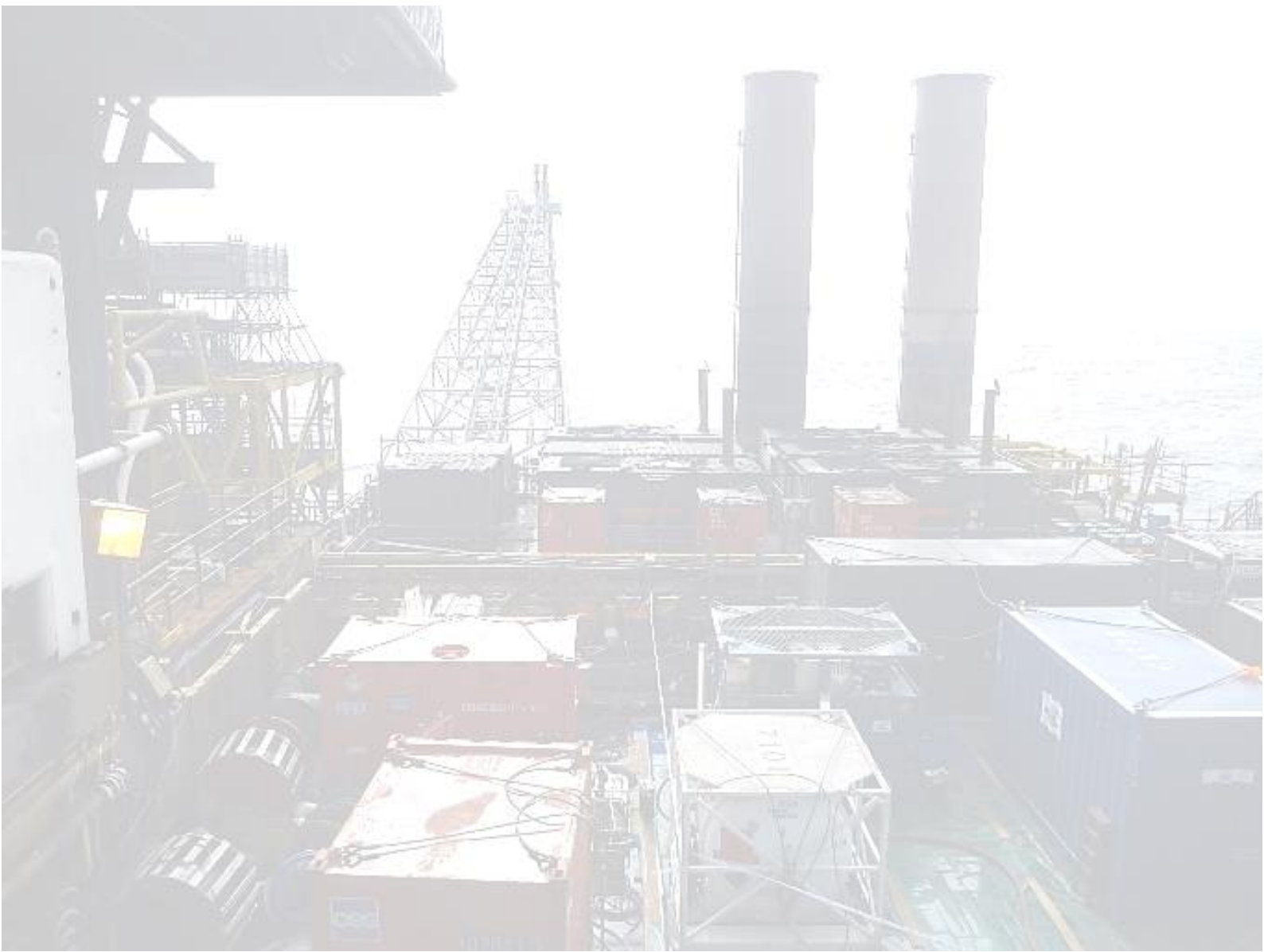




FairfieldEnergy

**2019 Annual
Public Statement
Fairfield Energy Limited**





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1. Environmental Policy

It is the policy of Fairfield Energy Limited (Fairfield) to seek to conduct its business in a responsible manner that prevents pollution and promotes the preservation of the environment.

