



REPORT

Biffa Waste Services Ltd

Eye Landfill, Eastern Extension

Landfill Gas Risk Assessment

Submitted to:

Biffa Waste Services Ltd

Coronation Road
Cressex
High Wycombe
Buckinghamshire
HP12 3TZ

Submitted by:

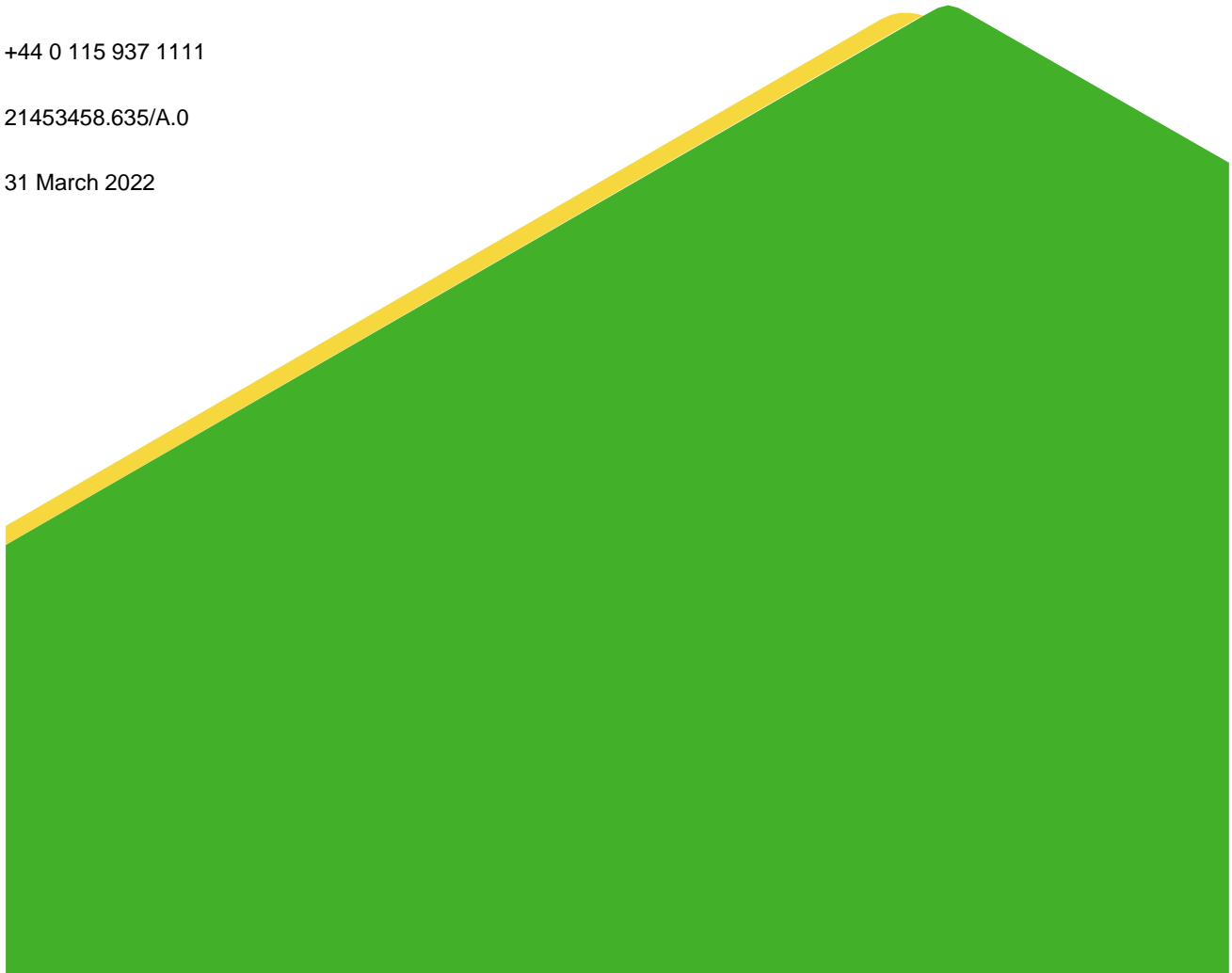
Golder WSP

Attenborough House, Browns Lane Business Park, Stanton-on-the-Wolds,
Nottingham, NG12 5BL, UK

+44 0 115 937 1111

21453458.635/A.0

31 March 2022



Distribution List

Biffa Waste Services Ltd - 1 copy (pdf)

Golder, member of WSP in UK - 1 copy (pdf)

Peterborough City Council - 1 copy (pdf)

Environment Agency - 1 copy (pdf)

Table of Contents

1.0	INTRODUCTION	1
1.1	General.....	1
1.2	Background	1
1.3	Report Methodology	1
1.4	Modelling Approach	2
2.0	BACKGROUND AND SETTING.....	2
2.1	Site Surroundings.....	2
2.2	The Site	2
2.3	Air Quality Management Areas	3
2.4	Background Air Quality	3
2.4.1	Peterborough City Council Monitoring Data	3
2.4.2	Background Air Quality from the Background Maps.....	3
2.5	Environmental Standards for Air Emissions.....	4
2.6	Odour Assessment Criteria	5
2.6.1	Regulations and Guidelines	5
2.6.2	Criteria for Use in the Odour Assessment	5
3.0	CONCEPTUAL SITE MODEL	5
3.1	Justification of the Model.....	5
3.2	The Assessment Scenario	6
3.3	Waste Input and Characteristics	6
3.3.1	General	6
3.3.2	Annual Waste Input and Breakdown.....	6
3.3.3	Waste Composition	8
3.3.4	Site Layout	8
3.3.5	Landfill Characteristics	9
3.4	Landfill Gas Composition and Flare Input Data	9
3.4.1	General	9
3.4.2	Landfill Bulk Gas Composition	9
3.4.3	Gas Plant Characteristics	10

3.4.4	Trace Gas Composition of Fugitive and Combustion Emissions.....	11
3.5	Model Validation.....	11
4.0	LANDFILL GAS GENERATION AND EMISSIONS ASSESSMENT	12
4.1	Landfill Gas Generation	12
4.2	Combustion Emissions.....	13
4.3	Surface Emissions	14
4.4	Global Atmospheric Impact.....	15
5.0	ASSESSMENT OF EMISSIONS TO ATMOSPHERE	16
5.1	Tier 1 Air Quality Screening Assessment for Human Health	16
5.1.1	The Gases to be Screened	16
5.1.2	Screening Methodology	16
5.1.2.1	Screening Process for Long-Term Emissions	16
5.1.2.2	Screening Process for Short-Term Emissions.....	16
5.1.3	GasSim Screening Results	16
5.2	Tier 2 Atmospheric Dispersion Modelling	17
5.2.1	Justification for Modelling Approach and Software.....	17
5.2.2	Assessment Methodology.....	17
5.2.3	Meteorology	18
5.2.4	Discrete Receptors.....	18
5.3	Tier 2 Atmospheric Dispersion Modelling Results for Human Health	19
5.3.1.1	Benzene	19
5.3.1.2	H ₂ S.....	19
5.3.1.3	CS ₂	19
5.3.1.4	Tetrachloroethylene	19
5.4	Odour	19
6.0	CONCLUSION	20
7.0	REFERENCES.....	21

TABLES

Table GRA1: Annual Mean Background Concentrations from DEFRA Background Maps	3
Table GRA2: Air Quality Environmental Standards (ES) for the Protection of Human Health	4
Table GRA3: Landfill Gas Composition	10
Table GRA4: Modelled Flare and Engine Characteristics	10
Table GRA5: Combustion Emission Trace Gas Concentration Input Data	11
Table GRA6: Global Impact Assessment	15
Table GRA7: Summary of Tier 1 Screening Results for Human Health	17
Table GRA8: Named Discrete Receptors Used in the Model	18

FIGURES

Figure GRA1: Annual Waste Input and Breakdown for the Central Area, Northern, Northeastern and Southern Extension	7
Figure GRA2: Annual Waste Input and Breakdown for the Eastern Extension	8
Figure GRA3: Site Layout used in Modelling	9
Figure GRA4: Indicative Gas Recovery Rates 2016 to 2020 (after exclusion of Balance Gas)	12
Figure GRA5: Modelled Bulk Gas Generation	13
Figure GRA6: Modelled Landfill Gas Utilisation by Engines and Flaring	14
Figure GRA7: Modelled Surface Emissions	15
Figure GRA8: Default Windrose for Anglian Region (Central)	18

APPENDICES:

APPENDIX GRA1

Landfill Characteristics

APPENDIX GRA2

Model Print Out

APPENDIX GRA3

Tier 1 Screening

APPENDIX GRA4

Tier 2 Modelling Results

1.0 INTRODUCTION

1.1 General

Biffa Waste Services Ltd (Biffa) would like to extend its existing landfill operations at Eye Landfill, Eyebury Road, Eye, Peterborough PE6 7TH (the 'Site') by the development of an Eastern Extension. The Site currently consists of four main areas comprising the Central Area, Northern Extension, Northeastern Extension and Southern Extension.

Willow Hall Farm Quarry and Inert Landfill is located immediately to the east of Eye Landfill and is operated by PJ Thory Ltd (Thory). It is an active sand and gravel quarry which is being restored to a low level, flat lying restoration through the progressive importation of inert waste. Biffa and Thory have agreed the feasibility of Biffa utilising void space at Willow Hall Farm Quarry and Inert Landfill for the disposal of non-hazardous waste and have been working collaboratively to this effect. In doing so, Biffa recognises the need for this permit variation application to include transfer of operations from Thory to Biffa and to include the necessary adjustments to the existing scheme. Re-development as a non-hazardous waste landfill requires a new scheme for the excavation and movement of underlying clay materials, excavation and relocation of inert waste already deposited, and changes to the site layout, infrastructure, approved phasing and restoration contours.

Biffa has requested Golder, member of WSP in UK (Golder), to prepare a Gas Risk Assessment (GRA) for the development of parts of Willow Hall Farm Quarry and Inert Landfill as a non-hazardous landfill (to be called the Eastern Extension) for continuous and uninterrupted landfilling operations after the current Southern Extension at Eye Landfill is completed. The additional area will allow for continuous and uninterrupted landfilling operations after the current Southern Extension ceases filling in 2023.

This GRA assesses the potential for gas generation at the Eastern Extension and the associated potential air quality and odour impacts at local receptors. The GRA supports both the planning and Environmental Permit applications for disposal of non-hazardous waste at the Eastern Extension.

1.2 Background

Landfilling within the Eastern Extension is expected to commence in April 2023 after filling at the Southern Extension ceases. The Eastern Extension filling is expected to be complete in approximately 2038. The Eastern Extension will be filled in ten cells, progressing in numerical order, from Cell 9 to Cell 18.

Landfill gas abstracted at the Eastern Extension will be utilised at the existing Gas Utilisation Plant (GUP) that combusts gas from the Central Area, Northern Extension, Northeastern Extension and Southern Extension. The GUP is located to the northwest of the Southern Extension and contains two Jenbacher engines with maximum capacities of 600 m³/h (J320) and 300 m³/h (J312), respectively, as well as a Flaretech Flare with a maximum capacity of 750 m³/h.

Inert waste already placed by Thory at the north end of its Inert Landfill would be excavated by Biffa and re-deposited in dedicated inert Cells 19 and 20 between the transmission line and the Cat's Water Drain. Inert waste would be placed to a low-level and restored to surrounding ground level and to provide an extension to Biffa's existing Wildlife Corridor.

1.3 Report Methodology

This report is prepared in accordance with the Gas Risk Assessment methodology as outlined in the Environment Agency's guidance document entitled '*Guidance on the Management of Landfill Gas*' (Environment Agency, 2004a), and Defra and Environment Agency's Guidance '*Air emissions risk assessment for your environmental permit*' (<https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit>) last updated in September 2021. The screening assessment has been performed according to the methodology produced by the Environment Agency's Air Quality Modelling and Assessment Unit (AQMAU)

(‘Screening method for emissions to air from landfill sites (typically gas engines, flare stacks and area sources’) (Environment Agency, 2004b).

1.4 Modelling Approach

GasSim Version 2.05.0008 (GasSim2.5) (Environment Agency, 2011), a computer software tool developed by Golder for the Environment Agency, has been used to model the potential landfill gas generation, fugitive and combustion emissions from the Site. GasSim2.5 was used to carry out a Tier 1 screening assessment to ‘screen out’ insignificant fugitive and combustion emissions from the flare and engines and to identify which emissions required detailed assessment.

The model input data have been based on site-specific data where possible. Appropriate assumptions have been made and published data, including GasSim2.5 default data, have been used where site-specific data were not available or not considered appropriate.

The assistance of Biffa in the provision of data for this work is gratefully acknowledged. Golder has not independently verified any of the information supplied by Biffa to support this risk assessment.

2.0 BACKGROUND AND SETTING

2.1 Site Surroundings

The Eastern Extension is approximately 1.1 km southeast of the village of Eye and 2.3 km east of Peterborough. It is in a predominantly rural area, surrounded by agricultural fields and isolated dwellings (Section 5.2.4). The A47 road is 1,150 m to the north, Eyebury Road is 1,400 m to the west, Oxney Road is 400 m to the southwest (of the Site Reception) and Willow Hall Lane passes down the eastern boundary. The Site lies on flat ground with an elevation ranging from approximately 3.5 m AOD to 4.5 m AOD. Spot heights provided by the Ordnance Survey on Willow Hall Lane show 4.0 m AOD at the north end of the Eastern Extension and 3.7 m AOD at the southern end.

2.2 The Site

Eye Landfill has been progressively developed as a quarry for the extraction of sand and gravel with restoration by landfill under a series of planning permissions since 1966. The different areas of the landfill, the Central Area, the Northern Extension, the Northeastern Extension, and the Southern Extension have been filled successively (**Figure GRA1**) since 1982. The Southern Extension is expected to cease filling waste in March 2023 and is the subject of this GRA. It is expected to be fully capped and restored approximately one year after final waste acceptance; however, dedicated cells will continue to accept *small* amounts of Stable Non-Reactive Hazardous Waste (SNRHW i.e. wastes containing asbestos) until 31 December 2025.

The planned Eastern Extension would start filling waste in April 2023 to allow for continuous and uninterrupted landfilling operations at Eye landfill. The planned void space of the Eastern Extension is approximately 3.2 Mm³ (pre-settlement). At a planned filling rate of approximately 211,000 m³/year, the Eastern Extension is expected to be operational for approximately 15 years and cease accepting waste in 2038.

The non-hazardous waste accepted at the landfill is expected to continue that already received at the Southern Extension and to consist of Industrial & Commercial (I&C) wastes including difficult wastes, contaminated soils, inert materials and cover materials in line with the current waste composition at the Southern Extension.

2.3 Air Quality Management Areas

Under Section 83(1) of the Environment Act 1995, local authorities must designate those parts of their areas where the prescribed Air Quality Objectives are not likely to be met by, or at any point beyond the relevant deadline, as Air Quality Management Areas (AQMAs). This applies only to those locations where members of the public might reasonably be exposed.

Peterborough City Council has declared one Air Quality Management Area (AQMA), for SO₂. This consists of two rural areas near Flag Fen, to the east of Peterborough between the City and Whittlesey. These were declared due to emissions from the brickworks outside the Local Authority area at Whittlesey. This air quality management area is located approximately 3 km southwest of the Site. It is therefore unlikely to be affected by emissions from the Site as it is upwind of the GUP. However, the AQMA will be considered should SO₂ emissions from the Site be shown to exceed the relevant assessment levels in the GRA.

2.4 Background Air Quality

2.4.1 Peterborough City Council Monitoring Data

The latest report published by Peterborough County Council is the Peterborough Air Quality Report 2019. Peterborough City Council undertook passive monitoring of NO₂ at 16 sites during 2018. The diffusion tube locations are aimed at capturing pollution related to road traffic and are located within the City of Peterborough at roadside, kerbside or urban background locations. They are not deemed to provide representative background concentrations for the Eastern Extension at Eye Landfill.

Monitoring data for SO₂ is obtained from Forterra Building Products Ltd (formally Hanson) who operate continuous ambient monitoring stations (CAMS) to the east-southeast of the former Sacon Works and to the north of the Kings Dyke Works. Both monitoring locations are more than 3 km from the Eastern Extension and relate to SO₂ stack emissions from the brickworks (see Section 2.3). They are not deemed to provide representative background concentrations for the Eastern Extension at Eye Landfill.

2.4.2 Background Air Quality from the Background Maps

In the absence of local representative monitoring data, annual average background data for sulphur dioxide (SO₂), nitrogen dioxide (NO₂), particulate matter (10 µm, PM₁₀), carbon monoxide (CO), benzene and 1,3-butadiene were sourced from Defra's 1 km by 1 km air quality background maps. Modelled background concentrations for the nearest National Grid Reference (NGR) square to the Site (524500, 301500) were obtained from Defra's website (<https://uk-air.defra.gov.uk/data/laqm-background-home>) for the year of 2022. Annual mean background concentrations are detailed in **Table GRA1**.

Table GRA1: Annual Mean Background Concentrations from DEFRA Background Maps

Substance	Background Concentration (µg/m ³) 2021 ¹
SO ₂	2.58
NO ₂	8.16
PM ₁₀	15.59
CO	124
Benzene	0.21
1,3-Butadiene	0.07

Notes:

- 1) Background data are long-term annual averages;
- 2) 2001-based background maps for SO₂, CO, benzene and 1,3-butadiene; and
- 3) 2018-based background maps for years 2018 to 2030.

2.5 Environmental Standards for Air Emissions

The Environmental Standards (ES) for the protection of human health for the main combustion and fugitive emission typically associated with landfilling operations are shown in **Table GRA2**.

Table GRA2: Air Quality Environmental Standards (ES) for the Protection of Human Health

Substance	Limit (average)	Exceedances (number of times a year that the limit can be exceeded)	Emission Period	Standard
Sulphur Dioxide	350 µg/m ³	Up to 24 1-hour periods	1 hour	AAD Limit values for the protection of human health
	125 µg/m ³	Up to 3 24-hour periods	24 hour	AAD Limit values for the protection of human health
	266 µg/m ³	Up to 35 15-minute periods	15 minutes	UK AQS Objective
PM₁₀	50 µg/m ³	Up to 35 24-hour periods	24 hour	AAD Limit values for the protection of human health
	40	n/a	Annual mean	AAD Limit values for the protection of human health
Carbon Monoxide	10,000 µg/m ³	n/a	8 hour running average across a 24-hour period	AAD Limit value for the protection of human health
Nitrogen Dioxide	200 µg/m ³	Up to 18 1-hour periods	1-hour mean	AAD Limit value for the protection of human health
	40 µg/m ³	n/a	Annual mean	AAD Limit values for the protection of human health
Benzene	30 µg/m ³	n/a	1-hour mean	EAL
	5 µg/m ³	n/a	Annual mean	AAD Limit values for the protection of human health
Hydrogen Sulphide	150 µg/m ³	n/a	1-hour mean	EAL
	140 µg/m ³	n/a	Annual mean	EAL
Carbon Disulphide	100 µg/m ³	n/a	1-hour mean	EAL
	64 µg/m ³	n/a	Annual mean	EAL
Tetrachloro-ethylene	40 µg/m ³	n/a	24-hour	EAL

Note: ¹Nitrogen oxides expressed as NO₂.

Ambient Air Directive (AAD) Limit values for the protection of human health are based on the EU Air Quality Directive (Directive 2008/50/EC) which came into force in June 2008 and was transposed into The Air Quality Standards Regulations in England, Wales, Scotland and Northern Ireland in June 2010.

UK Air Quality Strategy (AQS) Objectives are based on The Air Quality Strategy for England, Scotland, Wales and Northern Ireland which are set into regulation by the Air Quality (England) Regulations 2000 and Air Quality (England) Amendment Regulations 2002. The AQS Objectives take the EU limit values into account and are

either effectively identical, or more stringent. The latter is the case for SO₂ measured over a 15 min period for human health.

For fugitive emissions consideration is given to hydrogen sulphide (H₂S), carbon disulphide (CS₂), Tetrachloroethylene (TCE) and benzene. These 'New Air Environmental Assessment Levels' were updated by the Environment Agency in 2021 following a consultation.

2.6 Odour Assessment Criteria

2.6.1 Regulations and Guidelines

This assessment considers surface emissions as a source of odour. There are currently no statutory standards or objectives for assessing odour impacts in the UK and as such odour impact criteria, if assessed, are typically based upon guideline documents and case law. The Environment Agency has published *Guidance on H4 Odour Management* (March 2011).

An odour unit is a measure of the concentration of a mixture of odorous compounds. It is determined by means of olfactometry. Odour unit values are determined by a standard method given in the draft CEN (the European Committee for Standardisation) standard on olfactometry. An odour unit as defined by the CEN standard is 1 OUE (European Odour Unit). As a very approximate guide, 1 OUE/m³ is the point of detection and generally at 1 to 5 OUE/m³ the odour is recognisable.

Exposure is usually quantified in terms of a frequency of occurrence over a year of hourly average concentrations above a certain odour concentration. For odour, the 98%ile of hourly average odour concentrations over the period of a year is commonly used in the UK. This means that the hourly average concentrations of odour when modelled over a year (8,760 hours in a year) must not exceed the relevant standard adopted for more than 2% (175 hours) of these hours. In general, the standards considered are:

- 1.5 odour units for most offensive odours (which includes biological landfill odours);
- 3.0 odour units for moderately offensive odours (which includes green waste composting); or
- 6.0 odour units for less offensive odours (such as breweries or bakeries).

Any modelled results that project exposures above these benchmark levels, after taking uncertainty into account, indicates the likelihood of unacceptable odour pollution. Further *Guidance on Assessment of Odour for Planning* that does not involve modelling of odour emissions has been published by the Institute for Air Quality Management (IAQM) in 2018.

2.6.2 Criteria for Use in the Odour Assessment

The objective of the assessment is to determine whether there are likely to be any potential odour impacts, which could reasonably be classed as a nuisance, as a result of surface or combustion emissions at the Site. Based on the H4 Odour Management Guidance a modelled odour limit of 1.5 to 3.0 OUE/m³ for highly to moderately offensive odours at an identified receptor has been adopted in this assessment.

3.0 CONCEPTUAL SITE MODEL

3.1 Justification of the Model

GasSim2.5, a computer model developed by Golder for the Environment Agency, has been used to model the landfill gas generation, fugitive and combustion emissions from the Site. GasSim2.5 was also used to carry out a Tier 1 Screening assessment to 'screen out' insignificant emissions from the landfill and to identify which emissions required detailed assessment.

GasSim2.5 uses statistical distributions or probability density functions (PDFs) to characterise most of the input parameters. Each time a calculation is carried out, one value from the defined input distributions is chosen by the computer code and, for example, a concentration at the receptor is calculated. Each result is stored such that after repeating the same calculation many times, an output distribution for the concentration at the receptor is obtained. The distribution output is given in terms of percentiles (%iles). These %iles specify the probability with which a certain value (e.g. gas production rate) will not be exceeded. For instance, if the 95%ile of a gas production rate distribution is given as 1,000 m³/hour, there is a 95% chance that the actual production rate will be below or equal to 1,000 m³/hour. It follows that there is also a 5% chance that the actual production rate will be above this.

GasSim2.5 is an industry standard gas generation modelling tool based on well-established scientific principles that has been validated and independently reviewed. GasSim2.5 includes a Tier 2 atmospheric dispersion module which is based on the AERMOD air dispersion modelling code.

3.2 The Assessment Scenario

Fugitive and combustion emissions are assessed for the operational period of the Eastern Extension. Landfill gas generation and emissions at the Site have however been determined for the entire lifecycle of Eye Landfill to consider the cumulative effects of both surface and combustion emissions arising from landfill gas generated at the Central Area, Northern Extension, Northeastern Extension, Southern Extension in addition to the gas generated at the Eastern Extension.

Landfill gas long-term and short-term surface emissions have been assessed under normal operational conditions. During normal operations, a Jenbacher 320 and a Jenbacher 312 engine are operational at the GUP to utilise gas collected from all gas generating areas of Eye landfill. Any surplus landfill gas is being combusted by a Flaretech flare also installed at the GUP.

As the Eastern Extension doesn't exist yet, the gas resource from the future filling can only be estimated by modelling. Once the Eastern Extension becomes operational and Biffa starts extracting landfill gas it is recommended that the GRA and gas resource is calibrated against actual flow measurements. Based on actual flow and the calibration of the GRA gas resource, Biffa will ensure sufficient flaring capacity at the GUP to combust any surplus landfill gas beyond engine capacity. This will provide adequate back-up flaring capacity, and continue gas management, should one or both engines become non-operational at any time.

3.3 Waste Input and Characteristics

3.3.1 General

GasSim2.5 requires that the waste tonnages, waste breakdown and the composition of individual waste streams are defined to enable it to calculate the gas generation capability of the waste.

Site-specific waste information has been provided since 1981 detailing the tonnes of waste in each waste category which have been landfilled at the Site on an annual basis. For future filling, estimates have been based on future cell sizes and void approximations. This is incorporated into GasSim2.5 as described, below.

3.3.2 Annual Waste Input and Breakdown

Figure GRA1 shows the waste input rates and waste breakdown assumed for the Central Area, Northern Extension, Northeastern Extension, and Southern Extension from 1981 to 2023. The waste stream accepted historically consist mainly of industrial and commercial (I&C) and inert wastes including cover materials and contaminated soils..

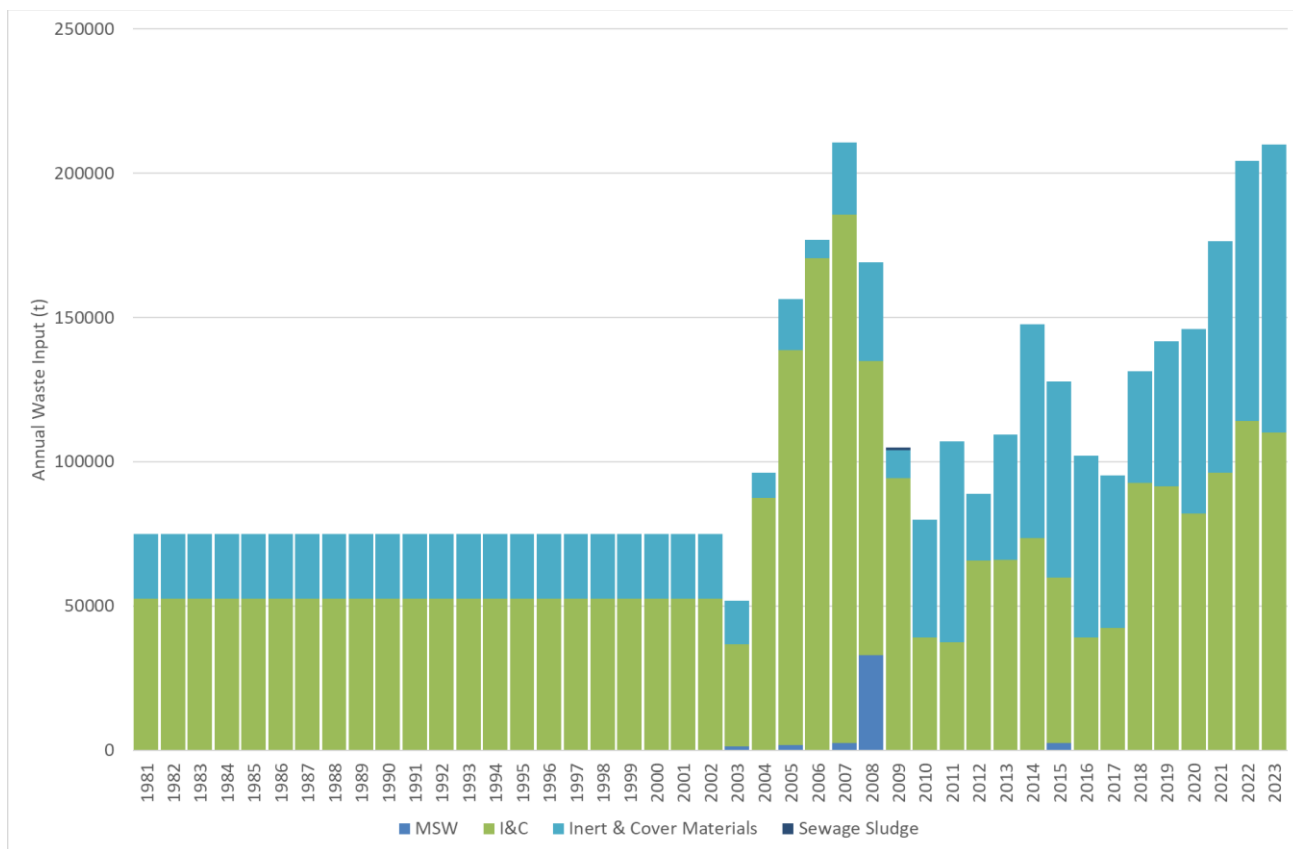


Figure GRA1: Annual Waste Input and Breakdown for the Central Area, Northern, Northeastern and Southern Extension

A uniform distribution with a +/- 10% range has been applied to waste input tonnages and breakdown assumptions to account for uncertainty in the mostly historic data. The GasSim2.5 model inputs for the historic gas producing landfill areas are detailed on an area-by-area-basis in **Appendix GRA1**.

Figure GRA2 shows the waste input rates and waste breakdown assumed for the Eastern Extension from 2023 to 2038. The modelled annual waste input is 220,000 tonnes. The Eastern Extension has been modelled to start filling in April 2023 and cease filling in August 2028 based on a total void pre-settlement of approximately 3.2 Mm³ and an assumed bulk waste density of 0.96 m³/t. Biffa anticipates the future waste stream to consist mainly of I&C waste as well as inert wastes and cover materials including contaminated soils in line with historic waste inputs.

