

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Perenco UK Limited

Wytch Farm Oilfield, Gathering Station and Wellsites
Thrasher's Lane
Corfe Castle
Wareham
Dorset
BH20 5JR

Variation application number

EPR/NP3730CZ/V006

Permit number

EPR/NP3730CZ

Wytch Farm Oilfield, Gathering Station and Wellsites Permit number EPR/NP3730CZ

Introductory note

This introductory note does not form a part of the permit

Under the Environmental Permitting (England & Wales) Regulations 2016 (Schedule 5, Part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

Schedule 1 of the notice specifies the conditions that have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made.

All the conditions of the permit have been varied and are subject to the right of appeal.

This variation is to add or vary-

1. The installation activities. These activities on site haven't changed but the regulation of them under the Environmental Permitting Regulations now includes four separately listed activities and seven Directly Associated Activities (DAAs), including flaring for emergency purposes only. The main installation listed activities are for: oil storage and handling, refining gas, odourising gas, and burning fuel in a turbine (less than 50MW thermal input), under Part 2 Schedules 1.1 and 1.2 of the Environmental Permitting (England and Wales) Regulations 2016. There are also four discharges of site surface water to surface water which are not standalone water discharges and are DAAs of the main installation activity.
2. The existing permitted activities for mining waste operations including a Category A mining waste facility as defined by the Mining Waste Directive and Schedule 20 of the Environmental Permitting (England and Wales) Regulations 2016 as amended. These activities have been reassessed under this permit review and variation. As a result the Category A mining waste facility status has been removed, and the activities authorised by this permit variation now fully reflect the site activities. These include an underground non-hazardous mining waste facility for historic deposit of water based muds, and for spent (hydrochloric) acid used in reinjection wells which is not fully recovered from the Frome Clay Limestone reservoir. There is also an above ground mining waste operation and hazardous waste facility for treatment and storage of oily wastes from system 63 at the Gathering Station. This facility has an associated financial provision agreement in place for temporary storage of hazardous waste (condition 1.1.5). The mining waste activities are regulated under the permit conditions and approved Waste Management Plan which is an operating technique in table S1.2 of this permit.
3. Groundwater activities, as defined by the Groundwater Directive and Schedule 22 of the Environmental Permitting (England and Wales) Regulations 2016 as amended for existing site activities. These include nine groundwater activities for reinjection of produced water for production support, eight groundwater activities for the use of acid for well stimulation and four groundwater activities for discharges of site surface water to ground via soakaway. A number of soakaways are no longer used at five well sites, and will be de-commissioned, with the collected site surface water collected, treated and used to supplement reinjection of produced water. The groundwater activities are regulated under the permit conditions, and approved Hydrogeological Risk Assessment, which is an operating technique under table S1.2 of this permit. The acid stimulation activities are subject to a pre-operational condition (PO 01) for approval of an acid stimulation plan submitted by the operator, prior to these taking place. Well maintenance treatments have also been assessed and registered in accordance with the groundwater activity exclusion paragraph 3(3)(b) Schedule 22 to the Environmental Permitting Regulations 2016.

There are no other changes to the permit. The original permit was issued for:

Perenco UK Limited, 'the operator', holds a number of permits (within differing environmental regimes) for 'Wytch Farm' Installation, which is an on-shore crude oil extraction process (encompassing a number of individual wellsites connected via 'in-field' pipelines). There are 14 sites under this permit, including 11 wellsites with 70 production wells and 37 reinjection wells into 3 reservoirs: The Frome Clay Limestone, Sherwood Sandstone and Bridport Sandstone Formations.

Production activities in the Wytch Farm area include the Gathering Station, wellsites A, 2B, X, D, F, G, K, L, M, Wareham C, Wareham D, Cleavel Point and Furzebrook. The main activities are summarised below:

Table 1: Main Activities

Site Name / Reference	Site Location (Grid Ref)	Description of process and activities	Emissions
Gathering Station	NGR SY 975 850	2 x 17.7MW Gas turbines with waste heat recovery unit (27MW) Emergency Flare (low temperature, low pressure and high pressure) gas odourisation, hydrochloric acid storage tank, nitrogen system, produced water storage tank, system 63 (oily water/sludge separation) system 51 (oil water separation) storm water discharge to Wytch Lake	Combustion NOx & CO
			Site rain water run off (emergency only) to Wytch Lake
Furzebrook	NGR SY 930 841	Site office, old rail terminal, no production activities	No emissions
Well Site A	NGR SY 989 855	8 producing wells, 5 reinjection wells (2 into Sherwood Sandstone Formation and 3 into Bridport Sandstone Formation) 1 site surface water discharge to Fittsworth Copse Stream Oily water collection system Acid Stimulation of production wells in Cornbrash and Forest Marble Limestone Formation	Produced water reinjection Site surface rain water run off to Fittsworth Copse Stream
Well Site 2B	NGR SY 973 853	0 producing wells, 5 reinjection wells (3 into Sherwood Sandstone Formation and 2 into Bridport Sandstone Formation) 1 site surface discharge to soakaway	Produced water reinjection Site rain water run off to ground via soakaway
Well Site D	NGR SY 995 856	3 producing wells, 1 reinjection well (into Bridport Sandstone Formation) Oily water collection system 1 site surface water discharge to Claywell stream Acid Stimulation of production wells in Cornbrash and Forest Marble Limestone Formation	Produced water reinjection Site rain water run off to Claywell stream
Well Site F	NGR SZ 010 857	16 production wells, 6 reinjection wells (5 into Sherwood Sandstone Formation and 1 into Bridport Sandstone Formation) 1 soakaway to be decommissioned Acid Stimulation of production wells in Cornbrash and Forest Marble Limestone and Frome Clay Limestone Formations	Produced water and site rain water run off collected for reinjection
Well Site G – Arne	NGR SY 957 870	3 producing wells, 1 reinjection well (into the Bridport Sandstone Formation) 1 soakaway to be decommissioned Acid Stimulation of a production well in Cornbrash and Forest Marble Limestone Formation	Produced water and site rain water run off collected for reinjection
Well Site K – Furzey Island	NGR SZ 010 870	6 producing wells, 8 reinjection wells (2 into Bridport Sandstone Formation, 3 into Sherwood Sandstone Formation and 3 into Frome Clay Limestone Formation) Oily water collection system 3 soakaways to be decommissioned Acid Stimulation of production and re-injection wells in the Frome Clay Limestone Formations	Produced water and site rain water run off collected for reinjection
Well Site L – Furzey Island	NGR SZ 011 870	7 producing wells, 5 reinjection wells (3 into Sherwood Sandstone Formation and 2 into Frome Clay Limestone Formation) 4 soakaways to be decommissioned	Produced water and site rain water run off collected for reinjection

		Acid Stimulation of production wells in Frome Clay Limestone Formation	
Well Site M	NGR SZ 010 859	12 producing wells, 6 reinjection wells (5 into Sherwood Sandstone Formation and 1 into Frome Clay Limestone Formation) 1 soakaway to be decommissioned Acid Stimulation of a production well and re-injection wells in Frome Clay Limestone Formation	Produced water and site rain water run off collected for reinjection
Well Site X	NGR SY 980 852	3 producing wells, no reinjection wells Oily water collection system 1 site surface discharge to ground Acid Stimulation of production wells in Cornbrash and Forest Marble Limestone Formation	Site rain water run off to ground via soakaway
Wareham C	NGR SY 905 872	8 producing wells, no reinjection wells 1 site surface discharge to ground Acid Stimulation of production wells in Cornbrash and Forest Marble Limestone Formation	Site rain water run off to ground via soakaway
Wareham D	NGR SY 897 875	5 producing wells, no reinjection wells 1 site surface discharge to ground Acid Stimulation of production wells in Cornbrash and Forest Marble Limestone Formation	Site rain water run off to ground via soakaway
Cleavel Point	NGR SZ 002 860	Seawater abstraction and treatment prior to use for reinjection	Continuous backwash discharge to Poole Harbour

There are 9 inactive wells, 7 of which are abandoned and 2 which are currently suspended. These are listed below. In addition, Wellsite B1 was decommissioned and restored in 2000 and doesn't form part of this permit.

Table 2: suspended and abandoned wells

Well site	Well reference	Status
Well Site M	Well 1M-18, 1M-19	Suspended wells
Well Site 2B	Well 2B-06SI, 2B-07SI	Abandoned except for wellhead
Wellsite F	Well 1F-03BP	Abandoned except for wellhead
Wareham C	Well WC-02	Fully abandoned
Well Site 1B	Well 1B-01, 1B-02, 1B-03	Abandoned. Site decommissioned and restored in 2000. Not part of the permit

The Installation is located between Wareham and Swanage in an area of outstanding natural beauty and close to a number of Natura 2000 habitat sites comprising Special Protection Areas (SPA), Special Areas of Conservation (SAC) Ramsar, and Special Sites of Scientific Interest (SSSI). The installation is also close to the Jurassic Coast World Heritage Site.

Crude oil is extracted from several geological reservoirs at eleven well-sites (Wellsites A, 2B, D, F, Arne G, K, L, M, X, Wareham C (WC) and Wareham D (WD)) and transferred to the main Gathering Station via underground pipelines. Production is declining, but currently in the range of 14,000 barrels of oil equivalent per day. The crude oil is stabilised prior to distribution to the Hamble Oil Terminal via a 90km pipeline (not included within the extent of this Installation) for further refining. During stabilisation, produced water and gas are extracted. Gas is refined to produce:

- fuel gas, which is used within the two gas turbines located at the Gathering Station for heating and electricity generation,
- liquid petroleum gas (LPG), which is odourised and distributed by road tanker to customers, and
- a methane rich sales gas, which is odourised and passed to the national grid system.

Table S1.1 details the activities carried out.

- Activity AR1 concerns scheduled activity section 1.2 Part A(1)(a) for refining gas of Part 2, Chapter 1 of 'The Environmental Permitting (England & Wales) Regulations 2016'.
- Activity AR2 concerns scheduled activity section 1.2 Part A(1)(e)(i) for the collection and stabilisation of crude oil of Part 2, Chapter 1 of 'The Environmental Permitting (England & Wales) Regulations 2016'.
- Activity AR3 concerns scheduled activity section 1.2 Part B(a) for odourising gas of Part 2, Chapter 1 of 'The Environmental Permitting (England & Wales) Regulations 2016'.
- Activity AR4 concerns scheduled activity section 1.2 Part A(1)(a) for burning fuel in an appliance <50MW of Part 2, Chapter 1 of 'The Environmental Permitting (England & Wales) Regulations 2016'.
- Activities AR5 – AR15 concern Directly Associated Activities associated to listed activities AR1 – AR4 above, including site discharges to surface water.
- Activity AR16 concerns the management of extractive waste covered by a 'underground non-hazardous Mining Waste Facility and above ground hazardous Mining Waste Facility'.
- Activities AR17-AR25 concerns the re-injection of produced water as a groundwater activity.
- Activities AR26- A33 concerns the use of acid for well stimulation in production and re-injection boreholes as a groundwater activity
- Activities A34-A37 concerns the discharge of site surface water to ground via soakaway as a groundwater activity.

The main sources of emissions to air are from the flare (used for emergency and maintenance only) and 2 gas turbines (total 36 MWth input) via the waste heat recovery unit at the Gathering Station. Key emissions are nitrous oxides, carbon monoxide and carbon dioxide. Emissions from flaring are mitigated through operational control to minimise flaring. Emissions of nitrous oxides from the turbines are mitigated through the use of water injection. Other smaller point sources of air emissions include vents from storage tanks containing odourant and hydrochloric acid. Emissions are mitigated from these sources through the use of filters and scrubbers.

There are four discharges to surface waters, however only one would operate continuously, this being the backwash from the seawater abstraction points. All other releases to water are sampled and analysed to ensure limits are met prior to any discharge.

There are a number of discharges to groundwater. These include nine groundwater activities for reinjection of produced water for production support. The produced water is re-injected into the three reservoirs in order to support the reservoir pressure so that further oil can be extracted. Reservoir pressure is also supported through injection of abstracted seawater; abstraction occurs at one location within Poole Harbour.

There are eight groundwater activities for the use of acid for well stimulation. The acid is injected at the fracture pressure of the formation to create fractures which connect to the existing natural fracture network in the oil reservoir. The use of acid for stimulation of production and re-injection wells is controlled by the Hydrogeological Risk Assessment, Acid Stimulation Risk Assessment and the acid stimulation plan required under pre-operational condition PO 01. These documents are operating techniques under the permit.

There are four discharges to soakaway of site surface water from the wellsites. These are all sampled and analysed to ensure limits are met prior to discharge. The remaining soakaways at the other five wellsites from the previous permit are no longer in operation, with surface drainage being collected, treated and used to supplement the reinjection of produced water. An improvement condition (IC9) has been included under this variation to ensure these are all decommissioned and will not present a future pollution pathway risk.

The site was previously permitted as a Category A mining waste facility for disposal of hazardous wastes from oil production activities as part of an earlier permit variation. Although permitted as a Category A facility since 2011, there have been no deposit of extractive wastes that meet this classification, and as part of this permit review and variation we have re-assessed the extent of the mining waste facilities and activities undertaken. We have re-defined them under this permit variation as an underground non-hazardous facility for historic deposit of water based muds in 2013, and non-hazardous spent acids (hydrochloric) used in reinjection wells which are not fully recovered from the Frome Clay Limestone reservoir. There is also an above ground mining waste operation and hazardous waste facility for treatment and storage of oily wastes from system 63 at the Gathering Station. System 63 receives rainwater and brines (seawater) contaminated with oil along with solids, with trace chemicals for processing and separation. This facility has an associated financial provision agreement in place for temporary storage of hazardous waste (condition 1.1.5). All the extractive wastes associated with oil production (including operational wastes, well workovers, maintenance, decommissioning, well stimulation and cleaning) are regulated under the permit conditions (Activity AR16 of Table S1.1) and the approved Waste Management Plan, which is an operating technique under table S1.2.

Previous changes as a result of past variations include:

Variation EPR/NP3730CZ/V003 was issued on 30/05/2013 to reflect the implementation of the Industrial Emissions Directive into England and Wales.

Variation EPR/NP3730CZ/V004, issued on 11/03/2014, incorporated a number of changes including minor amendment to Table S1.1, the removal of the Emission Limit Value (ELV) for carbon monoxide from emission point A3 and amendments to the ELV for chloride from emission points W3 and W5.

The last variation EPR/NP3730CZ/V005, issued on 02/08/2017, incorporated a number of changes as a result of the refineries sector review.

This variation was carried out under an onshore oil and gas sector review. All activities are consolidated into this variation with the exception of radioactive substances which has also been varied under this review and any water abstraction activities which are authorised under separate standalone permits.

The schedules specify the changes made to the permit.

The status log of a permit sets out the permitting history, including any changes to the permit reference number.

Status log of the permit		
Description	Date	Comments
Application received EPR/CP3039MV/A001	Duly made 28/09/2006	
Additional information received	30/11/2006	Modelling
Additional information received	13/12/2006	H1 and modelling
Additional information received	06/11/2006	System 51
Additional information received	31/03/2007	Relief valves
Additional information received	03/04/2007	Groundwater, ambient noise, monitoring and sample locations
Additional information received	14/05/2007	Sea water abstraction at Cleavel Point
Additional information received	31/08/2007	Air quality monitoring
Additional information received	23/08/2007	Nitrogen purge
Permit determined EPR/CP3039MV/A001	27/09/2007	

Status log of the permit		
Description	Date	Comments
Transfer application EPR/NP3730CZ/T001	Duly made 08/02/2012	Full transfer of permit from BP Exploration Operating Company Limited to Perenco UK Limited.
Transfer issued EPR/NP3730CZ/T001	01/03/2012	Full transfer of permit complete.
Variation application EPR/NP3730CZ/V002	Duly made 01/03/2012	Application to vary and update the permit to modern conditions, and consolidation with permit B.
Variation issued EPR/NP3730CZ/V002	16/05/2012	Varied and consolidated permit issued in modern condition format.
Environment Agency initiated variation EPR/NP3730CZ/V003	30/05/2013	Agency variation to implement changes introduced by the Industrial Emissions Directive (IED).
Variation application EPR/NP3730CZ/V004	Duly made 25/02/2014	Application to remove ELV for CO at emission point ref A3, and increase chloride ELV at emission point ref W5.
Variation determined EPR/NP3730CZ/V004	11/03/2014	Varied permit issued.
Regulation 60 Notice sent to the Operator	08/04/2015	Issue of a Notice under Regulation 60(1) of the Environmental Permitting Regulations 2010 for review of onshore oil and gas facilities permitted prior to 2013.
Regulation 60 Notice response.	29/06/2015	Response received from the Operator (Oil and Gas Sector Review).
Regulation 60 Notice sent to the Operator	05/11/2015	Issue of a Notice under Regulation 60(1) of the EPR. Environment Agency initiated review and variation to vary the permit under IED to implement Chapter II following the publication of the revised Best Available Techniques (BAT) Reference Document for the Refining of Mineral Oil and Gas.
Regulation 60 Notice response.	29/01/2016	Response received from the Operator (Refineries review).
Variation determined EPR/NP3730CZ/V005 (PAS Billing ref: XP3637RS)	02/08/2017	Varied and consolidated permit issued (under Refineries Sector review) Effective from 02/08/17
Application EPR/NP3730CZ/V006(variation and consolidation)	Duly made 11/07/2017	Application documents supplied to vary the Installation and mining waste operation activities, add groundwater activities and update the permit to modern conditions.
Additional information received in response to a schedule 5 notices dated 20/10/2017 and 20/02/2019, further requests for information and draft permit operator comments/responses.	31/08/2018 09/07/2018 18/08/2017 08/04/2019 11/09/2019 29/10/2019 20/12/2019 15/01/2020 24/03/2020 29/05/2020 30/06/2020	Additional information in response to the schedule 5 notices and final documents listed in the operating techniques including: gap analysis report, revised Hydrogeological Risk Assessment (May 2020), revised Waste Management Plan (Rev 6, May 2020) and revised Acid Stimulation Risk Assessment (June 2020)
Variation determined EPR/NP3730CZ/V006 [PAS Billing ref. YP3939YD EAMWL: 104409]	30/06/2020	Varied and consolidated permit issued in modern condition format.

Other permits relating to this installation		
Operator	Permit number	Date of issue
Perenco UK Limited – Kimmeridge Wellsite (Previously operated by BP Exploration Operating Company Limited under permit number FP3039MR – prior to site transfer)	EPR/ZP3230CE	01/03/2012 variation 22/01/2019
Perenco UK Limited	Bespoke radioactive substances permit for NORM wastes from oil and gas production EPR/VB3433DJ	07/12/2017
Perenco UK Limited	EU ETS permit: UK-E-IN-12064	
Perenco UK Limited	COMAH Authorisation under COMAH regulations 2015 (Regulated by HSE and EA)	Last notification 04/04/2016

End of introductory note.

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2016

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2016 varies and consolidates

Permit number

EPR/NP3730CZ

Issued to

Perenco UK Limited (“the operator”),

whose registered office is

8 Hanover Square

London

W1S 1HQ

company registration number 04653066

to operate an installation and a mining waste operation (including a non-hazardous underground facility and hazardous above ground facility) and groundwater activities at

Wytch Farm Oilfield, Gathering Station and Wellsites

Thrasher's Lane

Corfe Castle

Wareham

Dorset

BH20 5JR

Gathering Station	(NGR SY 975 850)
Furzebrook	(NGR SY 930 841)
Well Site A	(NGR SY 989 855)
Well Site 2B	(NGR SY 973 853)
Well Site D – Wytch Farm	(NGR SY 995 856)
Well Site F	(NGR SZ 010 857)
Well Site G – Arne	(NGR SY 957 870)
Well Site K – Furzey Island	(NGR SZ 010 870)
Well Site L – Furzey Island	(NGR SZ 011 870)
Well Site M	(NGR SZ 010 859)
Well Site X	(NGR SY 980 852)
Wareham C	(NGR SY 905 872)
Wareham D	(NGR SY 897 875)
Cleavel Point	(NGR SZ 002 860)

to the extent set out in the schedules.

The notice shall take effect from 30/06/2020

Name	Date
Permitting Team Leader	30/06/2020

Authorised on behalf of the Environment Agency.

