.10	7,105.10		



Table 5.3. Chemical Consumption - Voyageur Spirit FPSO - Huntington Field 2014 Production

Environmental		1	oyageur Spirit	FPSO - Huntington	Field Production	n Permit – PRA 122	2	
Indicator		/3/3/1 Q1	CP/3/5/1 Q2		CP/3/9/1 Q3		CP/3/10/2 Q4	
Chemical HQ or OCNS Category	Used (kg)	Discharged (kg)	Used (kg)	Discharged (kg)	Used (kg)	Discharged (kg)	Used (kg)	Discharged (kg)
Gold	45,063.22	30,057.74	40,494.47	30,216.67	19,854.98	13,113.28	29,849.30	5,825.30
Silver	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
White	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUB Warning	7,441.75	2,325.21	0.00	0.00	0.00	0.00	0.00	0.00
А	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
В	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
С	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D	7,457.15	2,325.21	5,257.98	5,257.98	4,497.21	4,497.21	0.00	0.00
E	6,727.86	5,022.35	8,827.96	8,827.96	4,538.14	4,294.14	7,177.58	7,074.58



Solid Waste Generation and Disposal Methods

Waste on board both *FPSO Voyageur Spirit* (Huntington Field) and the Babbage installation is closely controlled to ensure legal compliance and waste minimisation. Segregation takes place on site before being transferred onshore to disposal or recycling facilities. Waste generated offshore falls into three categories: general industrial waste, special waste and 'other' waste. Waste products generated in 2014 are summarised in Table 5.4.

Table 5.4. Waste Products Generated In 2014

Installation	Category	Reuse (tonnes)	Recycling (tonnes)	Waste to Energy (tonnes)	Incineration (tonnes)	Landfill (tonnes)	Further Treatment (tonnes)
Babbage	Group I - Special	0.000	0.250	22.975	0.000	0.650	0.000
Platform	Group II - General	0.000	1.933	0.000	0.000	7.480	0.000
	Group III - Other	0.000	0.000	0.000	0.000	0.000	0.000
	Total	0.000	2.183	22.975	0.000	8.130	0.000
FPSO Voyageur	Group I - Special	0.000	17.820	0.000	0.000	1.200	16.400
<i>Spirit</i> (Huntington Field)	Group II - General	0.000	29.360	0.000	0.000	35.640	0.000
,	Group III - Other	0.000	0.000	0.000	0.380	0.000	0.200
	Total	0.000	47.180	0.000	0.380	36.840	16.600



Atmospheric Emissions

Atmospheric emissions generated during oil and gas extraction and processing are regulated by the Offshore Combustion Installation (Prevention and Control of Pollution) Regulations 2013. E.On E&P UK participates in the European Union Emissions Trading Scheme (EU ETS) for the Huntington Field, *Voyageur Spirit FPSO*. Atmospheric emissions generated during production on Babbage and Huntington are presented in Table 5.5.

Table 5.5. Atmospheric Emissions from the Babbage and Voyageur Spirit FPSO (Huntington Field) Production Platforms (2014 only)

Environmental	Babbage Platform			Voyageur Spirit FPSO				
Indicator	Fuel Consumption	Venting	Total	Fuel Consumption	Flaring	Total		
Quantity of Gas (tonnes)								
CO ₂	595.20	0.08	595.28	49,714.95	27,375.09	77,458.98		
NOx	11.05	-	11.05	190.29	11.89	202.18		
N ₂ O	0.04	-	0.04	3.82	10.80	4.622		
SO ²	0.27	-	0.27	6.18	00.16	6.3168		
со	2.92	-	2.92	43.86	66.37	110.24		
CH ₄	0.03	2.36	0.03	12.46	127.60	458.27		
VOC	0.37	1.19	0.37	1.65	464.56	51.18		

Nb. Data as reported in the Environmental Emissions Monitoring System (EEMS)

Nb. A total of 0.21 tonnes of CO₂ was generated by Fugitive emissions from the Voyageur Spirit FPSO



Accidental Releases

Under the Merchant Shipping (Oil Pollution Preparedness, Response and Co-operation Conventions) Regulations 1998, all offshore installations must have an approved oil pollution emergency plan (OPEP) in place setting out procedures for responding to oil spills that cause or may cause pollution to the marine environment. The OPEP also sets out prevention and reduction methods that E.On can use to minimise the likelihood and potential impact. In the event of an accidental oil or chemical spill a PON1 must be submitted to DECC. A total of three PON1 submissions were made in 2014. Details are presented in Table 5.6.