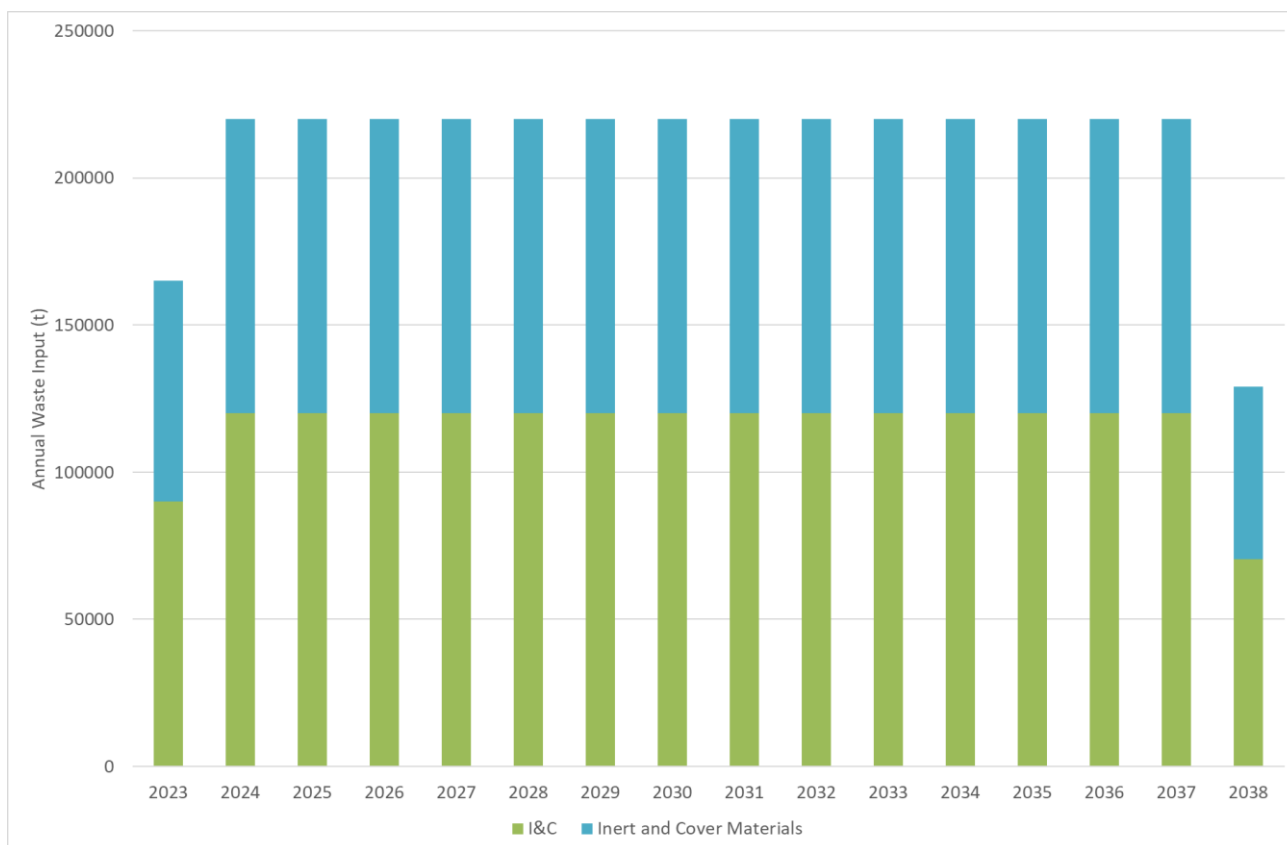


Figure GRA2: Annual Waste Input and Breakdown for the Eastern Extension

A uniform distribution with a +/- 20% range has been applied to waste input tonnages and breakdown assumptions to account for uncertainty in the future waste input estimates. The GasSim2.5 model inputs for the Eastern Extension are detailed on a cell-by-cell basis in the model printouts in **Appendix GRA1**.

3.3.3 Waste Composition

The waste breakdown data in GasSim2.5 is related to waste compositions to determine likely gas production rates. The waste composition for Eye Landfill is based on the GasSim2.5 default waste compositions for England.

The historic and future anticipated waste compositions accepted at the Site in each year are detailed in **Appendix GRA1**.

3.3.4 Site Layout

Figure GRA3 details the modelled site layout. The Central Area, Northern, Northeastern and Southern Extensions have been represented by single combined cell in the model representing each of the four historical areas shaded in green. For the Eastern Extension each of the ten future cells have been represented individually, shaded in blue. These are anticipated to be filled in order of numbering starting from Cell 9.

Two additional cells (Cells 19 and 20) will be located between the Cat’s Water Drain and transmission wires and will receive inert waste *already* deposited at the site by Thory. These will comprise inert waste and are not considered further in this GRA.

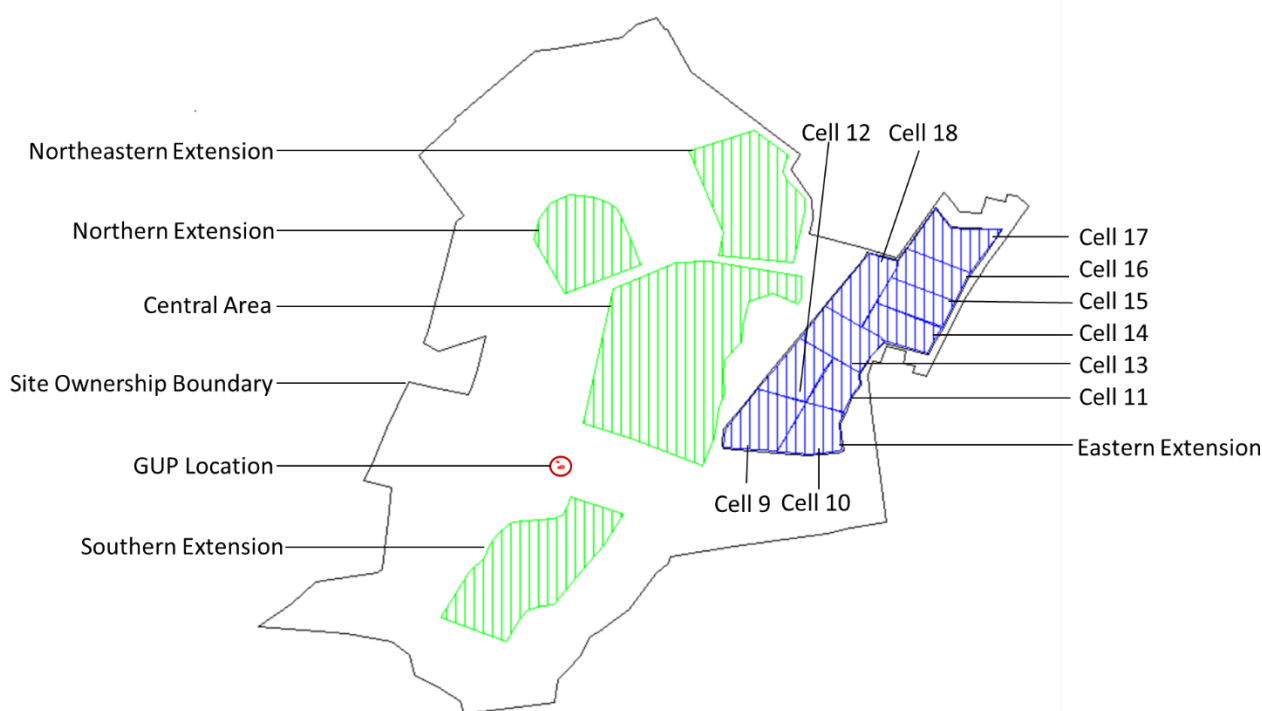


Figure GRA3: Site Layout used in Modelling

3.3.5 Landfill Characteristics

General characteristics of the Site that have been incorporated within the models are detailed in **Appendix GRA1**. The waste moisture content of the Site is assumed to be 'wet'.

The cap and liner properties used in the model are summarised in **Appendix GRA1**. Modelled historic and anticipated installation dates of temporary and permanent capping as well as permanent gas extraction systems are detailed in **Appendix GRA2**. All historic or currently filling Eye landfill areas are assumed to be fully capped and restored by 2024, that is one year after filling ceases at the Southern Extension.

The Eastern Extension will be lined with an approximately 1 m thick clay liner. The clay liner is considered to have a hydraulic conductivity of 1×10^{-10} to 1×10^{-9} m/s. Temporary capping is applied in a progressive manner following the infilling of waste, prior to the installation of the engineered final cap. The temporary cap will consist of approximately 0.5 m of soil or quarry with a hydraulic conductivity of approximately 1×10^{-7} to 1×10^{-5} m/s. The permanent capping system at the Site is anticipated to consist of approximately 1 m of engineered clay and was modelled with the same hydraulic conductivity as the clay liner.

3.4 Landfill Gas Composition and Flare Input Data

3.4.1 General

Landfill gas is actively controlled and managed across the Site and will continue to be managed throughout the operational life of the Site and during its post-closure and aftercare period. The gas collection and utilisation system will be expanded progressively as landfilling continues within the Eastern Extension.

3.4.2 Landfill Bulk Gas Composition

Landfill gas is primarily composed of methane and carbon dioxide and site-specific values for gas composition based on monthly monitoring 2016 to 2020 have been used as detailed in **Table GRA3** below.

Table GRA3: Landfill Gas Composition

Gas	Composition (%)
Methane (CH ₄)	SINGLE (59.0)
Carbon Dioxide (CO ₂)	SINGLE (41.0)

3.4.3 Gas Plant Characteristics

Landfill gas is currently collected from the Central Area, Northern Extension, Northeastern Extension and Southern Extension and sent to the GUP which is located centrally within Eye Landfill (**Figure GRA3**) between the Central Area and the Southern Extension. The gas plant contains a Jenbacher 320 engine with a maximum capacity of 600 m³/h and a Jenbacher 312 engine with a maximum capacity of 300 m³/h. The compound also contains a high temperature Flaretech flare with a maximum capacity of 750 m³/h.

Biffa anticipates that the current GUP location as well as engine and flare configuration is maintained during the operation of the planned Eastern Extension. In the future, ongoing landfill gas flow monitoring at the GUP will be used to determine the required utilisation and flaring capacity at the GUP. Biffa will assure sufficient flaring capacity at the GUP to combust any surplus landfill gas beyond engine capacity and provide adequate back-up flaring capacity should engines become non-operational at any time.

The characteristics of the currently installed engines and flare at the Site are summarised in **Table GRA4**.

Table GRA4: Modelled Flare and Engine Characteristics

Flare/Engine Characteristics	Jenbacher 320	Jenbacher 312	Flaretech Flare
Type ¹	Spark Ignition Engine	Spark Ignition Engine	High-Temperature Flare
Minimum Capacity (m ³ /h)	300	150	150
Maximum Capacity (m ³ /h) ¹	600	300	750
Downtime (%) ^{2,3}	8 - 12	8 - 12	3 - 5
Air to fuel ratio ²	7	7	10
Destruction efficiency for gases (%) ²	99	99	99
Stack/exhaust height (m) ¹	5.5	5.5	7
Stack/exhaust orifice diameter (m) ¹	0.35	0.35	1.6
Stack/exhaust location	523762, 301541	523771, 301526	523757, 301541

Notes:

1. Site-specific information;
2. GasSim2.5 default value; and
3. Downtime represents the proportion of time that the engine and flare are not operational.

3.4.4 Trace Gas Composition of Fugitive and Combustion Emissions

GasSim2.5 contains a list of default fugitive and combustion trace gas concentrations to enable the landfill gas source to be modelled. These GasSim2.5 default trace gas concentrations were applied in the modelling.

For fugitive emissions, the provided default concentration ranges within GasSim2.5 was compared to historic priority trace gas monitoring results. Based on this, the concentration ranges for several trace gas components were aligned as shown in **Table GRA5**.

For modelling of engine and flare emissions, the limit values set in the Site's Environmental Permit were used as specified in **Table GRA5**.

Table GRA5: Combustion Emission Trace Gas Concentration Input Data

Gas	Modelled Trace Gas Concentration (mg/m ³)		
	Fugitive Emissions	Flare Emissions ¹	Engine Emissions ²
1-Butanethiol	LOGUNIFORM(1.00E-30, 0.177)	n/a	n/a
2-Butoxy Ethanol	LOGUNIFORM(1.00E-30, 0.094)	n/a	n/a
Benzene	LOGUNIFORM(3.1, 15.0)	n/a	n/a
Butadiene (modelled as 1,3-Butadiene)	LOGUNIFORM(1.00E-30, 0.044)	n/a	n/a
Carbon tetrachloride (tetrachloromethane)	LOGUNIFORM(1.00E-30, 0.041)	n/a	n/a
Ethanethiol (ethyl mercaptan)	LOGUNIFORM(1.00E-30, 0.252)	n/a	n/a
Methanethiol (methyl mercaptan)	LOGUNIFORM(1.00E-30, 0.662)	n/a	n/a
Propanethiol	LOGUNIFORM(1.00E-30, 0.215)	n/a	n/a
Oxides of Nitrogen (as NO ₂)	n/a	SINGLE(150)	SINGLE(500)
Carbon Monoxide (CO)	n/a	SINGLE(100)	SINGLE(1400)
Total Volatile Organic Compounds (TVOC)	n/a	SINGLE(10)	SINGLE(1000)

Notes: ¹Flare reference conditions are temperature: 0°C (273K); pressure: 101.3 KPa; and oxygen: 3 percent (dry gas).
²Engine reference conditions are temperature 0°C (273 K); pressure: 101.3 kPa; and oxygen: 5 per cent (dry gas).

3.5 Model Validation

Golder has modelled the existing gas-producing areas of Eye Landfill in addition to the planned Eye Eastern Extension to be able to assess the cumulative effects of surface and combustion emissions from the Site. To validate the historic inputs to the modelling, the modelled gas generation at the 50%ile was compared to the actual flow volumes measured at the GUP after excluding any balance gas (**Figure GRA4**).

The resulting indicative gas recovery rates vary between 71% and 84% over the last five years (2016 to 2020) with an average recovery rate of 76%. These fall within the anticipated range of 55 to 85% collection efficiency at modern UK landfills (Review of Landfill Methane Emissions Modelling, Defra 2014).

The GasSim2.5 model should be calibrated regularly once landfilling and gas abstraction commences at the Eastern Extension.

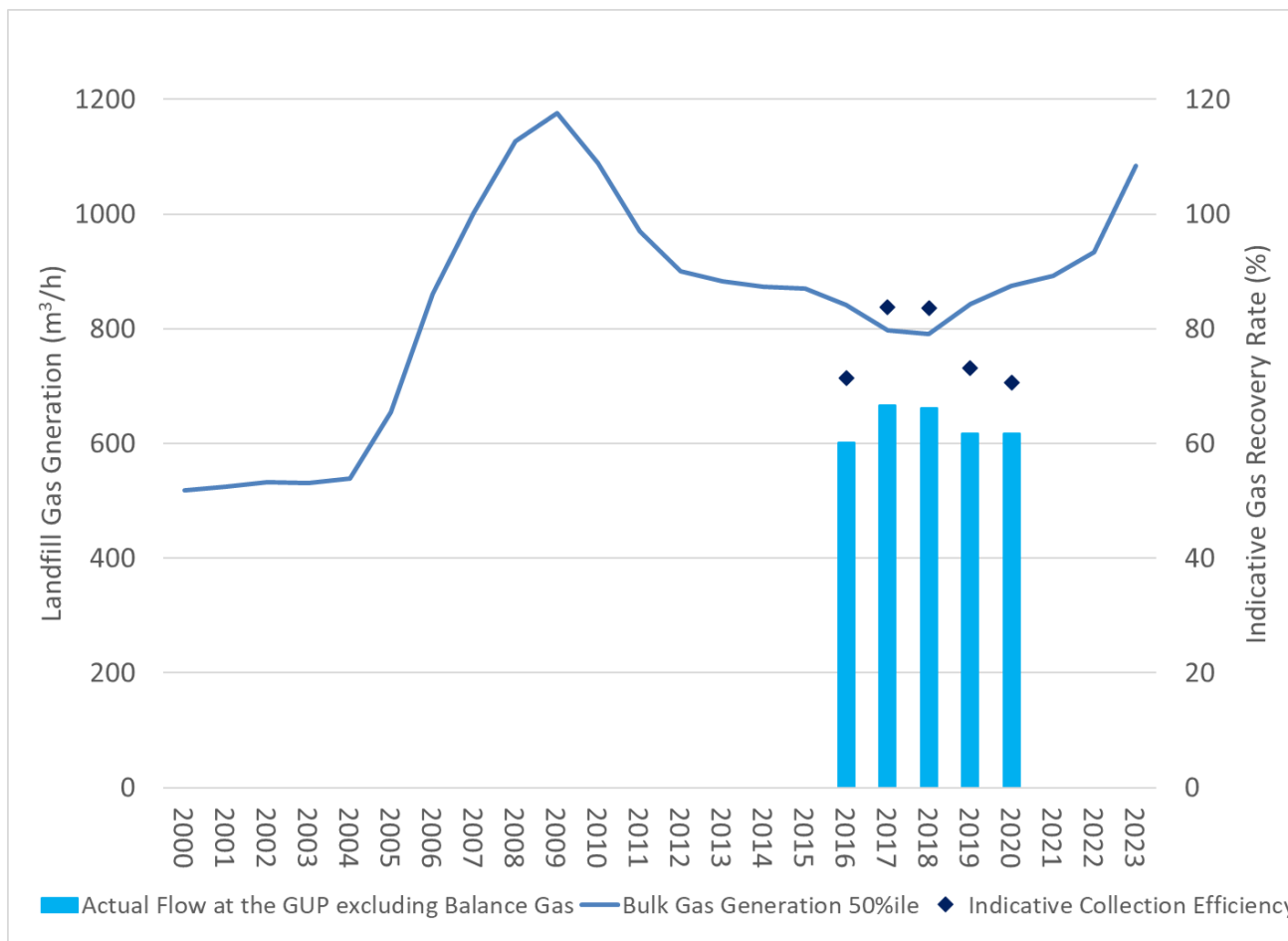


Figure GRA4: Indicative Gas Recovery Rates 2016 to 2020 (after exclusion of Balance Gas)

4.0 LANDFILL GAS GENERATION AND EMISSIONS ASSESSMENT

4.1 Landfill Gas Generation

The peak landfill gas generation rate has been modelled by GasSim2.5 to be 1,386 m³/hr occurring in 2038 (95%ile), based on the input data described in this report. The actual quantities of landfill gas to be generated will depend on the actual waste inputs to the Site and so should be reassessed as landfilling progresses.

Figure GRA5 shows the annual landfill gas generation including approximate contributions of the existing gas producing landfill areas, i.e. Central Area, Northern Extension, Northeastern Extension and Southern Extension, as well as the Eastern Extension. While filling commences in 2023 at the Eastern Extension, landfill gas generation is initially governed by gas from the existing gas producing areas. Over time, the contribution of gas generated at the Eastern Extension increases while the contribution of other, non-filling, parts of the Site declines.

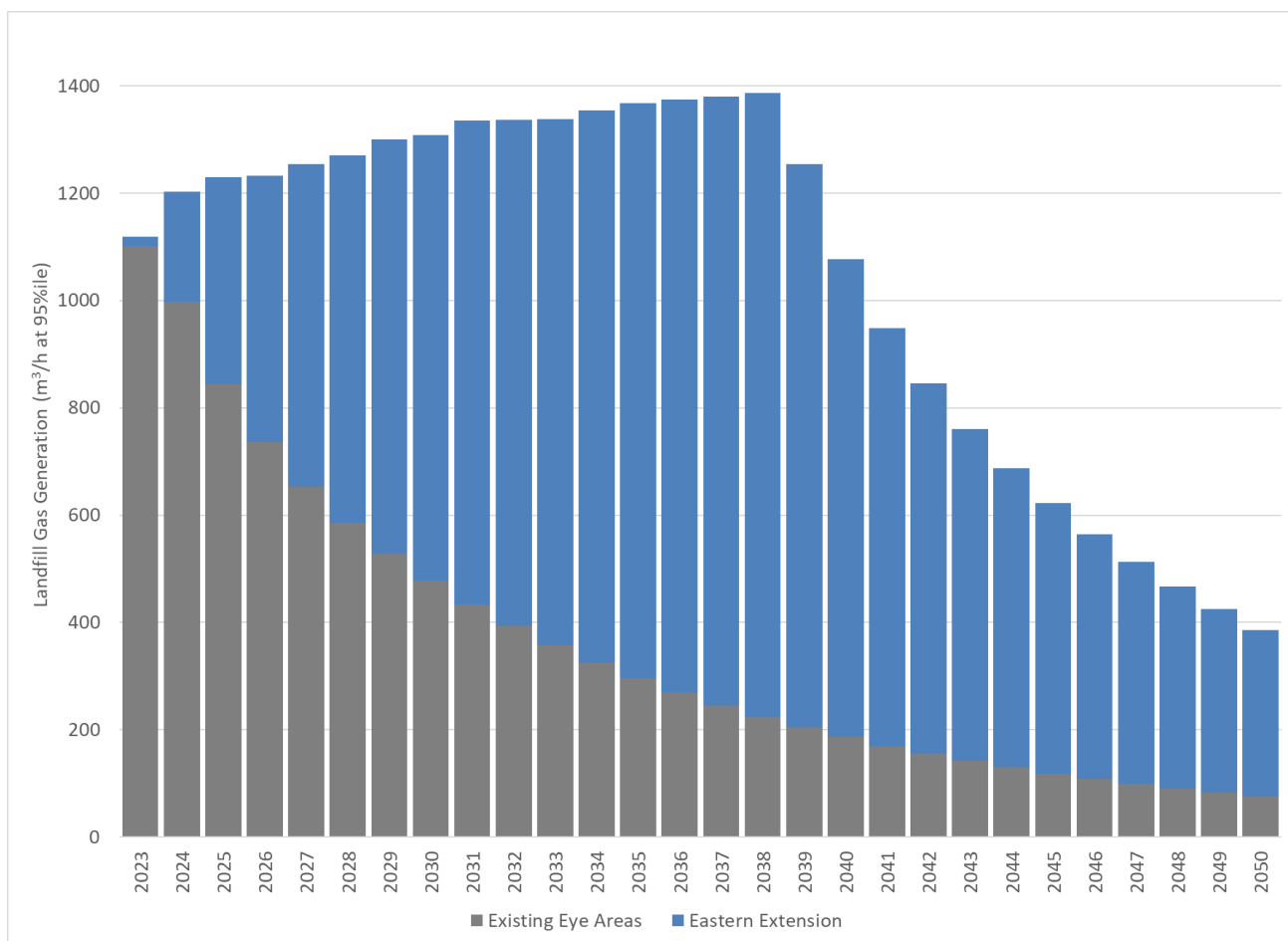


Figure GRA5: Modelled Bulk Gas Generation

4.2 Combustion Emissions

The emissions from the gas plant have been determined from the landfill gas volumes generated, trace gas compositions and the destruction efficiencies for each gas. The destruction efficiency is the proportion of the gas that is destroyed during combustion. For the purposes of this modelling, a destruction efficiency of 99% has been used for all gases except carbon dioxide, for example 99% of the methane flared is assumed to be converted to carbon dioxide. The half-lives of trace gases are assumed to be 4.11 years +/- 1.56 (the GasSim2.5 default value).

The volume of gas to be utilised or flared will vary over time as the landfill gas generation and area capped and under landfill gas collection changes. The flaring and engine requirements should be re-assessed with time taking into consideration influences such as variations in the actual waste stream and future landfilling operations from that predicted as well as possible changes in technology.

Within this modelling assessment, the peak of the future landfill gas combustion occurs the year after landfilling ceases. The peak in future landfill gas combustion is 1,151 m³/h in 2039 with engines contributing 824 m³/h and flaring contributing 327 m³/h. The modelled utilisation and flaring volumes are shown in **Figure GRA6**.

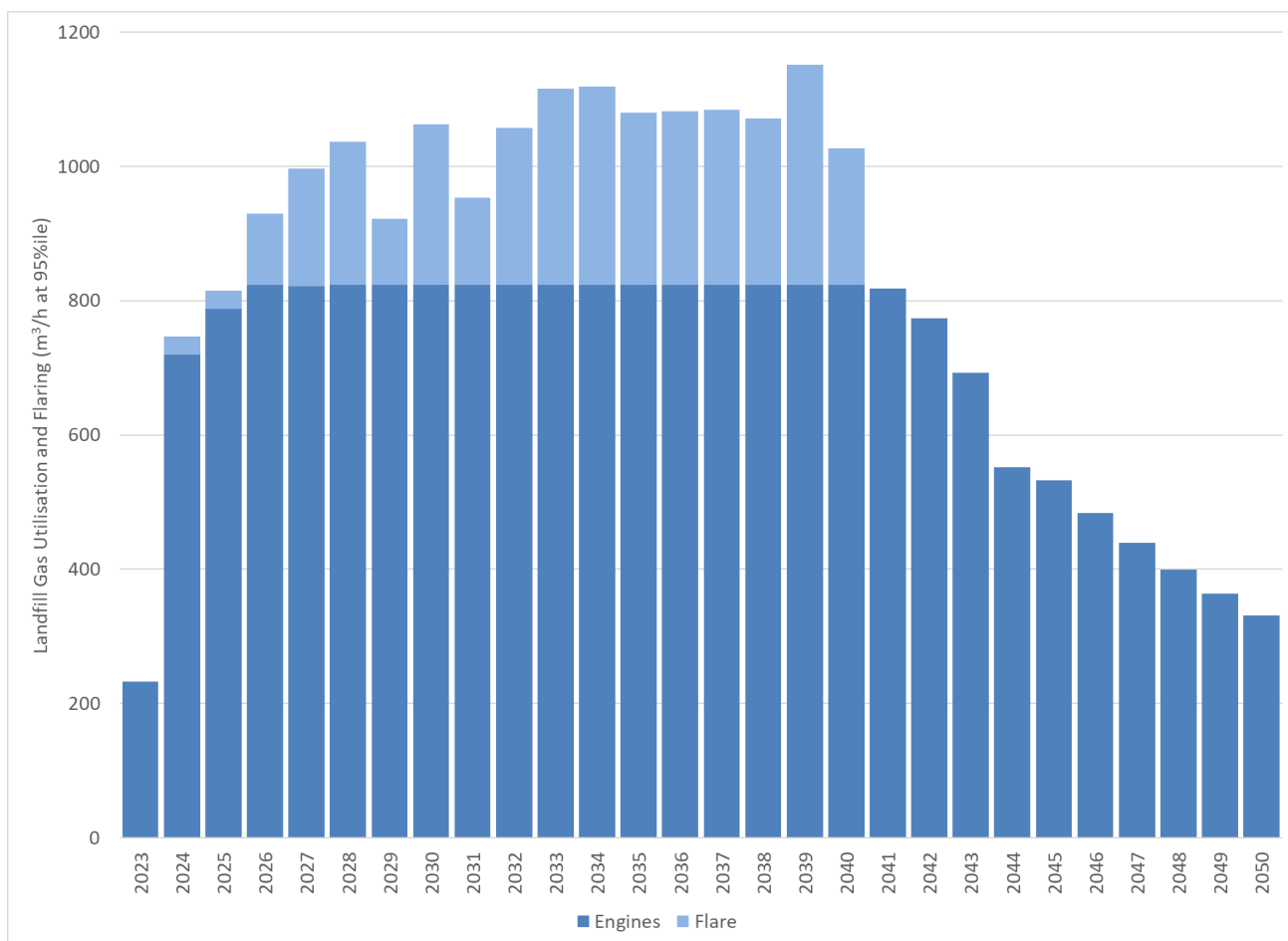


Figure GRA6: Modelled Landfill Gas Utilisation by Engines and Flaring

4.3 Surface Emissions

The estimated emission rates through the landfill surface and liner are determined by GasSim2.5 software by deducting the quantity of gas utilised or flared from the total landfill gas produced. GasSim2.5 proportions the uncollected gas into the quantity emitted through the surface of the Site, using site-specific information on the nature of the cap and liner thickness and permeability.

The surface emissions from the landfill will vary over time as they are dependent on factors such as the area of the operational face, the volume of waste in place, the area that is temporarily capped or capped with the final capping design, the percentage of the landfill under gas extraction and the collection efficiency of the gas extraction system.

Modelled surface emissions are dominated by contributions from the Eastern Extension following the capping and restoration of the Southern Extension. The peak future surface emission associated predominantly with the Eastern Extension is predicted to be 451 m³/hr in 2025. In this year, Cell 9 and Cell 10 of the planned Eastern Extension are modelled to both receive waste inputs while the existing gas-producing areas, in particular the Southern Extension, are cumulatively contributing to the overall surface emissions (**Figure GRA7**).

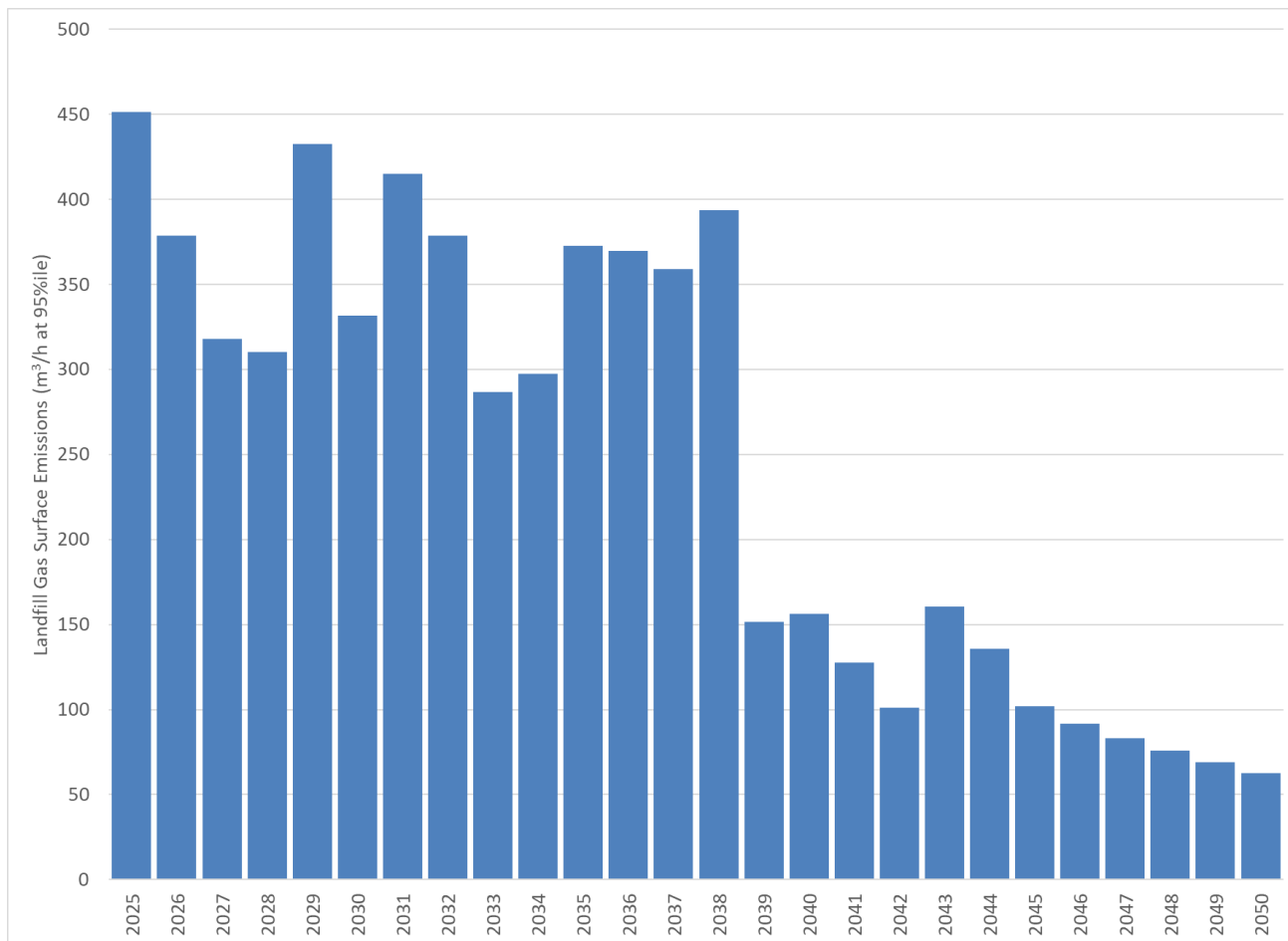


Figure GRA7: Modelled Surface Emissions

4.4 Global Atmospheric Impact

An assessment of the global impact of the Site in terms of Global Warming Potential ('GWP') and Ozone Depletion Potential ('ODP') has been made using GasSim2.5.