Schedule 1

All conditions have been varied by the consolidated permit as a result of an Environment Agency initiated variation, and as a result of the application made by the operator.

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/NP3730CZ

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/NP3730CZ/V006 authorising,

Perenco UK Limited (“the operator”),

whose registered office is

8 Hanover Square

London

W1S 1HQ

company registration number 04653066

to operate an installation and a mining waste operation (including a non-hazardous underground facility and hazardous above ground facility) and groundwater activities at

Wytch Farm Oilfield, Gathering Station and Wellsites

Thrasher's Lane

Corfe Castle

Wareham

Dorset

BH20 5JR

Gathering Station	(NGR SY 975 850)
Furzebrook	(NGR SY 930 841)
Well Site A	(NGR SY 989 855)
Well Site 2B	(NGR SY 973 853)
Well Site D – Wytch Farm	(NGR SY 995 856)
Well Site F	(NGR SZ 010 857)
Well Site G – Arne	(NGR SY 957 870)
Well Site K – Furzey Island	(NGR SZ 010 870)
Well Site L – Furzey Island	(NGR SZ 011 870)
Well Site M	(NGR SZ 010 859)
Well Site X	(NGR SY 980 852)
Wareham C	(NGR SY 905 872)
Wareham D	(NGR SY 897 875)
Cleavel Point	(NGR SZ 002 860)

to the extent authorised by and subject to the conditions of this permit.

Name	Date
Permitting Team Leader	30/06/2020

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

- 1.1.1 The operator shall manage and operate the activities:
- (a) in accordance with a written management system that identifies and minimises risks of pollution, so far as is practicable, including those risks arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
 - (b) using sufficient competent persons and resources.
- 1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of the permit.
- 1.1.4 For the activity referenced A16 in schedule 1, table S1.1, the operator shall not start the closure of the mining waste facility unless agreed in writing by the Environment Agency.
- 1.1.5 The financial provision for meeting the obligations under this permit set out in the agreement dated 30/06/2020 made between the operator and the Environment Agency shall be maintained by the operator whilst there is a waste facility involving the accumulation or deposit of hazardous waste and the operator shall produce evidence of such provision whenever required by the Environment Agency.

1.2 Energy efficiency

- 1.2.1 For the following activities referenced in schedule 1, table S1.1 (AR1 to AR15) the operator shall:
- (a) take appropriate measures to ensure that energy is used efficiently in the activities;
 - (b) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
 - (c) take any further appropriate measures identified by a review.

1.3 Efficient use of raw materials

- 1.3.1 For the following activities referenced in schedule 1, table S1.1 (AR1 to AR15) the operator shall:
- (a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;
 - (b) maintain records of raw materials and water used in the activities;
 - (c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
 - (d) take any further appropriate measures identified by a review.

1.4 Avoidance, recovery and disposal of wastes produced by the activities

- 1.4.1 The operator shall take appropriate measures to ensure that:

- (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities;
 - (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and
 - (c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.
- 1.4.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

2 Operations

2.1 Permitted activities

- 2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the “activities”).

2.2 The site

- 2.2.1 The activities shall not extend beyond the site, being the land shown shaded in yellow and in green outline on the site plans at schedule 7 to this permit.
- 2.2.2 The groundwater activities (AR17 to AR37) referenced in schedule 1 table S1.1 shall take place at the discharge points marked on the site plans at schedule 7 to this permit.
- 2.2.3 The discharges for groundwater activities (AR17 to AR33) shall be made from the wellbores within the Frome Clay Limestone Formation, Bridport Sandstone Formation, Sherwood Sandstone Formation and Cornbrash and Forest Marble Limestone Formation as listed in tables S1.1 and S3.3; and, the operating techniques that are the subject of conditions prefixed by condition 2.3 shall be applied at the locations, or otherwise described, in schedule 7.

2.3 Operating techniques

- 2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- 2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation (“plan”) specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 2.3.3 The re-injection borehole system shall comply with the following:
- (a) no re-injection borehole shall extend below the depth specified in table S1.1;
 - (b) the re-injection borehole shall comply with the minimum depth below ground level for un-perforated linings specified in table S1.1;
 - (c) the outlet of the re-injection borehole, including any associated diffusers, shall be within the saturation zone at all times;
 - (d) no part of the re-injection borehole system shall be situated within 10 metres of any watercourse (including any ditch that runs dry for part of the year), or any other surface water;

- (e) no part of the re-injection borehole system shall be situated within a SPZ 1 or 50 metres of a well or borehole used for any purpose, other than abstraction from that well or borehole for the sole purpose of supplying water to the activity specified in table S1.1 and wells or boreholes used solely for purpose of extracting hydrocarbons

2.3.4 The operator shall: review the waste management plan at least every five years from the date of initial approval and submit any written revisions to the Environment Agency for approval.

- (b) implement the approved waste management plan from the date of approval, unless otherwise agreed in writing by the Environment Agency

2.3.5 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.

2.3.6 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:

- (a) the nature of the process producing the waste;
- (b) the composition of the waste;
- (c) the handling requirements of the waste;
- (d) the hazardous property associated with the waste, if applicable; and
- (e) the waste code of the waste.

2.3.7 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

2.3.8 Hazardous waste shall not be mixed, either with a different category of hazardous waste or with other waste, substances or materials, unless it is authorised by schedule 1 table S1.1 and appropriate measures are taken.

2.4 Improvement programme

2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.

2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

2.5 Pre-operational conditions

2.5.1 The operations specified in schedule 1 table S1.4 shall not commence until the measures specified in that table have been completed

3 Emissions and monitoring

3.1 Emissions to water, air or land

3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1, S3.2 and S3.3.

3.1.2 The limits given in schedule 3 table S3.1 and S3.2 shall not be exceeded.

3.1.3 Total annual emissions from the emission points set out in schedule 3 table S3.1 of a substance listed in schedule 3 table S3.4 shall not exceed the relevant limit in table S3.4.

- 3.1.4 Subject to any other condition of this permit, periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

3.2 Emissions of substances not controlled by emission limits

- 3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.2.2 The operator shall:
- (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
 - (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.
- 3.2.4 The Operator shall take appropriate measures:
- (a) to prevent the input of hazardous substances to groundwater; and
 - (b) where a non-hazardous pollutant is not controlled by an emission limit, to limit the input of such non-hazardous pollutants to groundwater so as to ensure that such inputs do not cause pollution of groundwater.

3.3 Odour

- 3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.
- 3.3.2 The operator shall:
- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;
 - (b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.4 Noise and vibration

- 3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.
- 3.4.2 The operator shall:
- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period

specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;

- (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.5 Monitoring

3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:

- (a) point source emissions specified in tables S3.1, S3.2 and S3.3;
- (b) surface water or groundwater specified in table S3.5;
- (c) ambient air monitoring specified in table S3.6;
- (d) monitoring points specified in table S3.7;
- (e) process monitoring specified in table S3.8;

3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.

3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.

3.5.4 The operator shall carry out:

- (a) regular calibration, at an appropriate frequency, of systems and equipment provided for carrying out any monitoring and measurements necessary to determine compliance with this permit; and
- (b) regular checking, at an appropriate frequency, that such systems and equipment are serviceable and correctly used.

3.5.5 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1, S3.2, S3.3, and S3.7 unless otherwise agreed in writing by the Environment Agency.

3.5.6 If required by the Environment Agency, the operator shall:

- (a) take such samples and conduct such measurements, tests, surveys, analyses and calculations, including environmental measurements and assessments, at such times and using such methods and equipment as the Environment Agency may specify; and
- (b) keep samples, provide samples, or dispatch samples for tests at a laboratory, as the Environment Agency specifies, and ensure that the samples or residues thereof are collected from the laboratory within three months of receiving written notification that testing and repackaging in accordance with the relevant legislation are complete.

3.5.7 On a monthly basis, or as agreed in writing with the Environment Agency; the Operator shall analyse the flare feed gas. The analysis shall include speciation and concentration of organic substances, carbon monoxide, sulphur containing compounds, halogen containing compounds and moisture, unless otherwise agreed in writing with the Environment Agency. A report of the analysis shall be submitted to the Environment Agency within 28 days of completion of each analysis.

3.5.8 The operator shall by calculation determine the emissions of the substances identified in table S3.1, based on the most recent feed gas composition analysis, feed gas flow rate and combustion efficiency of the flare.

- 3.5.9 The groundwater monitoring plan specified in Table S1.2, Schedule 1 shall be implemented unless otherwise agreed in writing with the Environment Agency.
- 3.5.10 Any revised groundwater monitoring plan or revised environmental management and monitoring plan should be implemented in place of the original in accordance with the Environment Agency's written approval unless otherwise agreed in writing

3.6 Installation of monitoring boreholes

- 3.6.1 The Operator shall submit for approval to the Environment Agency details of the groundwater monitoring plan within 6 months of permit issue.
- 3.6.2 The monitoring boreholes shall be installed to depths, by methods and according to a design agreed in advance and in writing by the Environment Agency.
- 3.6.3 The following details regarding the monitoring boreholes shall be provided to the Environment Agency within 1 month of installation:
- (a) casings/linings (length, diameter, material, type of grout or filter media and whether slotted or plain);
 - (b) depths and diameters of unlined sections;
 - (c) standing groundwater levels;
 - (d) details of strata encountered during drilling;
 - (e) reference levels in metres above ordnance datum;
 - (f) a location plan at a suitable scale showing the boreholes in relation to the point of discharge;
 - (g) national grid references of the borehole(s) in the form AB 12345 67890;
 - (h) any other information obtained from the borehole(s) relevant to the interpretation of water sample analysis.

4 Information

4.1 Records

- 4.1.1 All records required to be made by schedules 3, 4 and 5 to this permit shall:
- (a) be legible;
 - (b) be made as soon as reasonably practicable;
 - (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
 - (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
 - (i) off-site environmental effects; and
 - (ii) matters which affect the condition of the land and groundwater.
- 4.1.2 The operator shall maintain convenient access, in either electronic or hard copy, to the records, plans and management system required to be maintained by this permit.

4.2 Reporting

- 4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.

- 4.2.2 For the following activities referenced in schedule 1, table S1.1 (AR1 to AR15 and AR17-AR37) A report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:
- (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
 - (b) the annual production /treatment data set out in schedule 4 table S4.2; and
 - (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.
- 4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:
- (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
 - (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4; and
 - (c) giving the information from such results and assessments as may be required by the forms specified in those tables.
- 4.2.4 A report describing condition of the mining waste facilities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report shall include a review of the results of the monitoring and assessment carried out in accordance with the conditions of this permit including an interpretive review of that data.
- 4.2.5 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

4.3 Notifications

- 4.3.1 In the event:
- (a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
 - (i) inform the Environment Agency,
 - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
 - (iii) take the measures necessary to prevent further possible incidents or accidents;
 - (b) of a breach of any permit condition the operator must immediately—
 - (i) inform the Environment Agency, and
 - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
 - (c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.
- 4.3.2 The information provided under condition 4.3.1 [(a)(i), or 4.3.1 (b)(i) where the information relates to the breach of a limit specified in the permit,] shall be supported by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

- 4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.
- 4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:
- Where the operator is a registered company:
- (a) any change in the operator's trading name, registered name or registered office address; and
 - (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.
- Where the operator is a corporate body other than a registered company:
- (a) any change in the operator's name or address; and
 - (b) any steps taken with a view to the dissolution of the operator.
- In any other case:
- (a) the death of any of the named operators (where the operator consists of more than one named individual);
 - (b) any change in the operator's name(s) or address(es); and
 - (c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.
- 4.3.5 For the following activities referenced in schedule 1, table S1.1 (AR1 to AR15 and AR17-AR37) where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:
- (a) the Environment Agency shall be notified at least 14 days before making the change; and
 - (b) the notification shall contain a description of the proposed change in operation.
- 4.3.6 The Environment Agency shall be given at least 14 days notice before implementation of any part of the site closure plan.
- 4.3.7 Where the operator proposes to make an amendment to the approved waste management plan, which is not otherwise the subject of an application for approval under the Regulations or this permit:
- (a) the Environment Agency shall be notified at least 14 days before implementing the amended waste management plan in place of the original; and
 - (b) the notification shall contain a description of the proposed amendment.
- 4.3.8 Following closure of the mining waste facilities, the Environment Agency shall be notified without delay following the detection of:
- (a) any events or developments likely to affect the stability of the waste facility; or
 - (b) any significant adverse environmental effects revealed by the relevant control and monitoring procedures.
- 4.3.9 Any information provided under condition 4.3.8 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

4.4 Interpretation

- 4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made “immediately”, in which case it may be provided by telephone.

Schedule 1 – Operations

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex I and II operations	Limits of specified activity and waste types
AR1	S1.2 A(1)(a): Refining gas where this is likely to involve the use of 1,000 or more tonnes of gas in any 12-month period.	Refining gas to produce liquid petroleum gas (LPG) and fuel gas from crude oil by compression and fractionation	<p>From receipt of gas from crude oil</p> <ul style="list-style-type: none"> - its fractionation and storage - any releases to air and effluent treatment system - the storage and onward disposal of wastes <p>to tankering off site or export to the British Gas pipeline</p>
AR2	S1.2 A(1)(e)(i): The loading, unloading, handling or storage of, or the physical, chemical or thermal treatment of crude oil.	Collection of crude oil from well heads, its stabilisation and export to Hamble Oil Terminal.	<p>From receipt of production fluids at the wellhead to the despatch of products (crude oil), odourised LPG, fuel gas and extractive wastes.</p> <p>Oil shall be stored in vessels which are of sufficient strength and structural integrity to ensure that it is unlikely to burst or leak in its ordinary use.</p> <p>Any road tanker loading systems must be fully contained and the delivery system shall be fitted with dry break couplings.</p> <p>During loading of road tankers, the road tanker shall be back vented to the bulk storage tank, or routed to a suitable vent treatment system.</p> <p>Provisions shall be made to minimise the emissions of non methane volatile organic compounds (NMVOC) and methane from the gathering station tank vents.</p> <p>Any water collected in the secondary containment (bund) must be sampled and analysed before release to controlled water. If found to be contaminated with crude oil, it must be collected for treatment before disposal.</p>
AR3	S1.2 B(a): Blending odorant for use with natural gas or liquefied petroleum gas	Odourising liquid petroleum gas (LPG) and natural gas.	From receipt of natural gas to despatch of odourised natural gas.
AR4	S1.1 B(a)(iii): Burning any fuel in a gas turbine with a net rated thermal input of 20 or more megawatts, but a rated thermal input of less than 50 megawatts.	Supply of fuel gas to two open cycle gas turbines (aggregated thermal input of 36MW) and a non-aggregated waste heat recovery unit (23MW)	<p>From receipt of conditioned fuel gas to the despatch of products (generated power) and waste.</p> <p>From receipt of raw materials, releases to air and disposal of wastes.</p> <p>The waste heat recovery unit is only operational when one or both gas turbines are offline.</p>

Table S1.1 activities			
	Directly Associated Activity		
Activity reference	Activity	Description of specified activity and WFD Annex I and II operations	Limits of specified activity and waste types
AR5	Flaring of waste gas from onshore oil and gas production activities	Flaring of gas for emergency or maintenance purposes only in 3 ground flares, High Pressure, Low Pressure (normally spade isolated) and Low temperature	From the receipt of waste gas into the flare to the despatch of waste combustion gases. Disposal of waste gas is not permitted other than for emergency or maintenance purposes.
AR6	Sea water abstraction	Abstraction of seawater from Cleavel Point and Furzey Island	From abstraction, treatment and use of seawater within the process and injection into oil reservoirs
AR7	Storage of additional raw materials.	Raw materials directly associated with the production of crude oil.	From receipt of raw materials to the despatch for use.
AR8	Compressed air system	Compression of air, its storage and subsequent drying prior to use	Use within the installation
AR9	Nitrogen system	Generation and storage of liquid nitrogen and its vaporization prior to use.	Use within the installation.
AR10	Refrigeration and methanol injection systems	Refrigerant use for cooling of reactions and methanol use to prevent hydrate / ice crystal formation.	From receipt of refrigerant and methanol, their storage, transport around the installation to disposal of waste.
AR11	Pipelines connecting individual sites.	Transport of production fluids between all sites.	From pipe manifold on site exporting production fluids to pipe manifold on site importing production fluids.
AR12	Seawater discharge W1 at SZ 00370 86125 [Point W1 Cleavel Point, figure 13 of Schedule 7]	W1 Cleavel Point (seawater backwash) at SZ 00370 86125	Discharge of seawater to surface water (Poole Harbour) as specified in table S3.3. The discharge shall be monitored as specified in table S3.2
AR13	Surface water discharge W3 at SY 97714 85741 [Point W3 Wytch Lake from Gathering Station figure 3 of Schedule 7]	W3 Wytch Lake Gathering Station emergency discharge (fire water, storm water) at SY 97714 85741	Discharge of surface water (in storm event only) from site through an oil interceptor to surface water (Wytch Lake) as specified in table S3.3. The discharge shall be monitored as specified in table S3.2
AR14	Surface water discharge W4 at SY 98878 85694 [Point W4 Fitsworth Copse stream, Wellsite A figure 4 of Schedule7]	W4 Fitsworth Copse Stream, from Wellsite A surface run-off (A-Site drainage outlet) at SY 98878 85694	Discharge of surface water from site through an oil interceptor to surface water (Fitsworth Copse Stream) as specified in table S3.3. The discharge shall be monitored as specified in table S3.2
AR15	Surface water discharge W5 at SY 99411 85610 [Point W5 at Claywell stream, Wellsite D Figure 5 of Schedule7]	W5 Claywell Stream, from Wellsite D surface run-off (D-Site drainage outlet) at SY 99411 85610	Discharge of surface water from site through an oil interceptor to surface water (Claywell Stream) as specified in table S3.3. The discharge shall be monitored as specified in table S3.2

Table S1.1 activities		
Activity reference	Description of activities for waste operations	Limits of activities
AR16	<p>The management of extractive waste in an underground mining waste facility for non-hazardous waste at Wellsite L, and for non-hazardous spent acid used in reinjection wells.</p> <p>The management of extractive waste in a mining waste operation and an above ground mining waste facility for temporary storage of hazardous waste from system 63 at the Gathering Station.</p> <p>The management of extractive waste generated by well workover and maintenance.</p> <p>The management of extractive waste generated by well decommissioning</p>	<p>Permitted waste types shall conform to the description in the approved waste management plan.</p> <p>The activities shall be limited to those described in the approved Waste Management Plan referenced in Table S1.2 below.</p> <p>The underground mining waste activity is limited to a non-hazardous mining waste facility for water based cuttings previously deposited in Well L-04 at Wellsite L, and for non-hazardous spent acid used in reinjection wells which are not fully recovered, as defined in the approved waste management plan.</p> <p>The above ground mining waste activities are limited to mining waste operations as defined in the approved waste management plan. The hazardous waste mining facility is limited to the temporary storage of oily wastes from the system 63 process.</p> <p>All hazardous extractive waste must be stored in steel solid containers which are subject to annual non-destructive testing inspection and weekly visual inspection.</p> <p>Before the end of operation of the hazardous waste facility, all of the hazardous waste contents shall be taken off site to a permitted waste facility.</p> <p>No more than 100 tonnes of hazardous extractive waste shall be stored on site at any one time. The storage of hazardous extractive wastes in the facility is limited to 3 months.</p> <p>Well stimulation, other than by acid stimulation authorised under activities AR26-33 is not permitted.</p>
	Description of activity for Groundwater	Limits of specified activity
AR17	<p>Re-injection of an admixture of produced water from extraction of hydrocarbons, treated site surface water and treated seawater to ground via boreholes 1K-11FI, 1K-14FI, 1K-16FI, 1L-11FI and 1L-13FI at Wellsites K and L.</p>	<p>The discharge of an admixture of produced water from extraction of hydrocarbons, treated site surface water and treated seawater into boreholes 1K-11FI, 1K-14FI, 1K-16FI, 1L-11FI and 1L-13FI at Wellsites K and L (as specified in table S3.3).</p> <ul style="list-style-type: none"> • The re-injection boreholes 1K-11FI, 1K-14FI, 1K-16FI, 1L-11FI and 1L-13FI shall not extend deeper than 1558, 944, 910, 1061 and 907 metres below ground level (mbgl) respectively. • Un-perforated linings shall extend to a minimum depth of 822, 801, 821, and 842 and 797 mbgl respectively. • The target formation for re-injection is the Frome Clay Limestone Formation. • The discharge shall only be made via perforations in the borehole which is situated within the Frome Clay Limestone Formation. • The injection pressure shall not exceed those specified in the Hydrogeological Risk Assessment as referenced in Table S1.2. <p>The activity will be carried out in accordance with the documents specified in Table S1.2 and S1.3.</p>

