Attachment 1.1
Correspondence with EIAR Consultees

- Example of typical letter issued to Consultees
- 2 no. consultation letter responses from the National Monuments Service, Development Applications Unit
- Letter response from the Geological Survey of Ireland
- Letter response from the Irish Air Navigation Service
- Letter response from the Health Service Executive
- Letter response from the National Parks and Wildlife Service
- Letter response from Inland Fisheries Ireland

PM Group
Kearney House
Belgard Square
Dublin 24 XFW2
Ireland

T +353 1 404 0700
E dublin@pmgroup-global.com
W www.pmgroup-global.com

International Office Network

Belgium	Poland
China	Singapore
Germany	Switzerland
India	UK
Ireland	USA

The project delivery specialists

Our Reference: IE0313391-LET-0001

10th April 2024

Health Service Executive
Consumer Affairs Area Officer,
HSE Dublin North East,
Bective Street,
Kells, Co. Meath

Re: Boyne Energy Campus – Proposed redevelopment of the existing Premier Periclase manufacturing facility, into an mixed-use Energy Innovation Campus targeting net-zero emissions at Boyne Road, Drogheda, Co Louth.

Environmental Impact Assessment Report Scoping

Dear Sir / Madam

The Premier Periclase site is a brown-field industrial site, first established for Cement Production in 1938 and acquired by Premier Periclase in 1974. The facility produces a range of Magnesium Oxide products, Cement Lime and Hydroxide products using vast quantities of energy, seawater and fresh water in the process. The site has historically been a substantial consumer of energy and a significant contributor to Ireland's industrial emissions.

The proposed redevelopment aims to deliver an innovative grey-to-green conversion. The Premier Periclase industrial facility will be transformed into a innovative, mixed-use energy campus comprising of energy infrastructure including battery storage, a new-built data centre building, while also laying the groundwork for further green industrial developments, thereby bolstering the local economy. The site will undergo decontamination, demolition, remediation and restoration under its existing EPA licence in conjunction with its proposed redevelopment as an energy campus.

The proposed development is confined to the existing curtilage of the Premier Periclase facility. The development includes the following:

- Demolition of existing processing and industrial buildings, ancillary structures, and services associated with the Premier Periclase facility, site clearance and remediation works;
- Construction of a three storey data centre building within the southern portion of the site;
- A proposed energy centre in the central part of the subject site incorporating 9 no. generators, switchrooms, and UPS rooms.
- Thermal storage silos and a substation building will be provided to the north and east of the energy centre building respectively.
- A battery energy storage system (BESS) compound within the eastern portion of the site;
- Provision of a compressed gas facility and storage, pumproom and filtration system, and ancillary structures including firewater tank and pumproom, waste management facilities, and security hut;
- All associated and ancillary works including access arrangements, internal roadways and footpaths, car and cycle parking, boundary treatments, landscaping and service;

- All associated and ancillary site works.

The purpose of the development is the regeneration of underutilised Industrial land in a manner which enhances the local economy and encourages a sequential approach to development. The establishment of this project goes to the very heart of Objective EE3 of the County Louth County Development Plan that requires to "*To promote the regeneration of underutilised Industrial and town centre areas in a manner which enhances the local economy and encourages a sequential approach to development.*"

It is anticipated that, subject to planning permission, the construction and commissioning of the proposed development will commence in 2025, with a target of facility start up in 2028. PM Group has been engaged to prepare an Environmental Impact Assessment Report (EIAR) which will be submitted to the Planning Authority with the planning application and the EIAR will be available for inspection or purchase at a fee not exceeding the reasonable cost of making a copy at the offices of the Planning Authority. The EIAR will be prepared in accordance with the requirements of EU Directive 2011/92/EU, as amended, and EPA Guidance documents on the preparation of EIARs to assess the effects (direct and indirect) of the project on the environment. The assessments include but not are limited to noise, air emissions, archaeology, biodiversity, climate, water, land and soils, demolition impacts, traffic and transport, landscape and visual and COMAH (land use planning).

A Natura Impact Statement (NIS) will also be submitted to the Planning Authority with the planning application and the NIS will be available for inspection or purchase for a fee not exceeding the reasonable cost of making a copy at the offices of the Planning Authority. An EPA-Industrial Emissions Directive (IED) licence will be applied for to facilitate the operation of the proposed development.

The location of the Premier Periclase site and the location of the proposed development within the site are indicated in the 2No. figures attached. The current site operates under an EPA Licence (Ref. P0376-02) from the EPA.

We would welcome any comments or suggestions you may have to inform the scope or contents of the EIAR. Please send any comments or suggestions to the undersigned at the above address or via email to Raymond.Derrig@pmgroup-global.com by Friday the 03rd May 2024.

Yours sincerely,

Raymond Derrig

Raymond Derrig– Agent on behalf of Premier Periclase Ltd

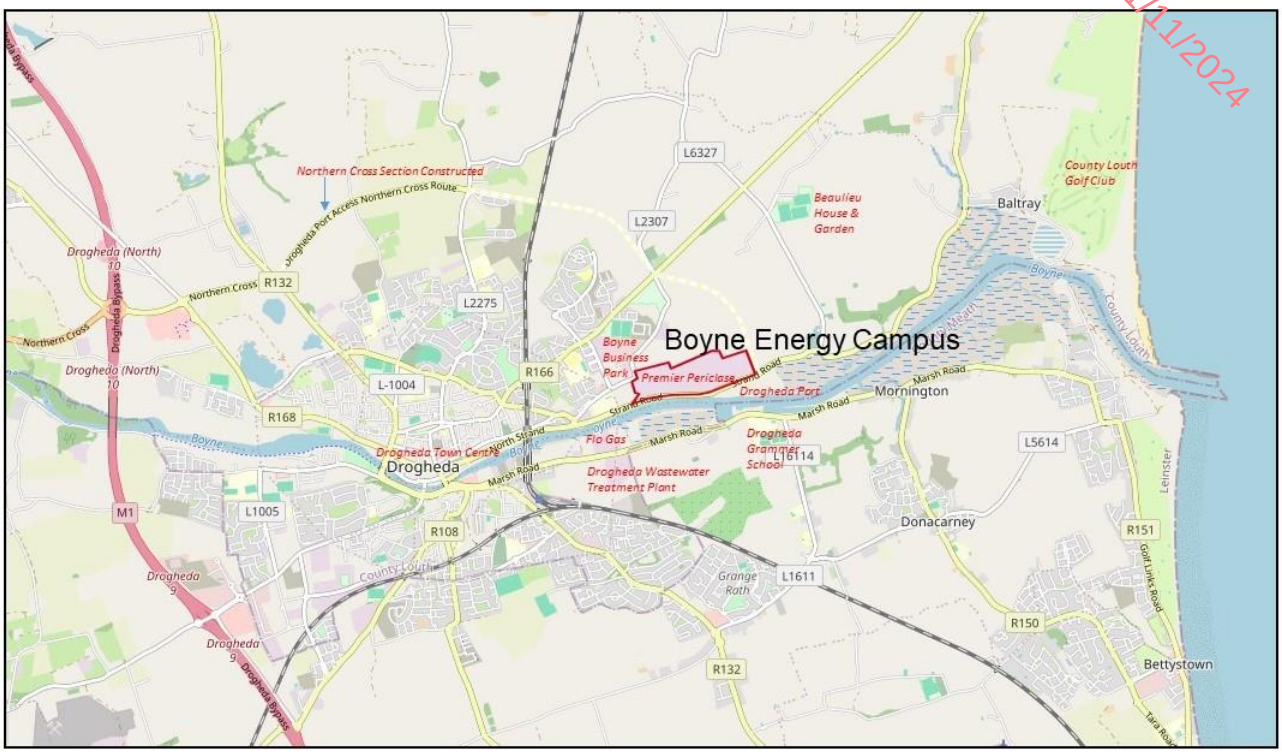

Figure 1 *Location of the Boyne Energy Campus*

Figure 2 *Indicative Image of the Proposed Development*

An Roinn Tithíochta,
Rialtais Áitiúil agus Oidhreachta
Department of Housing,
Local Government and Heritage

Your Ref: IE0313391-LET-0001
Our Ref: **G Pre001382024**
(Please quote in all related correspondence)

24 May 2024

Raymond Derrig
PM Group
Kearney House
Belgard Square
Tallaght
Dublin 24
XFW2

Via email: Raymond.Derrig@pmgroup-global.com

Re: Environmental Impact Assessment Report (EIAR) Scoping on proposed redevelopment of the existing Premier Periclase manufacturing facility, into a mixed-use Energy Innovation Campus targeting net-zero emissions at Boyne Road, Drogheda, County Louth

A Chara

I refer to correspondence received in connection with the above.

Outlined below are heritage-related observations/recommendations of the Department under the stated headings co-ordinated by the Development Applications Unit.

Archaeology

The Department has reviewed the Environmental Impact Assessment Scoping Report summary of the Cultural Heritage Impact Assessment chapter of the EIAR that was submitted for preplanning consultation.

The Cultural Heritage Impact Assessment chapter of the scoping document was carried out by Courtney Deery Heritage Consultancy Ltd and included an overview summary of an Archaeological and Cultural Heritage Impact Assessment.

The Department welcomes the opportunity for further preplanning consultation and requests the submission of the full Cultural Heritage Impact Assessment chapter of the EIAR prior to making any further comments or recommendations.

Nature Conservation

It is noted that the former Premier Periclase site which it is proposed to develop is located in the close vicinity of a section of the River Boyne at the downstream limits of the River Boyne and River Blackwater Special Area of Conservation (SAC) (Site Code: 002299) and immediately upstream of the Boyne Coast and Estuary SAC (Site Code: 001957). The development site is also adjacent to the Boyne Estuary Special Protection Area (SPA), (Site Code: 004080) which encompasses the opposite southern bank along this stretch of the Boyne, and lies approximately 5 km downstream of the River Boyne and River Blackwater SPA (Site Code: 004232). In considering the potential effects of the proposed development on flora, fauna and natural habitats it is therefore recommended that the Environmental Impact Assessment Report (EIAR) which is to be prepared as well as the Appropriate Assessment should in particular evaluate any possible impacts on Qualifying Interests (QIs) for these and other nearby European sites. Desk studies, and where necessary, surveys of the local presence of QI habitats and species for the SACs, including river lamprey, salmon and otter, and Special Conservation Interest (SCI) bird species for the SPAs should inform such evaluation. The possibility of effects on other protected species, for instance bat species, should in addition be assessed.

The above observations/recommendations are based on the papers submitted to this Department on a pre-planning basis and are made without prejudice to any observations that the Minister may make in the context of any consultation arising on foot of any development application referred to the Minister, by the planning authority in his role as statutory consultee under the Planning and Development Act, 2000, as amended.

You are requested to send any further communications to this Department's Development Applications Unit (DAU) at manager.dau@npws.gov.ie, or to the following address:

The Manager
Development Applications Unit (DAU)
Government Offices
Newtown Road
Wexford
Y35 AP90

Is mise, le meas

Sinéad O' Brien
Development Applications Unit
Administration

An Roinn Tithíochta,
Rialtais Áitiúil agus Oidhreachta
Department of Housing,
Local Government and Heritage

Your Ref: IE0313391-LET-0001
Our Ref: **G Pre001382024**
(Please quote in all related correspondence)

12 June 2024

O'Sullivan, Paul
PM Group
Kearney House
Belgard Square
Tallaght
Dublin 24
XFW2

Via email: Paul.OSullivan@pmgroup-global.com
cc:Raymond.Derrig@pmgroup-global.com;
Deirdre.Larkin@atkinsrealis.com
Garry.Leacy@atkinsrealis.com
siobhan@courtneydeery.ie

Re: Cultural Heritage chapter of the Environmental Impact Assessment Report (EIAR) in relation to proposed redevelopment of the existing Premier Periclase manufacturing facility, into a mixed-use Energy Innovation Campus targeting net-zero emissions at Boyne Road, Drogheda, County Louth

A Chara

I refer to correspondence received in connection with the above.

Outlined below are archaeological observations/recommendations of the Department co-ordinated by the Development Applications Unit.

The Department has reviewed the draft "16. Archaeology, Architectural & Cultural Heritage" chapter of the Environmental Impact Assessment (EIA) that was submitted for preplanning consultation.

The Archaeological, Architectural & Cultural Heritage chapter was carried out by Courtney Deery Heritage Consultancy Ltd. The Department welcomes the opportunity for further pre-planning consultation and requests the submission of more detailed construction drawings than Figure 16.16: "Proposed development layout" prior to making any further comments or recommendations. Further consultation may benefit by organising/carrying out a site visit.

The above observations/recommendations are based on the papers submitted to this Department on a pre-planning basis and are made without prejudice to any observations that

the Minister may make in the context of any consultation arising on foot of any development application referred to the Minister, by the planning authority in his role as statutory consultee under the Planning and Development Act, 2000, as amended.

You are requested to send any further communications to this Department's Development Applications Unit (DAU) at manager.dau@npws.gov.ie, or to the following address:

The Manager
Development Applications Unit (DAU)
Government Offices
Newtown Road
Wexford
Y35 AP90

Is mise, le meas

Sinéad O' Brien
Development Applications Unit
Administration

An Roinn Comhshaoil,
Aeráide agus Cumarsáide
Department of the Environment,
Climate and Communications

Geological Survey
Suirbhéireacht Gheolaíochta
Ireland | Éireann

Raymond Derrig
PM Group
Kearney House
Belgard Square
Dublin 24 XFW2

30 April 2024

Re: Boyne Energy Campus Drogheda

Your Ref: IE0313391-LET-0001
Our Ref: 24/123

Dear Raymond,

Geological Survey Ireland is the national earth science agency and is a division of the Department of the Environment, Climate and Communications. We provide independent geological information and gather various data for that purpose. Please see our website for data availability. We recommend using these various data sets, when conducting the EIAR, SEA, planning and scoping processes. Use of our data or maps should be attributed correctly to 'Geological Survey Ireland'.

The publicly available data referenced/presented here, should in no way be construed as Geological Survey Ireland support for or objection to the proposed development or plan. The data is made freely available to all and can be used as independent scientific data in assessments, plans or policies. It should be noted that in many cases this data is a baseline or starting point for further site specific assessments.

With reference to your email received on the 10 April 2024, concerning the Boyne Energy Campus Drogheda, Geological Survey Ireland would encourage use of and reference to our datasets. Please find attached a list of our publicly available datasets that may be useful to the environmental assessment and planning process. We recommend that you review this list and refer to any datasets you consider relevant to your assessment. The remainder of this letter and following sections provide more detail on some of these datasets.

Geoheritage

A national inventory of geoheritage sites known as County Geological Sites (CGSs) is managed by the Geoheritage Programme of Geological Survey Ireland. CGSs, as adopted under the National Heritage Plan, include sites that are of national importance which have been selected as the very best examples for NHA (Natural Heritage Areas) designation. NHA designation will be completed in partnership with the National Parks and Wildlife Service (NPWS). CGSs are now routinely included in County Development Plans and in the GIS of planning departments, to ensure the recognition and appropriate protection of geological heritage within the planning system. CGSs can be viewed online under the Geological Heritage tab on the online Map Viewer.

The audit for Co. Louth was completed in 2013. The full report details can be found here. Our records show that there are no CGSs in the vicinity of the proposed energy campus.

Groundwater

Geological Survey Ireland's Groundwater and Geothermal Unit, provides advice, data and maps relating to groundwater distribution, quality and use, which is especially relevant for safe and secure drinking water supplies and healthy ecosystems. Proposed developments need to consider any potential impact on specific groundwater abstractions and on groundwater resources in general. We recommend using the groundwater maps on our Map viewer which should include: wells; drinking water source protection areas; the national map suite - aquifer, groundwater vulnerability, groundwater recharge and subsoil permeability maps. For areas underlain by limestone, please refer to the karst specific data layers (karst features, tracer test database; turlough water levels (gwlevel.ie). Background information is also provided in the Groundwater Body Descriptions. Please read all disclaimers carefully when using Geological Survey Ireland data.

The Groundwater Data Viewer indicates aquifers classed as a a 'Locally Important Aquifer - Bedrock which is Generally Moderately Productive' and a 'Regionally Important Aquifer - Karstified (diffuse)' underlie the proposed energy campus. The Groundwater Vulnerability map indicates the area covered is classed as 'High' Vulnerability.

GWClimate is a groundwater monitoring and modelling project that aims to investigate the impact of climate change on groundwater in Ireland. This is a follow on from a previous project (GWFlood) and the data may be useful in relation to Flood Risk Assessment (FRA) and management plans. Maps and data are available on the Map viewer.

Geological Survey Ireland has completed Groundwater Protection Schemes (GWPSs) in partnership with Local Authorities, and there is now national coverage of GWPS mapping. A Groundwater Protection Scheme provides guidelines for the planning and licensing authorities in carrying out their functions, and a framework to assist in decision-making on the location, nature and control of developments and activities in order to protect groundwater. **The Groundwater Protection Response overview and link to the main reports is here: https://www.gsi.ie/en-ie/programmes-and-projects/groundwater/projects/protecting-drinking-water/what-is-drinking-water-protection/county-groundwater-protection-schemes/Pages/default.aspx**

Geological Mapping
Geological Survey Ireland maintains online datasets of bedrock and subsoils geological mapping that are reliable and accessible. We would encourage you to use these data which can be found here, in your future assessments.

Geohazards
Geohazards can cause widespread damage to landscapes, wildlife, human property and human life. In Ireland, landslides, flooding and coastal erosion are the most prevalent of these hazards. We recommend that geohazards be taken into consideration, especially when developing areas where these risks are prevalent, and we encourage the use of our data when doing so.

Geological Survey Ireland has information available on landslides in Ireland via the National Landslide Database and Landslide Susceptibility Map both of which are available for viewing on our dedicated Map Viewer. Associated guidance documentation relating to the National Landslide Susceptibility Map is also available.

Geological Survey Ireland also engaged in a national project on Groundwater Flooding. The data from this project may be useful in relation to Flood Risk Assessment (FRA) and management plans, and is described in more detail under 'Groundwater' above.

Natural Resources (Minerals/Aggregates)
Geological Survey Ireland provides data, maps, interpretations and advice on matters related to minerals, their use and their development in our Minerals section of the website. The Active Quarries, Mineral Localities and the Aggregate Potential maps are available on our Map Viewer.

We would recommend use of the Aggregate Potential Mapping viewer to identify areas of High to Very High source aggregate potential within the area. In keeping with a sustainable approach we would recommend use of our data and mapping viewers to identify and ensure that natural resources used in the proposed development are sustainably sourced from properly recognised and licensed facilities, and that consideration of future resource sterilization is considered.

Geochemistry of soils, surface waters and sediments
Geological Survey Ireland provides baseline geochemistry data for Ireland as part of the Tellus programme. Baseline geochemistry data can be used to assess the chemical status of soil and water at a regional scale and to support the assessment of existing or potential impacts of human activity on environmental chemical quality. Tellus is a national-scale mapping programme which provides multi-element data for shallow soil, stream sediment and stream water in Ireland. At present, mapping consists of the border, western and midland regions. Data is available at https://www.gsi.ie/en-ie/data-and-maps/Pages/Geochemistry.aspx.

Geophysical data
Geological Survey Ireland produces high-resolution geophysical data (Magnetic field, electrical conductivity, natural gamma-ray radiation) of soils & rocks as part of the Tellus programme. These data currently cover approximately 75% of the country and provide supporting geological information on a regional scale useful for assessing environmental impact and risk.

Guidelines
The following guidelines may also be of assistance:

- Institute of Geologists of Ireland, 2013. Guidelines for the Preparation of the Soils, Geology and Hydrogeology Chapters of Geology in Environmental Impact Statements.
- EPA, 2022. Guidelines on the information to be contained in Environmental Impact Assessment Reports (EIAR)

Other Comments
Should development go ahead, all other factors considered, Geological Survey Ireland would much appreciate a copy of reports detailing any site investigations carried out.The data would be added to Geological Survey Ireland's national database of site investigation boreholes, implemented to provide a better service to the civil engineering sector. Data can be sent to the Geological Mapping Unit, at mailto:GeologicalMappingInfo@gsi.ie, 01-678 2795.

I hope that these comments are of assistance, and if we can be of any further help, please do not hesitate to the Geological Survey Ireland Planning Team at GSIPlanning@gsi.ie.

Yours sincerely,

Geoheritage and Planning Programme

Enc: Table - Geological Survey Ireland's Publicly Available Datasets Relevant to Planning, EIA and SEA processes.

Geological Survey Ireland's Publicly Available Datasets Relevant to Planning, EIA and SEA processes

following European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018
(S.I. No. 296 of 2018)

Geological Survey Ireland Programme	Dataset	Relevant EIA Topic	Coverage	Description / Notes / Limitations	Link to Geological Survey Ireland map viewer
Geohazards	Landslide: National landslide database and landslide susceptibility map	Land & Soil/Climate/Landscape	National	Associated guidance documentation relating to the National Landslide Susceptibility Map is also available.	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=b68cf1e4a9044a5981f950e9b9c5625c
Geohazards	Groundwater Flooding (Historic)	Water	Regional	Provide information of historic flooding, both surface water and groundwater. [A lack of flooding presented in any specific location of the map only indicates that a flood has not been detected. It does not indicate that a flood cannot occur in that location at present or in the future]	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=848f83c85799436b808652f9c735b1cc
Geohazards	Groundwater Flooding (Predictive)	Water	Regional	Provides information on the probability of future karst groundwater flooding (where available). [The maps do not, and are not intended to, constitute advice. Professional or specialist advice should be sought before taking, or refraining from, any action on the basis of the flood maps]	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=848f83c85799436b808652f9c735b1cc
Geohazards	Radon Map	Land & Soils/Air	National		http://www.epa.ie/radiation/radonmap/
Geoheritage	County Geological Sites as adopted by National Heritage Plan and listed in County Development Pla	Land & Soils/Landscape	Regional	All geological heritage sites identified by Geological Survey Ireland are categorised as CGS pending any further NHA designation by NPWS.	https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=a30af518e87a4c0ab2fbde2aaac3c228
Geological Mapping	Bedrock geology:	Land & Soils	National	1:100,000 scale and associated memoirs.	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7ee1b6ab8d5&scale=0
Geological Mapping	Bedrock geology:	Land & Soils	Regional	1:50,000 scale	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7ee1b6ab8d5&scale=0
Geological Mapping	Quaternary geology: Sediments	Land & Soils	National	1:50,000 scale	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7ee1b6ab8d5&scale=0
Geological Mapping	Quaternary geology: Geomorphology	Land & Soils	National	1:50,000 scale	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7ee1b6ab8d5&scale=0
Geological Mapping	Physiographic units:	Land & Soils	National	Broad-scale physical landscape units mapped at 1:100,000 scale in order to be represented as a cartographic digital map at 1:250,000 scale	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=afa76a420fc54877843aca1bc075c62b
Geological Mapping	GeoUrban: Spatial geological data for the greater Dublin and Cork areas	Land & Soils	Regional	includes 3D models	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=9768f4818b79416093b6b2212a850ce6&scale=0
Geological Mapping	Geotechnical database	Land & Soils	National	Digitised geotechnical and Site Investigation Reports and boreholes which can be accessed through online downloads	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=a2718be1873d47a585a3f0415b4a724c
Goldmine	Historical data sets including geological memoirs and 6" to 1 mile geological mapping records	land & Soils/Water	National	available online	https://secure.dccae.gov.ie/goldmine/index.html
Groundwater & Geothermal	Groundwater resources (aquifers)	Water	National	Data limited to 1:100,000 scale; sites should be investigated at local scale	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef
Groundwater & Geothermal	Groundwater recharge.	Water	National	Data limited to 1:40,000 scale; sites should be investigated at local scale; long term annual average recharge	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef
Groundwater & Geothermal	Groundwater vulnerability.	Water	National	Data limited to 1:40,000 scale; sites should be investigated at local scale	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef
Groundwater & Geothermal	Group scheme and public supply source protection areas.	Water	National	Not all PWS / GWS have SPZ / ZOC. Check with IW / coco / NFGWS for private supplies.	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef
Groundwater & Geothermal	Groundwater Protection Schemes	Water	National	Data is limited to scale of 1:40,000. Data does not include all of the source protections areas	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef
Groundwater & Geothermal	Catchment and WFD management units.	Water	National		https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef
Groundwater & Geothermal	karst specific data layers	water	National	For areas underlain by limestone, includes karst features, tracer test database; turlough water levels (gwlevel.ie).	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef
Groundwater & Geothermal	Wells and Springs	Water	National	Not comprehensive, there may be unrecorded wells and springs	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef
Groundwater & Geothermal	Groundwater body Descriptions	Water	National	Not exhaustive; only those in designated SACs; could be other GWDTEs; for more information contact NPWS / EPA / site investigations	https://www.gsi.ie/en-ie/programmes-and-projects/groundwater-and-geothermal-unit/activities/understanding-ireland-groundwater/Pages/Groundwater-bodies.aspx
Groundwater & Geothermal	Geothermal Suitability maps	land & Soils/Water	National	Also, Roadmap for a Policy and Regulatory Framework for Geothermal Energy, November 2020	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=9ee46bee08de41278b90a991d60c0b9e
Marine & Coastal Unit	INFOMAR - Ireland's national marine mapping programme; providing key baseline data for Ireland's	Water	National		https://secure.dccae.gov.ie/GSI/INFOMAR_VIEWER/
Marine & Coastal Unit	CHERISH - Coastal change project (Climate, Heritage and Environments of Reefs, Islands, and Headla	Water	Regional		http://www.cherishproject.eu/en/
Marine & Coastal Unit	Coastal Vulnerability Index (CVI).	water /Land & Soils	Regional	Currently the project is being carried out on the east coast and will be rolled out nationally	https://www.gsi.ie/en-ie/programmes-and-projects/marine-and-coastal-unit/projects/Pages/Coastal-Vulnerability-Index.aspx
Minerals	Aggregate potential	Land & Soils/Material Assets	National	Consideration of mineral resources and potential resources as a material asset which should be explicitly recognised within the environmental assessment process	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=ee8c4c285a49413aa6f1344416dc9956
Minerals	Active quarries	Land & Soils	National		https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=ee8c4c285a49413aa6f1344416dc9956
Minerals	Historic mines	Land & Soils/Cultural Heritage	National	Inventory and Risk Classification 2009. Environmental Protection Agency, Economic Minerals Division and Geological Survey Ireland (DECC).	https://gis.epa.ie/EPAMaps/default?easting=?&northing=?&lid=EPA:LEMA_Facilties_Extractive_Facilities https://www.epa.ie/enforcement/mines/
Tellus	Geochemical data: multi-element data for shallow soil, stream sediment and stream water	Land & Soils	Regional	A national mapping programme	https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6304e122b733498b99642707ff72f754
Tellus	Airborne geophysical data including radiometrics, electromagnetics and magnetics	Land & Soils	Regional	A national mapping programme	https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6304e122b733498b99642707ff72f754
Tellus	urban geochemistry mapping (Dublin SURGE project),	Land & Soils	Regional		https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6304e122b733498b99642707ff72f754

Notes:

1. The maps and data listed above are available on the Geological Survey Ireland map viewer https://www.gsi.ie/en-ie/data-and-maps/Pages/default.aspx

2. Please read all disclaimers carefully when using Geological Survey Ireland data

3. Geological Survey Ireland and Irish Concrete Federation published guidelines for the treatment of geological heritage in the extractive industry in 2008.

Seirbhís Aerloingseoireachta na hÉireann
ag trádáil mar AirNav na hÉireann
Foirgneamh na hAmanna
11–12 Sráid D'Olier
Baile Átha Cliath 2, D02 T449,
Éire

The Irish Air Navigation Service
trading as AirNav Ireland
The Times Building
11–12 D'Olier Street
Dublin 2, D02 T449,
Ireland

T: +353 1 6031505
www.airnav.ie

Ronan Kierans
Operations Manager
Gyrogy
Kilpeacon
Crecora
Co. Limerick
V94 P93P

Re. Premier Periclase Solar Development Drogheda Co. Louth

Dear Ronan and to whom it may concern,

For the purposes of the planning application process as referenced above and in my capacity as AirNav Ireland Air Navigation Service Provider (ANSP) Manager Airspace and Navigation, I have reviewed the proposed location and footprint of the proposed PV development.

Based on the location in relation to Dublin Airport and associated aviation receptors, a Glint and Glare assessment is not required.

I have also copied my daa counterparts, having reviewed this proposal with them.

I may be contacted for any clarification if required, as follows:

Email: cathal.maccriostail@airnav.ie
Mobile: (+353) 86 0527130

Cathal Mac Criostail
AirNav Ireland Manager Airspace and Navigation

12th August 2024
cc. Paul Cumiskey, Gary Mackin, daa
AirNav Ireland Corporate Affairs, Planning

Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

Environmental Health Services
HSE Dublin North East
Rampart Road
Dundalk, Co. Louth

Tel: +353 (0) 42 938 9615
Fax: +353 (0) 42 938 9184

Date:09/04/2024

Our reference: 3888

Report to: Raymond.Derrig@pmgroup-global.com

Type of Consultation: EIA Scoping Application for Boyne Energy Campus

Proposed development: Boyne Energy Campus – Proposed redevelopment of the existing Premier Periclase manufacturing facility, into an mixed-use Energy Innovation Campus targeting net-zero emissions at Boyne Road, Drogheda, Co Louth

Details of the application were circulated to the following HSE stakeholders on the 12th April 2024

- Emergency Planning – Brendan Lawlor
- Estates – Helen Maher/Stephen Murphy
- Director of National Health Protection – Eamonn O' Moore/ Ina Kelly
- CHO – Carole Broadbank

Please find enclosed the HSE submission re the above scoping request. If you have any queries regarding this report the initial point of contact is, Marie McCaffery Principal Environmental Health Officer who will refer your query to the appropriate person.

pp Emma Connolly

Yours sincerely
Marie McCaffrey
Principal Environmental Health Officer

Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

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HSE EIA Scoping Environmental Health Service Submission

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General Introduction

A site visit of the proposed facility was conducted on 7th May 2024 by Ms Mariesa Rushe (Environmental Health Officer). The following documents should be taken into consideration when preparing the Environmental Impact Assessment Report:

- Guidelines on the information to be contained in Environmental Impact Assessment Reports (EIAR) 2022
  https://www.epa.ie/publications/monitoring--assessment/assessment/guidelines-on-the-information-to-be-contained-in-environmental-impact-assessment.php

- Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment
  https://www.housing.gov.ie/sites/default/files/publications/files/guidelines_for_planning_authorities_and_an_bord_pleanála_on_carrying_out_eia_-_august_2018.pdf

- EU publication: Environmental Impact Assessment of Projects Guidance on the preparation of the Environmental Impact Assessment Report, EU, 2017
  http://ec.europa.eu/environment/eia/pdf/EIA_guidance_EIA_report_final.pdf

Generally, the Environmental Impact Assessment should examine all likely significant impacts and provide the following information for each:

a. Description of the receiving environment
b. The nature and scale of the impact
c. An assessment of the significance of the impact
d. Proposed mitigation measures
e. Residual impacts

It is recommended that the applicant also assesses or evaluates the significance of the predicted change in the receiving environment as a result of the impact.

Directive 2014/52/EU has an enhanced requirement to assess likely significant impacts on Population and Human Health. It is the experience of the Environmental Health Service (EHS) that impacts on human health are often inadequately assessed in EIAs in Ireland. It is recommended that the wider determinants of health and wellbeing are considered in a proportionate manner when considering the EIA. Guidance on wider determinants of health can be found at www.publichealth.ie

In addition to any likely significant negative impacts from the proposed development, any positive likely significant impacts should also be assessed.

The HSE will consider the **final EIAR accompanying the planning application** and will make comments to the planning authority on the methodology used for assessing the likely significant impacts and the evaluation criteria used in assessing the significance of the impact. This report only comments on Environmental Health Impacts of the proposed development. It is based on an assessment of the correspondence submitted to this office on the 10th April 2024.

The Environmental Health Service (EHS) recommends that the Environmental Impact Assessment (EIA) should examine all potentially significant impacts that may arise as a result of the operation of the proposed facility and provide the following information for each:

- Public Consultation
- Population and Human Health
- Water (Hydrology and Hydrogeology)
- Land and Soils
- Air, Dust and Odour
- Climate Change and Opportunity for Health Gain
- Noise and Vibration
- Waste Management
- Ancillary Facilities
- Cumulative Impacts

Public Consultation

The applicant should consider the appointment of a community liaison officer. Early and meaningful public consultation with the local community should be carried out to ensure all potentially significant impacts have been adequately addressed. All parties affected by the proposed development, including those who may benefit financially from the project, must be fully informed of what the proposal entails especially with regard to potential impacts on surrounding areas. Sensitive receptors and other stake-holders should be identified to ensure all necessary and appropriate mitigation measures are put in place to avoid any complaints about the proposed wind farm development in the future.

Meaningful public consultation, is where the local community is fully informed of the proposed development must be undertaken. Members of the public should be given sufficient opportunities to express their views on the proposed development.

The Environmental Impact Assessment Report (EIAR) should clearly demonstrate the link between public consultations and how those consultations have influenced the decision-making process in the EIA. To assist with the consultation and planning process it is recommended that the applicant develops a dedicated website for the proposed development. All correspondence, maps, project updates and documentation including the EIAR should be uploaded to the website. The EIAR should state the period of planning permission sought, the length of time construction is estimated to take, and if it is anticipated that the renewable energy development will be decommissioned and removed or will continue to operate (following any further planning consent) at the end of this period of planning permission (should permission be granted).

Decommissioning

The EIAR should detail the eventual fate of substation, and energy storage batteries and associated material, i.e. will the material be recycled or how will it be disposed of. Information should also be provided regarding the proposed methodology to be used for the disposal of the materials forming the foundations of the wind turbines. The EIAR should indicate the proposed future use of the development site at the end of the planning permission period.

Siting, Location and details of Turbines/Energy Storage Batteries

The EIAR should include a map and a description of the proposed location of each of the proposed, substation, energy storage locations and associated developments. For example- The details of the thermal storage to be installed should be available at the time planning permission is sought and included in the EIAR.
Details of the foundations for the wind turbine including depth, quantity and material to be used should be included in the EIAR.

Assessment of Consideration of Alternatives

The EIAR should consider an assessment of alternatives. The EHS recommends that alternative renewable energy options to on- shore wind farms should be assessed as part of the EIAR.

Noise & Vibration

The potential impacts for noise and vibration from the proposed development on all noise sensitive locations must be clearly identified in the EIAR. The EIAR must also consider the appropriateness and effectiveness of all proposed mitigation measures to minimise noise and vibration. A baseline noise monitoring survey should be undertaken to establish the existing background noise levels.

In addition, an assessment of the predicted noise impacts during the construction phase and the operational phase of the proposed renewable energy development must be undertaken which details the change in the noise environment resulting from the proposed development.

Air Quality

Due to the nature of the proposed construction works, generation of airborne dust has the potential to have significant impacts on sensitive receptors. A **Construction Environmental Management Plan** (CEMP) should be included in the EIAR which details dust control and mitigation measures.

Measures should include:

- Sweeping of hard road surfaces
- Provision of a water bowser on site, regular spraying of haul roads
- Wheel washing facilities at site exit
- Restrict speed on site
- Provide covers to all delivery trucks to minimise dust generation
- Inspect and clean public roads in the vicinity if necessary
- Material stockpiling provided with adequate protection from the wind
- Dust monitoring at the site boundary
- Truck inspection and maintenance plan
- Details of a road maintenance agreement between the operator and the Local Roads Authority to clarify responsibility for the upkeep and repair of access roads during the construction phase of the project.

Surface and Ground Water Quality

The proposed development has the potential to have a significant impact on the quality of both surface and ground water. All drinking water sources, both surface and ground water, must be identified. Public and Group Water Scheme sources and supplies should be identified in addition to any private wells supplying potable water to houses in the vicinity of the proposed development. Measures to ensure that all sources and supplies are protected should be described.

The Environmental Health Service recommends that a walk-over survey of the site is undertaken in addition to a desktop analysis of Geological Survey of Ireland data in order to identify the location of private wells used for drinking water purposes. Any potential significant impacts to drinking water sources should be assessed. Details of bedrock, overburden, vulnerability, groundwater flows, aquifers and catchment areas should be considered when assessing potential impacts and any proposed mitigation measures. Any impacts on surface water as a result of the construction of the underground cables should be identified and addressed in the EIAR.

Geotechnical and Peat Stability Assessment

A detailed assessment of the current ground stability of the site for the proposed renewable energy development and all proposed mitigation measures should be detailed in the EIAR. The assessment should include the impact construction work may have on the future stability of ground conditions, taking into consideration extreme weather events, site drainage and the potential for soil erosion. Information should be provided on the make and model of the turbines and on construction details for the turbine foundations, including the depth and volume of concrete required. An accurate assessment of the potential impacts of the foundations on water quality and peat stability cannot be undertaken without this information.

The Environmental Health Service recommends that a detailed Peat Stability/Geotechnical Assessment of the proposed site should be undertaken to assess the suitability of the soil for the proposed development. The EIAR should include provision for a peat stability monitoring

programme to identify early signs of potential bog slides ('pre-failure indicators' see the Scottish Government's 'Peat Landslide Hazard and Risk Assessments: Best Practice Guide for Proposed Electricity Developments 2017)

https://www.gov.scot/binaries/content/documents/govscot/publications/adviceandguidance/2017/04/peat-landslide-hazard-risk-assessments-best-practice-guideproposedelectricity/documents/00517176-pdf/00517176pdf/govscot%3Adocument/00517176.pdf

Ancillary Facilities

The EIAR should include details of the location of all site office, construction compound, fuel storage depot, sanitary accommodation and canteen, First Aid facilities, disposal of wastewater and the provision of a potable water supply to the site canteen.

Cumulative Impacts

All existing or proposed wind farm developments in the vicinity should be clearly identified in the EIAR. The impact on sensitive receptors of the proposed development combined with any other wind farm/renewable energy developments in the vicinity should be considered. The EIAR should include a detailed assessment of any likely significant cumulative impacts of the proposed renewable energy development.

Mariesa Rushe
Environmental Health Officer

Arlene Ward
Environmental Health Officer

An Roinn Tithíochta,
Rialtais Áitiúil agus Oidhreachta
Department of Housing,
Local Government and Heritage

Our Ref: **G Pre000882024**
(Please quote in all related correspondence)

24 May 2024

Colm Clarke
Principal Ecologist
Scott Cawley Ltd.
College House
Rock Road
Blackrock
Co. Dublin
A94 F9X9

Via email: cclarke@scottcawley.com and Madeleine@scottcawley.com

Re: Environmental Impact Assessment Report (EIAR) Scoping for proposed mixed-use Energy Campus Development at Premier Periclase Facility, Boyne Avenue, Newtownsalaban, Drogheda, County Louth

A Chara

I refer to correspondence received in connection with the above.

Outlined below are Nature Conservation observations/recommendations of the Department as co-ordinated by the Development Applications Unit.

It is noted that the former Premier Periclase site which it is proposed to develop is located in the close vicinity of a section of the River Boyne at the downstream limits of the River Boyne and River Blackwater Special Area of Conservation (SAC) (Site Code: 002299) and immediately upstream of the Boyne Coast and Estuary SAC- (Site Code: 001957). The development site is also adjacent to the Boyne Estuary Special Protection Area (SPA) (Site Code: 004080), which encompasses the opposite southern bank along this stretch of the Boyne, and lies approximately 5 km downstream of the River Boyne and River Blackwater SPA. In considering the potential effects of the proposed development on flora, fauna and natural habitats it is therefore recommended that the Environmental Impact Assessment Report (EIAR) which is to be prepared as well as Appropriate Assessment should in particular evaluate any possible impacts on Qualifying Interests (QIs) for these and other nearby European sites. Desk studies, and where necessary, surveys of the local presence of QI habitats and species for the SACs, including river lamprey, salmon and otter, and Special Conservation Interest (SCI) bird species for the SPAs should inform such evaluation. The possibility of effects on other protected species, for instance bat species should in addition be assessed.

The above observations/recommendations are based on the papers submitted to this Department on a pre-planning basis and are made without prejudice to any observations that the Minister may make in the context of any consultation arising on foot of any development application referred to the Minister, by the planning authority, in his role as statutory consultee under the Planning and Development Act, 2000, as amended.

You are requested to send any further communications to this Department's Development Applications Unit (DAU) at manager.dau@npws.gov.ie, or to the following address:

The Manager
Development Applications Unit (DAU)
Government Offices
Newtown Road
Wexford
Y35 AP90

Is mise, le meas

Sinéad O' Brien
Development Applications Unit
Administration

Iascach Intíre Éireann
Inland Fisheries Ireland

Colm Clarke,
Scott Cawley Ltd.,
College House,
71-73 Roack Road,
Blackrock,
Co. Dublin.

17th April, 2024

Re Proposed Mixed-use Energy Campus Development at Premier Periclase Facility, Boyne Avenue, Newtownstalaban, Drogheda, Co. Louth.

Dear Sir,

We refer to your correspondence regarding the above mentioned proposed development.

The site is located in close proximity to the River Boyne Estuary, which is a valuable fisheries resource. The estuary supports a wide range of marine fish species and migratory salmonids, European eel and sea lamprey travel through this area on their journey to/from the sea.
The qualifying interest for the Boyne and Blackwater SAC includes Salmon (*Salmo salar*) and Lamprey species.
The River Boyne is a Designated Salmonid river (S.I. 293/1988).
The WFD status of the waterbody at this location, Boyne Estuary, is Moderate.

It is important to ensure that the value of this watercourse is recognised and that suitable mitigation are in place on site to protect this valuable natural resource. Suitable mitigation measures should be put in place during site preparation works, including dealing with any waste materials currently on site and during construction work.

Thanks you for consulting with us regarding this proposal.

Yours faithfully,

Michaela Kirrane

Michaela Kirrane
Senior Fisheries Environmental Officer, IFI Dublin

Attachment 9.1

Premier Periclase Ltd. Annual Noise Monitoring Survey 2014

Byrne Environmental
CONSULTING LTD
ENVIRONMENTAL MONITORING, ASSESSMENT & MANAGEMENT
Acoustics, Air Quality, Environmental Impact Assessment
& Waste Management Specialists

Red Bog, Skyrne Road, Dunshaughlin, Co. Meath
Tel/Fax: 01-8024001 Mobile: 086-8152252
Email: ian@byrneenvironmental.ie
Web: www.byrneenvironmental.ie

TECHNICAL REPORT

for

PREMIER PERICLASE LTD
BOYNE ROAD
DROGHEDA
CO. LOUTH

IPPC Licence Reg. No. PO376-02

Annual Noise Monitoring Survey – 2014

25th September 2014

Ian Byrne MSc MIOA, Dip Environmental & Planning Law

Byrne Environmental
CONSULTING LTD

1.0 INTRODUCTION

This report presents the results of the **2014** annual environmental noise survey and impact assessment conducted at Premier Periclase Ltd, Boyne Road, Drogheda, Co. Louth. The survey was carried out to evaluate and assess the noise impacts that Lagan site activities have on the local receiving noise environment and to assess compliance with *Condition 6.16– Noise of IPPC Licence Reg. No. PO376-02.*

The noise monitoring survey was conducted according to *ISO 1996-2 2007 Acoustics – Description, Measurement and Assessment of Environmental Noise Parts 1-3* and with reference to the 2012 EPA publication, *"Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4)* during periods when normal site activities were occurring during both the daytime and night time periods.

The noise monitoring survey was conducted by Ian Byrne, Principal Acoustic Consultant of Byrne Environmental Consulting Ltd who is Member of the Institute of Acoustics (MIOA) and meets the criteria for a "competent person" as defined by the EPA in their 2012 EPA publication, *"Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4)",* (Appendix III MIOA 2014 Certificate).

It is noted that all noise monitoring surveys were conducted during periods when the site was operating normally and during suitable meteorological conditions in accordance with *NG4*.

2.0 REGIONAL ENVIRONMENTAL SETTING

The subject site is located outside the town of Drogheda, Co. Louth and is in the vicinity of Drogheda Port. The site is bordered by the Boyne Estuary and agricultural lands and there is scattered one off housing in the vicinity of the site boundaries with more concentrated urban housing schemes to the north of the plant.