The results for the peak gas combustion year (2039) are presented in **Table GRA6**. The impact from the Site if no gas extraction system was used is also reported in the Table. All gases have been included within the modelling for conservatism. The collection and combustion of landfill gas reduces the impact on global warming by an estimated 68% and on ozone depletion by 90% in the peak year of landfill gas combustion.

Table GRA6: Global Impact Assessment

Year		Global Warming Potential ¹	Ozone Depletion Potential ²
With Gas Plant	Peak Year (2039)	2.89E+04	0.0245
Without Gas Plant	Peak Year (2039)	9.02E+04	0.246
Reduction with Gas Plant (%)	Peak Year (2039)	68	90

Notes:

- 1) Global Warming Potential measured as CO₂ Equivalent (tonnes); and
- 2) Ozone Depletion Potential measured as Trichlorofluoromethane (CFCl₃) Equivalent (tonnes).

5.0 ASSESSMENT OF EMISSIONS TO ATMOSPHERE

5.1 Tier 1 Air Quality Screening Assessment for Human Health

5.1.1 The Gases to be Screened

All gases present in the fugitive and combustion emission files within GasSim2.5 were screened for human health using the software. These gases represent a broad range of substances indicative of landfill surface and engine and flare combustion emissions.

5.1.2 Screening Methodology

A comprehensive screening assessment has been undertaken to determine which fugitive emissions require detailed Tier 2 modelling. The screening assessment was undertaken using look-up tables (incorporated into GasSim2.5). If the emissions of a particular trace gas are below the relevant thresholds, then the values are considered 'insignificant' and no further modelling of that gas is required. If emissions are above the relevant threshold and therefore 'not insignificant', further assessment of that gas is required using Tier 2 (GasSim2.5) or Tier 3 (AERMOD) modelling software tools.

5.1.2.1 Screening Process for Long-Term Emissions

Using the long-term process contribution, the following formulae have been used to determine which trace gases should be modelled using the Tier 2 module within GasSim2.5:

Emissions are considered insignificant if:

- $PC_{\text{long-term}} \leq 1\% ES_{\text{long-term}}$

Detailed Tier 2 modelling is required if:

- $PC_{\text{long-term}} + \text{Background} > 70\% ES_{\text{long-term}}$

5.1.2.2 Screening Process for Short-Term Emissions

Using the short-term process contribution, the following formulae have been used to determine which trace gases should be modelled using the Tier 2 module within GasSim2.5:

Emissions are considered insignificant if:

- $PC_{\text{short-term}} \leq 10\% ES_{\text{short-term}}$

Detailed Tier 2 modelling is required if:

- $PC_{\text{short-term}} + (0.2 \times \text{Background}) > 20\% ES_{\text{short-term}}$

The short-term background has been taken as double the long term (annual) background. This follows Environment Agency practice since this is effectively representing the 95%ile of the background distribution. For gases where no background data were available, the background has been assumed to be zero.

5.1.3 GasSim Screening Results

The Tier 1 screening considers results from 2025 onwards, i.e. from the first year that the Southern Extension is capped and restored after the Eastern Extension becomes operational. When considering the screening results, an emission has been deemed to require detailed assessment against an ES, either short-term or long-term, if GasSim2.5 reports the following:

- Is the emission rate insignificant? 'No' and is detailed modelling required? 'Yes'.

If the benchmark is an ADD limit value, it also requires further assessment when the table reports:

- Is the emission rate insignificant? 'Yes (at receptor)' and is detailed modelling required? 'Yes'.

The current Environment Agency policy position is that ADD limits apply everywhere beyond the Site boundary.

The results of the GasSim2.5 screening exercise are presented in **Appendix GRA3**. A summary of the surface emissions which require detailed modelling at Tier 2 are summarised below in **Table GRA7**. Along with the emissions screened as requiring further detailed assessment, odour emissions are also to be assessed in detail as odour is not explicitly assessed at Tier 1.

Table GRA7: Summary of Tier 1 Screening Results for Human Health

GasSim2.5 Tier 1 Screening Results	Trace Gas
Short-Term	Benzene Fugitive Surface Emissions, various years
	CS ₂ Fugitive Surface Emissions, various years
	H ₂ S Fugitive Surface Emissions, various years
	Tetrachloroethylene Fugitive Surface Emissions, various years
Long-Term	None

Note: Although odour was not identified in the Tier 1 screening as requiring further modelling, this has been included for completeness

5.2 Tier 2 Atmospheric Dispersion Modelling

5.2.1 Justification for Modelling Approach and Software

GasSim2.5 has been used to undertake Tier 2 atmospheric dispersion modelling of short-term fugitive benzene, CS₂, H₂S and Tetrachloroethylene emissions which were identified to require further detailed modelling through the Tier 1 screening. In addition, Tier 2 atmospheric dispersion modelling for odour emissions was undertaken.

The atmospheric dispersion module within GasSim2.5 is a fully Environment Agency compliant Tier 2 atmospheric dispersion model based on the USEPA's AERMOD. The AERMOD code was developed by the American Meteorological Society (AMS) / Environmental Protection Agency (EPA) Regulatory Model Improvement Committee (AERMIC). The dispersion model utilised within GasSim2.5 is based on the Gaussian air dispersion model algorithms and the modern Planetary Boundary Layer (PBL) similarity theory.

5.2.2 Assessment Methodology

The procedure for atmospheric dispersion modelling and the evaluation of exposure at critical receptors is complex. The assessment protocol is fully described in Defra and Environment Agency Guidance '*Air emissions risk assessment for your environmental permit*' (<https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit>, last updated September 2021). Detailed modelling of emissions considers the existing background environmental air quality (if available) and calculates a Predicted Environmental Concentration (PEC). The PEC is assessed against the Environmental Standard (Section 2.5) or an odour exposure criterion (Section 2.6), which are indicators of the degree of environmental impact that can be considered acceptable for a particular substance to a receptor.

The assessment of fugitive surface emissions and odour has been undertaken in 2025, the predicted year of maximum surface emissions (**Figure GRA7**). The predicted concentrations of gases have been assessed against the relevant Environmental Standard at the appropriate averaging period. Where a criterion has a number of exceedances that are allowed, results were calculated at the appropriate percentile.

5.2.3 Meteorology

GasSim2.5 incorporates default datasets which have been produced by the Environment Agency Air Quality Modelling and Assessment Unit (AQMAU) for use in Tier 2 assessments. The default dataset for the Anglian Region:Central was used and the associated windrose is shown in **Figure GRA8**.

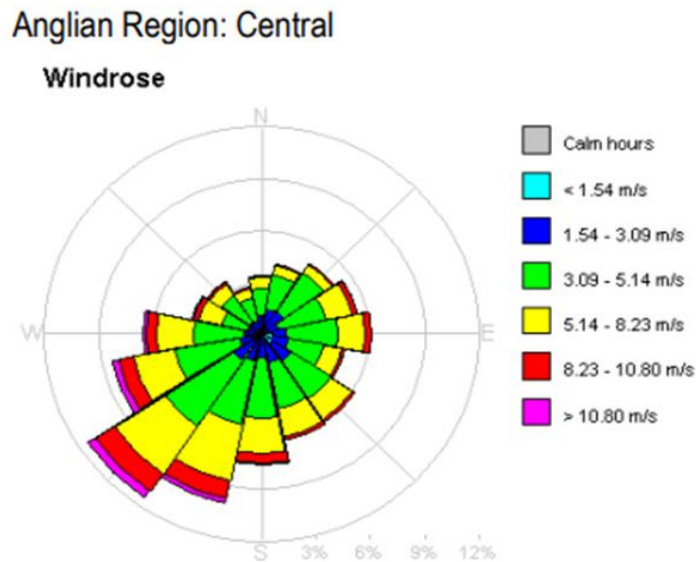


Figure GRA8: Default Windrose for Anglian Region (Central)

5.2.4 Discrete Receptors

Discrete receptors included within the modelling are detailed in **Table GRA8**. In addition, the Green Wheel Path (GWP) that crosses Eye Landfill was represented by 46 discrete receptor locations at its anticipated position in 2025 (DR014 to DR059). Boundary receptors have also been included within the model at 25 m spacing around the Site boundary (see **Figure GRA1**).

Table GRA8: Named Discrete Receptors Used in the Model

Receptor	Receptor No.	X Coordinate (m)	Y Coordinate (m)
Eyebury Farm	DR001	522731	301797
America Farm Cottage	DR002	523300	300827
Poplar Farm Cottage	DR003	523775	300804
Walnut Lodge	DR004	523771	300715
Briggs Farm Cottages	DR005	524775	301320
Willow Holt	DR006	524665	301283
Willow Hall Farm Cottage	DR007	524824	301697
Eyebury Cottages	DR008	522863	301862
New Residential Property	DR009	522873	301837
Tanholt Farm	DR010	523402	301824
Oxney Grange	DR011	522499	300969
Bar Pasture Farm	DR012	525254	302435
America Farm Commercial Estate	DR013	523295	300790

5.3 Tier 2 Atmospheric Dispersion Modelling Results for Human Health

Atmospheric dispersion modelling of the surface emissions identified by the Tier 1 screening results for the protection of human health as well as odour emissions has been carried out using GasSim2.5.

Screening indicated that the short-term emissions of short-term emissions of benzene, H₂S, CS₂ and Tetrachloroethylene from the landfill surface required further detailed assessment using the Tier 2 atmospheric dispersion module of GasSim2.5. The year of maximum modelled surface emissions, 2025, was assessed.

The resultant worst short-term PC and PEC at all discrete and boundary receptors been reported and compared to the relevant air quality assessment criteria as indicated in the following sections.

5.3.1.1 Benzene

Modelling results for short-term benzene at discrete receptors are detailed in **Appendix GRA4**. The highest short-term benzene concentration at any given sensitive human receptor is 5.4 µg/m³ which is below the ES of 30 µg/m³. There are no exceedances of the ES at any boundary receptor.

5.3.1.2 H₂S

Modelling results for short-term H₂S at discrete receptors are detailed in **Appendix GRA4**. The highest short-term H₂S concentration at any given sensitive human receptor is 76.2 µg/m³ which is below the ES of 150 µg/m³. There are no exceedances of the ES at any boundary receptor.

5.3.1.3 CS₂

Modelling results for short-term CS₂ at discrete receptors are detailed in **Appendix GRA4**. The highest short-term CS₂ concentration at any given sensitive human receptor is 44.2 µg/m³ which is below the ES of 100 µg/m³. There are no exceedances of the ES at any boundary receptor.

5.3.1.4 Tetrachloroethylene

Modelling results for short-term tetrachloroethylene at discrete receptors are detailed in **Appendix GRA4**. The highest short-term CS₂ concentration at any given sensitive human receptor is 26.1 µg/m³ which is below the ES of 100 µg/m³. There are no exceedances of the ES at any boundary receptor.

5.4 Odour

GasSim2.5 has been used to assess the impact of surface emissions from the Site. The results of the odour assessment at discrete receptors are detailed in **Appendix GRA4**. Odour has been assessed at the 95%ile surface emission rate. The results are presented at the 98%ile of hourly averages (Environment Agency, 2011).

The maximum 98%ile PEC at any residential receptors is 0.54 OUE/m³ at Willow Hall Farm Cottage to the east of the Eastern Extension. This is below the odour detection range of 1.5 to 3.0 OUE/m³. The maximum 98%ile PEC at the ownership boundary does also not exceed 3.0 OUE/m³. The modelled maximum 98%ile PEC does exceed 3.0 OUE/m³ on the Green Wheel Path while crossing Eye landfill but it is unlikely that people will be at on this footpath location for the period of an hour.

6.0 CONCLUSION

Golder has carried out an assessment of the potential landfill gas production and associated surface and combustion emissions at Eye Landfill during the proposed operation of the Eastern Extension. This GRA was undertaken on behalf of Biffa in support of the Eastern Extension's planning and Environmental Permit applications to allow allow for continuous and uninterrupted landfilling operations after the current Southern Extension cease filling in 2023.

GasSim Version 2.05.0008 (GasSim2.5) computer software has been used to model the potential landfill gas generation and emissions from the Site. Tier 1 screening of the potential emissions highlighted that of short-term surface emission of benzene, H₂S, CS₂ and tetrachloroethylene from the landfill surface required further detailed assessment using the Tier 2 atmospheric dispersion module of GasSim2.5. In addition, short-term odour emissions were modelled for completeness.

The atmospheric dispersion modelling results indicate that the highest short-term concentrations of any of the modelled combustion and surface emissions do not exceed the relevant EALs at any of the identified sensitive receptors.

For odour, the maximum 98%ile PEC at any of the residential receptors is 0.54 OUE/m³ at Willow Hall Farm Cottage to the east of the Eastern Extension. This is below the odour detection range of 1.5 to 3.0 OUE/m³. The maximum 98%ile PEC at the ownership boundary does also not exceed 3.0 OUE/m³. The modelled maximum 98%ile PEC does exceed 3.0 OUE/m³ on the Green Wheel Path while crossing Eye landfill but it is unlikely that people will be at on this footpath location for the period of an hour.

An assessment of the global impact of the Site in terms of Global Warming Potential (GWP) and Ozone Depletion Potential (ODP) was made using GasSim2.5. Results illustrated that the GUP reduced the potential impact on global warming by an estimated 68% and on ozone depletion by 90% the peak year of landfill gas combustion.


This Landfill Gas Risk Assessment should be revisited regularly to review the management of landfill gas at the Site. Any future reassessment should consider all up-to-date information available, such as the actual wastes accepted to the Site, changes in the management of the gas plant and gas field, monitoring information obtained, and any new technology as appropriate.

7.0 REFERENCES

- 1) Air Quality Background Maps: <https://laqm.defra.gov.uk/review-and-assessment/tools/background-maps.html>
- 2) AQTAG014. Guidance on identifying '*relevance*' for assessment under the Habitats Regulations for PPC installations with combustion processes.
- 3) Environment Agency (2006). GasSim2 Manual.
- 4) Environment Agency (2011). GasSim2.5 Manual.
- 5) Environment Agency (2004a). Guidance on the Management of Landfill Gas, September 2004.
- 6) Environment Agency (2004b). Screening method for emissions to air from landfill sites (typical gas engines, flare stacks and area sources). The Air Quality Modelling and Assessment Unit, The Environment Agency, 28 June 2004, subsequently updated.
- 7) Environment Agency Horizontal Guidance for the management of odours on commercial premises: Horizontal Guidance (H4) on Odour Management and how to comply with your environmental permit 2011.
- 8) DEFRA (2007). The air quality strategy for England, Scotland, Wales and Northern Ireland.
- 9) DEFRA (2014). Review of Landfill Methane Emissions Modelling.
- 10) DERFA and the EA Guidance, Risk Assessments for you Environmental Permit, 01 February 2016 <https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit>.
- 11) Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on Ambient Air Quality and Cleaner Air for Europe.
- 12) IAQM (2014). Guidance on the assessment of odour for planning.
- 13) Statutory Instruments 2010 No. 1001 Environmental Protection. The Air Quality Standards Regulations 2010.
- 14) WHO (2000) Air Quality Guidelines for Europe; 2nd Edition. WHO Regional Publications, European Series, No. 91. <http://laqm.defra.gov.uk/review-and-assessment/tools/background-maps.html>.

Signature Page

Golder WSP



Nicola White
Project Manager



Chris McDonald
Project Director

Date: 31 March 2022

JS/SA/CM/NW/ab

*Company Registered in England No. 01383511
At WSP House, 70 Chancery Lane, London, WC2A 1AF
VAT No. 905054942*

Golder and the G logo are trademarks of Golder Associates Corporation

APPENDIX GRA 1

Landfill Characteristics

General Landfill Characteristics

Characteristic	Central Area	Northern Extension	Northeastern Extension	Southern Extension	Cell 9	Cell 10	Cell 11
Landfill Area (m ²) ¹	236,479	66,348	97,758	116,327	30,946	22,158	15,903
Biological methane oxidation in cap ²	SINGLE (10.0)	SINGLE (10.0)	SINGLE (10.0)	SINGLE (10.0)	SINGLE (10.0)	SINGLE (10.0)	SINGLE (10.0)
Waste Density (t/m ³) ³	UNIFORM (0.8, 1.2)	UNIFORM (0.8, 1.2)	UNIFORM (0.8, 1.2)	UNIFORM (0.8, 1.2)	UNIFORM (0.8, 1.2)	UNIFORM (0.8, 1.2)	UNIFORM (0.8, 1.2)
Waste hydraulic conductivity (m/s) ²	LOGUNIFORM (1.00E-09, 1.00E-05)	LOGUNIFORM (1.00E-09, 1.00E-05)	LOGUNIFORM (1.00E-09, 1.00E-05)	LOGUNIFORM (1.00E-09, 1.00E-05)	LOGUNIFORM (1.00E-09, 1.00E-05)	LOGUNIFORM (1.00E-09, 1.00E-05)	LOGUNIFORM (1.00E-09, 1.00E-05)
Leachate head (m) ²	SINGLE (1.0)	SINGLE (1.0)	SINGLE (1.0)	SINGLE (1.0)	SINGLE (1.0)	SINGLE (1.0)	SINGLE (1.0)
Waste Moisture Content ³	Wet	Wet	Wet	Wet	Wet	Wet	Wet

Notes:

1. *Determined by GasSim2.5 from plan of landfill;*
2. *GasSim2.5 default value; and*
3. *Site-specific data.*

General Landfill Characteristics – contd.

Characteristic	Cell 12	Cell 13	Cell 14	Cell 15	Cell 16	Cell 17	Cell 18
Landfill Area (m ²) ¹	23,631	25,939	20,482	18,902	20,310	27,452	24,403
Biological methane oxidation in cap ²	SINGLE (10.0)	SINGLE (10.0)	SINGLE (10.0)	SINGLE (10.0)	SINGLE (10.0)	SINGLE (10.0)	SINGLE (10.0)
Waste Density (t/m ³) ³	UNIFORM (0.8, 1.2)	UNIFORM (0.8, 1.2)	UNIFORM (0.8, 1.2)	UNIFORM (0.8, 1.2)	UNIFORM (0.8, 1.2)	UNIFORM (0.8, 1.2)	UNIFORM (0.8, 1.2)
Waste hydraulic conductivity (m/s) ²	LOGUNIFORM (1.00E-09, 1.00E-05)	LOGUNIFORM (1.00E-09, 1.00E-05)	LOGUNIFORM (1.00E-09, 1.00E-05)	LOGUNIFORM (1.00E-09, 1.00E-05)	LOGUNIFORM (1.00E-09, 1.00E-05)	LOGUNIFORM (1.00E-09, 1.00E-05)	LOGUNIFORM (1.00E-09, 1.00E-05)
Leachate head (m) ²	SINGLE (1.0)	SINGLE (1.0)	SINGLE (1.0)	SINGLE (1.0)	SINGLE (1.0)	SINGLE (1.0)	SINGLE (1.0)
Waste Moisture Content ³	Wet	Wet	Wet	Wet	Wet	Wet	Wet

Notes:

4. Determined by GasSim2.5 from plan of landfill;
5. GasSim2.5 default value; and
6. Site-specific data.

Cap and Liner Characteristics

Characteristic	Central Area	Northern Extension	Northeastern Extension	Southern Extension	Cell 9	Cell 10	Cell 11
Temporary Cap							
Thickness layer (m)	n/a	n/a	n/a	n/a	UNIFORM (0.4, 0.6)	UNIFORM (0.4, 0.6)	UNIFORM (0.4, 0.6)
Hydraulic conductivity (m/s)	n/a	n/a	n/a	n/a	LOGUNI (1.00E-07, 1.00E-05)	LOGUNI (1.00E-07, 1.00E-05)	LOGUNI (1.00E-07, 1.00E-05)
Permanent Cap							
Type	Single Clay	Single Clay	Single Clay	Single Liner	Single Clay	Single Clay	Single Clay
Thickness layer (m)	UNIFORM (0.9, 1.2)	UNIFORM (0.9, 1.2)	UNIFORM (0.9, 1.2)	SINGLE (1.00E-03)	UNIFORM (0.9, 1.2)	UNIFORM (0.9, 1.2)	UNIFORM (0.9, 1.2)
Hydraulic conductivity (m/s)	LOGUNI (1.00E-10, 1.00E-09)	LOGUNI (1.00E-10, 1.00E-09)	LOGUNI (1.00E-10, 1.00E-09)	LOGUNI (1.00E-14, 1.00E-12)	LOGUNI (1.00E-10, 1.00E-09)	LOGUNI (1.00E-10, 1.00E-09)	LOGUNI (1.00E-10, 1.00E-09)
Liner							
Type	Clay Liner	Clay Liner	Clay Liner	Clay Liner	Clay Liner	Clay Liner	Clay Liner
Thickness layer (m)	UNIFORM (0.9, 1.2)	UNIFORM (0.9, 1.2)	UNIFORM (0.9, 1.2)	UNIFORM (0.9, 1.2)	UNIFORM (0.9, 1.2)	UNIFORM (0.9, 1.2)	UNIFORM (0.9, 1.2)
Hydraulic conductivity (m/s)	LOGUNI (1.00E-10, 1.00E-09)	LOGUNI (1.00E-10, 1.00E-09)	LOGUNI (1.00E-10, 1.00E-09)	LOGUNI (1.00E-10, 1.00E-09)	LOGUNI (1.00E-10, 1.00E-09)	LOGUNI (1.00E-10, 1.00E-09)	LOGUNI (1.00E-10, 1.00E-09)

Notes:

- LOGUNI is an abbreviation of LOGUNIFORM

Cap and Liner Characteristics - contd.

Characteristic	Cell 12	Cell 13	Cell 14	Cell 15	Cell 16	Cell 17	Cell 18
Temporary Cap							
Thickness layer (m)	UNIFORM (0.4, 0.6)	UNIFORM (0.4, 0.6)	UNIFORM (0.4, 0.6)	UNIFORM (0.4, 0.6)	UNIFORM (0.4, 0.6)	UNIFORM (0.4, 0.6)	UNIFORM (0.4, 0.6)
Hydraulic conductivity (m/s)	LOGUNI (1.00E-07, 1.00E-05)	LOGUNI (1.00E-07, 1.00E-05)	LOGUNI (1.00E-07, 1.00E-05)	LOGUNI (1.00E-07, 1.00E-05)	LOGUNI (1.00E-07, 1.00E-05)	LOGUNI (1.00E-07, 1.00E-05)	LOGUNI (1.00E-07, 1.00E-05)
Permanent Cap							
Type	Single Clay	Single Clay	Single Clay	Single Clay	Single Clay	Single Clay	Single Clay
Thickness layer (m)	UNIFORM (0.9, 1.2)	UNIFORM (0.9, 1.2)	UNIFORM (0.9, 1.2)	UNIFORM (0.9, 1.2)	UNIFORM (0.9, 1.2)	UNIFORM (0.9, 1.2)	UNIFORM (0.9, 1.2)
Hydraulic conductivity (m/s)	LOGUNI (1.00E-10, 1.00E-09)	LOGUNI (1.00E-10, 1.00E-09)	LOGUNI (1.00E-10, 1.00E-09)	LOGUNI (1.00E-10, 1.00E-09)	LOGUNI (1.00E-10, 1.00E-09)	LOGUNI (1.00E-10, 1.00E-09)	LOGUNI (1.00E-10, 1.00E-09)
Liner							
Type	Clay Liner	Clay Liner	Clay Liner	Clay Liner	Clay Liner	Clay Liner	Clay Liner
Thickness layer (m)	UNIFORM (0.9, 1.2)	UNIFORM (0.9, 1.2)	UNIFORM (0.9, 1.2)	UNIFORM (0.9, 1.2)	UNIFORM (0.9, 1.2)	UNIFORM (0.9, 1.2)	UNIFORM (0.9, 1.2)
Hydraulic conductivity (m/s)	LOGUNI (1.00E-10, 1.00E-09)	LOGUNI (1.00E-10, 1.00E-09)	LOGUNI (1.00E-10, 1.00E-09)	LOGUNI (1.00E-10, 1.00E-09)	LOGUNI (1.00E-10, 1.00E-09)	LOGUNI (1.00E-10, 1.00E-09)	LOGUNI (1.00E-10, 1.00E-09)

Notes:

2. LOGUNI is an abbreviation of LOGUNIFORM

APPENDIX GRA 2

Model Print Out

ProjectDetails

Project Name	Eye Eastern Extension
Client	Biffa
Model	c:\gassim\eye eastern extension gra.gss
Model Date	10/12/2021 13:21:24
Comments	
Start Year	1981
Operation Period	59
Simulation Period	150
Iterations	201

Confined Migration Pathway

Waste Composition

Year	Composition
1981	1980's - 2010 waste streams Eye Eastern Extension

Newspapers

Domestic	SINGLE(11.38)
Civic Amenity	SINGLE(10.0)
Commercial	SINGLE(10.0)
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(48.5)
Hemi-Cellulose (%)	SINGLE(9.0)
Decomposition (%)	SINGLE(35.0)

Magazines

Domestic	SINGLE(4.87)
Civic Amenity	SINGLE(11.0)
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(42.3)
Hemi-Cellulose (%)	SINGLE(9.4)
Decomposition (%)	SINGLE(46.0)

Other paper

Domestic	SINGLE(10.07)
Commercial	SINGLE(50.1)
Industrial	SINGLE(8.8)
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(87.4)
Hemi-Cellulose (%)	SINGLE(8.4)
Decomposition (%)	SINGLE(98.0)

Liquid cartons

Domestic	SINGLE(0.51)
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)

Card packaging

Domestic	SINGLE(3.84)
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)

Other card

Domestic	SINGLE(2.83)
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)

Wood

Industrial	SINGLE(5.0)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(21.0)
Hemi-Cellulose (%)	SINGLE(11.0)
Decomposition (%)	SINGLE(75.0)

Textiles

Domestic	SINGLE(2.36)
Civic Amenity	SINGLE(3.0)
Industrial	SINGLE(0.3)
Water (%)	SINGLE(25.0)
Cellulose (%)	SINGLE(20.0)
Hemi-Cellulose (%)	SINGLE(20.0)
Decomposition (%)	SINGLE(50.0)

Disposable nappies

Domestic	SINGLE(4.35)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)

Other misc. combustibles

Domestic	SINGLE(3.6)
Industrial	SINGLE(17.7)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Garden waste</i>	
Domestic	SINGLE(2.41)
Civic Amenity	SINGLE(22.0)
Industrial	SINGLE(4.7)
Water (%)	SINGLE(65.0)
Cellulose (%)	SINGLE(25.7)
Hemi-Cellulose (%)	SINGLE(13.0)
Decomposition (%)	SINGLE(62.0)
<i>Other putrescible</i>	
Domestic	SINGLE(18.38)
Commercial	SINGLE(15.0)
Industrial	SINGLE(6.8)
Water (%)	SINGLE(65.0)
Cellulose (%)	SINGLE(55.4)
Hemi-Cellulose (%)	SINGLE(7.2)
Decomposition (%)	SINGLE(76.0)
<i>10mm fines</i>	
Domestic	SINGLE(7.11)
Civic Amenity	SINGLE(15.0)
Industrial	SINGLE(0.5)
Water (%)	SINGLE(40.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Sewage sludge</i>	
Sewage Sludge	SINGLE(100.0)
Water (%)	SINGLE(70.0)
Cellulose (%)	SINGLE(14.0)
Hemi-Cellulose (%)	SINGLE(14.0)
Decomposition (%)	SINGLE(75.0)
<i>Composted organic material</i>	
Composted Organic Material	SINGLE(100.0)
Water (%)	SINGLE(30.0)
Cellulose (%)	UNIFORM(7.47, 9.59)
Hemi-Cellulose (%)	UNIFORM(7.47, 9.59)
Decomposition (%)	SINGLE(57.0)
<i>Incinerator ash</i>	
Industrial	SINGLE(25.5)
Incinerator Ash	SINGLE(100.0)
Water (%)	SINGLE(30.0)
Cellulose (%)	TRIANGULAR(0.5, 0.7, 1.5)
Hemi-Cellulose (%)	TRIANGULAR(0.5, 0.7, 1.5)
Decomposition (%)	SINGLE(57.0)
<i>Non degradable</i>	
Domestic	SINGLE(28.86)
Civic Amenity	SINGLE(39.0)
Commercial	SINGLE(24.6)
Industrial	SINGLE(30.7)
Inert	SINGLE(100.0)
Water (%)	SINGLE(0.0)
Cellulose (%)	SINGLE(0.0)
Hemi-Cellulose (%)	SINGLE(0.0)
Decomposition (%)	SINGLE(0.0)
<i>Calcium Sulphate (%)</i>	
Domestic	TRIANGULAR(0.2, 0.35, 2.3)
Civic Amenity	TRIANGULAR(0.2, 0.35, 2.3)
Composted Organic Material	TRIANGULAR(0.2, 0.35, 2.3)
Incinerator Ash	TRIANGULAR(0.2, 0.35, 2.3)
Residues from MRF	TRIANGULAR(0.2, 0.35, 2.3)
Recycling Schemes	TRIANGULAR(0.2, 0.35, 2.3)
Chemical Sludge	TRIANGULAR(0.2, 0.35, 2.3)
Industrial Liquid Waste	TRIANGULAR(0.2, 0.35, 2.3)
<i>Iron (%)</i>	
Domestic	TRIANGULAR(0.3, 4.8, 8.2)
Civic Amenity	TRIANGULAR(0.3, 4.8, 8.2)
Inert	TRIANGULAR(0.3, 4.8, 8.2)
Liquid Inert	TRIANGULAR(0.3, 4.8, 8.2)
Sewage Sludge	TRIANGULAR(0.3, 4.8, 8.2)
Composted Organic Material	TRIANGULAR(0.3, 4.8, 8.2)
Incinerator Ash	TRIANGULAR(0.3, 4.8, 8.2)
Residues from MRF	TRIANGULAR(0.3, 4.8, 8.2)
Recycling Schemes	TRIANGULAR(0.3, 4.8, 8.2)
Chemical Sludge	TRIANGULAR(0.3, 4.8, 8.2)
Industrial Liquid Waste	TRIANGULAR(0.3, 4.8, 8.2)
1982	1980's - 2010 waste streams Eye Eastern Extension