Table S1.1 activities		
Activity reference	Description of activity for Groundwater	Limits of specified activity
AR18	Re-injection of an admixture of produced water from extraction of hydrocarbons, treated site surface water and treated seawater to ground via borehole 1M-04FI at Wellsite M.	<p>The discharge of an admixture of produced water from extraction of hydrocarbons, treated site surface water and treated seawater into borehole 1M-04FI at Wellsite M (as specified in table S3.3).</p> <ul style="list-style-type: none"> • The re-injection borehole 1M-04FI shall not extend deeper than 937 metres below ground level (mbgl). • Un-perforated linings shall extend to a minimum depth of 808 mbgl. • The target formation for re-injection is the Frome Clay Limestone Formation. • The injection pressure shall not exceed those specified in the Hydrogeological Risk Assessment as referenced in Table S1.2. <p>The activity will be carried out in accordance with the documents specified in Table S1.2 and S1.3.</p>
AR19	Re-injection of an admixture of produced water from extraction of hydrocarbons, treated site surface water and treated seawater to ground via boreholes 1K-02 BI and 1K-03BI at Wellsite K.	<p>The discharge of an admixture of produced water from extraction of hydrocarbons, treated site surface water and treated seawater into boreholes 1K-02BI and 1K-03BI at Wellsite K (as specified in table S3.3).</p> <ul style="list-style-type: none"> • The re-injection boreholes 1K-02BI and 1K-03BI shall not extend deeper than 1762 and 1688 metres below ground level (mbgl). • Un-perforated linings shall extend to a minimum depth of 916 and 939 mbgl respectively. • The target formation for re-injection is the Bridport Sandstone Formation. • The discharge shall only be made via perforations in the borehole which is situated within the Bridport Sandstone Formation. • The injection pressure shall not exceed those specified in the Hydrogeological Risk Assessment as referenced in Table S1.2. <p>The activity will be carried out in accordance with the documents specified in Table S1.2 and S1.3.</p>
AR20	Re-injection of an admixture of produced water from extraction of hydrocarbons, treated site surface water and treated seawater to ground via boreholes 1A-02BI, 1A-05BI, 1A-13BI, 1D-04BI and 1F-06BI at Wellsites A, D and F.	<p>The discharge of an admixture of produced water from extraction of hydrocarbons, treated site surface water and treated seawater into boreholes 1A-02BI, 1A-05BI, 1A-13BI, 1D-04BI and 1F-06BI at Wellsites A, D and F (as specified in table S3.3).</p> <ul style="list-style-type: none"> • The re-injection boreholes 1A-02BI, 1A-05BI, 1A-13BI, 1D-04BI and 1F-06BI shall not extend deeper than 1036, 1021, 1602, 1012 and 1697 metres below ground level (mbgl) respectively. • Un-perforated linings shall extend to a minimum depth of 945, 935, 913 926 and 932 mbgl respectively. • The target formation for re-injection is the Bridport Sandstone Formation. • The discharge shall only be made via perforations in the borehole which is situated within the Bridport Sandstone Formation. • The injection pressure shall not exceed those specified in the Hydrogeological Risk Assessment as referenced in Table S1.2. <p>The activity will be carried out in accordance with the documents specified in Table S1.2 and S1.3.</p>

Table S1.1 activities		
Activity reference	Description of activity for Groundwater	Limits of specified activity
AR21	Re-injection of an admixture of produced water from extraction of hydrocarbons, treated site surface water and treated seawater to ground via boreholes 2B-04BI and 2B-05BI at Wellsite 2B.	<p>The discharge of an admixture of produced water from extraction of hydrocarbons, treated site surface water and treated seawater into boreholes 2B-04BI and 2B-05BI at Wellsite 2B (as specified in table S3.3).</p> <ul style="list-style-type: none"> • The re-injection boreholes 2B-04BI and 2B-05BI shall not extend deeper than 1008 and 1037 metres below ground level (mbgl) respectively. • Un-perforated linings shall extend to a minimum depth of 933 and 961 mbgl respectively. • The target formation for re-injection is the Bridport Sandstone Formation. • The discharge shall only be made via perforations in the borehole which is situated within the Bridport Sandstone Formation. • The injection pressure shall not exceed those specified in the Hydrogeological Risk Assessment as referenced in Table S1.2. <p>The activity will be carried out in accordance with the documents specified in Table S1.2 and S1.3.</p>
AR22	Re-injection of an admixture of produced water from extraction of hydrocarbons, treated site surface water and treated seawater to ground via borehole AG-02BI, at Wellsite Arne G.	<p>The discharge of an admixture of produced water from extraction of hydrocarbons, treated site surface water and treated seawater into borehole AG-02BI at Wellsite Arne G (as specified in table S3.3).</p> <ul style="list-style-type: none"> • The re-injection borehole AG-02BI shall not extend deeper than 1793 metres below ground level (mbgl). • Un-perforated linings shall extend to a minimum depth of 937 mbgl. • The target formation for re-injection is the Bridport Sandstone Formation. • The discharge shall only be made via perforations in the borehole which is situated within the Bridport Sandstone Formation. • The injection pressure shall not exceed those specified in the Hydrogeological Risk Assessment as referenced in Table S1.2. <p>The activity will be carried out in accordance with the documents specified in Table S1.2 and S1.3.</p>
AR23	Re-injection of an admixture of produced water from extraction of hydrocarbons, treated site surface water and treated seawater to ground via boreholes 1K-01SI, 1K-04SI and 1K-12SI at Wellsite K and 1L-02SI, 1L-04SI and 1L-09SI at Wellsite L.	<p>The discharge of an admixture of produced water from extraction of hydrocarbons, treated site surface water and treated seawater into boreholes 1K-01SI, 1K-04SI, 1K-12SI, 1L-02SI, 1L-04SI, 1L-09SI at Wellsites K and L (as specified in table S3.3).</p> <ul style="list-style-type: none"> • The re-injection boreholes 1K-01SI, 1K-04SI, 1K-12SI, 1L-02SI, 1L-04SI and 1L-09SI shall not extend deeper than 1765 metres below ground level (mbgl). • Un-perforated linings shall extend to a minimum depth of 1550 mbgl. • The target formation for re-injection is the Sherwood Sandstone Formation. • The discharge shall only be made via perforations in the borehole which is situated within the Sherwood Sandstone Formation. • The injection pressure shall not exceed those specified in the Hydrogeological Risk Assessment as referenced in Table S1.2. <p>The activity will be carried out in accordance with the documents specified in Table S1.2 and S1.3.</p>

Table S1.1 activities		
Activity reference	Description of activity for Groundwater	Limits of specified activity
AR24	Re-injection of an admixture of produced water from extraction of hydrocarbons, treated site surface water and treated seawater to ground via boreholes 1A-10SI, 1A-13SI at Wellsite A, 1M-01SI, 1M-12SI, 1M-14SI, 1M-16SI and 1M-20SI at Wellsite M, 1F-09SI, 1F-10SI, 1F-11SI, 1F-17SI and 1F-25SI at Wellsite F	<p>The discharge of an admixture of produced water from extraction of hydrocarbons, treated site surface water and treated seawater into boreholes 1A-10SI, 1A-13SI, 1M-01SI, 1M-12SI, 1M-14SI, 1M-16SI, 1M-20SI, 1F-09SI, 1F-10SI, 1F-11SI, 1F17SI, and 1F25SI at Wellsites A, M and F (as specified in table S3.3).</p> <ul style="list-style-type: none"> • The re-injection boreholes 1A-10SI, 1A-13SI, 1M-01SI, 1M-12SI, 1M-14SI, 1M20SI, 1M-16SI, 1M-20SI, 1F10SI, 1F17SI, 1F25SI and 1F09SI shall not extend deeper than 1783 metres below ground level (mbgl). • Un-perforated linings shall extend to a minimum depth of 1532 mbgl. • The target formation for re-injection is the Sherwood Sandstone Formation. • The injection pressure shall not exceed those specified in the Hydrogeological Risk Assessment as referenced in Table S1.2. <p>The activity will be carried out in accordance with the documents specified in Table S1.2 and S1.3.</p>
AR25	Re-injection of an admixture of produced water from extraction of hydrocarbons, treated site surface water and treated seawater to ground via boreholes 2B-08SI, 2B-09SI and 2B-11SI at Wellsite 2B	<p>The discharge of an admixture of produced water from extraction of hydrocarbons, treated site surface water and treated seawater into boreholes 2B-08SI, 2B-09SI, 2B-11SI at Wellsite 2B (as specified in table S3.3).</p> <ul style="list-style-type: none"> • The re-injection boreholes 2B-08SI, 2B-09SI and 2B-11SI shall not extend deeper than 1790 metres below ground level (mbgl). • Un-perforated linings shall extend to a minimum depth of 1602 mbgl. • The target formation for re-injection is the Sherwood Sandstone Formation. • The discharge shall only be made via perforations in the borehole which is situated within the Sherwood Sandstone Formation. • The injection pressure shall not exceed those specified in the Hydrogeological Risk Assessment as referenced in Table S1.2. <p>The activity will be carried out in accordance with the documents specified in Table S1.2 and S1.3.</p>
AR26	<p>*The discharge of an acid solution to ground via production boreholes at Wellsites A, D, and F</p> <p>*Subject to pre-operational condition PO 01 in Table S1.4</p>	<p>Discharge of an acid solution to ground via nine production boreholes for operations for the extraction of hydrocarbons to stimulate oil production in the Cornbrash and Forest Marble Limestone.</p> <p>The target formation for acid stimulation is the Cornbrash and Forest Marble Limestone</p> <p>The acid shall not contain substances other than those additives specified in the Hydrogeological Risk Assessment and approved in writing by the Environment Agency.</p> <p>The discharge shall not take place at a pressure that exceeds that stated in Schedule 3 Table S3.2</p>

Table S1.1 activities		
Activity reference	Description of activity for Groundwater	Limits of specified activity
AR27	<p>*The discharge of an acid solution to ground via one production borehole at Wellsite X</p> <p>*Subject to pre-operational condition PO 01 in Table S1.4</p>	<p>Discharge of an acid solution to ground via one production borehole for operations for the extraction of hydrocarbons to stimulate oil production in the Cornbrash and Forest Marble Limestone.</p> <p>The target formation for acid stimulation is the Cornbrash and Forest Marble Limestone.</p> <p>The acid shall not contain substances other than those additives specified in the Hydrogeological Risk Assessment and approved in writing by the Environment Agency.</p> <p>The discharge shall not take place at a pressure that exceeds that stated in Schedule 3 Table S3.2</p>
AR28	<p>*The discharge of an acid solution to ground via one production borehole at Wellsite K</p> <p>*Subject to pre-operational condition PO 01 in Table S1.4</p>	<p>Discharge of an acid solution to ground via one production borehole for operations for the extraction of hydrocarbons to stimulate oil production in the Cornbrash and Forest Marble Limestone.</p> <p>The target formation for acid stimulation is the Cornbrash and Forest Marble Limestone.</p> <p>The acid shall not contain substances other than those additives specified in the Hydrogeological Risk Assessment and approved in writing by the Environment Agency.</p> <p>The discharge shall not take place at a pressure that exceeds that stated in Schedule 3 Table S3.2</p>
AR29	<p>*The discharge of an acid solution to ground via one production borehole at Wellsite Arne G</p> <p>*Subject to pre-operational condition PO 01 in Table S1.4</p>	<p>Discharge of an acid solution to ground via one production borehole for operations for the extraction of hydrocarbons to stimulate oil production in the Cornbrash and Forest Marble Limestone.</p> <p>The target formation for acid stimulation is the Cornbrash and Forest Marble Limestone.</p> <p>The acid shall not contain substances other than those additives specified in the Hydrogeological Risk Assessment and approved in writing by the Environment Agency.</p> <p>The discharge shall not take place at a pressure that exceeds that stated in Schedule 3 Table S3.2</p>
AR30	<p>*The discharge of an acid solution to ground via production boreholes at Wellsite Wareham C</p> <p>*Subject to pre-operational condition PO 01 in Table S1.4</p>	<p>Discharge of an acid solution to ground via four production boreholes for operations for the extraction of hydrocarbons to stimulate oil production in the Cornbrash and Forest Marble Limestone.</p> <p>The target formation for acid stimulation is the Cornbrash and Forest Marble Limestone.</p> <p>The acid shall not contain substances other than those additives specified in the Hydrogeological Risk Assessment and approved in writing by the Environment Agency.</p> <p>The discharge shall not take place at a pressure that exceeds that stated in Schedule 3 Table S3.2</p>

Table S1.1 activities		
Activity reference	Description of activity for Groundwater	Limits of specified activity
AR31	<p>*The discharge of an acid solution to ground via production boreholes at Wellsite Wareham D</p> <p>*Subject to pre-operational condition PO 01 in Table S1.4</p>	<p>Discharge of an acid solution to ground via five production boreholes for operations for the extraction of hydrocarbons to stimulate oil production in the Cornbrash and Forest Marble Limestone.</p> <p>The target formation for acid stimulation is the Cornbrash and Forest Marble Limestone.</p> <p>The acid shall not contain substances other than those additives specified in the Hydrogeological Risk Assessment and approved in writing by the Environment Agency.</p> <p>The discharge shall not take place at a pressure that exceeds that stated in Schedule 3 Table S3.2</p>
AR32	<p>*The discharge of an acid solution to ground via production and re-injection boreholes at Wellsites F and M</p> <p>*Subject to pre-operational condition PO 01 in Table S1.4</p>	<p>Discharge of an acid solution to ground via five production boreholes and one re-injection borehole for operations for the extraction of hydrocarbons to stimulate oil production in the Frome Clay Limestone.</p> <p>The target formation for acid stimulation is the Frome Clay Limestone Formation.</p> <p>The acid shall not contain substances other than those additives specified in the Hydrogeological Risk Assessment and approved in writing by the Environment Agency.</p> <p>The discharge shall not take place at a pressure that exceeds that stated in Schedule 3 Table S3.2</p>
AR33	<p>*The discharge of an acid solution to ground via production and re-injection boreholes at Wellsites K and L</p> <p>*Subject to pre-operational condition PO 01 in Table S1.4</p>	<p>Discharge of an acid solution to ground via five production boreholes and three re-injection boreholes for operations for the extraction of hydrocarbons to stimulate oil production in the Frome Clay Limestone Formation.</p> <p>The target formation for acid stimulation is the Frome Clay Limestone Formation.</p> <p>The acid shall not contain substances other than those additives specified in the Hydrogeological Risk Assessment and approved in writing by the Environment Agency.</p> <p>The discharge shall not take place at a pressure that exceeds that stated in Schedule 3 Table S3.2</p>
AR34	<p>WL1 Discharge of treated site surface water to ground via soakaway at Wellsite 2B at SY 97192 85258 [Point WL1, Wellsite 2B Figure 11 of Schedule 7]</p>	<p>Discharge of surface water from site through an oil interceptor to ground via an infiltration system as specified in table S3.3. The discharge shall be monitored as specified in table S3.2</p>

Table S1.1 activities		
Activity reference	Description of activity for Groundwater	Limits of specified activity
AR35	WL12 Discharge of treated site surface water to ground via soakaway at Wellsite X at SY 98086 85233 [Point WL12, Wellsite X, Figure 10 of Schedule 7]	Discharge of surface water from site through an oil interceptor to ground via an infiltration system as specified in table S3.3. The discharge shall be monitored as specified in table S3.2
AR36	WL13 Discharge of treated site surface water to ground via soakaway at Wellsite Wareham C at SY 90570 87410 [Point WL13, Wellsite Wareham C, Figure 14 of Schedule 7]	Discharge of surface water from site through an oil interceptor to ground via an infiltration system as specified in table S3.3. The discharge shall be monitored as specified in table S3.2
AR37	WL14 Discharge of treated site surface water to ground via soakaway at Wellsite Wareham D at SY 88979 87630 [Point WL14, Wellsite Wareham D, Figure 15 of Schedule 7]	Discharge of surface water from site through an oil interceptor to ground via an infiltration system as specified in table S3.3. The discharge shall be monitored as specified in table S3.2

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application	The response to section 2.1, 2.2 and 2.10 in the Application dated August 2006.	28/09/2006
Further information	Groundwater monitoring well locations, Surface discharge at Wellsites A and D and Inclusion of effluent discharge pipeline and discharge point at Gathering Station.	03/04/2007
	Various relief valves within the Gathering Station	31/03/2007
Application	<p>“PPC Permit Variation Application for BP Wytch Farm Oilfield” dated October 2011, excluding:-</p> <ul style="list-style-type: none"> • Application forms A, C2, C3 and F1. <p>Table 2 (changes to current permits and conditions) of Annex 1 – Document supporting consolidation and variation of BP Wytch Farm</p>	27/10/2011
Additional information	Letter dated 07/02/2012 detailing the withdrawal of various requests from the variation application.	08/02/2012
	Document supporting Application for variation of Wytch Farm permit including amended table 2.	27/02/2012
	Updated application forms A, C2, C3, and F1 (confirming changes made following effective transfer on 01/03/2012)	01/03/2012
Ambient Monitoring Sampling Plan	All of document. Original Plan submitted in accordance with S1.4 of permit CP3039MV, and subsequent amendments in email dated 23/06/2015 which has been approved.	23/06/2015
Groundwater Sampling Plan	All of document. Original Plan submitted in accordance with S1.4 of permit CP3039MV, and subsequent amendments in email dated 23/06/2015 which has been approved.	23/06/2015
Noise Management Plan	All of document. Original Plan submitted in accordance with S1.4 of permit CP3039MV, and subsequent amendments in email dated 23/06/2015 which has been approved.	23/06/2015
Application and Responses to Schedule 5 Notice dated 20/10/2017 and 20/02/2019, requests for further information and operator responses/ comments received on draft permit	The response to section C3 of the Application, and additional information provided in the Schedule 5 Notice responses, requests for further information and operator responses/comments received on draft permit.	<p>Duly Made</p> <p>11/07/2017</p> <p>Responses</p> <p>31/01/2018</p> <p>09/07/2018</p> <p>08/04/2019</p> <p>11/09/2019</p> <p>29/10/2019</p> <p>20/12/2019</p> <p>15/01/2020</p> <p>24/03/2020</p> <p>29/05/2020</p> <p>16/06/2020</p>
Application and Response to Schedule 5 Notices dated 20/10/2017 and 20/02/2019	Chemicals information - Materials safety data sheets and supplementary information in response to Schedule 5 Notice	09/07/2018 and 08/04/2019
Application and Response to Schedule 5 Notice dated 20/10/2017	Gap analysis response for Gathering Station and wellsites	18/08/2017
Waste Management Plan	All of document. Revised WMP version 6, dated May 2020	29/05/2020

Hydrogeological Risk Assessment	All of document. Revised HRA version 8 dated May 2020	29/05/2020
Acid Stimulation Risk Assessment	All of document. Revised Acid Stimulation Risk Assessment, dated June 2020	30/06/2020
Application and Response to Schedule 5 Notice dated 20/10/2017	Site protection and Monitoring Programme (SPMP) Revision 2.0, Monitoring Programme	04/07/2016
Application and Response to Schedule 5 Notice dated 20/10/2017	Site condition report, Revision 3.0, 2018	31/01/2018
Application and Response to Schedule 5 Notice dated 20/10/2017	Surface water management and discharge procedures document (PUK-SMS-COM-005-WYF-01) section 8.3	31/01/2018
Secondary and tertiary containment plan as approved under IC1	All of document	Date of approval of IC1
Leak detection and repair plan as approved under IC2	All of document	Date of approval of IC2
Groundwater monitoring plan as approved under IC3	All of document	Date of approval of IC3
Gas management system improvement plan as approved under IC5	All of document	Date of approval of IC5
Site surface water management plan as approved under IC7	All of document	Date of approval of IC7
Soakaway abandonment plan as approved under IC9	All of document	Date of approval of IC9
Acid Stimulation plan as approved under PO 01	All of document	Date of approval of PO 01

