Attachment-4-8-2-Screening for Baseline Report

Irish Distillers Pernod Ricard
IDL Midleton Distillery Expansion
IE0313231-22-RP-0017, Issue: A

Issue date: 01 May 2024

Document Sign Off

Attachment-4-8-2-Screening for Baseline Report

Irish Distillers Pernod Ricard
IDL Midleton Distillery Expansion
IE0313231-22-RP-0017, Issue A

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CURRENT ISSUE					
Issue No: A	Date: 01 May 2024	Reason for issue: IE Licence Review Application			
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Signature	**Authorised Electronically**				
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PREVIOUS ISSUES							
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1 Introduction

Irish Distillers Limited (IDL), a wholly owned subsidiary of Pernod Ricard, is applying to the Environmental Protection Agency (EPA) for a review of its current Industrial Emissions Licence (IEL) (Licence Reg. No. P0442-02, last revision date July 4th 2013) to incorporate a new expansion on the site. Details on the proposed IDL activities and supporting infrastructure are presented in *Attachment-4-8-1-Operational Report* of the IE Licence review application (Application I.D.: LA010327).

This Baseline Screening Report has been prepared on behalf of IDL to investigate if a baseline report is required for the site in support of the current Licence Review application.

The existing distillery commenced operation in its current configuration in 1975 and was first licensed by the EPA in 1999. In 2012, IDL began the phased expansion of the distillery and underwent a Licence Review to incorporate the expansion, and currently produces in the region of 70 million litres of pure alcohol (MLA) per year. The current proposed expansion to the site will facilitate a further increase in production capacity across the expanded greenfield site to approximately 133 MLA.

IDL is currently licensed for the following scheduled activities, subject to conditions, under the Environmental Protection Act 1992 (as amended):

> Class 7.3.2 *"Distilling in installations where the production capacity exceeds the equivalent of 1,500 tonnes per year measured as pure alcohol, not included in paragraph 7.8"* and
>
> Class 2.1 *"Combustion of fuels in installations with a total rated thermal input of 50 MW".*

As a result of the expansion project and the associated increased production capacity, the current main Integrated Pollution Control (IPC) distilling activity (Class 7.3.2) as licenced will change to the following IE Directive activity:

> Class 7.8 (a) (ii). *"The treatment and processing, other than exclusively packaging, of the following raw materials, whether previously processed or unprocessed, intended for the production of food or feed from: only vegetable raw materials with a finished product production capacity greater than 300 tonnes per day or 600 tonnes per day where the installation operates for a period of no more than 90 consecutive days in any year;."*

Conclusion of Baseline Screening Report

On the basis of the nature of the distilling activity and existing containment measures, which will be replicated in the proposed greenfield site development, it is concluded that there is no significant possibility for contamination of soil or groundwater. As such, a baseline report, which identifies the state of soil and groundwater contamination by 'relevant hazardous substances', is not required.

1.1 Site Location and Operational Description

IDL is located on a large site within the town of Midleton (approximately 1 km east of the town centre) approximately 25 km east of Cork.

The town of Midleton has a mix of uses to support the local residential community with the distillery occupying a large area to the east of the town. Other local employers include retail, light manufacturing, food production and tourism. The chief commercial area of the town is on the Main Street. Several multinational retailers have outlets at the northern end of the town.

The proposed expansion site shares boundaries with neighbouring sites of mixed use, including the existing distillery (North), farmland and residential (East), national road & residential (South), school, commercial and residential (West). The Dungourney River also flows through the site. As part of the site expansion it is proposed to build a new purpose-built bridge over the river to provide connection with existing distillery.

The location of the existing site and proposed expansion site is shown in Figure 1.1 below.

Figure 1.1: Site Location (Source: Arup EIAR submitted as part of planning application ref. 234602)

The existing distillery consists of the following buildings:

- Weighbridge office and tanker loading area
- Central laboratory (including QC, microbiology & new product development labs), offices & canteen
- Grain intake and storage area
- Existing Brewhouse (continuous and batch brewing)
- Fermenters (48 No., the typical capacity of each fermenter is 232m^3)
- Barry Crocket Still House (pot distillation)
- Garden Still House and tank farm (pot distillation)
- Column Still house and tank farm (continuous distillation)
- Vat House

- Spirit Store
- Warehouses
- Maintenance workshop
- Water treatment plant
- Wastewater treatment plant
- Sprinkler Tank and pumphouse
- Boiler house

Figure 1.2 gives an overview of the flow of materials, processes on site and the relationship between each working area.

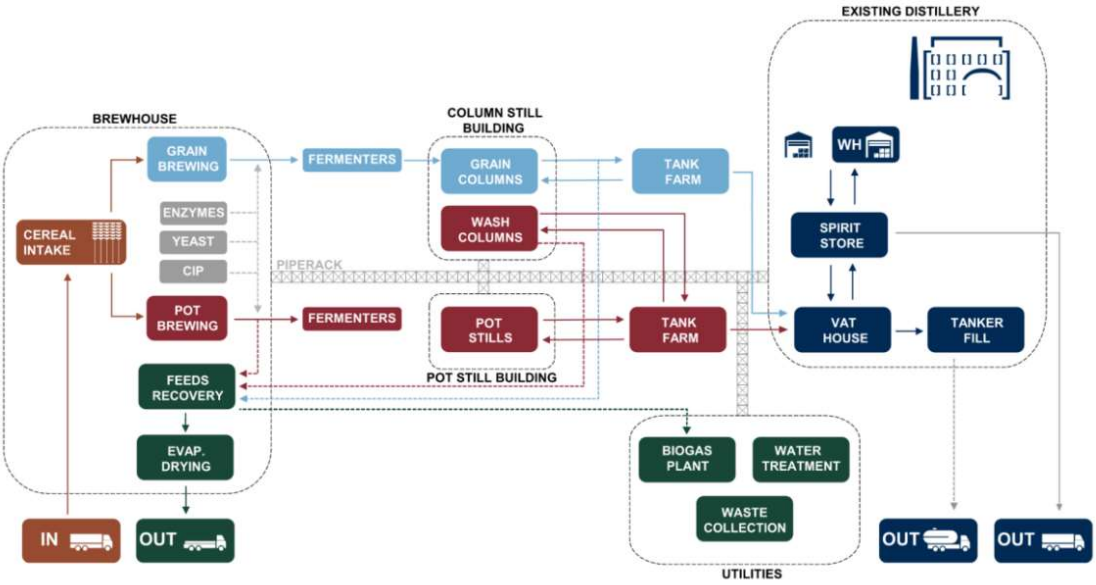

Figure 1.2: Overview of materials flow onsite including proposed expansion (Source: Arup EIAR submitted as part of planning application ref. 234602)

The proposed expansion site will consist of the following buildings:

- A two storey over basement 'Pot Still' building with ancillary pot still tank farm and Mechanical Vapour Recompression (MVR) building.
- A 2-9 storey 'Column Still' with ancillary column still tank farm and cooling tower.
- A 3-7 storey over partial basement 'Brewhouse' building and ancillary fermenter structures.
- A piperack structure connecting the proposed Pot Still, Column Still and Brewhouse buildings with the existing distillery.
- An internal link bridge crossing of the Dungourney River which traverses the site, serving as a vehicular and pedestrian connection between the existing distillery and the proposed distillery extension.
- Other ancillary structures including a single storey 38 kV substation and associated electrical compound, security buildings, staff welfare buildings and car park shelters.

Within the existing distillery site it is proposed to upgrade the existing waste water treatment plant (WWTP) including construction of an Anaerobic Digestion (AD) Plant involving:

- Demolition of an existing industrial building, removal of existing hardstand areas and culverting of a section of the existing mill race, to facilitate the construction of a biogas/AD plant comprising a series of plant and tank structures, a single storey ammonia removal building and change of use and alterations of existing Workshop/Warehouse no.1 and Warehouse no. 3 to accommodate associated plant and equipment.

1.2 Environmental Setting

Details of the site's physical setting are outlined in Table 1.1

Table 1.1 Environmental Setting

Feature	Details & Comments
Topography	The overall topography of the existing site is relatively flat sloping with a south westerly gradient from 3 to 9 metres ordnance datum (mOD). There is a large earth embankment and elevated area in the northern region of the site separating the main site and the Lower Field areas. The topography of the proposed development greenfield site is undulating varying from 6 mOD in the north-west to 15.5 mOD in the southwest.
Geology	According to GSI maps, soils underlying the existing facility generally comprising Made Ground with till derived chiefly from Devonian Sandstones (post glacial sand and gravel deposits) underlying the northern part of the site and the greenfield expansion site. Borehole logs recorded during drilling at the site indicate Made Ground up to 3.3 m thick overlying the glacial till in existing plant area. From drilling works undertaken in the lower field area to the north of the site in early 2010 it could be seen that the depth of overburden varied from 9 to 16m bgl. The overburden in this area of the site consists of clay, sand, silt and gravel sediments. A large deposit of gravel was encountered in the eastern region of the site. Bedrock geology underlying the site comprises Lower Carboniferous Waulsortian Limestone described as dominantly pale-grey, crudely bedded or massive limestone. Borehole logs recorded during drilling at the site indicate the bedrock to be composed of highly fractured, karstic limestone. Various karst features such as caves and fractures have been encountered during drilling works on-site.
Hydrogeology	**Classification:** According to the GSI the bedrock aquifer underlying the site is classified as being a regionally important karstic (diffuse) aquifer (Rkd) indicating an aquifer capable of supplying regionally important supplies (e.g., large public water supplies), although largely dependent on the intersection of bedrock fractures. Drilling investigations identified relatively shallow karst features of less than 10m bgl on-site suggesting the interconnections between karst features beneath the site to be largely shallow. A series of hydrogeological investigations in the area have shown that the groundwater flow on the existing distillery site is in a south westerly direction towards Midleton. Groundwater flow on the greenfield expansion site is from southeast to northwest, towards the Dungourney River with localised variation such as flow towards the southeast, where an ephemeral pond is located adjacent the south-eastern corner of the site.
	Vulnerability: The GSI classifies the majority of the site has an extreme (E) to high (H) vulnerability rating indicating bedrock or karst features are within 10m of ground level. Borehole drilling information from the lower fields area encountered >10m of moderate permeability subsoils indicating a moderate (M) vulnerability. On the greenfield expansion site, ground investigation indicates thicker subsoils through a central north-south aligned palaeochannel which is infilled with sands and gravel deposits, overlain with boulder clay. Therefore, the vulnerability ranges mainly from low in this central area of the site and increases to extreme where the top of rock is near the surface or within 3 m of the surface in the south. GSI information for the Midleton GWB indicates that transmissivity of the limestone bedrock is anticipated to be high (between 200m^2/day and 2,000m^2/day) whilst groundwater storage may be enhanced by the presence of any overlying sand and gravel