1983	1980's - 2010 waste streams Eye Eastern Extension
1984	1980's - 2010 waste streams Eye Eastern Extension
1985	1980's - 2010 waste streams Eye Eastern Extension
1986	1980's - 2010 waste streams Eye Eastern Extension
1987	1980's - 2010 waste streams Eye Eastern Extension
1988	1980's - 2010 waste streams Eye Eastern Extension
1989	1980's - 2010 waste streams Eye Eastern Extension
1990	1980's - 2010 waste streams Eye Eastern Extension
1991	1980's - 2010 waste streams Eye Eastern Extension
1992	1980's - 2010 waste streams Eye Eastern Extension
1993	1980's - 2010 waste streams Eye Eastern Extension
1994	1980's - 2010 waste streams Eye Eastern Extension
1995	1980's - 2010 waste streams Eye Eastern Extension
1996	1980's - 2010 waste streams Eye Eastern Extension
1997	1980's - 2010 waste streams Eye Eastern Extension
1998	1980's - 2010 waste streams Eye Eastern Extension
1999	1980's - 2010 waste streams Eye Eastern Extension
2000	England 2000-2010 waste streams
<i>Newspapers</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(48.5)
Hemi-Cellulose (%)	SINGLE(9.0)
Decomposition (%)	SINGLE(35.0)
<i>Magazines</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(42.3)
Hemi-Cellulose (%)	SINGLE(9.4)
Decomposition (%)	SINGLE(46.0)
<i>Other paper</i>	
Domestic	SINGLE(19.8)
Civic Amenity	SINGLE(3.3)
Commercial	SINGLE(28.8)
Industrial	SINGLE(8.8)
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(87.4)
Hemi-Cellulose (%)	SINGLE(8.4)
Decomposition (%)	SINGLE(98.0)
<i>Liquid cartons</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Card packaging</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Other card</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Wood</i>	
Domestic	SINGLE(3.0)
Civic Amenity	SINGLE(11.2)
Commercial	SINGLE(3.3)
Industrial	SINGLE(5.0)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(21.0)
Hemi-Cellulose (%)	SINGLE(11.0)
Decomposition (%)	SINGLE(75.0)
<i>Textiles</i>	
Domestic	SINGLE(3.3)
Civic Amenity	SINGLE(2.3)
Commercial	SINGLE(1.1)
Industrial	SINGLE(0.3)
Water (%)	SINGLE(25.0)
Cellulose (%)	SINGLE(20.0)
Hemi-Cellulose (%)	SINGLE(20.0)
Decomposition (%)	SINGLE(50.0)
<i>Disposable nappies</i>	
Domestic	SINGLE(3.3)
Civic Amenity	SINGLE(2.9)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Other misc. combustibles</i>	
Domestic	SINGLE(0.3)
Civic Amenity	SINGLE(4.2)
Commercial	SINGLE(10.4)

Industrial	SINGLE(17.7)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Garden waste</i>	
Domestic	SINGLE(16.0)
Civic Amenity	SINGLE(32.1)
Commercial	SINGLE(9.8)
Industrial	SINGLE(4.7)
Water (%)	SINGLE(65.0)
Cellulose (%)	SINGLE(25.7)
Hemi-Cellulose (%)	SINGLE(13.0)
Decomposition (%)	SINGLE(62.0)
<i>Other putrescible</i>	
Domestic	SINGLE(25.6)
Civic Amenity	SINGLE(14.8)
Commercial	SINGLE(10.4)
Industrial	SINGLE(6.8)
Water (%)	SINGLE(65.0)
Cellulose (%)	SINGLE(55.4)
Hemi-Cellulose (%)	SINGLE(7.2)
Decomposition (%)	SINGLE(76.0)
<i>10mm fines</i>	
Domestic	SINGLE(4.1)
Civic Amenity	SINGLE(1.2)
Commercial	SINGLE(1.9)
Industrial	SINGLE(0.5)
Water (%)	SINGLE(40.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Sewage sludge</i>	
Sewage Sludge	SINGLE(100.0)
Water (%)	SINGLE(70.0)
Cellulose (%)	SINGLE(14.0)
Hemi-Cellulose (%)	SINGLE(14.0)
Decomposition (%)	SINGLE(75.0)
<i>Composted organic material</i>	
Composted Organic Material	SINGLE(100.0)
Water (%)	SINGLE(30.0)
Cellulose (%)	UNIFORM(7.47, 9.59)
Hemi-Cellulose (%)	UNIFORM(7.47, 9.59)
Decomposition (%)	SINGLE(57.0)
<i>Incinerator ash</i>	
Commercial	SINGLE(0.2)
Industrial	SINGLE(25.5)
Incinerator Ash	SINGLE(100.0)
Water (%)	SINGLE(30.0)
Cellulose (%)	TRIANGULAR(0.5, 0.7, 1.5)
Hemi-Cellulose (%)	TRIANGULAR(0.5, 0.7, 1.5)
Decomposition (%)	SINGLE(57.0)
<i>Non degradable</i>	
Domestic	SINGLE(24.6)
Civic Amenity	SINGLE(28.0)
Commercial	SINGLE(34.1)
Industrial	SINGLE(30.7)
Inert	SINGLE(100.0)
Water (%)	SINGLE(0.0)
Cellulose (%)	SINGLE(0.0)
Hemi-Cellulose (%)	SINGLE(0.0)
Decomposition (%)	SINGLE(0.0)
<i>Calcium Sulphate (%)</i>	
Domestic	TRIANGULAR(0.2, 0.35, 2.3)
Civic Amenity	TRIANGULAR(0.2, 0.35, 2.3)
Composted Organic Material	TRIANGULAR(0.2, 0.35, 2.3)
Incinerator Ash	TRIANGULAR(0.2, 0.35, 2.3)
Residues from MRF	TRIANGULAR(0.2, 0.35, 2.3)
Recycling Schemes	TRIANGULAR(0.2, 0.35, 2.3)
Chemical Sludge	TRIANGULAR(0.2, 0.35, 2.3)
Industrial Liquid Waste	TRIANGULAR(0.2, 0.35, 2.3)
<i>Iron (%)</i>	
Domestic	TRIANGULAR(0.3, 4.8, 8.2)
Civic Amenity	TRIANGULAR(0.3, 4.8, 8.2)
Commercial	TRIANGULAR(0.3, 4.8, 8.2)
Industrial	TRIANGULAR(0.3, 4.8, 8.2)
Inert	TRIANGULAR(0.3, 4.8, 8.2)
Liquid Inert	TRIANGULAR(0.3, 4.8, 8.2)
Sewage Sludge	TRIANGULAR(0.3, 4.8, 8.2)
Composted Organic Material	TRIANGULAR(0.3, 4.8, 8.2)
Incinerator Ash	TRIANGULAR(0.3, 4.8, 8.2)

Residues from MRF	TRIANGULAR(0.3, 4.8, 8.2)
Recycling Schemes	TRIANGULAR(0.3, 4.8, 8.2)
Chemical Sludge	TRIANGULAR(0.3, 4.8, 8.2)
Industrial Liquid Waste	TRIANGULAR(0.3, 4.8, 8.2)
Fines	TRIANGULAR(0.3, 4.8, 8.2)
User Defined 2	TRIANGULAR(0.3, 4.8, 8.2)
User Defined 3	TRIANGULAR(0.3, 4.8, 8.2)
2001	England 2000-2010 waste streams
2002	England 2000-2010 waste streams
2003	England 2000-2010 waste streams
2004	England 2000-2010 waste streams
2005	England 2000-2010 waste streams
2006	England 2000-2010 waste streams
2007	England 2000-2010 waste streams
2008	England 2000-2010 waste streams
2009	England 2000-2010 waste streams
2010	England 2010-2013 waste streams
<i>Newspapers</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(48.5)
Hemi-Cellulose (%)	SINGLE(9.0)
Decomposition (%)	SINGLE(35.0)
<i>Magazines</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(42.3)
Hemi-Cellulose (%)	SINGLE(9.4)
Decomposition (%)	SINGLE(46.0)
<i>Other paper</i>	
Domestic	SINGLE(14.9)
Civic Amenity	SINGLE(3.3)
Commercial	SINGLE(28.8)
Industrial	SINGLE(8.8)
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(87.4)
Hemi-Cellulose (%)	SINGLE(8.4)
Decomposition (%)	SINGLE(98.0)
<i>Liquid cartons</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Card packaging</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Other card</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Wood</i>	
Domestic	SINGLE(2.3)
Civic Amenity	SINGLE(11.2)
Commercial	SINGLE(3.3)
Industrial	SINGLE(5.0)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(21.0)
Hemi-Cellulose (%)	SINGLE(11.0)
Decomposition (%)	SINGLE(75.0)
<i>Textiles</i>	
Domestic	SINGLE(2.5)
Civic Amenity	SINGLE(2.3)
Commercial	SINGLE(1.1)
Industrial	SINGLE(0.3)
Water (%)	SINGLE(25.0)
Cellulose (%)	SINGLE(20.0)
Hemi-Cellulose (%)	SINGLE(20.0)
Decomposition (%)	SINGLE(50.0)
<i>Disposable nappies</i>	
Domestic	SINGLE(2.5)
Civic Amenity	SINGLE(2.9)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Other misc. combustibles</i>	
Domestic	SINGLE(0.2)
Civic Amenity	SINGLE(4.2)
Commercial	SINGLE(10.4)
Industrial	SINGLE(17.7)

Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Garden waste</i>	
Domestic	SINGLE(12.0)
Civic Amenity	SINGLE(32.1)
Commercial	SINGLE(9.8)
Industrial	SINGLE(4.7)
Water (%)	SINGLE(65.0)
Cellulose (%)	SINGLE(25.7)
Hemi-Cellulose (%)	SINGLE(13.0)
Decomposition (%)	SINGLE(62.0)
<i>Other putrescible</i>	
Domestic	SINGLE(19.2)
Civic Amenity	SINGLE(14.8)
Commercial	SINGLE(10.4)
Industrial	SINGLE(6.8)
Water (%)	SINGLE(65.0)
Cellulose (%)	SINGLE(55.4)
Hemi-Cellulose (%)	SINGLE(7.2)
Decomposition (%)	SINGLE(76.0)
<i>10mm fines</i>	
Domestic	SINGLE(3.1)
Civic Amenity	SINGLE(1.2)
Commercial	SINGLE(1.9)
Industrial	SINGLE(0.5)
Water (%)	SINGLE(40.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Sewage sludge</i>	
Sewage Sludge	SINGLE(100.0)
Water (%)	SINGLE(70.0)
Cellulose (%)	SINGLE(14.0)
Hemi-Cellulose (%)	SINGLE(14.0)
Decomposition (%)	SINGLE(75.0)
<i>Composted organic material</i>	
Composted Organic Material	SINGLE(100.0)
Water (%)	SINGLE(30.0)
Cellulose (%)	UNIFORM(7.47, 9.59)
Hemi-Cellulose (%)	UNIFORM(7.47, 9.59)
Decomposition (%)	SINGLE(57.0)
<i>Incinerator ash</i>	
Commercial	SINGLE(0.2)
Industrial	SINGLE(25.5)
Incinerator Ash	SINGLE(100.0)
Water (%)	SINGLE(30.0)
Cellulose (%)	TRIANGULAR(0.5, 0.7, 1.5)
Hemi-Cellulose (%)	TRIANGULAR(0.5, 0.7, 1.5)
Decomposition (%)	SINGLE(57.0)
<i>Non degradable</i>	
Domestic	SINGLE(43.3)
Civic Amenity	SINGLE(28.0)
Commercial	SINGLE(34.1)
Industrial	SINGLE(30.7)
Inert	SINGLE(100.0)
Water (%)	SINGLE(0.0)
Cellulose (%)	SINGLE(0.0)
Hemi-Cellulose (%)	SINGLE(0.0)
Decomposition (%)	SINGLE(0.0)
<i>Calcium Sulphate (%)</i>	
Domestic	TRIANGULAR(0.2, 0.35, 2.3)
Civic Amenity	TRIANGULAR(0.2, 0.35, 2.3)
Composted Organic Material	TRIANGULAR(0.2, 0.35, 2.3)
Incinerator Ash	TRIANGULAR(0.2, 0.35, 2.3)
Residues from MRF	TRIANGULAR(0.2, 0.35, 2.3)
Recycling Schemes	TRIANGULAR(0.2, 0.35, 2.3)
Chemical Sludge	TRIANGULAR(0.2, 0.35, 2.3)
Industrial Liquid Waste	TRIANGULAR(0.2, 0.35, 2.3)
<i>Iron (%)</i>	
Domestic	TRIANGULAR(0.3, 4.8, 8.2)
Civic Amenity	TRIANGULAR(0.3, 4.8, 8.2)
Commercial	TRIANGULAR(0.3, 4.8, 8.2)
Industrial	TRIANGULAR(0.3, 4.8, 8.2)
Inert	TRIANGULAR(0.3, 4.8, 8.2)
Liquid Inert	TRIANGULAR(0.3, 4.8, 8.2)
Sewage Sludge	TRIANGULAR(0.3, 4.8, 8.2)
Composted Organic Material	TRIANGULAR(0.3, 4.8, 8.2)
Incinerator Ash	TRIANGULAR(0.3, 4.8, 8.2)
Residues from MRF	TRIANGULAR(0.3, 4.8, 8.2)

Recycling Schemes	TRIANGULAR(0.3, 4.8, 8.2)
Chemical Sludge	TRIANGULAR(0.3, 4.8, 8.2)
Industrial Liquid Waste	TRIANGULAR(0.3, 4.8, 8.2)
Fines	TRIANGULAR(0.3, 4.8, 8.2)
User Defined 2	TRIANGULAR(0.3, 4.8, 8.2)
User Defined 3	TRIANGULAR(0.3, 4.8, 8.2)
2011	England 2010-2013 waste streams
2012	England 2010-2013 waste streams
2013	England 2013-2020 waste streams Eye Eastern Extension
<i>Newspapers</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(48.5)
Hemi-Cellulose (%)	SINGLE(9.0)
Decomposition (%)	SINGLE(35.0)
<i>Magazines</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(42.3)
Hemi-Cellulose (%)	SINGLE(9.4)
Decomposition (%)	SINGLE(46.0)
<i>Other paper</i>	
Domestic	SINGLE(9.9)
Civic Amenity	SINGLE(3.3)
Commercial	SINGLE(28.8)
Industrial	SINGLE(8.8)
Fines	SINGLE(2.0)
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(87.4)
Hemi-Cellulose (%)	SINGLE(8.4)
Decomposition (%)	SINGLE(98.0)
<i>Liquid cartons</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Card packaging</i>	
Fines	SINGLE(2.0)
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Other card</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Wood</i>	
Domestic	SINGLE(1.5)
Civic Amenity	SINGLE(11.2)
Commercial	SINGLE(3.3)
Industrial	SINGLE(5.0)
Fines	SINGLE(4.0)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(21.0)
Hemi-Cellulose (%)	SINGLE(11.0)
Decomposition (%)	SINGLE(75.0)
<i>Textiles</i>	
Domestic	SINGLE(1.7)
Civic Amenity	SINGLE(2.3)
Commercial	SINGLE(1.1)
Industrial	SINGLE(0.3)
Water (%)	SINGLE(25.0)
Cellulose (%)	SINGLE(20.0)
Hemi-Cellulose (%)	SINGLE(20.0)
Decomposition (%)	SINGLE(50.0)
<i>Disposable nappies</i>	
Domestic	SINGLE(1.7)
Civic Amenity	SINGLE(2.9)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Other misc. combustibles</i>	
Domestic	SINGLE(0.2)
Civic Amenity	SINGLE(4.2)
Commercial	SINGLE(10.4)
Industrial	SINGLE(17.7)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Garden waste</i>	

Domestic	SINGLE(8.0)
Civic Amenity	SINGLE(32.1)
Commercial	SINGLE(9.8)
Industrial	SINGLE(4.7)
Water (%)	SINGLE(65.0)
Cellulose (%)	SINGLE(25.7)
Hemi-Cellulose (%)	SINGLE(13.0)
Decomposition (%)	SINGLE(62.0)
<i>Other putrescible</i>	
Domestic	SINGLE(12.8)
Civic Amenity	SINGLE(14.8)
Commercial	SINGLE(10.4)
Industrial	SINGLE(6.8)
Water (%)	SINGLE(65.0)
Cellulose (%)	SINGLE(55.4)
Hemi-Cellulose (%)	SINGLE(7.2)
Decomposition (%)	SINGLE(76.0)
<i>10mm fines</i>	
Domestic	SINGLE(2.1)
Civic Amenity	SINGLE(1.2)
Commercial	SINGLE(1.9)
Industrial	SINGLE(0.5)
Water (%)	SINGLE(40.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Sewage sludge</i>	
Sewage Sludge	SINGLE(100.0)
Water (%)	SINGLE(70.0)
Cellulose (%)	SINGLE(14.0)
Hemi-Cellulose (%)	SINGLE(14.0)
Decomposition (%)	SINGLE(75.0)
<i>Composted organic material</i>	
Composted Organic Material	SINGLE(100.0)
Water (%)	SINGLE(30.0)
Cellulose (%)	UNIFORM(7.47, 9.59)
Hemi-Cellulose (%)	UNIFORM(7.47, 9.59)
Decomposition (%)	SINGLE(57.0)
<i>Incinerator ash</i>	
Commercial	SINGLE(0.2)
Industrial	SINGLE(25.5)
Incinerator Ash	SINGLE(100.0)
Water (%)	SINGLE(30.0)
Cellulose (%)	TRIANGULAR(0.5, 0.7, 1.5)
Hemi-Cellulose (%)	TRIANGULAR(0.5, 0.7, 1.5)
Decomposition (%)	SINGLE(57.0)
<i>Non degradable</i>	
Domestic	SINGLE(62.1)
Civic Amenity	SINGLE(28.0)
Commercial	SINGLE(34.1)
Industrial	SINGLE(30.7)
Inert	SINGLE(100.0)
Fines	SINGLE(92.0)
Water (%)	SINGLE(0.0)
Cellulose (%)	SINGLE(0.0)
Hemi-Cellulose (%)	SINGLE(0.0)
Decomposition (%)	SINGLE(0.0)
<i>Calcium Sulphate (%)</i>	
Domestic	TRIANGULAR(0.2, 0.35, 2.3)
Civic Amenity	TRIANGULAR(0.2, 0.35, 2.3)
Composted Organic Material	TRIANGULAR(0.2, 0.35, 2.3)
Incinerator Ash	TRIANGULAR(0.2, 0.35, 2.3)
Residues from MRF	TRIANGULAR(0.2, 0.35, 2.3)
Recycling Schemes	TRIANGULAR(0.2, 0.35, 2.3)
Chemical Sludge	TRIANGULAR(0.2, 0.35, 2.3)
Industrial Liquid Waste	TRIANGULAR(0.2, 0.35, 2.3)
<i>Iron (%)</i>	
Domestic	TRIANGULAR(0.3, 4.8, 8.2)
Civic Amenity	TRIANGULAR(0.3, 4.8, 8.2)
Commercial	TRIANGULAR(0.3, 4.8, 8.2)
Industrial	TRIANGULAR(0.3, 4.8, 8.2)
Inert	TRIANGULAR(0.3, 4.8, 8.2)
Liquid Inert	TRIANGULAR(0.3, 4.8, 8.2)
Sewage Sludge	TRIANGULAR(0.3, 4.8, 8.2)
Composted Organic Material	TRIANGULAR(0.3, 4.8, 8.2)
Incinerator Ash	TRIANGULAR(0.3, 4.8, 8.2)
Residues from MRF	TRIANGULAR(0.3, 4.8, 8.2)
Recycling Schemes	TRIANGULAR(0.3, 4.8, 8.2)
Chemical Sludge	TRIANGULAR(0.3, 4.8, 8.2)
Industrial Liquid Waste	TRIANGULAR(0.3, 4.8, 8.2)
Fines	TRIANGULAR(0.3, 4.8, 8.2)

User Defined 2	TRIANGULAR(0.3, 4.8, 8.2)
User Defined 3	TRIANGULAR(0.3, 4.8, 8.2)
2014	England 2013-2020 waste streams Eye Eastern Extension
2015	England 2013-2020 waste streams Eye Eastern Extension
2016	England 2013-2020 waste streams Eye Eastern Extension
2017	England 2013-2020 waste streams Eye Eastern Extension
2018	England 2013-2020 waste streams Eye Eastern Extension
2019	England 2013-2020 waste streams Eye Eastern Extension
2020	England 2020+ waste streams Eye Eastern Extension
<i>Newspapers</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(48.5)
Hemi-Cellulose (%)	SINGLE(9.0)
Decomposition (%)	SINGLE(35.0)
<i>Magazines</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(42.3)
Hemi-Cellulose (%)	SINGLE(9.4)
Decomposition (%)	SINGLE(46.0)
<i>Other paper</i>	
Domestic	SINGLE(6.9)
Civic Amenity	SINGLE(3.3)
Commercial	SINGLE(28.8)
Industrial	SINGLE(8.8)
Fines	SINGLE(2.0)
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(87.4)
Hemi-Cellulose (%)	SINGLE(8.4)
Decomposition (%)	SINGLE(98.0)
<i>Liquid cartons</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Card packaging</i>	
Fines	SINGLE(2.0)
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Other card</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Wood</i>	
Domestic	SINGLE(1.1)
Civic Amenity	SINGLE(11.2)
Commercial	SINGLE(3.3)
Industrial	SINGLE(5.0)
Fines	SINGLE(4.0)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(21.0)
Hemi-Cellulose (%)	SINGLE(11.0)
Decomposition (%)	SINGLE(75.0)
<i>Textiles</i>	
Domestic	SINGLE(1.2)
Civic Amenity	SINGLE(2.3)
Commercial	SINGLE(1.1)
Industrial	SINGLE(0.3)
Water (%)	SINGLE(25.0)
Cellulose (%)	SINGLE(20.0)
Hemi-Cellulose (%)	SINGLE(20.0)
Decomposition (%)	SINGLE(50.0)
<i>Disposable nappies</i>	
Domestic	SINGLE(1.2)
Civic Amenity	SINGLE(2.9)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Other misc. combustibles</i>	
Domestic	SINGLE(0.1)
Civic Amenity	SINGLE(4.2)
Commercial	SINGLE(10.4)
Industrial	SINGLE(17.7)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Garden waste</i>	

Domestic	SINGLE(5.6)
Civic Amenity	SINGLE(32.1)
Commercial	SINGLE(9.8)
Industrial	SINGLE(4.7)
Water (%)	SINGLE(65.0)
Cellulose (%)	SINGLE(25.7)
Hemi-Cellulose (%)	SINGLE(13.0)
Decomposition (%)	SINGLE(62.0)
<i>Other putrescible</i>	
Domestic	SINGLE(9.0)
Civic Amenity	SINGLE(14.8)
Commercial	SINGLE(10.4)
Industrial	SINGLE(6.8)
Water (%)	SINGLE(65.0)
Cellulose (%)	SINGLE(55.4)
Hemi-Cellulose (%)	SINGLE(7.2)
Decomposition (%)	SINGLE(76.0)
<i>10mm fines</i>	
Domestic	SINGLE(1.4)
Civic Amenity	SINGLE(1.2)
Commercial	SINGLE(1.9)
Industrial	SINGLE(0.5)
Water (%)	SINGLE(40.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Sewage sludge</i>	
Sewage Sludge	SINGLE(100.0)
Water (%)	SINGLE(70.0)
Cellulose (%)	SINGLE(14.0)
Hemi-Cellulose (%)	SINGLE(14.0)
Decomposition (%)	SINGLE(75.0)
<i>Composted organic material</i>	
Composted Organic Material	SINGLE(100.0)
Water (%)	SINGLE(30.0)
Cellulose (%)	UNIFORM(7.47, 9.59)
Hemi-Cellulose (%)	UNIFORM(7.47, 9.59)
Decomposition (%)	SINGLE(57.0)
<i>Incinerator ash</i>	
Commercial	SINGLE(0.2)
Industrial	SINGLE(25.5)
Incinerator Ash	SINGLE(100.0)
Water (%)	SINGLE(30.0)
Cellulose (%)	TRIANGULAR(0.5, 0.7, 1.5)
Hemi-Cellulose (%)	TRIANGULAR(0.5, 0.7, 1.5)
Decomposition (%)	SINGLE(57.0)
<i>Non degradable</i>	
Domestic	SINGLE(73.5)
Civic Amenity	SINGLE(28.0)
Commercial	SINGLE(34.1)
Industrial	SINGLE(30.7)
Inert	SINGLE(100.0)
Fines	SINGLE(92.0)
Water (%)	SINGLE(0.0)
Cellulose (%)	SINGLE(0.0)
Hemi-Cellulose (%)	SINGLE(0.0)
Decomposition (%)	SINGLE(0.0)
<i>Calcium Sulphate (%)</i>	
Domestic	TRIANGULAR(0.2, 0.35, 2.3)
Civic Amenity	TRIANGULAR(0.2, 0.35, 2.3)
Composted Organic Material	TRIANGULAR(0.2, 0.35, 2.3)
Incinerator Ash	TRIANGULAR(0.2, 0.35, 2.3)
Residues from MRF	TRIANGULAR(0.2, 0.35, 2.3)
Recycling Schemes	TRIANGULAR(0.2, 0.35, 2.3)
Chemical Sludge	TRIANGULAR(0.2, 0.35, 2.3)
Industrial Liquid Waste	TRIANGULAR(0.2, 0.35, 2.3)
<i>Iron (%)</i>	
Domestic	TRIANGULAR(0.3, 4.8, 8.2)
Civic Amenity	TRIANGULAR(0.3, 4.8, 8.2)
Commercial	TRIANGULAR(0.3, 4.8, 8.2)
Industrial	TRIANGULAR(0.3, 4.8, 8.2)
Inert	TRIANGULAR(0.3, 4.8, 8.2)
Liquid Inert	TRIANGULAR(0.3, 4.8, 8.2)
Sewage Sludge	TRIANGULAR(0.3, 4.8, 8.2)
Composted Organic Material	TRIANGULAR(0.3, 4.8, 8.2)
Incinerator Ash	TRIANGULAR(0.3, 4.8, 8.2)
Residues from MRF	TRIANGULAR(0.3, 4.8, 8.2)
Recycling Schemes	TRIANGULAR(0.3, 4.8, 8.2)
Chemical Sludge	TRIANGULAR(0.3, 4.8, 8.2)
Industrial Liquid Waste	TRIANGULAR(0.3, 4.8, 8.2)
Fines	TRIANGULAR(0.3, 4.8, 8.2)

User Defined 2		TRIANGULAR(0.3, 4.8, 8.2)
User Defined 3		TRIANGULAR(0.3, 4.8, 8.2)
2021		England 2020+ waste streams Eye Eastern Extension
2022		England 2020+ waste streams Eye Eastern Extension
2023		England 2020+ waste streams Eye Eastern Extension
2024		England 2020+ waste streams Eye Eastern Extension
2025		England 2020+ waste streams Eye Eastern Extension
2026		England 2020+ waste streams Eye Eastern Extension
2027		England 2020+ waste streams Eye Eastern Extension
2028		England 2020+ waste streams Eye Eastern Extension
2029		England 2020+ waste streams Eye Eastern Extension
2030		England 2020+ waste streams Eye Eastern Extension
2031		England 2020+ waste streams Eye Eastern Extension
2032		England 2020+ waste streams Eye Eastern Extension
2033		England 2020+ waste streams Eye Eastern Extension
2034		England 2020+ waste streams Eye Eastern Extension
2035		England 2020+ waste streams Eye Eastern Extension
2036		England 2020+ waste streams Eye Eastern Extension
2037		England 2020+ waste streams Eye Eastern Extension
2038		England 2020+ waste streams Eye Eastern Extension
2039		England 2020+ waste streams Eye Eastern Extension
Justification:	[Changed]	site-specific

Trace Gases

No Combustion Products Selected

Cell 9

Infiltration		NORMAL(608.9, 60.9)
Justification:	[Changed]	site-specific

Waste Input

Year		AmountDeposited (t)
2023		UNIFORM(1.32E+05, 1.98E+05)
2024		UNIFORM(1.76E+05, 2.64E+05)
2025		UNIFORM(5.50E+04, 8.25E+04)
Justification:	[Changed]	site-specific

Waste Breakdown

2023		
Industrial		UNIFORM(44.0, 65.0)
Inert		UNIFORM(33.0, 50.0)
Fines		UNIFORM(3.0, 5.0)
2024		
Industrial		UNIFORM(44.0, 65.0)
Inert		UNIFORM(33.0, 50.0)
Fines		UNIFORM(3.0, 5.0)
2025		
Industrial		UNIFORM(44.0, 65.0)
Inert		UNIFORM(33.0, 50.0)
Fines		UNIFORM(3.0, 5.0)
Justification:	[Default]	Default Value

Trace Gases

<i>Source Gases</i>		Concentration [mg/m3]
1,1,1,2-Tetrafluoroethane		LOGTRIANGULAR(0.002, 0.2, 2.0)
1,1,1-Trichlorotrifluoroethane		LOGTRIANGULAR(0.005, 0.4, 8.0)
1,1,2-Trichloroethane		LOGTRIANGULAR(0.004, 1.0, 10.0)
1,1-Dichloroethane		LOGTRIANGULAR(0.02, 0.28, 3.9)
1,1-Dichloroethene		LOGTRIANGULAR(0.03, 2.8, 19.0)
1,1-Dichlorotetrafluoroethane		LOGTRIANGULAR(0.05, 0.25, 6.4)
1,2-Dichloropropane		SINGLE(0.0)
1,2-Dichlorotetrafluoroethane		LOGTRIANGULAR(0.01, 9.8, 300.0)
1-butanethiol		LOGUNIFORM(1.00E-30, 1.77E-01)
1-Chloro-1,1-difluoroethane		LOGTRIANGULAR(0.04, 0.57, 31.0)
2-butoxy ethanol		LOGUNIFORM(1.00E-30, 9.40E-02)
2-Chloro-1,1,1-trifluoroethane		LOGUNIFORM(0.05, 1.5)
2-Propanol		LOGTRIANGULAR(0.005, 2.0, 34.0)
Acetaldehyde (ethanal)		LOGUNIFORM(0.075, 2.546)
Acetone		LOGTRIANGULAR(0.005, 0.1, 50.0)
Acrylonitrile		LOGTRIANGULAR(0.02, 0.4, 38.0)
Arsenic		LOGTRIANGULAR(1.00E-04, 7.40E-03, 4.30E-01)
Benzene		LOGUNIFORM(3.1, 15.0)
Bromodichloromethane		SINGLE(0.0)
Butadiene (modelled as 1,3-Butadiene)		LOGUNIFORM(1.00E-30, 4.40E-02)
Butane		LOGTRIANGULAR(0.19, 1.0, 709.0)
Butene isomers		LOGTRIANGULAR(1.00E-03, 2.00E-01, 1.80E+00)
Butyric acid		LOGTRIANGULAR(1.00E-30, 1.00E-01, 1.75E+01)
Carbon disulphide		LOGUNIFORM(0.9, 170.0)
Carbon monoxide		LOGTRIANGULAR(0.11, 1.1, 5000.0)
Carbon tetrachloride (tetrachloromethane)		LOGUNIFORM(1.00E-30, 4.10E-02)
Carbonyl sulphide		LOGTRIANGULAR(0.006, 0.2, 4.4)
Chlorobenzene		LOGUNIFORM(0.002, 3000.0)
Chlorodifluoromethane		LOGTRIANGULAR(0.005, 0.1, 9900.0)