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC1 <i>Containment</i>	<p>The operator shall submit a written 'secondary and tertiary containment plan' and shall obtain the Environment Agency's written approval to it. The plan shall contain the results of a review conducted, by a competent person, in accordance with the methodology detailed within CIRIA C736 (2014), of the condition and extent of secondary and tertiary containment systems where all polluting liquids and solids are being stored, treated, and/or handled. This review should consider, but is not limited to, the storage vessels, separators, bath heaters, bunds, loading and unloading areas, transfer pipework/pumps, temporary storage areas, and liners underlying the site. The plan must contain dates for the implementation of individual improvement measures necessary for the secondary and tertiary containment systems to adhere to the standards detailed/referenced within CIRIA C736 (2014), or equivalent.</p> <p>The plan shall be implemented in accordance with the Environment Agency's written approval.</p>	30/03/2021
IC2 <i>Leak detection</i>	<p>The operator shall submit a written 'leak detection and repair plan', and associated procedures and shall obtain the Environment Agency's written approval to it. The plan will identify, measure and reduce emissions of volatile organic compounds and other substances to air, appropriate to their operations and in accordance with European standard EN15446 or an equivalent standard.</p> <p>The plan shall be implemented in accordance with the Environment Agency's written approval.</p>	30/12/2020
IC3 <i>Groundwater activities</i>	<p>The operator shall submit a written plan for groundwater monitoring during the operational and post decommissioning phases of the groundwater activities for each site and shall obtain the Environment Agency's written approval to it. The plan will be based on the hydrogeological risk assessment and conceptual site model including, but not limited to:</p> <ul style="list-style-type: none"> i) details of the proposed location; depth; and construction method of the groundwater monitoring boreholes ii) number of groundwater monitoring boreholes to be installed iii) details of the geological formation that monitoring boreholes in (i) are monitoring iv) groundwater sample collection procedures v) details of the proposed monitoring parameters and frequency vi) details of how the data collected will be reviewed and interpreted including setting and reviewing trigger levels vii) details for further investigation if erroneous results are observed <p>The plan shall be implemented in accordance with the Environment Agency's written approval.</p>	30/12/2020
IC4 <i>Management system</i>	<p>The operator shall review and update the written management system (referred to in condition 1.1.1) to ensure the procedures are in place to meet the requirements resulting from the variation of this permit. In particular the review should ensure that the following points are included in the management system:</p> <ul style="list-style-type: none"> i) The procedures for testing the impermeable membrane and subsequent remediation measures if required. ii) The monitoring procedures and testing in place to confirm the integrity of the re-injection well(s) for the lifetime of those wells, monitoring frequency, remediation measures (and reporting procedures) should the integrity monitoring results indicate that a well integrity failure has potentially occurred. iii) The procedures governing the use of purge gas in the flare system. [A significant volume of gas is currently used to keep the gas inlet lines to the flare purged of air. The management system review should consider alternative methods of maintaining a positive pressure within the inlet lines that minimise the amount of gas that is used for purging]. 	30/09/2020

<p>IC5 Gas management</p>	<p>The operator shall submit a written gas management improvement plan and shall obtain the Environment Agency's written approval for it.</p> <p>The plan must contain detailed consideration of all available options for the beneficial utilisation of all of the available gas from your activities, including gas that is not already utilised, gas vented from storage vessels and gas vented during the loading and unloading of road vehicles where relevant.</p> <p>Where such utilisation is not feasible, your plan must consider in detail all available options, both combustion and non-combustion based (including but not necessarily limited to flaring, vapour recovery, scrubbing and adsorption), for the disposal or abatement / mitigation of your waste gas so as to minimise its environmental impacts as far as available techniques allow.</p> <p>The gas management improvement plan shall also refer to the review of emissions undertaken as a result of IC6. If emission limits were not being met, the plan shall include actions that will be taken to ensure that emission limits are met.</p> <p>The plan must contain dates for the implementation of the identified improvement measures.</p> <p>The plan shall be implemented in accordance with the Environment Agency's written approval.</p>	<p>30/06/2021</p>
<p>IC6 Air</p>	<p>The operator shall monitor point source emissions to air in accordance with table S3.1. The operator shall submit a review of emissions compared to the emission limits in table S3.1 to the Environment Agency and obtain the Environment Agency's written approval of the report.</p>	<p>30/12/2020</p>
<p>IC7 Surface water</p>	<p>The operator shall submit a written 'site surface water management plan' and shall obtain the Environment Agency's written approval to it. The plan will be based on the understanding from the conceptual site model and environmental risk assessment where the risks to the water environment are clearly detailed. The plan shall include details of how rainwater is managed, collected, stored and treated where necessary prior to discharge or disposal. The plan shall contain dates for the implementation of any improvement measures necessary to ensure that there are no uncontrolled contaminated water discharges to the environment from the site.</p> <p>The plan shall be implemented in accordance with the Environment Agency's written approval.</p>	<p>30/03/2021</p>
<p>IC8 Site Condition Report</p>	<p>The operator shall undertake a review of the Site Condition Report (as provided in Table S1.2) to ensure Article 22 of the Industrial Emissions Directive is complied with. The review shall include at least the following:</p> <ul style="list-style-type: none"> i) consideration of oil storage areas including oil storage vessels, bunds, loading and unloading areas and other potential sources of contamination as shown in the site location plan ii) reference to any historical spillages, the chemicals involved and locations baseline soil sample results and groundwater data 	<p>30/06/2021</p>
<p>IC9 Soakaway Abandonment</p>	<p>The operator shall produce a plan following the investigation of the soakaways at Wellsites F, M, K, L and Arne G including appropriate risk assessment and abandonment procedures and dates for this work, to prevent any decommissioned soakaways being a potential pollution pathway to groundwater.</p> <p>The plan shall be implemented in accordance with the Environment Agency's written approval.</p>	<p>30/12/2020</p>

Table S1.4 Pre-operational measures for future development		
Reference	Operation	Pre-operational measures
PO 01	Acid stimulation groundwater activities AR26-AR33	<p>Prior to the commencement of each acid stimulation in groundwater activities AR26–AR33 the operator shall, unless otherwise agreed in writing by the Environment Agency, submit a written Acid Stimulation plan and obtain the Environment Agency’s written approval to it. The plan must:</p> <ul style="list-style-type: none"> • identify and list any documented or discernible faults or discontinuities in proximity to the production and re-injection wells constructed into the Cornbrash and Forest Marble Limestone and Frome Clay Limestone acid stimulation reservoirs • confirm the lateral and vertical extent of these faults or discontinuities including cross sections using existing geological information such as seismic data and well logs • confirm the geomechanical properties of the Cornbrash and Forest Marble reservoirs from field step tests • include the results of pre-acid stimulation design analysis and modelling to confirm the predicted extent (width, height, length and orientation) of each acid stimulation treatment in relation to the Oxford Clay • detail the procedure for post acid stimulation reporting of the extent of the stimulated rock volume to demonstrate the acid stimulation would remain in the Cornbrash and Forest Marble Limestone and Frome Clay Limestone acid stimulation reservoirs <p>The approved plan shall be implemented within the period specified, unless otherwise agreed in writing by the Environment Agency.</p>

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	Specification
-	-

The storage of hazardous extractive waste shall not exceed a period of 3 months.

Non-extractive wastes are not accepted as part of the permitted activities and there are no restrictions on raw materials or fuel under this schedule.

Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1 [Point E1 on figure 2 Gathering Station in Schedule 7]	1 x 17.7 MW gas turbine (GT1) bypass stack	Oxides of Nitrogen (NO and NO2 expressed as NO2)	No limit set	-	-	
		Carbon Monoxide	No limit set	-	-	
A2 [Point E2 on figure 2 Gathering Station in Schedule 7]	1 x 17.7 MW gas turbine (GT2) bypass stack	Oxides of Nitrogen (NO and NO2 expressed as NO2)	No limit set	-	-	
		Carbon Monoxide	No limit set	-	-	
A3 [Point E3 on figure 2 Gathering Station in Schedule 7]	2 x 17.7 MW gas turbines (GT1 and GT2) via waste heat recovery unit	Oxides of Nitrogen (NO and NO2 expressed as NO2)	110 mg/m ³ Note 1	-	At least once every year or following significant fuel changes	BS EN 14792 Note 1
		Carbon Monoxide	100 mg/m ³ Note 1	-	At least every 6 months	BS EN 15058 Note 1
A3 [Point E3 on figure 2 Gathering Station in Schedule 7]	1 x 27 MW waste heat recovery unit operating in auxiliary mode	Oxides of Nitrogen (NO and NO2 expressed as NO2)	No limit set Note 2	-	-	
		Carbon Monoxide	No limit set Note 2	-	-	
A4 [Point E4 on figure 2 Gathering Station in Schedule 7]	LT flare box	Oxides of Nitrogen	No limit set Note 2	-	Monthly by calculation	As agreed in writing with the Environment Agency
		Carbon monoxide				
		Total volatile organic compounds (VOCs)				
		Methane				
		Flare gas feed flow rate			Continuous	
A5 [Point E5 on figure 2 Gathering Station in Schedule 7]	LP flare box (normally spade operated)	Oxides of nitrogen	No limit set Note 2	-	Monthly by calculation	As agreed in writing with the Environment Agency
		Carbon monoxide				
		Total volatile organic compounds (VOCs)				

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A5 [Point E5 on figure 2 Gathering Station in Schedule 7]	LP flare box (normally spade operated)	Methane	No limit set Note 2		Monthly by calculation	As agreed in writing with the Environment Agency
		Flare gas feed flow rate			Continuous	
A6 [Point E6 on figure 2 Gathering Station in Schedule 7]	HP flare box	Oxides of nitrogen	No limit set Note 2	-	Monthly by calculation	As agreed in writing with the Environment Agency
		Carbon monoxide				
		Total volatile organic compounds (VOCs)				
		Methane				
		Flare gas feed flow rate			Continuous	
A7 [Point E7 on figure 2 Gathering Station in Schedule 7]	Sales gas odourant vent [pressure release valve (PRV)]	Tertiary butyl mercaptan	No limit set	-	-	
		Thiobismethane	No limit set	-	-	
A8 [Point E8 on figure 2 Gathering Station in Schedule 7]	LPG odourant vent (PRV)	Ethyl mercaptan	No limit set	-	-	
A9 [Point E9 on figure 2 Gathering Station in Schedule 7]	HCL storage tank (via V3380 scrubber on bulk storage tank to atmosphere).	HCL vapour	No limit set	-	-	
A10 [Point E10 on figure 2 Gathering Station in Schedule 7]	Nitrogen system relief valves: (13 pairs of PRVs in very close proximity located in the BOC compound).	No parameters set	No limit set	-		
A11 [Point E11 on figure 2 Gathering Station in Schedule 7]	T2301 produced water collection tank. (2 Pressure safety valves (PSVs), interlocked so only one is service).	Natural gas	-	Month	Monthly	Calculation to determine the quantity of gas vented over the reference

Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A12 [Point E12 on figure 2 Gathering Station in Schedule 7]	T2302 Produced water storage tank (2 PSVs, interlocked so only one is service).	Natural gas	-	Month	Monthly	Calculation to determine the quantity of gas vented over the reference

Note 1 The reference conditions for gas turbines (15% O₂, dry gas, 273.15K and 101.325kPa)

Note 2 This monitoring standard shall be in accordance with the latest Environment Agency Technical Guidance Note (Monitoring) M2 standard and as may subsequently be agreed in writing with the Environment Agency following revisions to the M2 guidance, or following completion of IC6.

Activity Ref.	Discharge source and discharge point ref. & location	Parameter	Limit (including unit)	Reference Period	Limit of effective range	Monitoring frequency	Compliance Statistic
AR17	Discharge of an admixture of produced water from extraction of hydrocarbons, treated site surface water and treated seawater to ground via boreholes 1K-11FI, 1K-14FI, 1K-16FI, 1L-11FI and 1L-13FI at Wellsites K and L.	Maximum daily discharge volume	1274 m ³ /day	Total daily volume	Combined volume	Continuous	Maximum
		Maximum rate of discharge	14.7 litres per second	Instantaneous (spot sample)	Combined rate	N/A	Maximum
		15-minute instantaneous or averaged flow	No limit set. Record as l/s	15 minute	N/A	Continuous	N/A
AR18	Discharge of an admixture of produced water from extraction of hydrocarbons, treated site surface water and treated seawater to ground via borehole 1M-04FI at Wellsite M.	Maximum daily discharge volume	397 m ³ /day	Total daily volume	Combined volume	Continuous	Maximum
		Maximum rate of discharge	4.6 litres per second	Instantaneous (spot sample)	Combined rate	N/A	Maximum
		15-minute instantaneous or averaged flow	No limit set. Record as l/s	15 minute	N/A	Continuous	N/A
AR19	Discharge of an admixture of produced water from extraction of hydrocarbons, treated site surface water and	Maximum daily discharge volume	956 m ³ /day	Total daily volume	Combined volume	Continuous	Maximum
		Maximum rate of discharge	6.5 litres per second	Instantaneous (spot sample)	Combined rate	N/A	Maximum

	treated seawater to ground via reinjection boreholes 1K-02BI and 1K-03BI at WellSite K.	15-minute instantaneous or averaged flow	No limit set. Record as l/s	15 minute	N/A	Continuous	N/A
AR20	Discharge of an admixture of produced water from extraction of hydrocarbons, treated site surface water and treated seawater to ground via reinjection boreholes 1A-02BI, 1A-05BI, 1A-13BI, ID-04BI and 1F-06BI at Wellsites A, D and F.	Maximum daily discharge volume	2,341 m ³ /day	Total daily volume	Combined volume	Continuous	Maximum
		Maximum rate of discharge	24 litres per second	Instantaneous (spot sample)	Combined rate	N/A	Maximum
		15-minute instantaneous or averaged flow	No limit set. Record as l/s	15 minute	N/A	Continuous	N/A
AR21	Discharge of an admixture of produced water from extraction of hydrocarbons, treated site surface water and treated seawater to ground via reinjection boreholes 2B-04BI and 2B-05BI at WellSite 2B.	Maximum daily discharge volume	638 m ³ /day	Total daily volume	Combined volume	Continuous	Maximum
		Maximum rate of discharge	7.3 litres per second	Instantaneous (spot sample)	Combined rate	N/A	Maximum
		15-minute instantaneous or averaged flow	No limit set. Record as l/s	15 minute	N/A	Continuous	N/A
AR22	Discharge of an admixture of produced water from extraction of hydrocarbons, treated site surface water and treated seawater to ground via reinjection borehole AG-02BI, at WellSite Arne G.	Maximum daily discharge volume	326 m ³ /day	Total daily volume	Combined volume	Continuous	Maximum
		Maximum rate of discharge	3.8 litres per second	Instantaneous (spot sample)	Combined rate	N/A	Maximum
		15-minute instantaneous or averaged flow	No limit set. Record as l/s	15 minute	N/A	Continuous	N/A
AR23	Discharge of an admixture of produced water from extraction of hydrocarbons, treated site surface water and treated seawater to ground via reinjection boreholes, 1K-01SI, 1K-04SI, 1K-12SI, 1L-02SI, 1L-04SI, 1L-09SI at Wellsites K and L.	Maximum daily discharge volume	16,428 m ³ /day	Total daily volume	Combined volume	Continuous	Maximum
		Maximum rate of discharge	190.1 litres per second	Instantaneous (spot sample)	Combined rate	N/A	Maximum
		15-minute instantaneous or averaged flow	No limit set. Record as l/s	15 minute	N/A	Continuous	N/A

AR24	Discharge of an admixture of produced water from extraction of hydrocarbons, treated site surface water and treated seawater to ground via reinjection boreholes 1A-10SI, 1A-13SI, 1M-01SI, 1M-12SI, 1M-14SI, 1M-16SI, 1M-20SI, 1F-09SI, 1F-10SI, 1F-11SI, 1F-17SI and 1F-25SI at Wellsites A, M and F.	Maximum daily discharge volume	49,457 m ³ /day	Total daily volume	Combined volume	Continuous	Maximum
		Maximum rate of discharge	572.4 litres per second	Instantaneous (spot sample)	Combined rate	N/A	Maximum
		15-minute instantaneous or averaged flow	No limit set. Record as l/s	15 minute	N/A	Continuous	N/A
AR25	Discharge of an admixture of produced water from extraction of hydrocarbons, treated site surface water and treated seawater to ground via reinjection boreholes 2B-08SI, 2B-09SI and 2B-11SI at Wellsite 2B.	Maximum daily discharge volume	8,140 m ³ /day	Total daily volume	Combined volume	Continuous	Maximum
		Maximum rate of discharge	94.2 litres per second	Instantaneous (spot sample)	Combined rate	N/A	Maximum
		15-minute instantaneous or averaged flow	No limit set. Record as l/s	15 minute	N/A	Continuous	N/A
AR26	Discharge of an acid solution to ground via production boreholes 1A-01CP, 1A-03CP, 1A-04CP, 1D-01CP, 1D-03CP, 1D-04CP, 1F-11CP, 1F-15CP, 1F-27CP into the Cornbrash and Forest Marble Limestone Formation at Wellsites A, D and F	Maximum discharge volume	496 m ³	Per acid stimulation treatment	N/A	Per treatment	Maximum
		Maximum rate of discharge	13 litres per second	Instantaneous (spot sample)	N/A	N/A	Maximum
		15-minute instantaneous or averaged flow	No limit set. Record as l/s		N/A	Continuous	N/A
		Surface injection Pressure	55 barg/ 800 psi	Instantaneous (spot sample)	N/A	Continuous per treatment	Maximum
AR27	Discharge of an acid solution to ground via production borehole 1X-01CP into the Cornbrash and Forest Marble Limestone Formation at Wellsite X	Maximum discharge volume	66 m ³	Per acid stimulation treatment	N/A	per treatment	Maximum
		Maximum rate of discharge	13 litres per second	Instantaneous (spot sample)	N/A	N/A	Maximum
		15-minute instantaneous or averaged flow	No limit set. Record as l/s		N/A	Continuous	N/A

		Surface injection Pressure	55 barg/ 800 psi	Instantaneous (spot sample)	N/A	Continuous per treatment	Maximum
AR28	Discharge of an acid solution to ground via production borehole K-02CP into the Cornbrash and Forest Marble Limestone Formation at Wellsite K	Maximum discharge volume	66 m ³	Per acid stimulation treatment	N/A	per treatment	Maximum
		Maximum rate of discharge	13 litres per second	Instantaneous (spot sample)	N/A	N/A	Maximum
		15-minute instantaneous or averaged flow	No limit set. Record as l/s		N/A	Continuous	N/A
		Surface injection Pressure	55 barg/ 800 psi	Instantaneous (spot sample)	N/A	Continuous per treatment	Maximum
AR29	Discharge of an acid solution to ground via production borehole AG01CP into the Cornbrash and Forest Marble Limestone Formation at Wellsite Arne G	Maximum discharge volume	66 m ³	Per acid stimulation treatment	N/A	per treatment	Maximum
		Maximum rate of discharge	13 litres per second	Instantaneous (spot sample)	N/A	N/A	Maximum
		15-minute instantaneous or averaged flow	No limit set. Record as l/s		N/A	Continuous	N/A
		Surface injection Pressure	55 barg/ 800 psi	Instantaneous (spot sample)	N/A	Continuous per treatment	Maximum
AR30	Discharge of an acid solution to ground via production boreholes WC01CP, WC04CP, WC07CP, WC09CP into the Cornbrash and Forest Marble Limestone Formation at Wellsite Wareham C	Maximum discharge volume	66 m ³	Total per acid stimulation treatment	N/A	Per treatment	Maximum
		Maximum rate of discharge	13 litres per second	Instantaneous (spot sample)	N/A	N/A	Maximum
		15-minute instantaneous or averaged flow	No limit set. Record as l/s		N/A	Continuous	N/A
		Surface injection Pressure	55 barg/ 800 psi	Instantaneous (spot sample)	N/A	Continuous per treatment	Maximum