Feature	Details & Comments
	deposits which lie in continuity with the underlying limestone.
	Well Search: The results of a GSI well search for the area of the site indicates that there are several large groundwater abstraction wells located in Midleton town between approximately 0.5 km and 0.8 km to the south west (downgradient) of the IDL site. These water supplies are reported as having well yields in the region of 327m^3/day to 764m^3/day for industrial use. There are no reported groundwater abstraction wells in the immediate vicinity of the site. On site there is groundwater abstraction from a well field of eight production wells (PW2-PW9) together with the on-site Cavern abstraction from a cave feature in the south-western corner of the site.
Hydrology	The IDL site is within the catchment to the Dungourney River which flows from north east to south west through the site. Water is abstracted by IDL from the Dungourney River in this area. The Dungourney River flows into tidal estuary of the Owenacurra River to the south of Midleton town and from there into the middle section of Cork Harbour. In the northern portion of the IDL site, surface water runoff is controlled by an existing drainage system that discharges into an active karst swallow hole known as Foxes Hollow. In times of pro-longed and/or high rainfall events this karst drainage system can back up causing flooding along the drainage system. Rainwater runoff from the new warehouses is contained by a purpose built firewater retention pond which releases water, in a controlled manner, to the Foxes Hollow karst drainage system. The mill race running through the site is currently not in use and has some surface water present on occasion which drains in a westerly direction towards the Dungourney River. There is an existing drainage ditch which runs from north east to the south west over a distance of c. 530 m on the southern side of the Dungourney River ultimately discharging to the Dungourney River. Part of this drainage ditch is located in the northern part of the greenfield expansion site.
Ecology	National Parks and Wildlife Service data indicates the tidally influenced shoreline of the Great Island Channel that reaches Midleton town is a Special Area of Conservation (SAC) and proposed National Heritage Area (pNHA). Cork Harbour located to the south of Midleton town is classified as a Special Protection Area (SPA). These areas both start at the confluence of the Dungourney and Owennacurra Rivers, approximately 1km downstream of the IDL site. There are no protected areas in the immediate vicinity of the IDL site or any Groundwater Dependant Terrestrial Ecosystem (GWDTE).
Surrounding Land Use	The site lies outside the Midleton Urban fringe to the east of the town, mainly in a semi-rural area. Agricultural land is located to the north, east and south of the site with scattered rural residential properties. Primary and secondary schools and their playing fields and some residential properties are located to the west with Midleton GAA grounds west of the proposed expansion site. The north-western part of the site is bounded by the R627 with some residential development, a small established industrial / business estate and the grounds of Midleton Rugby Club beyond. The southern part of the greenfield site is bounded by the R907 Old Youghal Road and the N25.

1.3 Requirement for Baseline Report

1.3.1 European Legislation

The Industrial Emissions Directive (2010/75/EU) or 'IED' entered into force within the European Union on 6th January 2011. The IED brings together the Integrated Pollution Prevention and Control Directive (2008/1/EC), the Waste Incineration Directive (2000/76/EC) and five other directives in a single Directive on industrial emissions.

For industrial activities regulated by the IED, such as the IDL site, Article 22(2) of Chapter II of the IED states that:

"Where the activity involves the use, production or release of relevant hazardous substances and having regard to the possibility of soil and groundwater contamination at the site of the installation, the operator shall prepare and submit to the competent authority a baseline report before starting operation of an installation or before a permit for an installation is updated for the first time after 7 January 2013.

The baseline report shall contain the information necessary to determine the state of soil and groundwater contamination so as to make a quantified comparison with the state upon definitive cessation of activities.

The baseline report shall contain at least the following information:

(a) Information on the present use and, where available on past uses of the site;

(b) Where available, existing information on soil and groundwater measurements that reflect the state at the time the report is drawn up or, alternatively, new soil and groundwater measurements having regard to the possibility of soil and groundwater contamination by those hazardous substances to be used, produced or released by the installation concerned.

Where information produced pursuant to other national or Union law fulfils the requirements of this paragraph that information may be included in, or attached to, the submitted baseline report. The Commission shall establish guidance on the content of the baseline report."

1.3.2 Irish Legislation

Article 22 (2), as part of Chapter II of the IED, was transposed into Irish national law on 26 April 2013 by the European Union (Industrial Emissions) Regulations 2013 (S.I. No. 138 of 2013) and resulting amendments to the Environmental Protection Agency Act 1992.

Section 86B of the Environmental Protection Agency Act 1992, as amended, states that:

"(1) Where an industrial emissions directive activity involves the use, production or release of relevant hazardous substances, and having regard to the possibility of soil and groundwater contamination at the site of an installation concerned, the Agency shall require an applicant under this Part for a licence or review of a licence or revised licence relating to the activity, including such a review by the Agency of its own volition, to furnish to the Agency a baseline report in accordance with regulations under section 89."

"(2) In relation to an installation, a baseline report shall contain the information necessary to determine the state of contamination of soil and groundwater at the time the report is drawn up in order that a quantified comparison may be made to the state of the site upon the permanent cessation (including cessation by abandonment) of the industrial emissions directive activity concerned and the applicant in preparing the baseline report shall include any information prescribed in regulations under section 89."

"(3) Notwithstanding the generality of subsection (2), a baseline report shall include at least the following information-

(a) The current use and, where available, the past use of the site,

(b) Any available information-

i. On soil or groundwater measurements that reflect the state of the site at the time that the baseline report is drawn up, or

ii. On new soil and groundwater measurements, having regard to the possibility of soil and groundwater contamination by the hazardous substances proposed to be used, produced or released by the installation concerned.

(4) Any information furnished to the Agency or to any other body under any enactment or rule of law or a law of the European Union, which complies with the requirements of subsection (2) or (3), may be furnished to the Agency in or with the baseline report.

(5) For the purposes of determining the information to be contained in a baseline report under this section the Agency shall have regard to, and shall for the purposes of subsection (2), make publicly available any guidance documents published by the Commission of the European Union in accordance with Article 22(2) of the Industrial Emissions Directive."

1.4 Scope of the Report

The European Commission (EC) established guidance on 6th May 2014 on the content of the baseline report as required by Article 22 (2) of the IED[1] and this guidance has been used in the preparation of this report.

The guidance identifies eight stages/tasks to be undertaken. These are as follows:

- Stages 1-3: to decide whether a baseline report is required;
- Stages 4-7: to determine how a baseline report has to be prepared; and
- Stage 8: to determine the content of the report.

As stated in the EC Guidance *"Where during stages 1-3 it is demonstrated on the basis of the available information that a baseline report is not required, there is no need to progress to the later stages. A record of such a demonstration should be made and held by the competent authority, including the reasons for such a decision".*

In addition, the EC Guidance states that *'The possibility of soil and groundwater contamination at the site of the installation' (Article 22(2), first subparagraph) covers a number of important elements. Firstly, due consideration should be given in a baseline report to the quantities of hazardous substances concerned – where very small quantities are used, produced or released on the site of the installation then the possibility of contamination is likely to be insignificant for the purpose of producing a baseline report. Secondly, baseline reports must consider the soil and groundwater characteristics of the site and the impact of those characteristics on the possibility of soil and groundwater contamination taking place. Thirdly, for existing installations, their characteristics may be considered where they are such that it is impossible in practice that contamination can take place'.*

This report follows the staged approach as recommended in the EC Guidance. Key references and related documents used in the compilation of this Baseline Screening Report included the following documents:

- Environmental Impact Statement (EIS) 2012
- IE Licence Review Application 2013
- Groundwater Monitoring Reports, 2021 to 2023
- Environmental Liability Risk Assessments, 2000-2023
- Decommissioning Management Plan, 2014 and 2023
- Bund and pipeline integrity testing reports, as supplied by IDL
- Onsite chemical, waste and laboratory inventories, as supplied by IDL
- Historical review of incidents as detailed in ELRA and AER Reports
- Environmental Impact Assessment Report (ARUP, 287965-ARUP-ZZ-XX-RP-YE-0001) - Chapter 9 Biodiversity and Chapter 17 Land, Soils, Geology and Hydrogeology. The EIAR

[1] European Commission Guidance concerning baseline reports under Article 22 (2) of Directive 2010/75/EU on industrial emissions (2014/C 136/03)

included as part of the planning application for the proposed expansion project at Irish Distillers Ltd (IDL), Cork County Council (planning reference 234602).