Chloroethane	LOGUNIFORM(1.00E-30, 5.30E+00)
Chlorofluorocarbons (CFCs) (Total)	LOGTRIANGULAR(0.06, 102.3, 1230.0)
Chlorofluoromethane	LOGTRIANGULAR(0.008, 0.2, 110.0)
Chloroform (trichloromethane)	LOGTRIANGULAR(1.00E-03, 2.00E-01, 7.00E+01)
Chlorotrifluoromethane	LOGTRIANGULAR(0.1, 0.2, 49.0)
Dichlorodifluoromethane	LOGTRIANGULAR(0.01, 9.0, 790.0)
Dichlorofluoromethane	LOGTRIANGULAR(1.00E-03, 1.00E-02, 6.02E+02)
Dichloromethane (methylene chloride)	LOGTRIANGULAR(1.00E-03, 2.00E-02, 1.52E+03)
Diethyl disulphide	LOGTRIANGULAR(1.00E-03, 2.00E-02, 2.60E+00)
Dimethyl disulphide	LOGTRIANGULAR(0.03, 0.17, 12.0)
Dimethyl sulphide	LOGTRIANGULAR(0.03, 0.73, 24.3)
Ethane	LOGTRIANGULAR(0.005, 6.25, 200.0)
Ethanethiol (ethyl mercaptan)	LOGUNIFORM(1.00E-30, 2.52E-01)
Ethanol	LOGTRIANGULAR(0.005, 0.2, 810.0)
Ethyl butyrate	LOGUNIFORM(0.41, 42.0)
Ethyl toluene (all isomers)	LOGTRIANGULAR(1.00E-03, 1.00E-02, 8.30E+00)
Ethylbenzene	LOGTRIANGULAR(1.00E-03, 1.00E-03, 8.75E+02)
Ethylene	UNIFORM(0.2, 5.8)
Ethylene dibromide	SINGLE(0.0)
Ethylene dichloride	LOGTRIANGULAR(0.006, 0.01, 1820.0)
Fluorotrichloromethane	LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.00E+03)
Formaldehyde (methanal)	LOGTRIANGULAR(0.026, 0.068, 0.188)
Freon 113	LOGTRIANGULAR(0.013, 4.8, 125.0)
Furan	LOGTRIANGULAR(0.02, 0.82, 6.2)
Halons	SINGLE(0.0)
Hexachlorocyclohexane (all isomers)	SINGLE(0.0)
Hexane	LOGTRIANGULAR(1.00E-03, 9.60E+00, 4.40E+01)
Hydrochlorofluorocarbons (HCFCs) (Total)	LOGTRIANGULAR(0.02, 128.8, 916.2)
Hydrofluorocarbons (HFCs) (Total)	SINGLE(0.0)
Hydrogen sulphide	LOGTRIANGULAR(2.4, 53.0, 580.0)
Limonene	LOGTRIANGULAR(1.00E-03, 1.00E-01, 2.40E+02)
Mercury	LOGUNIFORM(1.70E-04, 1.33E-03)
Methanethiol (methyl mercaptan)	LOGUNIFORM(1.00E-30, 6.62E-01)
Methyl chloride (chloromethane)	LOGTRIANGULAR(0.006, 0.2, 10.0)
Methyl chloroform (1,1,1-Trichloroethane)	LOGTRIANGULAR(1.00E-03, 1.80E+02, 1.60E+03)
Methyl ethyl ketone (2-butanone)	LOGTRIANGULAR(0.005, 0.005, 73.0)
Methyl isobutyl ketone	LOGTRIANGULAR(0.005, 0.2, 9.9)
Nitric acid	SINGLE(0.0)
Odour Units (Predicted)	TRIANGULAR(5.00E+04, 1.25E+05, 2.50E+05)
PAH (reported as Naphthalene)	LOGTRIANGULAR(1.00E-03, 2.00E-01, 1.70E+01)
para-Dichlorobenzene (modelled as 1,4-Dichlorobenzene)	LOGTRIANGULAR(0.006, 0.05, 2.7)
Pentane	LOGTRIANGULAR(0.02, 0.3, 105.0)
Pentene (all isomers)	LOGTRIANGULAR(0.24, 3.5, 12.0)
Perfluorocarbons (PFCs) (Total)	SINGLE(0.0)
Phenol	SINGLE(0.0)
PM10s	SINGLE(0.0)
Propane	LOGTRIANGULAR(1.00E-03, 1.90E+00, 1.29E+01)
Propanethiol	LOGUNIFORM(1.00E-30, 2.15E-01)
Sulphide, total simulations with H2S	LOGTRIANGULAR(1.00E-03, 2.40E+00, 5.58E+03)
Sulphide, total simulations without H2S	LOGTRIANGULAR(5.00E-04, 8.00E-03, 3.50E+00)
t-1,2-Dichloroethene	LOGTRIANGULAR(0.02, 0.24, 2.6)
Tetrachloroethane (modelled as 1,1,2,2-Tetrachloroethane)	LOGUNIFORM(1.00E-03, 5.00E+01)
Tetrachloroethylene (Tetrachloroethene)	LOGTRIANGULAR(1.00E-03, 1.00E-02, 7.70E+03)
Toluene	LOGTRIANGULAR(0.01, 0.1, 1250.0)
Trichlorobenzene (all isomers)	LOGTRIANGULAR(0.01, 0.01, 0.13)
Trichloroethylene (trichloroethene)	LOGTRIANGULAR(0.25, 1.65, 88.0)
Trichlorofluoromethane	LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.00E+03)
Trichlorotrifluoroethane	LOGTRIANGULAR(1.00E-03, 4.80E+00, 2.40E+01)
Trimethylbenzene (all isomers)	LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.87E+02)
Vinyl chloride (chloroethene, chloroethylene)	LOGTRIANGULAR(1.1, 31.0, 730.0)
Xylene (all isomers)	LOGTRIANGULAR(1.00E-03, 1.00E-03, 6.18E+04)
Justification: [Default]	Default Value
VOC Halflife	NORMAL(4.11, 1.56)
Justification: [Default]	Default Value
Waste Moisture Content	
Degradation rate - Filling Phase	Wet
Justification: [Changed]	site-specific
Degradation rate - after change	Wet
Justification: [Changed]	site-specific
Waste Density	UNIFORM(0.8, 1.2)
Justification: [Default]	Default Value
Leachate Head	SINGLE(1.0)
Justification: [Default]	Default Value
Hydraulic Conductivity	LOGUNIFORM(1.00E-09, 1.00E-05)
Justification: [Default]	Default Value
Engineered Controls	
Cap	Single Clay

Cap Thickness		UNIFORM(0.9, 1.2)
Cap Hydraulic Conductivity		LOGUNIFORM(1.00E-10, 1.00E-09)
Justifications		
Cap	[Changed]	site-specific
Cap Thickness	[Changed]	site-specific
Cap Hydraulic Conductivity	[Changed]	site-specific
<i>liner</i>		Single Clay
Liner Thickness		UNIFORM(0.9, 1.2)
Liner Hydraulic Conductivity		LOGUNIFORM(1.00E-10, 1.00E-09)
Justifications		
Liner	[Changed]	site-specific
Liner Thickness	[Changed]	site-specific
Liner Hydraulic Conductivity	[Changed]	site-specific
Justification:	[Default]	Default Value
Methane Oxidation %		SINGLE(10.0)
Justification:	[Default]	Default Value
Land Raise Depth		SINGLE(0.0)
Geosphere		
Ground Surface (mAOD)		4
Water Table (mAOD)		-1.95
Geosphere Moisture Content		UNIFORM(5.0, 10.0)
Geosphere Porosity		UNIFORM(24.0, 38.0)
Cell 10		
Infiltration		NORMAL(608.9, 60.9)
Justification:	[Changed]	site-specific
Waste Input		
Year		AmountDeposited (t)
2025		UNIFORM(1.21E+05, 1.82E+05)
2026		UNIFORM(1.39E+05, 2.08E+05)
Justification:	[Changed]	site-specific
Waste Breakdown		
2025		
Industrial		UNIFORM(44.0, 65.0)
Inert		UNIFORM(33.0, 50.0)
Fines		UNIFORM(3.0, 5.0)
2026		
Industrial		UNIFORM(44.0, 65.0)
Inert		UNIFORM(33.0, 50.0)
Fines		UNIFORM(3.0, 5.0)
Justification:	[Default]	Default Value
Trace Gases		
<i>Source Gases</i>		Concentration [mg/m3]
1,1,1,2-Tetrafluoroethane		LOGTRIANGULAR(0.002, 0.2, 2.0)
1,1,1-Trichlorotrifluoroethane		LOGTRIANGULAR(0.005, 0.4, 8.0)
1,1,2-Trichloroethane		LOGTRIANGULAR(0.004, 1.0, 10.0)
1,1-Dichloroethane		LOGTRIANGULAR(0.02, 0.28, 3.9)
1,1-Dichloroethene		LOGTRIANGULAR(0.03, 2.8, 19.0)
1,1-Dichlorotetrafluoroethane		LOGTRIANGULAR(0.05, 0.25, 6.4)
1,2-Dichloropropane		SINGLE(0.0)
1,2-Dichlorotetrafluoroethane		LOGTRIANGULAR(0.01, 9.8, 300.0)
1-butanethiol		LOGUNIFORM(1.00E-30, 1.77E-01)
1-Chloro-1,1-difluoroethane		LOGTRIANGULAR(0.04, 0.57, 31.0)
2-butoxy ethanol		LOGUNIFORM(1.00E-30, 9.40E-02)
2-Chloro-1,1,1-trifluoroethane		LOGUNIFORM(0.05, 1.5)
2-Propanol		LOGTRIANGULAR(0.005, 2.0, 34.0)
Acetaldehyde (ethanal)		LOGUNIFORM(0.075, 2.546)
Acetone		LOGTRIANGULAR(0.005, 0.1, 50.0)
Acrylonitrile		LOGTRIANGULAR(0.02, 0.4, 38.0)
Arsenic		LOGTRIANGULAR(1.00E-04, 7.40E-03, 4.30E-01)
Benzene		LOGUNIFORM(3.1, 15.0)
Bromodichloromethane		SINGLE(0.0)
Butadiene (modelled as 1,3-Butadiene)		LOGUNIFORM(1.00E-30, 4.40E-02)
Butane		LOGTRIANGULAR(0.19, 1.0, 709.0)
Butene isomers		LOGTRIANGULAR(1.00E-03, 2.00E-01, 1.80E+00)
Butyric acid		LOGTRIANGULAR(1.00E-30, 1.00E-01, 1.75E+01)
Carbon disulphide		LOGUNIFORM(0.9, 170.0)
Carbon monoxide		LOGTRIANGULAR(0.11, 1.1, 5000.0)
Carbon tetrachloride (tetrachloromethane)		LOGUNIFORM(1.00E-30, 4.10E-02)
Carbonyl sulphide		LOGTRIANGULAR(0.006, 0.2, 4.4)
Chlorobenzene		LOGUNIFORM(0.002, 3000.0)
Chlorodifluoromethane		LOGTRIANGULAR(0.005, 0.1, 9900.0)
Chloroethane		LOGUNIFORM(1.00E-30, 5.30E+00)
Chlorofluorocarbons (CFCs) (Total)		LOGTRIANGULAR(0.06, 102.3, 1230.0)
Chlorofluoromethane		LOGTRIANGULAR(0.008, 0.2, 110.0)
Chloroform (trichloromethane)		LOGTRIANGULAR(1.00E-03, 2.00E-01, 7.00E+01)
Chlorotrifluoromethane		LOGTRIANGULAR(0.1, 0.2, 49.0)
Dichlorodifluoromethane		LOGTRIANGULAR(0.01, 9.0, 790.0)
Dichlorofluoromethane		LOGTRIANGULAR(1.00E-03, 1.00E-02, 6.02E+02)
Dichloromethane (methylene chloride)		LOGTRIANGULAR(1.00E-03, 2.00E-02, 1.52E+03)

Diethyl disulphide		LOGTRIANGULAR(1.00E-03, 2.00E-02, 2.60E+00)
Dimethyl disulphide		LOGTRIANGULAR(0.03, 0.17, 12.0)
Dimethyl sulphide		LOGTRIANGULAR(0.03, 0.73, 24.3)
Ethane		LOGTRIANGULAR(0.005, 6.25, 200.0)
Ethanethiol (ethyl mercaptan)		LOGUNIFORM(1.00E-30, 2.52E-01)
Ethanol		LOGTRIANGULAR(0.005, 0.2, 810.0)
Ethyl butyrate		LOGUNIFORM(0.41, 42.0)
Ethyl toluene (all isomers)		LOGTRIANGULAR(1.00E-03, 1.00E-02, 8.30E+00)
Ethylbenzene		LOGTRIANGULAR(1.00E-03, 1.00E-03, 8.75E+02)
Ethylene		UNIFORM(0.2, 5.8)
Ethylene dibromide		SINGLE(0.0)
Ethylene dichloride		LOGTRIANGULAR(0.006, 0.01, 1820.0)
Fluorotrichloromethane		LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.00E+03)
Formaldehyde (methanal)		LOGTRIANGULAR(0.026, 0.068, 0.188)
Freon 113		LOGTRIANGULAR(0.013, 4.8, 125.0)
Furan		LOGTRIANGULAR(0.02, 0.82, 6.2)
Halons		SINGLE(0.0)
Hexachlorocyclohexane (all isomers)		SINGLE(0.0)
Hexane		LOGTRIANGULAR(1.00E-03, 9.60E+00, 4.40E+01)
Hydrochlorofluorocarbons (HCFCs) (Total)		LOGTRIANGULAR(0.02, 128.8, 916.2)
Hydrofluorocarbons (HFCs) (Total)		SINGLE(0.0)
Hydrogen sulphide		LOGTRIANGULAR(2.4, 53.0, 580.0)
Limonene		LOGTRIANGULAR(1.00E-03, 1.00E-01, 2.40E+02)
Mercury		LOGUNIFORM(1.70E-04, 1.33E-03)
Methanethiol (methyl mercaptan)		LOGUNIFORM(1.00E-30, 6.62E-01)
Methyl chloride (chloromethane)		LOGTRIANGULAR(0.006, 0.2, 10.0)
Methyl chloroform (1,1,1-Trichloroethane)		LOGTRIANGULAR(1.00E-03, 1.80E+02, 1.60E+03)
Methyl ethyl ketone (2-butanone)		LOGTRIANGULAR(0.005, 0.005, 73.0)
Methyl isobutyl ketone		LOGTRIANGULAR(0.005, 0.2, 9.9)
Nitric acid		SINGLE(0.0)
Odour Units (Predicted)		TRIANGULAR(5.00E+04, 1.25E+05, 2.50E+05)
PAH (reported as Naphthalene)		LOGTRIANGULAR(1.00E-03, 2.00E-01, 1.70E+01)
para-Dichlorobenzene (modelled as 1,4-Dichlorobenzene)		LOGTRIANGULAR(0.006, 0.05, 2.7)
Pentane		LOGTRIANGULAR(0.02, 0.3, 105.0)
Pentene (all isomers)		LOGTRIANGULAR(0.24, 3.5, 12.0)
Perfluorocarbons (PFCs) (Total)		SINGLE(0.0)
Phenol		SINGLE(0.0)
PM10s		SINGLE(0.0)
Propane		LOGTRIANGULAR(1.00E-03, 1.90E+00, 1.29E+01)
Propanethiol		LOGUNIFORM(1.00E-30, 2.15E-01)
Sulphide, total simulations with H2S		LOGTRIANGULAR(1.00E-03, 2.40E+00, 5.58E+03)
Sulphide, total simulations without H2S		LOGTRIANGULAR(5.00E-04, 8.00E-03, 3.50E+00)
t-1,2-Dichloroethene		LOGTRIANGULAR(0.02, 0.24, 2.6)
Tetrachloroethane (modelled as 1,1,2,2-Tetrachloroethane)		LOGUNIFORM(1.00E-03, 5.00E+01)
Tetrachloroethylene (Tetrachloroethene)		LOGTRIANGULAR(1.00E-03, 1.00E-02, 7.70E+03)
Toluene		LOGTRIANGULAR(0.01, 0.1, 1250.0)
Trichlorobenzene (all isomers)		LOGTRIANGULAR(0.01, 0.01, 0.13)
Trichloroethylene (trichloroethene)		LOGTRIANGULAR(0.25, 1.65, 88.0)
Trichlorofluoromethane		LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.00E+03)
Trichlorotrifluoroethane		LOGTRIANGULAR(1.00E-03, 4.80E+00, 2.40E+01)
Trimethylbenzene (all isomers)		LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.87E+02)
Vinyl chloride (chloroethene, chloroethylene)		LOGTRIANGULAR(1.1, 31.0, 730.0)
Xylene (all isomers)		LOGTRIANGULAR(1.00E-03, 1.00E-03, 6.18E+04)
Justification:	[Default]	Default Value
VOC Halflife		NORMAL(4.11, 1.56)
Justification:	[Default]	Default Value
Waste Moisture Content		
Degradation rate - Filling Phase		Wet
Justification:	[Changed]	site-specific
Degradation rate - after change		Wet
Justification:	[Changed]	site-specific
Waste Density		UNIFORM(0.8, 1.2)
Justification:	[Default]	Default Value
Leachate Head		SINGLE(1.0)
Justification:	[Default]	Default Value
Hydraulic Conductivity		LOGUNIFORM(1.00E-09, 1.00E-05)
Justification:	[Default]	Default Value
Engineered Controls		
Cap		Single Clay
Cap Thickness		UNIFORM(0.9, 1.2)
Cap Hydraulic Conductivity		LOGUNIFORM(1.00E-10, 1.00E-09)
Justifications		
Cap	[Changed]	site-specific
Cap Thickness	[Changed]	site-specific
Cap Hydraulic Conductivity	[Changed]	site-specific
liner		Single Clay
Liner Thickness		UNIFORM(0.9, 1.2)

Liner Hydraulic Conductivity		LOGUNIFORM(1.00E-10, 1.00E-09)
Justifications		
Liner	[Changed]	site-specific
Liner Thickness	[Changed]	site-specific
Liner Hydraulic Conductivity	[Changed]	site-specific
Justification:	[Default]	Default Value
Methane Oxidation %		SINGLE(10.0)
Justification:	[Default]	Default Value
Land Raise Depth		SINGLE(0.0)
Geosphere		
Ground Surface (mAOD)		4
Water Table (mAOD)		-1.95
Geosphere Moisture Content		UNIFORM(5.0, 10.0)
Geosphere Porosity		UNIFORM(24.0, 38.0)
Cell 12		
Infiltration		NORMAL(608.9, 60.9)
Justification:	[Changed]	site-specific
Waste Input		
Year		AmountDeposited (t)
2027		UNIFORM(2.66E+04, 3.99E+04)
2028		UNIFORM(1.76E+05, 2.64E+05)
2029		UNIFORM(7.46E+04, 1.12E+05)
Justification:	[Changed]	site-specific
Waste Breakdown		
2027		
Industrial		UNIFORM(44.0, 65.0)
Inert		UNIFORM(33.0, 50.0)
Fines		UNIFORM(3.0, 5.0)
2028		
Industrial		UNIFORM(44.0, 65.0)
Inert		UNIFORM(33.0, 50.0)
Fines		UNIFORM(3.0, 5.0)
2029		
Industrial		UNIFORM(44.0, 65.0)
Inert		UNIFORM(33.0, 50.0)
Fines		UNIFORM(3.0, 5.0)
Justification:	[Default]	Default Value
Trace Gases		
<i>Source Gases</i>		Concentration [mg/m3]
1,1,1,2-Tetrafluorochloroethane		LOGTRIANGULAR(0.002, 0.2, 2.0)
1,1,1-Trichlorotrifluoroethane		LOGTRIANGULAR(0.005, 0.4, 8.0)
1,1,2-Trichloroethane		LOGTRIANGULAR(0.004, 1.0, 10.0)
1,1-Dichloroethane		LOGTRIANGULAR(0.02, 0.28, 3.9)
1,1-Dichloroethene		LOGTRIANGULAR(0.03, 2.8, 19.0)
1,1-Dichlorotetrafluoroethane		LOGTRIANGULAR(0.05, 0.25, 6.4)
1,2-Dichloropropane		SINGLE(0.0)
1,2-Dichlorotetrafluoroethane		LOGTRIANGULAR(0.01, 9.8, 300.0)
1-butanethiol		LOGUNIFORM(1.00E-30, 1.77E-01)
1-Chloro-1,1-difluoroethane		LOGTRIANGULAR(0.04, 0.57, 31.0)
2-butoxy ethanol		LOGUNIFORM(1.00E-30, 9.40E-02)
2-Chloro-1,1,1-trifluoroethane		LOGUNIFORM(0.05, 1.5)
2-Propanol		LOGTRIANGULAR(0.005, 2.0, 34.0)
Acetalehyde (ethanal)		LOGUNIFORM(0.075, 2.546)
Acetone		LOGTRIANGULAR(0.005, 0.1, 50.0)
Acrylonitrile		LOGTRIANGULAR(0.02, 0.4, 38.0)
Arsenic		LOGTRIANGULAR(1.00E-04, 7.40E-03, 4.30E-01)
Benzene		LOGUNIFORM(3.1, 15.0)
Bromodichloromethane		SINGLE(0.0)
Butadiene (modelled as 1,3-Butadiene)		LOGUNIFORM(1.00E-30, 4.40E-02)
Butane		LOGTRIANGULAR(0.19, 1.0, 709.0)
Butene isomers		LOGTRIANGULAR(1.00E-03, 2.00E-01, 1.80E+00)
Butyric acid		LOGTRIANGULAR(1.00E-30, 1.00E-01, 1.75E+01)
Carbon disulphide		LOGUNIFORM(0.9, 170.0)
Carbon monoxide		LOGTRIANGULAR(0.11, 1.1, 5000.0)
Carbon tetrachloride (tetrachloromethane)		LOGUNIFORM(1.00E-30, 4.10E-02)
Carbonyl sulphide		LOGTRIANGULAR(0.006, 0.2, 4.4)
Chlorobenzene		LOGUNIFORM(0.002, 3000.0)
Chlorodifluoromethane		LOGTRIANGULAR(0.005, 0.1, 9900.0)
Chloroethane		LOGUNIFORM(1.00E-30, 5.30E+00)
Chlorofluorocarbons (CFCs) (Total)		LOGTRIANGULAR(0.06, 102.3, 1230.0)
Chlorofluoromethane		LOGTRIANGULAR(0.008, 0.2, 110.0)
Chloroform (trichloromethane)		LOGTRIANGULAR(1.00E-03, 2.00E-01, 7.00E+01)
Chlorotrifluoromethane		LOGTRIANGULAR(0.1, 0.2, 49.0)
Dichlorodifluoromethane		LOGTRIANGULAR(0.01, 9.0, 790.0)
Dichlorofluoromethane		LOGTRIANGULAR(1.00E-03, 1.00E-02, 6.02E+02)
Dichloromethane (methylene chloride)		LOGTRIANGULAR(1.00E-03, 2.00E-02, 1.52E+03)
Diethyl disulphide		LOGTRIANGULAR(1.00E-03, 2.00E-02, 2.60E+00)
Dimethyl disulphide		LOGTRIANGULAR(0.03, 0.17, 12.0)
Dimethyl sulphide		LOGTRIANGULAR(0.03, 0.73, 24.3)

Ethane		LOGTRIANGULAR(0.005, 6.25, 200.0)
Ethanethiol (ethyl mercaptan)		LOGUNIFORM(1.00E-30, 2.52E-01)
Ethanol		LOGTRIANGULAR(0.005, 0.2, 810.0)
Ethyl butyrate		LOGUNIFORM(0.41, 42.0)
Ethyl toluene (all isomers)		LOGTRIANGULAR(1.00E-03, 1.00E-02, 8.30E+00)
Ethylbenzene		LOGTRIANGULAR(1.00E-03, 1.00E-03, 8.75E+02)
Ethylene		UNIFORM(0.2, 5.8)
Ethylene dibromide		SINGLE(0.0)
Ethylene dichloride		LOGTRIANGULAR(0.006, 0.01, 1820.0)
Fluorotrchloromethane		LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.00E+03)
Formaldehyde (methanal)		LOGTRIANGULAR(0.026, 0.068, 0.188)
Freon 113		LOGTRIANGULAR(0.013, 4.8, 125.0)
Furan		LOGTRIANGULAR(0.02, 0.82, 6.2)
Halons		SINGLE(0.0)
Hexachlorocyclohexane (all isomers)		SINGLE(0.0)
Hexane		LOGTRIANGULAR(1.00E-03, 9.60E+00, 4.40E+01)
Hydrochlorofluorocarbons (HCFCs) (Total)		LOGTRIANGULAR(0.02, 128.8, 916.2)
Hydrofluorocarbons (HFCs) (Total)		SINGLE(0.0)
Hydrogen sulphide		LOGTRIANGULAR(2.4, 53.0, 580.0)
Limonene		LOGTRIANGULAR(1.00E-03, 1.00E-01, 2.40E+02)
Mercury		LOGUNIFORM(1.70E-04, 1.33E-03)
Methanethiol (methyl mercaptan)		LOGUNIFORM(1.00E-30, 6.62E-01)
Methyl chloride (chloromethane)		LOGTRIANGULAR(0.006, 0.2, 10.0)
Methyl chloroform (1,1,1-Trichloroethane)		LOGTRIANGULAR(1.00E-03, 1.80E+02, 1.60E+03)
Methyl ethyl ketone (2-butanone)		LOGTRIANGULAR(0.005, 0.005, 73.0)
Methyl isobutyl ketone		LOGTRIANGULAR(0.005, 0.2, 9.9)
Nitric acid		SINGLE(0.0)
Odour Units (Predicted)		TRIANGULAR(5.00E+04, 1.25E+05, 2.50E+05)
PAH (reported as Naphthalene)		LOGTRIANGULAR(1.00E-03, 2.00E-01, 1.70E+01)
para-Dichlorobenzene (modelled as 1,4-Dichlorobenzene)		LOGTRIANGULAR(0.006, 0.05, 2.7)
Pentane		LOGTRIANGULAR(0.02, 0.3, 105.0)
Pentene (all isomers)		LOGTRIANGULAR(0.24, 3.5, 12.0)
Perfluorocarbons (PFCs) (Total)		SINGLE(0.0)
Phenol		SINGLE(0.0)
PM10s		SINGLE(0.0)
Propane		LOGTRIANGULAR(1.00E-03, 1.90E+00, 1.29E+01)
Propanethiol		LOGUNIFORM(1.00E-30, 2.15E-01)
Sulphide, total simulations with H2S		LOGTRIANGULAR(1.00E-03, 2.40E+00, 5.58E+03)
Sulphide, total simulations without H2S		LOGTRIANGULAR(5.00E-04, 8.00E-03, 3.50E+00)
t-1,2-Dichloroethene		LOGTRIANGULAR(0.02, 0.24, 2.6)
Tetrachloroethane (modelled as 1,1,2,2-Tetrachloroethane)		LOGUNIFORM(1.00E-03, 5.00E+01)
Tetrachloroethylene (Tetrachloroethene)		LOGTRIANGULAR(1.00E-03, 1.00E-02, 7.70E+03)
Toluene		LOGTRIANGULAR(0.01, 0.1, 1250.0)
Trichlorobenzene (all isomers)		LOGTRIANGULAR(0.01, 0.01, 0.13)
Trichloroethylene (trichloroethene)		LOGTRIANGULAR(0.25, 1.65, 88.0)
Trichlorofluoromethane		LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.00E+03)
Trichlorotrifluoroethane		LOGTRIANGULAR(1.00E-03, 4.80E+00, 2.40E+01)
Trimethylbenzene (all isomers)		LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.87E+02)
Vinyl chloride (chloroethene, chloroethylene)		LOGTRIANGULAR(1.1, 31.0, 730.0)
Xylene (all isomers)		LOGTRIANGULAR(1.00E-03, 1.00E-03, 6.18E+04)
Justification:	[Default]	Default Value
VOC Halflife		NORMAL(4.11, 1.56)
Justification:	[Default]	Default Value

Waste Moisture Content

Degradation rate - Filling Phase		Wet
Justification:	[Changed]	site-specific
Degradation rate - after change		Wet
Justification:	[Changed]	site-specific
Waste Density		UNIFORM(0.8, 1.2)
Justification:	[Default]	Default Value
Leachate Head		SINGLE(1.0)
Justification:	[Default]	Default Value
Hydraulic Conductivity		LOGUNIFORM(1.00E-09, 1.00E-05)
Justification:	[Default]	Default Value

Engineered Controls

Cap		Single Clay
Cap Thickness		UNIFORM(0.9, 1.2)
Cap Hydraulic Conductivity		LOGUNIFORM(1.00E-10, 1.00E-09)
Justifications		
Cap	[Changed]	site-specific
Cap Thickness	[Changed]	site-specific
Cap Hydraulic Conductivity	[Changed]	site-specific
liner		Single Clay
Liner Thickness		UNIFORM(0.9, 1.2)
Liner Hydraulic Conductivity		LOGUNIFORM(1.00E-10, 1.00E-09)
Justifications		
Liner	[Changed]	site-specific

Liner Thickness	[Changed]	site-specific
Liner Hydraulic Conductivity	[Changed]	site-specific
Justification:	[Default]	Default Value
Methane Oxidation %		SINGLE(10.0)
Justification:	[Default]	Default Value
Land Raise Depth		SINGLE(0.0)
Geosphere		
Ground Surface (mAOD)		4
Water Table (mAOD)		-1.95
Geosphere Moisture Content		UNIFORM(5.0, 10.0)
Geosphere Porosity		UNIFORM(24.0, 38.0)

Cell 11

Infiltration		NORMAL(608.9, 60.9)
Justification:	[Changed]	site-specific

Waste Input

Year		AmountDeposited (t)
2026		UNIFORM(3.71E+04, 5.57E+04)
2027		UNIFORM(1.49E+05, 2.24E+05)
Justification:	[Changed]	site-specific

Waste Breakdown

2026		
Industrial		UNIFORM(44.0, 65.0)
Inert		UNIFORM(33.0, 50.0)
Fines		UNIFORM(3.0, 5.0)
2027		
Industrial		UNIFORM(44.0, 65.0)
Inert		UNIFORM(33.0, 50.0)
Fines		UNIFORM(3.0, 5.0)
Justification:	[Default]	Default Value