AR31	Discharge of an acid solution to ground via production boreholes WD01CP, WD02CP, WD03CP, WD04CP and WD05CP into the Cornbrash and Forest Marble Limestone Formation at Wellsite Wareham D	Maximum discharge volume	66 m ³	Per acid stimulation treatment	N/A	Per treatment	Maximum
		Maximum rate of discharge	13 litres per second	Instantaneous (spot sample)	N/A	N/A	Maximum
		15-minute instantaneous or averaged flow	No limit set. Record as l/s		N/A	Continuous	N/A
		Surface injection Pressure	55 barg/ 800 psi	Instantaneous (spot sample)	N/A	Continuous per treatment	Maximum
AR32	Discharge of an acid solution to ground via production and injection boreholes O4FP, F26FP, M04FI, M13FP, M21FP and M22FP into the Frome Clay Limestone Formation at Wellsites F and M	Maximum discharge volume	496 m ³	Per acid stimulation treatment	N/A	Per treatment	Maximum
		Maximum rate of discharge	21 litres per second	Instantaneous (spot sample)	N/A	N/A	Maximum
		15-minute instantaneous or averaged flow	No limit set. Record as l/s		N/A	Continuous	N/A
		Surface injection Pressure	55 barg/ 800 psi	Instantaneous (spot sample)	N/A	Continuous per treatment	Maximum
AR33	Discharge of an acid solution to ground via production and injection boreholes K11FI, K14FI, K15FP, K16FI, O3FP, O7FP, L11FP and L13FP into the Frome Clay Limestone Formation at Wellsites K and L	Maximum discharge volume	496 m ³	Per acid stimulation treatment	N/A	Per treatment	Maximum
		Maximum rate of discharge	21 litres per second	Instantaneous (spot sample)	N/A	N/A	Maximum
		15-minute instantaneous or averaged flow	No limit set. Record as l/s		N/A	Continuous	N/A
		Surface injection Pressure	55 barg/ 800 psi	Instantaneous (spot sample)	N/A	Continuous per treatment	Maximum
AR12	W1: Cleavel Point seawater backwash at SZ 0037 8613, figure 13 of Schedule 7	Flow	47 l/s	Instantaneous	N/A	Continuous	Maximum
		Flow	1500 m ³	24-hour average		Daily	Maximum
		pH	7.0-9.0	Spot		6 monthly	Minimum and Maximum

		Visible oil or grease	No significant trace as far as reasonably practicable	Instantaneous (visual examination)			No significant trace
		Free Chlorine	No free chlorine	Spot			
AR13	W3: WFGS surface run-off to Wytch lake at SY 9771 8574 figure 3 of Schedule 7	Maximum rate of discharge	230 litres per second	Instantaneous (spot sample)	N/A	N/A	Maximum
		Oil	1.0 mg/l	Spot		6 monthly	Maximum
		Chloride	100 mg/l	Spot		Prior to any discharge taking place	Maximum
AR14	W4: Wellsite A surface run-off to Fytchworth Copse stream at SY 9888 8868, Figure 4 of Schedule 7	Maximum daily discharge volume	230 m ³ /day	Total daily volume	N/A	N/A	Maximum
		Maximum rate of discharge	10 litres per second	Instantaneous (spot sample)		N/A	Maximum
		Oil	1.0 mg/l	Spot		6 monthly	Maximum
AR15	W5: Wellsite D surface run-off to Claywell stream at SY9941 8581, Figure 5 of Schedule 7	Maximum daily discharge volume	1,990 m ³ /day	Total daily volume	N/A	N/A	Maximum
		Maximum rate of discharge	100 litres per second	Instantaneous (spot sample)		N/A	Maximum
		Oil	1.0 mg/l	Spot		Prior to any discharge taking place	Maximum
		Chloride	100 mg/l	Spot		Prior to any discharge taking place	Maximum
AR34	WL1: Discharge of treated site surface water to ground via soakaway at Wellsite 2B [Figure 11 of Schedule 7]	Maximum daily discharge volume	191 m ³ /day	Total daily volume	NA	Continuous	Maximum
		Oil	1.0 mg/l	Instantaneous (spot sample)	NA	Prior to discharge	Maximum
		Chloride	50.0 mg/l				Maximum
AR35	WL12: Discharge of treated site surface water to ground via soakaway at Wellsite X [Point WL12, Figure 10 of Schedule 7]	Maximum daily discharge volume	62 m ³ /day	Total daily volume	NA	Continuous	Maximum
		Oil	1.0 mg/l	Instantaneous (spot sample)	NA	Prior to discharge	Maximum
		Chloride	50.0 mg/l				Maximum

AR36	WL13: Discharge of treated site surface water to ground via soakaway at Wellsite Wareham C, [Point WL13, Figure 14 of Schedule 7	Maximum daily discharge volume	106 m ³ /day	Total daily volume	NA	Continuous	Maximum
		Oil	1.0 mg/l	Instantaneous (spot sample)	NA	Prior to discharge	Maximum
		Chloride	50.0 mg/l				Maximum
AR37	WL14: Discharge of treated site surface water to ground via soakaway at Wellsite Wareham D [Point WL14, Figure 15 of Schedule 7]	Maximum daily discharge volume	151 m ³ /day	Total daily volume	NA	Continuous	Maximum
		Oil	1.0 mg/l	Instantaneous (spot sample)	NA	Prior to discharge	Maximum
		Chloride	50.0 mg/l				Maximum

Effluent name	Discharge Points	Discharge point NGR	Receiving water / environment
AR17 and AR18: Discharge of an admixture of produced water from extraction of hydrocarbons, treated site surface water and treated seawater to re-injection boreholes	Borehole 1K-11FI	SZ 00946 87024	Frome Clay Limestone Formation via injection boreholes
	Borehole 1K-14FI	SZ 00937 87062	
	Borehole 1K-16FI	SZ 00928 87088	
	Borehole 1L-11FI	SZ 01307 87017	
	Borehole 1L-13FI	SZ 01348 87030	
	Borehole 1M-04FI	SZ 01119 85886	
AR19, AR20, AR21, AR22: Discharge of an admixture of produced water from extraction of hydrocarbons, treated site surface water and treated seawater to re-injection boreholes	Borehole 1A-02BI	SY 98954 85559	Bridport Sandstone Formation via injection boreholes
	Borehole 1A-05BI	SY 98954 85563	
	Borehole 1A-13BI	SY 98937 85637	
	Borehole 2B-04BI	SY 97230 85264	
	Borehole 2B-05BI	SY 97227 85261	
	Borehole 1D-04BI	SY 99477 85661	
	Borehole 1F-06BI	SZ 01030 85745	
	Borehole AG-02BI	SY 95751 87028	
	Borehole 1K-02BI	SZ 00945 87056	
	Borehole 1K-03BI	SZ 00954 87035	

Table S3.3 Discharge points			
Effluent name	Discharge Points	Discharge point NGR	Receiving water / environment
AR23, AR24, AR25: Discharge of an admixture of produced water, treated site surface water and treated seawater from oil and gas extraction to re-injection boreholes	Borehole 1A-10SI	SY 98949 85625	Sherwood Sandstone Formation via injection boreholes
	Borehole 1A-13SI	SY 98937 85638	
	Borehole 2B-08SI	SY 97248 85278	
	Borehole 2B-09SI	SY 97238 85270	
	Borehole 2B-11SI	SY 97240 85273	
	Borehole 1F-09SI	SZ 01020 85711	
	Borehole 1F-10SI	SZ 01066 85715	
	Borehole 1F-11SI	SZ 01065 85711	
	Borehole 1F-17SI	SZ 01065 85741	
	Borehole 1F-25SI	SZ 01066 85733	
	Borehole 1K-01SI	SZ 00940 87050	
	Borehole 1K-04SI	SZ 00955 87026	
	Borehole 1K-12SI	SZ 00942 87040	
	Borehole 1L-02SI	SZ 01341 87026	
	Borehole 1L-04SI	SZ 01328 87022	
	Borehole 1L-09SI	SZ 01320 87020	
	Borehole 1M-01SI	SZ 01116 85914	
	Borehole 1M-12SI	SZ 00942 87040	
Borehole 1M-14SI	SZ 01114 85938		
Borehole 1M-16SI	SZ 01118 85883		
Borehole 1M-20SI	SZ 01120 85862		
AR26, AR27, AR28, AR29, AR30 and AR31: Discharge of an acid solution to ground via production boreholes for the extraction of hydrocarbons	Borehole 1A-01CP	SY 98955 85554	Groundwater via boreholes constructed in the Cornbrash and Forest Marble Limestone Formation
	Borehole 1A-03CP	SY 98956 85545	
	Borehole 1A-04CP	SY 98956 85550	
	Borehole 1D-01CP	SY 99500 85650	
	Borehole 1D-03CP	SY 99474 85652	
	Borehole 1D-04CP	SY 99477 85661	

Table S3.3 Discharge points			
Effluent name	Discharge Points	Discharge point NGR	Receiving water / environment
AR26, AR27, AR28, AR29, AR30 and AR31: Discharge of an acid solution to ground via production boreholes for the extraction of hydrocarbons	Borehole 1F-11CP	SZ 01064 85711	Groundwater via boreholes constructed in the Cornbrash and Forest Marble Limestone Formation
	Borehole 1F-15CP	SZ 01064 85746	
	Borehole 1F-27CP	SZ 01020 85746	
	Borehole 1X-01CP	SY 98046 85263	
	Borehole 1K-02CP	SZ 00948 87056	
	Borehole AG01CP	SY 95750 87042	
	Borehole WC01CP	SY 90575 87215	
	Borehole WC04CP	SY 90597 87227	
	Borehole WC05CP	SY 90606 87232	
	Borehole WC07CP	SY 90583 87219	
	Borehole WC09CP	SY 90611 87234	
	Borehole WD01CP	SY 89779 87578	
	Borehole WD02CP	SY 89775 87581	
	Borehole WD03CP	SY 89771 87584	
	Borehole WD04CP	SY 89783 87575	
Borehole WD05CP	SY 89791 87570		
AR32, and AR33: Discharge of an acid solution to ground via production and re-injection boreholes for the extraction of hydrocarbons	Borehole 1F-04FP	SZ 01039 85745	Groundwater via boreholes constructed in the Frome Clay Limestone Formation
	Borehole 1F-26FP	SZ 01019 85751	
	Borehole 1M-04FI	SZ 01119 85866	
	Borehole 1M-13FP	SZ 01114 85934	
	Borehole 1M-21FP	SZ 01114 85948	
	Borehole 1M-22FP	SZ 01114 85951	
	Borehole 1K-11FI	SZ 00945 87024	
	Borehole 1K-14FI	SZ 00936 87062	
	Borehole 1K-15FP	SZ 00935 87066	
	Borehole 1K-16FI	SZ 00926 87088	
	Borehole 1L-03FP	SZ 01332 87024	
	Borehole 1L-07FP	SZ 0134 87022	
	Borehole 1L-11FP	SZ 01307 87017	
Borehole 1L-13FP	SZ 01348 87039		

Effluent name	Discharge Points	Discharge point NGR	Receiving water / environment
AR12:Discharge of seawater backwash	W1	SZ 00370 86125	Poole harbour at Cleavel Point
AR13:Emergency discharge of fire water, storm water	W3	SY 97714 85741	Wytch Lake
AR14:Surface run-off from Wellsite A	W4	SY 98878 85694	Fitsworth Copse Stream
AR15:Surface run-off from Wellsite D	W5	SY 99411 85610	Claywell Stream
AR34: Discharge of treated site surface water to ground at Wellsite 2B	WL1	SY 97174 85265	Groundwater via soakaway
AR35: Discharge of treated site surface water to ground at Wellsite X	WL12	SY 98086 85233	Groundwater via soakaway
AR36: Discharge of treated site surface water to ground at Wellsite Wareham C	WL13	SY 90606 87259	Groundwater via soakaway
AR37: Discharge of treated site surface water to ground WL14 at Wellsite Wareham D	WL14	SY 88979 87621	Groundwater via soakaway

Substance	Medium	Limit (including unit)
Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)	Air	250 tonnes

Location or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Groundwater monitoring locations as specified in Groundwater Monitoring Plan in Table S1.2 following approval of IC3 in Table S1.3	As specified in Groundwater Monitoring Plan in Table S1.2 following approval of IC3 in Table S1.3	As specified in Groundwater Monitoring Plan in Table S1.2 following approval of IC3 in Table S1.3	BS ISO 5667-11:2009 and condition 3.5.3. As provided in the Groundwater Monitoring Plan in table S1.2 or other relevant guidance in agreement with the Environment Agency	Three borehole volumes must be purged prior to sampling. Samples must be filtered samples. In accordance with the Groundwater Monitoring Plan in Table S1.2
Surface water monitoring locations as specified in Table S1.2 or following approval of IC8 in Table S1.3	Total hydrocarbons (mg/l) Chloride (mg/l)	3 monthly, or as agreed in writing	As specified in condition 3.5.3	In accordance with site surface water monitoring plan in Table S1.2 or following approval of IC8 in Table S1.3

Location or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
As provided in the Ambient Sampling Plan as specified within table S1.2	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)	One month every quarter or as provided in Ambient Sampling Plan as specified within table S1.2	In accordance with monitoring technical guidance note M8 or other relevant guidance as agreed in writing	As provided in the Ambient Sampling Plan as specified within table S1.2
	Oxides of sulphur			
	Total hydrocarbons			
	Benzene			

Effluent(s) and discharge point(s)	Monitoring type	Monitoring point NGR (Surface NGRs as listed in Table S3.3)	Monitoring point reference
W1 Discharge of seawater backwash at Cleavel Point	Effluent sampling	SZ 00246 86008	Effluent sample point
W3: Discharge of site surface water on Gathering Station to Wytch Lake emergency discharge (fire water, storm water)	Effluent sampling	SY 97556 85219	Effluent sample point
W4: Discharge of site surface water on Well site A to Fitsworth Copse Stream	Effluent sampling	SY 98901 85676	Effluent sample point
W5: Discharge of site surface water on Well site D to Claywell Stream	Effluent sampling	SY 99478 85681	Effluent sample point
WL1: Discharge of treated site surface water to ground at Wellsite 2B	Flow monitoring	SY 97192 85258	Flow monitoring point
	Effluent Monitoring	SY 97192 85258	Effluent Monitoring point
WL12: Discharge of treated site surface water to ground at Wellsite X	Flow monitoring	SY 98079 85219	Flow monitoring point
	Effluent Monitoring	SY 98079 85219	Effluent Monitoring point
WL13: Discharge of treated site surface water to ground at Wareham C	Flow monitoring	SY 90643 87238	Flow monitoring point
	Effluent Monitoring	SY 90643 87238	Effluent Monitoring point
WL14: Discharge of treated site surface water to ground at Wareham D	Flow monitoring	SY 89790 87621	Flow monitoring point
	Effluent Monitoring	SY 89790 87621	Effluent Monitoring point
AR17-AR25: Discharge of an admixture of produced water from oil and or gas extraction and treated site surface water and seawater to re-injection boreholes	Flow monitoring	SZ 00946 87024	Flow monitoring point 1K-11FI
		SZ 00937 87062	Flow monitoring point 1K-14FI
		SZ 00928 87088	Flow monitoring point 1K-16FI
		SZ 01307 87017	Flow monitoring point 1L-11FI
		SZ 01348 87030	Flow monitoring point 1L-13FI
		SZ 01119 85886	Flow monitoring point 1M-04FI

Table S3.7 Monitoring points			
Effluent(s) and discharge point(s)	Monitoring type	Monitoring point NGR (Surface NGRs as listed in Table S3.3)	Monitoring point reference
AR17-AR25: Discharge of an admixture of produced water from oil and or gas extraction and treated site surface water and seawater to re-injection boreholes	Flow monitoring	SY 98954 85559	Flow monitoring point 1A-02BI
		SY 98954 85563	Flow monitoring point 1A-05BI
		SY 98937 85637	Flow monitoring point 1A-13BI
		SY 97230 85264	Flow monitoring point 2B-04BI
		SY 97227 85261	Flow monitoring point 2B-05BI
		SY 99477 85661	Flow monitoring point 1D-04BI
		SZ 01030 85745	Flow monitoring point 1F-06BI
		SY 95751 87028	Flow monitoring point AG-02BI
		SZ 00945 87056	Flow monitoring point 1K-02BI
		SZ 00954 87035	Flow monitoring point 1K-03BI
	Flow monitoring	SY 97248 85278	Flow monitoring point 2B-08SI
		SY 97237 85270	Flow monitoring point 2B-09SI
		SY 97240 85273	Flow monitoring point 2B-11SI
		SY 98949 85625	Flow monitoring point 1A-10SI
		SY 98937 85638	Flow monitoring point 1A-13SI
		SZ 01020 85711	Flow monitoring point 1F-09SI
		SZ 01066 85715	Flow monitoring point 1F-10SI
		SZ 01065 85711	Flow monitoring point 1F-11SI
		SZ 01065 85741	Flow monitoring point 1F-17SI
		SZ 01066 85733	Flow monitoring point 1F-25SI
		SZ 00940 87050	Flow monitoring point 1K – 01SI
		SZ 00955 87026	Flow monitoring point 1K –04SI
		SZ 00942 87040	Flow monitoring point 1K – 12SI
		SZ 01341 87026	Flow monitoring point 1L – 02SI
		SZ 01329 87022	Flow monitoring point 1L – 04SI
		SZ 01320 87020	Flow monitoring point 1L – 09SI
SZ 01116 85914	Flow monitoring point 1M – 01SI		
SZ 00942 87040	Flow monitoring point 1M – 12SI		
SZ 01114 85938	Flow monitoring point 1M – 14SI		
SZ 01118 85883	Flow monitoring point 1M – 16SI		
SZ 01120 85862	Flow monitoring point 1M – 20SI		

Table S3.7 Monitoring points			
Effluent(s) and discharge point(s)	Monitoring type	Monitoring point NGR (Surface NGRs as listed in Table S3.3)	Monitoring point reference
AR26– AR31: Discharge of an acid solution to ground via production boreholes for the extraction of hydrocarbons	Flow monitoring	SY 98955 85554	Flow Monitoring point 1A –01CP
	Injection pressure monitoring	SY 98955 85554	Injection pressure monitoring point 1A –01CP
	Flow monitoring	SY 98956 85545	Flow Monitoring point 1A – 03CP
	Injection pressure monitoring	SY 98956 85545	Injection pressure monitoring point 1A – 03CP
	Flow monitoring	SY 98956 85550	Flow Monitoring point 1A – 04CP
	Injection pressure monitoring	SY 98956 85550	Injection pressure monitoring point 1A – 04CP
	Flow monitoring	SY 99500 85650	Flow Monitoring point 1D – 01CP
	Injection pressure monitoring	SY 99500 85650	Injection pressure monitoring point 1D – 01CP
	Flow monitoring	SY 99474 85652	Flow Monitoring point 1D – 03CP
	Injection pressure monitoring	SY 99474 85652	Injection pressure monitoring point 1D – 03CP
	Flow monitoring	SY 99477 85661	Flow Monitoring point 1D – 04CP
	Injection pressure monitoring	SY 99477 85661	Injection pressure monitoring point 1D – 04CP
	Flow monitoring	SZ 01064 85711	Flow Monitoring point 1F-11CP
	Injection pressure monitoring	SZ 01064 85711	Injection pressure monitoring point 1F-11CP
	Flow monitoring	SZ 01064 85746	Flow Monitoring Point 1F-15CP
	Injection pressure monitoring	SZ 01064 85746	Injection pressure monitoring point 1F-15CP
	Flow monitoring	SZ 01020 85746	Flow Monitoring point 1F-27CP
	Injection pressure monitoring	SZ 01020 85746	Injection pressure monitoring point 1F-27CP
	Flow monitoring	SY 98046 85263	Flow Monitoring point 1X-01CP
	Injection pressure monitoring	SY 98046 85263	Injection pressure monitoring point 1X-01CP
	Flow monitoring	SZ 00948 87056	Flow Monitoring point 1K-02CP
	Injection pressure monitoring	SZ 00948 87056	Injection pressure monitoring point 1K-02CP
	Flow monitoring	SY 95750 87042	Flow Monitoring point AG-01CP
Injection pressure monitoring	SY 95750 87042	Injection pressure monitoring point AG-01CP	
Flow monitoring	SY 90575 87215	Flow Monitoring point WC-01CP	