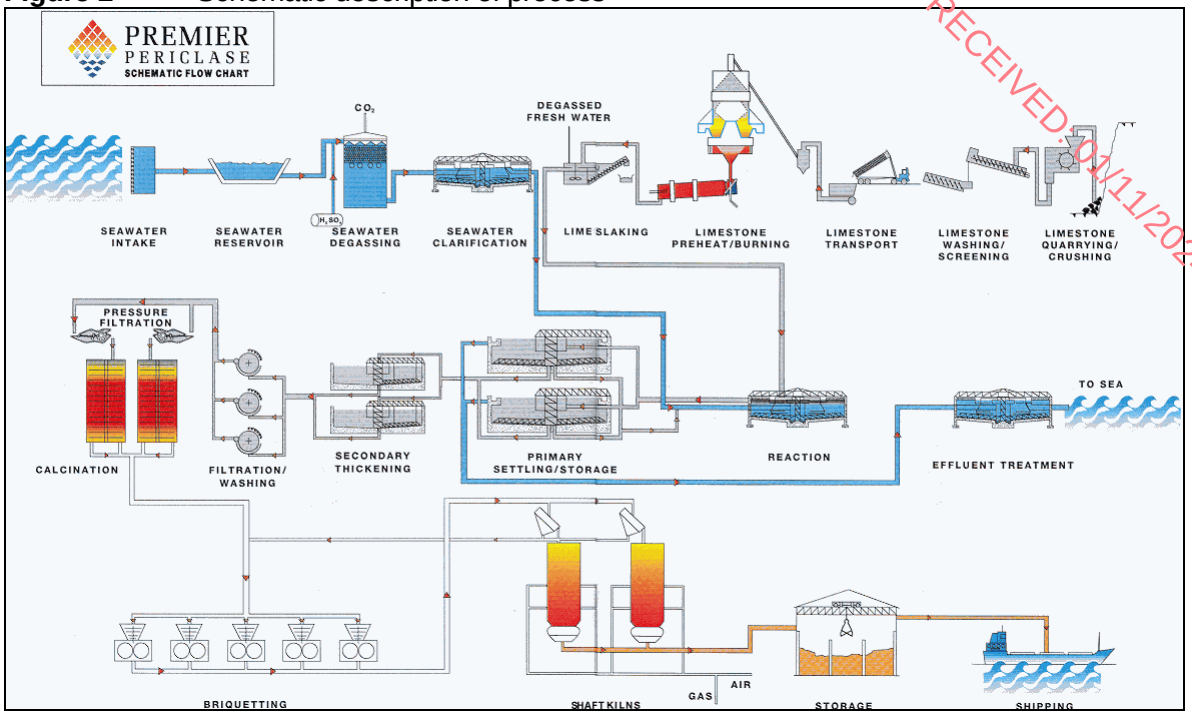
HGV's associated with the facility travel to and from the site via the Boyne Road via Drogheda Docks and on into / out of Drogheda Town. This route is a busy route which serves the Drogheda Docks areas. The Tom Roes Point Terminal, part of Drogheda Port, is a major cargo and container port facility and is located adjacent to the southern boundary of the Premier Periclase Facility.

The facility site is surrounded by substantial planted earthen screening banks which offer significant attenuation of noise generated by site activities. Noise from the main processing areas is significantly attenuated as a result of distance between noise sources and local noise sensitive receptors as well as the attenuation offered by the enclosure of items plant at the facility.

3.0 EXISTING SITE ACTIVITIES

The subject site is an established industrial manufacturing facility which produces periclase from imported materials including limestone, sea and fresh water and includes associated manufacturing buildings and associated infrastructure, offices, workshops, yard and storage areas. A schematic description of the process is presented below in Figure 1.

Figure 1 Schematic description of process



4.0 NOISE SENSITIVE RECEPTORS

The closest noise sensitive receptors to the site are shown on the map of the site presented as Figure 2. These receptors (AN2 Newtown E311243, N276725 & AN3 Stagrenan E311276, N275386) have been specified in *Schedule C.5 Noise Monitoring of IPPC Licence Reg. No. PO376-02* as the locations at which noise measurements must be conducted.

In addition, noise measurements were also conducted along various site boundary locations as detailed in Table 3 and shown in Figure 2.

5.0 NOISE SURVEY PROTOCOL

5.1 MONITORING LOCATIONS

The monitoring locations selected for this survey were at 2 (No.) noise sensitive receptors as shown in Figure 1 and as specified in *Schedule C.5 Noise Monitoring of IPPC Licence Reg. No. PO4376-02.* These receptors are representative of the closest residential noise sensitive receptors to the facility site and noise monitoring was conducted to evaluate and assess the noise impacts from site activities during periods when all normal site activities were occurring.

Additional noise measurements were conducted at site boundary locations as part of the annual noise management programme at the site.

The noise monitoring equipment was located at each receptor with reference to the guidelines in *ISO 1996-2 2007 Acoustics – Description, Measurement and Assessment of Environmental Noise Parts 1-3* and the 2012 EPA publication, *"Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4).*

5.2 INSTRUMENTATION AND METHODOLOGY

Noise measurements were conducted according to the requirements of *ISO 1996-2 2007 Acoustics – Description, Measurement and Assessment of Environmental Noise Parts 1-3* and the 2003 EPA publication, *"Environmental Noise Survey, Guidance Document"*. The measurements were made using calibrated Bruel and Kjaer 2250 integrating sound level meters which were calibrated at 94 dB prior to and after use using a calibrated acoustical calibrator. The sound level meters are Class 1 instruments which is in accordance with IEC 61672-1:2002 regulations. The sound level meters were fitted with a windshield during all measurements.

The Serial Numbers of the B&K 2250 Sound Level Meter and B&K 4230 Calibration Unit used for the noise surveys are detailed in Table 1 below. Calibration Certificates are detailed in Appendix II of this report.

Table 1 Noise Survey Equipment details

Equipment	Model	Serial Number	Date of calibration
Integrating sound level meter	Bruel&Kjaer 2250L	3002817	01.03.13
Microphone	Bruel&Kjaer 4950	2847279	01.03.13
Acoustical calibrator	Bruel&Kjaer 4230	1663888	18.12.13

5.3 SURVEY IMPLEMENTATION

5.3.1 Survey Durations

The free-field noise measurements were carried out on the 22nd September 2014 when all site activities were occurring normally. In accordance with the requirements of *NG4*, noise monitoring at each Noise Sensitive Receptor (AN2 & AN3) was carried out as follows:

Daytime Monitoring (07:00hrs – 19:00hrs)
4 x 30minute sampling periods at each Receptor (2 No) = 4 hour sampling period

Night-time Monitoring (23:00hrs – 07:00hrs)
3 x 30minute sampling periods at each Receptor (2 No) = 3 hour sampling period

5.3.2 Meteorological Conditions during Surveys

The prevailing local weather conditions at the time of the surveys were as follows:

Daytime Survey (07:00hrs – 19:00hrs)
22nd September 2014 Clear, dry and warm 14-22°C with southwesterly breezes with a recorded mean wind speed of 2.2 m/sec.
Night time Survey (23:00hrs – 07:00hrs)
22nd September 2014 Overcast, dry and mild 14-15°C with a light southwesterly breeze with a recorded mean wind speed of 1.0 m/sec.

Windspeed and temperature were determined using a *Skywatch* handheld vane anemometer. Meteorological conditions were as observed during the monitoring intervals.

The noise surveys were conducted the equivalent continuous A-Weighted Sound Pressure Level, $L_{Aeq,\ T}$, over 30-minute monitoring intervals with a Fast time weighting. The L_{Afmax} parameter was similarly recorded. A statistical analysis of the measurement results was also simultaneously completed so that the percentile levels, $L_{AN,\ T}$, for N = 90% and 10% over the specific measurement intervals were also recorded. A 1/3 octave band frequency analysis was also conducted simultaneously during each noise monitoring interval to determine the presence or not, of tonal components associated with site generated noise.

6.0 SURVEY RESULTS

6.1 NOISE SURVEY RESULTS

The environmental noise measurement results recorded at noise sensitive receptors AN2 and AN3 and at site boundary locations N6 – N12 are presented in Tables 2, 3 & 4 below.

The recorded 1/3 octave band spectra are presented below in Appendix I of this report and demonstrate that there were no tonal components associated with recorded noise measurements at receptors AN2 & AN3 as determined according to *ISO 1996-2 2007 Acoustics – Description, Measurement and Assessment of Environmental Noise Part 2 – Annex D.* The presence of tonal components were assessed by determining if any 1/3 octave band exceeded the levels of adjacent bands by 15dB or more between 25Hz- 125Hz or by 8dB or more between 160Hz- 400Hz. or by 5dB or more between 500Hz- 10,000Hz.

Table 1 Daytime Noise monitoring survey results on 22nd September 2014 at Receptors AN2 – AN3

Monitoring Location	Date/Time	$L_{Aeq, 30min}$ dB(A)	$L_{A90, 30min}$ dB(A)	$L_{A10, 30min}$ dB(A)	L_{Afmax} dB(A)	Tonal Component	Observed Noise Sources
AN2 (Daytime) Newtown North of site	22/09/14						Site activities faintly audible Passing local road traffic
	09:41 – 10:11	46.6	41.3	50.0	61.1	No	
	10:11 – 10:41	46.6	39.9	48.8	61.9	No	
	10:41 – 11:11	46.8	39.7	47.6	76.5	No	
	11:11 – 11:41	44.2	38.3	47.2	61.9	No	
	Mean	***46.2***	***39.3***	***48.4***	***76.5***		
AN3 (Daytime) Stagrenan South of site across River Boyne	22/09/14						Site activities faintly audible Passing local road traffic
	13:13 – 13:43	49.9	43.2	50.2	67.6	No	
	13:43 – 14:13	48.6	43.7	49.6	66.1	No	
	14:13 – 14:43	50.1	44.0	50.6	68.0	No	
	14:43 – 15:13	50.8	43.0	53.2	68.1	No	
	Mean	***49.8***	***43.4***	***50.8***	***68.1***		

Note All recorded noise data and frequency spectra analysis are detailed in Appendix I.

Table 2 Night-Time Noise monitoring survey results on 22nd September 2014 at Receptors AN2 – AN3

Monitoring Location	Date/Time	$L_{Aeq, 30min}$ dB(A)	$L_{A90, 30min}$ dB(A)	$L_{A10, 30min}$ dB(A)	L_{Afmax} dB(A)	Tonal Component	Observed Noise Sources
AN2 (Night time) Newtown North of site	22/09/14						Site plant very faintly audible Passing local road traffic Birdsong in adjacent trees
	03:16 – 03:46	42.1	37.6	44.1	50.9	No	
	03:46 – 04:16	42.8	38.8	44.7	62.0	No	
	04:16 – 04:46	43.0	39.4	44.9	49.8	No	
	Mean	***42.6***	***38.6***	***44.6***	***62.0***		
AN3 (Night time) Stagrenan South of site across River Boyne	22/09/14						Site plant audible Passing local road traffic Bird song along coast
	01:16 – 01:46	43.7	37.5	46.1	60.8	No	
	01:46 – 02:16	42.7	37.3	45.7	54.2	No	
	02:16 – 02:46	42.2	36.2	44.5	58.7	No	
	Mean	***42.9***	***37.0***	***45.5***	***60.8***		

Note All recorded noise data and frequency spectra analysis are detailed in Appendix I.

Table 3 Noise monitoring survey results, 9th – 10th July 2014 at site boundary locations N6 – N12

Monitoring Location	Date/Time	$L_{Aeq, 30min}$ dB(A)	$L_{A90, 30min}$ dB(A)	$L_{A10, 30min}$ dB(A)	L_{AFmax} dB(A)	Tonal Component	Dominant Noise Sources
N6 Northern Boundary	09/07/14 08:54	57.4	50.1	60.6	74.4	No	Aggregate Intake Area
N7 Western Boundary	10/07/14 10:34	49.2	46.7	51.2	65.3	No	Lime Silos
N8 Eastern Boundary	09/07/14 12:04	55.0	49.4	58.5	70.2	No	Water Area
N9 Southern Berm	09/07/14 08:09	65.9	64.1	67.4	73.3	No	Shaft Kiln & MH Furnace
N10 Northern Berm	09/07/14 12:41	62.3	52.1	66.4	82.9	No	Aggregate Intake Area
N11 Southern Boundary Canteen Area	10/07/14 11:09	64.3	59.1	66.8	82.8	No	Slaker & Coke Area & Kiln
N12 Southern Boundary Slaker Area	10/07/14 08:12	68.5	65.9	69.3	84.4	No	MHF Air Fans & Kiln

7.0 EVALUATION OF RESULTS

Condition B.4 of IPPC Licence Reg. *No. PO376-02* specifies the following noise limit values:

Daytime	*(08:00hrs-22:00hrs)*	*55 dB(A) $L_{Aeq, 30mins}$*
Night time	*(22:00hrs – 08:00hrs)*	*45dB(A) $L_{Aeq, 30mins}$*

"Noise from the activity shall not give rise to sound pressure levels (Leq, 30 minute) measured at the specified noise sensitive locations which exceed the limit value(s) by more than 2 dB(A).

There shall be no clearly audible tonal or impulsive component in the noise emission".

The results of the daytime and night time noise monitoring surveys as presented above in Tables 1 & 2 demonstrates compliance with the specified daytime noise limit of 55dB(A)$L_{Aeq, 30min}$ and the night time noise limit value of 45dB(A)$L_{Aeq, 30min}$ at each of the specified Noise Sensitive Receptors, AN2 & AN3.

The mean of the 4 x 30 min monitoring intervals conducted during the daytime period at AN2 was 46.2dB(A) $L_{Aeq,}$

The arithmetic mean of the 4 x 30 min monitoring intervals conducted during the daytime period at AN3 was 49.8dB(A) $L_{Aeq,}$

The arithmetic mean of the 3 x 30 min monitoring intervals conducted during the night time period at AN2 was 42.6dB(A) L_{Aeq}.

The arithmetic mean of the 3 x 30 min monitoring intervals conducted during the night time period at AN3 was 42.9dB(A) $L_{Aeq,}$

This statement of compliance is supported with reference to the low background L_{A90} values recorded at each receptor which were 39.3 and 43.4 dB(A) L_{A90} during the daytime period and between 37.0 and 38.6 dB(A) L_{A90} during the night time period. These relatively low L_{A90} values describe a noise climate which is not adversely impacted by a dominant or an intrusive noise source.

There were no audible or measurable tonal components recorded at either receptor AN2 or AN3 during the course of the daytime and night time noise surveys.

8.0 CONCLUSIONS

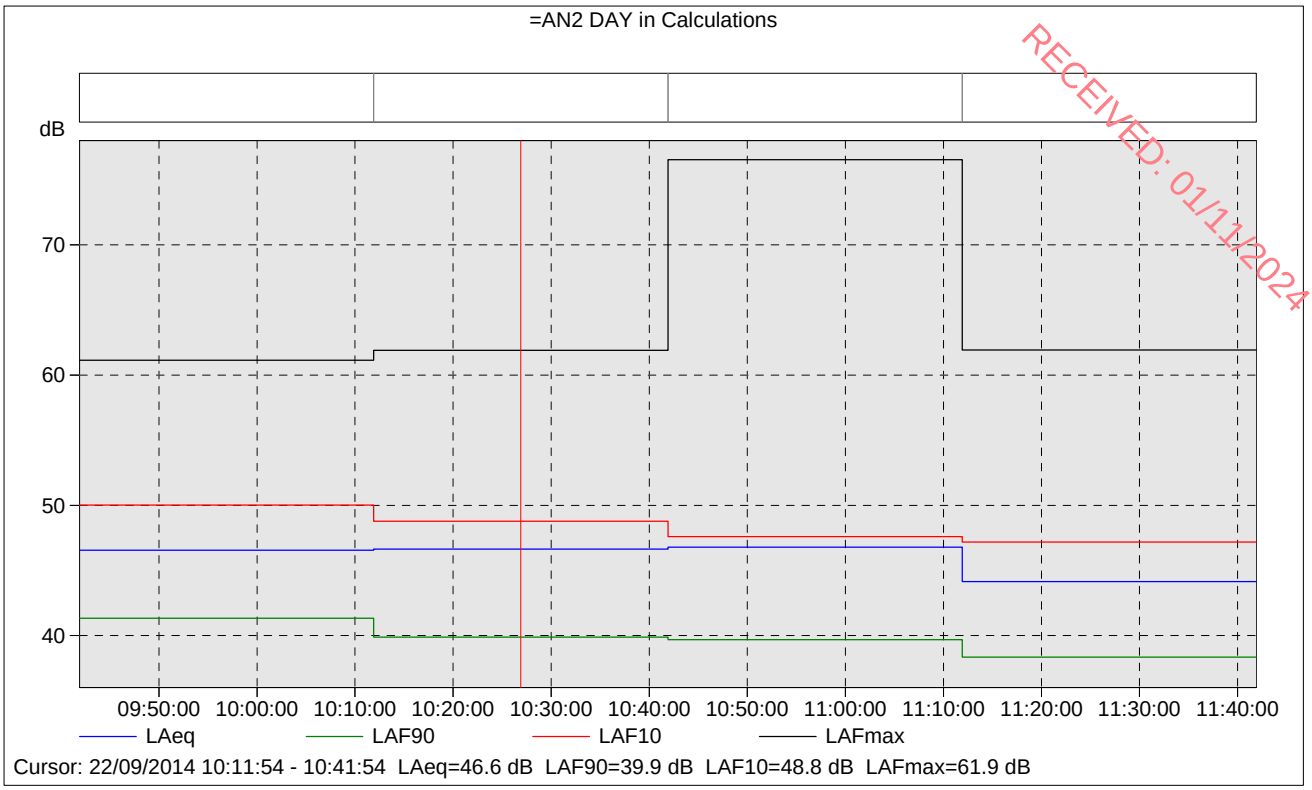
The noise levels recorded at the closest noise sensitive receptors to the site during the specified monitoring interval, indicate that site activities comply with the specified IPPC License noise limit values.

Figure 2a Noise Monitoring Locations

Figure 2b Noise Monitoring Locations

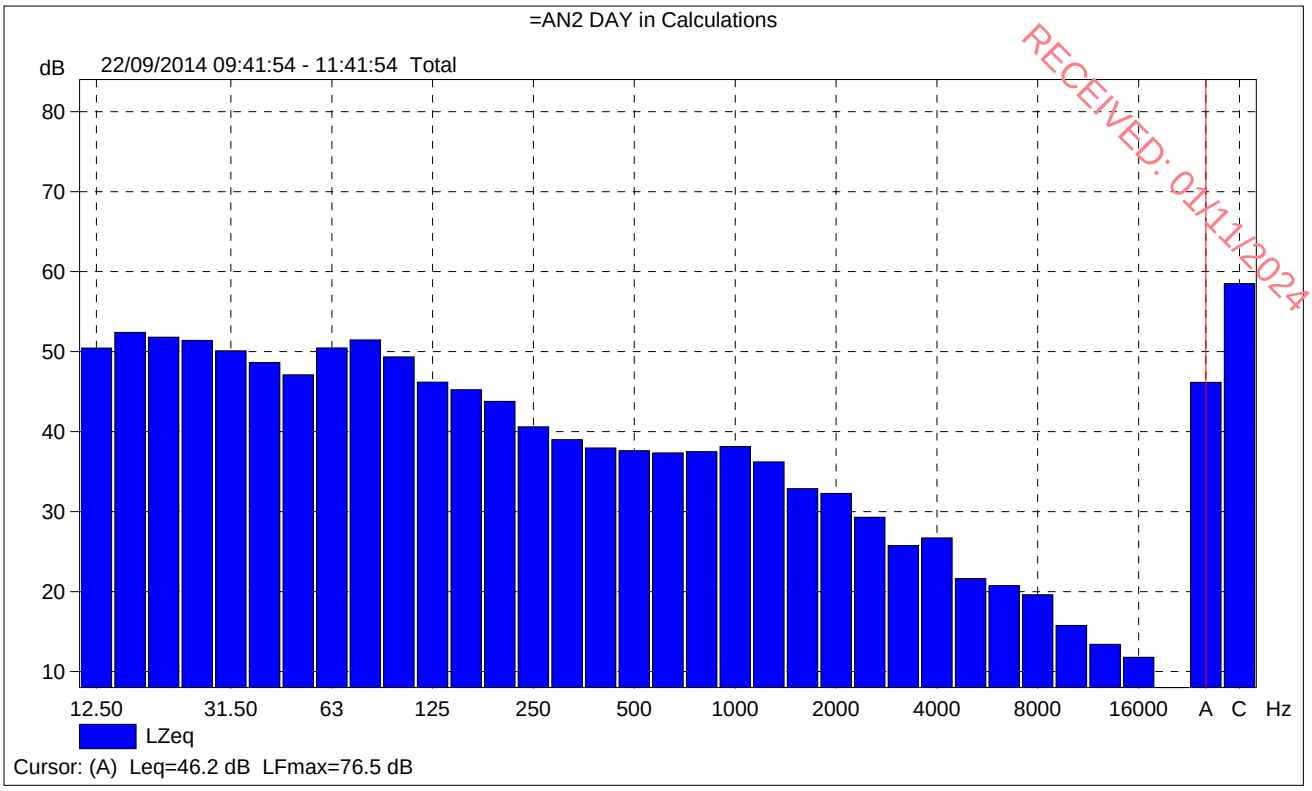
APPENDIX I

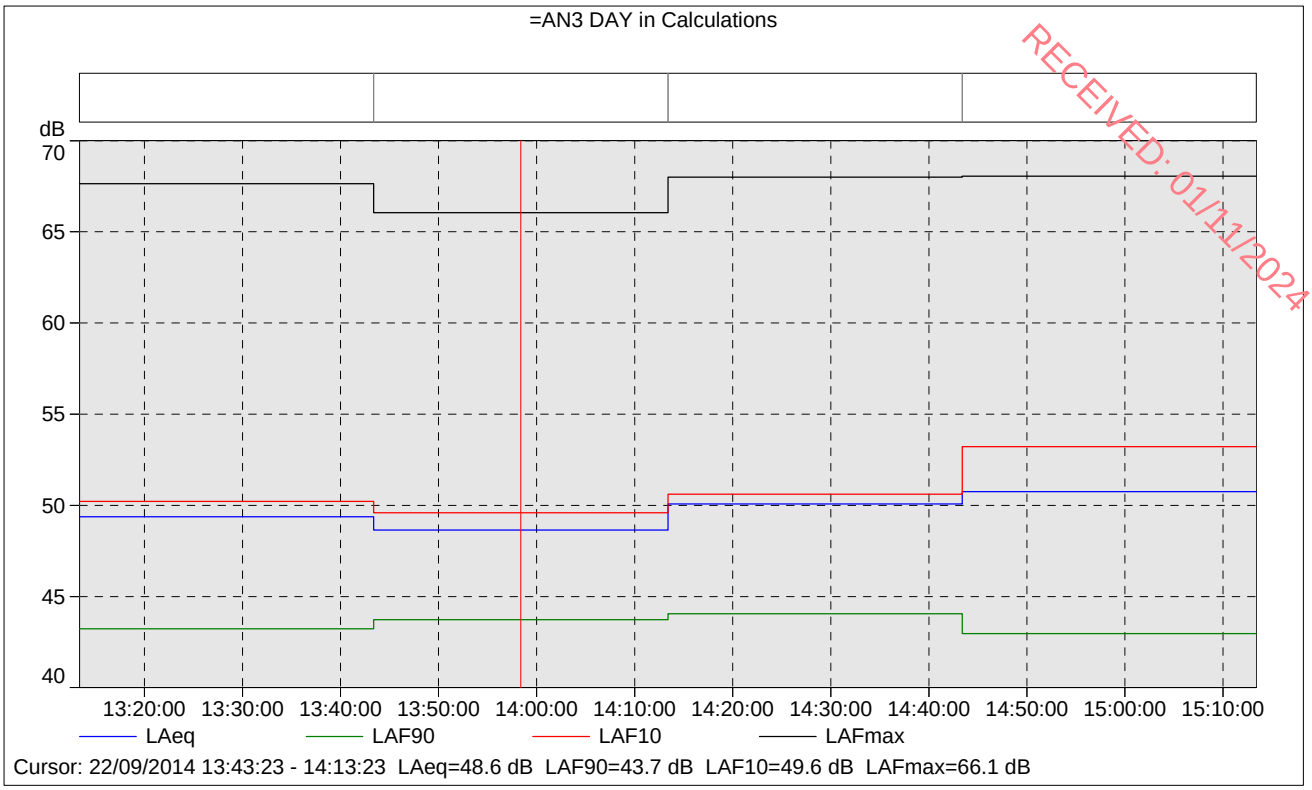
Noise Measurement Data



=AN2 DAY in Calculations

Name	Start time	End time	LAeq [dB]	LAF90 [dB]	LAF10 [dB]	LAFmax [dB]
Total	22/09/2014 09:41:54	22/09/2014 11:41:54	46.2	39.3	48.4	76.5
Unmarked	22/09/2014 09:41:54	22/09/2014 11:41:54	46.2	39.3	48.4	76.5
(All) Time Block	22/09/2014 09:41:54	22/09/2014 11:41:54	46.2	39.3	48.4	76.5
Time Block	22/09/2014 09:41:54	22/09/2014 10:11:54	46.6	41.3	50.0	61.1
Time Block	22/09/2014 10:11:54	22/09/2014 10:41:54	46.6	39.9	48.8	61.9
Time Block	22/09/2014 10:41:54	22/09/2014 11:11:54	46.8	39.7	47.6	76.5
Time Block	22/09/2014 11:11:54	22/09/2014 11:41:54	44.2	38.3	47.2	61.9





=AN3 DAY in Calculations

Name	Start time	End time	LAeq [dB]	LAF90 [dB]	LAF10 [dB]	LAFmax [dB]
Total	22/09/2014 13:13:23	22/09/2014 15:13:23	49.8	43.4	50.8	68.1
Unmarked	22/09/2014 13:13:23	22/09/2014 15:13:23	49.8	43.4	50.8	68.1
(All) Time Block	22/09/2014 13:13:23	22/09/2014 15:13:23	49.8	43.4	50.8	68.1
Time Block	22/09/2014 13:13:23	22/09/2014 13:43:23	49.4	43.2	50.2	67.6
Time Block	22/09/2014 13:43:23	22/09/2014 14:13:23	48.6	43.7	49.6	66.1
Time Block	22/09/2014 14:13:23	22/09/2014 14:43:23	50.1	44.0	50.6	68.0
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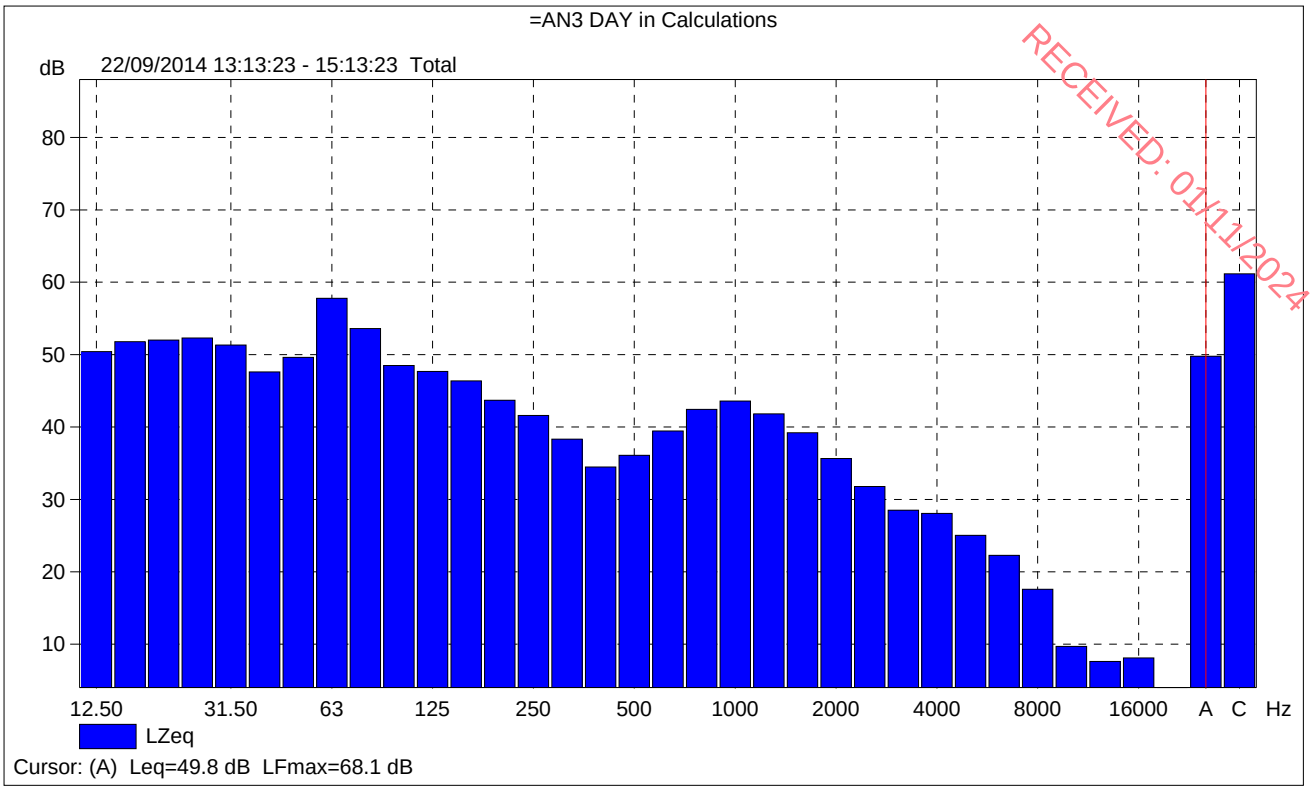
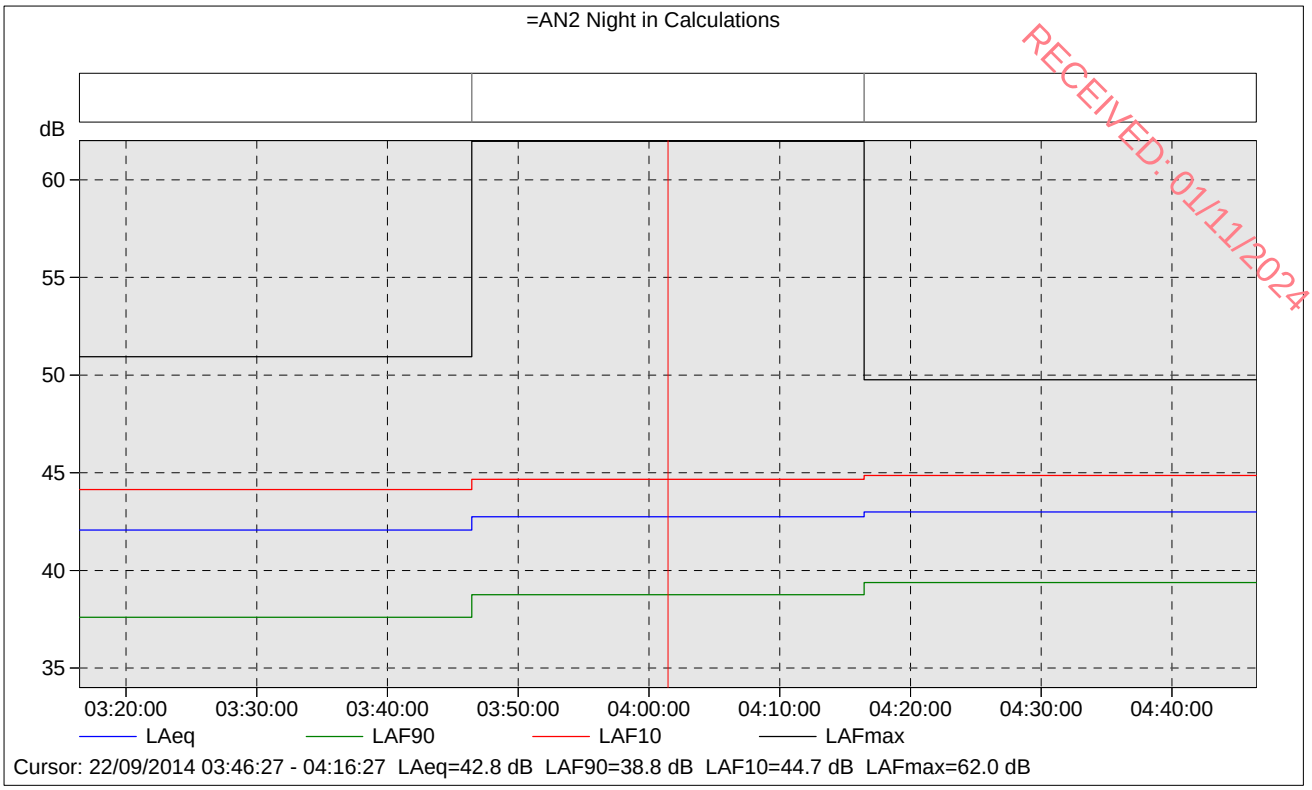
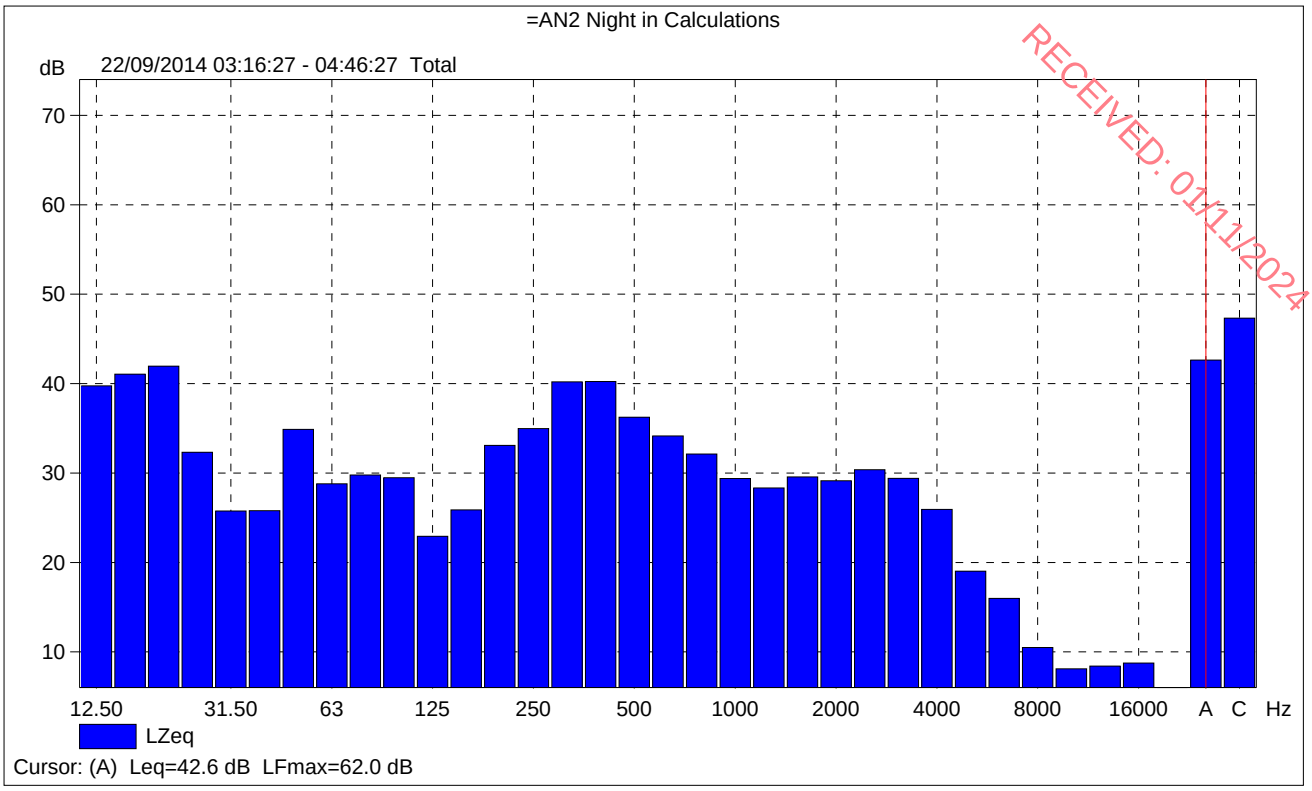
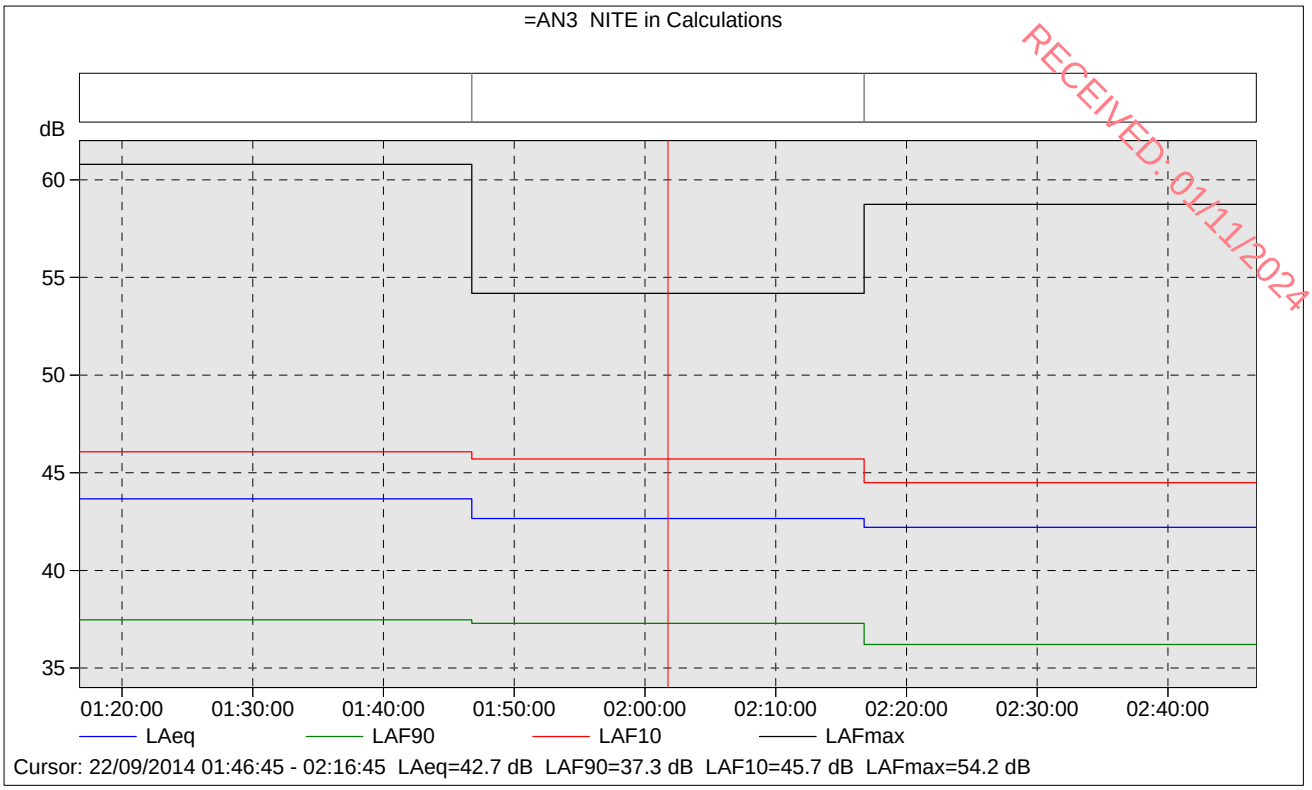




=AN2 Night in Calculations

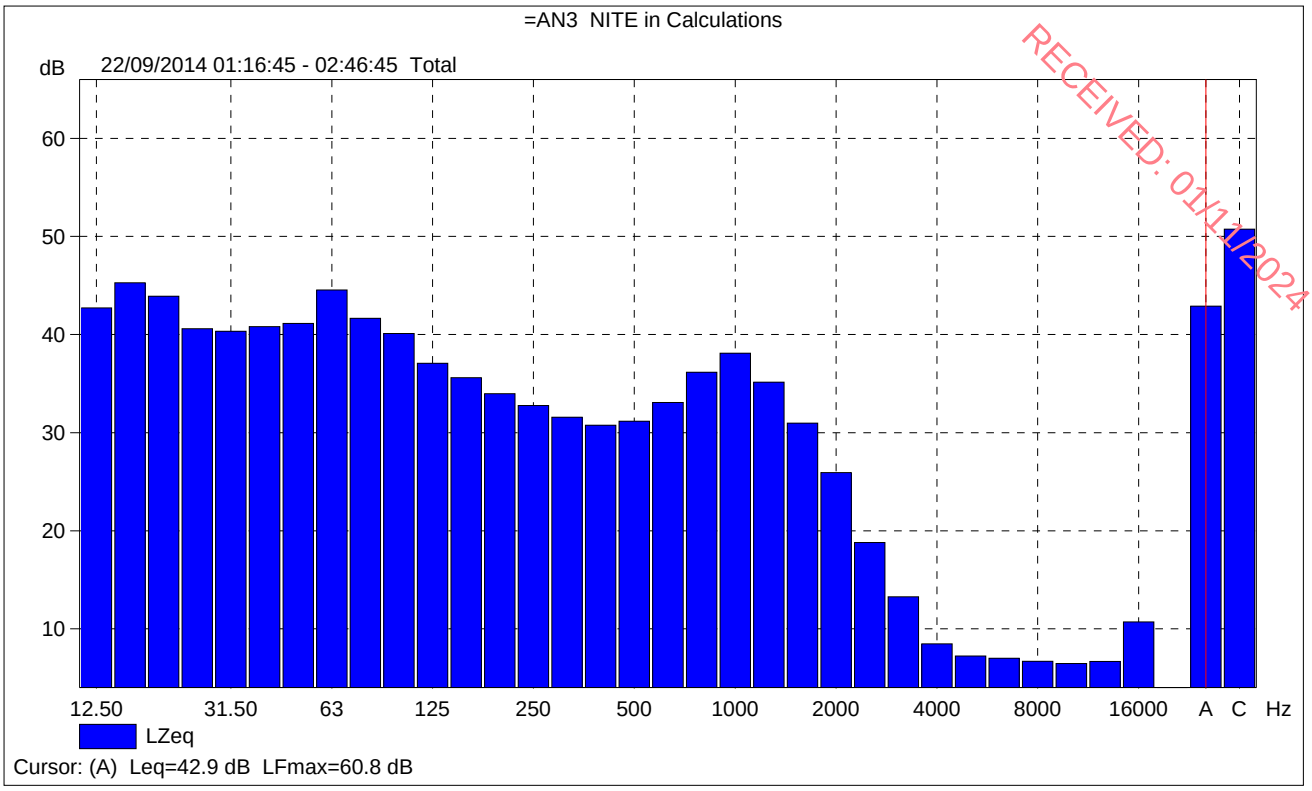
Name	Start time	End time	LAeq [dB]	LAF90 [dB]	LAF10 [dB]	LAFmax [dB]
Total	22/09/2014 03:16:27	22/09/2014 04:46:27	42.6	38.6	44.6	62.0
Unmarked	22/09/2014 03:16:27	22/09/2014 04:46:27	42.6	38.6	44.6	62.0
(All) Time Block	22/09/2014 03:16:27	22/09/2014 04:46:27	42.6	38.6	44.6	62.0
Time Block	22/09/2014 03:16:27	22/09/2014 03:46:27	42.1	37.6	44.1	50.9
Time Block	22/09/2014 03:46:27	22/09/2014 04:16:27	42.8	38.8	44.7	62.0
Time Block	22/09/2014 04:16:27	22/09/2014 04:46:27	43.0	39.4	44.9	49.8





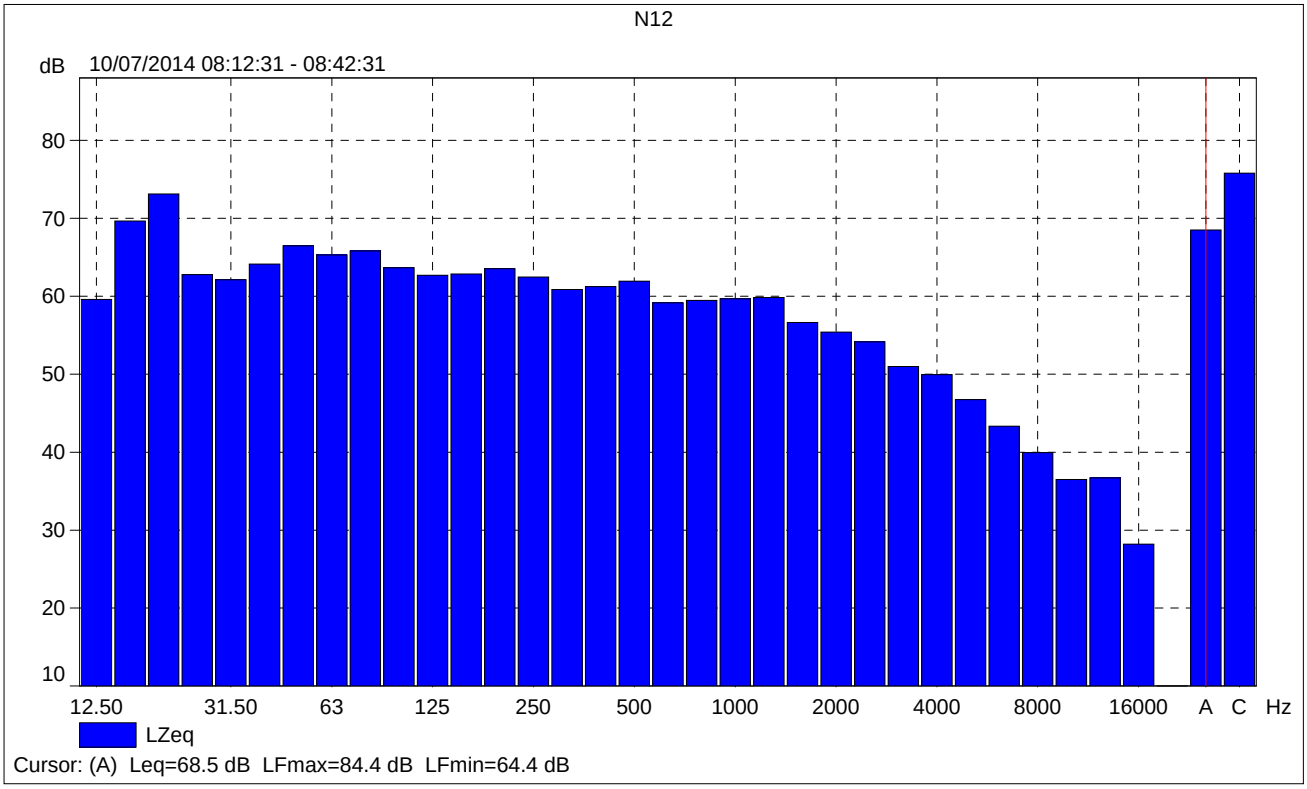
=AN3 NITE in Calculations

Name	Start time	End time	LAeq [dB]	LAF90 [dB]	LAF10 [dB]	LAFmax [dB]
Total	22/09/2014 01:16:45	22/09/2014 02:46:45	42.9	37.0	45.5	60.8
Unmarked	22/09/2014 01:16:45	22/09/2014 02:46:45	42.9	37.0	45.5	60.8
(All) Time Block	22/09/2014 01:16:45	22/09/2014 02:46:45	42.9	37.0	45.5	60.8
Time Block	22/09/2014 01:16:45	22/09/2014 01:46:45	43.7	37.5	46.1	60.8
Time Block	22/09/2014 01:46:45	22/09/2014 02:16:45	42.7	37.3	45.7	54.2
Time Block	22/09/2014 02:16:45	22/09/2014 02:46:45	42.2	36.2	44.5	58.7