- IDL Annual Environmental Reports (AERs), 2020-2022
- *Attachment-4-6-2-Raw-Material-Interm-Products* of the 2024 IE Licence review application
- *Attachment 8-1-Waste Generated* of the 2024 IE Licence review application

1.5 Limitations

The findings herein are based on the latest guidance available and information obtained at the time of writing (January 2024). If additional information and/or guidance become available, which might alter PM Groups conclusions, we reserve the right to review such information, reassess potential risks and modify our findings, if warranted. Please note that where we refer to information in reports from others, it must be recognised that PM Group has no responsibility for the accuracy of the information contained therein.

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2 Stage 1: Identification of Hazardous Substances

The EC guidance states that Stage 1 should include a list of all hazardous substances used, produced or released inside the installation boundary (either as raw materials, products, intermediates, by-products, emissions, wastes or auxiliaries).

Substances (both hazardous and non-hazardous) used in the manufacture of whiskey at the installation include:

- Grains including corn, malt and barley; and
- Process additions such as yeast and enzymes.

Other chemicals used on site include:

- Clean-in-Place (CIP) cleaning solutions containing acids such as citric acid and phosphoric acid and alkalis such as sodium hydroxide
- WWTP dosing chemicals;
- Cooling tower chemicals;
- Boiler water treatment chemicals;
- Reverse osmosis plant chemicals;
- Water treatment chemicals;
- Lubricants for engineering and maintenance equipment;
- Fuels such as diesel;
- Bench top quantities of laboratory reagents; and
- Refrigerants.

Products generated by the activity include:

- Pot Whiskey (Ethanol 60-64% v/v);
- Grain Whiskey (Ethanol 65-70% v/v);
- Blended spirits stored in casks (approx. 64% v/v); and
- By-products including ‘syrup’ and ‘wet grains’ produced from process residues in the feeds recovery plant and fusel oil produced as a by-product of the distillation process.

Hazardous waste generated on site include:

- Laboratory wastes;
- Interceptor sludge;
- Off-specification raw materials;
- Hazardous Aqueous liquid washings;
- Contaminated solid wastes e.g. IPA/Ethanol wipes; and
- Miscellaneous minor sources including waste oils, batteries, unused paints, waste ink etc.

IDL maintains an inventory of all materials and chemicals (hazardous and non-hazardous) used and stored on site. *Attachment-4-6-2-Raw-Material-Interm-Products* of this Application lists the raw and ancillary materials, substances, preparations and fuels which will be produced by or utilised within the revised installation boundary. The list of raw materials and chemical substances to be used within the proposed expansion site including the wastewater treatment plant (WWTP) expansion and Anaerobic Digester (AD) have been provided by the design team.

In general, there is minimal use of hazardous substances during the production process with most hazardous substances used in the water and wastewater treatment plants to ensure that the site meets the required water and wastewater quality parameters.

Attachment-8-1-Waste-Generated of the 2024 IE Licence review application lists the existing and anticipated waste to be generated at the installation. A dedicated waste storage compound is in place adjacent to the WWTP, with secondary containment for any liquid waste. Site Procedure EPP004, *Waste Management*, ensures that hazardous waste from the distillery is handled, stored and disposed of in a safe and appropriate manner and ensures that appropriate documentation is acquired and maintained for the different waste streams leaving the site. All waste is transported off site by appropriately permitted hauliers only and taken to suitably registered, permitted or licensed facilities.

Article 3 of Regulation (EC) No. 1272/2008 defines a hazardous substance as *a substance or a mixture fulfilling the criteria relating to physical hazards, health hazards or environmental hazards, laid down in Parts 2 to 5 of Annex I is hazardous and shall be classified in relation to the respective hazard classes provided for in that Annex:*

- Part 2 sets out the list of physical hazards (oxidising, flammable, etc.)
- Part 3 sets out the health hazards (toxicity, irritants, etc.)
- Part 4 sets out the environmental hazards (hazards to the aquatic environment)
- Part 5 sets out additional EU hazard classes.

Based on the review of the above, Appendix A includes a list of all hazardous substances that are or will be used, produced or released inside the revised IE Licence Boundary, which encompasses the expansion site. The Hazard Statement Codes, storage and usage quantities for each material/substance presented in Appendix A were obtained from previous site inventories and projected inventory for the expansion site as provided by IDL.

3 Stage 2: Identification of 'Relevant Hazardous Substances'

According to the EC Guidance, the purpose of Stage 2 is to restrict further consideration to only the 'relevant hazardous substances' in view of deciding on the need to prepare and submit a baseline report.

In the context of the IED, *'Relevant hazardous substances' (Article 3(18) and Article 22(2), first subparagraph) are those substances or mixtures defined within Article 3 of Regulation (EC) No 1272/2008 on the classification, labelling and pack aging of substances and mixtures (CLP Regulation) which, as a result of their hazardousness, mobility, persistence and biodegradability (as well as other characteristics), are capable of contaminating soil or groundwater and are used, produced and/or released by the installation'.*

A review of the hazardous substances listed in Appendix A has been undertaken to identify substances employed at IDL that may be defined as 'relevant hazardous substance' based on the following criteria:

1. Substances listed as 'Hazardous[2]' in the document *'Classification of Hazardous and Non-Hazardous Substances in Groundwater, Version 1, December 2010*' (EPA, 2010) are identified as a 'relevant hazardous substance'. If a substance is listed as 'non-hazardous' this substance can be eliminated;
2. Due to their toxicity, substances with Hazard Statement Codes for carcinogenicity, germ cell mutagenicity and reproductive toxicity, referred to collectively as 'CMR substances', are identified as a 'relevant hazardous substance'. CMR Hazard Statements Codes include H340, H341, H350, H351, H360D, H360F, H361;
3. Substances with Hazard Statement Codes for Environmental Hazards including H400, H401, H402, H410, H411, H412, H413 are identified as a 'relevant hazardous substance'; and
4. Solids and gases can be excluded as a 'relevant hazardous substance' as they are unlikely to contaminate soil and groundwater due to their physical state.

Following the above review a number of substances were identified as 'relevant hazardous substances' requiring further assessment in Stage 3:

- CIP Chemicals, P3 oxonia active 150, P3-horolith V and P3 Stabicip CH;
- RO Membrane Cleaner for use in WWTP, ELGALITE LF12;
- Biocides including Hydrex 7611, biocide to be used in the AD plant, NALCO 93033 and ShowerHead Plus;
- Sodium Hypochlorite used for membrane cleaning in the WWTP, the RO plant and the proposed AD plant;
- Micro nutrient solution (cobalt, potassium, nickel, molydate, selenite mix) to be used in the AD plant;
- Hydraulic oil (Mobil DTE 10), gear oil (Mobilgear 600 XP 220) and lubricant (ROCOL RTD) used by Engineering; and
- Diesel to fuel the fire water pumps, small vehicles and the proposed emergency generator associated with the AD Plant.

[2] Hazardous substances, as defined by the EPA Document *Classification of Hazardous and Non-Hazardous Substances in Groundwater (2010)*, are substances or groups of substances that are toxic and persistent and liable to bio-accumulate, and other substances or groups of substances which give rise to an equivalent level of concern.

4 Stage 3: Assessment of the Site-Specific Pollution Possibility

For each 'relevant hazardous substance' brought forward from Stage 2, the possibility of "*whether the circumstances exist which may result in the release of the substance in sufficient quantities to represent a pollution risk, either as a single emission or as a result of accumulation from multiple emissions*" requires assessment.

It is noted the EC Guidance states that "*where very small quantities are used, produced or released on the site of the installation then the possibility of contamination is likely to be insignificant for the purpose of producing a baseline report*".

The following relevant factors regarding both the likelihood of a release of 'relevant hazardous substance' is reviewed in this section:

- Methods of storage, handling or use to prevent ground or groundwater contamination;
- Integrity of bunds, process, foul, and stormwater drainage onsite; and
- Review of historical environmental incidents.

This section also provides an assessment of the following specific issues to assess the site-specific pollution possibility:

- The quantity of each hazardous substance handled, produced or emitted each year relative to its toxicity;
- The location of each hazardous substance on the site e.g. where it is delivered, stored, used, moved around the site, emitted; and
- At each of the above locations, identify the method of storage, handling and use of raw materials, products, emissions, wastes etc. and whether there are any containment mechanisms to prevent emissions occurring e.g. bunds, hard standing, handling procedures.

4.1 Methods of Storage, Handling or Use to Prevent Ground or Groundwater Contamination

4.1.1 Industrial Emissions Licence Obligations

The storage and containment of hazardous materials on site is governed by the conditions of the existing IDL Industrial Emissions Licence (EPA Licence Reg. No. P0442-02). This licence specifies a number of relevant conditions which IDL complies with on an on-going basis.

4.1.2 Integrity of Bunds, Process Drainage and Foul Drainage

Under Condition 3.6.1 of the site's IE Licence, all tank, container and drum storage areas are rendered impervious to the materials stored therein. Bunds are designed having regard to Agency guidelines '*Storage and Transfer of Materials for Scheduled Activities*' (2004).

There are both localised and remote bunding facilities located on-site to capture any spillages / leaks from various storage vessels. Under Condition 3.6.2 of the site's IE Licence, all tank and drum storage areas will, as a minimum, be bunded, either locally or remotely, to a volume not less than the greater of the following:

i) 110% of the capacity of the largest tank or drum within the bunded area; or

ii) 25% of the total volume of substance that could be stored within the bunded area.

Under Condition 6.10 of the site's IE Licence, IDL tests the integrity and water tightness of all underground pipes, tanks, bunding structures and containers at least once every three year.

Site Procedure EPP008, *Procedure for Inspection & Emptying of Bunds,* states that all drainage from bunded areas shall be deemed contaminated unless it can be demonstrated to be otherwise. No water can be discharged from a bund to the storm water drain unless it has been tested or deemed uncontaminated and will not exceed the trigger levels set for storm water emissions.