Fairfield appreciates that our activities can interact with the natural environment in many ways. We recognise that sustained development of Fairfield and our long term success depends upon achieving high standards of environmental performance. We are therefore committed to conducting our undertakings in an environmentally responsible manner.

This means that we will:

- Integrate environmental considerations within our business and ensure that we treat these considerations with at least equal importance to those of productivity and profitability;
- Incorporate environmental risk assessment in our business management processes, and seek opportunities to reduce the environmental impact of our activities;
- Continually improve our environmental management performance;
- Comply with all environmental laws, regulations and standards applicable to our undertakings;
- Allocate necessary resources to implement this policy;
- Communicate openly in matters of the environment with government authorities, industry partners and through public statements.

In particular, we will:

- Maintain an environmental management system in accordance with international best practice and with the BS-EN-ISO 14001:2015 standard, including arrangements for the regular review and audit of our environmental performance;
- Conduct environmental analyses and risk assessments in our areas of operation, in order to ensure that we understand the potential environmental impacts of our activities and that we identify the necessary means for addressing those impacts;
- Manage our emissions according to the principles of Best Available Techniques;
- Publish an annual statement on our public web site, providing a description of our environmental goals and performance;
- Maintain incident and emergency systems in order to provide assessment, response and control of environmental impacts.

Ultimate responsibility for the effective environmental management of our activities rests with the Managing Director and the Board.

This policy shall be implemented by line management through the development and implementation of working practices and procedures that assign clear responsibilities for specific environmental activities with our employees and contractors.

In addition, each of our employees has a personal responsibility to conduct themselves in a manner that enables us to implement this policy and our environmental management system.



John Wiseman
Managing Director

2. Overview

2.1. Background

Fairfield Energy (Fairfield) was established in 2005 and was created specifically as a UK focused independent company to participate in the realignment of North Sea asset ownership in this mature province.

Having concluded that Dunlin had reached the point of maximum economic recovery, particularly in the light of prevailing industry conditions, termination of production from the Greater Dunlin Area was announced by Fairfield on 15th June 2015. Approval for Cessation of Production (CoP) was received from the Oil & Gas Authority (OGA) on 15th January 2016 with CoP confirmed to have occurred on 15th June 2015.

Fairfield is an experienced, late-life asset and decommissioning operator. Our current project is the decommissioning of the Greater Dunlin Area incorporating Osprey and Merlin subsea satellite fields and associated infrastructure.

2.2. Our Operations

The Greater Dunlin Area is located in Blocks 211/23 and 211/24 of the UK Continental Shelf which is in the Brent oil province in the Northern North Sea (NNS). The Dunlin Alpha platform stands some 500km north-northeast of Aberdeen within the East Shetland Basin, and 11 km from the boundary line with Norway.

2.2.1. Dunlin Alpha

The main operations on the Dunlin Alpha platform in 2018 focussed on Plug and Abandonment (P&A) and Make Safe and Handover (MS&H) activities.

All forty five Dunlin platform wells are in the process of being permanently abandoned as part of a large-scale P&A campaign which commenced in January 2016. By the end of 2019, all wells have been worked on since the campaign began of which eighteen have had their conductors removed, thirty seven had been abandoned to Phase 2 status and a further one well had been abandoned to Phase 1 status.

MS&H activities ensure that the topsides are hydrocarbon free in order to safely remove equipment and isolate modules prior to eventual removal. Key MS&H activities undertaken in 2019 included:

- Quikdeck installation;
- Conductor removal utilising Rigless Intervention System (RIS) and conventional Rig;
- Hydrocarbon pipework removal in preparation for Topsides Removal;
- Legs A, B, C & D debris and cut zone clearance;
- Leg inventory and hazardous material removal;

Dunlin Alpha ceased to act as an export hub for crude oil from the Thistle field, with EnQuest successfully installing and testing an alternative export route through the Magnus installation. PL5 and PL13 pipelines, having historically combined production from the Thistle field, Greater Dunlin Area and Murchison field, were successfully flushed and cleaned before disconnection and removal by the Fairfield Subsea Infrastructure Decommissioning Team as per approved Decommissioning Programmes. This flushing and cleaning exercise was completed through the former export route to Cormorant Alpha and on to Sullom Voe.