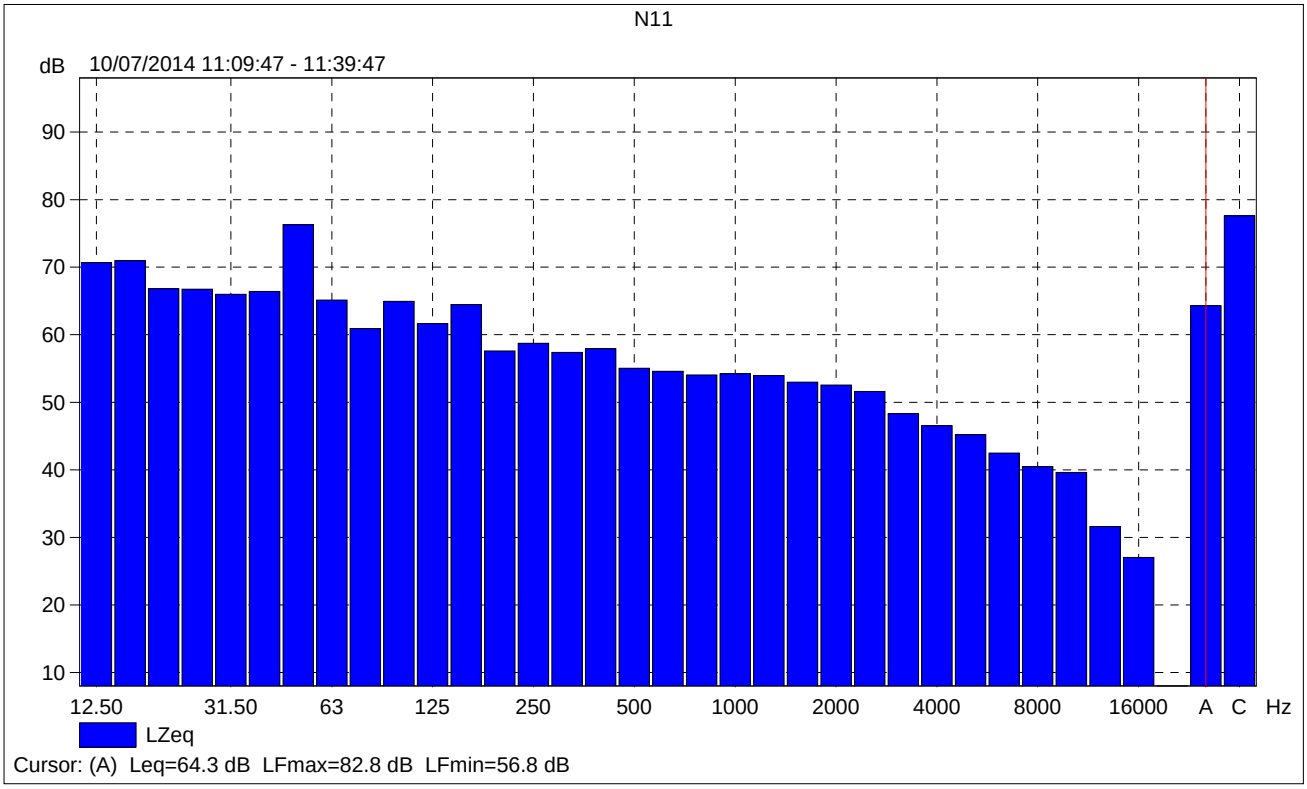
N12

	Start time	End time	LAeq [dB]	LAFmax [dB]	LAF10 [dB]	LAF90 [dB]
Value			68.5	84.4	69.3	65.9
Time	08:12:31	08:42:31				
Date	10/07/2014	10/07/2014				



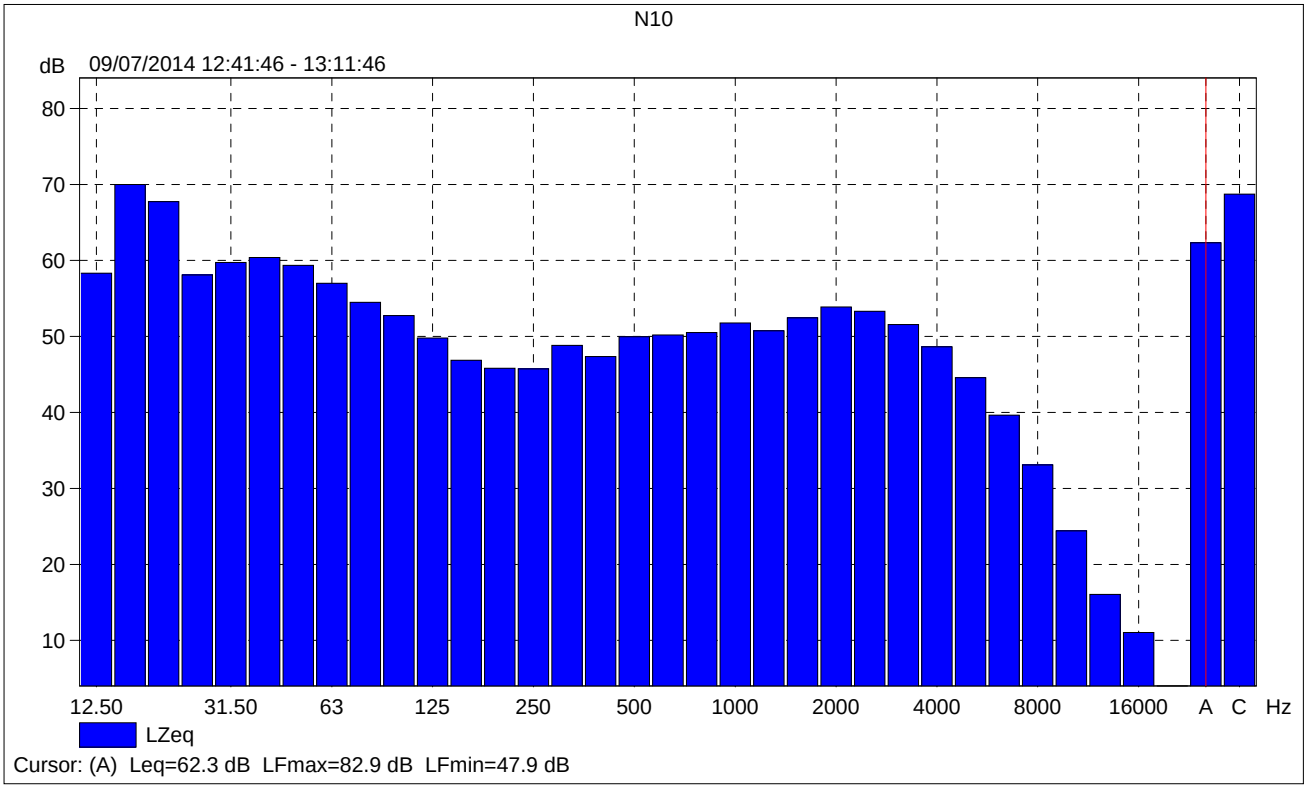
N11

	Start time	End time	LAeq [dB]	LAFmax [dB]	LAF10 [dB]	LAF90 [dB]
Value			64.3	82.8	66.8	59.1
Time	11:09:47	11:39:47				
Date	10/07/2014	10/07/2014				



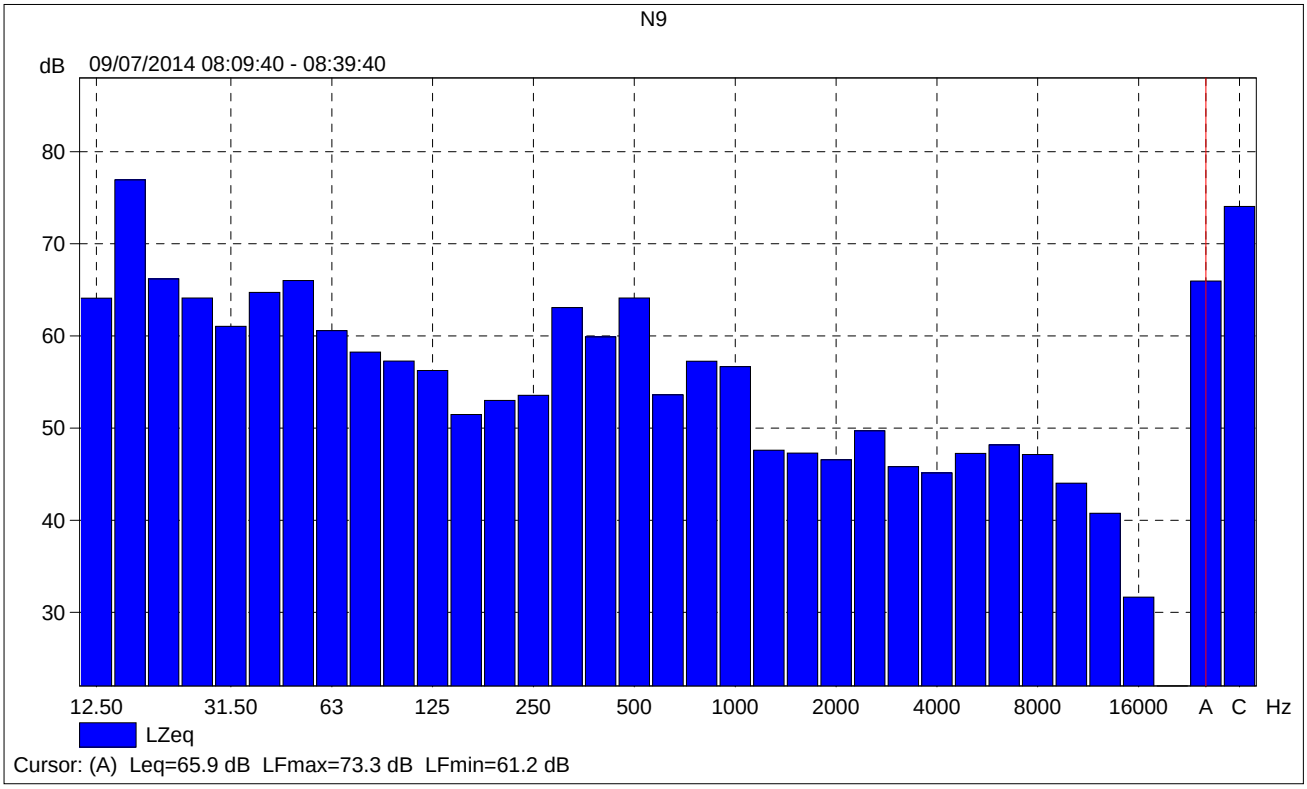
N10

	Start time	End time	LAeq [dB]	LAFmax [dB]	LAF10 [dB]	LAF90 [dB]
Value			62.3	82.9	66.4	52.1
Time	12:41:46	13:11:46				
Date	09/07/2014	09/07/2014				



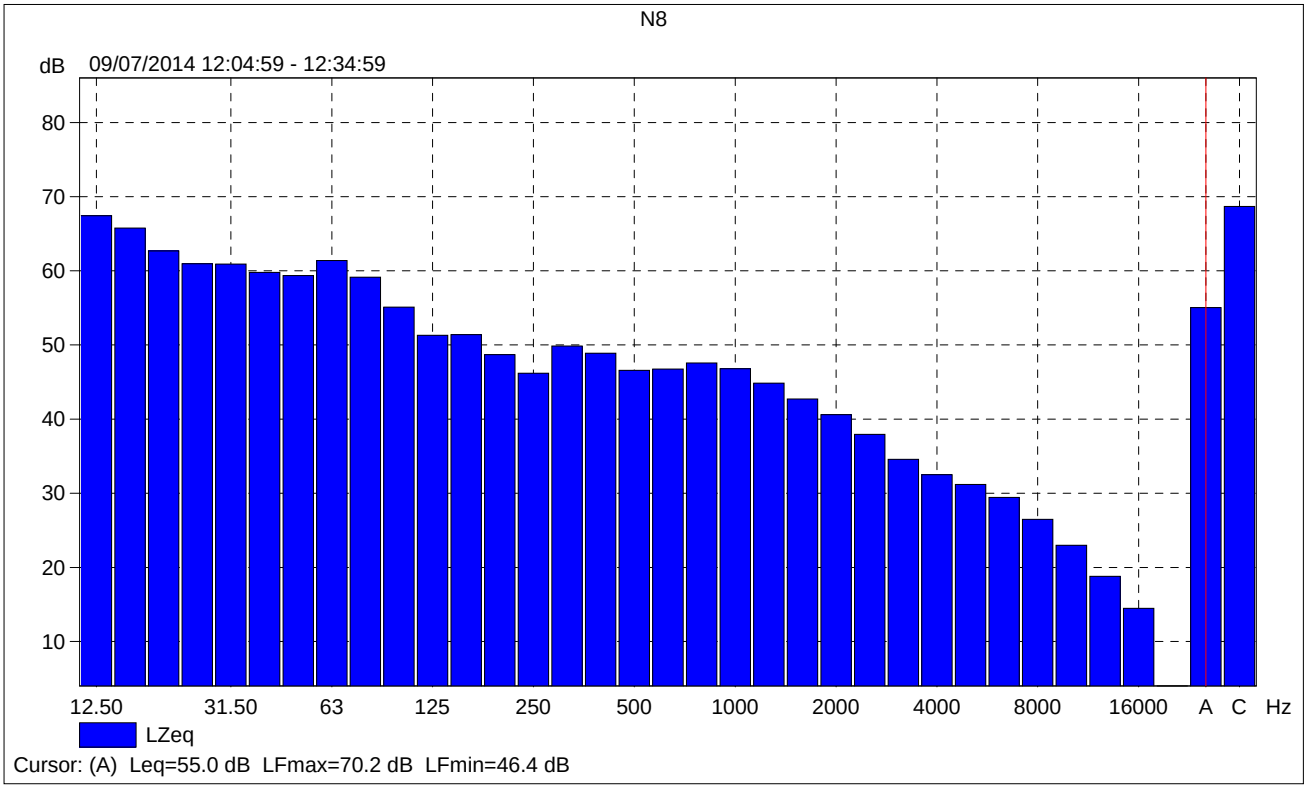
N9

	Start time	End time	LAeq [dB]	LAFmax [dB]	LAF10 [dB]	LAF90 [dB]
Value			65.9	73.3	67.4	64.1
Time	08:09:40	08:39:40				
Date	09/07/2014	09/07/2014				



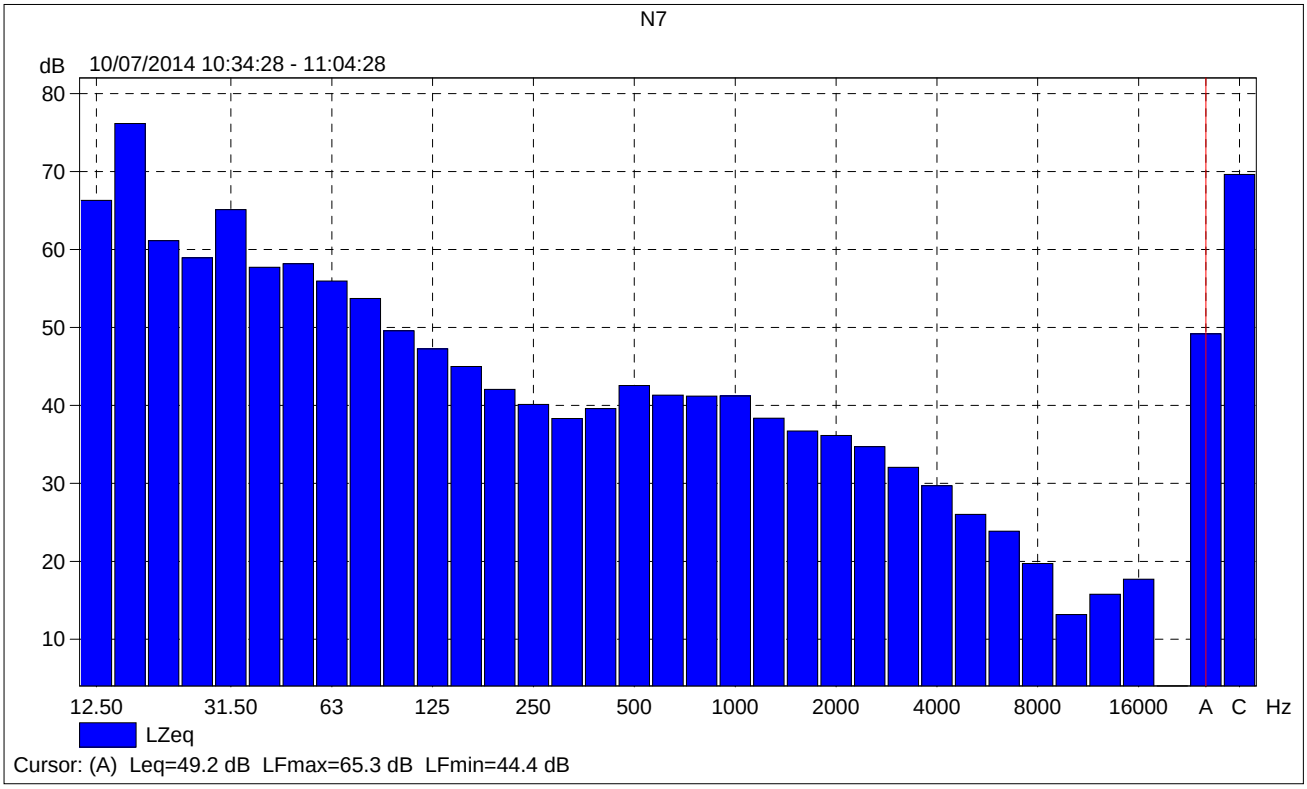
N8

	Start time	End time	LAeq [dB]	LAFmax [dB]	LAF10 [dB]	LAF90 [dB]
Value			55.0	70.2	58.5	49.4
Time	12:04:59	12:34:59				
Date	09/07/2014	09/07/2014				



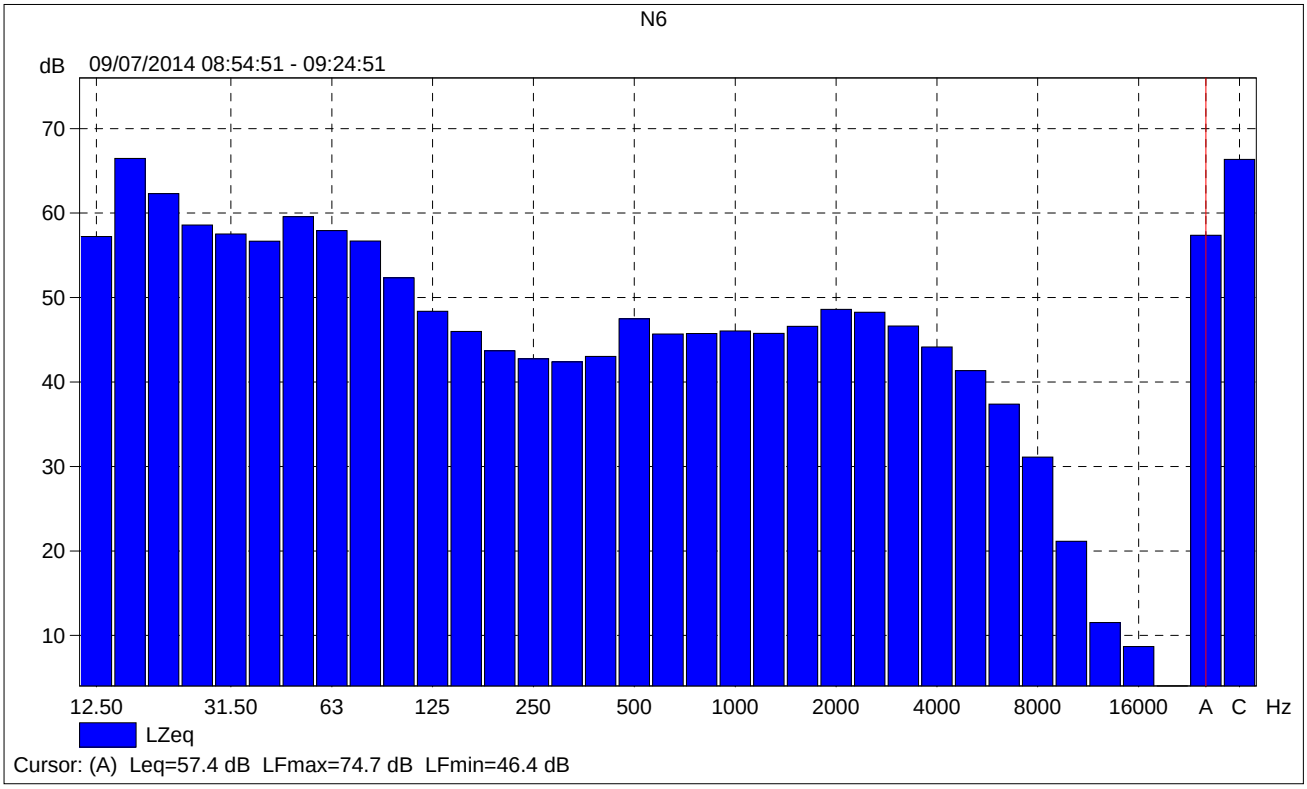
N7

	Start time	End time	LAeq [dB]	LAFmax [dB]	LAF10 [dB]	LAF90 [dB]
Value			49.2	65.3	51.2	46.7
Time	10:34:28	11:04:28				
Date	10/07/2014	10/07/2014				



N6

	Start time	End time	LAeq [dB]	LAFmax [dB]	LAF10 [dB]	LAF90 [dB]
Value			57.4	74.7	60.6	50.1
Time	08:54:51	09:24:51				
Date	09/07/2014	09/07/2014				



APPENDIX II

Calibration Data

Brüel & Kjær

The Calibration Laboratory
Skodsborgvej 307, DK-2850 Nærum, Denmark

ilac-MRA DANAK CAL Reg.nr. 307

CERTIFICATE OF CALIBRATION

No: CDK1301612

CALIBRATION OF

Sound Level Meter:	Brüel & Kjær Type 2250 Light	No: 3002817	Id: -
Microphone:	Brüel & Kjær Type 4950	No: 2847279	
Preamplifier:	Brüel & Kjær Type ZC-0032	No: 18897	
Supplied Calibrator:	None		
Software version:	BZ7130 Version 4.1.1	Pattern Approval:	PENDING
Instruction manual:	BE1853-11		

CUSTOMER

Byrne Environmental Consulting Ltd
35 Jamestown Park
Ratoath
Co. Meath, Ireland

CALIBRATION CONDITIONS

Preconditioning: 4 hours at 23°C ± 3°C

Environment conditions: *See actual values in **Environmental conditions** sections.*

SPECIFICATIONS

The Sound Level Meter Brüel & Kjær Type 2250 Light has been calibrated in accordance with the requirements as specified in IEC61672-1:2002 class 1. Procedures from IEC 61672-3:2006 were used to perform the periodic tests. The accreditation assures the traceability to the international units system SI.

PROCEDURE

The measurements have been performed with the assistance of Brüel & Kjær Sound Level Meter Calibration System 3630 with application software type 7763 (version 4.7 - DB: 4.70) by using procedure 2250-L-4950.

RESULTS

Calibration Mode: **Calibration as received.**

The reported expanded uncertainty is based on the standard uncertainty multiplied by a coverage factor $k = 2$ providing a level of confidence of approximately 95 %. The uncertainty evaluation has been carried out in accordance with EA-4/02 from elements originating from the standards, calibration method, effect of environmental conditions and any short time contribution from the device under calibration.

Date of calibration: 2013-03-01

Steen Vodstrup Andersen
Calibration Technician

Date of issue: 2013-03-01

Erik Bruus
Approved Signatory

Calibration Report

Certificate No.:15073

Manufacturer: Brüel and Kjær
Type: 4230
Serial no: 1663888

Customer: Byrne Environmental Consulting Ltd
Department:
Address: Red Bog, Skryne Road, Dunshaughlin, Co.Meath, Republic of Ireland.

Order No:
Contact Person: Ian Byrne.

Measurement Results:

	Level: (dB)	P. Stab : (dB)	Frequency: (Hz)	F. Stab : (%)	Distortion: (% TD)
1:	94.06	0.01	997.49	0.00	0.68
2:	94.06	0.01	997.48	0.00	0.71
3:	94.06	0.01	997.47	0.00	0.71
Result (Average):	**94.06**	**0.01**	**997.48**	**0.00**	**0.70**
Expanded Uncertainty:	0.10	0.02	1.00	0.01	0.10
Degree of Freedom:	>100	>100	>100	>100	>100
Coverage Factor:	2.00	2.00	2.00	2.00	2.00

The stated level is relative to 20µPa.

The stated level is valid at measurement conditions.
Reference microphone: WSM2 - GRAS40AG-28653. Volume correction: 0.015 dB
Records:K:\C A\Calibration\Nor-1504\Nor-1018 CalCal\2013\BNK4230_1663888_M1.nmf
Measurement procedure: TP-01
All results quoted are directly traceable to National Physical Laboratory, London

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k = 2, which for a normal distribution corresponds to coverage probability of approximately 95%. The standard uncertainty of measurement has been determined in accordance with EA publication EA-4/02.

Environmental conditions:

Pressure:	Temperature:	Relative humidity:
100.657 ± 0.042 kPa	22.1 ± 0.1 °C	45.1 ± 1.2 %RH

Date of calibration: 18/12/2013
Date of issue: 18/12/2013

Supervisor : Darren Batten TechIOA
Engineer :

Michael Tickner
Software version: 6.0b

Campbell Associates
www.campbell-associates.co.uk

APPENDIX III

Institute of Acoustics

Ian Byrne MIOA Certificate 2014

Institute of Acoustics

Certificate of Membership

This is to certify that

Ian Byrne

has been elected as a

Member

of the
Institute of Acoustics

Given under the seal of the Institute
in accordance with the
Articles of Association and By-Laws

President

Institute Secretary

Valid Until *31-12-2014*

Membership Number *44543*

The certificate remains the property of the Institute and shall be returned to the Institute on demand.
Membership of the Institute is subject to annual renewal

The Institute of Acoustics Limited, 3rd Floor, St Peter's House, 45-49 Victoria Street, St Albans, Hertfordshire AL1 3WZ
Tel: +44 (0)1727 [illegible] Fax: +44 (0)1727 [illegible] email: ioa@ioa.org.uk www.ioa.org.uk

Limited by Guarantee and Registered in England, No. [illegible] Registered Charity No. [illegible]

Attachment 11.1

2014 Air Dispersion Modelling Report

Premier Periclase Drogheda

IPPC Licence Requirements

Air Dispersion Modelling Assessment

Rep1

Issue2 | 24 March 2014

Job number 217893-00

Ove Arup & Partners Ireland Ltd

Arup
50 Ringsend Road
Dublin 4
Ireland
www.arup.com

ARUP

Document Verification

ARUP

Job title		IPPC Licence Requirements			**Job number** 217893-00
Document title		Air Dispersion Modelling Assessment			**File reference**
Document ref		Rep1			
Revision	**Date**	**Filename**	Draft Report.docx		
Draft 1	31 Oct 2013	**Description**	First draft		
			Prepared by	Checked by	Approved by
		Name			
		Signature			
Issue	13 Nov 2013	**Filename**	217893-00_Air Dispersion Modelling Report 011113.(MR).docx		
		Description	Issue		
			Prepared by	Checked by	Approved by
		Name	Cormac McKenna	Sinead Whyte	Don Menzies
		Signature			
Issue2	24 Mar 2014	**Filename**	217893-00_Air Dispersion Modelling Report 240314.docx		
		Description	Rev 2		
			Prepared by	Checked by	Approved by
		Name	Sinead Whyte	Don Menzies	Don Menzies
		Signature			
		Filename			
		Description			
			Prepared by	Checked by	Approved by
		Name			
		Signature			
				Issue Document Verification with Document	✓

Contents

Figures

1 Introduction

Premier Periclase Limited (PPL), Drogheda, Co. Louth are required to complete an air dispersion modelling assessment of emissions from point A2-4 as part of its IPPC Licence P0376-02, as follows:

"The licensee shall within six months of the date of grant of this licence carry out, using air dispersion modelling, an assessment of the impact of the emissions of HCl, particulate, NO_X, oxides of sulphur and CO from Emission Point A2-4. The air dispersion modelling shall be carried out to the satisfaction of the Agency and in accordance with the 'Air Dispersion Modelling from Industrial Installations Guidance Note (AG4)' published by the Agency."

This report carries out an assessment of the predicted air quality impacts due to emissions of particulates (PM), nitrogen oxides (NO_x), sulphur dioxide (SO_2), hydrogen chloride (HCl) and carbon monoxide (CO) from A2-4.

2 Methodology

2.1 Air Quality Standards

In order to reduce the risk of poor air quality, national and European statutory bodies have set limit values in ambient air for a range of air pollutants. These limit values are set for the protection of human health and ecosystems.

On April 12th 2011 the Air Quality Standards Regulations 2011 (S.I. No. 180 of 2011) came into force and transposed EU Directive 2008/50/EC into Irish law.

The purpose of the 2011 regulations is to establish limit values and alert thresholds for concentrations of certain pollutants, to provide for the assessment of certain pollutants using methods and criteria common to other European Member States, to ensure that adequate information on certain pollutant concentrations is obtained and made publically available and to provide for the maintenance and improvement of ambient air quality where necessary.

The regulations establish a target value to be obtained in 2010 as well as limit values for concentrations of $PM_{2.5}$. In addition, the regulations provide for a review in 2013 of the proposed limit value for $PM_{2.5}$.

In cases where no limit is provided under Irish legislation, the UK Environmental Agency and Danish Environmental Protection Agency values have been used.

The limit values established under these regulations/guidance are included in Table 1 below.

Table 1: Air Quality Standards (AQS) and Limit Values

Pollutant	Limit value for the protection of:	Averaging period	Limit value ($\mu g/m^3$)	Basis of application of limit value
NO_2	Human Health	1-hour	200	≤18 exceedances p.a. (99.79 %ile)
		Calendar year	40	Annual mean
NO_x	Vegetation	Calendar Year	30	Annual mean
SO_2	Human Health	1-hour	350	≤24 exceedances p.a. (99.73%ile)
	Human Health	24-hours	125	≤3 exceedances p.a. (99.18%ile)
	Vegetation	Calendar year	20	Annual mean
PM_{10}	Human Health	24-hours	50	≤35 exceedances p.a. (98.1%ile)
		Calendar year	40	Annual mean
$PM_{2.5}$	Human Health	Calendar year	25[1]	Annual mean
		Calendar year	20[2]	Annual mean
CO	Human Health	8-hour mean	10,000	8-hour mean
Hydrogen Chloride	Human Health	1-Hour	750	1-hour average
		Calendar Year	20	Annual mean
		1-Hour (99th percentile for calendar month)	50	99 percentile

[1]Target value
[2]Limit value to be reviewed by the Commission in 2013 in light of further information on health and environmental effects, technical feasibility and experience of the Target Value in Member states.

2.2 Modelling Methodology

The air dispersion modelling assessment was completed in accordance with the Environmental Protection Agency (EPA) Guidance (Air Dispersion Modelling from Industrial Installations Guidance Note (AG4)). The guidance provides a recommended approach for all elements of air dispersion modelling.

The USEPA approved Breeze AERMOD Version 07026 computer package was used to predict the effect of emissions on ambient air quality. The model predicts ground level concentrations (GLCs) of NO_2, NO_x PM_{10}, $PM_{2.5}$, SO_2, and HCl at receptors in the vicinity. The pollutant concentrations are affected by a number of factors which include inter alia:

- Emission data.
- Meteorological data.
- The proximity and elevation of the receptors.
- The wake effect from buildings and other structures.
- Conversion of NO_x to NO_2.

Air dispersion modelling was carried out to assess the impact of the emissions from A2-4 on ambient air quality in the vicinity of the site.

2.2.1 Emission Data.

Emission data and source characteristics were supplied by PPL and were based on data contained in IPPC Licence (P0376-02), refer to Table 2 below.

Table 2: Source Emission Data

Parameter	A2-4
Easting	311170
Northing	275964
Height (m)	64.3
Diameter (m)	3.861
Normalised flow rate (Nm^3/s)	39
Actual Velocity (m/s)	19
Temp (^oC)	282
NO_x emission rate (kg/hr)	59
SOx emission rate (kg/hr)[1]	400
PM_{10} emission rate (kg/hr)	36
CO emission rate (kg/hr)	118
HCL emission rate (kg/hr)	59

[1] worst-case emission limit for SO_X

2.2.2 Meteorological Data

Meteorological data from 2004 to 2007 recorded by the Met Éireann station at Dublin Airport was used. This data was adjusted for the land usage surrounding the site using the tool AERMET. The land usage in the vicinity of the PPL facility was inputted as both agricultural and urban land. The meteorological data includes hourly values of wind speed, wind direction, atmospheric stability, ambient temperature and mixing heights.

2.2.3 Receptors

For this modelling situation, two nested cartesian receptor grids were used. The first grid extends for 4 km in each direction from the facility, with receptors at 1km intervals. The second grid extends for 500 m to 1km in each direction from the facility, with receptors at 100 m intervals.

Ground level concentrations are predicted at each receptor location. These receptors do not represent individual residences but would be representative of potential "worst-case" receptors. On-site receptors were excluded from the model.

Terrain elevations were obtained from Ordnance Survey Ireland.

2.2.4 Building Wake Effect

Building data comprised the length, width and height of each section or tier of each building. The dimensions, roof heights and location of the buildings were taken from site plans. A software utility called BPIP was used, in conjunction with the location and height of emission sources, to calculate direction-specific building downwash factors from the building data.

2.2.5 Conversion of NO_x to NO_2

The EPA Guidance AG4 advises that detailed modelling of NO_2/NO_x chemistry should use the Plume Volume Molar Ratio Method (PVMRM) in AERMOD. This method takes account of the complex and reversible chemical reactions between the oxides of nitrogen, oxygen and ozone. The PVMRM uses both plume size and ozone (O_3) concentration to derive the amount of O_3 available for the reaction between NO and O_3. For a given NO_x emission rate and ambient ozone concentration, the NO_2/NO_x conversion ratio is primarily controlled by the volume of the plume. This method has been shown to give better agreement with monitoring data.

For the PVMRM calculation, the following assumptions are made, as advised by EPA guidance:

- Background ozone is 50.5µg/m^3 (average of Zone C monitoring from EPA long term data).
- NO_2/NO_x equilibrium ratio = 0.90.
- NO_2/NO_x in-stack ratio = 0.10.

3 Existing Environment

The site of Premier Periclase is located at Boyne Road, Drogheda, Co Louth. The land usage in the area is comprised of urban development and grassland to the west, grassland to the north and east, and a water boundary to the south.

The River Boyne and River Blackwater SAC is located on the site boundary. In addition, the Boyne Estuary SPA is located approximately 100 m from the site boundary.

Concentrations of NO_x were predicted at this location, as the NO_x air quality standard refers to the protection of vegetation.

The Environmental Protection Agency (EPA) designates four air quality zones for Ireland. The PPL site is located in Zone C.

Concentrations of pollutants recorded in Zone C as outlined in the EPA document "Air Quality in Ireland 2012, Key Indicators of Ambient Air Quality" were used to represent typical background levels. Average concentrations of NO_2, NO_x, PM_{10}, $PM_{2.5}$, CO and SO_2 recorded in Zone C are outlined in Table 3 below. No background monitoring results for HCl is available from the EPA.

Table 3: EPA Monitored Background Pollutant Concentrations for Zone C (µg/m³)

Pollutant	EPA Zone C 2012	EPA Zone C 2012 (µg/m³)	Limit (µg/m³)
Nitrogen dioxide	Annual average	4	40
	1-hour average (99.79th Percentile)	82	200
	Annual average GLC for NO_x	20	30
Sulphur dioxide	Hourly max	64	350
	Daily max	16	125
	Annual average		20
Particulate matter (PM_{10})	Annual average	19	40
	24-hour (98.08th percentile)	382	50
Particulate matter ($PM_{2.5}$)	Annual average	12.2	25
Carbon monoxide	8- hour mean - annual average	600	10,000
Hydrogen chloride	1-Hour	N/A	750
	Calendar year (annual average)	N/A	20
	1-Hour (99th percentile for calendar month)	N/A	50

4 Air Quality Impact Assessment

Predicted ground level concentrations of NO_2, NO_x, SO_2, CO, PM_{10}, $PM_{2.5}$ and HCl due to emission sources are compared with the relevant limit values and are presented in Table 4. Five years of meteorological data were used in the assessment to arrive at the worst case scenario for pollutant emission. Table 4 presents the values for the worst case year, 2005.

Table 4: Predicted Ground Level Concentrations Resulting from On-site Source and Comparison with Limit Values

Parameter	Air Quality Standard (µg/m³)	Background Concentrations (Zone C) (µg/m³)	Highest Predicted Value (µg/m³)	Total Predicted Value (µg/m³)	Highest Predicted Value as Percent of Air Quality Standard (%)	Total Predicted Value as Percent of Air Quality Standard (%)
Nitrogen Dioxide						
99.79th Percentile of 1-hour Average GLCs	*200*	8	7.8	15.8	3.9	7.9
Annual Average GLC	*40 (for protection of human health)*	4	0.3	4.3	0.8	10.8
Annual Average GLC for NOx at SAC	*30 (for the protection of vegetation)*	20	0.41	20.4	1.4	68.0
Sulphur Dioxide						
Annual	*20 (for protection of vegetation)*	4	2.8	6.8	13.8	33.8
99.73rd %ile of 1-hour average	*350*	64	76.7	140.7	21.9	40.2
99.18th %ile of 24-hour average	*125*	16	26	42	20.8	33.6
Carbon Monoxide						
Max Daily 8-hour mean	*10,000*	300 (Zone B. No Zone C value)	25.5	325.5	0.3	3.3
Particulate Matter (PM_{10})						
98.08th percentile of 24-hour	*50*	38[2]	1.8	39.8	3.5	0.8
Annual Average GLC	*40*	19	0.25	19.3	0.6	48.2
Particulate Matter ($PM_{2.5}$)						
Annual Average $PM_{2.5}$ GLC	*25*	12.2[1]	0.2[1]	12.3	0.64	49.3
Hydrogen Chloride						
1-Hour	*750*	N/A	35.4	35.4	4.7	4.7
Calendar Year (Annual Average)	*20*	N/A	0.5	0.5	2.5	2.5

Parameter	Air Quality Standard (µg/m³)	Background Concentrations (Zone C) (µg/m³)	Highest Predicted Value (µg/m³)	Total Predicted Value (µg/m³)	Highest Predicted Value as Percent of Air Quality Standard (%)	Total Predicted Value as Percent of Air Quality Standard (%)
1-Hour (99th percentile for calendar month)	*50*	N/A	8.4	8.4	16.7	16.7

[1]Based on a conversion of 64% of PM_{10} is $PM_{2.5}$ from EPA monitoring data at Zone C
[2]Twice the annual averaged as advised by EPA Guidance

The highest predicted 99.79th percentile of 1-hour average GLCs for NO_2 including background concentrations is 15.8µg/m³; this is considerably less than the AQS of 200µg/m³. The annual average NO_2 GLC predicted is 4.3µg/m^3. This complies with the air quality standard of 40µg/m3 for the protection of human health. Refer to Figure 1.

An annual average GLC including background concentrations of NO_x of 20.4µg/m³ was calculated at the River Boyne and River Blackwater SAC. This value complies with the air quality standard of 30µg/m^3 for the protection of vegetation. The background concentration of NO_x contributes 20µg/m^3 to this value. Refer to Figure 2.

The maximum predicted annual concentration of SO_2 including background concentrations is 6.8µg/m³; this is within the limit of 20µg/m³ for the protection of vegetation.

The highest predicted 99.73rd percentile of 1-hour average GLCs of SO_2 including background concentrations is 140.7µg/m³; which is less than the AQS of 350µg/m³. The highest predicted 99.18th percentile of 24-hour average GLCs of SO_2 including background concentrations is 42µg/m^3; this is less than the AQS of 125µg/m³.

The maximum predicted 8 hour daily mean concentration of CO including background concentrations is 325.53µg/m³; this is within the limit of 10,000µg/m³. The background concentration contributes 300µg/m3 to this value.

The highest predicted 98.08th percentile of 24-hour average GLCs including background concentrations of PM_{10} is 39.8µg/m³; which is less than the AQS of 50µg/m³. The background concentration contributes 38µg/m^3 to this value.

The maximum predicted annual concentration of PM_{10} including background concentrations is 19.3µg/m³; this is within the limit of 40µg/m³. The background concentration contributes 19µg/m^3 to this value. Refer to Figure 3.

The maximum predicted annual concentration of $PM_{2.5}$ including background concentrations is 12.3µg/m³; this is within the concentration cap of 25µg/m³.

The highest predicted 99th percentile of 1 hour monthly values for HCl GLCs is 8.4µg/m³; this is less than the AQS of 50µg/m³. The annual average HCl GLC predicted is 0.5µg/m^3. This complies with the air quality standard of 20µg/m^3. Refer to Figure 4.

The average 1-hour period value for HCl is predicted to be 35.4µg/m^3 which is well below the threshold value of 750µg/m³.

5 Conclusions

Emissions from the Premier Periclase facility in Drogheda were modelled and compared to the Air Quality Standards Regulations 2011 (S.I. No. 180 of 2011) and other limit values.

The predicted concentrations of NO_2, NOx, PM_{10}, $PM_{2.5}$, SO_2, CO and HCL with the inclusion of background concentrations, all comply with the Air Quality Standards and other relevant limits at all modelled locations for both the protection of human health and protection of vegetation.