All the above measures will be put in place for the site expansion, where applicable, and the anaerobic digester facility.

4.1.3 BREF Document Implementation

In accordance with the *Emissions from Storage BAT reference document (July 2006)* the following gives the status of measures for the existing facility and the measures proposed to prevent a potential risk of contamination to ground and groundwater. An assessment has been carried out against this BREF and is included in Attachment-4-7-2-BREF-EFS of the 2024 IE Licence review application.

BAT 1: BAT for a proper design is to take into account at least the following:

- **the physico-chemical properties of the substance being stored**
- **how the storage is operated, what level of instrumentation is needed, how many operators are required, and what their workload will be**
- **how the operators are informed of deviations from normal process conditions (alarms)**
- **how the storage is protected against deviations from normal process conditions (safety instructions, interlock systems, pressure relief devices, leak detection and containment, etc.)**
- **what equipment has to be installed, largely taking account of past experiences of the product (construction materials, valve quality, etc.)**
- **which maintenance and inspection plan needs to be implemented and how to ease the maintenance and inspection work (access, layout, etc.)**
- **how to deal with emergency situations (distances to other tanks, facilities and to the boundary, fire protection, access for emergency services such as the fire brigade, etc.).**

Existing and Expansion Site

All storage vessels/ containers have been designed to be compatible with the material being stored. Storage of all potentially polluting materials on site is/will be within bunded or other double contained systems.

Risk assessments and HAZOP analyses are carried out on process equipment to ensure necessary controls in place in case of deviations from normal operating conditions

The facility has an Emergency Response Plan (HSP006) which includes detailed plans on the measures to be taken in the event of a major incident. Spill kits are provided for storage areas as per site Spill Control procedure (EPP050) and training in emergency procedures is in provided to all personnel on the site. All storage is in line with existing IE Licence requirements and the EPA Guidance document on Storage and Transfer of Materials. Weekly bund inspections are carried out on site. Two firewater retention ponds are installed on site to mitigate the low risk of potentially polluted firewater run off being released to the environment with a third firewater retention pond being installed on the expansion site to cater for the distillery expansion.

BAT 29: BAT is to apply leak detection on storage tanks containing liquids that can potentially cause soil pollution.

Preventative maintenance system in place on site to ensure scheduled testing, inspection and maintenance is carried out appropriately. Training is provided to personnel for identifying leaks. All storage areas are bunded either locally or remotely to prevent significant environmental impact in the event of a leak. All bunds are tested in accordance with the site's IE licence. Weekly bund inspections are carried out on site. These same principles will apply to the expansion site.

4.1.4 Construction Activities

Any major construction project on site is governed by a Construction Environmental Management Plan (CEMP); this is usually a requirement as part of the planning permission grant. The key objective of the CEMP is that appropriate environmental controls and procedures are implemented during construction activities, in order to prevent potential pollution of soils and groundwater. A CEMP would typically contain the following measures:

- Spill kits are made available in all machinery and in designated areas at all times.
- Oil and fuel storage tanks are stored in designated areas, and these areas are bunded to a volume of at least 110% of the capacity of the largest tank/container within the bunded area(s) (plus an allowance of 30 mm for rainwater ingress) or 25% of the total volume of substance that could be stored within the bunded area, whichever is greater as per IE Licence Condition 3.6.2.
- Any hazardous waste residuals or potentially contaminated sludge from spill clean-up must be stored within appropriate metal or plastic containers in temporary bunded storage areas in the construction compound prior to removal by an approved permitted/licensed waste management contractor for off-site treatment/recycling/disposal. Bunded areas will comply with IE Licence Condition 3.6.1.
- Drainage from the bunded area(s) is diverted for collection and safe disposal as per IE Licence Condition 3.6.3. Sampling and analysis of the water must be carried out if there is reason to believe the water is contaminated to ensure it is clean and suitable for discharge to the drainage system, if necessary. If contaminated, it should be treated as hazardous and disposed of by an approved waste contractor.
- Refuelling of construction vehicles and the addition of hydraulic oils or lubricants to vehicles, will take place in a designated area of the site. In the event of a machine requiring refuelling outside of this area, fuel must be transported in a mobile double skinned tank.
- Wash down and washout of concrete transporting vehicles is not be permitted at the location of construction. Such wash down and washout activities will take place at an appropriate facility offsite or at the location where concrete was sourced.
- Works will be suspended during very wet conditions. It is possible that there will be some stormwater ingress into the excavations. Should water ingress occur, water from the excavations will be pumped to a settling tank or equivalent to allow any suspended solids to settle out before the water is discharged to the stormwater drainage system on site.

Proposed expansion works will include all of the above measures.

4.2 Historical Environmental Incidents

Operations commenced at the site in 1975. The Environmental Liabilities Risk Assessment (ELRA) completed in June 2023 and submitted with this Application was reviewed and historic contamination events prior to the grant of licence have been remediated and closed out. A review of environmental incidents, as reported in the Annual Environmental Reports (AERs) submitted to the EPA since granting of current IE licence in 2012 was undertaken for the period 2012 to present with no major environmental incidents onsite identified during this period. All Environmental incidents reported from 2012 to present were judged to be minor deviations and did not present the potential for having an adverse effect on the local environment.

4.3 Quantities and Location of Potential 'Relevant Hazardous Substances'

The details regarding 'relevant hazardous substances' are listed in Table 4.1 and are stored across the facility in warehouses and bunded areas in Integrated Bulk Containers (IBCs), drums, vessels or tanks. There is minimal use of hazardous substances during the production process with 'relevant hazardous substances' identified including chemicals used in the water and wastewater treatment plants and the proposed AD plant, CIP chemicals, hydraulic / gear oils and lubricants used by the engineering department and diesel used for the fire water pumps, small vehicles and the proposed emergency generator associated with the AD Plant.

Table 4.1: 'Relevant Hazardous Substances' – Existing & Expansion

Material Trade Name / Substance	Constituents	Nature of Use	CAS No.	Hazard Statement Codes	Storage Quantity (tonnes)	Annual Usage (tonnes)	Assessment of site-specific pollution possibility Note 1
P3 oxonia active 150	Acetic Acid Peracetic Acid Hydrogen Peroxide	CIP Chemicals Feeds Recovery	64-19-7, 79-21-0, 7722-84-1	H272, H290, H302 & H332, H314, H335, H410	1.25	5	**Low:** Stored in relatively small quantities in bunded chemical store
P3-horolith V	Nitric Acid Phosphoric acid	CIP Chemicals (MVR)	231-714-2, 7697-37-2	H314, H412	0.82	28	**Low:** Stored in relatively small quantities in MVR bunded chemical store.
P3 Stabicip CH	Alcohols, C12-18 Amines, coco alkyl, ethoxylated Amines, coco alkyl	CIP Chemicals (MVR)	146340-16-1, 61791-14-8, 61788-46-3	H315, H319, H400	0.33	5	**Low:** Stored in relatively small quantities in MVR bunded chemical store.
ELGALITE LF12	Disodium metasilicate N,N-dimethyldecylamine N-oxide	RO Membrane Cleaner for use in WWTP	6834-92-0 2605-79-0	H314, H335, H412	0.2	2	**Low:** Stored in relatively small quantities. Stored in mobile bund.
Hydrex 7611 (Biocide)	Poly(oxy-1,2-ethanediyl),α-hydro-ω-hydroxy- Ethane-1,2-diol,ethoxylated, 2,2-dibromo-2-	Biocide used in WWTP	25322-68-3, 10222-01-2, 3252-43-5	H302, H314, H317, H318, H332, H336, H412	2	4	**Low:** Stored in bunded chem store in waste compound.

Material Trade Name / Substance	Constituents	Nature of Use	CAS No.	Hazard Statement Codes	Storage Quantity (tonnes)	Annual Usage (tonnes)	Assessment of site-specific pollution possibility Note 1
	cyanoacetamide Dibromoacetonitrile						
Sodium Hypochlorite (14-15%)	Sodium Hypochlorite	WWTP, Cooling Towers, RO Plant	7681-52-9	H290, H314, H318, H335, H400	1	10	**Low:** Stored in relatively small quantities in mobile bund.
Sodium Hypochlorite	Sodium Hypochlorite	Anaerobic Digestion membrane cleaning	7681-52-9	H290, H314, H318, H335, H400	2	6	**Low:** Will be stored in mobile bund.
Micro nutrient solution - cobalt, potassium, nickel, molydate, selenite mix	Cobalt disodium ethylenediaminetetraacetate Disodium dihydrogen ethylenediaminetetraacetate Potassium Hydroxide Nickle Chloride Disodium molybdate Sodium Selenite	AD Plant Chemicals & Micronutrients	15137-09-4, 139-33-3, 1310-58-3, 7791-20-0, 7631-95-0, 10102-18-8	H317, H334, H341, H350i, H360D	1.2	1	**Low:** Will be stored in a bunded area in Warehouse no. 3.
Biocide	Poly(oxy-1,2-ethanediyl),α-hydro-ω-hydroxy-	Biocide used in AD plant	25322-68-3, 10222-01-2, 3252-43-5	H302, H314, H317, H318, H332, H336,	1	1	**Low:** Will be stored in relatively small amounts and stored

Material Trade Name / Substance	Constituents	Nature of Use	CAS No.	Hazard Statement Codes	Storage Quantity (tonnes)	Annual Usage (tonnes)	Assessment of site-specific pollution possibility Note 1
	Ethane-1,2-diol, ethoxylated, 2,2-dibromo-2-cyanoacetamide, Dibromoacetonitrile			H412			internally.
NALCO 93033 (Biocide)	Sodium Hypochlorite Sodium Hydroxide	Cooling Tower biocide	7681-52-9 1310-73-2	H290, H314, H318, H400, H411	2	8	**Low:** Stored in double skinned tank located at Cooling Tower A.
ShowerHead Plus (Biocide)	An aqueous solution of mild acids and benzalkonium chloride	Biocide used sitewide	Not applicable	H315, H319, H412	0.2	0.2	**Low:** Stored in relatively small quantities. Stored internally.
Mobil DTE 10	2,6-di-tert-butylphenol	Anti-wear hydraulic oil used by Engineering	128-39-2	H400, H410, H315, H319,	0.416	0.42	**Low:** Stored in relatively small quantities. Stored in mobile bund.
Mobilgear 600 XP 220 (630) (Hydrocarbons)	-	Gear oil used by Engineering	68955-53-3 1330-78-5	H330, H311, H302, H317, H400, H410, H373, H314	1.248	2.08	**Low:** Stored in a bunded area of the Maintenance stores.
ROCOL RTD Compound (Hydrocarbons)	Alkanes, C14-17, chloro, Residual oils (petroleum), solvent-dewaxed	Lubricant used by Engineering	85535-85-9 64742-62-7	H362, H410	0.02	0.01	**Low:** Stored in relatively small quantities. Stored in mobile bund.