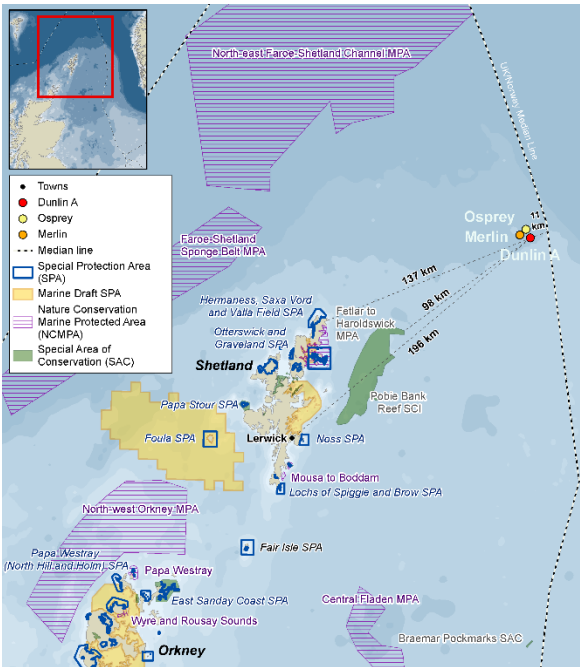
2.2.2.Subsea Well Plug and Abandonment

The ongoing Phase 2 decommissioning of the remaining two Merlin wells was completed at the end of January 2019 and the Phase 3 decommissioning of all 4 Merlin wells on the 6th February, following cut and recovery of all the wellheads. After a period of waiting on weather, the Transocean 712 left the Merlin location on 17th February to demobilise to Invergordon. This work scope concluded the Subsea Well Plug and Abandonment campaign.

2.2.3.Subsea Infrastructure Decommissioning

The execution phase of Subsea Infrastructure Decommissioning (SID) re-commenced in April 2019, concluding for the year in September 2019. During that time the following was achieved:

- Osprey subsea structures were removed and pipeline decommissioning was completed
- Merlin subsea structures were removed and pipeline decommissioning was completed
- Dunlin subsea structures were removed and pipeline decommissioning was completed
- Rock protection installation was completed
- Post decommissioning pipeline surveys and environmental surveys completed



Dunlin Alpha

Location:
196 km north east of Lerwick

Block:
211/23

Water Depth:
151 m

Operator / Duty Holder:
Fairfield Betula Limited

Installation Type:
Four-leg, concrete gravity base multi-cell substructure with a steel box girder based topsides supporting the drilling deck, module deck and lower deck.

Platform Wells:
45

Production Commenced:
August 1978

Production Ceased:
June 2015

Estimated Total Recovery:
522 million barrels

Tie-backs:
The Osprey field is a subsea development located 6 km to the north-north west of the platform. The Merlin field is a subsea development located 7 km to the west-north west of the platform.

- Infrastructure:**
- 8" oil production pipeline from Merlin to Osprey crossover manifold
 - 38" Osprey south production bundle
 - 38"/31.5" Osprey north production bundle
 - 10" water injection pipeline to Osprey
 - 8" water injection pipeline to Merlin
 - 16" oil import pipeline from Thistle Alpha
 - 24" oil export pipeline to Cormorant Alpha
 - 4" fuel gas import line from Thistle Alpha (10.3 km)
 - Dunlin Power Import Cable from Brent Charlie (22.3 km)

3. Environmental Management System

Fairfield has a structured Environmental Management System (EMS) which communicates company policy and establishes the company standards for environmental risk management. The EMS provides a controlled and systematic approach to promoting best practice in environmental management as well as outlining the mechanisms through which compliance is maintained.

The EMS has been developed in accordance with current UK environmental legislation and is certified in accordance with ISO 14001:2015.