6 References

1. S.I. No. 180/2011 — Air Quality Standards Regulations 2011 Government Publications, Dublin.

2. Air Quality in Ireland 2012, Key Indicators of Ambient Air Quality, EPA 2013.

Figures

A4

ARUP

PREMIER PERICLASE

Arup, 50 Ringsend Road
Dublin 4
Tel +353(0)1 233 4455 Fax +353(0)1 668 3169
www.arup.ie

Job Title
Premier Periclase Ltd

Drawing Title
Figure: 1

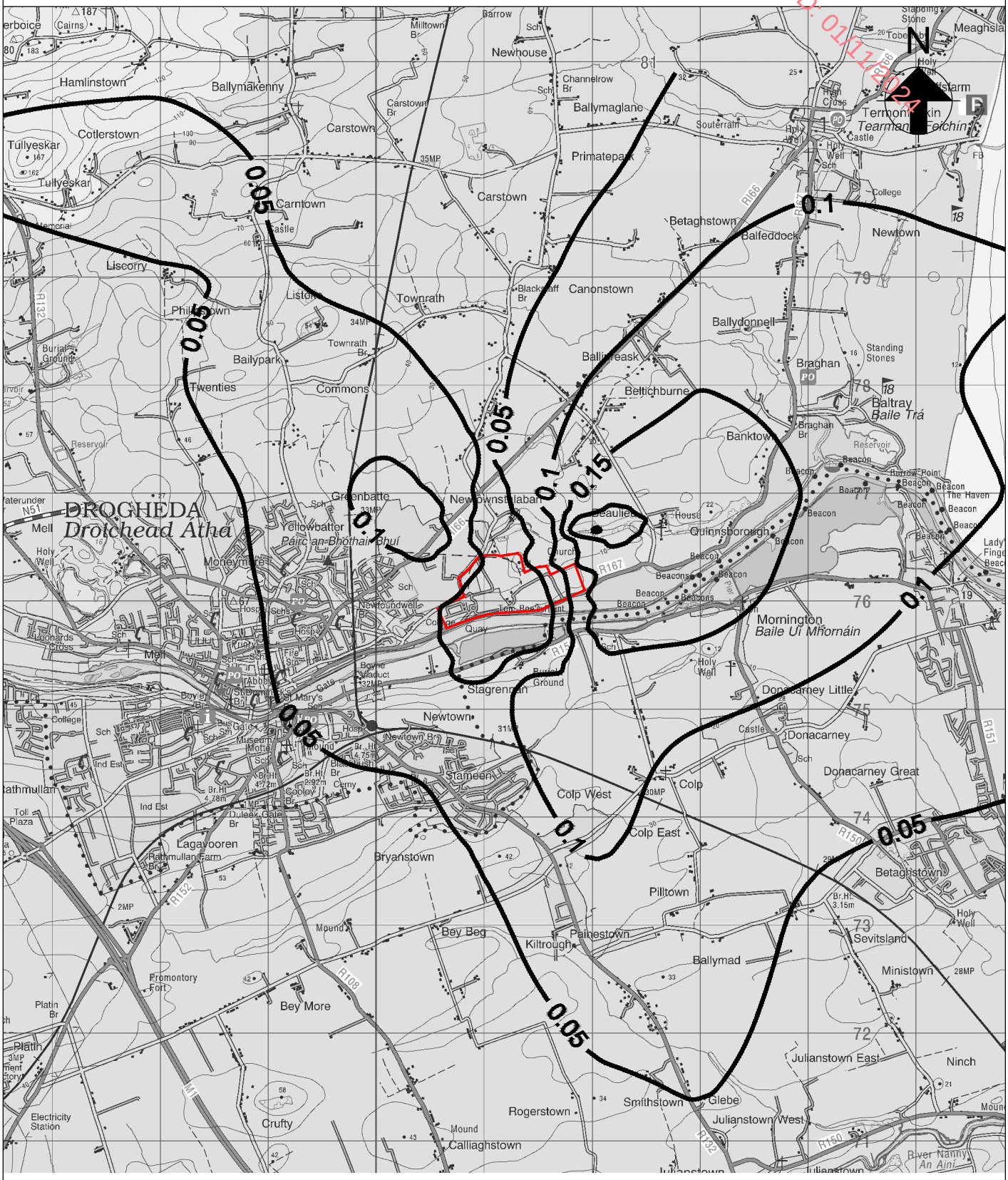
Scale at A4 1:50,000

Date November 2013

Discipline Environmental

Drawing Status
Report

Job No	Drawing No	Issue
217893-00	**N1001**	**P1**



Annual NO2 Ground Level Concentrations (excluding background) ug/m3

Do not scale

A4

ARUP

PREMIER PERICLASE

Arup, 50 Ringsend Road
Dublin 4
Tel +353(0)1 233 4455 Fax +353(0)1 668 3169
www.arup.ie

Job Title
Premier Periclase Ltd

Drawing Title
Figure: 2

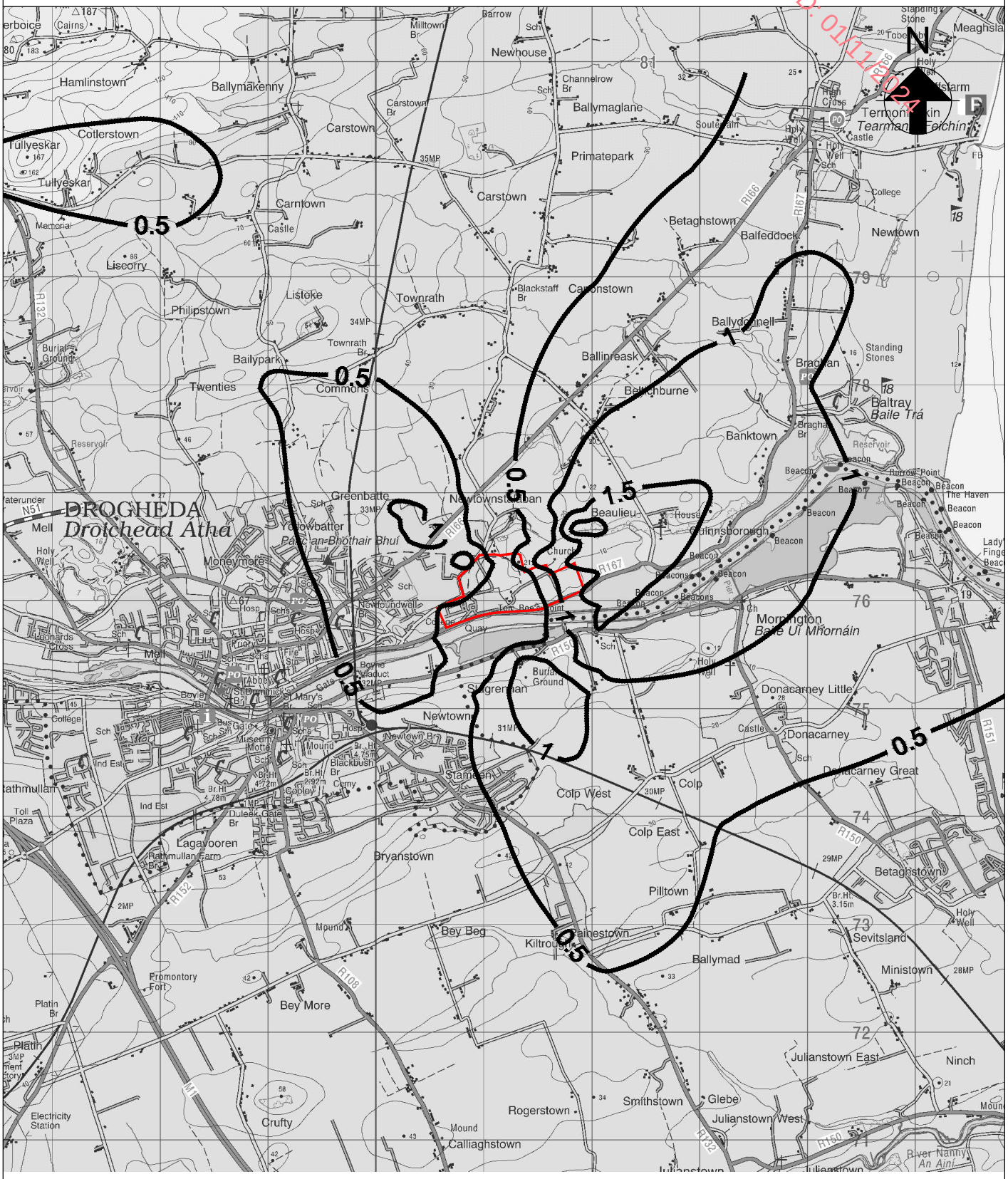
Scale at A4 1:50,000

Date November 2013

Discipline Environmental

Drawing Status
Report

Job No	Drawing No	Issue
217893-00	**N1002**	**P1**



Annual SO2 Ground Level Concentrations (excluding background) ug/m3

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A4

ARUP PREMIER PERICLASE

Arup, 50 Ringsend Road
Dublin 4
Tel +353(0)1 233 4455 Fax +353(0)1 668 3169
www.arup.ie

Job Title
Premier Periclase Ltd Review of IPPC Licence Reg. No. P0376-01

Drawing Title
Figure: 3

Scale at A4	Date
1:50,000	November 2013

Discipline: Environmental

Drawing Status: **Report**

Job No	Drawing No	Issue
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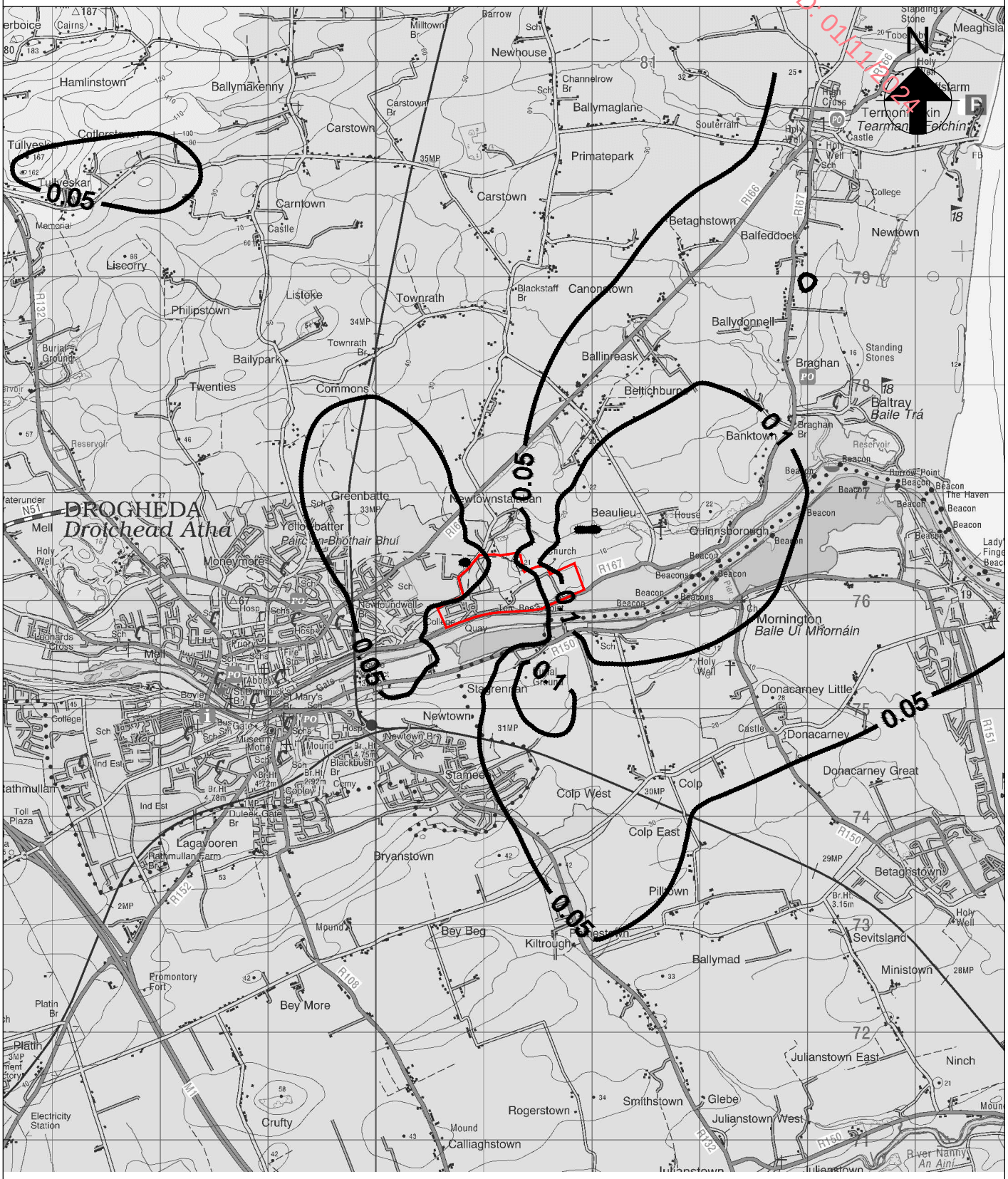


Annual PM10 Ground Level Concentrations (excluding background) ug/m3

Do not scale

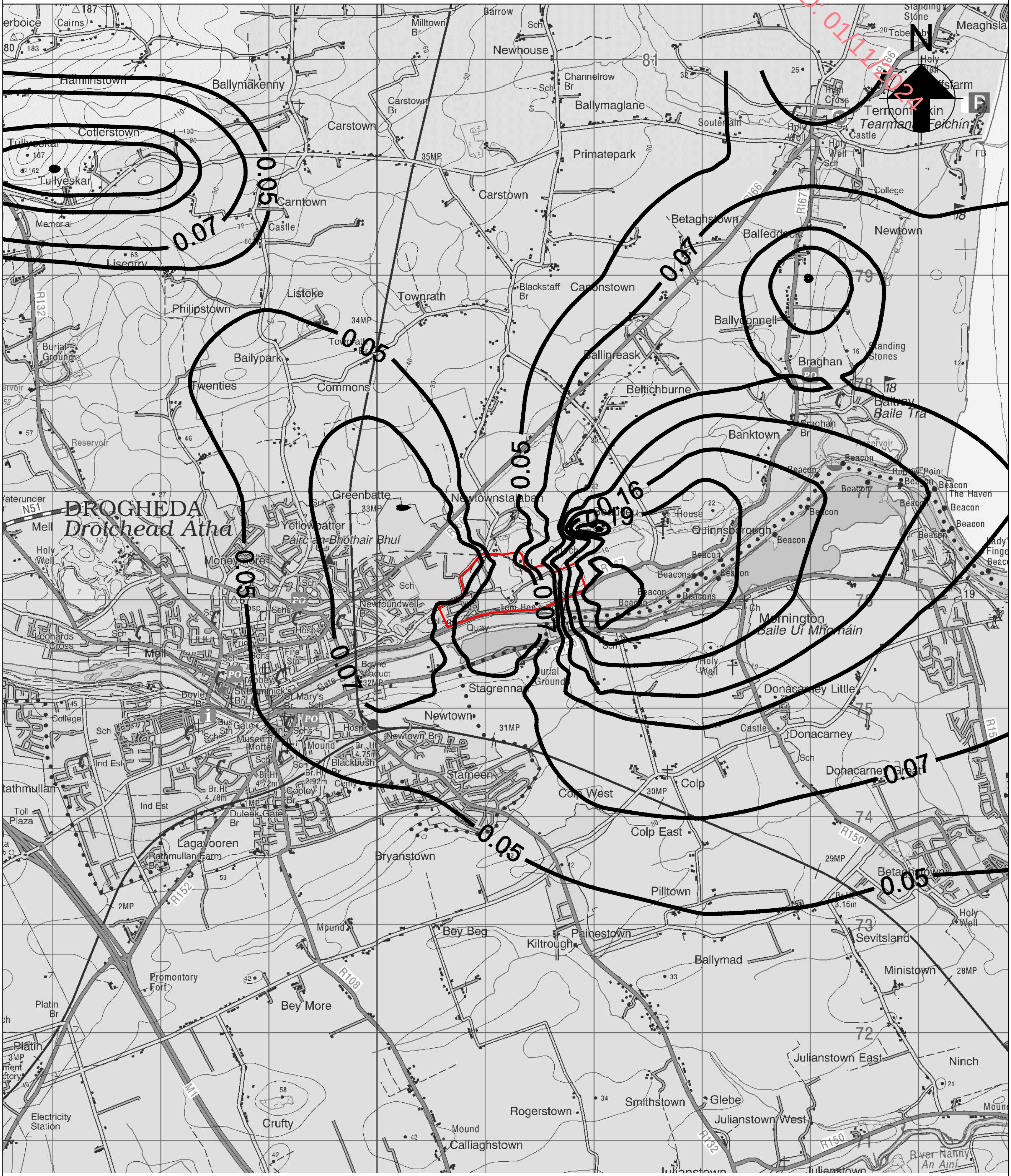
A4

ARUP

PREMIER PERICLASE

Arup, 50 Ringsend Road
Dublin 4
Tel +353(0)1 233 4455 Fax +353(0)1 668 3169
www.arup.ie

Job Title	Premier Periclase Ltd		
Drawing Title	Figure: 4		
Scale at A4	1:50,000	Date	March 2014
Discipline	Environmental		
Drawing Status	Report		
Job No	217893-00	Drawing No	N1004
Issue	P2		



Annual HCl Ground Level Concentrations (excluding background) ug/m3

Do not scale

Attachment 12.1

Compliance with Section 15 of the Low Carbon Development (Amendment) Act 2021

INTRODUCTION

Sections 12.8 and 12.9 of the EIAR Climate Chapter (Chapter 12) refer to the compliance of the proposed development with the Climate Action and Low Carbon Development Act 2015 (as amended). This document summarises the compliance of the proposed development with section 15 of the Act.

The proposed development comprises the redevelopment of an existing licensed industrial site, and the construction of a first phase of development of an employment and energy innovation campus, comprising an Energy Centre, Data Centre, solar PV installations, battery storage, and all associated and ancillary development at Newtownstalaban, Drogheda, Co. Louth. The proposed development will be known as 'CORE'.

The current licensable activities represent a highly carbon intensive form of industrial process. Whilst the licensable activities carried out in the existing development are undertaken in a manner that is fully compliant with the licence, the Facility has certain impacts which may be perceived as negative on the locality in terms of visual impact, air quality, and amenity, as well as climate.

The proposed regeneration of the subject site will represent a major improvement in the overall industrial carbon emissions for the county and for the state, with the proposed first phase of data centre and energy infrastructure development intended to act as a catalyst for the wider redevelopment of the landholding for a broad mix of high technology, manufacturing, and commercial uses, based on a local energy and heat network on site.

The proposals for the subject site centre on an innovative energy strategy in order to provide for a decarbonised form of enterprise campus. The sustainably powered enterprise campus (known as CORE) will have decarbonised electrical and heat networks. Coupled with PPL's existing private water infrastructure and systems, the proposed development will ensure that new industry can be attracted to Drogheda to support sustainable economic growth in line with the objectives of National, Regional, and Local planning policy for the town of Drogheda. A high-level summary of the key policies which the development will advance is provided below, with detailed policy analysis provided in subsequent sections of this report.

The application includes a detailed Energy and Emissions Modelling Report, providing a detailed explanation of the operational energy design for the proposed development, and outlines how the proposed development will operate under a range of conditions to provide low carbon energy for the energy users on site.

The energy solution proposed on site involves the use of a connection to the national electricity grid alongside on site renewable generation, large scale battery energy storage, and on-site gas engine (which, as noted below, will be targeted for operation on biomethane, subject to availability and tenant agreement) – and that could potentially export power to assist should there be an agreement in place with the System Operator (SO) to do so - to deliver digital services and infrastructure with minimum carbon intensity, and with a clear pathway to net-zero operations for the Data Centre proposed in the current phase of development, along with infrastructure for low carbon energy for other future employment uses within the landholding.

The combination of energy infrastructure proposed as part of the development will allow for carbon emissions to be reduced on site in real time, promoting the integration of higher levels of renewable energy, while providing flexible and resilient energy for employment uses on site.

The proposed CORE Energy Centre operates at medium voltage and provides a mix of on-site renewable generation, off-site renewable energy power purchase agreements (PPA's), energy storage, gas generation, and power conditioning.

Section 15 of the Climate Action and Low Carbon Development Act 2015, as amended, states the following:

"(1) A relevant body shall, in so far as practicable, perform its functions in a manner consistent with–

(a) the most recent approved climate action plan,
(b) the most recent approved national long term climate action strategy,
(c) the most recent approved national adaptation framework and approved sectoral adaptation plans,
(d) the furtherance of the national climate objective, and
(e) the objective of mitigating greenhouse gas emissions and adapting to the effects of climate change in the State."

Each of the foregoing points (a) – (e) are addressed in turn below. This document has been prepared With input from PM Group, John Spain Associates, and Gyrogy

THE MOST RECENT APPROVED CLIMATE ACTION PLAN (2024 CLIMATE ACTION PLAN)

The 2024 Climate Action Plan[1] was published on the 20th of December 2023. Climate Action Plan 2024 (CAP24) is the third annual update to Ireland's Climate Action Plan.

CAP24 was put into force by Government on to *the* 24th of May 2024, following the undertaking of public consultation, Strategic Environmental Assessment and Appropriate Assessment.

The publication notice states that *"Climate Action Plan 2024 builds upon last year's Plan by refining and updating the measures and actions required to deliver the carbon budgets and sectoral emissions ceilings. The Plan provides a roadmap for taking decisive action to halve Ireland's emissions by 2030 and reach net zero by no later than 2050, as committed to in the Climate Action and Low Carbon Development (Amendment) Act 2021.*

CAP 24 states that transformational policies, measures and actions, and societal change are required to increase the deployment of renewable energy generation, strengthen the electricity grid, and meet the demand and flexibility needs required for the challenges of:

- Increasing renewable generation to supply 80% of demand by 2030 through the accelerated expansion of onshore wind and solar energy generation, developing offshore renewable generation, and delivering additional grid infrastructure;
- Developing micro- and small-scale generation, as well as community projects, through actions such as grant funding and enabling small-scale production to participate in energy markets;
- Transforming the flexibility of the electricity system by improving system services and increasing storage capacity;
- Developing tools and mechanisms that support demand side flexibility services which leverage smart metering, including market incentives and smart tariffs, reducing/removing regulatory barriers, and focusing on flexibility-ready standards for smart technology; and
- Delivery of at least 2 GWs of new flexible gas-fired generation

[1] Link: https://www.gov.ie/en/publication/79659-climate-action-plan-2024/b

Table 1: Statements and Policy Provisions of the 2024 Climate Action Plan and the Consistency of the Proposed Development with the Plan

Section of CAP	CAP Statement	Consistency of the Proposed Development
Page 28	Guided by our 2030 and 2050 targets, the programme of carbon budgets and sectoral emissions ceilings introduces more immediate and sector-specific emissions reduction targets that provide a pathway towards the 2030 51% reduction target and the 2050 climate neutrality goal.	The proposed development provides for the avoidance/displacement of approximately 150,000 tCO2 (a 70% reduction) GHG emissions compared to the 'Do Nothing Scenario' (i.e. the return and continuation of the existing industrial facility on the site to full operation). This will help achieve the required reduction in the sectoral emissions ceiling for the Industry sector. The proposed development will also reduce GHG emissions from electricity on the national grid by producing renewable (solar) energy on site and storing low carbon intensity power from the grid in the battery energy storage system (BESS) on site to be used during times of high demand/emissions intensity on the grid. This will help achieve the required reduction in the sectoral emissions ceiling for the Electricity sector.
	CAP24 includes the Carbon Budgets which have been set for Ireland under the Climate Action and Low Carbon Development (Amendment) Act 2021 by the Climate Change Advisory Council (CCAC) for the periods 2021-2025; 2026-2030 with the aim of achieving the 51% reduction in GHG emissions by 2030. In the next budgeting period (2026-2030) when the proposed development is likely to be operational, the industrial sector is to adhere to a sectoral emission ceiling of 24 MtCO2, which breaks down to an annual average 4.8 MtCO2 per year. However, the applicable emissions ceiling in the final year of the 2026 – 2030 carbon budget period (2030) is set at 4 MtCO2. LW – you can edit this text based on example Section 15 you have but I've added it to have a specific row looking at compliance to Carbon Budgets/Sectoral Emissions Ceilings.	The proposed development plans for an evolution of the existing carbon intensive industrial site; making a transition to become a leader in industrial decarbonisation and provide sustainable economic development for the community and the country. The 'Do Nothing Scenario' industrial GHG emissions (215,900 tCO2) equates to 5% of the emissions ceiling for industry in 2030 (carbon budget 4 MtCO2). There would be 66,300 tCO2 operational GHG emissions associated with the operation of the proposed development prior to the proposed mitigation measures which equates to 2% of the emissions ceiling for industry in 2030 (carbon budget 4 MtCO2). This is the GHG emissions which would be generated if all electricity required for operation of the DC was imported from the grid. The inclusion of the proposed mitigation measures with the proposed development as described under the decarbonisation pathway in Section 12.9.1 of the EIAR (implementation of a wind

		PPA by the DC tenant alongside the use of the on-site assets (solar PV panels, batteries, and gas engines) will lead to a 73% reduction in GHG emissions compared to that which would be generated if all electricity required for operation of the DC was imported from the grid (66,300 tCO2). The total GHG emissions from the operation of the proposed development with these mitigation measures (17,750 tCO2) equates to 0.4% of the emissions ceiling for industry in 2030 (carbon budget 4 MtCO2).
Section 2.2, Page 32	Under the Climate Action and Low Carbon Development (Amendment) Act 2021, Ireland's national climate objective requires the State to pursue and achieve, by no later than the end of the year 2050, the transition to a climate-resilient, biodiversity-rich, environmentally sustainable, and climate-neutral economy. The 2021 Act also provides for a reduction of 51% in GHG emissions by 2030, compared to 2018 levels.	As above, the proposed development will contribute to a reduction in GHG emissions in both the Industry and Electricity sectors. A Climate Change Resilience Assessment (refer to Ch 12 of the EIAR) has been completed to assess the vulnerability of the proposed development to climate change and appropriate mitigation/controls have been included in the design where appropriate.
Section 2.3, Page 34	Under the EPA's projections, emissions in the first two carbon budgetary periods (2021-2025 and 2026-2030) are expected to exceed their limits by a margin of 24%-34%, with the sectoral emissions ceilings for both budgetary periods projected to be exceeded in almost all sectors including: electricity; industry; transport; and agriculture. An overshoot in one carbon budgetary period will require an equivalent reduction in the emissions allowed in the following period, making the level of abatement to be reached in the subsequent period more challenging.	The proposed development provides for the avoidance/displacement of approximately 150,000 tCO2 (a 70% reduction) GHG emissions compared to the 'Do Nothing Scenario'. This will help achieve the required reduction in the sectoral emissions ceiling for the Industry sector. The proposed development will also reduce GHG emissions from electricity on the national grid by producing renewable (solar) energy on site and storing low carbon intensity power from the grid in the battery energy storage system (BESS) on site to be used during times of high demand/emissions intensity on the grid. This will help achieve the required reduction in the sectoral emissions ceiling for the Electricity sector.
Section 11.2.2.4, Page 142	In order to meet the targets and objectives of this Climate Action Plan, it is necessary to direct the private sector towards financing the necessary investments. We are taking the lead in developing	The development represents a significant investment of private sector capital in the redevelopment of a carbon intensive industrial facility and the construction of an innovative new development which integrates a low carbon energy / operating model.

	innovative approaches to financing our decarbonisation objectives and are committed, for example, to rolling out a low-cost residential retrofit loan scheme. To meet the scale of this challenge, the financial sector will also need to bring innovative solutions to the market. Through the commercial, State sector and other Public Bodies, we will seek to leverage the significant volumes of private sector capital that is available for well-structured projects, including wind (both onshore and offshore) and solar electricity generation, interconnection, and major transport infrastructure.	As set out above, the proposed development will also reduce GHG emissions from electricity on the national grid by producing renewable (solar) energy on site and storing low carbon intensity power from the grid in the battery energy storage system (BESS) on site to be used during times of high demand/emissions intensity on the grid. This will help achieve the required reduction in the sectoral emissions ceiling for the Electricity sector. In addition, the application for the proposed development entails a commitment to the engagement by the operator of the proposed data centre in a wind Power Purchase Agreement (PPA), representing private sector financing for renewable energy development. The proposed development will prioritize the mitigation of real-time emissions by matching renewable energy production with the data centre's hourly consumption. Any remaining hours not covered by the renewable energy PPA will be mitigated using other technologies within the Energy Centre, such as solar, batteries, engines, renewable gases
Section 11.2.3, **Page 144 and 145**	From a national planning policy perspective, the National Planning Framework (NPF) provides an established means through which to implement and integrate climate change objectives, including adaptation, at national, regional, and local levels, and the transition to a low carbon and climate resilient society. The NPF clearly states that “in addition to legally binding targets agreed at EU level, it is a national objective for Ireland to transition to be a competitive low carbon, economy by the year 2050”. The NPF sits at the top of the planning hierarchy and provides the overarching context for the regional and local tiers below it, thereby securing the alignment of policies and objectives as part of the plan-making process, including alignment with the Climate Action	The proposed development is strongly supported by the policies of the National Planning Framework and the Regional Spatial and Economic Strategy for the EMRA. Compliance with the NPF and the RSES for the EMRA is set out in detail within the Planning Report prepared by John Spain Associates.

	Plan. … The three Regional Spatial and Economic Strategies for each Regional Assembly area, sitting at the tier below the NPF, also contain a range of policy objectives in order to ensure emissions can be reduced and targets met, and these feed directly into Development Plans at the more local level. At this level, national and regional climate objectives (including energy) are given effect through specific policies and objectives that reflect the local context. Section 10(2)(n) of our Planning and Development Act, 2000 (as amended) specifically identifies Climate Action (adaptation and mitigation) as a mandatory objective to be included in all Development Plans. Adopted by the elected members of the Local Authority, these plans are subject to a review and evaluation by the Office of the Planning Regulator to ensure consistency with national policy and guidance. The role of Local Authorities in climate action is explored further in chapter 19 (Local Government).	
Section 11.2.4, Page 145 and 146	**Digital Transformation** Harnessing Digital – The Digital Ireland Framework, launched in February 2022, reflects Ireland's ambition to continue to be a digital leader at the heart of European and global digital developments. It is helping to drive the digital transition across our economy and society, and it complements work towards achieving Ireland's climate targets, with our green and digital ambitions re-enforcing each other. The strategy sets out targets, high-level workstreams and deliverables across four dimensions, in line with the EU's Digital Decade 2030: Digital Transformation of Business; Skills; Digital Infrastructure; and the Digitalisation of Public Services….	The proposed development itself includes data centre development, which is the infrastructure of the digital transition. The Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy (2022) states the following: *"Data centres, along with connectivity and cyber security, are important infrastructure enablers in an open modern economy, facilitating digital transformation of SMEs and associated productivity and competitiveness gains. Data can drive research and innovation and the training of AI systems in areas such as health, transport, agriculture, and the environment. Digital technologies have a vital role to play in enabling decarbonisation*

	The Government will also continue to support remote working through its Making Remote Work: National Remote Work Strategy as part of its wider commitment to increased participation in the labour market; more balanced regional development; improved work/ life balance; reduced commuting times; and reduced transport-related carbon emissions.	*including through the gathering and analysis of important data for mitigating and adapting to climate change and protecting and restoring biodiversity and ecosystems. They can also help to unlock carbon emission reductions in hard-to-abate sectors such as buildings, industry, and agriculture – through solutions such as aggregated energy system monitoring and management systems, renewables certification and product passports."* *"Data centres represent a core digital infrastructure for both Ireland's and Europe's digital economies and for strengthening Ireland's position as a strategic international location for IT services. This is the infrastructure that lies behind all digital aspects of our social and work lives, including video calling, messaging and apps, retail, banking, travel, media, and public service delivery in areas such as healthcare and welfare. Data centres enable digital economies through hosting critical software and data that allows the world's leading companies to run their businesses, organise their supply chains, pay their staff, and host video conferencing applications. These are the suite of technologies and services that have facilitated the digitalisation of our economy, our work lives and many of the online applications, services and platforms widely used across society. During the pandemic, they enabled business and communities to quickly move to a remote model. Data centres also host and deliver entertainment and content services into homes. More broadly however, data centres are also the means by which Ireland's major technology companies process and store companies' most sensitive and strategic assets. They are also the means by which they are transitioning their businesses to the cloud, making Ireland critical to their global presence. Investments by technology multinationals in large, long-life assets such as data centres further secures the presence of the global technology sector in Ireland."* The foregoing confirms the importance of data centres and highlights their role in the digital transition across all sectors of the economy.

		Data centres enable and facilitate remote working in line with the National Remote Working Strategy through the provision of cloud computing services.
Electricity		
Page 149	The electricity sector continues to face an immense challenge in meeting its requirements under the sectoral emissions ceiling, as the decarbonisation of other sectors, including transport, heating, and industry, relies to a significant degree of electrification. The deployment rates of renewable energy and grid infrastructure required to meet the carbon budget programme for electricity is unprecedented and requires urgent action across all actors to align with the national targets.	The proposed development will support the national grid by producing renewable (solar) energy on site and storing low carbon intensity power from the grid in the battery energy storage system (BESS) on site to be used during times of high demand/emissions intensity on the grid. The planning application also includes a commitment that the operator of the data centre proposed will engage in a PPA for 60MW of additional wind generation.
Page 150	**Measures and Actions** Transformational policies, measures and actions, and societal change are required to increase the deployment of renewable energy generation, strengthen the electricity grid, and meet the demand and flexibility needs required for the challenges of: ` • Increasing renewable generation to supply 80% of demand by 2030 through the accelerated expansion of onshore wind and solar energy generation, developing offshore renewable generation, and delivering additional grid infrastructure • Developing micro- and small-scale generation, as well as community projects, through actions such as grant funding and enabling small-scale production to participate in energy markets	The proposed development and its associated energy strategy and design provide for a high degree of flexibility with regard to demand for grid electricity, while also incorporating on site renewable generation and battery energy storage. In addition to providing low carbon energy for on-site use, the proposed energy infrastructure will deliver benefits to the stability of the electricity grid by helping to address challenges arising from the increased penetration of renewable energy on the grid. These challenges relate to the variability and intermittency of renewables due to weather conditions, the need for frequency regulation on the grid (in the context of reduced, inertia-providing conventional generation assets), the need to control fluctuations in voltage from renewable sources, the need to provide for resilience in the event of a disturbance or outage, and the challenging nature of forecasting the output from renewable sources. Although the proposed development will out-perform the national grid in terms of carbon intensity, a further level of mitigation in terms of climate impact is provided via the commitment that tenants for

	• Transforming the flexibility of the electricity system by improving system services and increasing storage capacity • Developing tools and mechanisms that support demand side flexibility services which leverage smart metering, including market incentives and smart tariffs, reducing/removing regulatory barriers, and focusing on flexibility-ready standards for smart technology Delivery of at least 2 GWs of new flexible gas-fired generation	the development will be required to bring an appropriately sized Corporate Power Purchase Agreement (CPPA) to mitigate the remaining emissions from their energy usage.
Section 12.1.3, Page 159	At a time when the energy system is under severe pressure to ensure security of supply, amid projections of rapid electricity demand growth over the coming decade, the electricity sector has been set one of the smallest carbon budget allocations and the steepest trajectory (-75%) across all sectors. The scale of the challenge to meet the sectoral emissions ceiling is immense and requires policies to be moved from an 'end of decade' target trajectory towards a 'remaining carbon budget' target. Rapid delivery of flexible gas generation is needed at scale and in a timeframe to replace emissions from coal and oil generation as soon as possible to reduce impacts on the carbon budgets. A continued drive for solar energy, with an ambitious target of up to 5 GW by 2025, will support land-use diversification and enable farmers and communities to participate in the energy transition. Maximising the	The energy solution proposed on site involves the use of a connection to the national electricity grid alongside gas engines that could potentially export power to the grid (which will be targeted for operation on biomethane subject to availability and tenant agreement), on site renewable generation, and large scale battery energy storage, to deliver digital services and infrastructure with minimum carbon intensity, and with a clear pathway to net-zero operations for the Data Centre proposed in the current phase of development, along with infrastructure for low carbon energy for other future employment uses within the landholding. The combination of energy infrastructure proposed as part of the development will allow for carbon emissions to be reduced on site in real time, promoting the integration of higher levels of renewable energy, while providing flexible and resilient energy to employment uses on site. The proposed CORE Energy Centre operates at medium voltage and provides a mix of on-site renewable generation, off-site renewable energy power purchase agreements (PPA's), energy

	self-consumption of renewable electricity will reduce costs and selling surplus electricity to the grid will allow for the diversification of income. The potential use of brownfield sites, infrastructure corridors for renewables, renewable hubs, energy parks and multi-activity sites, off-grid solutions, existing wind farm connections, and private wires, could open-up the potential for solar energy to supply a growing amount of Ireland's electricity demand and offset emissions from fossil fuels, and should be explored, where feasible.	storage, gas generation, and power conditioning. The energy strategy for the proposed development provides for flexibility of demand on grid electricity and includes flexible gas generation on site (with the ability to export power to the grid assist should there be an agreement in place with the System Operator to do so), direct delivery of solar capacity on site, and battery energy storage. The development itself represents an 'energy park' type development in line with this section of the CAP.
Section 12.4.1.1, Pages 162 and 163	**Accelerate Renewable Electricity Generation** • To reach 80% of electricity demand from renewable sources by 2030: • Accelerate the delivery of utility-scale onshore wind, offshore wind, and solar projects through a competitive framework; • Develop non-utility scale generation and community projects through actions such as grant funding and enabling such projects to participate in energy markets and flexibility schemes; • Target 6 GW of onshore wind and up to 5 GW of solar by 2025; • Target 9 GW of onshore wind, 8 GW of solar, and at least 5 GW of offshore wind by 2030; • All new or repowered renewable electricity generation projects shall implement a Community Benefit Fund equivalent to the RESS requirements of €2/MWh; • Most fundamentally, significant investment is	The proposed development will help to strengthen the electricity system by using the existing grid infrastructure (38kV) to deliver renewable generation from solar as well as energy storage. The proposed development will support a number of grid services (enhanced frequency response, reserve power, and voltage support) required under Eirgrid's Delivering a Secure, Sustainable Electricity System (DS3) program which are required to address the inherent challenges posed by high penetration of renewable energy sources into the grid. The DS3 program aims to ensure that Ireland's electricity grid can handle a high penetration of renewable energy, maintaining a secure, reliable, and sustainable electricity system. The BESS,UPS, and gas engines (which will have the ability to export power to the grid to assist should there be an agreement in place with the SO to do so), included as part of the proposed development supports the DS3 power security and conditioning services that require the most rapid response with the UPS ability to react to a broad spectrum of utility voltage events instantaneously with the ability to support the load for over 20 seconds. The batteries come online in 150-200 ms continuing to provide further grid support until the engines become available after 4.5 minutes. The batteries can continue support then for 3 hours and the engines can continue support for as long as they are

	needed in the transmission and distribution systems to maximise the usage of renewable electricity and to reduce constraints and congestion on the system. System Operators and the CRU must ensure the timely investment in, and delivery of, the required electricity network infrastructure, including key priorities such as the North South Interconnector, to meet the targets set out in this, and subsequent, Climate Action Plans; • Deliver a streamlined electricity generation grid connection policy and process, and remove barriers, where possible, for the installation of renewables and flexible technologies reducing the need to build new grid, including hybrid (wind/solar/ storage) connections; • Publish a new Electricity Generation Grid Connection Policy; • Undertake a public consultation on proposed regional renewable electricity targets, including relevant environmental assessments in the upcoming draft National Planning Framework revision; • Provide for greater alignment between local plans and renewable energy targets at national (and regional) levels, taking into account regional targets once established and the revised National Planning Framework; • Publish the Draft Renewable Electricity Spatial Policy Framework White Paper; ` Publish the revised methodology for Local Authorities Renewable Energy Strategies; • Publish Draft Revised Wind Energy Development Guidelines;	needed. Due to the overlap in capabilities of each technology, the level of service that can be delivered as a demand side unit (DSU) will be capped at the maximum export connection (MEC) Level. The capability of delivering such a comprehensive service with significantly decarbonised assets brings significant value to the safe and sustainable operation of the grid.

	• Commence drafting of Solar Energy Development Guidelines; • Following finalisation of a Regional Roadmap, Regional Assemblies will publish and implement Regional Renewable Electricity Strategies, enabling a unified methodology for national and regional spatial and capacity targets, identifying areas suitable for renewable electricity deployment at regional and county levels that can inform the statutory planning process; • Following adoption of the Regional Renewable Electricity Strategies, Local Authorities will include a statement within their next Local Authority Climate Action Plan which identifies the methods or processes that will be used to implement the required policy supports to achieve renewable electricity targets; • In line with transposing the revised Renewable Energy Directive, which entered into force in November 2023, ensure that the permit-granting procedure, the planning, construction and operation of renewable energy plants, the connection of such plants to the grid, the related grid itself, and storage assets are presumed as being in the overriding public interest; • Map and designate Renewable Acceleration Areas for onshore renewables as required following transposition of the revised Renewable Energy Directive once the relevant provisions have been transposed into Irish law; • Ensure that Local Authorities, An Bord	

	Pleanála, and the Maritime Area Regulatory Authority have sufficient and appropriate expertise and resources to meet the State's needs in this area; • All relevant public bodies will carry out their functions in a manner which supports the achievement of the renewable electricity targets, including, but not limited to, the use of road and rail infrastructure to provide a route for grid infrastructure where this is the optimal solution; • Deliver the Small-scale Renewable Electricity Support Scheme to support nondomestic renewable electricity generators above 50 kW, and community energy and small and medium-sized enterprises' projects up to 6 MW; • Target 1.6 GW of installed micro-generation capacity (≤ 50 kW) by 2030; ` Production of 2 GW of renewable hydrogen sourced from offshore wind to be in development by 2030, which will help to provide greater certainty for investors, and create the production scales needed to enable greater infrastructure deployment; • Ensure priority EU electricity infrastructure projects, Projects of Common Interest (PCI) will continue to receive prioritisation as provided by the EU TEN-E Regulation, addressing any administrative, market, or regulatory obstacles obstructing the implementation of PCIs to ensure their scheduled execution.	
Section 12.4.1.2,	**Accelerate Grid Flexibility**	The proposed development will deliver 40.5 MW of new

Page 164	• Empower business and households by developing clear public information regarding electricity carbon intensity in real time and promote opportunities to shift demand to times of low carbon intensity; • Delivery of 2 GW of new flexible gas-fired power generation; • Phase out and end the use of coal and peat in electricity generation; • System Operators to transform the flexibility of the electricity system through changes to policies, standards, services, and tools, funded and incentivised through regulatory price controls; • As an urgent priority, establish the investment framework and competitive market arrangements needed to deliver zero carbon system services; • Deliver at least three new electricity transmission grid connections or interconnectors; • Explore further interconnection potential, including hybrid interconnectors; • Publish the Electricity Storage Policy which will support the further deployment of electricity storage in Ireland, including longer term storage; • Increase deployment of medium to long-term storage technologies; • Undertake dispatch reform aimed at improving the efficiency of Transmission System Operators dispatch actions.	flexible gas-fired distributed generation. This presents a substantial opportunity for transitioning to decentralised generation on a large scale. The proposed development will produce its own electricity on-site when it can out-perform the carbon intensity of centralised power plants supplying the national grid. Moreover, the Capacity Market's inability to attract new centralised plants, coupled with declining capacity factors, highlights the potential role of LEUs as part-time or occasional generators. The proposed CORE EC has been designed to deliver the full gambit of grid services to provide the potential for power generation from low or zero carbon sources and will be available to displace existing carbon heavy energy sources by the expected opening year 2028, pending planning permission. The gas engines running on natural gas can generate electricity more efficiently and with lower GHG emissions than all centralised peat, coal, oil and open cycle gas turbine (OCGT) national generators suppling the grid. The campus will deliver fully flexible demand response with distributed generation and storage that will facilitate demand flexibility and provide flexibility to support the system operation and local network congestion management. It will also provide voltage and frequency correction support.
Section 12.4.1.3, Pages 164 and	**Manage Electricity Demand Growth**	Managing Ireland's growing electricity demand effectively will necessitate greater demand flexibility, enhanced infrastructure,

165	• The overarching objective of managing electricity demand growth is to ensure, through a combination of energy efficiency and flexible electricity demand, that economic growth can be supported by low-carbon or no-carbon energy demand growth; • Ensure that 15-20% of the electricity system demand is flexible by 2025, increasing to 20-30% by 2030, to reduce the peak demand and shift the demand to times of high renewable output; • Deliver a demand side strategy that facilitates zero carbon demand, incentivises low carbon electricity consumption, and aligns with EU energy efficiency requirements, while facilitating electrification targets; • The demand side strategy should accelerate the rollout of local flexibility markets by the Distribution System Operator, as required to meet renewable electricity and carbon abatement targets, and contain measures to incentivise Large Energy Users to increase the flexibility in their electricity demand; • Publish a regulatory decision on dynamic green electricity tariffs; • Enable and encourage domestic customers, businesses, and communities to participate in demand flexibility services; • Enable and encourage customers to participate in wholesale and system services markets as a matter of urgency. Local balancing of flexible demand and renewable generation will contribute to an increase in renewable electricity usage and a reduction in carbon emissions.	and supportive policies. A crucial strategy will involve limiting peak demand during times when renewable resources are scarce, emphasising the importance of improved flexibility and demand management techniques. In the immediate and medium term, the expanding demand from LEUs, like DCs, will need to be carefully managed to safeguard the security of supply and align with established carbon budget initiatives. The proposed development supports the DC as a LEU to achieve carbon-free demand in Ireland so that electricity decarbonisation, demand efficiency and flexibility, and enterprise growth can go hand in hand. This will contribute to the CAP targets to achieve 20% to 30% Demand flexibility by 2030. The proposed EC will operate on a real-time basis and gas engines will have the ability to export power the grid to assist should there be an agreement with the System Operator to do so. It is set to optimise its storage and generation against the emissions of the grid in each hour, and not firstly on a commercial margin basis. The proposed development will export surplus lower carbon electricity onto the grid when possible. Therefore, there is a significant benefit of reduced GHG emissions associated with power on the grid achieved as a result of the flexible demand response and export of power from the proposed development. Therefore, the proposed development will act to actively support the electricity grid as opposed to other conventional large energy users whose operations tend to put a significant strain on the grid.