Material Trade Name / Substance	Constituents	Nature of Use	CAS No.	Hazard Statement Codes	Storage Quantity (tonnes)	Annual Usage (tonnes)	Assessment of site-specific pollution possibility Note 1
Diesel	-	Fuel for fire water pumps	68334-30-5	H226, H304, H315, H332, H351, H373, H411	0.3	0.1	**Low:** Stored in 2 no. bunded double skinned tanks (capacity 1,249.3L) in sprinkler pumphouse.
Diesel	-	Fuel for small vehicles	68334-30-5	H226, H304, H315, H332, H351, H373, H411	0.9	5.4	**Low:** Stored in the waste compound in 1 no. steel tank (capacity 900 L), self-bunded to 110% of the tank's capacity.
Diesel	-	Fuel for proposed emergency generator associated with AD Plant adjacent Warehouse 4	68334-30-5	H226, H304, H315, H332, H351, H373, H411	3.0	0.3	**Low:** Stored in integral 1,000 L tank and 2,000 L auxiliary tank; the generator and the auxiliary tank will be bunded to 110% of the tank's capacity.

Note 1 - Bunds are inspected on a routine basis and are subject to periodic statutory integrity testing. The bund register for the facility is presented in Appendix B.

4.4 Assessment of the Site-Specific Pollution Possibility

The 'relevant hazardous substances' identified in Stage 2 were assessed based on their:

- Storage and usage location;
- Storage quantity;
- Storage and transport methods; and
- Review of secondary containment systems and procedures.

Based on the information provided by IDL, it is expected that, as a result of storage quantities and storage, containment and handling practices, there is no significant possibility for contamination of soil or groundwater.

5 Conclusion

The existing facility, as well as the proposed expansion of the site, have been designed to ensure protection of soil and groundwater as well as other environmental media. All material handling is undertaken within designated areas and accordingly there is a low risk of soil/groundwater pollution arising during operations. It is also noted that there are no discharges, licensed or otherwise, to ground from the IDL facility.

As stated in the EC Guidance *"Where during stages 1-3 it is demonstrated on the basis of the available information that a baseline report is not required, there is no need to progress to the later stages".*

Based on the information provided in the previous sections of this Baseline Screening Report, there is no significant possibility for contamination of soil or groundwater. Therefore, in accordance with the EC guidance, progression to Stage 4 is not required. It is concluded that a baseline report which identifies the state of soil and groundwater contamination by 'relevant hazardous substances' is not required.

Appendix A
Relevant Hazardous Substances

Material Trade Name / Substance	CAS No.	Hazard Statement Codes	Storage Quantity (tonnes)	Annual Usage (tonnes)	Hazardous (EPA (2010)) (Note 1)	CMR (Note 2)	Env. Hazard (Note 3)	Nature of Use	Storage Location	Rationale for Identification as 'Relevant Hazardous Substance'
Pot Whiskey (Ethanol 60-64% v/v)	64-17-5	H225, H319	381.82	42,000	✗	✗	✗	Product	Vat House and Spirit Store	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Grain Whiskey (Ethanol 65-70% v/v)	64-17-5	H225, H319	960	96,000	✗	✗	✗	Product	Vat House and Spirit Store	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Amylo 300 (Amylase, gluco-)	9032-08-0	H334	21.87	164	✗	✗	✗	Brewhouse	Process Additions	Enzyme; not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Biogard (Propionic acid)	79-09-4	H226, H314, H315, H318, H318, H335	24	80	✗	✗	✗	Feeds Recovery	Process Additions	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Cakeguard (Propionic acid, 2,4-Hexadienoic acid, potassium salt; Sodium benzoate, Propane-1,2-diol)	79-09-4 , 590-00-1, 7732-18-5, 532-32-1, 57-55-6,	H314, H335	24	80	✗	✗	✗	Feeds Recovery	Process Additions	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Convertase LD (gluco-Amylase)	9032-08-0	H334	9.08	193	✗	✗	✗	Fermentation	Process Additions	Enzyme; not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Convertase Rye (gluco-Amylase, B-Glucanase, Protease)	9032-08-0, 62213-14-3, 76774-43-1	H334	0.4	3	✗	✗	✗	Fermentation	Process Additions	Enzyme; not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Hitempase STXL (a-Amylase)	9000-90-2	H334	13.6	153	✗	✗	✗	Brewhouse	Process Additions	Enzyme; not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Promalt 8 TR (a-Amylase, B-Glucanase , Protease)	9000-90-2 62213-14-3 76774-43-1	H334	4.38	93	✗	✗	✗	Brewhouse	Process Additions	Enzyme; not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Brewers Compass	Not available	H335	75	75	✗	✗	✗	Brewhouse	Process Additions	Enzyme; not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Ceremix (Pullulanase, a-Amylase, glucan 1,4-alpha-maltohydrolase)	9075-68-7 9000-90-2 160611-47-2	H334	19	19	✗	✗	✗	Fermentation	Process Additions	Enzyme; not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Termamyl Classic (a-Amylase)	9000-90-2	H334	7.26	127	✗	✗	✗	Fermentation	Process Additions	Enzyme; not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Circul SHC (Sodium Hydroxide)	1310-73-2	H290, H314 , H318	10	60	✗	✗	✗	Stillhouse	CIP Chemicals	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
P3 oxonia active 150 (Acetic Acid, Peracetic Acid,	64-19-7, 79-21-0,	H272, H290, H302 & H332, H314,	1.25	5	✗	✗	✓	Feeds Recovery		H Statement Code H410; identified as 'Relevant Hazardous Substance'

Material Trade Name / Substance	CAS No.	Hazard Statement Codes	Storage Quantity (tonnes)	Annual Usage (tonnes)	Hazardous (EPA (2010)) (Note 1)	CMR (Note 2)	Env. Hazard (Note 3)	Nature of Use	Storage Location	Rationale for Identification as 'Relevant Hazardous Substance'
Hydrogen Peroxide)	7722-84-1	H335, H410								
P3-horolith V (Nitric Acid; Phosphoric acid)	231-714-2 7697-37-2	H314, H412	0.82	28	✘	✘	✓	MVR	CIP Chemicals	H Statement Code H412; identified as 'Relevant Hazardous Substance' Phosphoric acid determined as non-hazardous based on EPA (2010) Guidance
P3 Stabicip CH (Alcohols, C12-18, Amines, coco alkyl, ethoxylated, Amines, coco alkyl)	146340-16-1, 61791-14-8, 61788-46-3	H315, H319, H400	0.33	5	✘	✘	✓	MVR	CIP Chemicals	H Statement Code H400; identified as 'Relevant Hazardous Substance'
EXELERATE HS-I (Hydrogen peroxide, Alcohols, C12-18)	7722-84-1, 231-765-0 01-2119485845-22 146340-16-1 28348-53-0 248-983-7 01-2119489411-37	H272, H302, H314	2	10	✘	✘	✘	MVR	CIP Chemicals	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Exelerate CX (Tetrasodium ethylenediaminetetraacetate)	64-02-8, 200-573-9 01-2119486762-27 1310-73-2 215-185-5 01-2119457892-27	H290, H314	1	50	✘	✘	✘	MVR	CIP Chemicals	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Nitric Acid	7697-37-2	H290, H314	4	20	✘	✘	✘	CIP	CIP Chemicals	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Phosphoric Acid (24%)	7664-38-2	H315 , H319	8	4	✘	✘	✘	CIP Meura	CIP Chemicals	Phosphoric acid determined as non-hazardous based on EPA (2010) Guidance
P3-oxypak S (Hydrogen Peroxide)	7722-84-1	H271, H302, H332, H314, H318, H335	4	40	✘	✘	✘	CIP Brewing, Mashfilters	CIP Chemicals	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Bioxy (Hydrogen Peroxide)	7722-84-1	H315, H318, H335	4	20	✘	✘	✘	CIP	CIP Chemicals	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Citric Acid (50%)	77-92-9	H319	2	20	✘	✘	✘	WWTP	WWTP Chemicals	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes

Material Trade Name / Substance	CAS No.	Hazard Statement Codes	Storage Quantity (tonnes)	Annual Usage (tonnes)	Hazardous (EPA (2010)) (Note 1)	CMR (Note 2)	Env. Hazard (Note 3)	Nature of Use	Storage Location	Rationale for Identification as 'Relevant Hazardous Substance'
Sodium Metabisulphite	7681-57-4	H302, H318	2	2	✗	✗	✗	WWTP	WWTP Chemicals	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Liq. Caustic (30% IBC) (Sodium Hydroxide)	1310-73-2	H314, H318	2	40	✗	✗	✗	WWTP	WWTP Chemicals	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Sodium Hypochlorite (14- 15%)	7681-52-9	H290, H314, H318, H335, H400	2	6	✗	✗	✓	WWTP, Cooling Towers, RO Plant	WWTP Chemicals	H Statement Code H400; identified as 'Relevant Hazardous Substance' Sodium Hypochlorite determined as non-hazardous based on EPA (2010) Guidance
CAUSTIC SODA 5% =< CONC. <51% (Sodium Hydroxide)	1310-73-2	H314, H318	77.38	2600	✗	✗	✗	WTP / Production	WWTP Chemicals	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Formic Acid (85%)	64-18-6	H302, H314, H331	2	6	✗	✗	✗	WWTP (Blowers)	WWTP Chemicals	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
CELLFLOC SC 130 (Aluminium Chloride)	7446-70-0	H314, H335	8	108	✗	✗	✗	WWTP	WWTP Chemicals	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
CELLFLOC CE 698 (Polygold) (Hydrocarbons, C9-16, Isotridecan-1-ol)	93763-35-0 27458-92-0	H304	4	30	✗	✗	✗	WWTP (Belt Press)	WWTP Chemicals	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
ELGALITE LF12 (Disodium metasilicate, N,N-dimethyldecylamine N-oxide)	6834-92-0 2605-79-0	H314, H335, H412	0.2	2	✗	✗	✓	WWTP R.O	WWTP Chemicals	H Statement Code H412; identified as 'Relevant Hazardous Substance'
Hydrex 4701 (Citric Acid)	77-92-9	H319	2	4	✗	✗	✗	WWTP R.O	WWTP Chemicals	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Hydrex 4301 (Sodium bisulphate)	7631-90-5	H302	2	4	✗	✗	✗	WWTP R.O	WWTP Chemicals	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Hydrex 7611 (Poly(oxy-1,2-ethanediyl),α-hydro-ω-hydroxy- Ethane-1,2-diol, ethoxylated, 2,2-dibromo-2-cyanoacetamide; Dibromoacetonitrile)	25322-68-3 10222-01-2 3252-43-5	H302, H314, H317, H318, H332, H336, H412	2	4	✓	✗	✓	WWTP R.O	WWTP Chemicals	H Statement Code H412; identified as 'Relevant Hazardous Substance' Dibromoacetonitrile determined as hazardous based on EPA (2010) Guidance
Hydrex 4102 (Ammonia, aqueous)	1336-21-6	H314, H335	2	10	✗	✗	✗	WWTP R.O	WWTP Chemicals	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Sulphuric Acid (30%)	7664-93-9	H314	4	16	✗	✗	✗	WWTP R.O	WWTP Chemicals	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Sodium Hydroxide	1310-73-2	H314, H290, H318	2	12	✗	✗	✗	WWTP R.O	WWTP Chemicals	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Micro nutrient solution - cobalt, potassium, nickel, molydate, selenite mix	15137-09-4 139-33-3 1310-58-3 7791-20-0	H317, H334, H341, H350i, H360D	1.2	1	✗	✓	✗	Anaerobic Digestion	Anaerobic Digester Chemicals & Micronutrients	H Statement Codes H341, H350i, H360D; identified as 'Relevant Hazardous Substance'

Material Trade Name / Substance	CAS No.	Hazard Statement Codes	Storage Quantity (tonnes)	Annual Usage (tonnes)	Hazardous (EPA (2010)) (Note 1)	CMR (Note 2)	Env. Hazard (Note 3)	Nature of Use	Storage Location	Rationale for Identification as 'Relevant Hazardous Substance'
	7631-95-0 10102-18-8									
Caustic soda (Sodium Hydroxide)	1310-73-2	H314, H318	18	545	✗	✗	✗	Anaerobic Digestion, Biogas Treatment	Anaerobic Digester Chemicals & Micronutrients	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Enzyme (Ceelulase)	9012-54-8	H334	1.2	85	✗	✗	✗	Anaerobic Digestion	Anaerobic Digester Chemicals & Micronutrients	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Ferric chloride (40%)	7705-08-0	H290, H302, H315, H318	22	2,175	✗	✗	✗	Anaerobic Digestion, WWTP dosing	Anaerobic Digester Chemicals & Micronutrients	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Citric Acid	77-92-9	H319	1	16	✗	✗	✗	Anaerobic Digestion membrane cleaning	Anaerobic Digester Chemicals & Micronutrients	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Sodium Hypochlorite	7681-52-9	H290, H314, H318, H335, H400	1	10	✗	✗	✓	Anaerobic Digestion membrane cleaning, Cooling Towers, RO Plant	Anaerobic Digester Chemicals & Micronutrients	H Statement Codes H400; identified as 'Relevant Hazardous Substance' Sodium Hypochlorite determined as non-hazardous based on EPA (2010) Guidance
Sulphuric acid (98%)	7664-93-9	H314	2	35	✗	✗	✗	Nutrient Recovery (P precipitation)	Anaerobic Digester Chemicals & Micronutrients	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Biocide (Poly(oxy-1,2-ethanediyl),α-hydro-ω-hydroxy-Ethane-1,2-diol, ethoxylated, 2,2-dibromo-2-cyanoacetamide, Dibromoacetonitrile	25322-68-3 10222-01-2 3252-43-5	H302, H314, H317, H318, H332, H336, H412	1	1	✓	✗	✓	RO	Anaerobic Digester Chemicals & Micronutrients	H Statement Code H412; identified as 'Relevant Hazardous Substance' Dibromoacetonitrile determined as hazardous based on EPA (2010) Guidance
Antiscalant (Ammonia)	1336-21-6	H314, H335	1	2	✗	✗	✗	RO	Anaerobic Digester Chemicals & Micronutrients	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Sodium Metabisulphite	7631-90-5	H302	1	1	✗	✗	✗	RO	Anaerobic Digester Chemicals & Micronutrients	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Coagulant (polymer)	93763-35-0 27458-92-0	H304	10	250	✗	✗	✗	Coagulant to dewater surplus biomass	Anaerobic Digester Chemicals & Micronutrients	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Coagulant (polymer)	64742-47-8 69011-36-5	H304, H302	10	600	✗	✗	✗	Separating solids from digestate	Anaerobic Digester Chemicals & Micronutrients	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
NALCO 93033 (Sodium Hypochlorite, Sodium Hydroxide)	7681-52-9 1310-73-2	H290, H314, H318, H400, H411	2	8	✗	✗	✓	Cooling Tower	Cooling Tower Chemicals	H Statement Codes H400 & H411; identified as 'Relevant Hazardous Substance' Sodium Hypochlorite determined as non-hazardous

Material Trade Name / Substance	CAS No.	Hazard Statement Codes	Storage Quantity (tonnes)	Annual Usage (tonnes)	Hazardous (EPA (2010)) (Note 1)	CMR (Note 2)	Env. Hazard (Note 3)	Nature of Use	Storage Location	Rationale for Identification as 'Relevant Hazardous Substance'
										based on EPA (2010) Guidance
NALCO 77393 (D-Glucopyranose, oligomers, decyl octyl glycosides)	68515-73-1	H318	0.45	12	✗	✗	✗	Cooling Tower	Cooling Tower Chemicals	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
NALCO 3D TRASAR 3DT250 (2-phosphonobutane-1,2,4-tricarboxylic acid)	37971-36-1	H290	0.45	12	✗	✗	✗	Cooling Tower	Cooling Tower Chemicals	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
NALCO ACTI-BROM 1318 (Bromine)	7647-15-6	H336	2	4	✗	✗	✗	Cooling Tower	Cooling Tower Chemicals	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
NALCO 77225 (Tetrapotassium pyrophosphate, potassium hydroxide)	7320-34-5 1310-58-3	H302, H314, H319, H290	1	5	✗	✗	✗	Boilers	Boiler Chemicals	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes Tetrapotassium pyrophosphate determined as non-hazardous in EPA (2010) guidance
NALCO 77211 (Sodium bisulphate)	7631-90-5	H302	1	9	✗	✗	✗	Boilers	Boiler Chemicals	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
RO Clean (Disodium carbonate, compound with hydrogen peroxide (2:3), sodium carbonate, Tetrasodium ethylenediaminetetraacetate)	15630-89-4 , 497-19-8 , 64-02-8	H302, H332, H318	0.1	2	✗	✗	✗	RO Plant	RO Plant Chemicals	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
RO Clean (Citric acid, Tetrasodium ethylenediaminetetraacetate)	77-92-9 64-02-8	H302, H318, H319	0.1	0.1	✗	✗	✗	RO Plant	RO Plant Chemicals	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Polyaluminium Chloride hydroxide sulphate	39290-78-3	H315, H319	0.2	2	✗	✗	✗	RO Plant	RO Plant Chemicals	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
ShowerHead Plus (An aqueous solution of mild acids and benzalkonium chloride) Biocide	Not applicable	H315, H319, H412	0.2	0.2	✗	✗	✓	Water Treatment Chemicals	Sitewide	H Statement Code H412; identified as 'Relevant Hazardous Substance'
Bryta Conc Cleaner Degreaser (sodium silicate, benzenesulfonic acid, Alcohols, C9-11, Sodium p-cumenesulphonate)	1344-09-8 90194-45-9 68439-46-3 15763-76-5	H315, H318	0.01	0.1	✗	✗	✗	Kitchen cleaner. Manual process	Cleaning	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Room Care R6 (Hydrogen Chloride, ammonium compounds)	7647-01-0 8030-78-2	H315	0.036	0.36	✗	✗	✗	Restroom/bathroom cleaner	Cleaning	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Sani 4 in 1 (Isotridecanol, ethoxylated, Methanesulphonic acid, salicylic acid, Hexan-1-ol, ethoxylated, Ethanol)	69011-36-5 75-75-2 69-72-7 31726-34-8 64-17-5	H314, H318	0.0028	0.06	✗	✗	✗	Sanitary cleaner. Surface disinfectant.	Cleaning	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Mobil DTE 10 (2,6-di-tert-butylphenol)	128-39-2	H400, H410, H315, H319,	0.416	0.42	✗	✗	✓	Engineering and maintenance	Engineering and maintenance	H Statement Code H400 and H410; identified as 'Relevant Hazardous Substance'