Progress against the key objectives / programmes within our 2019 environmental programme is summarised in Table 3.1.

Our 2020 environmental programme continues and builds upon our 2019 programmes and objectives. Specifically for 2020, targets and objectives have been set in the Environmental Management System within the following programmes.

- Achieve recertification of the EMS;
- Audit / Inspection Programme;
- Continued support of the Dunlin Alpha Topsides Delivery Programme;
- Continued support and completion of the PL5 EA Delivery Programme;
- Continual improvement of EMS.

Objective / Programme	Summary of Progress
Audit / Inspection Programme	<p>In line with the Audit / Inspection Programme, Environmental Advisors undertook audits / inspections at Dunlin Alpha and an audit of our Waste Management on Dunlin was conducted by a third party in November 2019.</p> <p>Monthly platform-wide and weekly drilling package environmental inspections were undertaken on Dunlin Alpha throughout the year.</p> <p>A third party audit of Peterson-Veolia was also undertaken to review Subsea Infrastructure Decommissioning reporting requirements and verify Environmental Accounting Report information against items recovered during 2019 operations..</p>
Dunlin Alpha Topsides Environmental Appraisal	<p>The Dunlin Alpha Topsides Decommissioning Programme was submitted in 2019 following the decision to split the topsides and substructure decommissioning programmes</p> <p>An environmental appraisal (EA) was undertaken and submitted in support of the Dunlin Alpha Topsides Decommissioning Programme addressing comments raised during the consultation process.</p>
SID/PL5 Programme	<ul style="list-style-type: none"> • The SID programme was completed operationally in Q4 2019 and is awaiting final close out report issue to the regulator • The PL5 decommissioning programme was started with pipeline infrastructure and debris removal completed in Q3/Q4 2019
Continual Improvement of the EMS	<p>Highlights for the year include:</p> <ul style="list-style-type: none"> • Recertification of the EMS under BEN ISO 14001:2015 • Successful completion of the Subsea Infrastructure Decommissioning Waste Management Plan; • Gap analysis undertaken to determine steps required to integrate EMS with wider Health and Safety management systems.

Table 3.1 – 2019 Key Objectives and Summary of Progress

4. Environmental Performance

Given the nature of Fairfield's operations during 2019, the potential for significant environmental impact arose from:

- atmospheric emissions from power generation;
- chemical use and discharge;
- waste; and
- accidental releases.

The environmental performance of Fairfield's operations in 2019 are summarised in the sections that follow, and has been reported to the Department for Business, Energy & Industrial Strategy (BEIS) via the UK Environmental Emissions Monitoring System (EEMS).

4.1. Atmospheric Emissions

Atmospheric emissions from the Dunlin Alpha are derived from the generation of power required to support well plug and abandonment operations, as well as making the topsides safe prior to removal.

In 2019, 100% of the power generated by Dunlin was from diesel combustion, as fuel gas is no longer available and power is no longer imported from the Brent Charlie installation. In total, approximately 17,000 MWhrs of power was generated in support of decommissioning operations.

A summary of the atmospheric emissions generated from the Dunlin Alpha in 2019 is given below.

Emissions in tonnes	CO ₂	NO _x	N ₂ O	SO _x *	CO	CH ₄	VOC
Power Generation	13440.0	249.0	1.0	8.0	66.0	1.0	8.4
Venting	0.42	0	0	0	0	1.4	1.4
Total	13440.42	249.0	1.0	8.0	66.0	2.4	9.8

*Diesel used for power generation has 0.1% sulphur content.

Table 4.1 – Summary of Atmospheric Emissions Generated From Dunlin Alpha in 2019.