Trace Gases

Source Gases	Concentration [mg/m3]
1,1,1,2-Tetrafluorochloroethane	LOGTRIANGULAR(0.002, 0.2, 2.0)
1,1,1-Trichlorotrifluoroethane	LOGTRIANGULAR(0.005, 0.4, 8.0)
1,1,2-Trichloroethane	LOGTRIANGULAR(0.004, 1.0, 10.0)
1,1-Dichloroethane	LOGTRIANGULAR(0.02, 0.28, 3.9)
1,1-Dichloroethene	LOGTRIANGULAR(0.03, 2.8, 19.0)
1,1-Dichlorotetrafluoroethane	LOGTRIANGULAR(0.05, 0.25, 6.4)
1,2-Dichloropropane	SINGLE(0.0)
1,2-Dichlorotetrafluoroethane	LOGTRIANGULAR(0.01, 9.8, 300.0)
1-butanethiol	LOGUNIFORM(1.00E-30, 1.77E-01)
1-Chloro-1,1-difluoroethane	LOGTRIANGULAR(0.04, 0.57, 31.0)
2-butoxy ethanol	LOGUNIFORM(1.00E-30, 9.40E-02)
2-Chloro-1,1,1-trifluoroethane	LOGUNIFORM(0.05, 1.5)
2-Propanol	LOGTRIANGULAR(0.005, 2.0, 34.0)
Acetalehyde (ethanal)	LOGUNIFORM(0.075, 2.546)
Acetone	LOGTRIANGULAR(0.005, 0.1, 50.0)
Acrylonitrile	LOGTRIANGULAR(0.02, 0.4, 38.0)
Arsenic	LOGTRIANGULAR(1.00E-04, 7.40E-03, 4.30E-01)
Benzene	LOGUNIFORM(3.1, 15.0)
Bromodichloromethane	SINGLE(0.0)
Butadiene (modelled as 1,3-Butadiene)	LOGUNIFORM(1.00E-30, 4.40E-02)
Butane	LOGTRIANGULAR(0.19, 1.0, 709.0)
Butene isomers	LOGTRIANGULAR(1.00E-03, 2.00E-01, 1.80E+00)
Butyric acid	LOGTRIANGULAR(1.00E-30, 1.00E-01, 1.75E+01)
Carbon disulphide	LOGUNIFORM(0.9, 170.0)
Carbon monoxide	LOGTRIANGULAR(0.11, 1.1, 5000.0)
Carbon tetrachloride (tetrachloromethane)	LOGUNIFORM(1.00E-30, 4.10E-02)
Carbonyl sulphide	LOGTRIANGULAR(0.006, 0.2, 4.4)
Chlorobenzene	LOGUNIFORM(0.002, 3000.0)
Chlorodifluoromethane	LOGTRIANGULAR(0.005, 0.1, 9900.0)
Chloroethane	LOGUNIFORM(1.00E-30, 5.30E+00)
Chlorofluorocarbons (CFCs) (Total)	LOGTRIANGULAR(0.06, 102.3, 1230.0)
Chlorofluoromethane	LOGTRIANGULAR(0.008, 0.2, 110.0)
Chloroform (trichloromethane)	LOGTRIANGULAR(1.00E-03, 2.00E-01, 7.00E+01)
Chlorotrifluoromethane	LOGTRIANGULAR(0.1, 0.2, 49.0)
Dichlorodifluoromethane	LOGTRIANGULAR(0.01, 9.0, 790.0)
Dichlorofluoromethane	LOGTRIANGULAR(1.00E-03, 1.00E-02, 6.02E+02)
Dichloromethane (methylene chloride)	LOGTRIANGULAR(1.00E-03, 2.00E-02, 1.52E+03)
Diethyl disulphide	LOGTRIANGULAR(1.00E-03, 2.00E-02, 2.60E+00)
Dimethyl disulphide	LOGTRIANGULAR(0.03, 0.17, 12.0)
Dimethyl sulphide	LOGTRIANGULAR(0.03, 0.73, 24.3)
Ethane	LOGTRIANGULAR(0.005, 6.25, 200.0)
Ethanethiol (ethyl mercaptan)	LOGUNIFORM(1.00E-30, 2.52E-01)
Ethanol	LOGTRIANGULAR(0.005, 0.2, 810.0)
Ethyl butyrate	LOGUNIFORM(0.41, 42.0)
Ethyl toluene (all isomers)	LOGTRIANGULAR(1.00E-03, 1.00E-02, 8.30E+00)
Ethylbenzene	LOGTRIANGULAR(1.00E-03, 1.00E-03, 8.75E+02)
Ethylene	UNIFORM(0.2, 5.8)
Ethylene dibromide	SINGLE(0.0)

Ethylene dichloride		LOGTRIANGULAR(0.006, 0.01, 1820.0)
Fluorotrichloromethane		LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.00E+03)
Formaldehyde (methanal)		LOGTRIANGULAR(0.026, 0.068, 0.188)
Freon 113		LOGTRIANGULAR(0.013, 4.8, 125.0)
Furan		LOGTRIANGULAR(0.02, 0.82, 6.2)
Halons		SINGLE(0.0)
Hexachlorocyclohexane (all isomers)		SINGLE(0.0)
Hexane		LOGTRIANGULAR(1.00E-03, 9.60E+00, 4.40E+01)
Hydrochlorofluorocarbons (HCFCs) (Total)		LOGTRIANGULAR(0.02, 128.8, 916.2)
Hydrofluorocarbons (HFCs) (Total)		SINGLE(0.0)
Hydrogen sulphide		LOGTRIANGULAR(2.4, 53.0, 580.0)
Limonene		LOGTRIANGULAR(1.00E-03, 1.00E-01, 2.40E+02)
Mercury		LOGUNIFORM(1.70E-04, 1.33E-03)
Methanethiol (methyl mercaptan)		LOGUNIFORM(1.00E-30, 6.62E-01)
Methyl chloride (chloromethane)		LOGTRIANGULAR(0.006, 0.2, 10.0)
Methyl chloroform (1,1,1-Trichloroethane)		LOGTRIANGULAR(1.00E-03, 1.80E+02, 1.60E+03)
Methyl ethyl ketone (2-butanone)		LOGTRIANGULAR(0.005, 0.005, 73.0)
Methyl isobutyl ketone		LOGTRIANGULAR(0.005, 0.2, 9.9)
Nitric acid		SINGLE(0.0)
Odour Units (Predicted)		TRIANGULAR(5.00E+04, 1.25E+05, 2.50E+05)
PAH (reported as Naphthalene)		LOGTRIANGULAR(1.00E-03, 2.00E-01, 1.70E+01)
para-Dichlorobenzene (modelled as 1,4-Dichlorobenzene)		LOGTRIANGULAR(0.006, 0.05, 2.7)
Pentane		LOGTRIANGULAR(0.02, 0.3, 105.0)
Pentene (all isomers)		LOGTRIANGULAR(0.24, 3.5, 12.0)
Perfluorocarbons (PFCs) (Total)		SINGLE(0.0)
Phenol		SINGLE(0.0)
PM10s		SINGLE(0.0)
Propane		LOGTRIANGULAR(1.00E-03, 1.90E+00, 1.29E+01)
Propanethiol		LOGUNIFORM(1.00E-30, 2.15E-01)
Sulphide, total simulations with H2S		LOGTRIANGULAR(1.00E-03, 2.40E+00, 5.58E+03)
Sulphide, total simulations without H2S		LOGTRIANGULAR(5.00E-04, 8.00E-03, 3.50E+00)
t-1,2-Dichloroethene		LOGTRIANGULAR(0.02, 0.24, 2.6)
Tetrachloroethane (modelled as 1,1,2,2-Tetrachloroethane)		LOGUNIFORM(1.00E-03, 5.00E+01)
Tetrachloroethylene (Tetrachloroethene)		LOGTRIANGULAR(1.00E-03, 1.00E-02, 7.70E+03)
Toluene		LOGTRIANGULAR(0.01, 0.1, 1250.0)
Trichlorobenzene (all isomers)		LOGTRIANGULAR(0.01, 0.01, 0.13)
Trichloroethylene (trichloroethene)		LOGTRIANGULAR(0.25, 1.65, 88.0)
Trichlorofluoromethane		LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.00E+03)
Trichlorotrifluoroethane		LOGTRIANGULAR(1.00E-03, 4.80E+00, 2.40E+01)
Trimethylbenzene (all isomers)		LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.87E+02)
Vinyl chloride (chloroethene, chloroethylene)		LOGTRIANGULAR(1.1, 31.0, 730.0)
Xylene (all isomers)		LOGTRIANGULAR(1.00E-03, 1.00E-03, 6.18E+04)
Justification:	[Default]	Default Value
VOC Halflife		NORMAL(4.11, 1.56)
Justification:	[Default]	Default Value
Waste Moisture Content		
Degradation rate - Filling Phase		Wet
Justification:	[Changed]	site-specific
Degradation rate - after change		Wet
Justification:	[Changed]	site-specific
Waste Density		UNIFORM(0.8, 1.2)
Justification:	[Default]	Default Value
Leachate Head		SINGLE(1.0)
Justification:	[Default]	Default Value
Hydraulic Conductivity		LOGUNIFORM(1.00E-09, 1.00E-05)
Justification:	[Default]	Default Value
Engineered Controls		
Cap		Single Clay
Cap Thickness		UNIFORM(0.9, 1.2)
Cap Hydraulic Conductivity		LOGUNIFORM(1.00E-10, 1.00E-09)
Justifications		
Cap	[Changed]	site-specific
Cap Thickness	[Changed]	site-specific
Cap Hydraulic Conductivity	[Changed]	site-specific
liner		Single Clay
Liner Thickness		UNIFORM(0.9, 1.2)
Liner Hydraulic Conductivity		LOGUNIFORM(1.00E-10, 1.00E-09)
Justifications		
Liner	[Changed]	site-specific
Liner Thickness	[Changed]	site-specific
Liner Hydraulic Conductivity	[Changed]	site-specific
Justification:	[Default]	Default Value
Methane Oxidation %		SINGLE(10.0)
Justification:	[Default]	Default Value
Land Raise Depth		SINGLE(0.0)
Geosphere		
Ground Surface (mAOD)		4

Water Table (mAOD)	-1.95
Geosphere Moisture Content	UNIFORM(5.0, 10.0)
Geosphere Porosity	UNIFORM(24.0, 38.0)

Cell 13

Infiltration	NORMAL(608.9, 60.9)
Justification:	[Changed] site-specific

Waste Input

Year	AmountDeposited (t)
2029	UNIFORM(1.01E+05, 1.52E+05)
2030	UNIFORM(1.76E+05, 2.64E+05)
2031	UNIFORM(2.68E+04, 4.02E+04)
Justification:	[Changed] site-specific

Waste Breakdown

2029	
Industrial	UNIFORM(44.0, 65.0)
Inert	UNIFORM(33.0, 50.0)
Fines	UNIFORM(3.0, 5.0)

2030	
Industrial	UNIFORM(44.0, 65.0)
Inert	UNIFORM(33.0, 50.0)
Fines	UNIFORM(3.0, 5.0)

2031	
Industrial	UNIFORM(44.0, 65.0)
Inert	UNIFORM(33.0, 50.0)
Fines	UNIFORM(3.0, 5.0)
Justification:	[Default] Default Value

Trace Gases

<i>Source Gases</i>	Concentration [mg/m3]
1,1,1,2-Tetrafluorochloroethane	LOGTRIANGULAR(0.002, 0.2, 2.0)
1,1,1-Trichlorotrifluoroethane	LOGTRIANGULAR(0.005, 0.4, 8.0)
1,1,2-Trichloroethane	LOGTRIANGULAR(0.004, 1.0, 10.0)
1,1-Dichloroethane	LOGTRIANGULAR(0.02, 0.28, 3.9)
1,1-Dichloroethene	LOGTRIANGULAR(0.03, 2.8, 19.0)
1,1-Dichlorotetrafluoroethane	LOGTRIANGULAR(0.05, 0.25, 6.4)
1,2-Dichloropropane	SINGLE(0.0)
1,2-Dichlorotetrafluoroethane	LOGTRIANGULAR(0.01, 9.8, 300.0)
1-butanethiol	LOGUNIFORM(1.00E-30, 1.77E-01)
1-Chloro-1,1-difluoroethane	LOGTRIANGULAR(0.04, 0.57, 31.0)
2-butoxy ethanol	LOGUNIFORM(1.00E-30, 9.40E-02)
2-Chloro-1,1,1-trifluoroethane	LOGUNIFORM(0.05, 1.5)
2-Propanol	LOGTRIANGULAR(0.005, 2.0, 34.0)
Acetaldehyde (ethanal)	LOGUNIFORM(0.075, 2.546)
Acetone	LOGTRIANGULAR(0.005, 0.1, 50.0)
Acrylonitrile	LOGTRIANGULAR(0.02, 0.4, 38.0)
Arsenic	LOGTRIANGULAR(1.00E-04, 7.40E-03, 4.30E-01)
Benzene	LOGUNIFORM(3.1, 15.0)
Bromodichloromethane	SINGLE(0.0)
Butadiene (modelled as 1,3-Butadiene)	LOGUNIFORM(1.00E-30, 4.40E-02)
Butane	LOGTRIANGULAR(0.19, 1.0, 709.0)
Butene isomers	LOGTRIANGULAR(1.00E-03, 2.00E-01, 1.80E+00)
Butyric acid	LOGTRIANGULAR(1.00E-30, 1.00E-01, 1.75E+01)
Carbon disulphide	LOGUNIFORM(0.9, 170.0)
Carbon monoxide	LOGTRIANGULAR(0.11, 1.1, 5000.0)
Carbon tetrachloride (tetrachloromethane)	LOGUNIFORM(1.00E-30, 4.10E-02)
Carbonyl sulphide	LOGTRIANGULAR(0.006, 0.2, 4.4)
Chlorobenzene	LOGUNIFORM(0.002, 3000.0)
Chlorodifluoromethane	LOGTRIANGULAR(0.005, 0.1, 9900.0)
Chloroethane	LOGUNIFORM(1.00E-30, 5.30E+00)
Chlorofluorocarbons (CFCs) (Total)	LOGTRIANGULAR(0.06, 102.3, 1230.0)
Chlorofluoromethane	LOGTRIANGULAR(0.008, 0.2, 110.0)
Chloroform (trichloromethane)	LOGTRIANGULAR(1.00E-03, 2.00E-01, 7.00E+01)
Chlorotrifluoromethane	LOGTRIANGULAR(0.1, 0.2, 49.0)
Dichlorodifluoromethane	LOGTRIANGULAR(0.01, 9.0, 790.0)
Dichlorofluoromethane	LOGTRIANGULAR(1.00E-03, 1.00E-02, 6.02E+02)
Dichloromethane (methylene chloride)	LOGTRIANGULAR(1.00E-03, 2.00E-02, 1.52E+03)
Diethyl disulphide	LOGTRIANGULAR(1.00E-03, 2.00E-02, 2.60E+00)
Dimethyl disulphide	LOGTRIANGULAR(0.03, 0.17, 12.0)
Dimethyl sulphide	LOGTRIANGULAR(0.03, 0.73, 24.3)
Ethane	LOGTRIANGULAR(0.005, 6.25, 200.0)
Ethanethiol (ethyl mercaptan)	LOGUNIFORM(1.00E-30, 2.52E-01)
Ethanol	LOGTRIANGULAR(0.005, 0.2, 810.0)
Ethyl butyrate	LOGUNIFORM(0.41, 42.0)
Ethyl toluene (all isomers)	LOGTRIANGULAR(1.00E-03, 1.00E-02, 8.30E+00)
Ethylbenzene	LOGTRIANGULAR(1.00E-03, 1.00E-03, 8.75E+02)
Ethylene	UNIFORM(0.2, 5.8)
Ethylene dibromide	SINGLE(0.0)
Ethylene dichloride	LOGTRIANGULAR(0.006, 0.01, 1820.0)
Fluorotrchloromethane	LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.00E+03)
Formaldehyde (methanal)	LOGTRIANGULAR(0.026, 0.068, 0.188)

Freon 113		LOGTRIANGULAR(0.013, 4.8, 125.0)
Furan		LOGTRIANGULAR(0.02, 0.82, 6.2)
Halons		SINGLE(0.0)
Hexachlorocyclohexane (all isomers)		SINGLE(0.0)
Hexane		LOGTRIANGULAR(1.00E-03, 9.60E+00, 4.40E+01)
Hydrochlorofluorocarbons (HCFCs) (Total)		LOGTRIANGULAR(0.02, 128.8, 916.2)
Hydrofluorocarbons (HFCs) (Total)		SINGLE(0.0)
Hydrogen sulphide		LOGTRIANGULAR(2.4, 53.0, 580.0)
Limonene		LOGTRIANGULAR(1.00E-03, 1.00E-01, 2.40E+02)
Mercury		LOGUNIFORM(1.70E-04, 1.33E-03)
Methanethiol (methyl mercaptan)		LOGUNIFORM(1.00E-30, 6.62E-01)
Methyl chloride (chloromethane)		LOGTRIANGULAR(0.006, 0.2, 10.0)
Methyl chloroform (1,1,1-Trichloroethane)		LOGTRIANGULAR(1.00E-03, 1.80E+02, 1.60E+03)
Methyl ethyl ketone (2-butanone)		LOGTRIANGULAR(0.005, 0.005, 73.0)
Methyl isobutyl ketone		LOGTRIANGULAR(0.005, 0.2, 9.9)
Nitric acid		SINGLE(0.0)
Odour Units (Predicted)		TRIANGULAR(5.00E+04, 1.25E+05, 2.50E+05)
PAH (reported as Naphthalene)		LOGTRIANGULAR(1.00E-03, 2.00E-01, 1.70E+01)
para-Dichlorobenzene (modelled as 1,4-Dichlorobenzene)		LOGTRIANGULAR(0.006, 0.05, 2.7)
Pentane		LOGTRIANGULAR(0.02, 0.3, 105.0)
Pentene (all isomers)		LOGTRIANGULAR(0.24, 3.5, 12.0)
Perfluorocarbons (PFCs) (Total)		SINGLE(0.0)
Phenol		SINGLE(0.0)
PM10s		SINGLE(0.0)
Propane		LOGTRIANGULAR(1.00E-03, 1.90E+00, 1.29E+01)
Propanethiol		LOGUNIFORM(1.00E-30, 2.15E-01)
Sulphide, total simulations with H2S		LOGTRIANGULAR(1.00E-03, 2.40E+00, 5.58E+03)
Sulphide, total simulations without H2S		LOGTRIANGULAR(5.00E-04, 8.00E-03, 3.50E+00)
t-1,2-Dichloroethene		LOGTRIANGULAR(0.02, 0.24, 2.6)
Tetrachloroethane (modelled as 1,1,2,2-Tetrachloroethane)		LOGUNIFORM(1.00E-03, 5.00E+01)
Tetrachloroethylene (Tetrachloroethene)		LOGTRIANGULAR(1.00E-03, 1.00E-02, 7.70E+03)
Toluene		LOGTRIANGULAR(0.01, 0.1, 1250.0)
Trichlorobenzene (all isomers)		LOGTRIANGULAR(0.01, 0.01, 0.13)
Trichloroethylene (trichloroethene)		LOGTRIANGULAR(0.25, 1.65, 88.0)
Trichlorofluoromethane		LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.00E+03)
Trichlorotrifluoroethane		LOGTRIANGULAR(1.00E-03, 4.80E+00, 2.40E+01)
Trimethylbenzene (all isomers)		LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.87E+02)
Vinyl chloride (chloroethene, chloroethylene)		LOGTRIANGULAR(1.1, 31.0, 730.0)
Xylene (all isomers)		LOGTRIANGULAR(1.00E-03, 1.00E-03, 6.18E+04)
Justification:	[Default]	Default Value
VOC Halflife		NORMAL(4.11, 1.56)
Justification:	[Default]	Default Value
Waste Moisture Content		
Degradation rate - Filling Phase		Wet
Justification:	[Changed]	site-specific
Degradation rate - after change		Wet
Justification:	[Changed]	site-specific
Waste Density		UNIFORM(0.8, 1.2)
Justification:	[Default]	Default Value
Leachate Head		SINGLE(1.0)
Justification:	[Default]	Default Value
Hydraulic Conductivity		LOGUNIFORM(1.00E-09, 1.00E-05)
Justification:	[Default]	Default Value
Engineered Controls		
Cap		Single Clay
Cap Thickness		UNIFORM(0.9, 1.2)
Cap Hydraulic Conductivity		LOGUNIFORM(1.00E-10, 1.00E-09)
Justifications		
Cap	[Changed]	site-specific
Cap Thickness	[Changed]	site-specific
Cap Hydraulic Conductivity	[Changed]	site-specific
liner		Single Clay
Liner Thickness		UNIFORM(0.9, 1.2)
Liner Hydraulic Conductivity		LOGUNIFORM(1.00E-10, 1.00E-09)
Justifications		
Liner	[Changed]	site-specific
Liner Thickness	[Changed]	site-specific
Liner Hydraulic Conductivity	[Changed]	site-specific
Justification:	[Default]	Default Value
Methane Oxidation %		SINGLE(10.0)
Justification:	[Default]	Default Value
Land Raise Depth		SINGLE(0.0)
Geosphere		
Ground Surface (mAOD)		4
Water Table (mAOD)		-1.95
Geosphere Moisture Content		UNIFORM(5.0, 10.0)
Geosphere Porosity		UNIFORM(24.0, 38.0)

Cell 14

Infiltration NORMAL(608.9, 60.9)
 Justification: [Changed] site-specific

Waste Input

Year AmountDeposited (t)
 2031 UNIFORM(1.49E+05, 2.24E+05)
 2032 UNIFORM(9.11E+04, 1.37E+05)
 Justification: [Changed] site-specific

Waste Breakdown

2031
 Industrial UNIFORM(44.0, 65.0)
 Inert UNIFORM(33.0, 50.0)
 Fines UNIFORM(3.0, 5.0)

2032
 Industrial UNIFORM(44.0, 65.0)
 Inert UNIFORM(33.0, 50.0)
 Fines UNIFORM(3.0, 5.0)
 Justification: [Default] Default Value

Trace Gases

Source Gases Concentration [mg/m3]

1,1,1,2-Tetrafluorochloroethane LOGTRIANGULAR(0.002, 0.2, 2.0)
 1,1,1-Trichlorotrifluoroethane LOGTRIANGULAR(0.005, 0.4, 8.0)
 1,1,2-Trichloroethane LOGTRIANGULAR(0.004, 1.0, 10.0)
 1,1-Dichloroethane LOGTRIANGULAR(0.02, 0.28, 3.9)
 1,1-Dichloroethene LOGTRIANGULAR(0.03, 2.8, 19.0)
 1,1-Dichlorotetrafluoroethane LOGTRIANGULAR(0.05, 0.25, 6.4)
 1,2-Dichloropropane SINGLE(0.0)
 1,2-Dichlorotetrafluoroethane LOGTRIANGULAR(0.01, 9.8, 300.0)
 1-butanethiol LOGUNIFORM(1.00E-30, 1.77E-01)
 1-Chloro-1,1-difluoroethane LOGTRIANGULAR(0.04, 0.57, 31.0)
 2-butoxy ethanol LOGUNIFORM(1.00E-30, 9.40E-02)
 2-Chloro-1,1,1-trifluoroethane LOGUNIFORM(0.05, 1.5)
 2-Propanol LOGTRIANGULAR(0.005, 2.0, 34.0)
 Acetaldehyde (ethanal) LOGUNIFORM(0.075, 2.546)
 Acetone LOGTRIANGULAR(0.005, 0.1, 50.0)
 Acrylonitrile LOGTRIANGULAR(0.02, 0.4, 38.0)
 Arsenic LOGTRIANGULAR(1.00E-04, 7.40E-03, 4.30E-01)
 Benzene LOGUNIFORM(3.1, 15.0)
 Bromodichloromethane SINGLE(0.0)
 Butadiene (modelled as 1,3-Butadiene) LOGUNIFORM(1.00E-30, 4.40E-02)
 Butane LOGTRIANGULAR(0.19, 1.0, 709.0)
 Butene isomers LOGTRIANGULAR(1.00E-03, 2.00E-01, 1.80E+00)
 Butyric acid LOGTRIANGULAR(1.00E-30, 1.00E-01, 1.75E+01)
 Carbon disulphide LOGUNIFORM(0.9, 170.0)
 Carbon monoxide LOGTRIANGULAR(0.11, 1.1, 5000.0)
 Carbon tetrachloride (tetrachloromethane) LOGUNIFORM(1.00E-30, 4.10E-02)
 Carbonyl sulphide LOGTRIANGULAR(0.006, 0.2, 4.4)
 Chlorobenzene LOGUNIFORM(0.002, 3000.0)
 Chlorodifluoromethane LOGTRIANGULAR(0.005, 0.1, 9900.0)
 Chloroethane LOGUNIFORM(1.00E-30, 5.30E+00)
 Chlorofluorocarbons (CFCs) (Total) LOGTRIANGULAR(0.06, 102.3, 1230.0)
 Chlorofluoromethane LOGTRIANGULAR(0.008, 0.2, 110.0)
 Chloroform (trichloromethane) LOGTRIANGULAR(1.00E-03, 2.00E-01, 7.00E+01)
 Chlorotrifluoromethane LOGTRIANGULAR(0.1, 0.2, 49.0)
 Dichlorodifluoromethane LOGTRIANGULAR(0.01, 9.0, 790.0)
 Dichlorofluoromethane LOGTRIANGULAR(1.00E-03, 1.00E-02, 6.02E+02)
 Dichloromethane (methylene chloride) LOGTRIANGULAR(1.00E-03, 2.00E-02, 1.52E+03)
 Diethyl disulphide LOGTRIANGULAR(1.00E-03, 2.00E-02, 2.60E+00)
 Dimethyl disulphide LOGTRIANGULAR(0.03, 0.17, 12.0)
 Dimethyl sulphide LOGTRIANGULAR(0.03, 0.73, 24.3)
 Ethane LOGTRIANGULAR(0.005, 6.25, 200.0)
 Ethanethiol (ethyl mercaptan) LOGUNIFORM(1.00E-30, 2.52E-01)
 Ethanol LOGTRIANGULAR(0.005, 0.2, 810.0)
 Ethyl butyrate LOGUNIFORM(0.41, 42.0)
 Ethyl toluene (all isomers) LOGTRIANGULAR(1.00E-03, 1.00E-02, 8.30E+00)
 Ethylbenzene LOGTRIANGULAR(1.00E-03, 1.00E-03, 8.75E+02)
 Ethylene UNIFORM(0.2, 5.8)
 Ethylene dibromide SINGLE(0.0)
 Ethylene dichloride LOGTRIANGULAR(0.006, 0.01, 1820.0)
 Fluorotrichloromethane LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.00E+03)
 Formaldehyde (methanal) LOGTRIANGULAR(0.026, 0.068, 0.188)
 Freon 113 LOGTRIANGULAR(0.013, 4.8, 125.0)
 Furan LOGTRIANGULAR(0.02, 0.82, 6.2)
 Halons SINGLE(0.0)
 Hexachlorocyclohexane (all isomers) SINGLE(0.0)
 Hexane LOGTRIANGULAR(1.00E-03, 9.60E+00, 4.40E+01)
 Hydrochlorofluorocarbons (HCFCs) (Total) LOGTRIANGULAR(0.02, 128.8, 916.2)
 Hydrofluorocarbons (HFCs) (Total) SINGLE(0.0)
 Hydrogen sulphide LOGTRIANGULAR(2.4, 53.0, 580.0)

Limonene		LOGTRIANGULAR(1.00E-03, 1.00E-01, 2.40E+02)
Mercury		LOGUNIFORM(1.70E-04, 1.33E-03)
Methanethiol (methyl mercaptan)		LOGUNIFORM(1.00E-30, 6.62E-01)
Methyl chloride (chloromethane)		LOGTRIANGULAR(0.006, 0.2, 10.0)
Methyl chloroform (1,1,1-Trichloroethane)		LOGTRIANGULAR(1.00E-03, 1.80E+02, 1.60E+03)
Methyl ethyl ketone (2-butanone)		LOGTRIANGULAR(0.005, 0.005, 73.0)
Methyl isobutyl ketone		LOGTRIANGULAR(0.005, 0.2, 9.9)
Nitric acid		SINGLE(0.0)
Odour Units (Predicted)		TRIANGULAR(5.00E+04, 1.25E+05, 2.50E+05)
PAH (reported as Naphthalene)		LOGTRIANGULAR(1.00E-03, 2.00E-01, 1.70E+01)
para-Dichlorobenzene (modelled as 1,4-Dichlorobenzene)		LOGTRIANGULAR(0.006, 0.05, 2.7)
Pentane		LOGTRIANGULAR(0.02, 0.3, 105.0)
Pentene (all isomers)		LOGTRIANGULAR(0.24, 3.5, 12.0)
Perfluorocarbons (PFCs) (Total)		SINGLE(0.0)
Phenol		SINGLE(0.0)
PM10s		SINGLE(0.0)
Propane		LOGTRIANGULAR(1.00E-03, 1.90E+00, 1.29E+01)
Propanethiol		LOGUNIFORM(1.00E-30, 2.15E-01)
Sulphide, total simulations with H2S		LOGTRIANGULAR(1.00E-03, 2.40E+00, 5.58E+03)
Sulphide, total simulations without H2S		LOGTRIANGULAR(5.00E-04, 8.00E-03, 3.50E+00)
t-1,2-Dichloroethene		LOGTRIANGULAR(0.02, 0.24, 2.6)
Tetrachloroethane (modelled as 1,1,2,2-Tetrachloroethane)		LOGUNIFORM(1.00E-03, 5.00E+01)
Tetrachloroethylene (Tetrachloroethene)		LOGTRIANGULAR(1.00E-03, 1.00E-02, 7.70E+03)
Toluene		LOGTRIANGULAR(0.01, 0.1, 1250.0)
Trichlorobenzene (all isomers)		LOGTRIANGULAR(0.01, 0.01, 0.13)
Trichloroethylene (trichloroethene)		LOGTRIANGULAR(0.25, 1.65, 88.0)
Trichlorofluoromethane		LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.00E+03)
Trichlorotrifluoroethane		LOGTRIANGULAR(1.00E-03, 4.80E+00, 2.40E+01)
Trimethylbenzene (all isomers)		LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.87E+02)
Vinyl chloride (chloroethene, chloroethylene)		LOGTRIANGULAR(1.1, 31.0, 730.0)
Xylene (all isomers)		LOGTRIANGULAR(1.00E-03, 1.00E-03, 6.18E+04)
Justification:	[Default]	Default Value
VOC Halflife		NORMAL(4.11, 1.56)
Justification:	[Default]	Default Value
Waste Moisture Content		
Degradation rate - Filling Phase		Wet
Justification:	[Changed]	site-specific
Degradation rate - after change		Wet
Justification:	[Changed]	site-specific
Waste Density		UNIFORM(0.8, 1.2)
Justification:	[Default]	Default Value
Leachate Head		SINGLE(1.0)
Justification:	[Default]	Default Value
Hydraulic Conductivity		LOGUNIFORM(1.00E-09, 1.00E-05)
Justification:	[Default]	Default Value
Engineered Controls		
Cap		Single Clay
Cap Thickness		UNIFORM(0.9, 1.2)
Cap Hydraulic Conductivity		LOGUNIFORM(1.00E-10, 1.00E-09)
Justifications		
Cap	[Changed]	site-specific
Cap Thickness	[Changed]	site-specific
Cap Hydraulic Conductivity	[Changed]	site-specific
liner		Single Clay
Liner Thickness		UNIFORM(0.9, 1.2)
Liner Hydraulic Conductivity		LOGUNIFORM(1.00E-10, 1.00E-09)
Justifications		
Liner	[Changed]	site-specific
Liner Thickness	[Changed]	site-specific
Liner Hydraulic Conductivity	[Changed]	site-specific
Justification:	[Default]	Default Value
Methane Oxidation %		SINGLE(10.0)
Justification:	[Default]	Default Value
Land Raise Depth		SINGLE(0.0)
Geosphere		
Ground Surface (mAOD)		4
Water Table (mAOD)		-1.95
Geosphere Moisture Content		UNIFORM(5.0, 10.0)
Geosphere Porosity		UNIFORM(24.0, 38.0)
Cell 15		
Infiltration		NORMAL(608.9, 60.9)
Justification:	[Changed]	site-specific
Waste Input		
Year		AmountDeposited (t)
2032		UNIFORM(8.49E+04, 1.27E+05)
2033		UNIFORM(1.37E+05, 2.05E+05)

Justification: [Changed] site-specific

Waste Breakdown

2032

Industrial UNIFORM(44.0, 65.0)
Inert UNIFORM(33.0, 50.0)
Fines UNIFORM(3.0, 5.0)

2033

Industrial UNIFORM(44.0, 65.0)
Inert UNIFORM(33.0, 50.0)
Fines UNIFORM(3.0, 5.0)