Table S3.7 Monitoring points			
Effluent(s) and discharge point(s)	Monitoring type	Monitoring point NGR (Surface NGRs as listed in Table S3.3)	Monitoring point reference
AR26– AR31: Discharge of an acid solution to ground via production boreholes for the extraction of hydrocarbons	Injection pressure monitoring	SY 90575 87215	Injection pressure monitoring point WC-01CP
	Flow monitoring	SY 90597 87227	Flow Monitoring point WC-04CP
	Injection pressure monitoring	SY 90597 87227	Injection pressure monitoring point WC-04CP
	Flow monitoring	SY 90583 87219	Flow Monitoring point WC-07CP
	Injection pressure monitoring	SY 90583 87219	Injection pressure monitoring point WC-07CP
	Flow monitoring	SY 90611 87234	Flow Monitoring point WC-09CP
	Injection pressure monitoring	SY 90611 87234	Injection pressure monitoring point WC-09CP
	Flow monitoring	SY 89779 87578	Flow Monitoring point WD-01CP
	Injection pressure monitoring	SY 89779 87578	Injection pressure monitoring point WD-01CP
	Flow monitoring	SY 89775 87581	Flow Monitoring point WD-02CP
	Injection pressure monitoring	SY 89775 87581	Injection pressure monitoring point WD-02CP
	Flow monitoring	SY 89771 87584	Flow Monitoring point WD-03CP
	Injection pressure monitoring	SY 89771 87584	Injection pressure monitoring point WD-03CP
	Flow monitoring	SY 89783 87575	Flow Monitoring point WD-04CP
	Injection pressure monitoring	SY 89783 87575	Injection pressure monitoring point WD-04CP
	Flow monitoring	SY 89791 87570	Flow Monitoring point WD-05CP
Injection pressure monitoring	SY 89791 87570	Injection pressure monitoring point WD-05CP	
AR32 and AR33: Discharge of an acid solution to ground via production and re-injection boreholes for the extraction of hydrocarbons	Flow monitoring	SZ 01039 85745	Flow Monitoring point 1F – 04FP
	Injection pressure monitoring	SZ 01039 85745	Injection pressure monitoring point 1F – 04FP
	Flow monitoring	SZ 01019 85751	Flow Monitoring point 1F – 26FP
	Injection pressure monitoring	SZ 01019 85751	Injection pressure monitoring point 1F – 26FP
	Flow monitoring	SZ 01119 85866	Flow Monitoring point 1M - 04FI
	Injection pressure monitoring	SZ 01119 85866	Injection pressure monitoring point 1M – 04F1
	Flow monitoring	SZ 01114 85934	Flow Monitoring point 1M – 13FP
	Injection pressure monitoring	SZ 01114 85934	Injection pressure monitoring point 1M – 13FP
	Flow monitoring	SZ 01114 85948	Flow Monitoring point 1M – 21FP

Table S3.7 Monitoring points			
Effluent(s) and discharge point(s)	Monitoring type	Monitoring point NGR (Surface NGRs as listed in Table S3.3)	Monitoring point reference
AR32 and AR33: Discharge of an acid solution to ground via production and re-injection boreholes for the extraction of hydrocarbons	Injection pressure monitoring	SZ 01114 85948	Injection pressure monitoring point 1M – 21FP
	Flow monitoring	SZ 01114 85951	Flow Monitoring point 1M – 22FP
	Injection pressure monitoring	SZ 01114 85951	Injection pressure monitoring point 1M – 22FP
	Flow monitoring	SZ 00945 87024	Flow Monitoring point 1K – 11FI
	Injection pressure monitoring	SZ 00945 87024	Injection pressure monitoring point 1K – 11FI
	Flow monitoring	SZ 00936 87062	Flow Monitoring point 1K – 14FI
	Injection pressure monitoring	SZ 00936 87062	Injection pressure monitoring point 1K – 14FI
	Flow monitoring	SZ 00935 87066	Flow Monitoring point 1K – 15FP
	Injection pressure monitoring	SZ 00935 87066	Injection pressure monitoring point 1K – 15FP
	Flow monitoring	SZ 00926 87088	Flow Monitoring point 1K – 16FI
	Injection pressure monitoring	SZ 00926 87088	Injection pressure monitoring point 1K – 16FI
	Flow monitoring	SZ 01332 87024	Flow Monitoring point 1L – 03FP
	Injection pressure monitoring	SZ 01332 87024	Injection pressure monitoring point 1L – 03FP
	Flow monitoring	SZ 01340 87022	Flow Monitoring point 1L – 07FP
	Injection pressure monitoring	SZ 01340 87022	Injection pressure monitoring point 1L – 07FP
	Flow monitoring	SZ 01307 87017	Flow Monitoring point 1L – 11FP
	Injection pressure monitoring	SZ 01307 87017	Injection pressure monitoring point 1L – 11FP
	Flow monitoring	SZ 01348 87039	Flow Monitoring point 1L – 13FP
Injection pressure monitoring	SZ 01348 87039	Injection pressure monitoring point 1L – 13FP	

Table S3.8 Process monitoring requirements				
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Gas to oil ratio of production from the installation	Gas to oil ratio	Monthly	As agreed in writing with the Environment Agency	
Gas generators and waste heat recovery unit at points A1, A2 and A3 at Gathering Station on site plan 2 in Schedule 7	Engine gas feed flow rate	Continuous	As approved in writing with the Environment Agency	
Flare feed gas volume and composition	Volume and composition as per condition 3.5.7	Monthly	As agreed in writing with the Environment Agency	
All reinjection boreholes as listed in Table S3.3 for Groundwater Activities AR17–AR25	Well integrity monitoring summary report	Annually	In accordance with HRA as referenced in Table S1.2 or as per the updated written management system specified in improvement condition IC4	
All reinjection boreholes as listed in Table S3.3 for Groundwater Activities AR17–AR25	Concentration and volume of all process chemicals added to produced water prior to reinjection as defined in the Hydrogeological Risk Assessment in table S1.2.	Monthly	N/A	
In accordance with the Acid Stimulation Plan as referenced in Table S1.2	Location, orientation and extent of stimulated rock volume	During and after acid stimulation and in accordance with the Acid Stimulation Plan approved by the Environment Agency	As set out in the approved Acid Stimulation Plan	N/A

Schedule 4 – Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

Table S4.1 Reporting of monitoring data			
Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Emissions to air Parameters as required by condition 3.5.1.	A3, A11, A12	Every 12 months	1 January
Emissions to surface water Parameters as required by condition 3.5.1	W1, W3, W4, W5	Every 12 months	1 January
Emissions to groundwater (soakaways) Parameters as required by condition 3.5.1	WL11, WL12, WL13, WL14,	Every 12 months	1 January
Groundwater monitoring Parameters as required by condition 3.5.1	According to the groundwater sampling plan as specified within table S1.2 in Schedule 1	Every 12 months	1 January
Noise monitoring Parameters as required by condition 3.5.1	According to the noise management plan as specified within table S1.2 in Schedule 1	Every 12 months	1 January
Ambient air monitoring Parameters as required by condition 3.5.1	According to the ambient monitoring sampling plan as specified within table S1.2 in Schedule 1	Every 12 months	1 January
Gas feed rate (tonnes/period) and composition. Parameters as required by condition 3.5.1	Gas flare	Every 6 months	1 January, 1 July
Process monitoring parameters as required by condition 3.5.1	Description as indicated in table S3.8	Every 12 months	1 January
Process chemicals in re-injected produced water. Parameters as required by condition 3.5.1 and listed in Table 3.9	All reinjection wells specified in Table S3.3	Every 6 months	1 January, 1 July
Emissions to groundwater (produced water reinjection: total daily volume and rate of discharge) as required by condition 3.5.1 and as listed in table S3.2	All flow monitoring points specified in Table S3.7	Every 6 months	1 January, 1 July
Process monitoring reinjection well integrity monitoring summary report	All reinjection boreholes as listed in Table S3.3 for Groundwater Activities AR17–AR25	Every 12 months	1 January
Emissions to groundwater: acid stimulation (total volume per treatment and rate of discharge as listed in Table S3.2)	All flow monitoring points specified in Table S3.7	Every 6 months	1 January, 1 July
Acid stimulation surface injection pressures	All injection pressure monitoring points specified in Table S3.7	Every 6 months	1 January, 1 July

Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Process monitoring parameters: location, orientation and extent of stimulated rock volume as listed in Table S3.8	Descriptions as indicated in Table S3.8	Every 6 months	1 January, 1 July
Emissions to groundwater (discharges to soakaway: total daily volume and rate of discharge, oil and chloride) Parameters are required by condition 3.5.1	WL1, WL12, WL13 and WL14	Every 6 months	1 January, 1 July

Parameter	Units
Methane Flared	tonnes
Crude Oil Production	tonnes
Average Water Cut	% production
Average Gas to Oil Ratio	scf / bbl
Stabilised oil exported to Hamble Oil Terminal	tonnes
Liquid petroleum gas exported	tonnes
Aerosol exported	tonnes
Natural gas exported	tonnes
Produced water re-injected to oil reservoirs	tonnes

Parameter	Frequency of assessment	Units
Volume of potable water used	Annually	m ³
Volume of seawater abstracted	Annually	m ³
Total fuel gas used for flare pilots	Annually	m ³
Total fuel gas flared	Annually	m ³
Total gas used by WHRU	Annually	m ³
Total gas used by GT	Annually	m ³
Electricity generation by GT	Annually	MWh
Electricity imported to installation	Annually	MWh
Crude Oil Production	Annually	tonnes
Average Water Cut	Annually	% production
Average Gas to Oil Ratio	Annually	scf / bbl

Media/parameter	Reporting format	Date of form
Air	Form air 1 or other form as agreed in writing by the Environment Agency	15/09/2007

Table S4.4 Reporting forms		
Media/parameter	Reporting format	Date of form
Water	Form water 1 or other form as agreed in writing by the Environment Agency	15/09/2007
Ambient air	Form ambient 1 or other form as agreed in writing by the Environment Agency	15/09/2007
Groundwater	Form groundwater 1 or other form as agreed in writing by the Environment Agency	15/09/2007
Noise	Form noise 1 or other form as agreed in writing by the Environment Agency	15/09/2007
Water usage	Form water usage 1 or other form as agreed in writing by the Environment Agency	15/09/2007
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	15/09/2007
Other performance indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	15/09/2007
Produced water injection: Total daily volume	Form as agreed in writing by the Environment Agency	N/A
Produced water injection: 15-minute flow	Form as agreed in writing by the Environment Agency	N/A
Acid stimulation: total volume per treatment and rate of discharge	Form as agreed in writing by the Environment Agency	N/A
Acid stimulation surface injection pressures	Form as agreed in writing by the Environment Agency	N/A
Process monitoring parameters: location, orientation and extent of stimulated rock volume as listed in Table S3.8	Form as agreed in writing by the Environment Agency	N/A
Discharges to soakaway: total daily volume and rate of discharge and effluent parameters	Form as agreed in writing by the Environment Agency	N/A
Process chemicals in re-injected produced water. Parameters as required by condition 3.5.1 and listed in Table 3.9	Form as agreed in writing with the Environment Agency	N/A
Process monitoring reinjection well integrity monitoring summary report	Form as agreed in writing with the Environment Agency	N/A

Schedule 5 – Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

Part A

Permit Number	EPR/NP3730CZ
Name of operator	Perenco UK Limited
Location of Facility	Furzebrook Road, Wareham, Dorset BH20 5AR
Time and date of the detection	

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution	
To be notified within 24 hours of detection	
Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Measures taken, or intended to be taken, to stop the emission	

Time periods for notification following detection of a breach of a limit	
Parameter	Notification period

(c) Notification requirements for the detection of any significant adverse environmental effect	
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

Part B – to be submitted as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 6 – Interpretation

“accident” means an accident that may result in pollution.

“annually” means once a year

“application” means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

“approved waste management plan” means a plan of the type described in Article 5(1) of Directive 2006/21/EC of the European Parliament and of the Council of 15 March 2006 on the management of waste from extractive industries and amending Directive 2004/35/EC, approved as part of the grant or variation of an environmental permit and as revised from time to time.

“authorised officer” means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

“background concentration” means such concentration of that substance as is present in:

- for emissions to surface water, the surface water quality up-gradient of the site; or
- for emissions to sewer, the surface water quality up-gradient of the sewage treatment works discharge.

“Competent Authority” means, in relation to –

- (a) London, the London Fire and Emergency Planning Authority;
- (b) an area where there is a fire and civil defence authority, that authority;
- (c) the Isles of Scilly, the Council of the Isles of Scilly;
- (d) an area in the rest of England, the county council for that area, or where there is no county council for that area, the district council for that area;

“disposal”. Means any of the operations provided for in Annex I to Directive 2008/98/EC of the European Parliament and of the Council on waste.

“emissions to land” includes emissions to groundwater.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations 2016 No.1154 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

“emissions of substances not controlled by emission limits” means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission or background concentration limit.

“extractive waste” means waste resulting from the prospecting, extraction, treatment and storage of mineral resources and the working of quarries, excluding waste which does not directly result from these operations.

“groundwater” means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

“Hazardous property” has the meaning in Annex III of the Waste Framework Directive.

“Hazardous waste” has the meaning given in the Hazardous Waste (England and Wales) Regulations 2005 (as amended).

“Industrial Emissions Directive” means Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions

“List of Wastes” means the list of wastes established by Commission Decision 2000/532/EC replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on

waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste, as amended from time to time.

“MCERTS” means the Environment Agency’s Monitoring Certification Scheme.

“mining waste facility” means a waste facility as defined in Article 3(15) of Directive 2006/21/EC of the European Parliament and of the Council of 15 March 2006 on the management of waste from extractive industries and amending Directive 2004/35/EC, where a mining waste operation is carried out.

“PRV” means pressure release valve

“PSV” means pressure safety valve

“quarter” means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

“recovery” means any of the operations provided for in Annex II to Directive 2008/98/EC of the European Parliament and of the Council on waste.

“Waste code” means the six digit code referable to a type of waste in accordance with the List of Wastes and in relation to hazardous waste, includes the asterisk.

“Waste Framework Directive” or “WFD” means Waste Framework Directive 2008/98/EC of the European Parliament and of the Council on waste

“year” means calendar year ending 31 December.

Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

- in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 KPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or
- in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content.

Figure 3: Gathering Station (NGR SY 975 850) showing groundwater and surface water monitoring locations

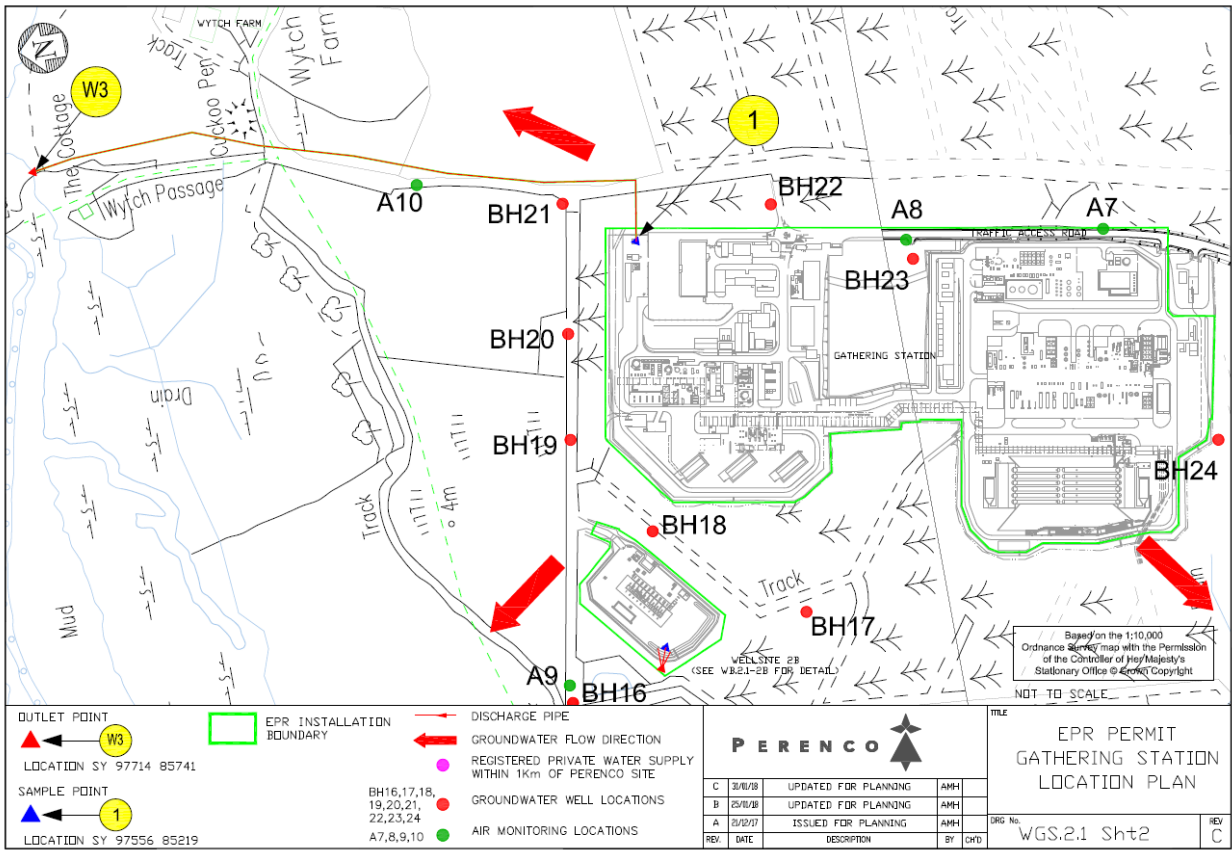


Figure 4: Well Site A (NGR SY 989 855)

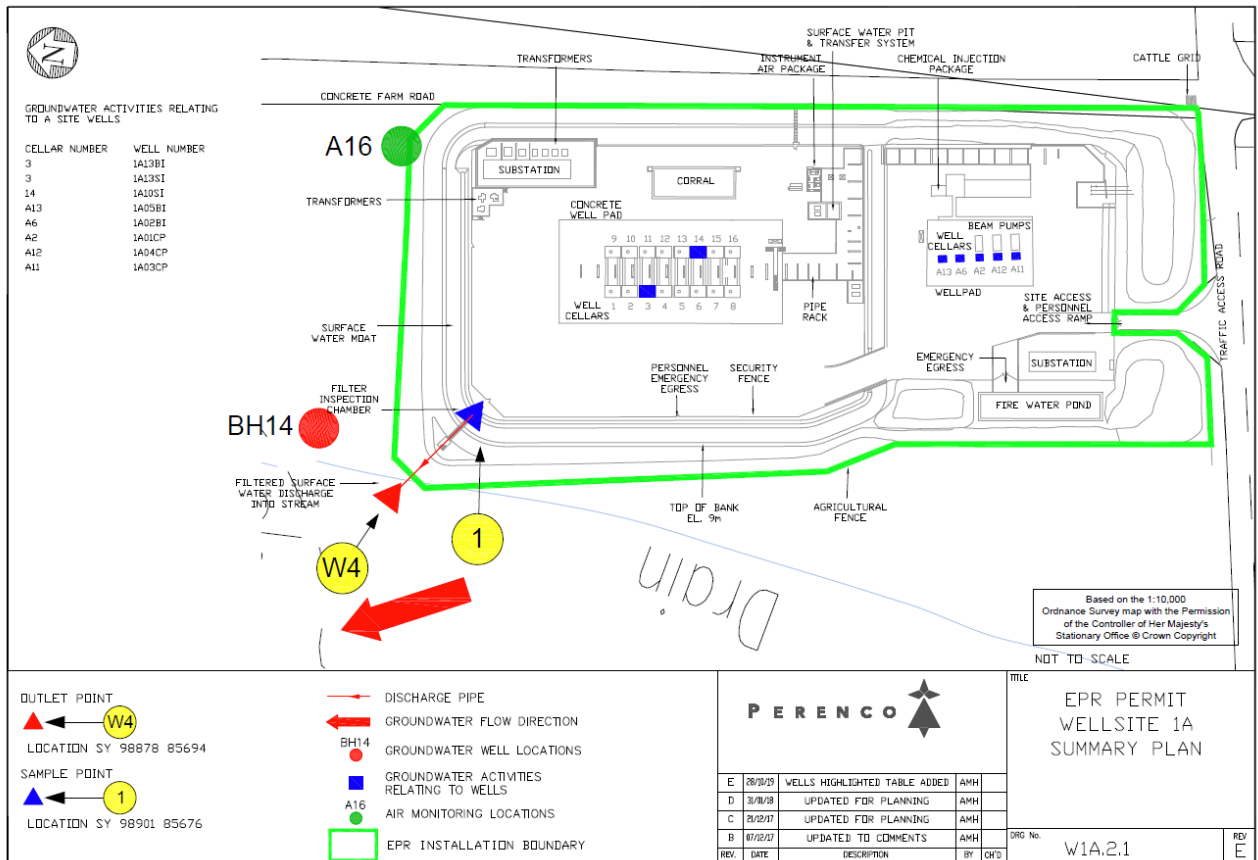


Figure 5: Well Site D (NGR SY 995 856)