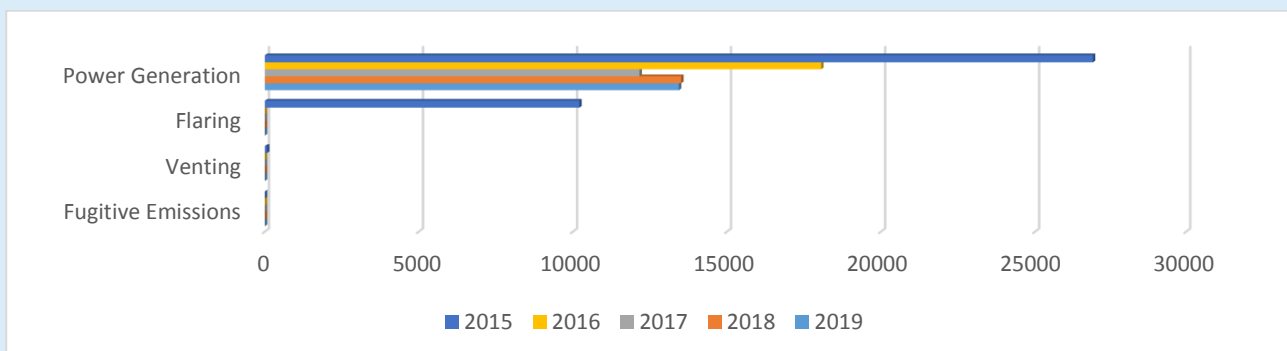


Figure 1 – CO₂ Discharges (mT) by Source

4.2. Accidental Releases

The prevention of oil and chemical releases is of the highest priority during Fairfield operations, and consequently we maintain procedures, training and awareness campaigns in order to minimise the risk of release and to ensure a rapid response to any such event.

Oil and chemical release incidents are reported to BEIS in accordance with the Petroleum Operations Notice 1 (PON1) system. Fairfield was responsible for the occurrence of nine such incidents in 2019, a summary of which is provided in Table 4.2 below.

Reference	Date	Nature of Incident	Type of Spill	Estimated Maximum Quantity Released (kg)	Location
PON1/8327	06/04/2019	Hydraulic hose within West Crane engine compartment ruptured and hydraulic oil was lost from the system.	Oil	0.5	Dunlin
PON1/8385	26/04/2019	Drain gully blocked during operation resulting in maximum 27.5 litres of crude overflowing to sea.	Oil	23.0	Dunlin
PON1/8388	27/04/2019	Small sheen observed during mattress recovery within Dunlin 500m zone	Oil	4.23	Subsea Ops
PON1/8445	14/05/2019	Release of synthetic hydraulic fluid from the hydraulic pressure umbilical used to function the Mass Flow Excavator (MFE) tool	Chemical	27.6	Subsea Ops
PON1/8770	22/08/2019	Historical rapeseed oil released during conductor removal operations.	Chemical	18.0	Dunlin
PON1/8932	09/10/2019	Hydraulic oil leak from damaged seal on Work Class ROV within Dunlin 500m zone	Oil	0.04	Subsea Ops
PON1/8957	15/10/2019	Hydraulic Oil leak from fitting on diamond wire cutting system deployed in Dunlin field	Oil	21.25	Subsea Ops
PON1/8999	27/10/2019	Failure of hydraulic fitting on UCS track saw	Oil	81.0	Dunlin
PON1/9149	17/12/2019	Loss of containment during wireline operations to bleed down the lubricator.	Oil	8.73	Dunlin

Table 4.2 – 2019 Oil and Chemical Release Incidents



4.3. Waste

In total, 6,551 tonnes of waste was generated during 2019. Of this figure 89.1% was reused or recycled. A significant quantity of the total waste generated, 4,165 tonnes, was generated on Dunlin Alpha with a large proportion of that being generated by Wells Plug & Abandonment activities.

Well plug and abandonment operations undertaken by the Transocean 712 generated 916 tonnes of waste and 98% of this total figure was reused or recycled.

Subsea Infrastructure Decommissioning and PL5 Decommissioning activities generated 1,468 tonnes of waste with 71% of that total being either reused or recycled. The landfill total of these wastes was largely bulk wastes with no reuse or recycling options available.