Justification: [Default] Default Value

Trace Gases

Source Gases

Concentration [mg/m³]
1,1,1,2-Tetrafluoroethane LOGTRIANGULAR(0.002, 0.2, 2.0)
1,1,1-Trichlorotrifluoroethane LOGTRIANGULAR(0.005, 0.4, 8.0)
1,1,2-Trichloroethane LOGTRIANGULAR(0.004, 1.0, 10.0)
1,1-Dichloroethane LOGTRIANGULAR(0.02, 0.28, 3.9)
1,1-Dichloroethene LOGTRIANGULAR(0.03, 2.8, 19.0)
1,1-Dichlorotetrafluoroethane LOGTRIANGULAR(0.05, 0.25, 6.4)
1,2-Dichloropropane SINGLE(0.0)
1,2-Dichlorotetrafluoroethane LOGTRIANGULAR(0.01, 9.8, 300.0)
1-butanethiol LOGUNIFORM(1.00E-30, 1.77E-01)
1-Chloro-1,1-difluoroethane LOGTRIANGULAR(0.04, 0.57, 31.0)
2-butoxy ethanol LOGUNIFORM(1.00E-30, 9.40E-02)
2-Chloro-1,1,1-trifluoroethane LOGUNIFORM(0.05, 1.5)
2-Propanol LOGTRIANGULAR(0.005, 2.0, 34.0)
Acetaldehyde (ethanal) LOGUNIFORM(0.075, 2.546)
Acetone LOGTRIANGULAR(0.005, 0.1, 50.0)
Acrylonitrile LOGTRIANGULAR(0.02, 0.4, 38.0)
Arsenic LOGTRIANGULAR(1.00E-04, 7.40E-03, 4.30E-01)
Benzene LOGUNIFORM(3.1, 15.0)
Bromodichloromethane SINGLE(0.0)
Butadiene (modelled as 1,3-Butadiene) LOGUNIFORM(1.00E-30, 4.40E-02)
Butane LOGTRIANGULAR(0.19, 1.0, 709.0)
Butene isomers LOGTRIANGULAR(1.00E-03, 2.00E-01, 1.80E+00)
Butyric acid LOGTRIANGULAR(1.00E-30, 1.00E-01, 1.75E+01)
Carbon disulphide LOGUNIFORM(0.9, 170.0)
Carbon monoxide LOGTRIANGULAR(0.11, 1.1, 5000.0)
Carbon tetrachloride (tetrachloromethane) LOGUNIFORM(1.00E-30, 4.10E-02)
Carbonyl sulphide LOGTRIANGULAR(0.006, 0.2, 4.4)
Chlorobenzene LOGUNIFORM(0.002, 3000.0)
Chlorodifluoromethane LOGTRIANGULAR(0.005, 0.1, 9900.0)
Chloroethane LOGUNIFORM(1.00E-30, 5.30E+00)
Chlorofluorocarbons (CFCs) (Total) LOGTRIANGULAR(0.06, 102.3, 1230.0)
Chlorofluoromethane LOGTRIANGULAR(0.008, 0.2, 110.0)
Chloroform (trichloromethane) LOGTRIANGULAR(1.00E-03, 2.00E-01, 7.00E+01)
Chlorotrifluoromethane LOGTRIANGULAR(0.1, 0.2, 49.0)
Dichlorodifluoromethane LOGTRIANGULAR(0.01, 9.0, 790.0)
Dichlorofluoromethane LOGTRIANGULAR(1.00E-03, 1.00E-02, 6.02E+02)
Dichloromethane (methylene chloride) LOGTRIANGULAR(1.00E-03, 2.00E-02, 1.52E+03)
Diethyl disulphide LOGTRIANGULAR(1.00E-03, 2.00E-02, 2.60E+00)
Dimethyl disulphide LOGTRIANGULAR(0.03, 0.17, 12.0)
Dimethyl sulphide LOGTRIANGULAR(0.03, 0.73, 24.3)
Ethane LOGTRIANGULAR(0.005, 6.25, 200.0)
Ethanethiol (ethyl mercaptan) LOGUNIFORM(1.00E-30, 2.52E-01)
Ethanol LOGTRIANGULAR(0.005, 0.2, 810.0)
Ethyl butyrate LOGUNIFORM(0.41, 42.0)
Ethyl toluene (all isomers) LOGTRIANGULAR(1.00E-03, 1.00E-02, 8.30E+00)
Ethylbenzene LOGTRIANGULAR(1.00E-03, 1.00E-03, 8.75E+02)
Ethylene UNIFORM(0.2, 5.8)
Ethylene dibromide SINGLE(0.0)
Ethylene dichloride LOGTRIANGULAR(0.006, 0.01, 1820.0)
Fluorotrichloromethane LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.00E+03)
Formaldehyde (methanal) LOGTRIANGULAR(0.026, 0.068, 0.188)
Freon 113 LOGTRIANGULAR(0.013, 4.8, 125.0)
Furan LOGTRIANGULAR(0.02, 0.82, 6.2)
Halons SINGLE(0.0)
Hexachlorocyclohexane (all isomers) SINGLE(0.0)
Hexane LOGTRIANGULAR(1.00E-03, 9.60E+00, 4.40E+01)
Hydrochlorofluorocarbons (HCFCs) (Total) LOGTRIANGULAR(0.02, 128.8, 916.2)
Hydrofluorocarbons (HFCs) (Total) SINGLE(0.0)
Hydrogen sulphide LOGTRIANGULAR(2.4, 53.0, 580.0)
Limonene LOGTRIANGULAR(1.00E-03, 1.00E-01, 2.40E+02)
Mercury LOGUNIFORM(1.70E-04, 1.33E-03)
Methanethiol (methyl mercaptan) LOGUNIFORM(1.00E-30, 6.62E-01)
Methyl chloride (chloromethane) LOGTRIANGULAR(0.006, 0.2, 10.0)
Methyl chloroform (1,1,1-Trichloroethane) LOGTRIANGULAR(1.00E-03, 1.80E+02, 1.60E+03)
Methyl ethyl ketone (2-butanone) LOGTRIANGULAR(0.005, 0.005, 73.0)
Methyl isobutyl ketone LOGTRIANGULAR(0.005, 0.2, 9.9)
Nitric acid SINGLE(0.0)

Odour Units (Predicted)		TRIANGULAR(5.00E+04, 1.25E+05, 2.50E+05)
PAH (reported as Naphthalene)		LOGTRIANGULAR(1.00E-03, 2.00E-01, 1.70E+01)
para-Dichlorobenzene (modelled as 1,4-Dichlorobenzene)		LOGTRIANGULAR(0.006, 0.05, 2.7)
Pentane		LOGTRIANGULAR(0.02, 0.3, 105.0)
Pentene (all isomers)		LOGTRIANGULAR(0.24, 3.5, 12.0)
Perfluorocarbons (PFCs) (Total)		SINGLE(0.0)
Phenol		SINGLE(0.0)
PM10s		SINGLE(0.0)
Propane		LOGTRIANGULAR(1.00E-03, 1.90E+00, 1.29E+01)
Propanethiol		LOGUNIFORM(1.00E-30, 2.15E-01)
Sulphide, total simulations with H2S		LOGTRIANGULAR(1.00E-03, 2.40E+00, 5.58E+03)
Sulphide, total simulations without H2S		LOGTRIANGULAR(5.00E-04, 8.00E-03, 3.50E+00)
t-1,2-Dichloroethene		LOGTRIANGULAR(0.02, 0.24, 2.6)
Tetrachloroethane (modelled as 1,1,2,2-Tetrachloroethane)		LOGUNIFORM(1.00E-03, 5.00E+01)
Tetrachloroethylene (Tetrachloroethene)		LOGTRIANGULAR(1.00E-03, 1.00E-02, 7.70E+03)
Toluene		LOGTRIANGULAR(0.01, 0.1, 1250.0)
Trichlorobenzene (all isomers)		LOGTRIANGULAR(0.01, 0.01, 0.13)
Trichloroethylene (trichloroethene)		LOGTRIANGULAR(0.25, 1.65, 88.0)
Trichlorofluoromethane		LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.00E+03)
Trichlorotrifluoroethane		LOGTRIANGULAR(1.00E-03, 4.80E+00, 2.40E+01)
Trimethylbenzene (all isomers)		LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.87E+02)
Vinyl chloride (chloroethene, chloroethylene)		LOGTRIANGULAR(1.1, 31.0, 730.0)
Xylene (all isomers)		LOGTRIANGULAR(1.00E-03, 1.00E-03, 6.18E+04)
Justification:	[Default]	Default Value
VOC Halflife		NORMAL(4.11, 1.56)
Justification:	[Default]	Default Value

Waste Moisture Content

Degradation rate - Filling Phase		Wet
Justification:	[Changed]	site-specific
Degradation rate - after change		Wet
Justification:	[Changed]	site-specific
Waste Density		UNIFORM(0.8, 1.2)
Justification:	[Default]	Default Value
Leachate Head		SINGLE(1.0)
Justification:	[Default]	Default Value
Hydraulic Conductivity		LOGUNIFORM(1.00E-09, 1.00E-05)
Justification:	[Default]	Default Value

Engineered Controls

Cap		Single Clay
Cap Thickness		UNIFORM(0.9, 1.2)
Cap Hydraulic Conductivity		LOGUNIFORM(1.00E-10, 1.00E-09)
Justifications		
Cap	[Changed]	site-specific
Cap Thickness	[Changed]	site-specific
Cap Hydraulic Conductivity	[Changed]	site-specific
liner		Single Clay
Liner Thickness		UNIFORM(0.9, 1.2)
Liner Hydraulic Conductivity		LOGUNIFORM(1.00E-10, 1.00E-09)
Justifications		
Liner	[Changed]	site-specific
Liner Thickness	[Changed]	site-specific
Liner Hydraulic Conductivity	[Changed]	site-specific
Justification:	[Default]	Default Value
Methane Oxidation %		SINGLE(10.0)
Justification:	[Default]	Default Value
Land Raise Depth		SINGLE(0.0)

Geosphere

Ground Surface (mAOD)		4
Water Table (mAOD)		-1.95
Geosphere Moisture Content		UNIFORM(5.0, 10.0)
Geosphere Porosity		UNIFORM(24.0, 38.0)

Cell 16

Infiltration		NORMAL(608.9, 60.9)
Justification:	[Changed]	site-specific

Waste Input

Year		AmountDeposited (t)
2033		UNIFORM(3.92E+04, 5.88E+04)
2034		UNIFORM(1.76E+05, 2.64E+05)
2035		UNIFORM(2.30E+04, 3.45E+04)
Justification:	[Changed]	site-specific

Waste Breakdown

2033		
Industrial		UNIFORM(44.0, 65.0)
Inert		UNIFORM(33.0, 50.0)
Fines		UNIFORM(3.0, 5.0)

2034		
Industrial		UNIFORM(44.0, 65.0)
Inert		UNIFORM(33.0, 50.0)
Fines		UNIFORM(3.0, 5.0)
2035		
Industrial		UNIFORM(44.0, 65.0)
Inert		UNIFORM(33.0, 50.0)
Fines		UNIFORM(3.0, 5.0)
Justification:	[Default]	Default Value
Trace Gases		
<i>Source Gases</i>		Concentration [mg/m3]
1,1,1,2-Tetrafluorochloroethane		LOGTRIANGULAR(0.002, 0.2, 2.0)
1,1,1-Trichlorotrifluoroethane		LOGTRIANGULAR(0.005, 0.4, 8.0)
1,1,2-Trichloroethane		LOGTRIANGULAR(0.004, 1.0, 10.0)
1,1-Dichloroethane		LOGTRIANGULAR(0.02, 0.28, 3.9)
1,1-Dichloroethene		LOGTRIANGULAR(0.03, 2.8, 19.0)
1,1-Dichlorotetrafluoroethane		LOGTRIANGULAR(0.05, 0.25, 6.4)
1,2-Dichloropropane		SINGLE(0.0)
1,2-Dichlorotetrafluoroethane		LOGTRIANGULAR(0.01, 9.8, 300.0)
1-butanethiol		LOGUNIFORM(1.00E-30, 1.77E-01)
1-Chloro-1,1-difluoroethane		LOGTRIANGULAR(0.04, 0.57, 31.0)
2-butoxy ethanol		LOGUNIFORM(1.00E-30, 9.40E-02)
2-Chloro-1,1,1-trifluoroethane		LOGUNIFORM(0.05, 1.5)
2-Propanol		LOGTRIANGULAR(0.005, 2.0, 34.0)
Acetaldehyde (ethanal)		LOGUNIFORM(0.075, 2.546)
Acetone		LOGTRIANGULAR(0.005, 0.1, 50.0)
Acrylonitrile		LOGTRIANGULAR(0.02, 0.4, 38.0)
Arsenic		LOGTRIANGULAR(1.00E-04, 7.40E-03, 4.30E-01)
Benzene		LOGUNIFORM(3.1, 15.0)
Bromodichloromethane		SINGLE(0.0)
Butadiene (modelled as 1,3-Butadiene)		LOGUNIFORM(1.00E-30, 4.40E-02)
Butane		LOGTRIANGULAR(0.19, 1.0, 709.0)
Butene isomers		LOGTRIANGULAR(1.00E-03, 2.00E-01, 1.80E+00)
Butyric acid		LOGTRIANGULAR(1.00E-30, 1.00E-01, 1.75E+01)
Carbon disulphide		LOGUNIFORM(0.9, 170.0)
Carbon monoxide		LOGTRIANGULAR(0.11, 1.1, 5000.0)
Carbon tetrachloride (tetrachloromethane)		LOGUNIFORM(1.00E-30, 4.10E-02)
Carbonyl sulphide		LOGTRIANGULAR(0.006, 0.2, 4.4)
Chlorobenzene		LOGUNIFORM(0.002, 3000.0)
Chlorodifluoromethane		LOGTRIANGULAR(0.005, 0.1, 9900.0)
Chloroethane		LOGUNIFORM(1.00E-30, 5.30E+00)
Chlorofluorocarbons (CFCs) (Total)		LOGTRIANGULAR(0.06, 102.3, 1230.0)
Chlorofluoromethane		LOGTRIANGULAR(0.008, 0.2, 110.0)
Chloroform (trichloromethane)		LOGTRIANGULAR(1.00E-03, 2.00E-01, 7.00E+01)
Chlorotrifluoromethane		LOGTRIANGULAR(0.1, 0.2, 49.0)
Dichlorodifluoromethane		LOGTRIANGULAR(0.01, 9.0, 790.0)
Dichlorofluoromethane		LOGTRIANGULAR(1.00E-03, 1.00E-02, 6.02E+02)
Dichloromethane (methylene chloride)		LOGTRIANGULAR(1.00E-03, 2.00E-02, 1.52E+03)
Diethyl disulphide		LOGTRIANGULAR(1.00E-03, 2.00E-02, 2.60E+00)
Dimethyl disulphide		LOGTRIANGULAR(0.03, 0.17, 12.0)
Dimethyl sulphide		LOGTRIANGULAR(0.03, 0.73, 24.3)
Ethane		LOGTRIANGULAR(0.005, 6.25, 200.0)
Ethanethiol (ethyl mercaptan)		LOGUNIFORM(1.00E-30, 2.52E-01)
Ethanol		LOGTRIANGULAR(0.005, 0.2, 810.0)
Ethyl butyrate		LOGUNIFORM(0.41, 42.0)
Ethyl toluene (all isomers)		LOGTRIANGULAR(1.00E-03, 1.00E-02, 8.30E+00)
Ethylbenzene		LOGTRIANGULAR(1.00E-03, 1.00E-03, 8.75E+02)
Ethylene		UNIFORM(0.2, 5.8)
Ethylene dibromide		SINGLE(0.0)
Ethylene dichloride		LOGTRIANGULAR(0.006, 0.01, 1820.0)
Fluorotrchloromethane		LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.00E+03)
Formaldehyde (methanal)		LOGTRIANGULAR(0.026, 0.068, 0.188)
Freon 113		LOGTRIANGULAR(0.013, 4.8, 125.0)
Furan		LOGTRIANGULAR(0.02, 0.82, 6.2)
Halons		SINGLE(0.0)
Hexachlorocyclohexane (all isomers)		SINGLE(0.0)
Hexane		LOGTRIANGULAR(1.00E-03, 9.60E+00, 4.40E+01)
Hydrochlorofluorocarbons (HCFCs) (Total)		LOGTRIANGULAR(0.02, 128.8, 916.2)
Hydrofluorocarbons (HFCs) (Total)		SINGLE(0.0)
Hydrogen sulphide		LOGTRIANGULAR(2.4, 53.0, 580.0)
Limonene		LOGTRIANGULAR(1.00E-03, 1.00E-01, 2.40E+02)
Mercury		LOGUNIFORM(1.70E-04, 1.33E-03)
Methanethiol (methyl mercaptan)		LOGUNIFORM(1.00E-30, 6.62E-01)
Methyl chloride (chloromethane)		LOGTRIANGULAR(0.006, 0.2, 10.0)
Methyl chloroform (1,1,1-Trichloroethane)		LOGTRIANGULAR(1.00E-03, 1.80E+02, 1.60E+03)
Methyl ethyl ketone (2-butanone)		LOGTRIANGULAR(0.005, 0.005, 73.0)
Methyl isobutyl ketone		LOGTRIANGULAR(0.005, 0.2, 9.9)
Nitric acid		SINGLE(0.0)
Odour Units (Predicted)		TRIANGULAR(5.00E+04, 1.25E+05, 2.50E+05)
PAH (reported as Naphthalene)		LOGTRIANGULAR(1.00E-03, 2.00E-01, 1.70E+01)

para-Dichlorobenzene (modelled as 1,4-Dichlorobenzene)		LOGTRIANGULAR(0.006, 0.05, 2.7)
Pentane		LOGTRIANGULAR(0.02, 0.3, 105.0)
Pentene (all isomers)		LOGTRIANGULAR(0.24, 3.5, 12.0)
Perfluorocarbons (PFCs) (Total)		SINGLE(0.0)
Phenol		SINGLE(0.0)
PM10s		SINGLE(0.0)
Propane		LOGTRIANGULAR(1.00E-03, 1.90E+00, 1.29E+01)
Propanethiol		LOGUNIFORM(1.00E-30, 2.15E-01)
Sulphide, total simulations with H2S		LOGTRIANGULAR(1.00E-03, 2.40E+00, 5.58E+03)
Sulphide, total simulations without H2S		LOGTRIANGULAR(5.00E-04, 8.00E-03, 3.50E+00)
t-1,2-Dichloroethene		LOGTRIANGULAR(0.02, 0.24, 2.6)
Tetrachloroethane (modelled as 1,1,2,2-Tetrachloroethane)		LOGUNIFORM(1.00E-03, 5.00E+01)
Tetrachloroethylene (Tetrachloroethene)		LOGTRIANGULAR(1.00E-03, 1.00E-02, 7.70E+03)
Toluene		LOGTRIANGULAR(0.01, 0.1, 1250.0)
Trichlorobenzene (all isomers)		LOGTRIANGULAR(0.01, 0.01, 0.13)
Trichloroethylene (trichloroethene)		LOGTRIANGULAR(0.25, 1.65, 88.0)
Trichlorofluoromethane		LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.00E+03)
Trichlorotrifluoroethane		LOGTRIANGULAR(1.00E-03, 4.80E+00, 2.40E+01)
Trimethylbenzene (all isomers)		LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.87E+02)
Vinyl chloride (chloroethene, chloroethylene)		LOGTRIANGULAR(1.1, 31.0, 730.0)
Xylene (all isomers)		LOGTRIANGULAR(1.00E-03, 1.00E-03, 6.18E+04)
Justification:	[Default]	Default Value
VOC Halflife		NORMAL(4.11, 1.56)
Justification:	[Default]	Default Value
Waste Moisture Content		
Degradation rate - Filling Phase		Wet
Justification:	[Changed]	site-specific
Degradation rate - after change		Wet
Justification:	[Changed]	site-specific
Waste Density		UNIFORM(0.8, 1.2)
Justification:	[Default]	Default Value
Leachate Head		SINGLE(1.0)
Justification:	[Default]	Default Value
Hydraulic Conductivity		LOGUNIFORM(1.00E-09, 1.00E-05)
Justification:	[Default]	Default Value
Engineered Controls		
Cap		Single Clay
Cap Thickness		UNIFORM(0.9, 1.2)
Cap Hydraulic Conductivity		LOGUNIFORM(1.00E-10, 1.00E-09)
Justifications		
Cap	[Changed]	site-specific
Cap Thickness	[Changed]	site-specific
Cap Hydraulic Conductivity	[Changed]	site-specific
liner		Single Clay
Liner Thickness		UNIFORM(0.9, 1.2)
Liner Hydraulic Conductivity		LOGUNIFORM(1.00E-10, 1.00E-09)
Justifications		
Liner	[Changed]	site-specific
Liner Thickness	[Changed]	site-specific
Liner Hydraulic Conductivity	[Changed]	site-specific
Justification:	[Default]	Default Value
Methane Oxidation %		SINGLE(10.0)
Justification:	[Default]	Default Value
Land Raise Depth		SINGLE(0.0)
Geosphere		
Ground Surface (mAOD)		4
Water Table (mAOD)		-1.95
Geosphere Moisture Content		UNIFORM(5.0, 10.0)
Geosphere Porosity		UNIFORM(24.0, 38.0)
Cell 17		
Infiltration		NORMAL(608.9, 60.9)
Justification:	[Changed]	site-specific
Waste Input		
Year		AmountDeposited (t)
2035		UNIFORM(1.53E+05, 2.30E+05)
2036		UNIFORM(1.69E+05, 2.53E+05)
Justification:	[Changed]	site-specific
Waste Breakdown		
2035		
Industrial		UNIFORM(44.0, 65.0)
Inert		UNIFORM(33.0, 50.0)
Fines		UNIFORM(3.0, 5.0)
2036		
Industrial		UNIFORM(44.0, 65.0)
Inert		UNIFORM(33.0, 50.0)

Fines		UNIFORM(3.0, 5.0)
Justification:	[Default]	Default Value
Trace Gases		
<i>Source Gases</i>		
1,1,1,2-Tetrafluoroethane		LOGTRIANGULAR(0.002, 0.2, 2.0)
1,1,1-Trichlorotrifluoroethane		LOGTRIANGULAR(0.005, 0.4, 8.0)
1,1,2-Trichloroethane		LOGTRIANGULAR(0.004, 1.0, 10.0)
1,1-Dichloroethane		LOGTRIANGULAR(0.02, 0.28, 3.9)
1,1-Dichloroethene		LOGTRIANGULAR(0.03, 2.8, 19.0)
1,1-Dichlorotetrafluoroethane		LOGTRIANGULAR(0.05, 0.25, 6.4)
1,2-Dichloropropane		SINGLE(0.0)
1,2-Dichlorotetrafluoroethane		LOGTRIANGULAR(0.01, 9.8, 300.0)
1-butanethiol		LOGUNIFORM(1.00E-30, 1.77E-01)
1-Chloro-1,1-difluoroethane		LOGTRIANGULAR(0.04, 0.57, 31.0)
2-butoxy ethanol		LOGUNIFORM(1.00E-30, 9.40E-02)
2-Chloro-1,1,1-trifluoroethane		LOGUNIFORM(0.05, 1.5)
2-Propanol		LOGTRIANGULAR(0.005, 2.0, 34.0)
Acetaldehyde (ethanal)		LOGUNIFORM(0.075, 2.546)
Acetone		LOGTRIANGULAR(0.005, 0.1, 50.0)
Acrylonitrile		LOGTRIANGULAR(0.02, 0.4, 38.0)
Arsenic		LOGTRIANGULAR(1.00E-04, 7.40E-03, 4.30E-01)
Benzene		LOGUNIFORM(3.1, 15.0)
Bromodichloromethane		SINGLE(0.0)
Butadiene (modelled as 1,3-Butadiene)		LOGUNIFORM(1.00E-30, 4.40E-02)
Butane		LOGTRIANGULAR(0.19, 1.0, 709.0)
Butene isomers		LOGTRIANGULAR(1.00E-03, 2.00E-01, 1.80E+00)
Butyric acid		LOGTRIANGULAR(1.00E-30, 1.00E-01, 1.75E+01)
Carbon disulphide		LOGUNIFORM(0.9, 170.0)
Carbon monoxide		LOGTRIANGULAR(0.11, 1.1, 5000.0)
Carbon tetrachloride (tetrachloromethane)		LOGUNIFORM(1.00E-30, 4.10E-02)
Carbonyl sulphide		LOGTRIANGULAR(0.006, 0.2, 4.4)
Chlorobenzene		LOGUNIFORM(0.002, 3000.0)
Chlorodifluoromethane		LOGTRIANGULAR(0.005, 0.1, 9900.0)
Chloroethane		LOGUNIFORM(1.00E-30, 5.30E+00)
Chlorofluorocarbons (CFCs) (Total)		LOGTRIANGULAR(0.06, 102.3, 1230.0)
Chlorofluoromethane		LOGTRIANGULAR(0.008, 0.2, 110.0)
Chloroform (trichloromethane)		LOGTRIANGULAR(1.00E-03, 2.00E-01, 7.00E+01)
Chlorotrifluoromethane		LOGTRIANGULAR(0.1, 0.2, 49.0)
Dichlorodifluoromethane		LOGTRIANGULAR(0.01, 9.0, 790.0)
Dichlorofluoromethane		LOGTRIANGULAR(1.00E-03, 1.00E-02, 6.02E+02)
Dichloromethane (methylene chloride)		LOGTRIANGULAR(1.00E-03, 2.00E-02, 1.52E+03)
Diethyl disulphide		LOGTRIANGULAR(1.00E-03, 2.00E-02, 2.60E+00)
Dimethyl disulphide		LOGTRIANGULAR(0.03, 0.17, 12.0)
Dimethyl sulphide		LOGTRIANGULAR(0.03, 0.73, 24.3)
Ethane		LOGTRIANGULAR(0.005, 6.25, 200.0)
Ethanethiol (ethyl mercaptan)		LOGUNIFORM(1.00E-30, 2.52E-01)
Ethanol		LOGTRIANGULAR(0.005, 0.2, 810.0)
Ethyl butyrate		LOGUNIFORM(0.41, 42.0)
Ethyl toluene (all isomers)		LOGTRIANGULAR(1.00E-03, 1.00E-02, 8.30E+00)
Ethylbenzene		LOGTRIANGULAR(1.00E-03, 1.00E-03, 8.75E+02)
Ethylene		UNIFORM(0.2, 5.8)
Ethylene dibromide		SINGLE(0.0)
Ethylene dichloride		LOGTRIANGULAR(0.006, 0.01, 1820.0)
Fluorotrichloromethane		LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.00E+03)
Formaldehyde (methanal)		LOGTRIANGULAR(0.026, 0.068, 0.188)
Freon 113		LOGTRIANGULAR(0.013, 4.8, 125.0)
Furan		LOGTRIANGULAR(0.02, 0.82, 6.2)
Halons		SINGLE(0.0)
Hexachlorocyclohexane (all isomers)		SINGLE(0.0)
Hexane		LOGTRIANGULAR(1.00E-03, 9.60E+00, 4.40E+01)
Hydrochlorofluorocarbons (HCFCs) (Total)		LOGTRIANGULAR(0.02, 128.8, 916.2)
Hydrofluorocarbons (HFCs) (Total)		SINGLE(0.0)
Hydrogen sulphide		LOGTRIANGULAR(2.4, 53.0, 580.0)
Limonene		LOGTRIANGULAR(1.00E-03, 1.00E-01, 2.40E+02)
Mercury		LOGUNIFORM(1.70E-04, 1.33E-03)
Methanethiol (methyl mercaptan)		LOGUNIFORM(1.00E-30, 6.62E-01)
Methyl chloride (chloromethane)		LOGTRIANGULAR(0.006, 0.2, 10.0)
Methyl chloroform (1,1,1-Trichloroethane)		LOGTRIANGULAR(1.00E-03, 1.80E+02, 1.60E+03)
Methyl ethyl ketone (2-butanone)		LOGTRIANGULAR(0.005, 0.005, 73.0)
Methyl isobutyl ketone		LOGTRIANGULAR(0.005, 0.2, 9.9)
Nitric acid		SINGLE(0.0)
Odour Units (Predicted)		TRIANGULAR(5.00E+04, 1.25E+05, 2.50E+05)
PAH (reported as Naphthalene)		LOGTRIANGULAR(1.00E-03, 2.00E-01, 1.70E+01)
para-Dichlorobenzene (modelled as 1,4-Dichlorobenzene)		LOGTRIANGULAR(0.006, 0.05, 2.7)
Pentane		LOGTRIANGULAR(0.02, 0.3, 105.0)
Pentene (all isomers)		LOGTRIANGULAR(0.24, 3.5, 12.0)
Perfluorocarbons (PFCs) (Total)		SINGLE(0.0)
Phenol		SINGLE(0.0)
PM10s		SINGLE(0.0)
Propane		LOGTRIANGULAR(1.00E-03, 1.90E+00, 1.29E+01)

Propanethiol		LOGUNIFORM(1.00E-30, 2.15E-01)
Sulphide, total simulations with H2S		LOGTRIANGULAR(1.00E-03, 2.40E+00, 5.58E+03)
Sulphide, total simulations without H2S		LOGTRIANGULAR(5.00E-04, 8.00E-03, 3.50E+00)
t-1,2-Dichloroethene		LOGTRIANGULAR(0.02, 0.24, 2.6)
Tetrachloroethane (modelled as 1,1,2,2-Tetrachloroethane)		LOGUNIFORM(1.00E-03, 5.00E+01)
Tetrachloroethylene (Tetrachloroethene)		LOGTRIANGULAR(1.00E-03, 1.00E-02, 7.70E+03)
Toluene		LOGTRIANGULAR(0.01, 0.1, 1250.0)
Trichlorobenzene (all isomers)		LOGTRIANGULAR(0.01, 0.01, 0.13)
Trichloroethylene (trichloroethene)		LOGTRIANGULAR(0.25, 1.65, 88.0)
Trichlorofluoromethane		LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.00E+03)
Trichlorotrifluoroethane		LOGTRIANGULAR(1.00E-03, 4.80E+00, 2.40E+01)
Trimethylbenzene (all isomers)		LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.87E+02)
Vinyl chloride (chloroethene, chloroethylene)		LOGTRIANGULAR(1.1, 31.0, 730.0)
Xylene (all isomers)		LOGTRIANGULAR(1.00E-03, 1.00E-03, 6.18E+04)
Justification:	[Default]	Default Value
VOC Halflife		NORMAL(4.11, 1.56)
Justification:	[Default]	Default Value

Waste Moisture Content

Degradation rate - Filling Phase		Wet
Justification:	[Changed]	site-specific
Degradation rate - after change		Wet
Justification:	[Changed]	site-specific
Waste Density		UNIFORM(0.8, 1.2)
Justification:	[Default]	Default Value
Leachate Head		SINGLE(1.0)
Justification:	[Default]	Default Value
Hydraulic Conductivity		LOGUNIFORM(1.00E-09, 1.00E-05)
Justification:	[Default]	Default Value

Engineered Controls

Cap		Single Clay
Cap Thickness		UNIFORM(0.9, 1.2)
Cap Hydraulic Conductivity		LOGUNIFORM(1.00E-10, 1.00E-09)
Justifications		
Cap	[Changed]	site-specific
Cap Thickness	[Changed]	site-specific
Cap Hydraulic Conductivity	[Changed]	site-specific
liner		Single Clay
Liner Thickness		UNIFORM(0.9, 1.2)
Liner Hydraulic Conductivity		LOGUNIFORM(1.00E-10, 1.00E-09)
Justifications		
Liner	[Changed]	site-specific
Liner Thickness	[Changed]	site-specific
Liner Hydraulic Conductivity	[Changed]	site-specific
Justification:	[Default]	Default Value
Methane Oxidation %		SINGLE(10.0)
Justification:	[Default]	Default Value
Land Raise Depth		SINGLE(0.0)