Material Trade Name / Substance	CAS No.	Hazard Statement Codes	Storage Quantity (tonnes)	Annual Usage (tonnes)	Hazardous (EPA (2010)) (Note 1)	CMR (Note 2)	Env. Hazard (Note 3)	Nature of Use	Storage Location	Rationale for Identification as 'Relevant Hazardous Substance'
Mobil DTE 24 (Calcium bis(dinonylnaphthalenesulphonate))	57855-77-3	H315, H317, H318	0.416	0.42	✗	✗	✗	Engineering and maintenance	Engineering and maintenance	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Mobilgear 600 XP 220 (630) (Hydrocarbons)	68955-53-3 1330-78-5	H330, H311, H302, H317, H400, H410, H373, H314	1.248	2.08	✓	✗	✓	Engineering and maintenance	Engineering and maintenance	H Statement Codes H400 and H410; identified as 'Relevant Hazardous Substance' Tricresyl-phosphate (CAS no. 1330-78-5) determined as hazardous based on EPA (2010) Guidance
Solvent SKI	64742-04-7	H304, H226	0.01	0.04	✗	✗	✗	Engineering and maintenance	Engineering and maintenance	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Shell Cassida Fluid GL 220 (Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates)	80939-62-4	H315, H319	0.1	0.3	✗	✗	✗	Engineering and maintenance	Engineering and maintenance	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Shell Cassida Silicone Fluid Spray (Butane, Propane)	106-97-8 74-98-6	H220, H280	0.114	0.11	✗	✗	✗	Engineering and maintenance	Engineering and maintenance	Gas; Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Pureshield Argon	7440-37-1	H280	0.51	0.51	✗	✗	✗	Engineering and maintenance	Engineering and maintenance	Gas; Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Oxygen (High Purity)	7782-44-7	H270, H280	0.85	0.85	✗	✗	✗	Engineering and maintenance	Engineering and maintenance	Gas; Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Acetylene (Dissolved)	74-86-2	H220, H280	0.664	0.66	✗	✗	✗	Engineering and maintenance	Engineering and maintenance	Gas; Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Nitrogen (Zero Grade)	7727-37-9	H280	0.34	0.34	✗	✗	✗	Engineering and maintenance	Engineering and maintenance	Gas; Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Propane	74-98-6	H220, H280	0.03	0.03	✗	✗	✗	Engineering and maintenance	Engineering and maintenance	Gas; Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Derustit Pickling Paste (Nitric Acid, hydrogen fluoride)	7697-37-2 7664-39-3	H310, H330, H300, H314, H335	0.08	0.008	✗	✗	✗	Engineering and maintenance	Engineering and maintenance	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
ROCOL RTD Compound (Alkanes, C14-17, chloro, Residual oils (petroleum), solvent-dewaxed)	85535-85-9 64742-62-7	H362, H410	0.02	0.01	✓	✗	✓	Engineering and maintenance	Engineering and maintenance	H Statement Code H410; identified as 'Relevant Hazardous Substance' Alkanes, C14-17, chloro, determined as hazardous in EPA (2010) guidance
Silicone Sealant (Hydrocarbons)	64742-46-7	H304	0.0124	0.007	✗	✗	✗	Engineering and maintenance	Engineering and maintenance	Not identified as a 'Relevant Hazardous Substance' based on H Statement Codes
Diesel	68334-30-5	H226, H304, H315, H332, H351, H373, H411	0.3	0.1	✓	✓	✓	Fuel for fire water pumps	Fire water pump house	Diesel determined as hazardous in EPA (2010) guidance H Statement Code H411; identified as 'Relevant Hazardous Substance'
Diesel	68334-30-5	H226, H304, H315, H332, H351, H373, H411	0.9	5.4	✓	✓	✓	Fuel for Production services i.e. forklift, road sweeper, loader, etc.	Waste Management Compound	Diesel determined as hazardous in EPA (2010) guidance H Statement Code H411; identified as 'Relevant

Material Trade Name / Substance	CAS No.	Hazard Statement Codes	Storage Quantity (tonnes)	Annual Usage (tonnes)	Hazardous (EPA (2010)) (Note 1)	CMR (Note 2)	Env. Hazard (Note 3)	Nature of Use	Storage Location	Rationale for Identification as 'Relevant Hazardous Substance'
										Hazardous Substance'
Diesel	68334-30-5	H226, H304, H315, H332, H351, H373, H411	3.0	0.3	✓	✓	✓	Fuel for proposed emergency generator associated with AD Plant	Adjacent Warehouse 4	Diesel determined as hazardous in EPA (2010) guidance H Statement Code H411; identified as 'Relevant Hazardous Substance'

NOTES:

(1) Substances listed as 'Hazardous' in the document '*Classification of Hazardous and Non-Hazardous Substances in Groundwater, Version 1, December 2010'* (EPA, 2010) are identified as a 'Relevant Hazardous Substance'. If a substance is listed as 'non-hazardous', this substance can be eliminated.
(2) Due to their toxicity, substances with Hazard Statement Codes for carcinogenicity, germ cell mutagenicity and reproductive toxicity, referred to collectively as 'CMR substances', are identified as a 'Relevant Hazardous Substance'. CMR Hazard Statements include H340, H341, H350, H351, H360D, H360F, H361.
(3) Substances with Hazard Statement Codes for Environmental Hazards including H400, H401, H402, H410, H411, H412, H413 are identified as a 'Relevant Hazardous Substance'.
(4) Solids and gases can be excluded as a 'Relevant Hazardous Substance' as they are unlikely to contaminate soil and groundwater due to their physical state.

Appendix B
Masterlist of Bunds (Existing)

MIDLETON	EPR041 MASTERLIST OF BUNDS & INTERCEPTORS AT IDL						
Bund/ Interceptor No.	**Bund/Interceptor Location**	**Bund/ Interceptor Type**	**Material Contained**	**Test**	**Comments**	**Date Last Certified**	**Mobile or Permanent**
3	Vathouse	Concrete	Spirit	pH = COD= V=	In Use	22/10/2021	P
4	Vathouse	Concrete	Spirit	pH = COD= V=	In Use	22/10/2021	P
5	RO Water Plant Waste Chemical	IBC (Plastic)	Acid/Base	V=	In Use	19/10/2021	M
6	RO Water Plant Waste Chemical	IBC (Plastic)	Acid/Base	V=	In Use	19/10/2021	M
8	Feeds Recovery	Concrete	Syrup	V=	In Use	22/11/2021	P
17	Fermenters	Concrete	Chemical/ Process	V=	In Use	22/11/2021	P
18	Fermenters	Concrete	Chemical/ Process	V=	In Use	22/11/2021	P
19	Fermenters	Concrete	Chemical/ Process	V=	In Use	22/11/2021	P
20	Beer Well/Cold Wash	Concrete	Chemical/ Process	V=	In Use	23/11/2021	P
21	Fermenters	Concrete	Chemical/ Process	V=	In Use	22/11/2021	P
23	WWTP (Caustic)	Plastic	Acid/Base	V=	Redundant, Arrangements to be removed		P
24	WWTP (Purisol)	Plastic	Acid/Base	V=	Redundant, Arrangements to be removed		P
34	Cooling Tower A (3D Trasar)	Double Skinned	Acid/Base	V=	In Use	19/11/2021	P
35	Cooling Tower A (Nalco 77393)	Double Skinned	Acid/Base	V=	In Use	19/11/2021	P
36	Cooling Tower A (Anti Brom 1318)	Double Skinned	Acid/Base	V=	In Use	19/11/2021	P
37	Cooling Tower A (Nalco 90333)	Double Skinned	Acid/Base	V=	In Use	19/11/2021	P
40	Feeds Recovery (Thick and Thin)	Concrete	Chemical/ Process	V=	In Use	22/11/2021	P
41	Feeds Recovery (MVR Transformer)	Concrete	Chemical/ Process	V=	In Use	22/11/2021	P
43	Additive A	Double Skinned	Chemical/ Process	V=	In Use	22/11/2021	P
44	Additive B	Double Skinned	Chemical/ Process	V=	In Use	22/11/2021	P
45	Additive C	IBC (Plastic)	Chemical/ Process	V=	In Use	22/10/2021	M
46	WWTP (Chemical)	IBC (Plastic)	Acid/Base	V=	In Use		M
48	WWTP (Chemical)	IBC (Plastic)	Acid/Base	V=	In Use	27/10/2021	M
50	WTP (Sulphuric)	Concrete	Acid/Base	V= pH=	In Use	24/11/2021	P
51	WTP (25% Caustic Soda)	Concrete	Acid/Base	V= pH=	In Use	24/11/2021	P
52	WTP (10% PAC)	Concrete	Acid/Base	V= pH=	In Use	24/11/2021	P
53	Fire Water Retention Pond Lower	Geotextile Liner		V=	In Use	17/08/2022	P
54	Fermenter SPX Bund	Concrete	Chemical/ Process	V=	In Use	23/11/2021	P
55	New Fermenters (2019)	Concrete	Chemical/ Process	V=	In Use	13/12/2022	P
56A	Garden Stillhouse Tank Farm	Concrete	Spirit	V= O=	In Use	23/11/2021	P
56B	Garden Stillhouse Tank Farm	Concrete	Spirit	V= O=	In Use	28/10/2021	P
56C	Garden Stillhouse Tank Farm	Concrete	Spirit	V= O=	In Use	28/10/2021	P
58	WMC (Waste Oil Tank)	Concrete	Waste Oil	V= O=	In Use	22/11/2021	P
59	Garden Stillhouse Sample Receiver	Concrete	Spirit	V= O=	In Use	23/11/2021	P