Table 5.6. PON1 Submissions in 2014

PON1 Reference No.	Date of Incident	Incident Type (Primary)	Installation	Field/Location	Product Released	Maximum Oil Released (tonnes)	Maximum Chemical Release (kg)	Source
PON1/3477	13/10/14	Chemical Release	FPSO Voyageur Spirit	Huntington Block 22/14	Glassy Long Life Coolant	-	10	Cooling water release from emergency generator radiator during testing.
PON1/3208	20/07/14	Oil Release	Babbage Platform	Babbage Block 48/2	Hydraulic Oil	0.25	-	Hydraulic Oil Release from Crane.
PON1/3399	16/09/14	Oil Release	FPSO Voyageur Spirit	Huntington Block 22/14	Diesel	0.001	-	Small amount of diesel was found to be dripping overboard from an open drain line.



Oil Discharged in Produced Water

Oil in Produced Water (OIW) discharges are regulated in line with the OSPAR Recommendation 2001/1 through the Offshore Petroleum Activities (Oil Pollution Prevention and Control) Regulations 2005 (as amended). The Recommendation expects individual installations to meet monthly average oil in water concentrations of 30 mg/l or less for produced water discharged overboard. Oil in water concentrations are regulated through the permitting process governed by DECC.

E.On E&P UK began discharging produced water overboard from the Babbage platform in October 2013. The total volume of produced water discharged overboard in 2014 was 1,759.28 m³. The associated weight of oil discharged amounted to 0.020 tonnes, with a yearly average OIW content of 25.2 mg/l.

The Huntington field began producing water in September 2014. The aim onboard the *Voyageur Spirit* FPSO was to re-inject all produced water, with an expected minimum Produced Water Re-Injection (PWRI) uptime of 95%, however, re-injection has not been possible due to potential scaling issues with comingling of fluids, identified during laboratory tests. E.On are currently in discussion with DECC regarding an option for 100% discharge of produced water in future. In 2014, a total of 3,776.90 m³ of produced water was discharged overboard. The associated weight of the oil amounted to 0.032 tonnes, with an average OIW content of 9.64 mg/l.

Non-conformances

Seven non-conformances were submitted to DECC in 2014, comprising one per month from January to May, and one in July and October. These were against the Babbage installation for produced water discharges whereby the monthly average OIW exceeded the consented 30mg/l and/or the OIW samples were in excess of 100 mg/l.

6 2014 HSE TARGETS

E.On E&P UK sets out annual HSE objectives and targets for completion throughout the year. HSE Key Performance Indicators (KPIs) are set to monitor progress. The number of offshore environmental incidents i.e. PON1 submissions, decreased from four to three incidents during 2014, meeting the KPI target of less than four. KPI descriptions and associated targets for 2014 are listed in Table 6.1. HSE Targets 2014Table 6.1.

Table 6.1. HSE Targets 2014

KPI Descriptions	Target	Stretch
12 month average Lost Time Incident frequency Rate	<0.8	0
12 month Total Recordable Incident Frequency Rate Corporate Target	<3.4	<3.0
Number of Offshore Environmental Incidents	<4	0
Number of Onshore Environmental Incidents	<8	0
Number of Line Management HSE visits	85%	0
Non Conformance Report actions close out percentage by target date	75%	100%



7 HSEQ PLAN 2015 (OBJECTIVES AND TARGETS)

Table 7.1. Environmental Plan 2015 (Extract from HSEQ Plan 2015)

Topic	Objective	Task
HSEQ Awareness	Assess and review HSE culture and communication pathways	HSEQ Culture Assessment plan developed and implemented
	to enhance awareness	Utilize assessment for gap analysis of awareness needs
		Develop HSEQ communications plan for HSEQ interactions
		Deliver HSEQ critical awareness training based on the gap assessment
HSEQ MS	Development and application of Assurance and Security	Develop and apply HSEQ Assurance standard and plan
	Standards	Develop and apply Security Standard
HSEQ MS	Development of operational	Develop and issue Drilling HSE Manual
	process HSE manuals for increased awareness and standardised application	Develop and issue Non-operated Assets HSE Manual
		Develop and issue Major Projects HSE Manual
		Develop and issue Operated Assets HSE Manual
		Develop and issue Surveys HSE Manual
		Develop and issue Decommissioning HSE Manual
HSEQ Compliance	Review and improve HSEQ Compliance Management	Revise HSEQ compliance management standard
Management Process	Process to be able demonstrate Compliance with regulations and corporate polices and	Confirm and issue PLANC Procedure and confirm use of associated tools
	standards., including roll out of PLANC Procedure and associated tools.	Establish the requirements for compliance management tool and assess options
	מששט של מששט ש	Establish compliance tools and develop compliance management assessment plan