Industry		
Section 13.3.2.2, Page 184	**Construction -Reduction in Embodied Carbon in Construction Materials** Under the Climate Action Plan, the Sustainable Energy Authority of Ireland (SEAI) are to lead several actions that will improve transparency of the embodied carbon in buildings. These actions entail the development of a national database system comprising building (and other construction) materials, an official embodied carbon calculation methodology with associated software, and a resultant embodied carbon rating system for buildings. The Government is working towards the use of best-practice carbon management and reduction practices across our construction sector. In time that will include Lifecycle Global Warming Potential (GWP) assessments of public and private construction practices, ensuring carbon is minimised in the design of projects, the materials used, building practices, and ultimately throughout the lifetime of the building or infrastructure being built. Work is underway on the requisite methodology and ensuring data availability, aligned with the EU approach under the Energy Performance of Buildings Directive and the Construction Product Regulation. However, it will take time to develop the relevant product database, the appropriate oversight mechanisms, and the implementation skills required. Given the urgency of our decarbonisation targets, we need to start where we can make a big impact. The most carbon intensive elements of construction projects are generally concrete (and the cement it	While the CAP24 key targets for embodied carbon reduction have been set for the Industrial Sector as a whole and are not mandatory targets on a specific project basis, these reduction targets have been used as a guidance to set the upfront carbon emissions reduction target of 10% for the proposed development. As illustrated in Ch 12 of the EIAR (Table 12-12), the carbon reduction strategies for the proposed development will result in a 19% reduction in upfront carbon emissions from the business as usual scenario. This reduction is attributable to concrete specification, steel rebar fabrication, structural steel enhancements and recycled content of PV panels. It is noted that the use of recycled steel will be required to be sourced from outside of Ireland as it is not currently manufactured here. In addition the PV panels included in the proposed development will not be manufactured in Ireland. Therefore reductions of upfront carbon achieved due to the carbon reductions made in relation to steel and the PV panels will not contribute directly to the Carbon Budget targets set out for a reduction of embodied carbon from materials produced and used within Ireland. However, the proposed development will increase the demand for recycled steel and PV panels within Ireland therefore contributing positively to the CAP24 key targets for the reduction of embodied carbon associated with the Industrial Sector.

	contains) and steel. The key component of cement, which is produced in a carbon intensive process, is the clinker. In simple terms we need to reduce the carbon intensity of clinker and the amount of clinker in cement; and to reduce the amount of cement in concrete, and the amount of concrete in how we design and build. New regulations and standards have a potential role to play here. The following key targets have been set for the Industrial Sector in relation to embodied carbon in construction materials: By 2025: Decrease by 10% for materials produced and used in Ireland. By 2030: Decrease by 30% for materials produced and used in Ireland.	
Built Environment		
Section 14.4, Page 208	Implement the recommendations of the report of the District Heating Steering Group to supply up to 0.1 TWh of district heating infrastructure to decarbonise heating in commercial and public buildings, including a mandate for public sector bodies to connect to district heating, where possible	Another key decarbonisation feature of the proposed development is the possible reuse of waste heat as low/medium temperature hot water for future tenants. The proposed development includes for the construction of the base infrastructure to allow this. However, it cannot be utilised until there are future tenants which are industrial heat-users on the site and/or a local district heat system has been developed. It is considered that this will be a much more cost-effective method of decarbonising than switching to biomethane alone for the following reasons: A lower gas engine emissions profile will enable them to run for more hours of the year (even on natural gas) allowing them to displace more grid emissions, more often. DC waste heat is already fully decarbonised and therefore if use is made of this waste heat then it will have a substantial potential to offset the remaining GHG emissions from the operation of the proposed development. It is not possible to model these future scenarios envisaged without knowing the heat-use and characteristics of the thermal

		consumers. However, it is clear that these options would significantly decarbonise the operations of future thermal energy users.
Page 219-220	**District Heating** District heating offers significant potential to supply low- and zero-carbon heat to homes, businesses and public buildings from a central source. While the efficiencies of district heating in the heat sector are widely understood and accepted – there are tens of millions of district heating customers across Europe – it remains the case that there is currently one small scale district heating scheme operational in Ireland in Tallaght, with a number of smaller, communal schemes also operational. While the National Heat Study identifies that approximately 50% of the heat demand in Ireland can be met through district heating, such a proliferation will require significant resources to install a pipe trench network of approximately 1,000km along Irish roads to move the heat from central sources of heat to the buildings along the network that will utilise the heat. Significant financial resources will also be required to support such networks, at an estimated overall capital cost of €2.7 billion – €4 billion, with legislative and regulatory systems to underpin the sector to be developed. While the work of the District Heating Steering Group has played a significant role in beginning this process, with Government deciding on a number of actions in July 2023 to develop the sector, it is clear that a significant ramp-up in deployment of district heating	Please refer to the response for Section 14.4 above.

	networks will continue to be required to 2030 to bring Ireland in line with the targets for this technology. Among the recommendations of the report of the District Heating Steering Group, published in August 2023 are: • Drafting legislation to underpin the sector, and regulatory provisions to enable customer protections, and licensing and consenting provisions for district heating operators; • Mandating that public sector buildings connect to available district heating networks (where available, and where technically and economically feasible), and that industrial facilities supply waste heat to district heating where the total rated energy input is at least 1 MW; • Providing for a single technical standard that facilitates the growth and strategic interconnectivity of district heating systems and makes provision for State ownership of district heating infrastructure in the longer term; • A centrally-planned approach to development of the district heating sector with, in time, a single State entity or a utility overseeing the development and expansion of networks, providing the skillsets, expertise and knowledge required by project sponsors in the short term; • Predominantly market based district heating systems, with the provision of supports (such as domestic connections to a network) consistent with other decarbonised heat sources.	

	These actions are underway and projects such as the Dublin District Heating Scheme can now envisage, with the momentum at political and policy level, a route to delivery of heat to customers.	

THE MOST RECENT APPROVED NATIONAL LONG TERM CLIMATE ACTION STRATEGY (IRELAND'S LONG TERM STRATEGY ON GHG EMISSIONS REDUCTIONS 2024)

In relation to 15.1(b) of the Act, Ireland's Long-term Strategy on Greenhouse Gas Emissions Reductions 2024[2] is prepared under the Climate Action and Low Carbon Development (Amendment) Act 2021 and sets out Ireland's 2050 climate action targets and describes sector-specific pathways to reaching those targets. The Strategy provides a pathway to a whole-of-society transformation and serves as a vital link between shorter-term Climate Action Plans and Carbon Budgets and the longer-term objective of the European Climate Law and Ireland's National Climate Objective.

The Long-term Strategy covers, with a perspective of at least 30 years:

- total greenhouse gas emission reductions and enhancements of removals by sinks;
- emission reductions and enhancements of removals in individual sectors, including electricity, industry, transport, the heating and cooling and buildings sector (residential and tertiary), agriculture, waste and land use, land-use change and forestry (LULUCF);
- expected progress on transition to a low greenhouse gas emission economy, including greenhouse gas intensity, CO_2 intensity of gross domestic product, related estimates of long-term investment, and strategies for related research, development and innovation;
- the expected socio-economic effect of the decarbonisation measures, including aspects related to macro-economic and social development, health risks and benefits and environmental protection; and
- links to other national long-term objectives, planning and other policies and measures, and investment.

In relation to sectoral emission ceilings and the CAP24, the Long Term Strategy states:

'The management of electricity demand will be a central part of our approach to achieving emissions reductions. Similarly, unlocking the flexibility of large electricity demand users will be a key challenge as the electricity system is decarbonised. Energy demand, including data centres, will be expected to operate within sectoral emissions ceilings and further signals will be required to locate demand where existing or future electricity grid is available and close to renewable energy generation. Research and development in energy storage and flexibility (such as a science challenge to industry) will be required to put Ireland on a pathway to net zero-carbon data centres.'

In relation to the pathway to climate neutrality by sector, the Long Term Strategy states the following in relation to the Electricity Sector;

'Accelerating the deployment of wind and solar power is a central pillar of long-term decarbonisation of the electricity system which aligns with Ireland's EU commitment's and support for the RePowerEU Plan. Deployment of renewable electricity presents challenges, as production is variable, and electricity is not easily stored as energy in a liquid or gaseous form. Therefore, Ireland will focus on a variety of actions set out in the Climate Action Plan to increase the flexibility of Ireland's electricity system. Electricity will be a key enabler in decarbonising other sectors of our economy, primarily through the increased electrification of the transport and built environment sectors.

To reach Ireland's climate neutral target, the power sector will need to deliver its own reduction in emissions and support the decarbonisation of multiple other sectors and enduses. The electrification of transport, built environment, and certain industry uses is expected to double electricity demand by 2050, which makes it extremely challenging to continue to deliver increasing rates of renewable penetration..

. . .The pathway outlined above will require market mechanisms that support intermittent energy sources, as well as provision of capacity and effective market signals to produce a reliable demand-side response.'

In relation to the pathway to climate neutrality by sector, the Long Term Strategy states the following in relation to the Industry Sector;

Full decarbonisation of the industry sector poses significant challenges. There is no known way to deliver complete decarbonisation in some industry sub-sectors, such as cement. This means that the sector will need to reduce emissions as much as possible and use negative emissions to offset these remaining emissions. Delivering this pathway will require integrated action amongst industrial players, the power sector and Government. . .

Achieving a fully decarbonised industry sector will require; driving material efficiency in construction to reduce embodied energy in materials; employing heat pumps for low-temperature heat and zero emissions gas/ bioenergy for high-temperature heat; fully switching fuel used for cement (e.g., waste, bioenergy) and alumina; and utilising Carbon Capture and Storage (CCS) and innovative binders in cement.'

As set out above, the proposed development entails the removal of a GHG intensive industrial facility, and its replacement with a development that includes a range of infrastructure and energy proposals designed to avoid and mitigate GHG emissions. The delivery of the proposed development, even if it were fully powered by electricity from the national grid (i.e. in the absence of the various mitigation measures incorporated in the application) would represent a c. 70% (or 150,000 tCO_2) reduction in carbon emissions in 2030 compared to the 'do nothing' scenario identified within the EIAR of the existing facility resuming production. The mitigation proposed delivers significant further improvements in GHG intensity, resulting in a further significant reduction in GHG emissions compared to the do nothing scenario and the unmitigated impact of the proposed development.

The energy solution proposed on site involves the use of a connection to the national electricity grid during periods of a significant supply of renewable energy on the grid such that the grid carbon intensity meets the developments required threshold, alongside on-site gas engines generation that will have the ability to export power to the grid to assist should there be an agreement in place with the System Operator to do so (which will be targeted for operation on biomethane subject to availability), on site renewable generation, and large grid scale battery energy storage, to deliver digital services and infrastructure with minimum carbon intensity, and with a clear pathway to net-zero operations for the Data Centre proposed in the current phase of development, along with infrastructure for low carbon energy for other future employment uses within the landholding.

The combination of energy infrastructure proposed as part of the development will allow for carbon emissions to be reduced on site in real time, promoting the integration of higher levels of renewable energy, while providing flexible and resilient energy to employment uses on site.

The development itself directly contributes to additional renewable energy generation on site, while further mitigation is provided by way of a commitment that the operator of the proposed development will engage in PPAs for additional renewable energy.

The proposed development will prioritize the mitigation of real-time emissions by matching renewable energy production with the data centre's hourly consumption. Any remaining hours not covered by the renewable energy PPA will be mitigated using other technologies incorporated into the proposed development itself and grid consumption during periods of a significant supply of renewable energy.

THE MOST RECENT APPROVED NATIONAL ADAPTATION FRAMEWORK AND APPROVED SECTORAL ADAPTATION PLANS (NATIONAL ADAPTATION FRAMEWORK 2024)

In June 2024, the Department of the Environment, Climate and Communications published an update to the 2018 National Adaptation Framework (NAF)[3] developed under the Climate Action and Low Carbon Development Act 2015.

The 2024 NAF states the following in regards to the electricity and gas networks sectoral adaptation plan (SAP) scorecard that:

"The electricity regulator and the network companies are mainstreaming adaptation into investment planning and project development financial resources are needed to improve the resilience of vulnerable critical infrastructure. The next Price Review will secure the funding needed for this adaptation work." (Page 114, DECC, 2024)

Climate adaptation refers to action that helps reduce vulnerability to, and avail of potential benefits from expected impacts of climate change. In Ireland extreme weather events include flooding, drought, loss of biodiversity, sea level rise and increased temperatures.
The NAF sets out the national strategy to reduce the vulnerability of the country to the negative effects of climate change and to avail of positive impacts. It requires local authorities to integrate climate resilience into their policies, strategies, and plans. This includes ensuring that climate adaptation is a central consideration in decision making processes, resource allocation and regulatory frameworks. The NAF also requires the private sector, including businesses and industry to implement climate resilient practices within its operations, supply chains, and infrastructure.

At a more granular level, the NAF highlights the importance of EIARs for relevant development projects to provide clarity on whether climate resilience has been appropriately considered in the design and implementation of a development scheme.

A Climate Change Resilience Assessment (refer to Ch 12 of the EIAR) has been completed to assess the vulnerability of the proposed development to climate change and appropriate mitigation/controls have been included in the design where appropriate.

FURTHERANCE OF THE NATIONAL CLIMATE OBJECTIVE

The National Climate Objective is defined under section (3)(1) of the Climate Action and Low Carbon Development Act 2015 (as amended by the 2021 amendment Act). The National Climate Objective is as follows:

"The State shall, so as to reduce the extent of further global warming, pursue and achieve, by no later than the end of the year 2050, the transition to a climate resilient, biodiversity rich, environmentally sustainable and climate neutral economy."

As set out above, the proposed development will replace a GHG intensive industrial facility with a new development with significantly reduced GHG emissions (even in the absence of mitigation). The mitigation proposed, as set out within the Climate chapter of the EIAR, will further avoid and reduce GHG emissions, ensuring that the proposed development aligns with the furtherance of the national climate objective. The proposed development demonstrates a clear pathway to achieving net zero emissions by 2050, in line with the national climate objective.

The biodiversity chapter of the EIAR includes mitigation measures to ensure that significant adverse impacts on biodiversity are avoided, while the design of the development incorporates areas of additional tree planting and landscaping to enhance the overall green infrastructure

and habitat on site. A Natura Impact Statement has also been prepared, which sets out appropriate mitigation and concludes that the proposed development will not give rise to any impact on the integrity of European Sites, either alone or in combination with other plans and projects.

THE OBJECTIVE OF MITIGATING GREENHOUSE GAS EMISSIONS AND ADAPTING TO THE EFFECTS OF CLIMATE CHANGE IN THE STATE

The Climate chapter of the EIAR sets out in detail the mitigation measures which are proposed to mitigate the GHG impact of the proposed development. In addition, as set out above, a Climate Change Resilience Assessment (refer to Ch 12 of the EIAR) has been completed to assess the vulnerability of the proposed development to climate change and appropriate mitigation/controls have been included in the design where appropriate.

The proposed development itself comprises the removal of an existing industrial facility which, when operational, entails significant GHG emissions. The removal of this existing facility and construction of the proposed development represents a significant improvement compared to the 'do nothing' scenario of the existing facility resuming operation.

Furthermore, the design and energy strategy for the proposed development includes mitigation by design to avoid and reduce GHG emissions, including via the incorporation of on site renewable energy generation, energy storage, and flexible gas generation. Furthermore, the operator of the data centre building will engage in PPAs for renewable energy.

In relation to the use of CPPAs the IEMA 2022 guidance states the following:

"Purchased green electricity tariffs (also green gas) are increasingly being considered within net-zero approaches. In earlier versions of the Hierarchy these tariffs only appeared within COMPENSATE. This is still the case for market-based approaches that use certificates where additionality or quality thresholds are poor, or hard to substantiate. The hierarchy does now allow for higher quality energy tariff purchases within the SUBSTITUTE line, reflecting developing practice and some improved purchasing arrangements (e.g. higher quality procurement or quasi-investments via power purchase agreements)." (IEMA, 2022)

Attachment 13.1

Premier Periclase Ltd. Waste Management Procedure

Waste Management Procedure

1. Introduction & Scope

This SOP describes the methods and procedures in place at Premier Periclase to ensure that all wastes from the installation operations are correctly classified, handled and disposed of appropriately and in accordance with European and National legislation and the conditions of Industrial Emissions Licence (IEL) P0376-02.

It outlines the procedures for managing wastes that can be disposed of internally, in the on-site landfill and also at external waste disposal or recovery facilities. It also outlines the procedure for the characterisation, classification and coding of different waste materials.

Under the conditions of Premier Periclase Industrial Emissions Licence P0376-02, the company is required to manage disposal or recovery of waste in accordance with National & European legislation and protocols. This procedure describes how waste is managed in and by the facility.

Condition 8 of IEL P0376-02 outlines the waste handling procedures that must be implemented at the facility for safe treatment of wastes. These are summarised as follows:

1. Disposal or recovery of waste on-site shall only take place in accordance with the conditions of IEL P0376-02,

2. Waste sent off-site for recovery or disposal shall only be transported by an authorised waste contractor,

3. In advance of transfer of any waste to another person, it shall be classified, packed & labelled in accordance with all relevant standards & regulations that are in force,

4. Loading & unloading of waste material(s) shall be carried out in designated areas that are protected against spillage & leachate run-off,

5. Waste shall only be stored in designated areas that are protected against spillage and leachate run-off,

6. No waste classified as green list waste shall be consigned for recovery without the agreement of the Agency,

7. Waste for disposal or recovery off-site shall be analysed in accordance with Schedule C: Control & Monitoring, of this licence.

8. Mixing of hazardous materials of different waste categories together or mixing non-hazardous waste with hazardous waste is prohibited,

9. Importation or exportation of waste into or out of the State except in accordance with the relevant provisions of the relevant legislation is prohibited,

10. Waste acceptance procedures must be developed by the licensee, which must provide for the following:

    a. Checking of waste documentation,
    b. Visual inspection & testing of waste pending acceptance or rejection,
    c. Visual inspection of the waste when deposited in the landfill and
    d. Retention for 2 months of samples associated with the on-site verification sampling of the waste accepted at the facility.

11. The procedures referred to in the previous point, 8.11, must take into account the monitoring requirements set out in Schedule C: Control & Monitoring of this licence,

12. The basic characteristics of wastes accepted at the landfill must be reviewed at least biennially,

13. Only waste that has been subject to treatment shall be accepted for disposal in the landfill,

14. The Agency must be notified immediately if waste received at the landfill does not meet the waste acceptance criteria,

15. Deposit of waste & other materials in the landfill must be done in accordance with the current Landfill Operational Plan or other plans agreed by the Agency and

16. Dilution or mixing of waste solely to meet the relevant waste acceptance criteria as outlined under Condition 8 of IEL P0376-02 is prohibited.

This list is only a summary of the terms of IEL P0376-02 Condition 8. The licence document should be consulted for the full description and understanding of the individual terms of the condition.

Responsibility

The Environmental Manager is responsible for implementing the procedures and ensuring compliance with this SOP in conjunction with the Plant Manager and Managing Director who is the designated Licence holder.

2. Waste Acceptance Procedure for Waste Going to the On-Site Landfill

The operation and management of the on-site landfill is governed by the requirements and conditions specified in IEL P0376-02 and the Landfill Operational Plan document. The current version of this document is Landfill Operational Plan Rev. 7 2024.

Only specified production waste types are permitted to be deposited within the landfill area. The waste types permitted are listed in Schedule A: Limitations of IEL P0376-02 and are shown in the following table:

Table 1: Waste Types Permitted for Disposal at the Landfill

WASTE TYPE	EWC Code
Slaker Grits	101304
Lime Kiln Dust	101305
Spent Refractory material	101308
Seawater Clarifier Underflow	101399
Reactor Grits	101399
Reject Lime	101304
Shaft Kiln Fines	101305

Based on chemical composition as outlined in Section 3 of this document, disposal of materials from the process such as Deadburned Magnesia (DBM), Caustic Calcined Magnesia (CCM) and Magnesium Hydroxide slurries from the Wet-end are covered under this list.

Company employees or contractors, who are assigned by the Environmental Manager or the person deputising for him, who have responsibility of checking and subsequent approval or rejection of a waste load & the ultimate deposit of the waste into the landfill area, should be competent in or understand the following:

1. Have knowledge of the waste acceptance procedure including the reasons behind it,

2. The documentation requirements for each load of waste,

3. Be capable of identifying conforming and non-conforming waste loads,

4. The schedule of the waste types that are only permitted to be deposited in the landfill,

5. The procedures to be followed in the event of a waste load being rejected,

6. The safety requirements for handling, sampling and testing the waste if required,

7. Know the location of the current active cell within the landfill area,

8. Know when waste loads may not be deposited such as during dry and windy weather conditions when dust arising from deposition may cause uncontrolled fugitive dust emissions that may extend beyond the site boundary.

The following points detail the procedure to be followed for each waste load to be deposited in the active on-site landfill cell(s).

1. The waste material must be examined at source to ensure it complies with the permitted wastes that can be sent to the landfill and to ensure there are no visible contaminants present,

2. The employee (or contractor) responsible for transporting waste materials to and depositing them in the landfill area must inform the Environmental Manager (or person deputising for him) of all loads deposited - the source of each waste load, a description including the EWC Code reference and the volume or tonnage deposited.

3. On-site verification - the waste load must be visually inspected prior to disposal in the landfill to verify the description. If necessary, the waste load must be deposited in a specific waste inspection area for separate testing,

4. On approval, the waste load must be deposited in the active cell of the landfill area,

5. After depositing the waste load, the employee (or contractor) must conduct a visual inspection to ensure there are no contaminated materials contained within the waste load that weren't visible in the initial inspection and that the entirety of the waste load corresponds to the relevant EWC Code. This visual examination must be recorded in the written record for the load,

6. Rejected load - if a waste load is deemed unacceptable, it will be transferred to a designated quarantine area pending a decision regarding disposal. A nominated responsible staff member will decide what action should be taken to deal with the waste. Disposal alternatives are:

    a. return to the source, or

b. alternative disposal at a licensed landfill site subject to approval by the EPA.

7. An accurate record of all rejected loads must be maintained by the responsible person. The following information must be recorded:

a. a detailed description of the source and nature of the rejected waste load,
b. why and where the waste load was rejected,
c. what course of action was taken on the rejection of the load,
d. what tests were carried out on the waste load,
e. what on-site processing was carried out prior to acceptance (if applicable),
f. details of the alternative disposal site for the rejected waste load.

3. Waste Characterisation, Classification and Coding Procedure

Characterisation of Waste

All waste streams listed in Table 1 of this SOP must be assessed by an accredited laboratory every two years as per Condition 8.13 of IEL P0376-02. Representative samples of 1kg of each waste stream shall be taken for testing to determine the leaching behaviour and chemical composition. Samples shall be tested in accordance with Section 1.1 of the Annex to Council Decision 2003/33/EC which specifies the following parameters to be analysed.

Soil Summary			
Determinand	**Technique**	**LOD**	**Units**
Acid Neutralising Capacity (pH 7)	Titration	2.0	Mol/kg
BTEX (Sum)	Calc	0.0040	mg/kg
Loss on Ignition	Grav	0.1	%
Total Organic Carbon	OX/IR	0.1	%
TPH C10-C40 (sum)	Calc	1	mg/kg
PAH (Sum)	Calc	1.6	mg/kg
PCB EC7 (Sum)	Calc	0.00035	mg/kg
pH	Probe		

10:1 Leachate			
Determinand	**Technique**	**LOD**	**Units**
Antimony (Dissolved)	Calc / ICP/MS (Filtered)	0.010	mg/kg
Arsenic (Dissolved)	Calc / ICP/MS (Filtered)	0.0020	mg/kg
Barium (Dissolved)	Calc / ICP/MS (Filtered)	0.010	mg/kg
Cadmium (Dissolved)	Calc / ICP/MS (Filtered)	0.00020	mg/kg
Chromium (Dissolved)	Calc / ICP/MS (Filtered)	0.010	mg/kg
Copper (Dissolved)	Calc / ICP/MS (Filtered)	0.0050	mg/kg
Lead (Dissolved)	Calc / ICP/MS (Filtered)	0.0030	mg/kg
Mercury (Dissolved)	Calc / ICP/MS (Filtered)	0.00050	mg/kg
Molybdenum (Dissolved)	Calc / ICP/MS (Filtered)	0.010	mg/kg
Nickel (Dissolved)	Calc / ICP/MS (Filtered)	0.010	mg/kg
Selenium (Dissolved)	Calc / ICP/MS (Filtered)	0.0050	mg/kg
Zinc (Dissolved)	Calc / ICP/MS (Filtered)	0.020	mg/kg
Chloride	Calc / Discrete Analyser	10	mg/kg
Fluoride	Calc / Discrete Analyser	0.50	mg/kg
Sulphate	Calc / Discrete Analyser	5.0	mg/kg
Phenols(Mono)	Calc / Colorimetry	1.0	mg/kg
Dissolved Organic Carbon	Calc / OX/IR	10	mg/kg
Total Dissolved Solids	Calc	100	mg/kg

Soil Analysed as Soil

BTEX

SAL Reference	
Customer Sample Reference	
Test Sample	
Date Sampled	

Determinand	**Method**	**LOD**	**Units**	**Symbol**
Benzene	GC/MS (Headspace)	1	µg/kg	U
Toluene	GC/MS (Headspace)	1	µg/kg	U
EthylBenzene	GC/MS (Headspace)	1	µg/kg	U
Xylene (Total)	GC/MS (Headspace)	1	µg/kg	U

Soil Analysed as Soil

TPH

SAL Reference	
Customer Sample Reference	
Test Sample	
Date Sampled	

Determinand	**Method**	**LOD**	**Units**	**Symbol**
Total Petroleum Hydrocarbons	GC/FID	1	mg/kg	U
Total Petroleum Hydrocarbons (C35-C40)	GC/FID	1	mg/kg	N

Soil	Analysed as Soil		
PCB EC7			
			SAL
			Customer Sample
			Te
			Date
Determinand	**Method**	**LOD**	**Units**
Polychlorinated biphenyl BZ#28	GC/MS (HR)	0.05	µg/kg
Polychlorinated biphenyl BZ#52	GC/MS (HR)	0.05	µg/kg
Polychlorinated biphenyl BZ#101	GC/MS (HR)	0.05	µg/kg
Polychlorinated biphenyl BZ#118	GC/MS (HR)	0.05	µg/kg
Polychlorinated biphenyl BZ#153	GC/MS (HR)	0.05	µg/kg
Polychlorinated biphenyl BZ#138	GC/MS (HR)	0.05	µg/kg
Polychlorinated biphenyl BZ#180	GC/MS (HR)	0.05	µg/kg

Soil	Analysed as Soil		
PAH EPA 16, Coronene			
			SAL F
			Customer Sample F
			Tes
			Date
Determinand	**Method**	**LOD**	**Units**
Naphthalene	GC/MS	0.1	mg/kg
Acenaphthylene	GC/MS	0.1	mg/kg
Acenaphthene	GC/MS	0.1	mg/kg
Fluorene	GC/MS	0.1	mg/kg
Phenanthrene	GC/MS	0.1	mg/kg
Anthracene	GC/MS	0.1	mg/kg
Fluoranthene	GC/MS	0.1	mg/kg
Pyrene	GC/MS	0.1	mg/kg
Benzo(a)Anthracene	GC/MS	0.1	mg/kg
Chrysene	GC/MS	0.1	mg/kg
Benzo(b/k)Fluoranthene	GC/MS	0.1	mg/kg
Benzo(a)Pyrene	GC/MS	0.1	mg/kg
Indeno(123-cd)Pyrene	GC/MS	0.1	mg/kg
Dibenzo(ah)Anthracene	GC/MS	0.1	mg/kg
Benzo(ghi)Perylene	GC/MS	0.1	mg/kg
Coronene	GC/MS	0.1	mg/kg

Soil	Analysed as Soil		
Metals Suite			
			SAL
			Customer Sample
			Te
			Dat
Determinand	Method	LOD	Units
Antimony	ICP/OES	1	mg/kg
Arsenic	ICP/OES	1	mg/kg
Barium	ICP/OES	1	mg/kg
Cadmium	ICP/OES	1	mg/kg
Chromium	ICP/OES	1	mg/kg
Copper	ICP/OES	1	mg/kg
Lead	ICP/OES	1	mg/kg
Mercury	ICP/OES	1	mg/kg
Molybdenum	ICP/OES	1	mg/kg
Nickel	ICP/OES	1	mg/kg
Selenium	ICP/OES	3	mg/kg
Zinc	ICP/OES	1	mg/kg

Classification of Waste

The results of the testing as assessed against the criteria specified in Section 1.1 of Annex to Council Decision 2003/33/EC shall determine the classification of the waste streams as either:

- Inert
- Non-hazardous
- Hazardous

Coding of Waste

All waste materials are assigned a European Waste Catalogue Code (EWC Code) which identifies the nature of the waste material. EWC Codes must be reviewed every two years to ensure they are still applicable to the different waste streams.

4. Handling of On-Site Waste Materials

As per Condition 8.9 of IEL P0376-02, Premier Periclase shall neither import or export waste materials into or out of the State, in accordance with the relevant provisions of Regulation (EC) No. 1013/2006 of the European Parliament and of the Council of 14th June 2006 on shipments of waste and associated National regulations.

All wastes produced on the site must be disposed in the correct manner. Every waste contractor must have a Waste Collection Permit along a copy of the Waste Permit of the facility where the waste is being disposed or recycled. Details of waste permits, transfer stations and final disposal or recovery, as appropriate, are recorded on the Waste Register Excel spreadsheet for each year. This spreadsheet

is maintained by the Environmental Manager. There are additional requirements if the waste material has to cross into another country or if it is listed as hazardous.

Disposal or recovery of waste on-site shall only take place in accordance with the conditions of IEL P0376-02 and in accordance with the appropriate National and European legislation and protocols.

Table 2: Handling of Materials Sent to the On-Site Landfill

Waste Material	Collection Point or Storage Location	Processing or Handling	Method of Disposal	Comments
Slaker Grits	Slaker Area	-	On-site landfill only	-
Spent Refractory Material	-	-	On-site landfill (Recycle if possible)	-
Reactor Grits	Wet-end	Trailer	On-site landfill only	-
Seawater Clarifier Underflow (SCU)	Wet-end	-	On-site landfill	Surplus SCU, not used in ECOMAG production
Lime Kiln Dust (Clayfix)	Lime Kiln Dust Silos	Dust Truck	On-site landfill or sale (as Clayfix)	Leaks & spillages must be reported
Reject Lime	Reject Lime Silos	Trailer	On-site landfill (Recycle if possible)	-
Shaft Kiln Fines	Shaft Kiln, storage bay at Lime Kiln	Collected in metal skips	On-site landfill (sale if possible)	-
Simatek Fines	Settlement Pond	Simatek Slurry system	On-site landfill	-

Off-loading Waste Materials in the Landfill

Before discharging any material(s) in the landfill the wind direction should be checked by the employee (or contractor) responsible. The wind direction should be noted. If the wind is blowing in the direction of the Drogheda Port Tom Roe's Point facility then the Environmental Manager (or the person deputising for him) must be informed. A decision will then be made as to whether the load can be deposited at that time or held for disposal at another time.

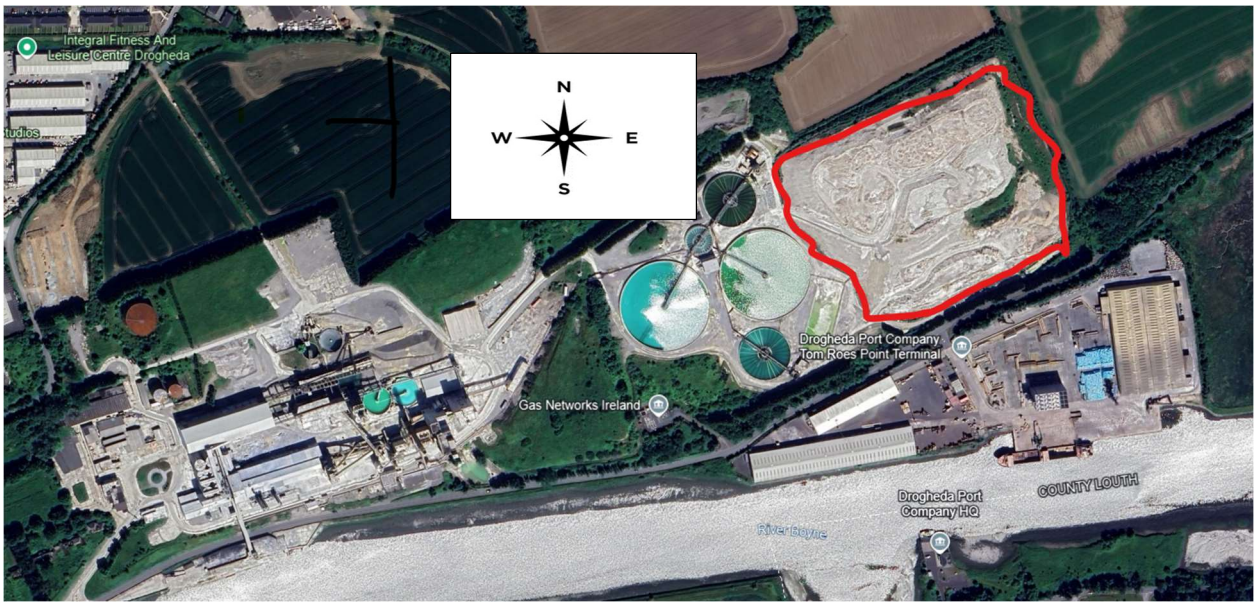
The inspection must be completed before the first load is put on the landfill or where a notable change in wind strength or direction has occurred during the day or a complaint has been received.

Informing the Works Supervisor

If there is a change in wind strength or direction during the day, the Environmental Manager (or person deputising for him) must be informed. This will allow an informed decision whether to continue or suspend disposal to be made, given the reported conditions. If the wind is blowing towards the Drogheda Port Tom Roes Point facility then this should be highlighted to the person in charge.

Determining Wind Direction

The following screenshot shows the Premier Periclase site including the landfill area (highlighted in red), which lies north of the Drogheda Port Tom Roe's Point facility. If the windsock in the landfill is blowing towards Tom Roe's Point, (direction south) then the wind is coming from a northerly direction and this is what is noted and reported to the Environmental Manager (or person deputising for him).



Landfill Monitoring

Unless otherwise agreed by the Agency, Premier Periclase shall conduct a stability assessment of the side slopes of the facility on an annual basis. The results of this assessment shall be reported as part of the Annual Environmental Report (AER).

A topographical survey shall also be done annually or at an alternative frequency agreed by the Agency. The survey shall be in accordance with any written instructions issued by the Agency and shall include a measurement of the remaining available void space.

Landfill Annual Reporting

Premier Periclase will prepare and report a Pollutant Release & Transfer Register (PRTR) for the site on an annual basis. The substances and / or wastes to be included in the PRTR shall be as agreed by the Agency each year by reference to EC Regulations No. 166/2006 concerning the establishment of the European Pollutant Release and Transfer Register. The PRTR shall be prepared in accordance with relevant guidelines issued by the Agency and shall be submitted electronically in the specified format and as part of the AER by 31st March of the following year.

5. Treatment of Off-Site Waste Materials

As per Condition 8.2 of IEL P0376-02, Premier Periclase must ensure that any waste(s) sent off-site for recovery or disposal is transported only by an authorised, licenced waste contractor. The waste material(s) shall be transported from the site to the recovery or disposal site in a manner that will not adversely affect the environment and in accordance with appropriate National and European legislation and protocols.

As per Condition 8.3 of IEL P0376-02, Premier Periclase must ensure that, in advance of transfer to another person or facility, the waste(s) is classified, packaged and labelled in accordance with National, European and any other standards which are in force in relation to such labelling.

The waste(s) shall be clearly labelled and appropriately segregated. As per Condition 8.6 of IEL P0376-02, no waste(s) classified as green list waste in accordance with the EU Shipment of Waste Regulations (Council Regulation EEC No. 1013/2006, as may be amended) shall be consigned for recovery without the agreement of the Agency.

As per Condition 8.7 of IEL P0376-02, waste(s) for disposal or recovery off-site shall be analysed in accordance with ***Schedule C: Control & Monitoring,*** of the facility Industrial Emissions Licence.

The following table outlines the different waste streams in the plant and where each waste material is stored prior to collection. The table is based on the annual waste register Excel spreadsheet which is maintained by the Environmental Manager and used to log waste information for the annual environmental performance report (EPR), which is submitted to the EPA by 31st March of the following year.

The waste register Excel spreadsheet is reviewed and updated annually or as necessary by the Environmental Manager. This ensures that the register remains relevant at all times and that it captures and logs all waste streams generated at the facility.

Table 3: Disposal or Recovery Locations for Waste Streams

Waste	On-Site Storage or Collection Point	Handling or Processing	Outlet or Use & Authorised Waste Contractors	Notes
Lime Kiln Dust (Clayfix)	Lime Dust Silos	Discharge into tanker	Reuse as by-product or send to on-site landfill	Any leaks or spillages on-site must be reported
Pallets and Timber (packaging & non-packaging)	Waste Compound	Separate into timber used for packaging & non-packaging	Reuse or recycle – use licenced contractors only	Timber, incl. pallets must be brought to storage location after unpacking
Degreasing Agent (containing hazardous substances)	Mechanical Workshop	Pumped to barrel provided by the supply company	Safety Kleen	C1 form returned to Environmental Mgr.
Metal Drums & other Ferrous metals	Collect drums at Limestone Intake area. Other metals to the skip in the Waste Compound	Any residues in the drums should be removed (see oils) before crushing.	Oxigen or another licenced contractor	Waste drums should not be left lying around the site or disposed of in the on-site landfill.
Waste Hydraulic Oils. Insulating & Heat Transmission Oils. Liquid Fuels. Engine Oils & Solids with Hydrocarbons	Oil storage area (adjacent to mechanical workshop)	All waste oils must be stored in the oil storage area pending collection	Enva or another licenced contractor	Waste oils must not be left around the site or sent to the on-site landfill
Bulk Bags	Collect in bins located beside the bagging stations	-	Oxigen or another licenced contractor	Cannot be sent to the on-site landfill
Florescent Tubes	Special container located - electrical workshop	-	Irish Lamp Company (recycled) or another licenced contractor	-
Batteries	Storage container at mechanical workshop	All batteries must be recycled	Collected by a licenced contractor	Batteries cannot be disposed in the landfill.

Waste	On-site Storage or Collection Point	Handling or Processing	Outlet or Use & Authorised Waste Contractors	Notes
Shaft Kiln Fines	Designated storage bay at Lime Kiln	Store prior to sale	Sale or disposal in the on-site landfill	Prevent contamination – product can be sold
Mercury Waste	Laboratory & Oil Store	Store in sealed containers	Licensed contractor	-
Electrical Waste	WEEE skip (at electrical workshop)	-	Recycle - Irish Metal Refineries	Electrical items must not be disposed of in the landfill
Canteen / Office Waste (general)	Large black bins located around the site	Collection as required	Off-site disposal by Oxigen or another licenced contractor	-
Canteen / Office Waste (recycle)	Large green bins located around the site	Collection as required	Recycle - Oxigen or another licenced contractor	Includes paper & cardboard
Glass	Glass bin located at CCRO building	Collection as required	Recycle – Oxigen (sub-contractor)	-
Construction & Demolition Waste (concrete, bricks, tile & ceramics)	Waste compound	-	Collected by licenced contractor	This material cannot go to the landfill
Construction & Demolition Waste (other – mixed)	Waste compound	-	Collected by licenced contractor	This material cannot be disposed of in the landfill
Plastic and Rubber	Waste compound	-	Recycle - collected by a licenced contractor	These materials cannot go on the on-site landfill
Asbestos (insulation)	Waste Compound (area sectioned off)	-	Must be removed & stored by a licenced specialist contractor	This material cannot go to the landfill
Asbestos (construction)	Waste Compound (area sectioned off)	-	Must be removed & stored by a licenced specialist contractor	This material cannot go to the landfill

The specific contractors named in Table 3 may only be used for the specific waste materials. All waste contractors used by the company must have a waste permit for the specific waste and also have a copy of the permit for the disposal, recycle or recovery location where the specific waste is taken. Records of waste permits are kept by the Environmental Manager. Contractors other than those listed in Table 3 may be used so long as they have the relevant waste permits & licences in place and are on file. If an alternative contractor is used, the Environmental Manager must be informed in advance.

6. Waste Handling, Storage and Removal

Workshop Waste Materials

Workshop waste may consist of materials from several diverse sources. The different streams must be separated out into individual streams - metal is to be recycled, waste oil taken by the licenced contractor and other wastes sent to appropriate skips or bins for off-site disposal. If there are other wastes or large quantities of the wastes described in Table 3 then other arrangements can be made for their disposal or recovery. Small amounts of workshop sweepings can be disposed in the regular waste bins provided by Oxigen that are collected as required. Collection is arranged by the Environmental Manager or the person deputising for him.

Packaging materials such as timber should be separated and stored along with pallets for disposal or reuse where applicable. Small quantities of paper or cardboard can be put in the green recycling bins provided by Oxigen. Collection of the green recycling bins is arranged by the Environmental Manager or the person deputising for him.

Waste Transport & Administration Arrangements

The small bins located at or in the different buildings around the site are only to be used for office, canteen waste and appropriate workshop waste. These bins are collected regularly by a licenced waste disposal agent.

Waste dust streams generated by the process must be transported to the on-site landfill and discharged according to the current Landfill Operational Plan. The required inspections as outlined in in Section 4 Handling of On-Site Waste Materials of this document must be completed in advance of disposing of any material in the landfill.

Copies of all dockets or invoices relating to materials disposed of in the landfill or sent for disposal or recovery to external locations are kept on file by the Environmental Manager.

All other wastes must be recorded and disposal or recycle reported to the Environmental Manager.

Waste / Used Barrels

Barrels from process materials or other substances used in the site must be crushed and stored for recycling. When the process additives stored in the barrels are required, the materials should be brought to the usage or addition point(s). After this, empty barrels should then be brought to the crushing area, where they can be crushed for subsequent removal off-site. Empty barrels must not be allowed to build up around the site. Oil barrels that are out on the site must be stored in a bunded area. Bunds are located in the following areas:

- Main Oil Store
- Lime Kiln at the Lime Kiln drive
- Compressor house
- Brick store
- At the Effluent Clarifier tank
- North side of the Reactor Tank.
- 7th floor of MHF building
- 1st floor of MHF Building

Oil cannot be stored in any other area unless it is bunded in accordance with the conditions as laid out in Condition 3.14 of IEL P0376-02. All waste oil must be stored in the bunded waste oil tanks which are located at:

- Mechanical workshop
- Oil store, adjacent to the mechanical workshop
- Wet-end, (beside the Effluent Clarifier tank) and
- Lime Kiln (at the main drive)

When the waste oil tanks are full, the Environmental Manager (or person deputising for him) must be notified so that arrangements can be made to have the tank(s) emptied and the waste oils safely removed from the site. This can only be done by a licenced contractor. Empty oil barrels must be sealed (i.e. lid replaced) and then taken to the barrel crusher in the waste compound to be crushed. After crushing, the barrel can be placed in the steel recycling bin or skip in the waste compound.

The person using or disposing of the oil is responsible for proper handling and disposal of the oil in dedicated and clearly marked bunded areas or containers.

Attachment 13.2

Phoenix Environmental Safety Ltd. Asbestos Survey Report (2023)

Phoenix Environmental Safety Ltd.

ASBESTOS SURVEY REPORT

(Refurbishment / Demolition Survey)

Client: Premier Periclase Limited,
Boyne Road, Drogheda, Co. Louth

Location: Premier Periclase Site,
Boyne Road, Drogheda, Co. Louth

Date: 7th September 2023

Report No. PE23-919

Graigueswood, Freshford, Co. Kilkenny
Tel: 056 8832414
Fax: 056 8832950
admin@phoenixenv.ie
www.phoenixenv.ie

Client Name: Premier Periclase Limited, Boyne Road, Drogheda, Co. Louth

Property: Premier Periclase Site, Boyne Road, Drogheda, Co. Louth

Asbestos Survey Type: Refurbishment/Demolition Asbestos Survey

Survey Company: Phoenix Environmental Safety Ltd.

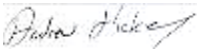
Surveyors: Andrew Hickey & John Hickey

Testing Laboratory: G & L Consultancy Ltd.

Date of Survey: 22nd – 24th & 31st August 2023

Date of Survey Report: 7th September 2023

Report issue: Final

Signed:  Date: 7th September 2023

This report cannot be used for contractual or engineering purposes unless this sheet is signed where indicated by Surveyor. The report must also be designated `final` on the signatory sheet.

Please note that Phoenix Environmental Safety Ltd. cannot be held responsible for the way in which the Client interprets or acts upon the results. The report must be read in its entirety including any appendices. Phoenix Environmental Safety Ltd. accepts no responsibility for sub-division of this report. All measurements in this report are approximate and therefore should not be used by the asbestos removal contractor for pricing purposes. The asbestos removal contractors should ascertain for themselves, by site measurements and inspection, the exact nature and extent of the work to be done.

The survey information should be used to help in the tendering process for removal of ACMs from the building before work starts. The survey report should be supplied by the client to designers and contractors who may be bidding for the work, so that the asbestos risks can be addressed. In this type of survey, where the asbestos is identified so that it can be removed (rather than to manage it), the survey does not normally assess the condition of the asbestos, other than to indicate areas of damage or where additional asbestos debris may be present. However, where the asbestos removal may not take place for some time, the ACMs' condition will need to be assessed and the materials managed.

TABLE OF CONTENTS PAGE

SUMMARY

Following a request made by Premier Periclase Limited, we have produced this Refurbishment/Demolition Asbestos Survey report of the Premier Periclase Site, Boyne Road, Drogheda, Co. Louth with the aim of finding asbestos containing materials (ACMs) within the scope of the asbestos survey.

The scope of the asbestos survey was confined to all accessible areas of the Premier Periclase Site in Drogheda which is due for demolition.

During the asbestos survey of Premier Periclase Site, the information in the site location map was used as a numbering system for the surveyors and for the asbestos survey report. The numbering system was used to give greater clarity to the areas where the asbestos containing materials were identified. Overall photographs are also used in Appendix C to show the areas.