Waste (tonnes)	Reused / Recycled (%)	Landfill (%)
6,551	89.1	10.9

Table 4.3 – Fate of Waste Generated from Fairfield Operations in 2019

4.4. Chemical Use and Discharge

Offshore use and discharge of operational chemicals is regulated by the Offshore Chemical Regulations 2002 (as amended), where the word “chemicals” refers to fully formulated products used offshore, whether these are comprised of one or more distinct chemical substances. Such chemicals must appear on both the Centre for Environment, Fisheries and Aquaculture Science (CEFAS) Definitive Ranked Lists of Registered Products and on the relevant Chemical Permit application.

All chemicals are tested and classified by CEFAS according to their potential to cause harm. The assessment relates to a combination of the rate of biodegradation, toxicity and potential to bio-accumulate. Environmental data are provided below according to those which are:

- Environmentally benign i.e. labelled as **Pose Little Or NO Risk (PLONOR)**;
- Low risk i.e. listed in the CEFAS lowest risk categories ('E' or 'Gold' (excluding PLONOR));
- Higher risk i.e. listed in the CEFAS higher risk categories.

Products identified by CEFAS as containing chemicals marked for substitution with a more environmentally friendly alternative are flagged with a “SUB” warning. Use and discharge of such chemicals is included in the following sections.

As previously stated, production at Dunlin Alpha was ceased in June 2015 which means the use of chemicals relating to production operations has now ceased.

Fairfield continually work with chemical suppliers to evaluate the potential environmental hazards of chemicals used, and to select less hazardous alternatives where practicable.

**4.4.1.Wells Activities (DRA, WIA)
Chemical Use and Discharge**

In 2019, Fairfield used approximately 3,181 tonnes of chemicals during Wells Activities. This figure represents a significant reduction from 2018 (7,393 tonnes) with the completion of the Merlin subsea well plug and abandonment campaign and continued well plug and abandonment operations at Dunlin. Of the total amount of chemicals used for wells activities, around 13.4% were discharged to the marine environment, showing a slight reduction from the previous year. This can mainly be attributed to the nature of operations at Merlin – the discharge figure for Dunlin well plug and abandonment activities alone was 2.79%.

In terms of environmental performance, 98% of chemicals discharged during 2019 were "E" or "Gold" category chemicals. 93% of chemicals used and discharged during the year were classified "PLONOR". "SUB" chemical usage accounted for approximately 1% of all chemical usage and 0.00005% of all chemical discharge during well operations at Dunlin Alpha in 2019.

Products by CEFAS Classification	2019 Chemical Use / Discharge (kg)	
	Use	Discharge
A	0.00	0.00
B	0.00	0.00
C	104,756.00	0.00
D	13,720.00	8,022.00
E	2,902,267.73	402,278.52
Purple	0.00	0.00
Orange	0.00	0.00
Blue	0.00	0.00
White	0.00	0.00
Silver	0.00	0.00
Gold	160,640.06	18,257.83
Total	3,181,383.79	428,558.35

Table 4.4 – 2019 Wells Activities Chemical Use / Discharge by CEFAS Classification

Chemical Label Code	2019 Chemical Use / Discharge (kg)	
	Use	Discharge
PLONOR	2,896,513.12	402,274.88
SUB	4,536.53	0.22

Table 4.5 – 2019 Wells Activities PLONOR / SUB Chemical Use / Discharge

4.4.2 Pipeline Activities (PLA) Chemical Use and Discharge

In 2019, Fairfield used approximately 1.2 tonnes of chemicals during Pipeline activities. These operations were centred on the decommissioning of the Merlin, Osprey and PL5 pipelines and as a result have a higher discharge to sea than usage. During these activities approximately 4.4 tonnes of chemicals were discharged to the marine environment.

In terms of environmental performance around 65% of all legacy chemicals discharged to the marine environment carried either an “E” or “Gold” CEFAS classification with the remaining 35% being accounted for carrying “White” or “Silver” CEFAS classifications.

Of those chemicals discharged during all Pipeline activities in 2019 approximately 37% were classified “PLONOR” and only 0.00016% were classified as “SUB” chemicals.