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Bund/ Interceptor No.	**Bund/Interceptor Location**	**Bund/ Interceptor Type**	**Material Contained**	**Test**	**Comments**	**Date Last Certified**	**Mobile or Permanent**
60	Column Stillhouse Tank Farm	Concrete	Spirit	V= O=	In Use	28/10/2021	P
61	Fermenters Chemical Storage(Acid)	Double IBC	Acid/Base	V= pH=	In Use	21/10/2021	P
65	Fermenters Chemical Storage(Enzyme)	Double IBC	Acid/Base	V=	In Use	21/10/2021	P
66	Fire Water Retention Pond Upper	Concrete		V=	In Use	23/11/2021	P
67A	New Firepumps	Double Skinned (c/w alarm)	Diesel	V=	In Use	19/10/2021	P
67B	New Firepumps	Double	Diesel	V=	In Use	22/10/2021	P
68	WWTP (Chemical)	IBC (Plastic)	Acid/Base	V=	In Use		M
70	WWTP (Chemical)	IBC (Plastic)	Acid/Base	V=	In Use	16/10/2021	M
71	WWTP (Chemical)	Double IBC (Plastic)	Acid/Base	V=	In Use	20/10/2021	M
72	WWTP (Chemical)	IBC (Plastic)	Acid/Base	V=	In Use	28/10/2021	M
73	WWTP (Chemical)	IBC (Plastic)	Acid/Base	V=	In Use	15/10/2021	M
74	WWTP (Chemical)	IBC (Plastic)	Acid/Base	V=	In Use	16/10/2021	M
75	WWTP (Chemical)	IBC (Plastic)	Acid/Base	V=	In Use	16/10/2021	M
76	WWTP (Chemical)	IBC (Plastic)	Acid/Base	V=	In Use	16/10/2021	M
77	WWTP (Chemical)	Double IBC (Plastic)	Acid/Base	V=	In Use	16/10/2021	M
78	WWTP (Chemical)	Double IBC (Plastic)	Acid/Base	V=	In Use	07/07/2015	M
79	WWTP (Chemical)	Double IBC (Plastic)	Acid/Base	V=	In Use	16/10/2021	M
80	Garden stillhouse	IBC (Plastic)	Spirit	V=	In Use		M
81	Micro Distillery	IBC (Plastic)	Spirit	V=	In Use	27/10/2021	M
82	Micro Distillery	IBC (Plastic)	Spirit	V=	In Use	27/10/2021	M
83	Micro Distillery	IBC (Plastic)	Spirit	V=	In Use	16/10/2021	M
85	Micro Distillery	IBC (Plastic)	Spirit	V=	In Use	16/10/2021	M
86	Micro Distillery	IBC (Plastic)	Spirit	V=	In Use	16/10/2021	M
88	Boiler Chemical Store	Integrated Chem Store	Acid/Base	V=	Not Currently In Use	15/11/2021	P
89	Boiler Chemical Store	Integrated Chem Store	Acid/Base	V=	Not Currently In Use	15/11/2021	P
94	WH01 (Oil)	Plastic	Oil	V=	In Use	14/12/201	M
95	WH01 (Oil)	Plastic	Oil	V=	In Use	14/12/201	M
96	WH01 (Oil)	Plastic	Oil	V=	In Use	14/12/201	M
98	WH01 (Oil)	Plastic	Oil	V=	In Use	14/12/201	M
99	WH01 (Oil)	Plastic	Oil	V=	In Use	14/12/201	M
100	WH01 (Oil)	Plastic	Oil	V=	In Use	14/12/201	M
101	WH01 (Oil)	Plastic	Oil	V=	In Use	14/12/201	M
103	WH01 (Oil)	Plastic	Oil	V=	In Use	14/12/201	M
104	WH01 (Oil)	Plastic	Oil	V=	In Use	14/12/201	M
105	WH01 (Oil)	Plastic	Oil	V=	In Use	14/12/201	M
106	WH01 (Oil)	Plastic	Oil	V=	In Use	14/12/201	M
107	WH01 (Oil)	Plastic	Oil	V=	In Use	14/12/201	M
108	WH01 (Oil)	Plastic	Oil	V=	In Use	14/12/201	M
109	WH01 (Oil)	Plastic	Oil	V=	In Use	14/12/201	M
110	WH01 (Oil)	Plastic	Oil	V=	In Use	14/12/201	M
111	WH01 (Oil)	Plastic	Oil	V=	In Use	14/12/201	M
113	WH01 UN 210L Drum	Plastic	Oil	V=	In Use	14/12/2021	M

MIDLETON	EPR041 MASTERLIST OF BUNDS & INTERCEPTORS AT IDL						
Bund/ Interceptor No.	Bund/Interceptor Location	Bund/ Interceptor Type	Material Contained	Test	Comments	Date Last Certified	Mobile or Permanent
114	WH01 (Oil)	Plastic	Oil	V=	In Use	14/12/2021	M
115	WH01 (Oil)	Plastic	Oil	V=	In Use	14/12/2021	M
116	Micro Distillery Pot Still bund	Concrete	Spirit	V= O=	In Use	15/10/2021	P
117	Micro Distillery Gin Bund	Concrte	Spirit	V= O=	In Use	15/10/2021	P
118	WH01 (Oil)	Plastic	Oil	V=	In Use	14/12/2021	M
119	WMC	Double IBC (Plastic)	Acid/Base	V=	In Use	16/10/2021	M
120	Fermenters Chemical Storage(Acid)	Double IBC	Acid/Base	V= pH=	In Use	15/10/201	P
121	Feeds Recovery (Thick and Thin)	Concrete	Chemical/ Process	V=	In Use	18/11/2021	P
122	Feeds Recovery (MVR Bund)	Concrete	Chemical/ Process	V=	In Use	18/11/2021	P
123	MVR 1 & 2 Additives B	Steel	Chemical/ Process	V=	In Use	18/11/2021	P
124	MVR 1 & 2 Additives C	Steel	Chemical/ Process	V=	In Use	18/11/2021	P
125	WWTP TOC AT 4207	Plastic	Chemical	V=	In USe		M
126	WWTP TOC AT 4207	Plastic	Chemical	V=	In USe		M
127	WWTP TOC AT 4210	Plastic	Chemical	V=	In USe		M
128	WWTP TOC AT 4210	Plastic	Chemical	V=	In USe		M
129	Cavern TOC	Plastic	Chemical	V=	In USe		M
130	SWE2 / FWRP TOC	Plastic	Chemical	V=	In USe		M
131	Lab waste bund 1	Plastic	Chemical	V=	In USe	27/10/2021	M
132	Lab waste bund 2	Plastic	Chemical	V=	In USe	27/10/2021	M
133	WH01 (Oil)	Plastic	Oil	V=	In USe	25/02/2022	M
134	WH01 (Oil)	Plastic	Oil	V=	In USe	25/02/2022	M
135	WH01 (Oil)	Plastic	Oil	V=	In USe	25/02/2022	M
136	WH01 (Oil)	Plastic	Oil	V=	In USe	25/02/2022	M
137	WH01 (Oil)	Plastic	Oil	V=	In USe	25/02/2022	M
138	SWE3 TOC	Plastic	Chemical	V=	In USe		M
139	WWTP permeate room	Plastic	Chemical	V=	In USe		M
140	Barry Crockett	Plastic	Chemical	V=	In USe		M
141	Columns stillhouse	Plastic	Chemical	V=	In USe		M
142	WWTP R.O Plant	Chem Store	Chemical	V=	In USe		P
143	WWTP R.O Plant (Hydrex 4102)	Chem Store	Chemical	V=	In USe		P
144	WWTP R.O Plant (Sulphuric Acid)	Double Skinned	Chemical	V=	In USe		P
145	Waste Compound	Chem Store	Chemical	V=	In USe		P
146	Waste Compound	Chem Store	Chemical	V=	In USe		P
147	Waste Compound	Plastic	Chemical	V=	In USe		M
148	Waste Compound	Plastic	Chemical	V=	In USe		M
149	Waste Compound	Plastic	Chemical	V=	In USe		M
150	Waste Compound	Plastic	Chemical	V=	In USe		M
151	Waste Compound	Plastic	Chemical	V=	In USe		M
152	Waste Compound	Plastic	Chemical	V=	In USe		M
153	Waste Compound	Plastic	Chemical	V=	In USe		M
154	Waste Compound	Plastic	Chemical	V=	In USe		M
155	Waste Compound	Plastic	Chemical	V=	In USe		M
156	Waste Compound	Plastic	Chem Store	V=	In USe		M
157	Fusel Oil Tank	Steel Double Skimmed	Oil	V=	In USe		P
158	New Boilers Chemstore	Chem Store	Chem Store	V=	In USe		P
159	New Boilers Nalco IBC	Plastic	Chemical	V=	In USe		P
160	New Boilers S.Steel IBC	Steel Double Skimmed	Chemical	V=	In USe		P
161	New Vathouse	Concrete	Spirit	pH = COD= V=	In Use		P
162	Diesel Bowser, Waste Compound	Steel Double Skimmed	Diesel	V=	In Use		P