SUMMARY CONTINUED

During the asbestos survey of the Premier Periclase Site, the following asbestos containing materials were detected in the following areas:

Area 1

- Asbestos insulation board (AIB) ceiling tiles were identified on the ceilings in various areas throughout the building (425 m^2 approx.). AIB ceiling tile residues remain in areas where removal works were previously carried out
- AIB infill was identified between the stud partition walls on the 1st floor of the building (4 wall areas - 70 m^2 approx.)
- Asbestos containing thermal insulation was identified over ceilings on the ground floor (the quantity of this is unknown and will only be known when ceilings are completely removed)
- Asbestos cement board was identified between the wall & ceiling on the first floor (25 linear meters approx.)
- Bitumen adhesive was identified on the floors in the rear extension area on the ground floor (80 m^2 approx.)
- Asbestos containing step nosing was identified on the rear stairwell (1 per step.)
- Asbestos paper was identified on pipework in the small plant room in the female WC on the ground floor
- Asbestos cement water tanks were presumed in the roof top tank room (2 tanks)
- Asbestos cement slates were identified over the front porch (3 m^2 approx.)
- A strip of asbestos containing floor tiles were identified outside an office on the 1st floor (3 tiles in total)

Area 2

- Asbestos cement sheeting was identified on the pitched roofs (1,400 m^2 floor area approx.). asbestos cement sheeting was also identified on the gables of the rear store
- Asbestos cement board was identified under the roof in the centre store area (330 m^2 floor area approx.)
- Asbestos cement gutters were identified between the centre & rear store (27 linear meters approx.)
- CAF Gaskets were identified in the boiler room.

Area 3

- AIB ceiling tiles were identified on the 1st & ground floor office/welfare area (235m^2 approx.)
- Asbestos containing floor tiles and/or bitumen adhesive was identified on the 1st & ground floor office/welfare area (200m^2 approx.)
- Asbestos containing floor tiles & bitumen adhesive were identified in the nurse's medical area (160 m^2 approx.)
- CAF & textile gaskets were identified stored on the shelving in the main store area.
- Asbestos cement downpipes were identified outside the main stores area (11 x 5 linear meters approx.)
- An asbestos cement water tank was presumed over the stairs in the office area

SUMMARY CONTINUED

Area 4

- Asbestos containing bitumen adhesive was identified on the floor throughout the building (280 m^2 approx.)
- Asbestos cement downpipes were identified around the building (5 x 4 linear meters approx.)

Area 5A

- Asbestos cement side sheeting was identified on the gables & side of the building (300 m^2 approx.)

Area 7

- Asbestos cement sheeting was identified on the pitched roofs (950 m^2 floor area approx.) & on the side of the building in areas
- Asbestos rope seals were identified on the old HFO equipment at high level internally.

Area 9

- Asbestos cement board was identified on the ceilings in the office area (260m^2 approx.)
- Asbestos containing floor tiles and bitumen adhesive was identified in the corridor area of the office area (90m^2 approx.)
- Asbestos cement sheeting was identified on the roof of the front store (35 m^2 floor area approx.)
- Asbestos cement sheeting was identified on the sides of the rear stairwell area (50 m^2 approx.)
- Galbestos cladding was identified on the rear of building nines external stairwell
- (400 m^2 approx.)
- Asbestos containing thermal insulation was identified on the three large kilns in the rear of area 9 (100 m^3 per kiln, 300 m^3 total). The associated pipework from the kilns were also found to contain asbestos thermal insulation.

Area 10

- Asbestos cement sheeting was identified on the north side of the building between the two entrance doors (60m^2 approx.)
- Asbestos rope seals were identified on the Kiln/Chimney equipment.

Area 14

- Asbestos cement sheeting was identified on the roof and sides of the building (250m^2 approx.)

Area 16

- Asbestos cement sheeting was identified on the roof of the driver waiting building (65m^2 floor area approx.)
- CAF gaskets were identified between pipework flanges in the yard.

SUMMARY CONTINUED

Area 17 (Silo Penthouses)

- Asbestos cement sheeting was identified on 3 pitched roofs of the penthouses (190 m^2 floor area approx.). Asbestos cement side sheeting was also identified around the penthouses (500 m^2 approx.)

Area 18

- Asbestos cement sheeting was identified on the side & end gable of the building (4,500m^2 approx.). Sections of the cement sheeting were replaced on the rear of the building
- Asbestos containing thermal insulation was identified on the HFO line in the built in silo area. The pipework runs to area 63 within the export gantry (90 linear meters approx.)

Area 20

- CAF Gaskets were identified on the generator pipework.

Area 29

- Asbestos cement sheeting was identified on the walls of the penthouse at the top of the silo (50 m^2 approx.)
- Asbestos cement board was identified around the top of the stairs at the top of the silo (5 m^2 approx.)
- CAF Gaskets were identified between pipework flanges.

Area 32-36

- Asbestos cement sheeting was identified on the sides of area 32-35 (4,000m^2 approx.)
- CAF Gaskets were identified on the pipework & vessels throughout.

Area 38

- CAF Gaskets were identified between pipework flanges throughout the building

Area 40

- Asbestos cement sheeting was identified on the roof. (200 m^2 approx.)

Area 43

- Asbestos cement sheeting was identified on the roof and side of the building (330 m^2 approx.)

Area 44

- Asbestos cement sheeting was identified on the roof & side of the building (310 m^2 approx.)

SUMMARY CONTINUED

Area 45

- Asbestos cement sheeting was identified on the roof of the building (90 m^2 approx.)

Area 47-49

- Asbestos cement sheeting was identified on the roofs of the two buildings (50 m^2 floor area approx.)

Area 53

- Asbestos cement slates were identified along the roof barges of the canteen building (15 linear meters approx.)

Area 63

- CAF gaskets were identified between pipework flanges and stored throughout the building
- Asbestos rope seals were identified on the boilers inside the building

Area 64

- Asbestos cement sheeting was identified on the roof and sides of the building (150 m^2 floor area approx.)

Area 69

- CAF gaskets were identified on the lids of the oil tanks

Area 70

- Asbestos cement board was identified on the walls of the lab area (70m^2 approx.)
- Asbestos containing floor tiles & adhesive were identified in the welfare area (15 m^2 approx.)

See appendix C for more details

Please note: CAF gaskets are not outlined in the drawings in Appendix C. CAF gaskets should be presumed throughout the site in each building. All gaskets on site which are not easily identified as non-asbestos gaskets e.g., Graphite/Rubber gaskets should be treated as asbestos containing gaskets

INTRODUCTION

Background

Asbestos has been used extensively in the building industry for over one hundred years and has proved to be an excellent product for a variety of uses, having many qualities such as insulation, fire and chemical resistance to name a few. Its suitability across a wide range of uses and its relatively cheap cost made it very popular, with over 3,000 different asbestos products having been recorded.

The use of asbestos containing materials (ACM's) was most prevalent between the 1950's and 1970's when it provided an economic, easy to use and versatile material. Unfortunately, given the constitution and make up of asbestos it can give rise to microscopic airborne fibres being released into the working environment. The fibres have carcinogenic properties caused by inhalation of the fibres which can get lodged in the lining of the lungs causing disease and death.

Scope & Purpose

Premier Periclase Ltd. has commissioned Phoenix Environmental Safety Ltd. to undertake an asbestos survey of the Premier Periclase Site, Boyne Road, Drogheda, Co. Louth. The aim of the survey was to locate and identify the presence of asbestos containing materials (ACM's) or suspected ACM's. This report provides a record and assessment of the extent and characteristics of ACM's and is based on information made available on the 22nd – 24th & 31st August 2023.

This particular survey comprised of a Refurbishment / Demolition Survey, carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006, the Health and Safety Executive's (UK) guidance document HSG 264 (Asbestos: The Survey Guide) and HSG 227 (A Comprehensive Guide to managing Asbestos in Premises).

This means that:

- As far as reasonably practicable, locate and describe all ACM's in all reasonably accessible areas within the scope of the survey
- A sampling programme is undertaken to identify possible ACM's and estimates of the volumes and the surface areas of ACM made
- A record of the condition of the ACM's or where additional asbestos debris may be expected to be present is produced

Refurbishment / Demolition Surveys (formerly type 3 surveys)

This type of survey is necessary prior to any refurbishment (including "minor") or demolition work being carried out. These "refurbishment / demolition" surveys will be much more intrusive and destructive compared with management surveys as their intention is to locate all the ACMs so that they can be removed before the refurbishment or demolition takes place. Refurbishment/demolition surveys are required as necessary when the needs or use of the building changes and the fabric of the building will be disturbed or complex fixed plant and equipment are to be dismantled.

The purpose of the report is to:

- Enable the client to take appropriate precautions so that people who work at the Premier Periclase Site during the forthcoming demolition works are not exposed to asbestos-related health risks
- Provide information to assist the client in developing and implementing an action plan before any refurbishment works or demolition is carried out

Presentation of Findings

Data Sheets

A series of data sheets have been prepared to provide assessments and recommendations for each of the locations where samples were taken. These data sheets are presented in Appendix C.

Figures

The schematic diagrams presented in Appendix F at the rear of this document shows the locations of all of the asbestos containing materials detected during the asbestos survey.

Caveats

All reasonable steps have been taken to ensure that the contents and findings of this report are true and accurate. Though as stated below, further undetected ACM's may still be present within the premises. The client should therefore be aware of his responsibilities for identifying, locating, removing and/or managing all ACM's within the premises, and for notifying the appropriate authorities where necessary.

Refurbishment / Demolition Surveys

This type of survey employs the use of destructive sampling techniques of an unfamiliar site. Although every effort is made to locate all asbestos containing materials, it is impossible to rule out the possibility that undiscovered asbestos materials may be present. If the building is to undergo major refurbishment or demolition, it is recommended that the persons carrying out the work are made aware of this and take sufficient precautions, as may be appropriate, to ensure the health and safety of their own employees and any other parties who may be affected by the works.

APPENDIX A

ASBESTOS MATERIALS IN BUILDINGS

Sprayed coatings applied in Ireland were typically a mixture of hydrated asbestos cement containing up to 85% asbestos, mainly amosite but crocidolite and mixtures have been used. Primarily used for anti-condensation and acoustic control and fire protection to structural steelwork. It is a friable material but if in a good condition and unlikely to be disturbed presents no immediate danger; however it is likely to release fibres, if disturbed especially during repair and maintenance work. As it ages the binding medium of sprayed asbestos may degrade with the consequent release of more fibres.

Thermal insulation to boilers, vessels, pipe work, valves, pumps etc also known as hand applied lagging. Lagging may have a protective covering of cloth, tape, paper, metal or a surface coating of cement. All types of asbestos may be found in lagging and the content can vary between 15 and 85% asbestos with the protective papers being up to 100% chrysotile. The likelihood of fibre release depends upon its composition, friability and state of repair, but it is particularly susceptible to damage and disturbance through maintenance work or the action of water leaks.

Asbestos insulating boards usually contain between 15 to 40% amosite, although boards may be found to contain other types of asbestos and in other quantities. Insulating boards were developed in the 1950s to provide an economical, lightweight, fire resisting insulating material. As insulation board is semi-compressed it is more likely to release fibres as a result of damage or abrasion. Work on asbestos insulation board can give rise to high levels of asbestos fibre.

Asbestos cement products as in roofing slates, wall cladding, permanent shuttering, flue, rain water and vent pipes generally contain 10 to 15% of asbestos fibre bounded in Portland cement, some flexible boards contain a small proportion of cellulose. All three types of asbestos have been used in the manufacture of asbestos cement. The asbestos fibres in asbestos cement are usually firmly bound in the cement matrix and will be released only if the material is mechanically damaged or as it deteriorates with age.

Ropes and yarns are usually high in asbestos content, approaching 100% and all three types of asbestos have been used in their manufacture. They were used as in the pipe lagging process and in pipe jointing and also for packing materials as in heat/fire resistant boiler, oven and flue sealing or anywhere thermal of fire protection was required. The risk of fibre release depends upon the structure of the material; bonded gasket material is unlikely to release asbestos but an unbonded woven material may give rise to high fibre release especially if when damaged or frayed.

Cloth thermal insulation and lagging, including fire resistant blankets, mattresses and protective curtains, gloves, aprons, overalls etc. All types of asbestos have been used in the manufacture but since the mid 60's the majority has been chrysotile, the content of which can be up to 100 %.

Millboard, paper and CAF gaskets usually have an asbestos content approaching 100% with all three types of asbestos being used in their manufacture. They were used for insulation of electrical equipment and for thermal insulation. Asbestos paper has been used as a laminate for fireproofing to various fibre panels. These materials are on some occasions not well bonded and will release asbestos fibres if subject to abrasion and wear.

Bitumen felts and coatings may contain asbestos either bound in the bitumen matrix or as an asbestos paper liner. These materials are not likely to present a hazard during normal installation or use, but should be removed and disposed of in compliance with any regulation applicable.

Thermoplastic floor tiles can contain up to 25% asbestos usually chrysotile, PVC vinyl floor tiles and unbacked PVC flooring normally 7-10% chrysotile and asbestos paper backed PVC flooring the paper backing may contain up to 100% chrysotile. Fibre release is not normally an issue but may occur when the material is cut or subjected to abrasion.

Textured coatings. Decorative coatings on walls and ceilings usually contain 3-5% chrysotile. Fibre release may occur when subjected to abrasion.

Mastics, sealants, putties and floor tile adhesives may contain small amounts of asbestos. The only possible risk is from sanding of hardened material when appropriate precautions should be taken.

Reinforced plastic and resin composites, used for toilet cisterns, seats, banisters, stair nosings, window seals, lab bench tops, brake shoes and clutches in machines. The plastics usually contain 1-10% chrysotile and were used in for example car batteries to improve the acid resistance. Resins may contain between 20 and 50% amosite, but because of its composition fibre release is likely to be low.

ASBESTOS FIBRE TYPE COMMON NAMES	
Chrysotile	**White Asbestos**
Amosite	**Brown Asbestos**
Crocidolite	**Blue Asbestos**
Fibrous Actinolite	**N/A**
Fibrous Anthophyllite	**N/A**
Fibrous Tremolite	**N/A**

APPENDIX B

RESULTS OF LABORATORY ANALYSIS

G&L Consultancy
Training & Asbestos Management

BULK MATERIAL SAMPLE REPORT

Reference No:	J678751	Client Order No:	N/A
Date Received:	30 Aug 2023		
Client Name and Address:	Phoenix Environmental Safety Ltd (IE), Graigueswood, Freshford, Co. Kilkenny, Ireland		
Site Address:	Premier Periclase, Drogheda, Co. Louth		
Sampling Officer:	Phoenix Environmental Safety Ltd (IE)		
Date of Analysis:	30 Aug 2023		
Analyst:	Andy Webster David McNaugher Jamie Fearon Justin Proctor		
Approving Officer:	Emily Richardson	Signed:	
Issue Date:	30 Aug 2023		

ANALYSIS RESULTS

Sampling carried out by our own officers follows the procedures documented in our internal method M3: The Sampling of Bulk Materials, for Analysis to Determine the Presence of Asbestos. These samples have been analysed in accordance with internal method M2: The Identification of Asbestos, within Bulk Materials, by the Use of Optical Microscopy. Both these internal methods are based on the standard method as outlined in the HSE Document 'Asbestos: The analysts' guide for sampling, analysis and clearance procedures. Any deviations from these standard methods will be recorded in this report. No responsibility is taken for sampling that is not carried out by own officers. Opinions and interpretations expressed herein are outside the scope of our UKAS accreditation. Any comments regarding percentage content is outside the scope of our UKAS accreditation. The material classification is the opinion of the analyst, based on the samples' appearance, as received, and may not accurately reflect the source material on site. Where 'Trace Asbestos' has been reported, only 1 or 2 fibres or fibre bundles have been identified and analysed as asbestos following a thorough examination of the sample. All samples are analysed at one of our UKAS accredited laboratories in Somerset or Northern Ireland. This report must not be reproduced, except in full, without the written permission of the laboratory. These samples will be retained within this laboratory for a period of six months prior to disposal at a licensed asbestos disposal site, unless the client makes alternative arrangements. Reports will be retained for a minimum of five years following the date of issue. For advice concerning these materials, risk assessments, removal procedures or information regarding the current legislation for work with asbestos containing materials, please contact G&L Consultancy Ltd.

Site Ref	Lab Ref	Description	Analysis Result	Classification
S1	BS204180	Area 2 - roof with north light windows - cement sheeting	Chrysotile	Asbestos Cement
S2	BS204181	Area 2 - roof over open stores - cement sheeting	Amosite + Chrysotile + Crocidolite	Asbestos Cement
S3	BS204182	Area 2 - area between roofs - cement gutter	Amosite + Chrysotile + Crocidolite	Asbestos Cement
S4	BS204183	Area 2 - roof with north light windows - underside - cement board	Chrysotile	Asbestos Cement

G&L Consultancy Ltd
54A Huntly Road, Banbridge, Co. Down, Northern Ireland, BT32 3UA
Tel: 028 4062 3566 **Email:** ni@gnl.org.uk **Web:** www.gnl.org.uk
Company Directors: Mrs J Lewis and Mr P Lewis. VAT Registration Number 729 1092 34
Registered Office: Unit 5A, Castle Road, Chelston Business Park, Wellington, Somerset, TA21 9JQ
G&L Consultancy Ltd is a company registered in England and Wales with a Company Number: 3687929

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BULK MATERIAL SAMPLE REPORT (CONTINUATION)

Site Ref	Lab Ref	Description	Analysis Result	Classification
S5	BS204184	Area 3 - roof over stores - felt	No Asbestos Detected	Not Applicable
S6	BS204185	Area 3 - nurses area - floor tile & adhesive	Chrysotile	Reinforced Composite + Well Bound Material
S7	BS204186	Area 3 - 1st floor - office - floor tile & adhesive	Chrysotile	Reinforced Composite + Well Bound Material
S8	BS204187	Area 3 - canteen - ceiling - ceiling tile - insulation board	Chrysotile + Amosite	Asbestos Insulating Board
S9	BS204188	Area 3 - main store - loose gasket	Chrysotile	Asbestos Textiles/Paper
S10	BS204189	Area 3 - main store - shelving - textile gasket	Chrysotile	Asbestos Textiles/Paper
S11	BS204190	Area 4 - locker room - bitumen adhesive	Chrysotile	Well Bound Material
S12	BS204191	Area 4 - outside security room - cement downpipe	Chrysotile	Asbestos Cement
S13	BS204192	Area 5A - side cladding - cement sheeting	Amosite + Chrysotile + Crocidolite	Asbestos Cement
S14	BS204193	Area 5A - lower level steam line - pipework insulation	No Asbestos Detected	Not Applicable
S15	BS204194	Area 6 - penthouse - cladding - cement	Amosite + Chrysotile + Crocidolite	Asbestos Cement
S16	BS204195	Area 7 - roof - cement sheeting	Chrysotile + Amosite	Asbestos Cement
S17	BS204196	Area 7 - HFO burner - door - rope seal	Chrysotile	Asbestos Textiles/Paper
S18	BS204197	Area 8 - pet coke silo - 1st level - pipework - gasket	No Asbestos Detected	Not Applicable
S19	BS204198	Area 9 - front store roof - cement sheeting	Chrysotile + Amosite	Asbestos Cement
S20	BS204199	Area 9 - corridor - ceiling - cement board	Chrysotile	Asbestos Cement

BULK MATERIAL SAMPLE REPORT (CONTINUATION)

Site Ref	Lab Ref	Description	Analysis Result	Classification
S21	BS204200	Area 9 - corridor - floor tile & adhesive	Chrysotile	Reinforced Composite + Well Bound Material
S22	BS204201	Area 9 - rear cladding - galbestos	Chrysotile	Well Bound Material
S23	BS204202	Area 9 - rear area - kiln 1 - thermal insulation - internal	Chrysotile + Amosite	Asbestos Insulation/Coating
S24	BS204203	Area 9 - rear area - kiln 1 - thermal insulation - external	No Asbestos Detected	Not Applicable
S25	BS204204	Area 9 - rear area - kiln 2 - outer layer - thermal insulatrion	Chrysotile	Asbestos Insulation/Coating
S26	BS204205	Area 9 - rear area - kiln 2 - pipework - outer layer - thermal insulation	No Asbestos Detected	Not Applicable
S27	BS204206	Area 9 - rear area - kiln 2 - pipework - thermal insulation	No Asbestos Detected	Not Applicable
S28	BS204207	Area 9 - rear area - kiln 3 - flue - pipework - thermal insulation	No Asbestos Detected	Not Applicable
S29	BS204208	Area 9 - rear area - kiln 3 - thermal insulation	Chrysotile	Asbestos Insulation/Coating
S30	BS204209	Area 9 - rear area - base of kiln 3 - thermal insulation	No Asbestos Detected	Not Applicable
S31	BS204210	Area 10 - small kiln - pipework - rope seal	Chrysotile	Asbestos Textiles/Paper
S32	BS204211	Area 10 - side sheeting beside door - cement sheeting	Chrysotile + Amosite	Asbestos Cement
S33	BS204212	Area 10 - chimney - inspection plate - rope seal	Chrysotile	Asbestos Textiles/Paper
S34	BS204213	Area 13 - bottom of west lime silo - rope	No Asbestos Detected	Not Applicable
S35	BS204214	Area 16 - shed - roof - cement sheeting	Chrysotile + Amosite	Asbestos Cement
S36	BS204215	Area 16 - pipework on yard - gasket	Chrysotile	Asbestos Textiles/Paper

BULK MATERIAL SAMPLE REPORT (CONTINUATION)

Site Ref	Lab Ref	Description	Analysis Result	Classification
S37	BS204216	Area 18 - side of building - cement sheeting	Chrysotile + Amosite	Asbestos Cement
S38	BS204217	Area 20 - exhaust from generator - gasket	Chrysotile	Asbestos Textiles/Paper
S39	BS204218	Area 21 - 1st floor - lab - ceiling void - adjoining roof - felt	No Asbestos Detected	Not Applicable
S40	BS204219	Area 29 - penthouse - wall cladding - cement sheeting	Chrysotile	Asbestos Cement
S41	BS204220	Area 29 - penthouse - top of stairs - walls - cement board	Chrysotile	Asbestos Cement
S42	BS204221	Area 29 - penthouse - insulation on bottom of top silo - rope	No Asbestos Detected	Not Applicable
S43	BS204222	Area 29 - penthouse - pipework - gasket	Chrysotile	Asbestos Textiles/Paper
S44	BS204223	Area 34 - roof - penthouse - side cladding - cement sheeting	Chrysotile	Asbestos Cement
S45	BS204224	Area 34 - roof - parapet - flashing - cement	Chrysotile	Asbestos Cement
S46	BS204225	Area 35 - Shaft kiln - 5th floor - pipework - gasket	Chrysotile	Asbestos Textiles/Paper
S47	BS204226	Area 40 - roof - cement sheeting	Chrysotile + Crocidolite	Asbestos Cement
S48	BS204227	Area 43 - side sheeting - cement sheeting	Amosite + Chrysotile + Crocidolite	Asbestos Cement
S49	BS204228	Area 44 - conveyor beside building - cement sheeting	Chrysotile	Asbestos Cement
S50	BS204229	Area 45 - roof - cement sheeting	Chrysotile	Asbestos Cement
S51	BS204230	Area 47-49 - control shed - roof - sheeting	Amosite + Chrysotile + Crocidolite	Asbestos Cement
S52	BS204231	Area 38 - compressor for shaft kiln - pipework - gasket	Chrysotile	Asbestos Textiles/Paper

BULK MATERIAL SAMPLE REPORT (CONTINUATION)

Site Ref	Lab Ref	Description	Analysis Result	Classification
S53	BS204232	Area 70 - welfare building - floor tile & adhesive	Chrysotile	Reinforced Composite + Well Bound Material
S54	BS204233	Area 70 - main pumphouse - lab wall - board	Chrysotile	Asbestos Cement

G&L Consultancy
Training & Asbestos Management

BULK MATERIAL SAMPLE REPORT

Reference No:	J678848	Client Order No:	N/A
Date Received:	5 Sep 2023		
Client Name and Address:	Phoenix Environmental Safety Ltd (IE), Graigueswood, Freshford, Co. Kilkenny, Ireland		
Site Address:	Premier Periclase, Boyne Road, Drogheda, Co. Louth		
Sampling Officer:	Phoenix Environmental Safety Ltd (IE)		
Date of Analysis:	6 Sep 2023		
Analyst:	Colin Webb Jamie Fearon Justin Proctor		
Approving Officer:	Emily Richardson	Signed:	
Issue Date:	6 Sep 2023		

ANALYSIS RESULTS

Sampling carried out by our own officers follows the procedures documented in our internal method M3: The Sampling of Bulk Materials, for Analysis to Determine the Presence of Asbestos. These samples have been analysed in accordance with internal method M2: The Identification of Asbestos, within Bulk Materials, by the Use of Optical Microscopy. Both these internal methods are based on the standard method as outlined in the HSE Document 'Asbestos: The analysts' guide for sampling, analysis and clearance procedures. Any deviations from these standard methods will be recorded in this report. No responsibility is taken for sampling that is not carried out by own officers. Opinions and interpretations expressed herein are outside the scope of our UKAS accreditation. Any comments regarding percentage content is outside the scope of our UKAS accreditation. The material classification is the opinion of the analyst, based on the samples' appearance, as received, and may not accurately reflect the source material on site. Where 'Trace Asbestos' has been reported, only 1 or 2 fibres or fibre bundles have been identified and analysed as asbestos following a thorough examination of the sample. All samples are analysed at one of our UKAS accredited laboratories in Somerset or Northern Ireland. This report must not be reproduced, except in full, without the written permission of the laboratory. These samples will be retained within this laboratory for a period of six months prior to disposal at a licensed asbestos disposal site, unless the client makes alternative arrangements. Reports will be retained for a minimum of five years following the date of issue. For advice concerning these materials, risk assessments, removal procedures or information regarding the current legislation for work with asbestos containing materials, please contact G&L Consultancy Ltd.

Site Ref	Lab Ref	Description	Analysis Result	Classification
S1	BS204463	Area 1 - 1F office at gate - wall - insulation board	Chrysotile + Amosite	Asbestos Insulating Board
S2	BS204464	Area 1 - 1F hallway - old ceiling tile rail - residue - insulation board	Chrysotile + Amosite	Asbestos Insulating Board
S3	BS204465	Area 1 - 1F - WC - floor adhesive	No Asbestos Detected	Not Applicable
S4	BS204466	Area 1 - 1F hallway - outside process engineers door - floor tile	Chrysotile	Reinforced Composite

G&L Consultancy Ltd
54A Huntly Road, Banbridge, Co. Down, Northern Ireland, BT32 3UA
Tel: 028 4062 3566 **Email:** ni@gnl.org.uk **Web:** www.gnl.org.uk
Company Directors: Mrs J Lewis and Mr P Lewis. VAT Registration Number 729 1092 34
Registered Office: Unit 5A, Castle Road, Chelston Business Park, Wellington, Somerset, TA21 9JQ
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BULK MATERIAL SAMPLE REPORT (CONTINUATION)

Site Ref	Lab Ref	Description	Analysis Result	Classification
S5	BS204467	Area 1 - 1F - end of hallway - over ceiling tiles - cement board	Chrysotile + Amosite	Asbestos Cement
S6	BS204468	Area 1 - Rear stairwell - step nosing	Chrysotile	Reinforced Composite
S7	BS204469	Area 1 - Ground floor end office - ceiling - insulation board	Chrysotile + Amosite	Asbestos Insulating Board
S8	BS204470	Area 1 - Ground floor - ceiling over finance dep. - pipework - insulation	Amosite + Chrysotile + Crocidolite	Asbestos Insulation/Coating
S9	BS204471	Area 1 - Ground floor - finance dep. - floor - bitumen adhesive	Chrysotile	Well Bound Material
S10	BS204472	Area 1 - Ground floor - H&S office - parquet floor adhesive	No Asbestos Detected	Not Applicable
S11	BS204473	Area 1 - Ground floor - female WC - plantroom - pipework - paper	Chrysotile	Asbestos Textiles/Paper
S12	BS204474	Area 1 - Entrance porch - roof - cement slate	Chrysotile	Asbestos Cement
S13	BS204475	Area 2 - Boiler house - pipework gasket	Chrysotile	Asbestos Textiles/Paper
S14	BS204476	Area 3 - Rear of offices - cement downpipe	Amosite + Chrysotile + Crocidolite	Asbestos Cement
S15	BS204477	Area 9 - Kiln 1 - pipework insulation	Chrysotile	Asbestos Insulation/Coating
S16	BS204478	Area 9 - Kiln 2 - pipework insulation	No Asbestos Detected	Not Applicable
S17	BS204479	Area 9 - Kiln 3 - pipework insulation	Chrysotile + Amosite	Asbestos Insulation/Coating
S18	BS204480	Area 18 - built in silo - pipework for HFO - insulation	Chrysotile + Amosite	Asbestos Insulation/Coating
S19	BS204481	Area 69 - oil tank - lid - textile/gasket	Chrysotile	Asbestos Textiles/Paper
S20	BS204482	Area 63 - wall - stored gasket	Chrysotile	Asbestos Textiles/Paper

BULK MATERIAL SAMPLE REPORT (CONTINUATION)

Site Ref	Lab Ref	Description	Analysis Result	Classification
S21	BS204483	Area 63 - chieftan 4 - front plate - rope	Chrysotile	Asbestos Textiles/Paper
S22	BS204484	Area 53 - canteen - roof barge - cement slate	Chrysotile	Asbestos Cement
S23	BS204485	Area 64 - intake area - cement sheeting	Chrysotile	Asbestos Cement

BS204463 - Sample material appears to be soft and degraded.
BS204478 - This sample was found not to contain asbestos, however we strongly recommend this to be treated as an asbestos containing material as it is visually extremely similar to samples BS204477 and BS204479 where low levels of asbestos were detected.

APPENDIX C

ASBESTOS DATA SHEETS

AREA 1

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 1
Location	Various ceilings throughout
Extent/ Amount	425 m² approx.

Survey Date	22.8.2023	Sample No.	BS 204469
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

	MATERIAL ASSESSMENT		PRIORITY ASSESSMENT
Product type	Asbestos Insulation Board (AIB)	Normal occupant activity	N/A
Extent of damage	Damaged in areas	Likelihood of disturbance	N/A
Surface treatment	Painted	Human exposure potential	N/A
Asbestos type	Chrysotile & Amosite	Maintenance activity	N/A
	Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A

CONCLUSIONS AND RECOMMENDATIONS

The asbestos insulation board ceiling tiles identified on various ceilings throughout building 1 contain Chrysotile (white) and Amosite (brown) asbestos fibres. Asbestos insulating boards usually contain between 15 to 40% amosite, although boards may be found to contain other types of asbestos and in other quantities

The asbestos insulation board (AIB) should be removed under controlled conditions by a specialist asbestos removal contractor and disposed of as asbestos waste before the demolition works commence

Carrying out removal works with asbestos insulation board (AIB) will require 14 days notification to the HSA

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

FURTHER DETAIL OF THE AIB CEILING TILES

Typical view of the ceiling tiles in an office area

View of the AIB residues remaining on the ceiling tile supports on the 1st floor hallway

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 1
Location	First floor offices
Extent/ Amount	4 walls – 70 m² approx.

Survey Date	22.8.2023	Sample No.	BS 204463
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	Asbestos Insulation Board (AIB)	Normal occupant activity	N/A
Extent of damage	High	Likelihood of disturbance	N/A
Surface treatment	Concealed in partition walls	Human exposure potential	N/A
Asbestos type	Chrysotile & Amosite	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The asbestos insulation board identified between the stud partition walls on the first floor contains Chrysotile (white) and Amosite (brown) asbestos fibres. Asbestos insulating boards usually contain between 15 to 40% amosite, although boards may be found to contain other types of asbestos and in other quantities

The asbestos insulation board (AIB) should be removed under controlled conditions by a specialist asbestos removal contractor and disposed of as asbestos waste before the demolition works commence

Carrying out removal works with asbestos insulation board (AIB) will require 14 days notification to the HSA

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 1
Location	Ground floor ceiling
Extent/ Amount	Not quantified

Survey Date	22.8.2023	Sample No.	BS 204470
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	Thermal Insulation	Normal occupant activity	N/A
Extent of damage	High	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Amosite, Chrysotile & Crocidolite	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The thermal insulation identified on the pipework over the original ceilings on the ground floor contains Amosite (brown), Chrysotile (white) and Crocidolite (blue) asbestos fibres. Asbestos thermal insulation can contain between 15-85% asbestos fibres.

The thermal insulation should be removed under controlled conditions by a specialist asbestos removal contractor and disposed of as asbestos waste before the refurbishment/demolition works commence

Carrying out removal works with thermal insulation will require 14 days notification to the HSA

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

FURTHER DETAIL OF THE THERMAL INSULATION

View of the thermal insulation over the original ceiling and 1st floor

The thermal insulation is behind an expandible metal ceiling and the full extent of the insulation will only be apparent when the ceiling is completely removed. The ceiling should only be removed by a specialist asbestos removal contractor under controlled conditions as the insulation is in poor condition in areas. As it wouldn't be possible to clean the ceiling, it should be disposed of as asbestos waste

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 1
Location	First Floor
Extent/ Amount	25 linear meters approx.

Survey Date	22.8.2023	Sample No.	BS 204467
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	Cement Board	Normal occupant activity	N/A
Extent of damage	Low	Likelihood of disturbance	N/A
Surface treatment	Painted	Human exposure potential	N/A
Asbestos type	Chrysotile & Amosite	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The cement board identified between the wall & ceiling on the first floor contains Chrysotile (white) and Amosite (brown) asbestos fibres. Asbestos cement products usually contain between 10-15% asbestos fibres, bound in Portland cement.

As the building is due for demolition, the cement board should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 1
Location	Ground Floor Extension Area
Extent/ Amount	80 m² approx.

Survey Date	22.8.2023	Sample No.	BS 204471
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

	MATERIAL ASSESSMENT		PRIORITY ASSESSMENT
Product type	Bitumen Adhesive	Normal occupant activity	N/A
Extent of damage	High	Likelihood of disturbance	N/A
Surface treatment	Well bound material	Human exposure potential	N/A
Asbestos type	Chrysotile	Maintenance activity	N/A
	Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A

CONCLUSIONS AND RECOMMENDATIONS

The black bitumen adhesive identified on the floor in the rear extension area on the ground floor contains Chrysotile (white) asbestos fibres. Bitumen adhesives contain a small quantity of asbestos fibres.

As the building is due for demolition, the bitumen adhesive should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 1
Location	Rear Stairwell
Extent/ Amount	1 per step

NO IMAGE AVAILABLE

Survey Date	22.8.2023	Sample No.	BS 204468
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	Step Nosing	Normal occupant activity	N/A
Extent of damage	Low	Likelihood of disturbance	N/A
Surface treatment	Composite material	Human exposure potential	N/A
Asbestos type	Chrysotile	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The resin step nosing identified on the steps on the rear stairwell contains Chrysotile (white) asbestos fibres. Resins may contain between 20 and 50% asbestos fibres.

As the building is due for demolition, the step nosing should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

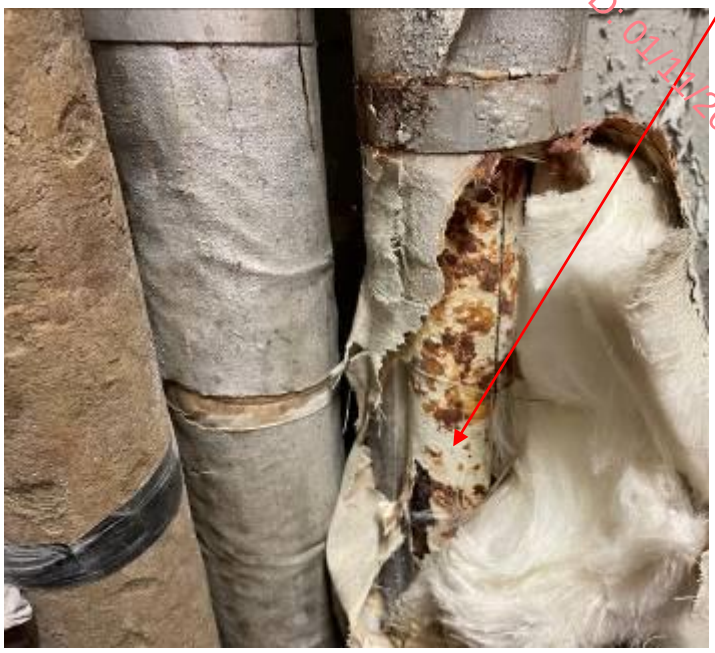
See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 1
Location	Ground floor plant room
Extent/ Amount	Not quantified



Survey Date	22.8.2023	Sample No.	BS 204473
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	Paper	Normal occupant activity	N/A
Extent of damage	High	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Chrysotile	Maintenance activity	N/A
Material assessment score: N/A		TOTAL SCORE: N/A	Priority assessment score: N/A

CONCLUSIONS AND RECOMMENDATIONS

The paper identified behind ceramic wool insulation on the pipework in the ground floor plant room contains Chrysotile (white) asbestos fibres. Paper products have an asbestos content approaching 100% asbestos with a small amount of binder

As the building is due for demolition, the bitumen adhesive should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 1
Location	Roof top tank room
Extent/ Amount	2 tanks

Survey Date	22.8.2023	Sample No.	N/A
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	Cement water tanks	Normal occupant activity	N/A
Extent of damage	Low	Likelihood of disturbance	N/A
Surface treatment	Painted	Human exposure potential	N/A
Asbestos type	Crocidolite (presumed)	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The cement water tanks identified in the roof top tank room are presumed to contain Crocidolite (blue) asbestos fibres. Asbestos cement products usually contain between 10-15% asbestos fibres, bound in Portland cement.

As the building is due for demolition, the cement tanks should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence. The tanks were not sampled due to access issues

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 1
Location	First Floor
Extent/ Amount	3 m² approx.

Survey Date	22.8.2023	Sample No.	BS 204474
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	Cement slates	Normal occupant activity	N/A
Extent of damage	Low	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Chrysotile	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The cement slates identified on the roof of the porch contain Chrysotile (white) asbestos fibres. Asbestos cement products usually contain between 10-15% asbestos fibres, bound in Portland cement.

As the building is due for demolition, the cement slates should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 1
Location	1st floor corridor
Extent/ Amount	3 floor tiles approx.

Survey Date	22.8.2023	Sample No.	BS 204466
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	Floor tile	Normal occupant activity	N/A
Extent of damage	Low	Likelihood of disturbance	N/A
Surface treatment	Composite material	Human exposure potential	N/A
Asbestos type	Chrysotile	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The floor tiles identified on the 1st floor outside the process engineer's office contain Chrysotile (white) asbestos fibres. Thermoplastic floor tiles have an asbestos content of up to 25%

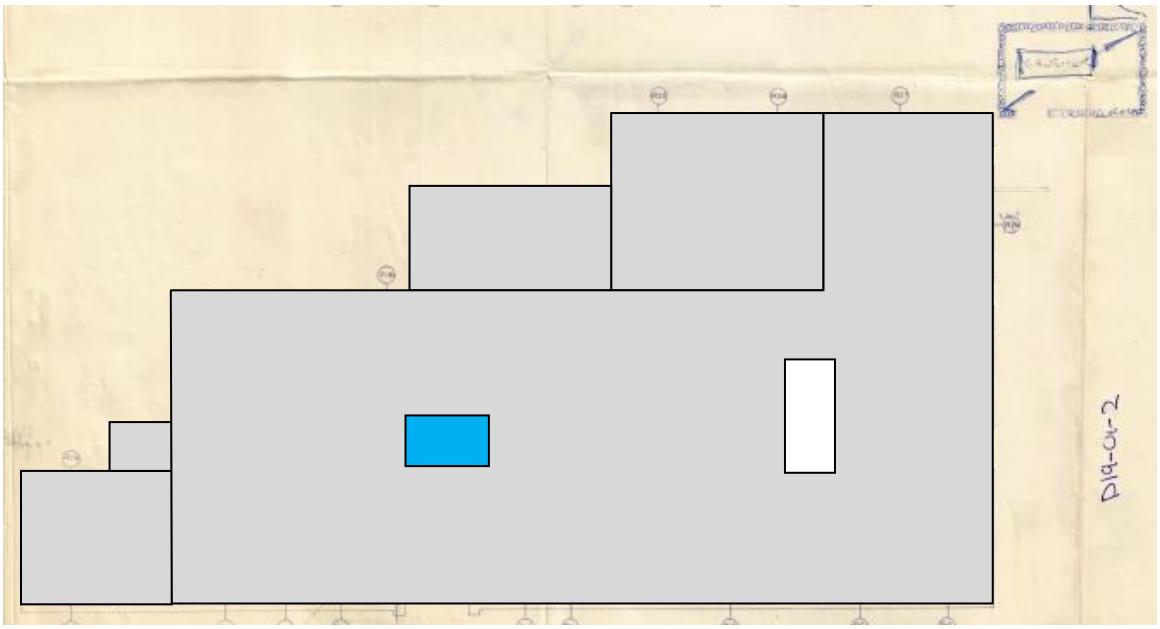
As the building is due for demolition, the floor tiles should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

Schematic diagram only Not to scale 7th September 2023	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth

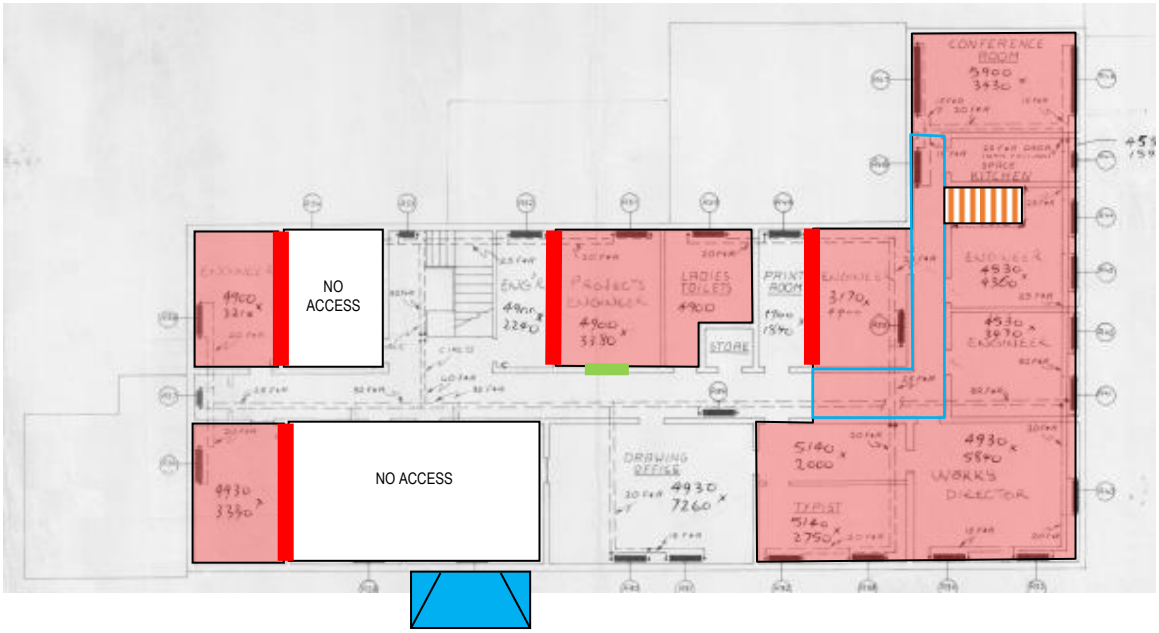
AREA 1 – ROOF PLAN



	Areas where asbestos cement water tanks were identified

Schematic diagram only Not to scale 7th September 2023	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth

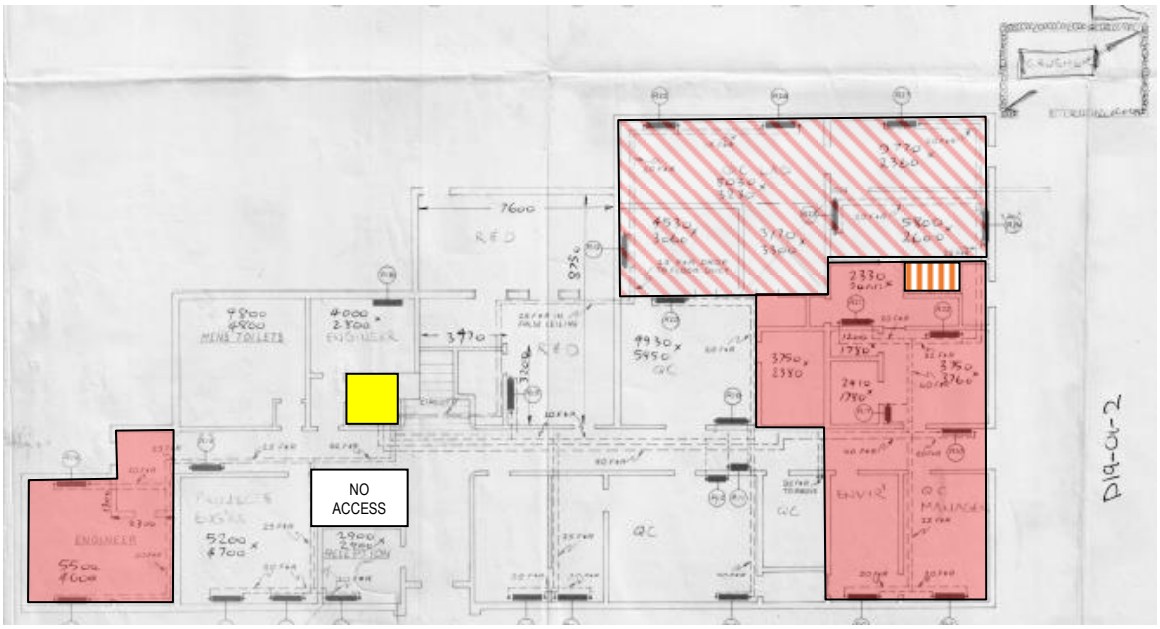
AREA 1 – 1ST FLOOR PLAN



	Areas where asbestos insulation board ceiling tiles were identified
	Areas where asbestos insulation board ceiling tiles and resin step nosing's were identified
	Areas where asbestos insulation board was identified/presumed between walls
	Areas where asbestos cement board and asbestos cement slates were identified
	Areas where asbestos containing floor tiles were identified

Schematic diagram only Not to scale 7th September 2023	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth

AREA 1 – GROUND FLOOR PLAN



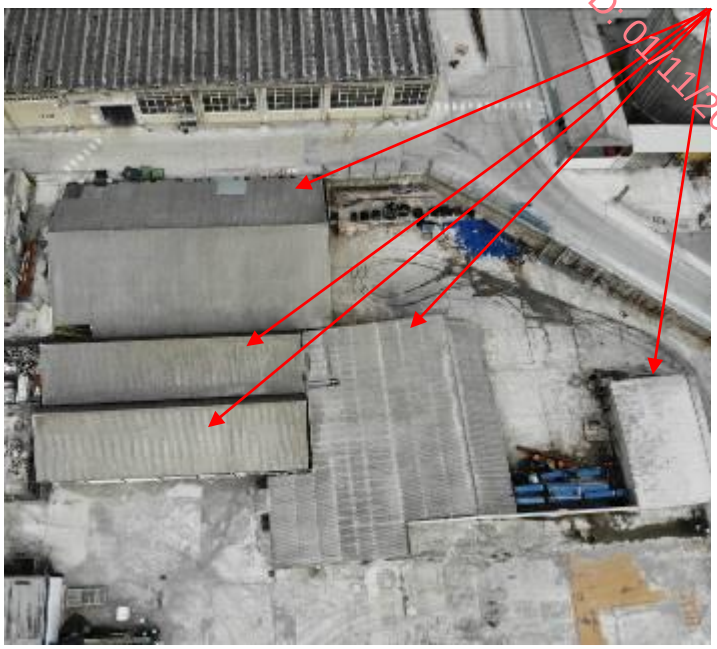
	Areas where asbestos insulation board ceiling tiles were identified
	Areas where asbestos insulation board ceiling tiles and bitumen adhesive were identified
Note:	Asbestos containing thermal insulation was identified in the ceiling void of this area
	Area where asbestos containing paper was identified on pipework
	Area where asbestos insulation board ceiling tiles and resin step nosings were identified

AREA 2

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Premier Periclase Site
Location	Building 2
Extent/ Amount	1,400 m² floor area approx.