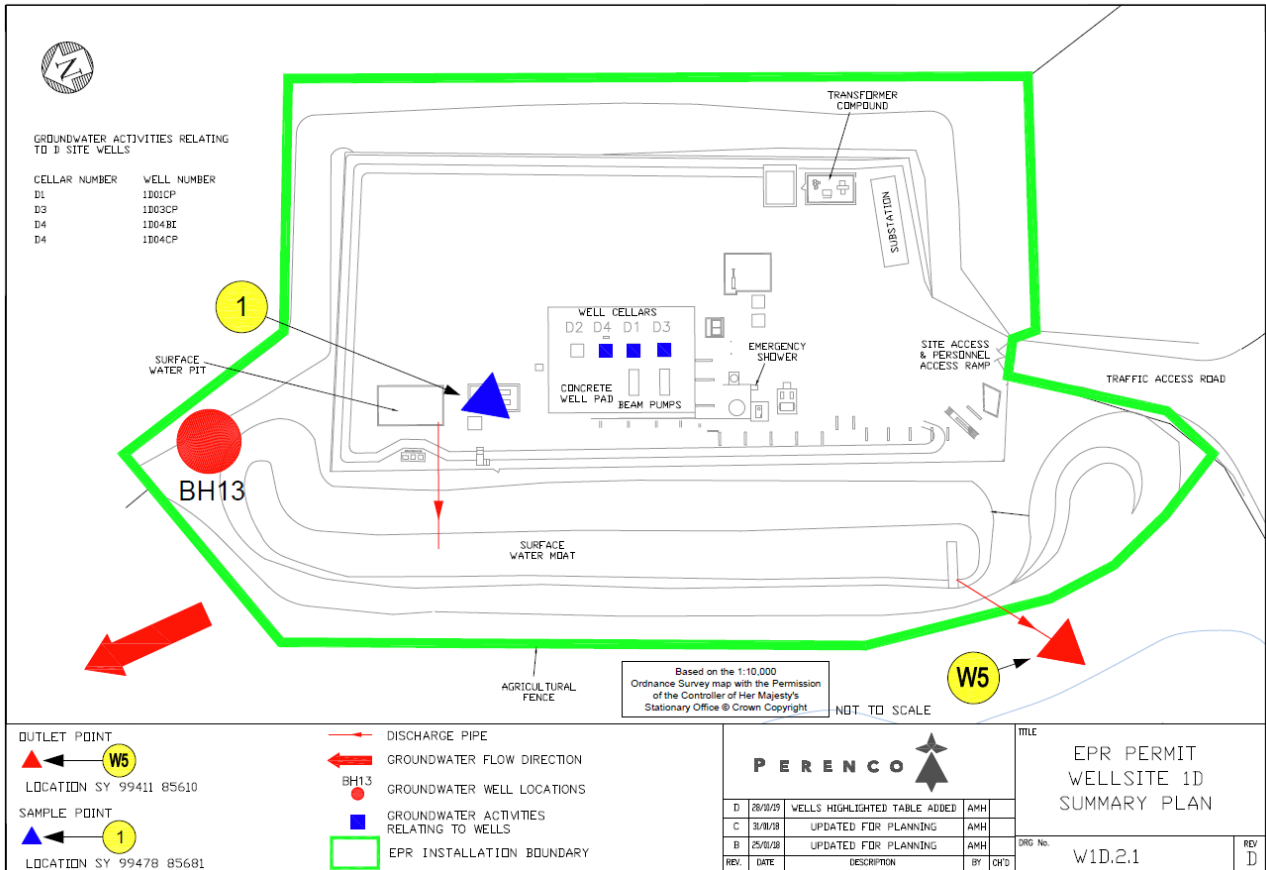


Figure 6: Well Site F (NGR SZ 010 857)

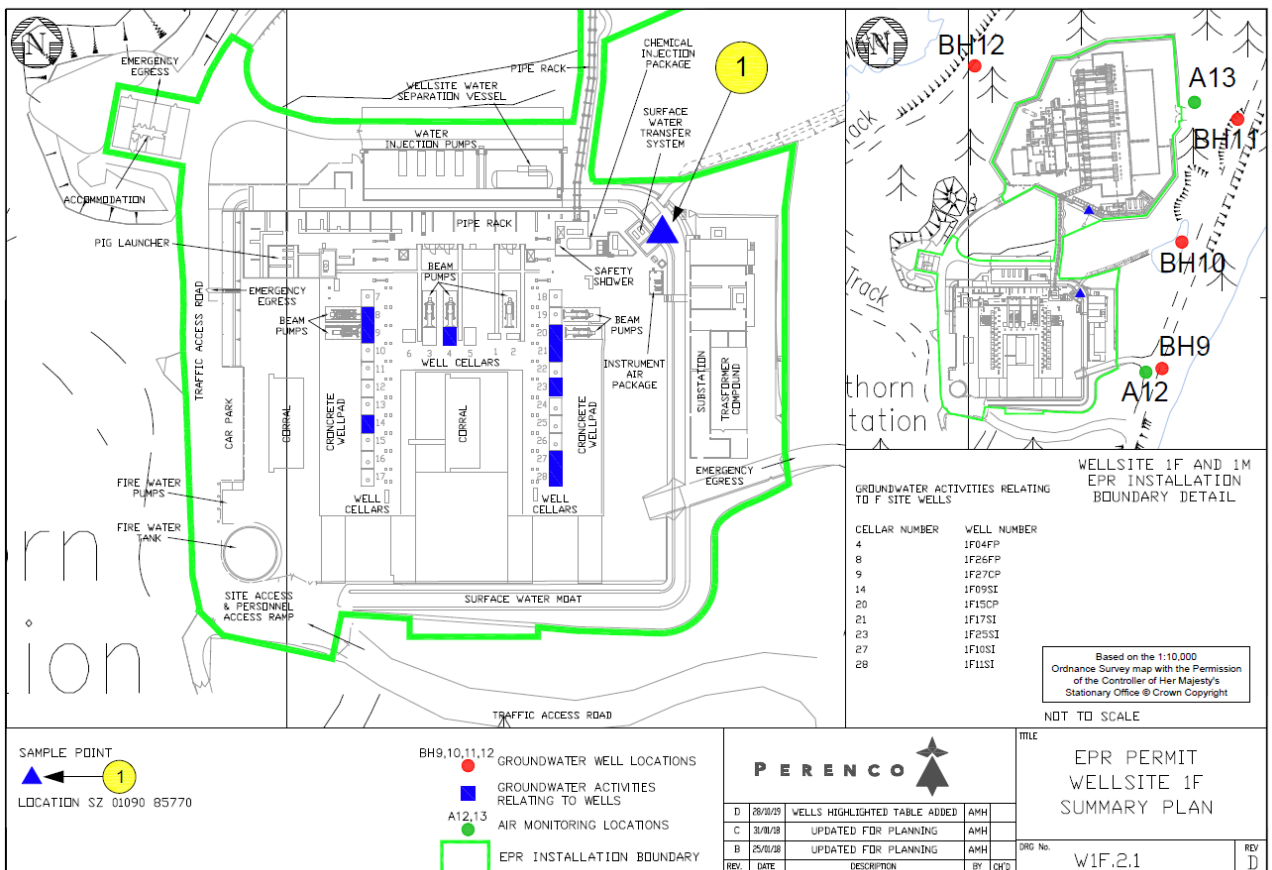


Figure 7: Well Site K – Furzey Island (NGR SZ 010 870)

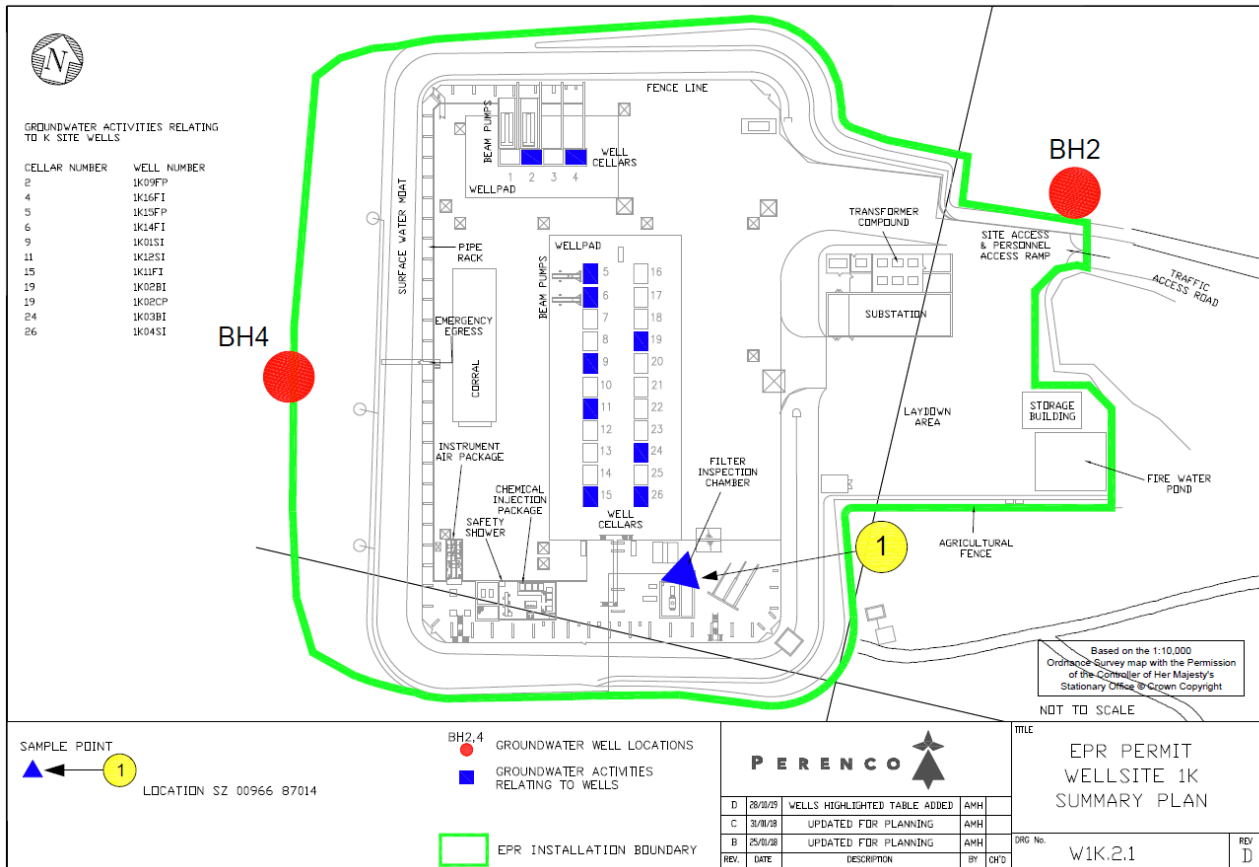


Figure 8: Well Site L – Furzey Island (NGR SZ 011 870)

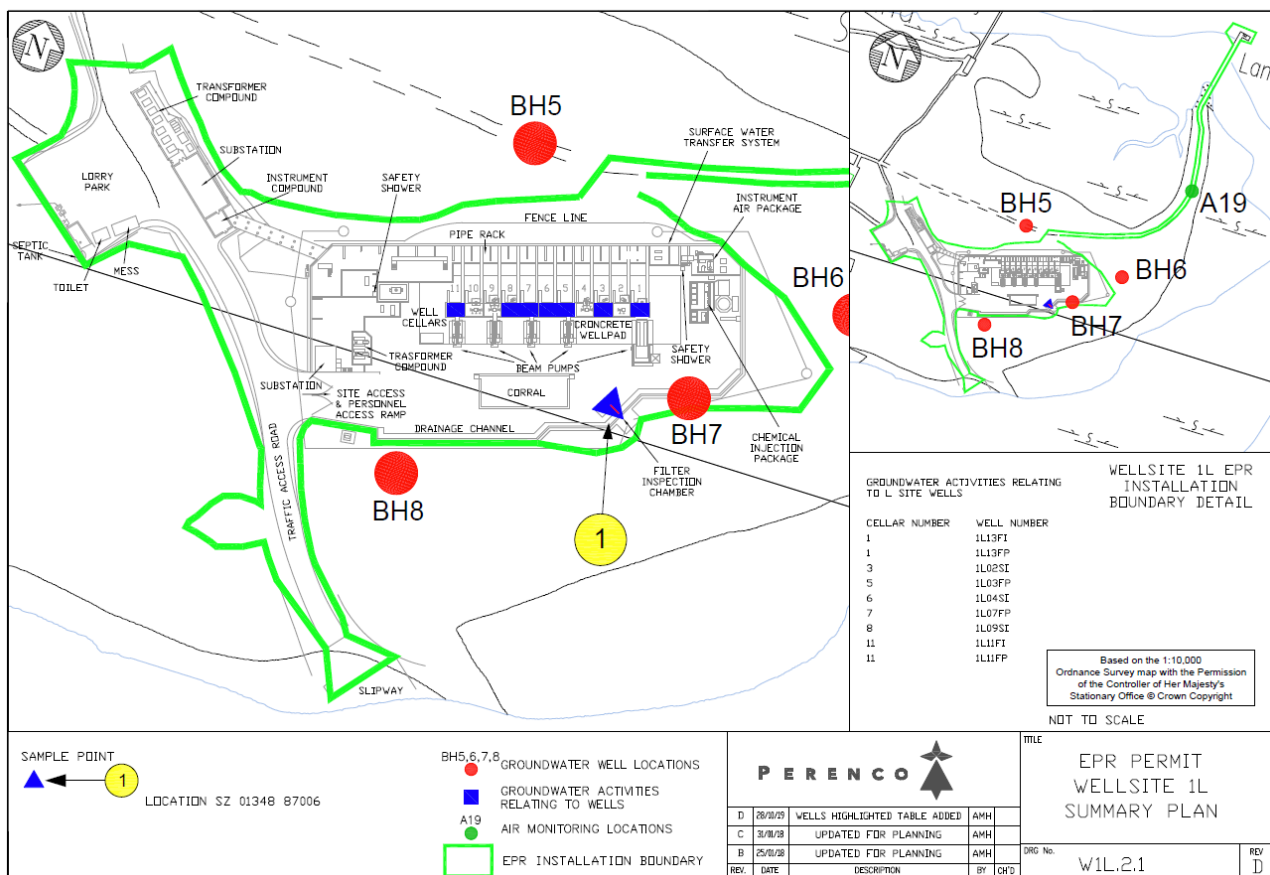


Figure 9: Well Site M (NGR SZ 010 859)

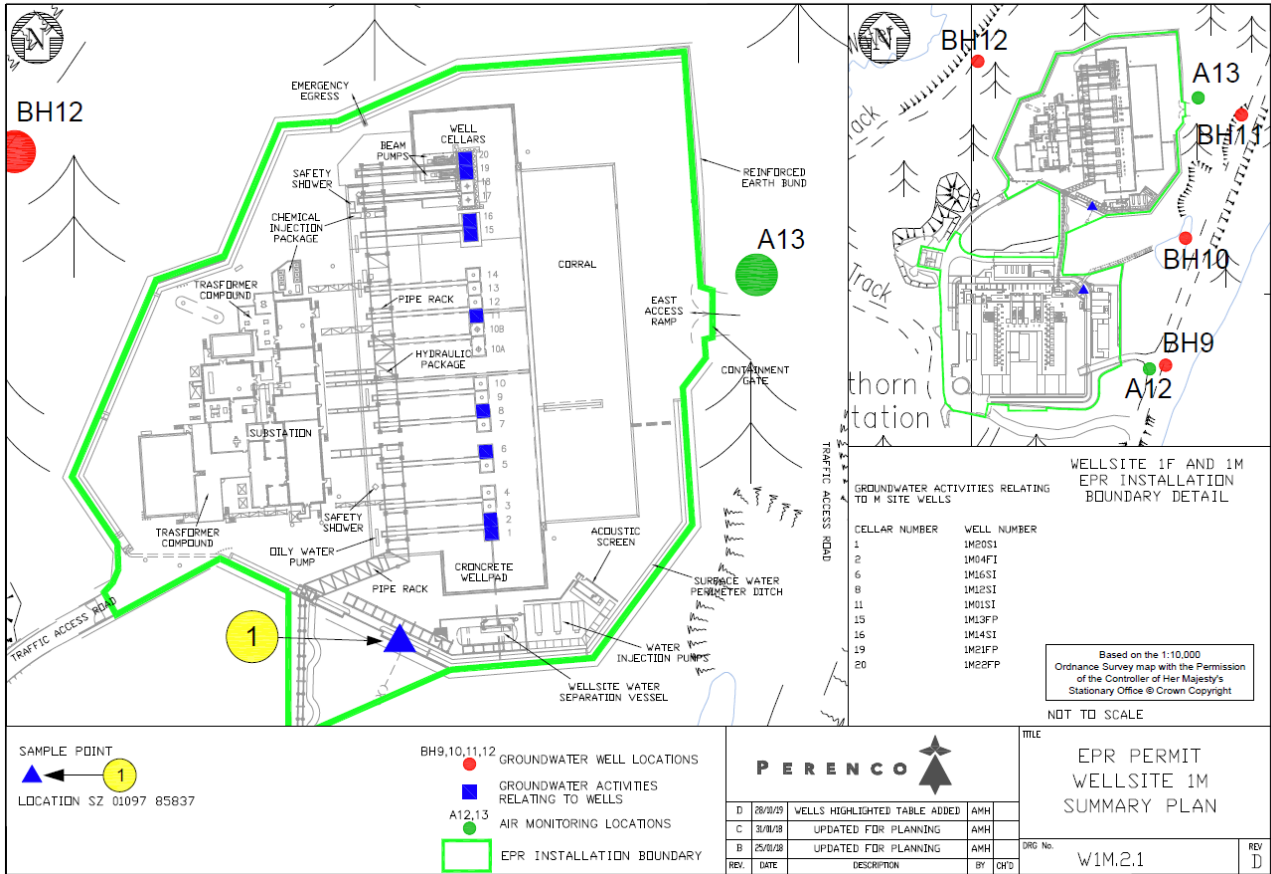


Figure 10: Well Site X (NGR SY 980 852)