Products by CEFAS Classification	2019 Chemical Use / Discharge (kg)	
	Use	Discharge
A	0.00	0.00
B	0.00	0.00
C	0.00	0.00
D	14.22	0.00
E	1,203.55	1,916.09
Purple	0.00	0.00
Orange	0.00	0.00
Blue	0.00	0.00
White	0.00	1,562.85
Silver	0.00	2.14
Gold	0.15	929.10
Total	1,217.92	4,410.18

Table 4.6 – 2019 Pipeline Activities Chemical Use / Discharge by CEFAS Classification

Chemical Label Code	2019 Chemical Use / Discharge (kg)	
	Use	Discharge
PLONOR	250.55	1,649.31
SUB	0.00	0.70

Table 4.7 – 2019 Pipeline Activities PLONOR / SUB Chemical Use / Discharge

4.4.3 Decommissioning Activities (DCA) Chemical Use and Discharge

In 2019, Fairfield used approximately 0.341 tonnes of chemicals during Make Safe and Handover (MS&H) activities. This is down on the figure for 2018 (2.52 tonnes) with chemical usage in 2019 coming from platform cleaning operations. Of the total amount of MS&H chemicals used, 100% were discharged to the marine environment.

In terms of environmental performance, 100% of chemicals discharged during 2019 were "Gold" category chemicals. No "SUB" chemicals were used or discharged during make safe and handover operations at Dunlin Alpha in 2019.

Products by CEFAS Classification	2019 Chemical Use / Discharge (kg)	
	Use	Discharge
A	0.00	0.00
B	0.00	0.00
C	0.00	0.00
D	0.00	0.00
E	0.00	0.00
Purple	0.00	0.00
Orange	0.00	0.00
Blue	0.00	0.00
White	0.00	0.00
Silver	0.00	0.00
Gold	341.00	341.00
Total	341.00	341.00

Table 4.8 – 2019 Decommissioning Activities Chemical Use / Discharge by CEFAS Classification



	2019 Chemical Use / Discharge (kg)	
	Use	Discharge
PLONOR	0.00	0.00
SUB	0.00	0.00

Table 4.9 – 2018 Decommissioning Activities SUB Chemical Use / Discharge

4.4.4 2019 Chemical Use and Discharge: Aggregated Assessment

Combined, Fairfield operations used around 3,183 mT of chemicals during 2019. Of this figure, around 13% of chemicals were discharged to the marine environment.

In terms of overall environmental performance for operational chemical use and discharge, over 97% of chemicals used and discharged during 2019 were "E" or "Gold" category chemicals. Furthermore, "SUB" chemicals accounted for less than 1% of chemicals used during the year. Over 91% of chemicals used and 93% of chemicals discharged during the year were classified "PLONOR".



Products by CEFAS Classification	2019 Chemical Use / Discharge (kg)	
	Use	Discharge
A	0.00	0.00
B	0.00	0.00
C	104,756.00	0.00
D	13,734.00	8,022.00
E	2,903,471.28	404,194.61
Purple	0.00	0.00
Orange	0.00	0.00
Blue	0.00	0.00
White	0.00	1,562.85
Silver	0.00	2.14
Gold	160,981.21	19,527.93
Total	3,182,942.71	433,309.53

Table 4.10 – 2019 Aggregated Chemical Use / Discharge by CEFAS Classification

	2019 Chemical Use / Discharge (kg)	
	Use	Discharge
PLONOR	2,896,763.68	403,924.19
SUB	4,536.53	0.92

Table 4.11 – 2019 Aggregated PLONOR / SUB Chemical Use / Discharge

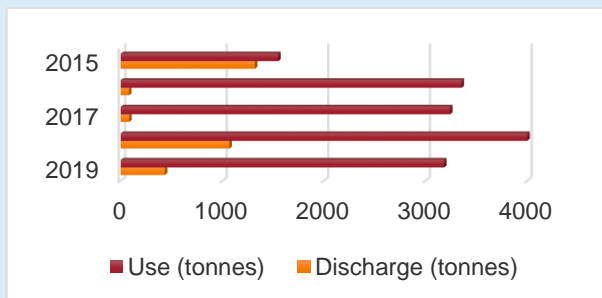


Figure 2 – Annual Chemical Use and Discharge