Survey Date	22.8.2023	Sample No.	BS 204181
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	Cement Sheeting	Normal occupant activity	N/A
Extent of damage	Medium	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Amosite, Chrysotile & Crocidolite	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The cement sheeting identified on the pitched roofs contains Amosite (brown), Chrysotile (white) and Crocidolite (blue) asbestos fibres. Asbestos cement products usually contain between 10-15% asbestos fibres, bound in Portland cement

As the building is due for demolition, the cement sheeting should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 2
Location	Centre Store
Extent/ Amount	330 m² approx.

Survey Date	22.8.2023	Sample No.	BS 204183
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

	MATERIAL ASSESSMENT		PRIORITY ASSESSMENT
Product type	Cement board	Normal occupant activity	N/A
Extent of damage	Medium	Likelihood of disturbance	N/A
Surface treatment	Painted	Human exposure potential	N/A
Asbestos type	Chrysotile	Maintenance activity	N/A
	Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A

CONCLUSIONS AND RECOMMENDATIONS

The cement board identified under the roof in the centre store area contains Chrysotile (white) asbestos fibres. Asbestos cement products usually contain between 10-15% asbestos fibres, bound in Portland cement

As the building is due for demolition, the cement board should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 2
Location	Centre / Rear Store
Extent/ Amount	27 linear meters approx.

Survey Date	22.8.2023	Sample No.	BS 204182
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

	MATERIAL ASSESSMENT		PRIORITY ASSESSMENT
Product type	Cement Gutter	Normal occupant activity	N/A
Extent of damage	Low	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Amosite, Chrysotile & Crocidolite	Maintenance activity	N/A
	Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A

CONCLUSIONS AND RECOMMENDATIONS

The cement gutter identified between the centre & rear store contains Amosite (brown), Chrysotile (white) and Crocidolite (blue) asbestos fibres. Asbestos cement products usually contain between 10-15% asbestos fibres, bound in Portland cement

As the building is due for demolition, the cement gutter should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 2
Location	Boiler Room
Extent/ Amount	1 per flange

Survey Date	22.8.2023	Sample No.	BS 204475
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	CAF Gaskets	Normal occupant activity	N/A
Extent of damage	Medium	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Chrysotile	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The Compressed Asbestos Fibre (CAF) gaskets identified between the flanges in the boiler room contain Chrysotile (white) asbestos fibres. CAF Gaskets contain almost 100% asbestos fibres, with a small amount of binder

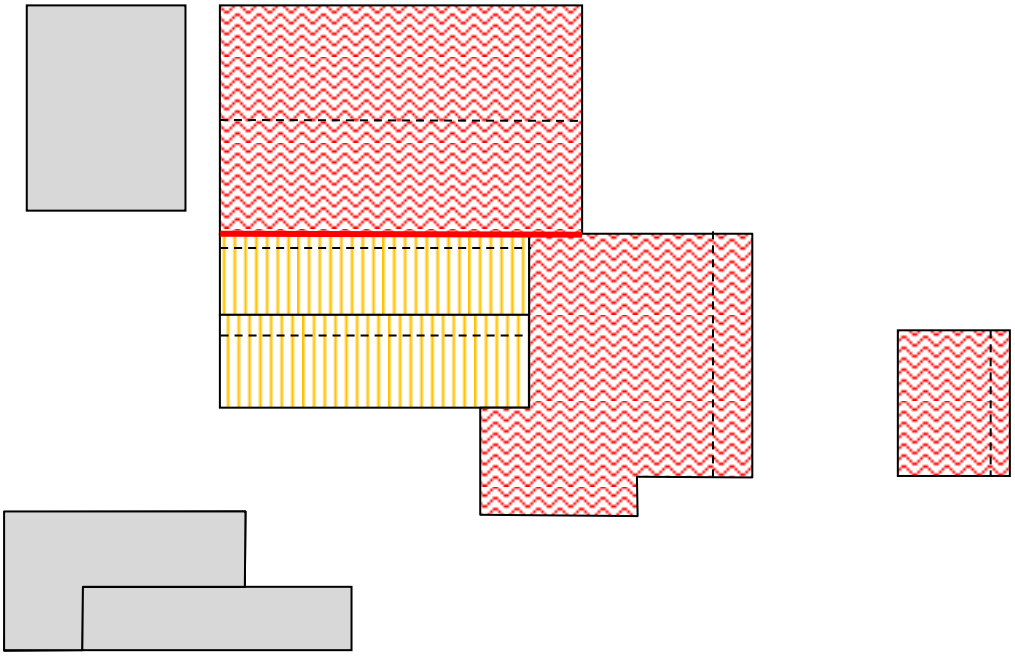
As the building is due for demolition, the CAF Gaskets should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

Schematic diagram only Not to scale 7th September 2023	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth

AREA 2 – ROOF PLAN



N

	Areas where asbestos cement sheeting was identified
	Areas where an asbestos cement gutter was identified
	Areas where asbestos cement sheeting and asbestos cement board was identified

AREA 3

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 3
Location	First & Ground Floor
Extent/ Amount	235 m² approx.

Survey Date	22.8.2023	Sample No.	BS 204187
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	Asbestos Insulation Board (AIB)	Normal occupant activity	N/A
Extent of damage	Low	Likelihood of disturbance	N/A
Surface treatment	Painted	Human exposure potential	N/A
Asbestos type	Chrysotile & Amosite	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The asbestos insulation board identified on the first & ground floor office/welfare area contains Chrysotile (white) asbestos fibres. Asbestos insulating boards usually contain between 15 to 40% amosite, although boards may be found to contain other types of asbestos and in other quantities

The asbestos insulation board (AIB) should be removed under controlled conditions by a specialist asbestos removal contractor and disposed of as asbestos waste before the demolition works commence

Carrying out removal works with asbestos insulation board (AIB) will require 14 days notification to the HSA

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 3
Location	First & Ground Floor
Extent/ Amount	200 m² approx.

Survey Date	22.8.2023	Sample No.	BS 204186
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

	MATERIAL ASSESSMENT		PRIORITY ASSESSMENT
Product type	Floor tiles & bitumen adhesive	Normal occupant activity	N/A
Extent of damage	Low	Likelihood of disturbance	N/A
Surface treatment	Composite & well bound material	Human exposure potential	N/A
Asbestos type	Chrysotile	Maintenance activity	N/A
	Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A

CONCLUSIONS AND RECOMMENDATIONS

The floor tiles and bitumen adhesive identified on the first and ground floor of the office/welfare area contain Chrysotile (white) asbestos fibres. Thermoplastic floor tiles can contain up to 25% asbestos fibres. Bitumen adhesives contain a small quantity of asbestos fibres.

As the building is due for demolition, the floor tiles and adhesive should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 3
Location	Nurses Medical Area
Extent/ Amount	160 m² approx.

Survey Date	22.8.2023	Sample No.	BS 204185
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	Floor tiles & bitumen adhesive	Normal occupant activity	N/A
Extent of damage	Low	Likelihood of disturbance	N/A
Surface treatment	Composite & well bound material	Human exposure potential	N/A
Asbestos type	Chrysotile	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The floor tiles and bitumen adhesive identified in the nurse's medical area Chrysotile (white) asbestos fibres. Thermoplastic floor tiles can contain up to 25% asbestos fibres. Bitumen adhesives contain a small quantity of asbestos fibres.

As the building is due for demolition, the floor tiles and adhesive should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 3
Location	Stores Area
Extent/ Amount	Small amounts

Survey Date	22.8.2023	Sample No.	BS 204188
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	CAF & Textile Gaskets	Normal occupant activity	N/A
Extent of damage	Low	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Chrysotile	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

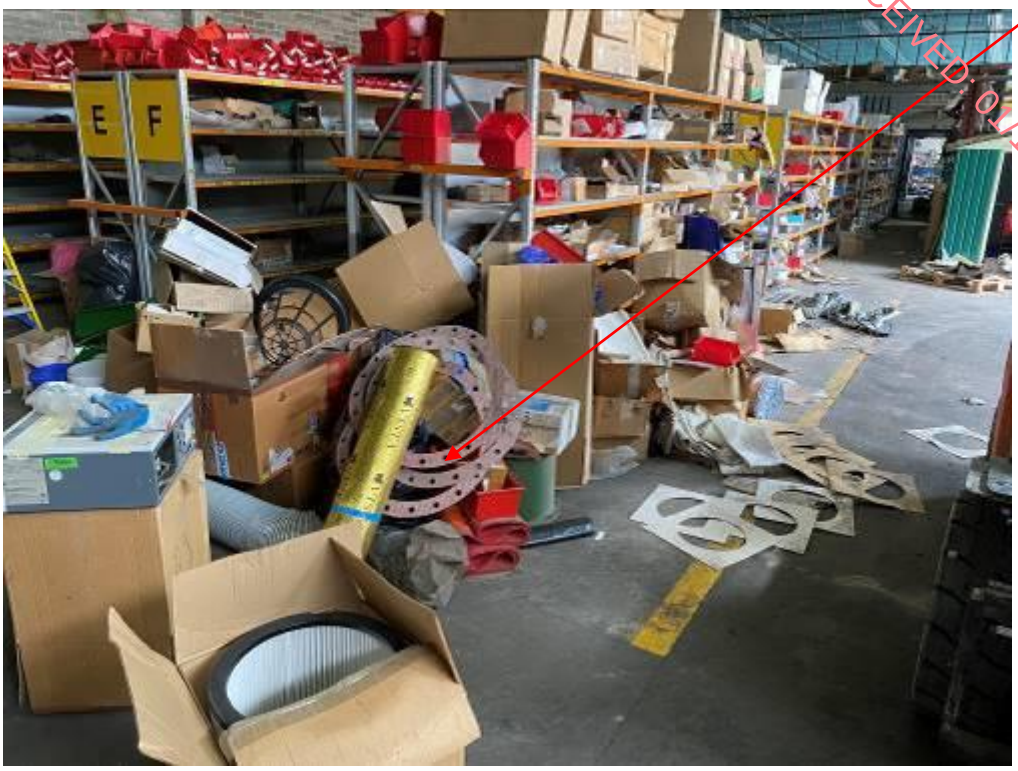
The Compressed Asbestos Fibre (CAF) gaskets and textile gaskets identified in the stores area of Area 3 contain Chrysotile (white) asbestos fibres. CAF Gaskets contain almost 100% asbestos fibres, with a small amount of binder. Textiles gaskets have an asbestos content of 100% asbestos fibres

As the building is due for demolition, the gaskets should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

FURTHER DETAIL OF THE GASKETS



Gaskets loose in the main storage area

View of the textile gaskets on the storage shelves

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 3
Location	Main Store Area
Extent/ Amount	11 x 5 linear meters approx.

Survey Date	22.8.2023	Sample No.	BS 204476
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

	MATERIAL ASSESSMENT		PRIORITY ASSESSMENT
Product type	Cement Downpipes	Normal occupant activity	N/A
Extent of damage	Medium	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Amosite, Chrysotile & Crocidolite	Maintenance activity	N/A
	Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A

CONCLUSIONS AND RECOMMENDATIONS

The cement downpipes identified around the main store area contain Amosite (brown), Chrysotile (white) & Crocidolite (blue) asbestos fibres. Asbestos cement products usually contain between 10-15% asbestos fibres, bound in Portland cement.

As the building is due for demolition, the cement downpipes should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 3
Location	Main Store Area
Extent/ Amount	1 tank.

Survey Date	22.8.2023	Sample No.	N/A
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	Cement water tank	Normal occupant activity	N/A
Extent of damage	Medium	Likelihood of disturbance	N/A
Surface treatment	Painted	Human exposure potential	N/A
Asbestos type	Crocidolite (presumed)	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The cement water tank identified over the office stairwell is presumed to contain Crocidolite (blue) asbestos fibres. Asbestos cement products usually contain between 10-15% asbestos fibres, bound in Portland cement.

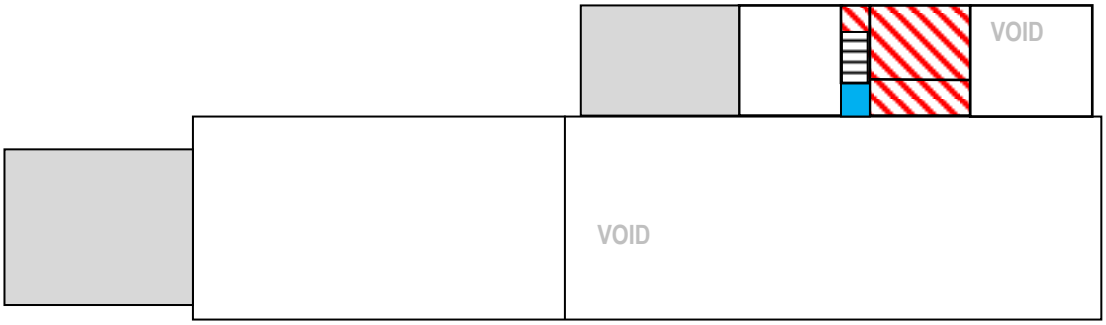
As the building is due for demolition, the cement tank should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence. The tanks were not sampled due to access issues

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

Schematic diagram only Not to scale 7th September 2023	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth

AREA 3 – FIRST FLOOR PLAN

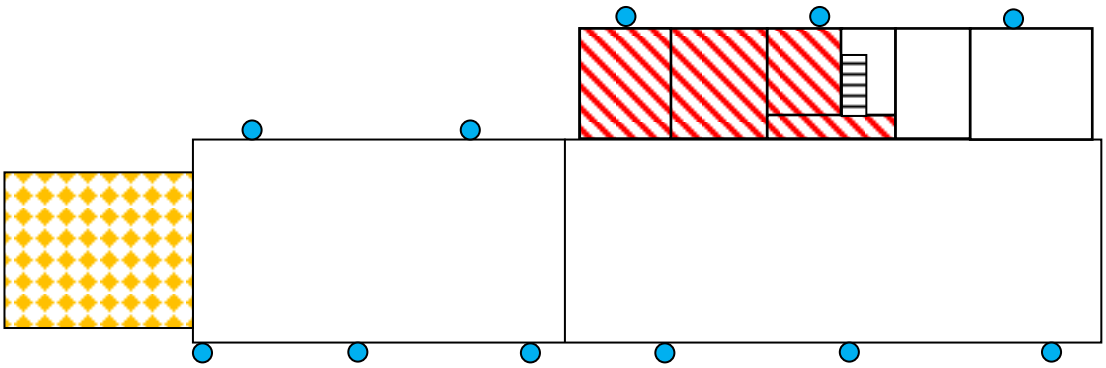


N

	Areas where AIB ceiling tiles and floor tiles and/or bitumen adhesive was identified
	Areas where an asbestos cement water tank was presumed

Schematic diagram only Not to scale 7th September 2023	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth

AREA 3 – GROUND FLOOR PLAN



↑
N

	Areas where AIB ceiling tiles and floor tiles and/or bitumen adhesive was identified
	Areas where asbestos containing floor tiles and/or bitumen adhesive was identified
●	Areas where asbestos cement downpipes were identified

AREA 4

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 4
Location	Floor Throughout
Extent/ Amount	280 m² approx.

Survey Date	22.8.2023	Sample No.	BS 204190
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

	MATERIAL ASSESSMENT		PRIORITY ASSESSMENT
Product type	Bitumen Adhesive	Normal occupant activity	N/A
Extent of damage	Medium	Likelihood of disturbance	N/A
Surface treatment	Well bound material	Human exposure potential	N/A
Asbestos type	Chrysotile	Maintenance activity	N/A
	Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A

CONCLUSIONS AND RECOMMENDATIONS

The bitumen adhesive identified on the floors throughout Building 4 contain Chrysotile (white) asbestos fibres. Bitumen adhesives contain a small quantity of asbestos fibres.

As the building is due for demolition, the bitumen adhesive should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 4
Location	Roof
Extent/ Amount	5 x 4 linear meters approx.

Survey Date	22.8.2023	Sample No.	BS 204191
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	Cement Downpipes	Normal occupant activity	N/A
Extent of damage	Low	Likelihood of disturbance	N/A
Surface treatment	Painted	Human exposure potential	N/A
Asbestos type	Chrysotile	Maintenance activity	N/A
Material assessment score: N/A		TOTAL SCORE: N/A	Priority assessment score: N/A

CONCLUSIONS AND RECOMMENDATIONS

The cement downpipes identified around building 4 contain Chrysotile (white) asbestos fibres. Asbestos cement products usually contain between 10-15% asbestos fibres, bound in Portland cement.

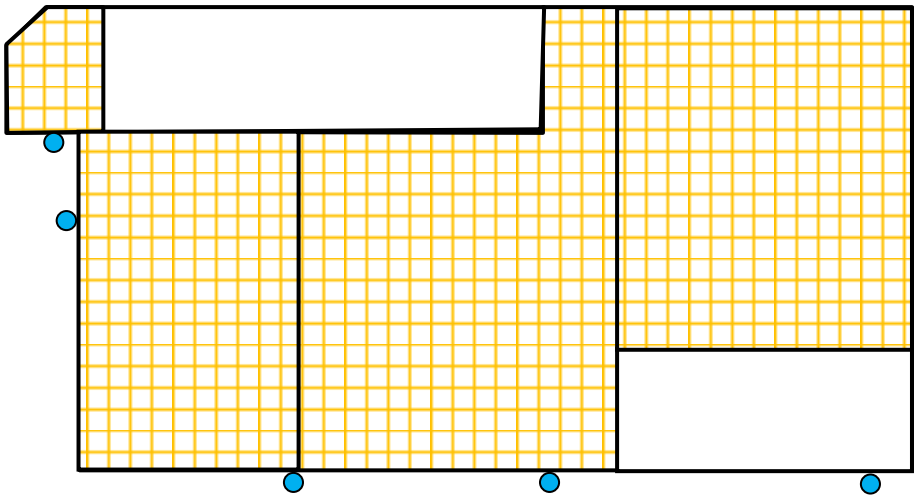
As the building is due for demolition, the cement downpipes should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

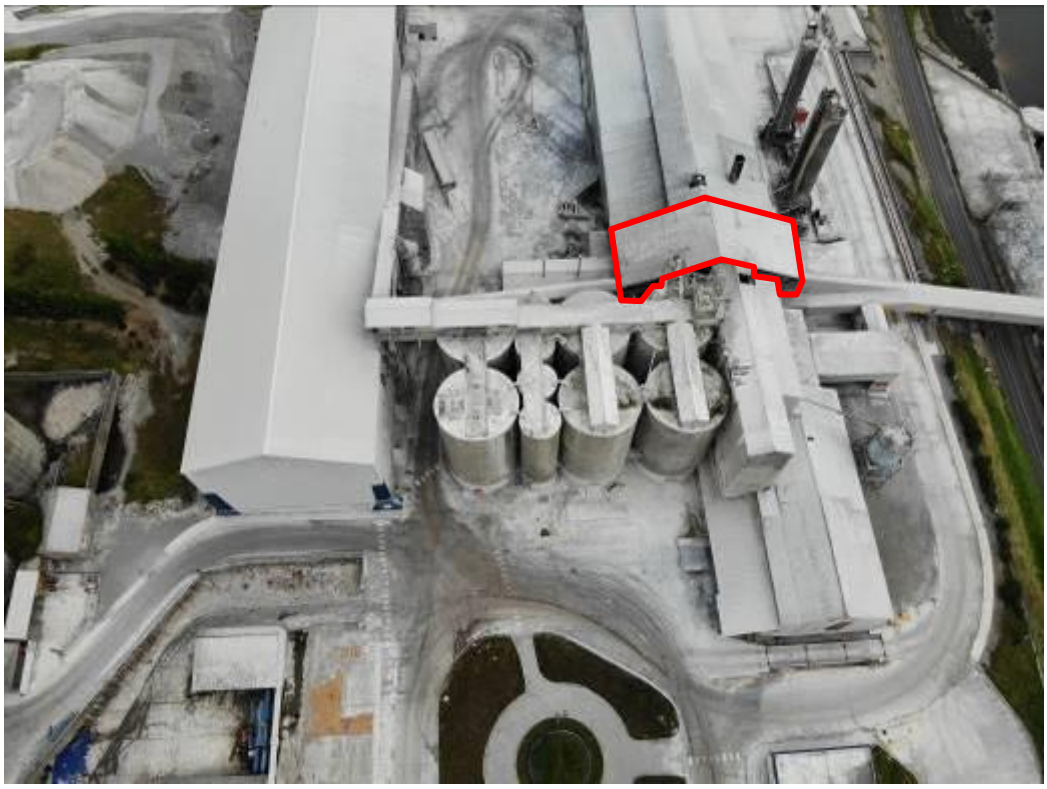
Schematic diagram only Not to scale 7th September 2023	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth

AREA 4 – GROUND FLOOR PLAN



N

	Areas where asbestos containing bitumen adhesive was identified
	Areas where asbestos cement downpipes were identified



AREA 5A

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 5A
Location	Gable & Side of Building
Extent/ Amount	300 m² approx.

Survey Date	22.8.2023	Sample No.	BS 204195
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	Cement Sheeting	Normal occupant activity	N/A
Extent of damage	Medium	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Amosite, Chrysotile & Crocidolite	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The cement sheeting identified on the gables and side of the building contains Amosite (Brown), Chrysotile (white) and Crocidolite (blue) asbestos fibres. Asbestos cement products usually contain between 10-15% asbestos fibres, bound in Portland cement.

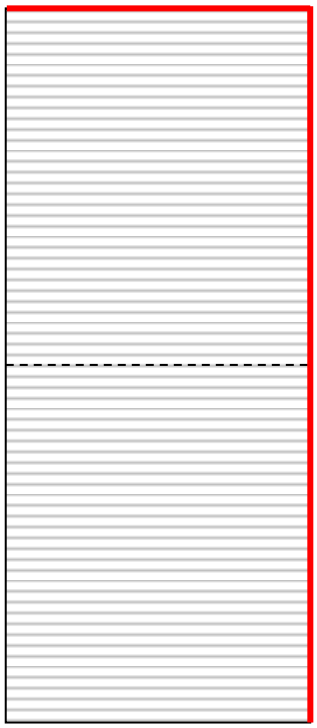
As the building is due for demolition, the cement sheeting should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

Schematic diagram only Not to scale 7th September 2023	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth

AREA 5A – ROOF PLAN



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N

	Areas where asbestos cement sheeting was identified

AREA 7

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 7
Location	Roof & Side of Building
Extent/ Amount	950 m² floor area approx.

Survey Date	22.8.2023	Sample No.	BS 204195
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	Cement Sheeting	Normal occupant activity	N/A
Extent of damage	Damaged in areas	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Chrysotile & Amosite	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The cement sheeting identified on the roof and sides of the building contains Chrysotile (white) and Amosite (brown) asbestos fibres. Asbestos cement products usually contain between 10-15% asbestos fibres, bound in Portland cement.

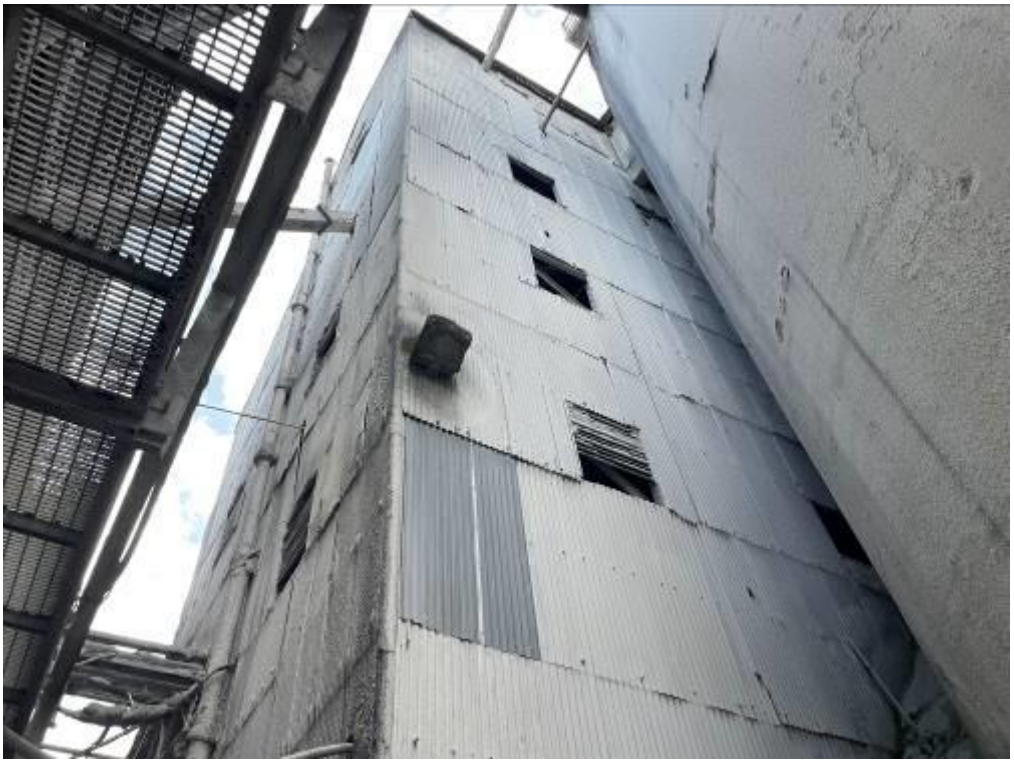
As the building is due for demolition, the cement sheeting should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

FURTHER DETAIL OF ASBESTOS CEMENT SHEETING

View of the high-level side & gable sheeting on the south side



View of the side sheeting on the north side (approx. 20 meters heigh)

FURTHER DETAIL OF ASBESTOS CEMENT SHEETING

Internal cement sheeting debris

Internal view of the side sheeting showing the level of lime dust on the sheeting

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 7
Location	Old HFO Equipment
Extent/ Amount	Small amounts

Survey Date	22.8.2023	Sample No.	BS 204196
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	Rope Seals	Normal occupant activity	N/A
Extent of damage	Frayed	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Chrysotile	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The rope seals identified on the old HFO equipment at high level internally contain Chrysotile (white) asbestos fibres. Rope seals can contain up to 100% asbestos fibres.

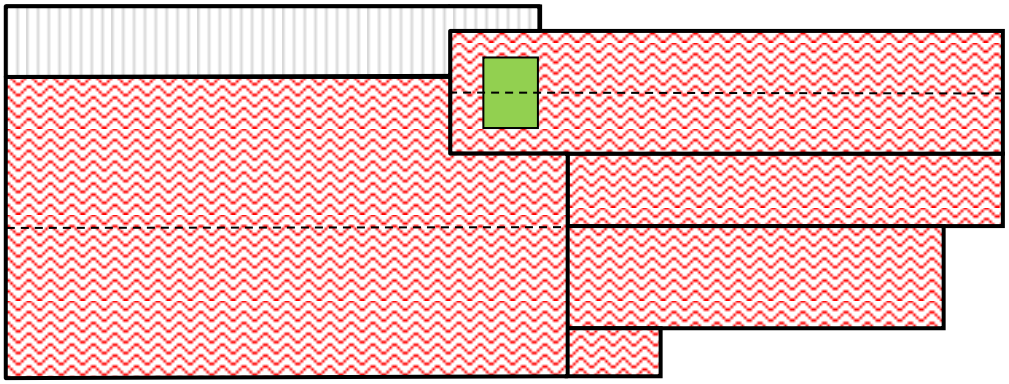
As the building is due for demolition, the rope seals should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

Schematic diagram only Not to scale 7th September 2023	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth

AREA 7 – ROOF PLAN



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N

	Areas where asbestos cement sheeting was identified
	Areas where asbestos rope was identified at high level internally

AREA 9

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 9
Location	Office Area
Extent/ Amount	260 m² approx.

Survey Date	22.8.2023	Sample No.	BS 204199
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	Cement Board	Normal occupant activity	N/A
Extent of damage	Low	Likelihood of disturbance	N/A
Surface treatment	Painted	Human exposure potential	N/A
Asbestos type	Chrysotile	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The cement board identified on the ceilings in the office area contain Chrysotile (white) asbestos fibres. Asbestos cement products usually contain between 10-15% asbestos fibres, bound in Portland cement.

As the building is due for demolition, the cement board should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 9
Location	Office Area
Extent/ Amount	90 m² approx.

NO PICTURE AVAILABLE

Survey Date	22.8.2023	Sample No.	BS 204200
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

	MATERIAL ASSESSMENT		PRIORITY ASSESSMENT
Product type	Floor tile & bitumen adhesive	Normal occupant activity	N/A
Extent of damage	Low	Likelihood of disturbance	N/A
Surface treatment	Composite & well bound material	Human exposure potential	N/A
Asbestos type	Chrysotile	Maintenance activity	N/A
	Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A

CONCLUSIONS AND RECOMMENDATIONS

The floor tiles and bitumen adhesive identified in the corridor area of the office contain Chrysotile (white) asbestos fibres. Thermoplastic floor tiles can contain up to 25% asbestos fibres. Bitumen adhesives contain a small quantity of asbestos fibres.

As the building is due for demolition, the floor tiles and adhesive should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 9
Location	Front Store
Extent/ Amount	35 m² floor area approx.

Survey Date	22.8.2023	Sample No.	BS 204198
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	Cement Sheeting	Normal occupant activity	N/A
Extent of damage	Medium	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Chrysotile & Amosite	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The cement sheeting identified on the roof of the front store contains Chrysotile (white) and Amosite (brown) asbestos fibres. Asbestos cement products usually contain between 10-15% asbestos fibres, bound in Portland cement.

As the building is due for demolition, the cement sheeting should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 9
Location	Rear Stairwell
Extent/ Amount	50 m² approx.

Survey Date	22.8.2023	Sample No.	BS 204198
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	Cement Sheeting	Normal occupant activity	N/A
Extent of damage	High	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Chrysotile & Amosite	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The cement sheeting identified on the sides of the rear stairwell area contains Chrysotile (white) and Amosite (brown) asbestos fibres. Asbestos cement products usually contain between 10-15% asbestos fibres, bound in Portland cement.

As the building is due for demolition, the cement sheeting should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 9
Location	Rear cladding
Extent/ Amount	400 m² approx.

Survey Date	22.8.2023	Sample No.	BS 204201
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	Galbestos Cladding	Normal occupant activity	N/A
Extent of damage	High	Likelihood of disturbance	N/A
Surface treatment	Well bound material	Human exposure potential	N/A
Asbestos type	Chrysotile	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The felt coating identified on the metal cladding (known as Galbestos) at the rear of the building 9 contains Chrysotile (white) asbestos fibres. Felt products generally contain a small quantity of asbestos fibres mixed into the product matrix.

As the building is due for demolition, the Galbestos should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 9
Location	Rear kiln area
Extent/ Amount	100 m³ x 3 kilns + pipework

Survey Date	22.8.2023	Sample No.	BS 204202
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	Thermal Insulation	Normal occupant activity	N/A
Extent of damage	High	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Chrysotile & Amosite	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The thermal insulation identified on the three large kilns and associated pipework at the rear of Building 9 contain Chrysotile (white) & Amosite (brown) asbestos fibres. Asbestos thermal insulation can contain between 15-85% asbestos fibres.

The thermal insulation should be removed under controlled conditions by a specialist asbestos removal contractor and disposed of as asbestos waste before the refurbishment/demolition works commence

Carrying out removal works with thermal insulation will require 14 days notification to the HSA

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

FURTHER DETAIL OF THE THERMAL INSULATION

View of a kiln from the base

View of a kiln from the middle floor level

FURTHER DETAIL OF THE THERMAL INSULATION

External view of the base of a kiln

External view of the area where the kilns are located

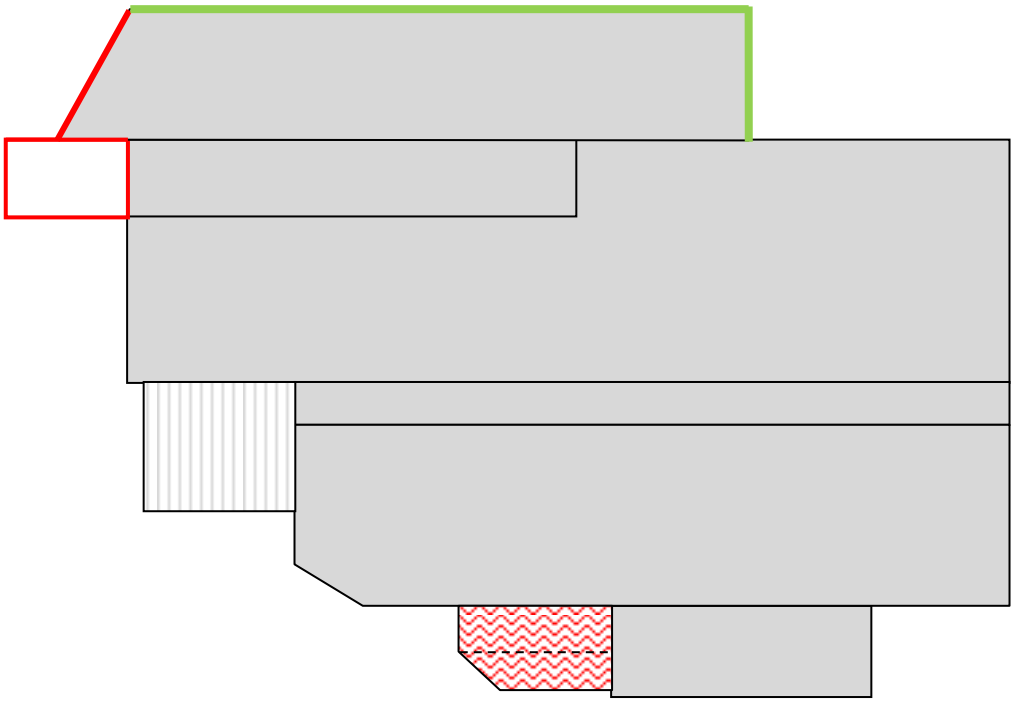
FURTHER DETAIL OF THE THERMAL INSULATION

Typical view of the pipework from the kilns

View of the thermal on a kiln and pipework

Schematic diagram only Not to scale 7th September 2023	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth

AREA 9 – ROOF PLAN



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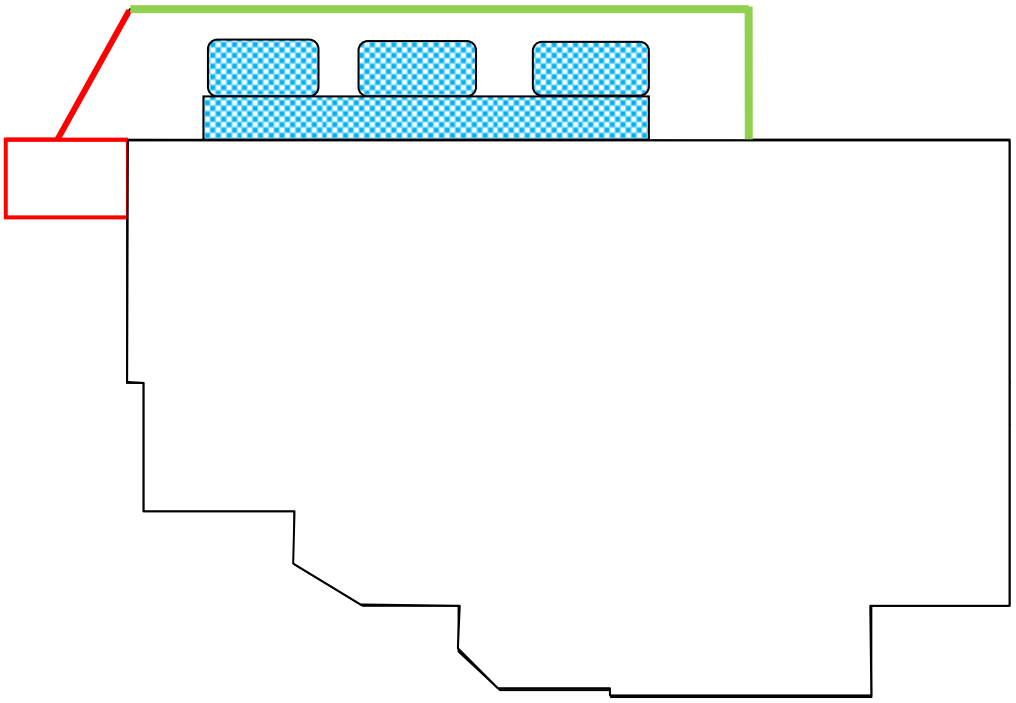
N

	Areas where asbestos cement sheeting was identified
	Areas where asbestos cement sheeting was identified
	Areas where galbestos cladding was identified

Schematic diagram only Not to scale 7th September 2023	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth

AREA 9 – 3RD FLOOR PLAN



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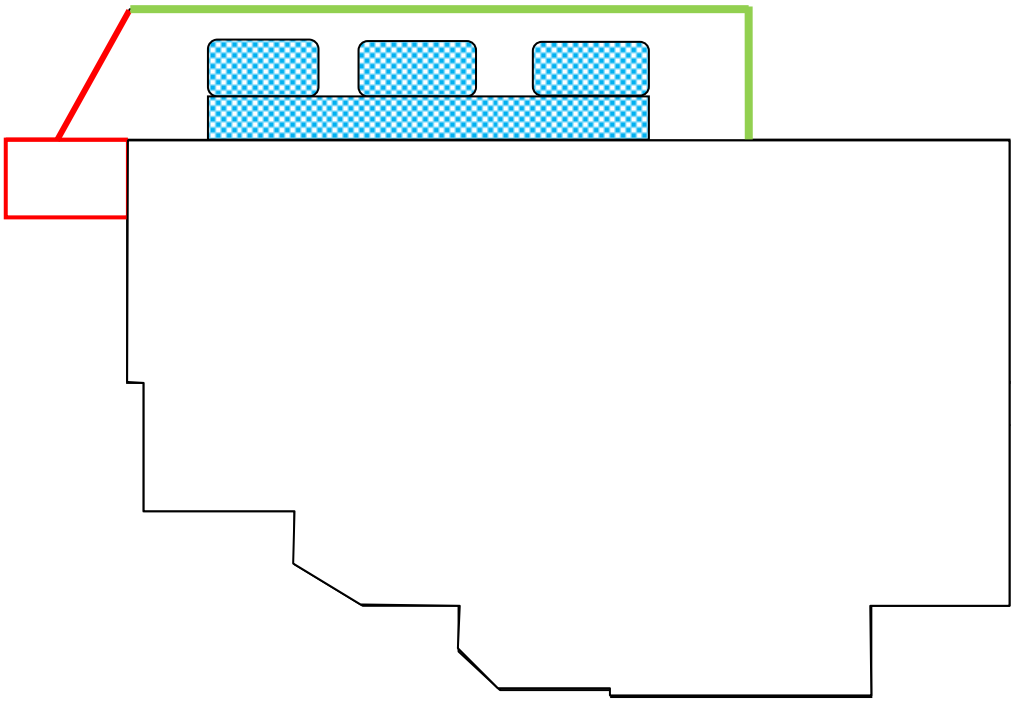
N

	Areas where asbestos containing thermal insulation was identified
	Areas where asbestos cement sheeting was identified
	Areas where galbestos cladding was identified

Schematic diagram only Not to scale 7th September 2023	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth

AREA 9 – 2ND FLOOR PLAN



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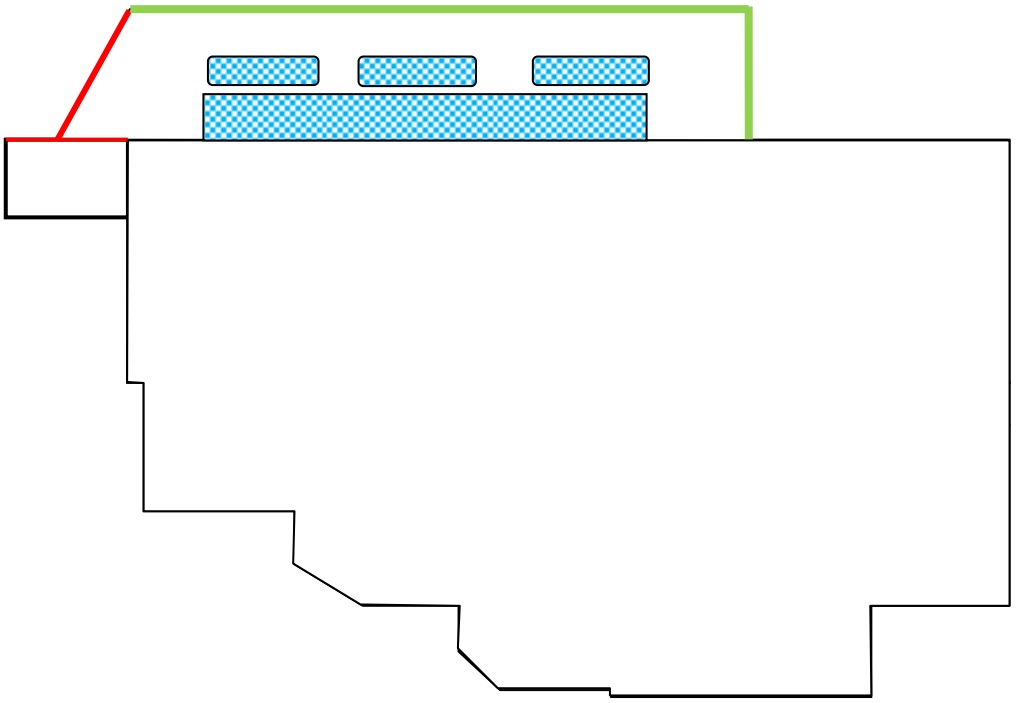
N

	Areas where asbestos containing thermal insulation was identified
	Areas where asbestos cement sheeting was identified
	Areas where galbestos cladding was identified

Schematic diagram only Not to scale 7th September 2023	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth

AREA 9 – 1ST FLOOR PLAN



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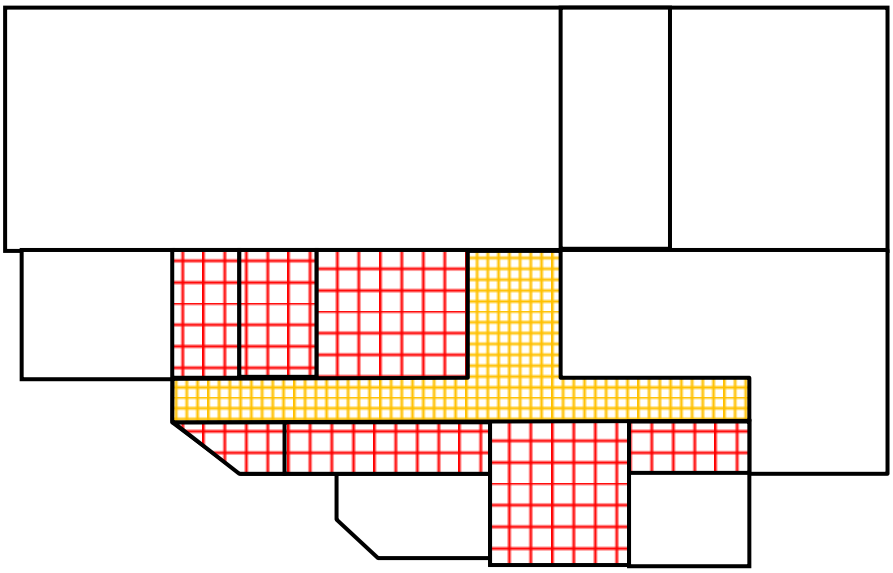
N

	Areas where asbestos containing thermal insulation was identified
	Areas where asbestos cement sheeting was identified
	Areas where galbestos cladding was identified

Schematic diagram only Not to scale 7th September 2023	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth

AREA 9 – GROUND FLOOR PLAN



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N

	Areas where asbestos cement board was identified on ceilings
	Areas where asbestos cement board, floor tiles & bitumen adhesive were identified

AREA 10

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 10
Location	North Side of Building
Extent/ Amount	60 m² approx.