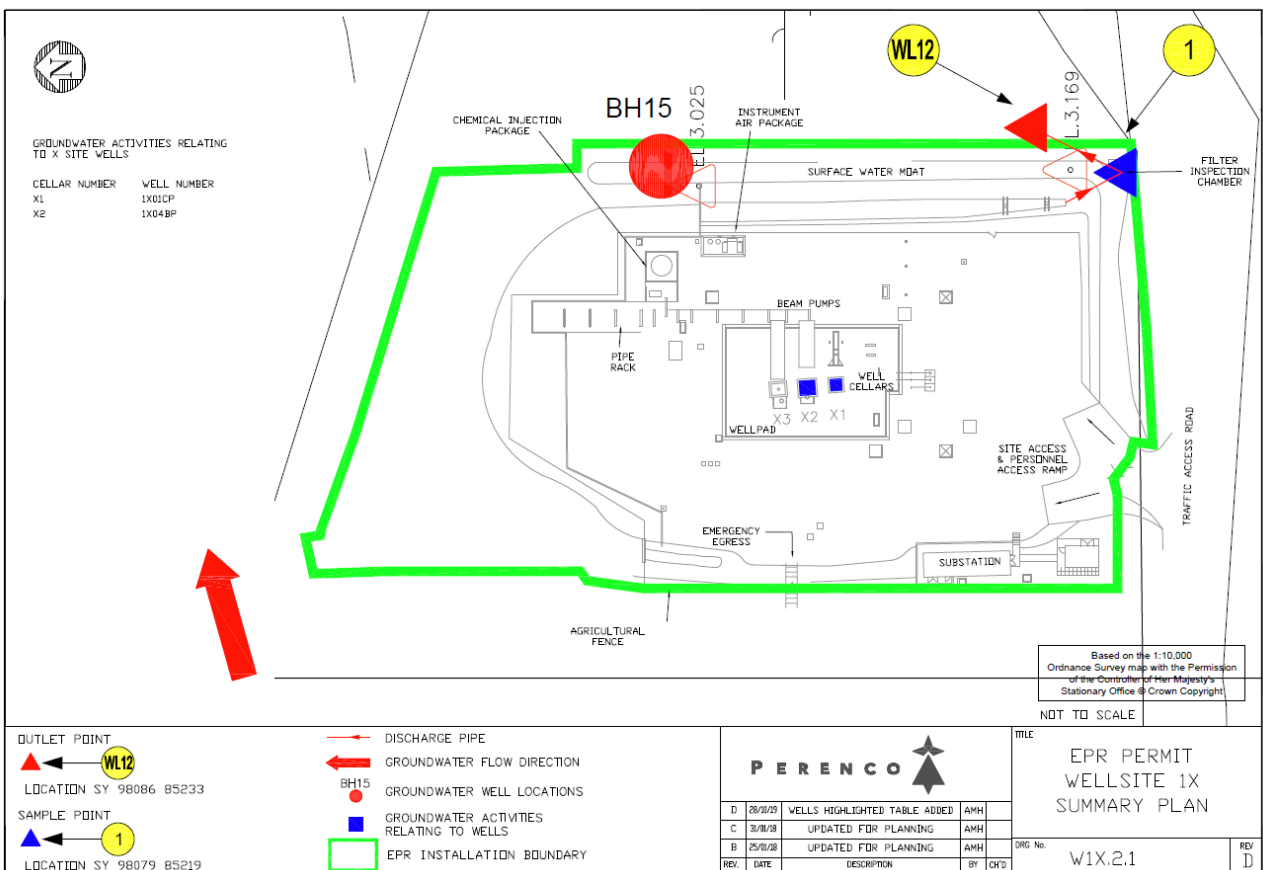


Figure 11: Well Site 2B (NGR SY 973 853)

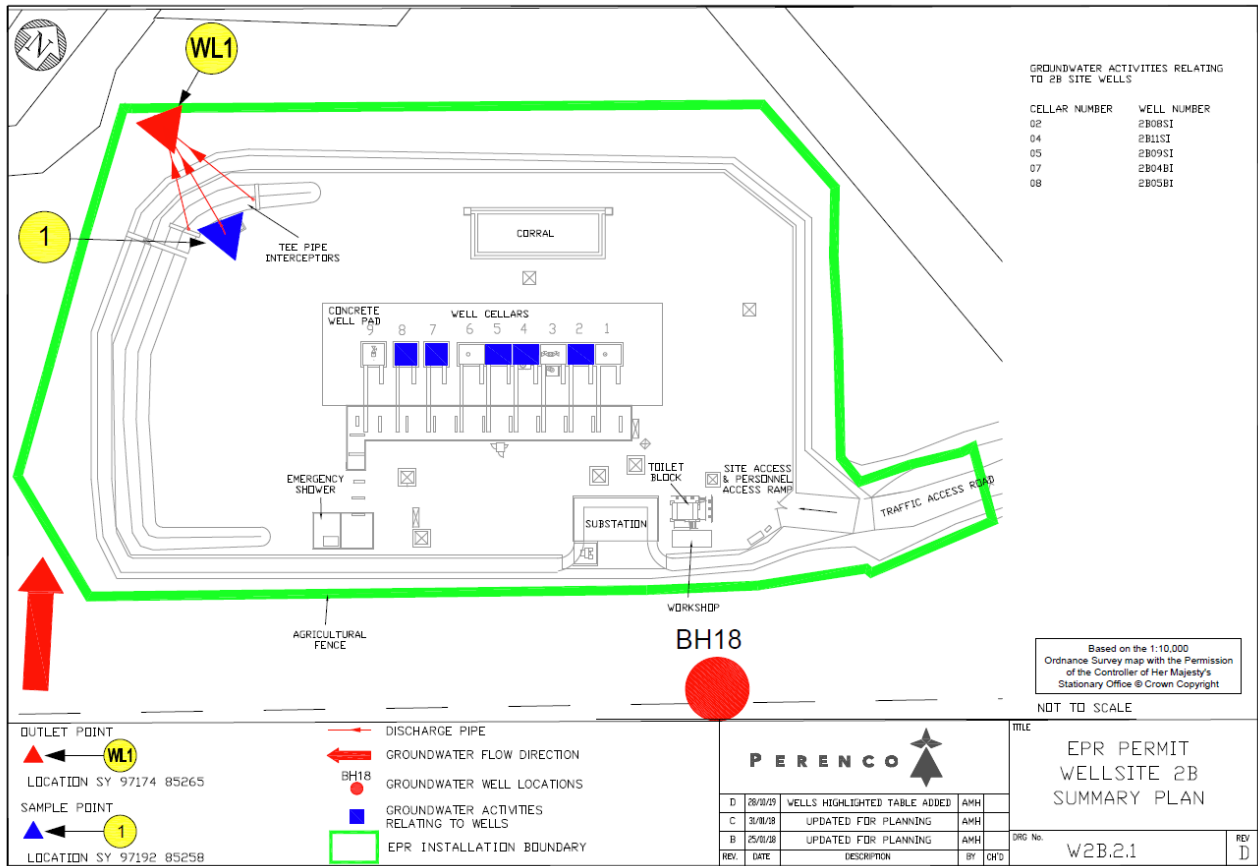


Figure 12: Well Site G – Arne (NGR SY 957 870)

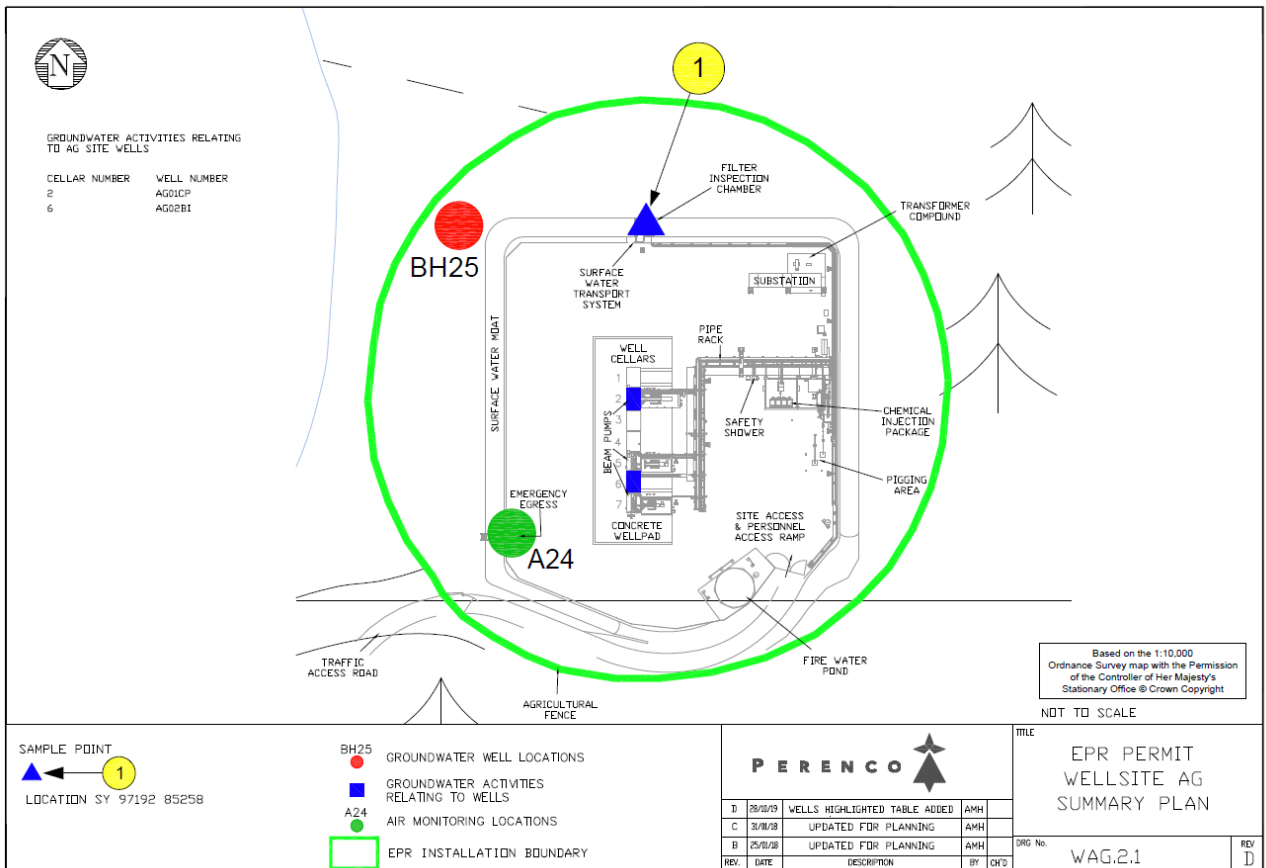


Figure 13: Cleavel Point (NGR SZ 002 860)

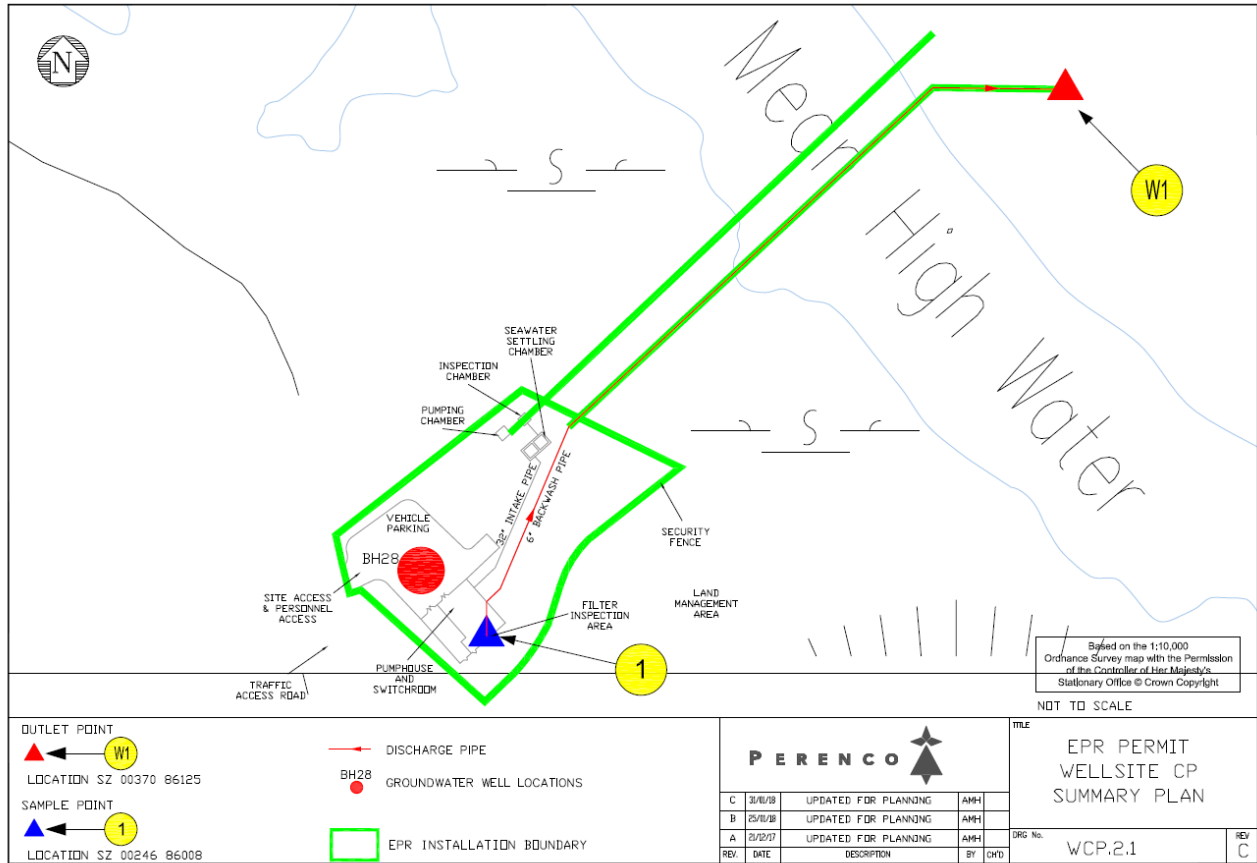


Figure 14: Wareham C (NGR SY 905 872)

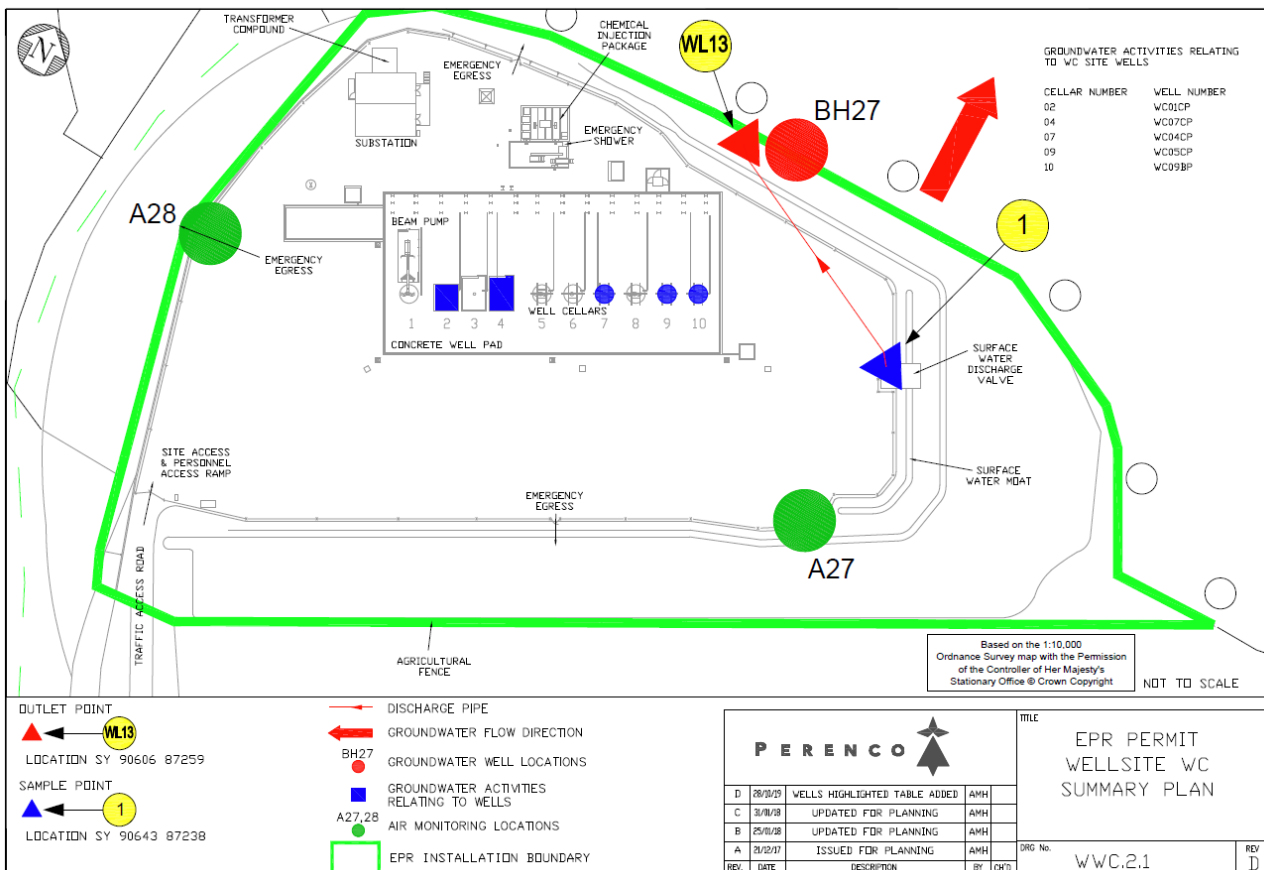
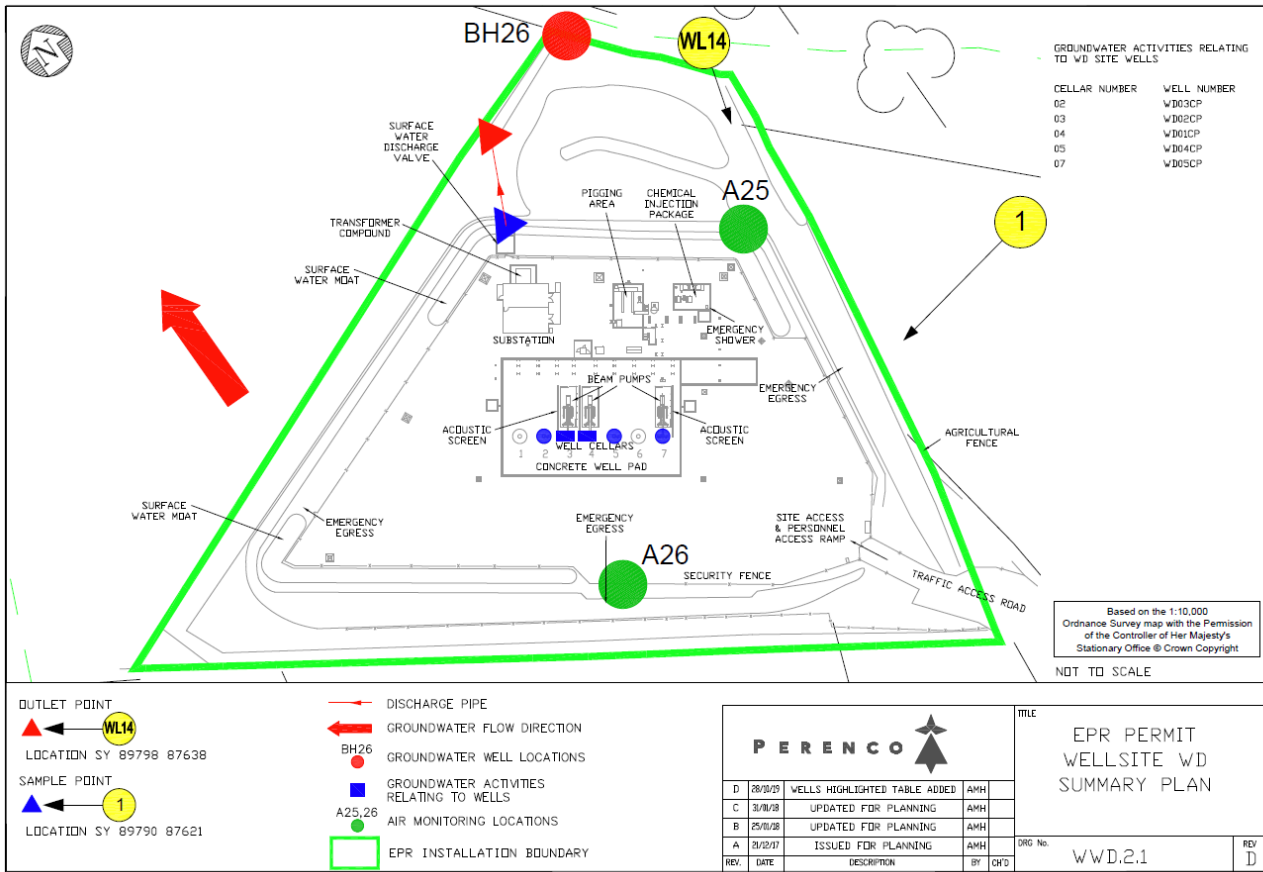


Figure 15: Wareham D (NGR SY 897 875)



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