Survey Date	22.8.2023	Sample No.	BS 204211
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	Cement Sheeting	Normal occupant activity	N/A
Extent of damage	Medium	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Chrysotile & Amosite	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The cement sheeting identified on the north side of the building between the two entrance doors contains Chrysotile (white) and Amosite (brown) asbestos fibres. Asbestos cement products usually contain between 10-15% asbestos fibres, bound in Portland cement.

As the building is due for demolition, the cement sheeting should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 10
Location	Kiln/ Chimney Equipment
Extent/ Amount	Small amounts

Survey Date	22.8.2023	Sample No.	BS 204212
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	Rope Seals	Normal occupant activity	N/A
Extent of damage	High	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Chrysotile	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The rope seals identified on kiln/chimney equipment contains Chrysotile (white) asbestos fibres. Rope seals can contain up to 100% asbestos fibres

As the building is due for demolition, the rope seals should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

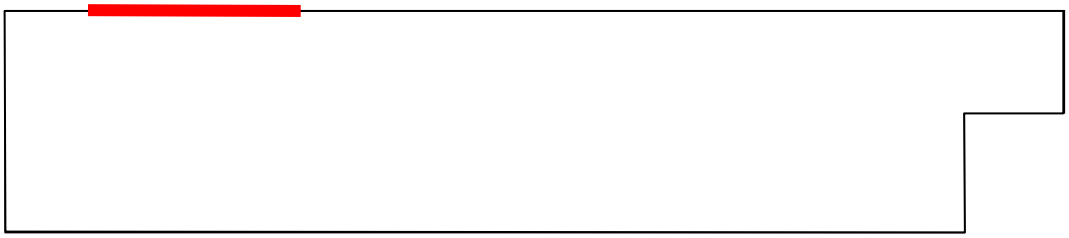
FURTHER DETAIL OF THE ROPE SEALS

View of the kiln where rope seals were identified

Close up view of the rope on the chimney equipment

Schematic diagram only Not to scale 7th September 2023	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth

AREA 10 – BUILDING PLAN



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N

———	Areas where asbestos cement sheeting was identified
Note:	Asbestos rope was identified on the kiln/chimney equipment

AREA 14

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 14
Location	Gable & Side of Building
Extent/ Amount	250 m² approx.

Survey Date	22.8.2023	Sample No.	BS 204195
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

	MATERIAL ASSESSMENT		PRIORITY ASSESSMENT
Product type	Cement Sheeting	Normal occupant activity	N/A
Extent of damage	Medium	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Amosite, Chrysotile & Crocidolite	Maintenance activity	N/A
	Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A

CONCLUSIONS AND RECOMMENDATIONS

The cement sheeting identified on the roof and side of the building contains Amosite (Brown), Chrysotile (white) and Crocidolite (blue) asbestos fibres. Asbestos cement products usually contain between 10-15% asbestos fibres, bound in Portland cement.

As the building is due for demolition, the cement sheeting should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

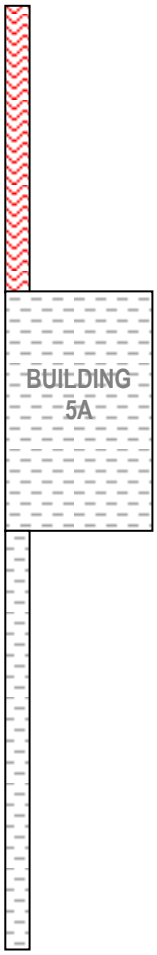
FURTHER DETAIL OF THE ASBESTOS CEMENT SHEETING

A large amount of lime dust is present on the asbestos cement sheeting

View of the asbestos cement sheeting from the rear walkway

Schematic diagram only Not to scale 7th September 2023	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth

AREA 14 – ROOF PLAN



N

	Areas where asbestos cement sheeting was identified

AREA 16

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 16
Location	Driver Waiting Building
Extent/ Amount	65 m² approx.

Survey Date	22.8.2023	Sample No.	BS 204214
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	Cement Sheeting	Normal occupant activity	N/A
Extent of damage	Low	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Chrysotile & Amosite	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The cement sheeting identified on the roof of the driver waiting building contains Chrysotile (white) and Amosite (brown) asbestos fibres. Asbestos cement products usually contain between 10-15% asbestos fibres, bound in Portland cement.

As the building is due for demolition, the cement sheeting should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 16
Location	Pipework Flanges in Yard
Extent/ Amount	One per flange

Survey Date	22.8.2023	Sample No.	BS 204215
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	CAF Gaskets	Normal occupant activity	N/A
Extent of damage	High	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Chrysotile	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The Compressed Asbestos Fibre (CAF) gaskets identified between the flanges in the yard contain Chrysotile (white) asbestos fibres. CAF Gaskets contain almost 100% asbestos fibres, with a small amount of binder.

As the area is due for demolition, the CAF Gaskets should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

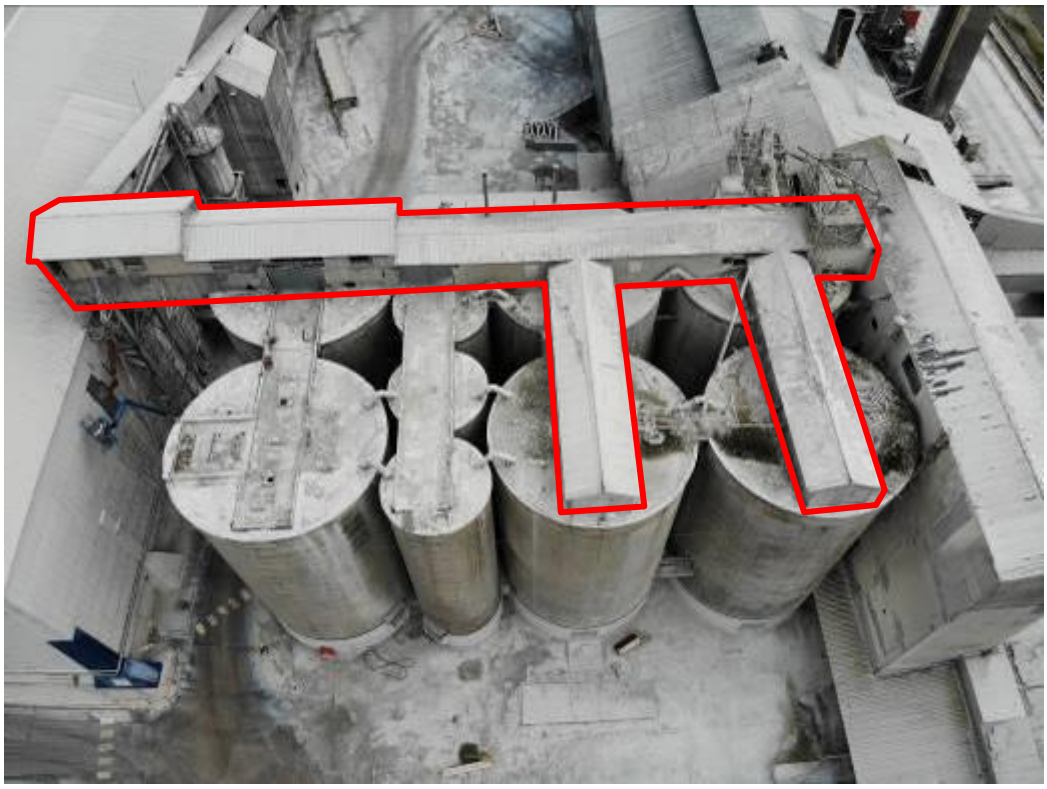
See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

Schematic diagram only Not to scale 7th September 2023	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth

AREA 16 – ROOF PLAN

	Areas where asbestos cement sheeting was identified



AREA 17

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Area 17
Location	Penthouses (Top of the Silos)
Extent/ Amount	690 m² approx.

Survey Date	22.8.2023	Sample No.	BS 204194
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	Cement Sheeting	Normal occupant activity	N/A
Extent of damage	High	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Amosite, Chrysotile & Crocidolite	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The cement sheeting identified on the penthouses on top of the silos & on the walkway between them contains Amosite (brown), Chrysotile (white) and Crocidolite (blue) asbestos fibres. Asbestos cement products usually contain between 10-15% asbestos fibres, bound in Portland cement.

As the building is due for demolition, the cement sheeting should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

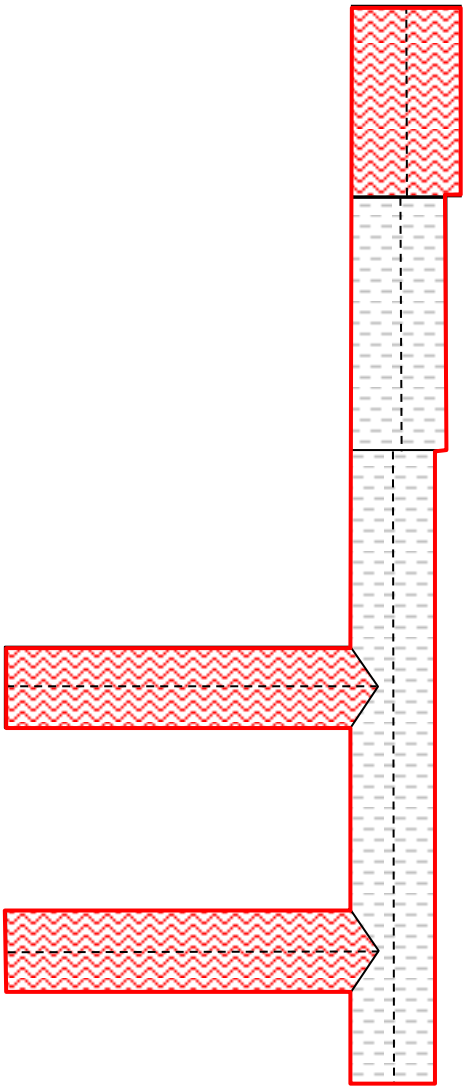
FURTHER DETAIL OF THE CEMENT SHEETING

Large amounts of lime dust is visible on the roof and sides of the sheeting

The roof area on some of the walkway is metal but the side sheeting is asbestos cement

Schematic diagram only Not to scale 7th September 2023	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth

AREA 17 – ROOF PLAN



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N

	Areas where asbestos cement sheeting was identified on the roof
	Areas where asbestos cement side sheeting was identified

AREA 18

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 18
Location	Side & End Gable of Building
Extent/ Amount	4,500 m² approx.

Survey Date	22.8.2023	Sample No.	BS 204216
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

	MATERIAL ASSESSMENT		PRIORITY ASSESSMENT
Product type	Cement Sheeting	Normal occupant activity	N/A
Extent of damage	Medium	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Chrysotile & Amosite	Maintenance activity	N/A
	Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A

CONCLUSIONS AND RECOMMENDATIONS

The cement sheeting identified on the sides & end gable of the building contain Chrysotile (white) & Amosite (brown) asbestos fibres. Asbestos cement products usually contain between 10-15% asbestos fibres, bound in Portland cement.

As the building is due for demolition, the cement sheeting should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

FURTHER DETAIL OF THE CEMENT SHEETING

Sections of the asbestos cement cladding on the rear side of the shed have been replaced but a large quantity remains

Large deposits of lime dust are adhered to the asbestos cement side sheeting

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 18
Location	Internal areas
Extent/ Amount	90 linear meters approx.

Survey Date	22.8.2023	Sample No.	BS 204480
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	Thermal Insulation	Normal occupant activity	N/A
Extent of damage	High	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Chrysotile & Amosite	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The thermal insulation identified on the old HFO line in building 9 and leading to the old main boiler room (Area 63) contains Chrysotile (white) & Amosite (brown) asbestos fibres. Asbestos thermal insulation can contain between 15-85% asbestos fibres.

The thermal insulation should be removed under controlled conditions by a specialist asbestos removal contractor and disposed of as asbestos waste before the demolition works commence

Carrying out removal works with thermal insulation will require 14 days notification to the HSA

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

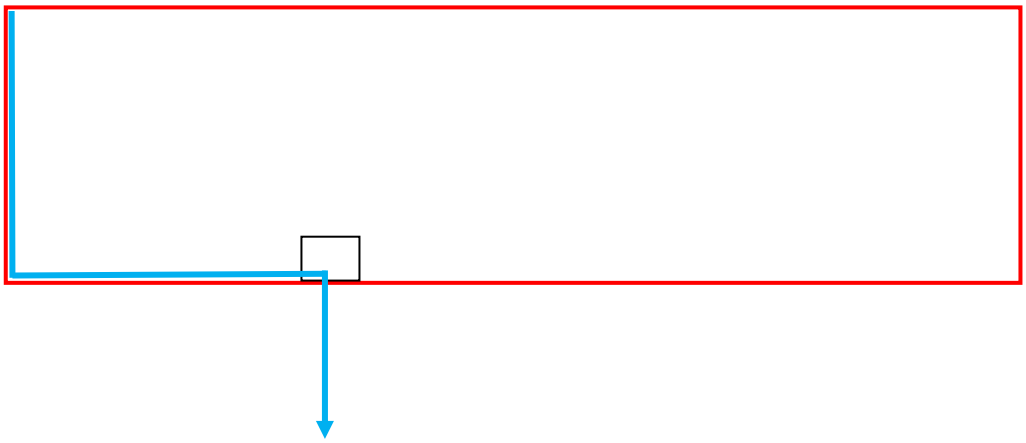
FURTHER DETAIL OF THE THERMAL INSULATION

The old HFO line runs through the internal area of Area 18

The area where the old HFO line used to enter into the main boiler house

Schematic diagram only Not to scale 7th September 2023	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth

AREA 18 – FLOOR PLAN



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N

	Areas where asbestos cement sheeting was identified on the sides and gables of the building
	Areas where asbestos containing thermal insulation was identified

AREA 20

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 20
Location	Generator Pipework
Extent/ Amount	1 per flange

Survey Date	22.8.2023	Sample No.	BS 204217
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

	MATERIAL ASSESSMENT		PRIORITY ASSESSMENT
Product type	CAF Gaskets	Normal occupant activity	N/A
Extent of damage	Low	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Chrysotile	Maintenance activity	N/A
	Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A

CONCLUSIONS AND RECOMMENDATIONS

The Compressed Asbestos Fibre (CAF) gaskets identified between the generator pipework contain Chrysotile (white) asbestos fibres. CAF Gaskets contain almost 100% asbestos fibres, with a small amount of binder.

As the building is due for demolition, the CAF Gaskets should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

AREA 29

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 29
Location	Top of Silo
Extent/ Amount	50 m² approx.

Survey Date	22.8.2023	Sample No.	BS 204219
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	Cement Sheeting	Normal occupant activity	N/A
Extent of damage	High	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Chrysotile	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The cement sheeting identified on walls of the penthouse at the top of the silo of the building contain Chrysotile (white) asbestos fibres. Asbestos cement products usually contain between 10-15% asbestos fibres, bound in Portland cement.

As the building is due for demolition, the cement sheeting should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

FURTHER DETAIL OF THE CEMENT SHEETING

Sheets are damaged and remain on top of the silo from previous removal/cleaning work carried out

View of asbestos cement sheeting at the rear of the penthouse

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 29
Location	Top of Silo
Extent/ Amount	5 m² approx.

Survey Date	22.8.2023	Sample No.	BS 204220
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	Cement Board	Normal occupant activity	N/A
Extent of damage	Medium	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Chrysotile	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The cement board identified around the top of the stairs at the top of the silo contain Chrysotile (white) asbestos fibres. Asbestos cement products usually contain between 10-15% asbestos fibres, bound in Portland cement.

As the building is due for demolition, the cement board should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 29
Location	Pipework Flanges
Extent/ Amount	1 per flange

Survey Date	22.8.2023	Sample No.	BS 204222
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	CAF Gaskets	Normal occupant activity	N/A
Extent of damage	Medium	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Chrysotile	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The Compressed Asbestos Fibre (CAF) gaskets identified between the pipework flanges contain Chrysotile (white) asbestos fibres. CAF Gaskets contain almost 100% asbestos fibres, with a small amount of binder.

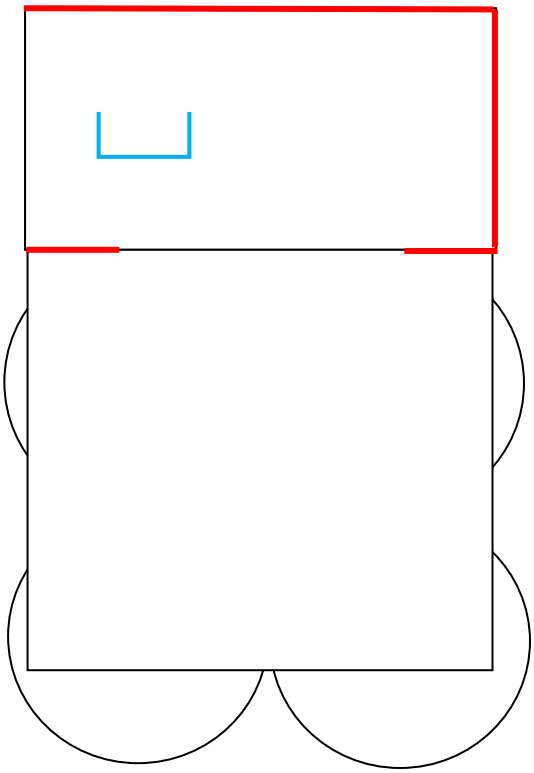
As the building is due for demolition, the CAF Gaskets should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

Schematic diagram only Not to scale 7th September 2023	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth

AREA 29 – FLOOR PLAN



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N

	Areas where asbestos cement side sheeting was identified
	Areas where asbestos cement board was identified

AREA 32-36

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 32-36
Location	Sides of Area 32-35
Extent/ Amount	4,000 m² approx.

Survey Date	22.8.2023	Sample No.	BS 204223
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	Cement Sheeting	Normal occupant activity	N/A
Extent of damage	Medium	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Chrysotile	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The cement sheeting identified on the sides of area 32-35 contain Chrysotile (white) asbestos fibres. Asbestos cement products usually contain between 10-15% asbestos fibres, bound in Portland cement.

As the buildings are due for demolition, the cement sheeting should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

FURTHER DETAIL OF THE CEMENT SHEETING

Large buildup of lime dust is firmly adhered to the side sheeting

The cladding on the south elevation of the building was replaced

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 32-36
Location	Pipework & Vessels Throughout
Extent/ Amount	1 per flange

Survey Date	22.8.2023	Sample No.	BS 204225
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	CAF Gaskets	Normal occupant activity	N/A
Extent of damage	Medium	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Chrysotile	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The Compressed Asbestos Fibre (CAF) gaskets identified on pipework and vessels throughout buildings 32-36 contain Chrysotile (white) asbestos fibres. CAF Gaskets contain almost 100% asbestos fibres, with a small amount of binder.

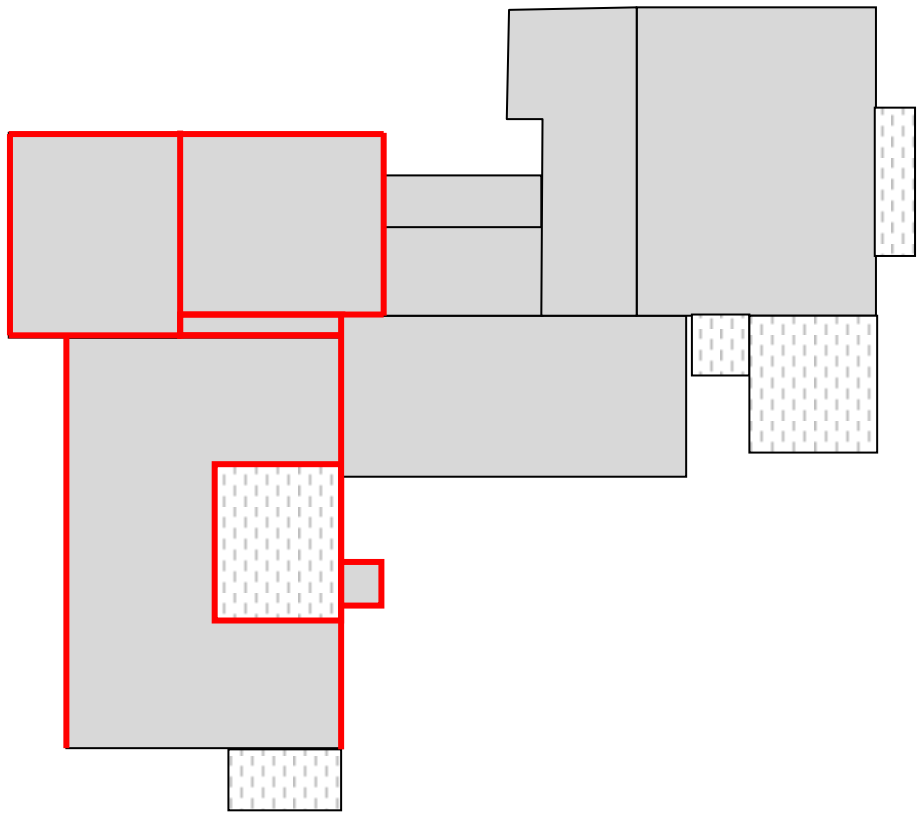
As the buildings are due for demolition, the CAF Gaskets should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

Schematic diagram only Not to scale 7th September 2023	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth

AREA 32-36 – BUILDING PLAN



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N

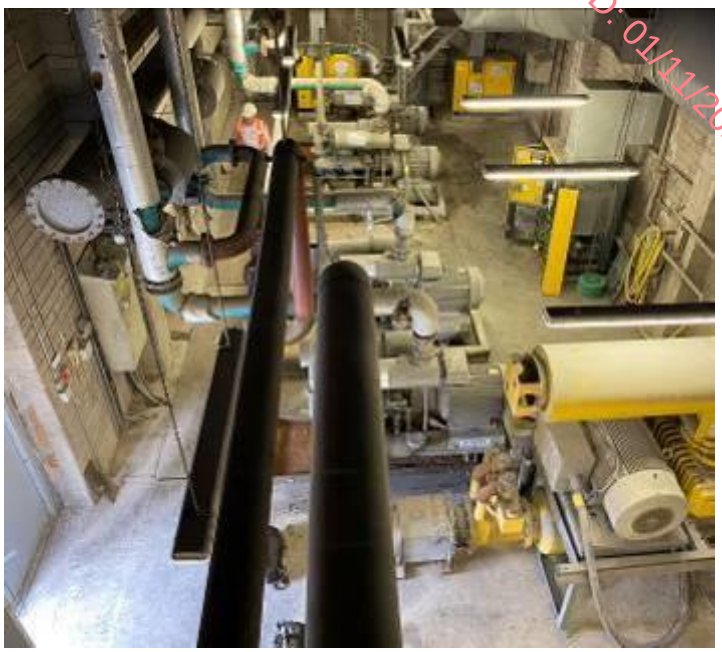
———	Areas where asbestos cement sheeting was identified on the sides and gables of the building

AREA 38

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 38
Location	Between Pipework Flanges
Extent/ Amount	1 per flange



Survey Date	22.8.2023	Sample No.	BS 204231
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	CAF Gaskets	Normal occupant activity	N/A
Extent of damage	Low	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Chrysotile	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The Compressed Asbestos Fibre (CAF) gaskets identified between the pipework flanges contain Chrysotile (white) asbestos fibres. CAF Gaskets contain almost 100% asbestos fibres, with a small amount of binder.

As the building is due for demolition, the CAF Gaskets should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

AREA 40

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 40
Location	Roof
Extent/ Amount	200 m² approx.

Survey Date	22.8.2023	Sample No.	BS 204226
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

	MATERIAL ASSESSMENT		PRIORITY ASSESSMENT
Product type	Cement Sheeting	Normal occupant activity	N/A
Extent of damage	Low	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Chrysotile & Crocidolite	Maintenance activity	N/A
	Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A

CONCLUSIONS AND RECOMMENDATIONS

The cement sheeting identified on the roof contains Chrysotile (white) and Crocidolite (blue) asbestos fibres. Asbestos cement products usually contain between 10-15% asbestos fibres, bound in Portland cement.

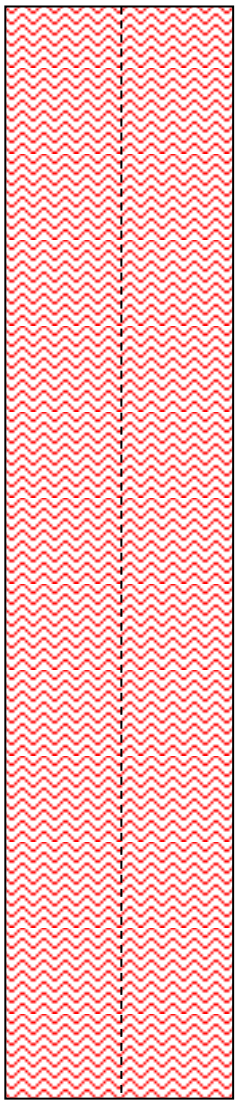
As the building is due for demolition, the cement sheeting should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

Schematic diagram only Not to scale 7th September 2023	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth

AREA 40 – ROOF PLAN



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N

	Areas where asbestos cement sheeting was identified

AREA 43

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 43
Location	Side & roof
Extent/ Amount	330 m² approx.

Survey Date	22.8.2023	Sample No.	BS 204277
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	Cement Sheeting	Normal occupant activity	N/A
Extent of damage	High	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Amosite, Chrysotile & Crocidolite	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The cement sheeting identified on the side and roof of the building contain Chrysotile (white) asbestos fibres. Asbestos cement products usually contain between 10-15% asbestos fibres, bound in Portland cement.

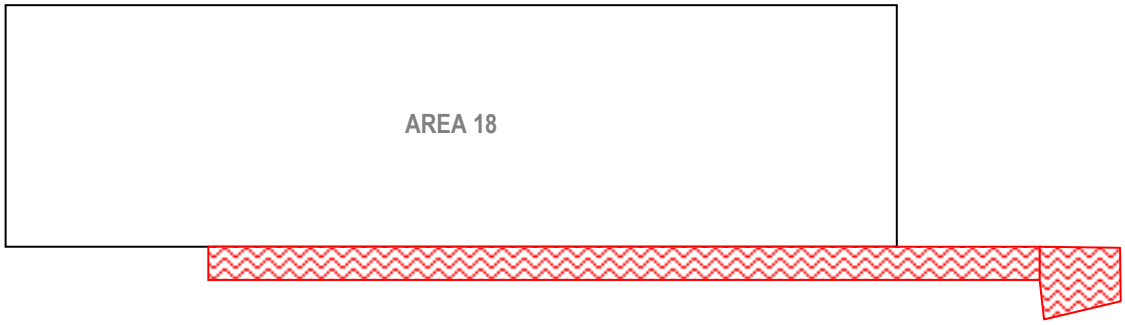
As the building is due for demolition, the cement sheeting should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

Schematic diagram only Not to scale 7th September 2023	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth

AREA 43 – ROOF PLAN



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N

	Areas where asbestos cement sheeting was identified
	Areas where asbestos cement sheeting was identified on the sides of the building

AREA 44

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 44
Location	Roof & Sides of the Building
Extent/ Amount	310 m² approx.

Survey Date	22.8.2023	Sample No.	BS 204228
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	Cement Sheeting	Normal occupant activity	N/A
Extent of damage	Medium	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Chrysotile	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The cement sheeting identified on the roof & sides of the building contain Chrysotile (white) asbestos fibres. Asbestos cement products usually contain between 10-15% asbestos fibres, bound in Portland cement.

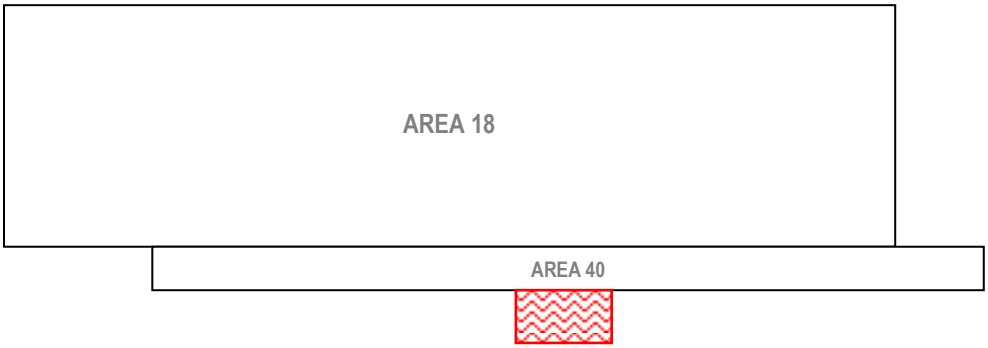
As the building is due for demolition, the cement sheeting should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

Schematic diagram only Not to scale 7th September 2023	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth

AREA 44 – ROOF PLAN



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N

	Areas where asbestos cement sheeting was identified
	Areas where asbestos cement sheeting was identified on the sides of the building

AREA 45

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 45
Location	Roof
Extent/ Amount	90 m² approx.

Survey Date	22.8.2023	Sample No.	BS 204229
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	Cement Sheeting	Normal occupant activity	N/A
Extent of damage	Low	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Chrysotile	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The cement sheeting identified on the roof contains Chrysotile (white) asbestos fibres. Asbestos cement products usually contain between 10-15% asbestos fibres, bound in Portland cement.

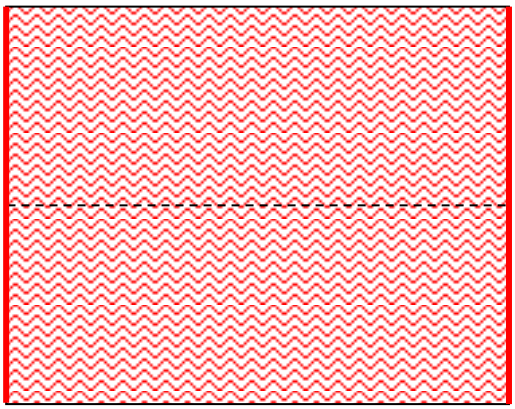
As the building is due for demolition, the cement sheeting should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

Schematic diagram only Not to scale 7th September 2023	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth

AREA 45 – ROOF PLAN



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N

	Areas where asbestos cement sheeting was identified
	Areas where asbestos cement sheeting was identified on the gables of the building

AREA 47-49

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 47-49
Location	Roofs of the Two Buildings
Extent/ Amount	50 m² floor area approx.

Survey Date	22.8.2023	Sample No.	BS 204230
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	Cement Sheeting	Normal occupant activity	N/A
Extent of damage	Medium	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Amosite, Chrysotile & Crocidolite	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The cement sheeting identified on the roof and sides of the two buildings contain Amosite (brown), Chrysotile (white) and Crocidolite (blue) asbestos fibres. Asbestos cement products usually contain between 10-15% asbestos fibres, bound in Portland cement.

As the buildings are due for demolition, the cement sheeting should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

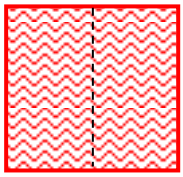
FURTHER DETAIL OF THE CEMENT SHEETING

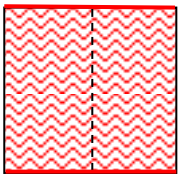
View of the asbestos cement side sheeting

View of the two buildings with roof and side sheeting

Schematic diagram only Not to scale 7th September 2023	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth

AREA 47-49 – ROOF PLAN





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N

	Areas where asbestos cement sheeting was identified
	Areas where asbestos cement sheeting was identified on the gables of the building

AREA 53

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 53
Location	Roofs barge
Extent/ Amount	15 linear meters approx.

Survey Date	22.8.2023	Sample No.	BS 204484
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	Cement slates	Normal occupant activity	N/A
Extent of damage	Low	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Chrysotile	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The cement slates identified along the roof barge of the building contain Chrysotile (white) asbestos fibres. Asbestos cement products usually contain between 10-15% asbestos fibres, bound in Portland cement.

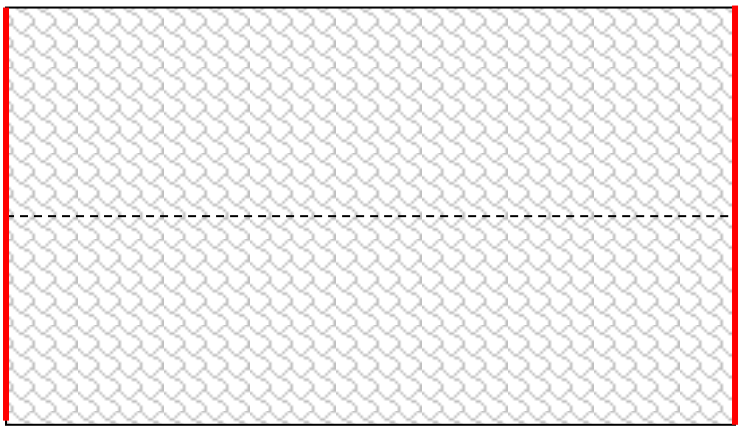
As the building is due for demolition, the cement slates should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

Schematic diagram only Not to scale 7th September 2023	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth

AREA 53 – ROOF PLAN



↑
N

	Areas where asbestos cement slates were identified

AREA 63

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 63
Location	Between Pipework Flanges
Extent/ Amount	1 per flange

Survey Date	22.8.2023	Sample No.	BS 204482
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	CAF Gaskets	Normal occupant activity	N/A
Extent of damage	Low	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Chrysotile	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The Compressed Asbestos Fibre (CAF) gaskets identified between the pipework flanges and stored on the walls/shelves contain Chrysotile (white) asbestos fibres. CAF Gaskets contain almost 100% asbestos fibres, with a small amount of binder.

As the building is due for demolition, the CAF Gaskets should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 63
Location	Boiler
Extent/ Amount	Small amounts

Survey Date	22.8.2023	Sample No.	BS 204483
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	Rope seals	Normal occupant activity	N/A
Extent of damage	Low	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Chrysotile	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The rope seals identified on the old boilers contains Chrysotile (white) asbestos fibres. Rope seals can contain up to 100% asbestos fibres

As the building is due for demolition, the rope seals should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

AREA 64

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 64
Location	Roof & sides
Extent/ Amount	150 m² floor area approx.

Survey Date	22.8.2023	Sample No.	BS 204485
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

	MATERIAL ASSESSMENT		PRIORITY ASSESSMENT
Product type	Cement Sheeting	Normal occupant activity	N/A
Extent of damage	Medium	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Chrysotile	Maintenance activity	N/A
	Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A

CONCLUSIONS AND RECOMMENDATIONS

The cement sheeting identified on the roof and sides of the building contains Chrysotile (white) asbestos fibres. Asbestos cement products usually contain between 10-15% asbestos fibres, bound in Portland cement.

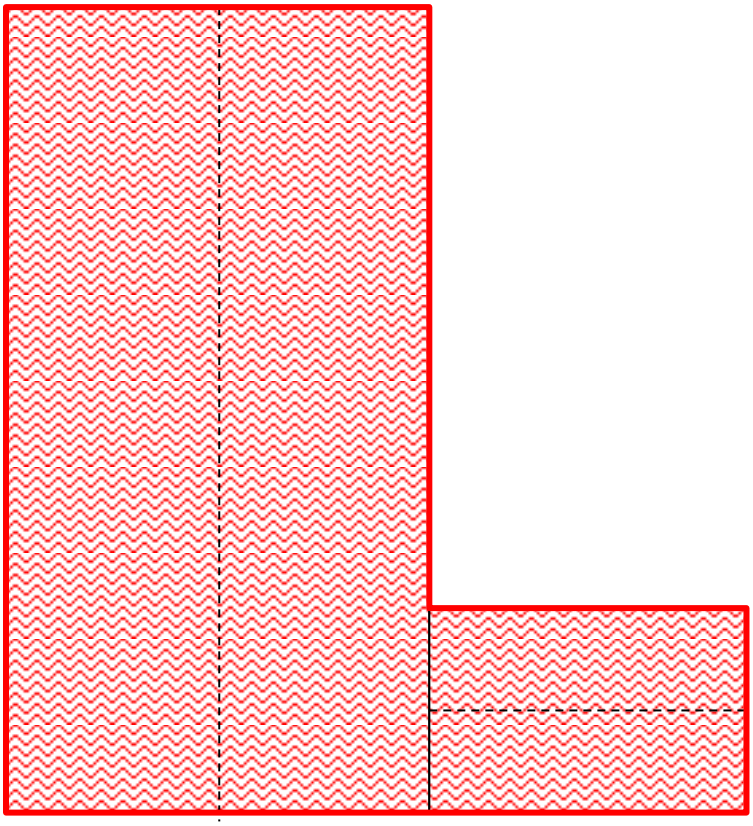
As the buildings are due for demolition, the cement sheeting should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

Schematic diagram only Not to scale 7th September 2023	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth

AREA 53 – ROOF PLAN



N

	Areas where asbestos cement sheeting was identified on the roofs
	Areas where asbestos cement sheeting was identified on the sides

AREA 69

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 69
Location	Tank lid seals
Extent/ Amount	1 per flange

Survey Date	22.8.2023	Sample No.	BS 204481
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

	MATERIAL ASSESSMENT		PRIORITY ASSESSMENT
Product type	Gasket	Normal occupant activity	N/A
Extent of damage	Low	Likelihood of disturbance	N/A
Surface treatment	None	Human exposure potential	N/A
Asbestos type	Chrysotile	Maintenance activity	N/A
	Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A

CONCLUSIONS AND RECOMMENDATIONS

The Compressed Asbestos Fibre (CAF) gaskets identified on the lids of the fuel storage tanks contain Chrysotile (white) asbestos fibres. CAF Gaskets contain almost 100% asbestos fibres, with a small amount of binder.

As the building is due for demolition, the CAF Gaskets should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

AREA 70

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 70
Location	Walls of the Lab Area
Extent/ Amount	70 m² approx.

Survey Date	22.8.2023	Sample No.	BS 204233
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	Cement Board	Normal occupant activity	N/A
Extent of damage	Medium	Likelihood of disturbance	N/A
Surface treatment	Painted	Human exposure potential	N/A
Asbestos type	Chrysotile	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The cement board identified on both sides of the stud walls in the lab area contains Chrysotile (white) asbestos fibres. Asbestos cement products usually contain between 10-15% asbestos fibres, bound in Portland cement.

As the building is due for demolition, the cement board should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET

Created By	Andrew Hickey
Date	7th September 2023
Site Details	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth
Client Name	Premier Periclase Limited
Survey Type	R/D Asbestos Survey
Site Ref	PE23-919
Building Ref.	Building 70
Location	Welfare Area
Extent/ Amount	15 m² approx.

Survey Date	22.8.2023	Sample No.	BS 204232
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory.	G & L Consultancy Ltd		

MATERIAL ASSESSMENT		PRIORITY ASSESSMENT	
Product type	Floor tiles & bitumen adhesive	Normal occupant activity	N/A
Extent of damage	Medium	Likelihood of disturbance	N/A
Surface treatment	Composite & well bound material	Human exposure potential	N/A
Asbestos type	Chrysotile	Maintenance activity	N/A
Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A	

CONCLUSIONS AND RECOMMENDATIONS

The floor tiles and bitumen adhesive identified in the welfare area contain Chrysotile (white) asbestos fibres. Thermoplastic floor tiles can contain up to 25% asbestos fibres. Bitumen adhesives contain a small quantity of asbestos fibres.

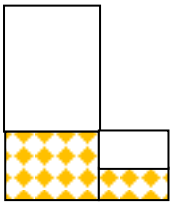
As the building is due for demolition, the floor tiles & bitumen adhesive should be removed by an asbestos removal contactor and disposed of as asbestos waste before the demolition works commence.

See Appendix F for more details

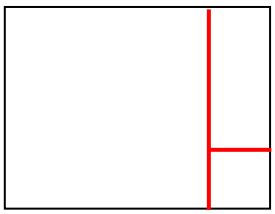
All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

Schematic diagram only Not to scale 7th September 2023	Premier Periclase Site, Boyne Road, Drogheda, Co. Louth

AREA 70 – FLOOR PLAN



WELFARE BUILDING – GROUND FLOOR



LAB BUILDING – 1ST FLOOR

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N

	Areas where asbestos containing floor tiles & bitumen adhesive were identified
	Areas where asbestos cement board was identified

APPENDIX D

NON-ASBESTOS CONTAINING MATERIALS

Parquet flooring sampled in building 1

Felt sampled from the roof of building 3

NON-ASBESTOS CONTAINING MATERIALS

Felt sampled in the ceiling void of area 21

Metal cladding on various buildings throughout the site

APPENDIX E

NON-ACCESSIBLE LOCATIONS

- Some areas throughout the site were locked and internal access was not available. These areas will need to be surveyed prior to any works taking place on site
- Due to the nature of the plants manufacturing process, all areas of the plant were covered in a large amount of lime dust. This dust covers a multitude of different surfaces and may have concealed ACMs. The dust has solidified over the years and is very difficult to remove
- Comprehensive floor plans were not made available to the surveyors. This may have led to areas not being accessed as they were not aware or familiar with all areas of the site
- No inspection of live electrical or mechanical plant or similar requiring the attendance of a specialist engineer was carried out. As the plant was still operational and in use in areas, the plant will need a further survey carried out when it becomes fully decommissioned
- No inspection of any areas requiring specialist access equipment other than telescopic ladder was carried out. A MEWP was used in areas for access to high levels. Due to the limitations of the MEWP, the surveyors could not access any hard-to-reach areas
- No flat roof areas were sampled to prevent causing leaks to the areas below
- No underground services or confined spaces were inspected
- No waterlogged or flooded areas were inspected
- All contractors working on the site should always remain vigilant to the possibility that concealed asbestos containing materials may be present on site. If any suspect asbestos containing materials are uncovered during the course of the work, works must stop in that area and the suspect material should be sampled and analysed immediately for the presence of asbestos
- Due to the large buildup of lime/dust on equipment over the years, it is likely that additional asbestos containing materials may be concealed or buried underneath the lime/dust which if firmly adhered to many surfaces (see images below).
- It is very important that all operatives working on the forthcoming decommission or demolition project, must have site specific asbestos awareness training prior to carrying any work activities in the Premier Periclase site

DETAIL OF LIME/DUST ON EQUIPMENT. MAY CONCEAL ADDITIONAL ACMs

Lime/dust on equipment. ACMs may be concealed underneath

Lime/dust on equipment. ACMs may be concealed underneath

DETAIL OF LIME/DUST ON EQUIPMENT. MAY CONCEAL ADDITIONAL ACMs

Lime/dust on equipment. ACMs may be concealed underneath

Lime/dust on equipment. ACMs may be concealed underneath

DETAIL OF LIME/DUST ON EQUIPMENT. MAY CONCEAL ADDITIONAL ACMs

Lime/dust on electrical equipment. ACMs may be concealed underneath

Lime/dust on equipment. ACMs may be concealed underneath

DETAIL OF LIME/DUST ON EQUIPMENT. MAY CONCEAL ADDITIONAL ACMs

Lime/dust on damaged asbestos pipework insulation

Lime/dust on pipework insulation. ACMs may be concealed underneath

DETAIL OF SOME NON-ACCESSIBLE LOCATIONS. MAY CONCEAL ADDITIONAL ACMs

Confined spaces were not inspected. May contain ACMs

Flooded areas were not inspected. May contain ACMs

DETAIL OF SOME NON-ACCESSIBLE LOCATIONS. MAY CONCEAL ADDITIONAL ACMs

Underground electrical service tunnels. May contain ACMs

Electro filters. May contain ACMs