Geosphere

Ground Surface (mAOD)		4
Water Table (mAOD)		-1.95
Geosphere Moisture Content		UNIFORM(5.0, 10.0)
Geosphere Porosity		UNIFORM(24.0, 38.0)

Cell 18

Infiltration		NORMAL(608.9, 60.9)
Justification:	[Changed]	site-specific

Waste Input

Year		AmountDeposited (t)
2036		UNIFORM(7.02E+03, 1.05E+04)
2037		UNIFORM(1.76E+05, 2.64E+05)
2038		UNIFORM(1.03E+05, 1.55E+05)
Justification:	[Changed]	site-specific

Waste Breakdown

2036		
Industrial		UNIFORM(44.0, 65.0)
Inert		UNIFORM(33.0, 50.0)
Fines		UNIFORM(3.0, 5.0)
2037		
Industrial		UNIFORM(44.0, 65.0)
Inert		UNIFORM(33.0, 50.0)
Fines		UNIFORM(3.0, 5.0)
2038		
Industrial		UNIFORM(44.0, 65.0)
Inert		UNIFORM(33.0, 50.0)
Fines		UNIFORM(3.0, 5.0)
Justification:	[Default]	Default Value

Trace Gases

Source Gases	Concentration [mg/m3]
1,1,1,2-Tetrafluoroethane	LOGTRIANGULAR(0.002, 0.2, 2.0)
1,1,1-Trichlorotrifluoroethane	LOGTRIANGULAR(0.005, 0.4, 8.0)
1,1,2-Trichloroethane	LOGTRIANGULAR(0.004, 1.0, 10.0)
1,1-Dichloroethane	LOGTRIANGULAR(0.02, 0.28, 3.9)
1,1-Dichloroethene	LOGTRIANGULAR(0.03, 2.8, 19.0)
1,1-Dichlorotetrafluoroethane	LOGTRIANGULAR(0.05, 0.25, 6.4)
1,2-Dichloropropane	SINGLE(0.0)
1,2-Dichlorotetrafluoroethane	LOGTRIANGULAR(0.01, 9.8, 300.0)
1-butanethiol	LOGUNIFORM(1.00E-30, 1.77E-01)
1-Chloro-1,1-difluoroethane	LOGTRIANGULAR(0.04, 0.57, 31.0)
2-butoxy ethanol	LOGUNIFORM(1.00E-30, 9.40E-02)
2-Chloro-1,1,1-trifluoroethane	LOGUNIFORM(0.05, 1.5)
2-Propanol	LOGTRIANGULAR(0.005, 2.0, 34.0)
Acetaldehyde (ethanal)	LOGUNIFORM(0.075, 2.546)
Acetone	LOGTRIANGULAR(0.005, 0.1, 50.0)
Acrylonitrile	LOGTRIANGULAR(0.02, 0.4, 38.0)
Arsenic	LOGTRIANGULAR(1.00E-04, 7.40E-03, 4.30E-01)
Benzene	LOGUNIFORM(3.1, 15.0)
Bromodichloromethane	SINGLE(0.0)
Butadiene (modelled as 1,3-Butadiene)	LOGUNIFORM(1.00E-30, 4.40E-02)
Butane	LOGTRIANGULAR(0.19, 1.0, 709.0)
Butene isomers	LOGTRIANGULAR(1.00E-03, 2.00E-01, 1.80E+00)
Butyric acid	LOGTRIANGULAR(1.00E-30, 1.00E-01, 1.75E+01)
Carbon disulphide	LOGUNIFORM(0.9, 170.0)
Carbon monoxide	LOGTRIANGULAR(0.11, 1.1, 5000.0)
Carbon tetrachloride (tetrachloromethane)	LOGUNIFORM(1.00E-30, 4.10E-02)
Carbonyl sulphide	LOGTRIANGULAR(0.006, 0.2, 4.4)
Chlorobenzene	LOGUNIFORM(0.002, 3000.0)
Chlorodifluoromethane	LOGTRIANGULAR(0.005, 0.1, 9900.0)
Chloroethane	LOGUNIFORM(1.00E-30, 5.30E+00)
Chlorofluorocarbons (CFCs) (Total)	LOGTRIANGULAR(0.06, 102.3, 1230.0)
Chlorofluoromethane	LOGTRIANGULAR(0.008, 0.2, 110.0)
Chloroform (trichloromethane)	LOGTRIANGULAR(1.00E-03, 2.00E-01, 7.00E+01)
Chlorotrifluoromethane	LOGTRIANGULAR(0.1, 0.2, 49.0)
Dichlorodifluoromethane	LOGTRIANGULAR(0.01, 9.0, 790.0)
Dichlorofluoromethane	LOGTRIANGULAR(1.00E-03, 1.00E-02, 6.02E+02)
Dichloromethane (methylene chloride)	LOGTRIANGULAR(1.00E-03, 2.00E-02, 1.52E+03)
Diethyl disulphide	LOGTRIANGULAR(1.00E-03, 2.00E-02, 2.60E+00)
Dimethyl disulphide	LOGTRIANGULAR(0.03, 0.17, 12.0)
Dimethyl sulphide	LOGTRIANGULAR(0.03, 0.73, 24.3)
Ethane	LOGTRIANGULAR(0.005, 6.25, 200.0)
Ethanethiol (ethyl mercaptan)	LOGUNIFORM(1.00E-30, 2.52E-01)
Ethanol	LOGTRIANGULAR(0.005, 0.2, 810.0)
Ethyl butyrate	LOGUNIFORM(0.41, 42.0)
Ethyl toluene (all isomers)	LOGTRIANGULAR(1.00E-03, 1.00E-02, 8.30E+00)
Ethylbenzene	LOGTRIANGULAR(1.00E-03, 1.00E-03, 8.75E+02)
Ethylene	UNIFORM(0.2, 5.8)
Ethylene dibromide	SINGLE(0.0)
Ethylene dichloride	LOGTRIANGULAR(0.006, 0.01, 1820.0)
Fluorotrichloromethane	LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.00E+03)
Formaldehyde (methanal)	LOGTRIANGULAR(0.026, 0.068, 0.188)
Freon 113	LOGTRIANGULAR(0.013, 4.8, 125.0)
Furan	LOGTRIANGULAR(0.02, 0.82, 6.2)
Halons	SINGLE(0.0)
Hexachlorocyclohexane (all isomers)	SINGLE(0.0)
Hexane	LOGTRIANGULAR(1.00E-03, 9.60E+00, 4.40E+01)
Hydrochlorofluorocarbons (HCFCs) (Total)	LOGTRIANGULAR(0.02, 128.8, 916.2)
Hydrofluorocarbons (HFCs) (Total)	SINGLE(0.0)
Hydrogen sulphide	LOGTRIANGULAR(2.4, 53.0, 580.0)
Limonene	LOGTRIANGULAR(1.00E-03, 1.00E-01, 2.40E+02)
Mercury	LOGUNIFORM(1.70E-04, 1.33E-03)
Methanethiol (methyl mercaptan)	LOGUNIFORM(1.00E-30, 6.62E-01)
Methyl chloride (chloromethane)	LOGTRIANGULAR(0.006, 0.2, 10.0)
Methyl chloroform (1,1,1-Trichloroethane)	LOGTRIANGULAR(1.00E-03, 1.80E+02, 1.60E+03)
Methyl ethyl ketone (2-butanone)	LOGTRIANGULAR(0.005, 0.005, 73.0)
Methyl isobutyl ketone	LOGTRIANGULAR(0.005, 0.2, 9.9)
Nitric acid	SINGLE(0.0)
Odour Units (Predicted)	TRIANGULAR(5.00E+04, 1.25E+05, 2.50E+05)
PAH (reported as Naphthalene)	LOGTRIANGULAR(1.00E-03, 2.00E-01, 1.70E+01)
para-Dichlorobenzene (modelled as 1,4-Dichlorobenzene)	LOGTRIANGULAR(0.006, 0.05, 2.7)
Pentane	LOGTRIANGULAR(0.02, 0.3, 105.0)
Pentene (all isomers)	LOGTRIANGULAR(0.24, 3.5, 12.0)
Perfluorocarbons (PFCs) (Total)	SINGLE(0.0)
Phenol	SINGLE(0.0)
PM10s	SINGLE(0.0)
Propane	LOGTRIANGULAR(1.00E-03, 1.90E+00, 1.29E+01)
Propanethiol	LOGUNIFORM(1.00E-30, 2.15E-01)
Sulphide, total simulations with H2S	LOGTRIANGULAR(1.00E-03, 2.40E+00, 5.58E+03)
Sulphide, total simulations without H2S	LOGTRIANGULAR(5.00E-04, 8.00E-03, 3.50E+00)

t-1,2-Dichloroethene		LOGTRIANGULAR(0.02, 0.24, 2.6)
Tetrachloroethane (modelled as 1,1,2,2-Tetrachloroethane)		LOGUNIFORM(1.00E-03, 5.00E+01)
Tetrachloroethylene (Tetrachloroethene)		LOGTRIANGULAR(1.00E-03, 1.00E-02, 7.70E+03)
Toluene		LOGTRIANGULAR(0.01, 0.1, 1250.0)
Trichlorobenzene (all isomers)		LOGTRIANGULAR(0.01, 0.01, 0.13)
Trichloroethylene (trichloroethene)		LOGTRIANGULAR(0.25, 1.65, 88.0)
Trichlorofluoromethane		LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.00E+03)
Trichlorotrifluoroethane		LOGTRIANGULAR(1.00E-03, 4.80E+00, 2.40E+01)
Trimethylbenzene (all isomers)		LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.87E+02)
Vinyl chloride (chloroethene, chloroethylene)		LOGTRIANGULAR(1.1, 31.0, 730.0)
Xylene (all isomers)		LOGTRIANGULAR(1.00E-03, 1.00E-03, 6.18E+04)
Justification:	[Default]	Default Value
VOC Halflife		NORMAL(4.11, 1.56)
Justification:	[Default]	Default Value

Waste Moisture Content

Degradation rate - Filling Phase		Wet
Justification:	[Changed]	site-specific
Degradation rate - after change		Wet
Justification:	[Changed]	site-specific
Waste Density		UNIFORM(0.8, 1.2)
Justification:	[Default]	Default Value
Leachate Head		SINGLE(1.0)
Justification:	[Default]	Default Value
Hydraulic Conductivity		LOGUNIFORM(1.00E-09, 1.00E-05)
Justification:	[Default]	Default Value

Engineered Controls

<i>Cap</i>		Single Clay
Cap Thickness		UNIFORM(0.9, 1.2)
Cap Hydraulic Conductivity		LOGUNIFORM(1.00E-10, 1.00E-09)
Justifications		
Cap	[Changed]	site-specific
Cap Thickness	[Changed]	site-specific
Cap Hydraulic Conductivity	[Changed]	site-specific
<i>liner</i>		Single Clay
Liner Thickness		UNIFORM(0.9, 1.2)
Liner Hydraulic Conductivity		LOGUNIFORM(1.00E-10, 1.00E-09)
Justifications		
Liner	[Changed]	site-specific
Liner Thickness	[Changed]	site-specific
Liner Hydraulic Conductivity	[Changed]	site-specific
Justification:	[Default]	Default Value
Methane Oxidation %		SINGLE(10.0)
Justification:	[Default]	Default Value
Land Raise Depth		SINGLE(0.0)

Geosphere

Ground Surface (mAOD)		4
Water Table (mAOD)		-1.95
Geosphere Moisture Content		UNIFORM(5.0, 10.0)
Geosphere Porosity		UNIFORM(24.0, 38.0)

Central Area

Infiltration		NORMAL(608.9, 60.9)
Justification:	[Changed]	site-specific

Waste Input

Year		AmountDeposited (t)
1981		UNIFORM(6.75E+04, 8.25E+04)
1982		UNIFORM(6.75E+04, 8.25E+04)
1983		UNIFORM(6.75E+04, 8.25E+04)
1984		UNIFORM(6.75E+04, 8.25E+04)
1985		UNIFORM(6.75E+04, 8.25E+04)
1986		UNIFORM(6.75E+04, 8.25E+04)
1987		UNIFORM(6.75E+04, 8.25E+04)
1988		UNIFORM(6.75E+04, 8.25E+04)
1989		UNIFORM(6.75E+04, 8.25E+04)
1990		UNIFORM(6.75E+04, 8.25E+04)
1991		UNIFORM(6.75E+04, 8.25E+04)
1992		UNIFORM(6.75E+04, 8.25E+04)
1993		UNIFORM(6.75E+04, 8.25E+04)
1994		UNIFORM(6.75E+04, 8.25E+04)
1995		UNIFORM(6.75E+04, 8.25E+04)
1996		UNIFORM(6.75E+04, 8.25E+04)
1997		UNIFORM(6.75E+04, 8.25E+04)
1998		UNIFORM(6.75E+04, 8.25E+04)
1999		UNIFORM(6.75E+04, 8.25E+04)
2000		UNIFORM(3.38E+04, 4.13E+04)
Justification:	[Changed]	site-specific

Waste Breakdown

1981	
Industrial	UNIFORM(63.0, 77.0)
Inert	UNIFORM(27.0, 33.0)
1982	
Industrial	UNIFORM(63.0, 77.0)
Inert	UNIFORM(27.0, 33.0)
1983	
Industrial	UNIFORM(63.0, 77.0)
Inert	UNIFORM(27.0, 33.0)
1984	
Industrial	UNIFORM(63.0, 77.0)
Inert	UNIFORM(27.0, 33.0)
1985	
Industrial	UNIFORM(63.0, 77.0)
Inert	UNIFORM(27.0, 33.0)
1986	
Industrial	UNIFORM(63.0, 77.0)
Inert	UNIFORM(27.0, 33.0)
1987	
Industrial	UNIFORM(63.0, 77.0)
Inert	UNIFORM(27.0, 33.0)
1988	
Industrial	UNIFORM(63.0, 77.0)
Inert	UNIFORM(27.0, 33.0)
1989	
Industrial	UNIFORM(63.0, 77.0)
Inert	UNIFORM(27.0, 33.0)
1990	
Industrial	UNIFORM(63.0, 77.0)
Inert	UNIFORM(27.0, 33.0)
1991	
Industrial	UNIFORM(63.0, 77.0)
Inert	UNIFORM(27.0, 33.0)
1992	
Industrial	UNIFORM(63.0, 77.0)
Inert	UNIFORM(27.0, 33.0)
1993	
Industrial	UNIFORM(63.0, 77.0)
Inert	UNIFORM(27.0, 33.0)
1994	
Industrial	UNIFORM(63.0, 77.0)
Inert	UNIFORM(27.0, 33.0)
1995	
Industrial	UNIFORM(63.0, 77.0)
Inert	UNIFORM(27.0, 33.0)
1996	
Industrial	UNIFORM(63.0, 77.0)
Inert	UNIFORM(27.0, 33.0)
1997	
Industrial	UNIFORM(63.0, 77.0)
Inert	UNIFORM(27.0, 33.0)
1998	
Industrial	UNIFORM(63.0, 77.0)
Inert	UNIFORM(27.0, 33.0)
1999	
Industrial	UNIFORM(63.0, 77.0)
Inert	UNIFORM(27.0, 33.0)
2000	
Industrial	UNIFORM(63.0, 77.0)
Inert	UNIFORM(27.0, 33.0)
Justification:	[Default] Default Value

Trace Gases

<i>Source Gases</i>	Concentration [mg/m3]
1,1,1,2-Tetrafluoroethane	LOGTRIANGULAR(0.002, 0.2, 2.0)
1,1,1-Trichlorotrifluoroethane	LOGTRIANGULAR(0.005, 0.4, 8.0)
1,1,2-Trichloroethane	LOGTRIANGULAR(0.004, 1.0, 10.0)
1,1-Dichloroethane	LOGTRIANGULAR(0.02, 0.28, 3.9)
1,1-Dichloroethene	LOGTRIANGULAR(0.03, 2.8, 19.0)
1,1-Dichlorotetrafluoroethane	LOGTRIANGULAR(0.05, 0.25, 6.4)
1,2-Dichloropropane	SINGLE(0.0)
1,2-Dichlorotetrafluoroethane	LOGTRIANGULAR(0.01, 9.8, 300.0)
1-butanethiol	LOGUNIFORM(1.00E-30, 1.77E-01)
1-Chloro-1,1-difluoroethane	LOGTRIANGULAR(0.04, 0.57, 31.0)
2-butoxy ethanol	LOGUNIFORM(1.00E-30, 9.40E-02)
2-Chloro-1,1,1-trifluoroethane	LOGUNIFORM(0.05, 1.5)
2-Propanol	LOGTRIANGULAR(0.005, 2.0, 34.0)
Acetaldehyde (ethanal)	LOGUNIFORM(0.075, 2.546)
Acetone	LOGTRIANGULAR(0.005, 0.1, 50.0)
Acrylonitrile	LOGTRIANGULAR(0.02, 0.4, 38.0)
Arsenic	LOGTRIANGULAR(1.00E-04, 7.40E-03, 4.30E-01)
Benzene	LOGUNIFORM(3.1, 15.0)

Bromodichloromethane		SINGLE(0.0)
Butadiene (modelled as 1,3-Butadiene)		LOGUNIFORM(1.00E-30, 4.40E-02)
Butane		LOGTRIANGULAR(0.19, 1.0, 709.0)
Butene isomers		LOGTRIANGULAR(1.00E-03, 2.00E-01, 1.80E+00)
Butyric acid		LOGTRIANGULAR(1.00E-30, 1.00E-01, 1.75E+01)
Carbon disulphide		LOGUNIFORM(0.9, 170.0)
Carbon monoxide		LOGTRIANGULAR(0.11, 1.1, 5000.0)
Carbon tetrachloride (tetrachloromethane)		LOGUNIFORM(1.00E-30, 4.10E-02)
Carbonyl sulphide		LOGTRIANGULAR(0.006, 0.2, 4.4)
Chlorobenzene		LOGUNIFORM(0.002, 3000.0)
Chlorodifluoromethane		LOGTRIANGULAR(0.005, 0.1, 9900.0)
Chloroethane		LOGUNIFORM(1.00E-30, 5.30E+00)
Chlorofluorocarbons (CFCs) (Total)		LOGTRIANGULAR(0.06, 102.3, 1230.0)
Chlorofluoromethane		LOGTRIANGULAR(0.008, 0.2, 110.0)
Chloroform (trichloromethane)		LOGTRIANGULAR(1.00E-03, 2.00E-01, 7.00E+01)
Chlorotrifluoromethane		LOGTRIANGULAR(0.1, 0.2, 49.0)
Dichlorodifluoromethane		LOGTRIANGULAR(0.01, 9.0, 790.0)
Dichlorofluoromethane		LOGTRIANGULAR(1.00E-03, 1.00E-02, 6.02E+02)
Dichloromethane (methylene chloride)		LOGTRIANGULAR(1.00E-03, 2.00E-02, 1.52E+03)
Diethyl disulphide		LOGTRIANGULAR(1.00E-03, 2.00E-02, 2.60E+00)
Dimethyl disulphide		LOGTRIANGULAR(0.03, 0.17, 12.0)
Dimethyl sulphide		LOGTRIANGULAR(0.03, 0.73, 24.3)
Ethane		LOGTRIANGULAR(0.005, 6.25, 200.0)
Ethanethiol (ethyl mercaptan)		LOGUNIFORM(1.00E-30, 2.52E-01)
Ethanol		LOGTRIANGULAR(0.005, 0.2, 810.0)
Ethyl butyrate		LOGUNIFORM(0.41, 42.0)
Ethyl toluene (all isomers)		LOGTRIANGULAR(1.00E-03, 1.00E-02, 8.30E+00)
Ethylbenzene		LOGTRIANGULAR(1.00E-03, 1.00E-03, 8.75E+02)
Ethylene		UNIFORM(0.2, 5.8)
Ethylene dibromide		SINGLE(0.0)
Ethylene dichloride		LOGTRIANGULAR(0.006, 0.01, 1820.0)
Fluorotrichloromethane		LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.00E+03)
Formaldehyde (methanal)		LOGTRIANGULAR(0.026, 0.068, 0.188)
Freon 113		LOGTRIANGULAR(0.013, 4.8, 125.0)
Furan		LOGTRIANGULAR(0.02, 0.82, 6.2)
Halons		SINGLE(0.0)
Hexachlorocyclohexane (all isomers)		SINGLE(0.0)
Hexane		LOGTRIANGULAR(1.00E-03, 9.60E+00, 4.40E+01)
Hydrochlorofluorocarbons (HCFCs) (Total)		LOGTRIANGULAR(0.02, 128.8, 916.2)
Hydrofluorocarbons (HFCs) (Total)		SINGLE(0.0)
Hydrogen sulphide		LOGTRIANGULAR(2.4, 53.0, 580.0)
Limonene		LOGTRIANGULAR(1.00E-03, 1.00E-01, 2.40E+02)
Mercury		LOGUNIFORM(1.70E-04, 1.33E-03)
Methanethiol (methyl mercaptan)		LOGUNIFORM(1.00E-30, 6.62E-01)
Methyl chloride (chloromethane)		LOGTRIANGULAR(0.006, 0.2, 10.0)
Methyl chloroform (1,1,1-Trichloroethane)		LOGTRIANGULAR(1.00E-03, 1.80E+02, 1.60E+03)
Methyl ethyl ketone (2-butanone)		LOGTRIANGULAR(0.005, 0.005, 73.0)
Methyl isobutyl ketone		LOGTRIANGULAR(0.005, 0.2, 9.9)
Nitric acid		SINGLE(0.0)
Odour Units (Predicted)		TRIANGULAR(5.00E+04, 1.25E+05, 2.50E+05)
PAH (reported as Naphthalene)		LOGTRIANGULAR(1.00E-03, 2.00E-01, 1.70E+01)
para-Dichlorobenzene (modelled as 1,4-Dichlorobenzene)		LOGTRIANGULAR(0.006, 0.05, 2.7)
Pentane		LOGTRIANGULAR(0.02, 0.3, 105.0)
Pentene (all isomers)		LOGTRIANGULAR(0.24, 3.5, 12.0)
Perfluorocarbons (PFCs) (Total)		SINGLE(0.0)
Phenol		SINGLE(0.0)
PM10s		SINGLE(0.0)
Propane		LOGTRIANGULAR(1.00E-03, 1.90E+00, 1.29E+01)
Propanethiol		LOGUNIFORM(1.00E-30, 2.15E-01)
Sulphide, total simulations with H2S		LOGTRIANGULAR(1.00E-03, 2.40E+00, 5.58E+03)
Sulphide, total simulations without H2S		LOGTRIANGULAR(5.00E-04, 8.00E-03, 3.50E+00)
t-1,2-Dichloroethene		LOGTRIANGULAR(0.02, 0.24, 2.6)
Tetrachloroethane (modelled as 1,1,2,2-Tetrachloroethane)		LOGUNIFORM(1.00E-03, 5.00E+01)
Tetrachloroethylene (Tetrachloroethene)		LOGTRIANGULAR(1.00E-03, 1.00E-02, 7.70E+03)
Toluene		LOGTRIANGULAR(0.01, 0.1, 1250.0)
Trichlorobenzene (all isomers)		LOGTRIANGULAR(0.01, 0.01, 0.13)
Trichloroethylene (trichloroethene)		LOGTRIANGULAR(0.25, 1.65, 88.0)
Trichlorofluoromethane		LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.00E+03)
Trichlorotrifluoroethane		LOGTRIANGULAR(1.00E-03, 4.80E+00, 2.40E+01)
Trimethylbenzene (all isomers)		LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.87E+02)
Vinyl chloride (chloroethene, chloroethylene)		LOGTRIANGULAR(1.1, 31.0, 730.0)
Xylene (all isomers)		LOGTRIANGULAR(1.00E-03, 1.00E-03, 6.18E+04)
Justification:	[Default]	Default Value
VOC Halflife		NORMAL(4.11, 1.56)
Justification:	[Default]	Default Value
Waste Moisture Content		
Degradation rate - Filling Phase		Wet
Justification:	[Changed]	site-specific

Degradation rate - after change		Wet
Justification:	[Changed]	site-specific
Waste Density		UNIFORM(0.8, 1.2)
Justification:	[Default]	Default Value
Leachate Head		SINGLE(1.0)
Justification:	[Default]	Default Value
Hydraulic Conductivity		LOGUNIFORM(1.00E-09, 1.00E-05)
Justification:	[Default]	Default Value

Engineered Controls

<i>Cap</i>		Single Clay
Cap Thickness		UNIFORM(0.9, 1.2)
Cap Hydraulic Conductivity		LOGUNIFORM(1.00E-10, 1.00E-09)
Justifications		
Cap	[Changed]	site-specific
Cap Thickness	[Changed]	site-specific
Cap Hydraulic Conductivity	[Changed]	site-specific
<i>liner</i>		Single Clay
Liner Thickness		UNIFORM(0.9, 1.2)
Liner Hydraulic Conductivity		LOGUNIFORM(1.00E-10, 1.00E-09)
Justifications		
Liner	[Changed]	site-specific
Liner Thickness	[Changed]	site-specific
Liner Hydraulic Conductivity	[Changed]	site-specific
Justification:	[Default]	Default Value
Methane Oxidation %		SINGLE(10.0)
Justification:	[Default]	Default Value
Land Raise Depth		SINGLE(0.0)

Geosphere

Ground Surface (mAOD)		4
Water Table (mAOD)		-1.95
Geosphere Moisture Content		UNIFORM(5.0, 10.0)
Geosphere Porosity		UNIFORM(24.0, 38.0)

Northern Extension

Infiltration		NORMAL(608.9, 60.9)
Justification:	[Changed]	site-specific

Waste Input

Year		AmountDeposited (t)
2000		UNIFORM(3.38E+04, 4.13E+04)
2001		UNIFORM(6.75E+04, 8.25E+04)
2002		UNIFORM(6.75E+04, 8.25E+04)
2003		UNIFORM(4.65E+04, 5.69E+04)
2004		UNIFORM(8.65E+04, 1.06E+05)
2005		UNIFORM(9.48E+04, 1.16E+05)
Justification:	[Changed]	site-specific

Waste Breakdown

2000		
Industrial		UNIFORM(63.0, 77.0)
Inert		UNIFORM(27.0, 33.0)
2001		
Industrial		UNIFORM(63.0, 77.0)
Inert		UNIFORM(27.0, 33.0)
2002		
Industrial		UNIFORM(63.0, 77.0)
Inert		UNIFORM(27.0, 33.0)
2003		
Domestic		UNIFORM(2.0, 3.0)
Industrial		UNIFORM(62.0, 75.0)
Inert		UNIFORM(26.0, 32.0)
2004		
Industrial		UNIFORM(82.0, 100.0)
Inert		UNIFORM(8.0, 10.0)
2005		
Domestic		UNIFORM(1.0, 1.2)
Commercial		UNIFORM(39.0, 48.0)
Industrial		UNIFORM(39.0, 48.0)
Inert		UNIFORM(10.0, 12.0)
Justification:	[Default]	Default Value

Trace Gases

<i>Source Gases</i>		Concentration [mg/m3]
1,1,1,2-Tetrafluorochloroethane		LOGTRIANGULAR(0.002, 0.2, 2.0)
1,1,1-Trichlorotrifluoroethane		LOGTRIANGULAR(0.005, 0.4, 8.0)
1,1,2-Trichloroethane		LOGTRIANGULAR(0.004, 1.0, 10.0)
1,1-Dichloroethane		LOGTRIANGULAR(0.02, 0.28, 3.9)
1,1-Dichloroethene		LOGTRIANGULAR(0.03, 2.8, 19.0)
1,1-Dichlorotetrafluoroethane		LOGTRIANGULAR(0.05, 0.25, 6.4)
1,2-Dichloropropane		SINGLE(0.0)
1,2-Dichlorotetrafluoroethane		LOGTRIANGULAR(0.01, 9.8, 300.0)
1-butanethiol		LOGUNIFORM(1.00E-30, 1.77E-01)

1-Chloro-1,1-difluoroethane	LOGTRIANGULAR(0.04, 0.57, 31.0)
2-butoxy ethanol	LOGUNIFORM(1.00E-30, 9.40E-02)
2-Chloro-1,1,1-trifluoroethane	LOGUNIFORM(0.05, 1.5)
2-Propanol	LOGTRIANGULAR(0.005, 2.0, 34.0)
Acetaldehyde (ethanal)	LOGUNIFORM(0.075, 2.546)
Acetone	LOGTRIANGULAR(0.005, 0.1, 50.0)
Acrylonitrile	LOGTRIANGULAR(0.02, 0.4, 38.0)
Arsenic	LOGTRIANGULAR(1.00E-04, 7.40E-03, 4.30E-01)
Benzene	LOGUNIFORM(3.1, 15.0)
Bromodichloromethane	SINGLE(0.0)
Butadiene (modelled as 1,3-Butadiene)	LOGUNIFORM(1.00E-30, 4.40E-02)
Butane	LOGTRIANGULAR(0.19, 1.0, 709.0)
Butene isomers	LOGTRIANGULAR(1.00E-03, 2.00E-01, 1.80E+00)
Butyric acid	LOGTRIANGULAR(1.00E-30, 1.00E-01, 1.75E+01)
Carbon disulphide	LOGUNIFORM(0.9, 170.0)
Carbon monoxide	LOGTRIANGULAR(0.11, 1.1, 5000.0)
Carbon tetrachloride (tetrachloromethane)	LOGUNIFORM(1.00E-30, 4.10E-02)
Carbonyl sulphide	LOGTRIANGULAR(0.006, 0.2, 4.4)
Chlorobenzene	LOGUNIFORM(0.002, 3000.0)
Chlorodifluoromethane	LOGTRIANGULAR(0.005, 0.1, 9900.0)
Chloroethane	LOGUNIFORM(1.00E-30, 5.30E+00)
Chlorofluorocarbons (CFCs) (Total)	LOGTRIANGULAR(0.06, 102.3, 1230.0)
Chlorofluoromethane	LOGTRIANGULAR(0.008, 0.2, 110.0)
Chloroform (trichloromethane)	LOGTRIANGULAR(1.00E-03, 2.00E-01, 7.00E+01)
Chlorotrifluoromethane	LOGTRIANGULAR(0.1, 0.2, 49.0)
Dichlorodifluoromethane	LOGTRIANGULAR(0.01, 9.0, 790.0)
Dichlorofluoromethane	LOGTRIANGULAR(1.00E-03, 1.00E-02, 6.02E+02)
Dichloromethane (methylene chloride)	LOGTRIANGULAR(1.00E-03, 2.00E-02, 1.52E+03)
Diethyl disulphide	LOGTRIANGULAR(1.00E-03, 2.00E-02, 2.60E+00)
Dimethyl disulphide	LOGTRIANGULAR(0.03, 0.17, 12.0)
Dimethyl sulphide	LOGTRIANGULAR(0.03, 0.73, 24.3)
Ethane	LOGTRIANGULAR(0.005, 6.25, 200.0)
Ethanethiol (ethyl mercaptan)	LOGUNIFORM(1.00E-30, 2.52E-01)
Ethanol	LOGTRIANGULAR(0.005, 0.2, 810.0)
Ethyl butyrate	LOGUNIFORM(0.41, 42.0)
Ethyl toluene (all isomers)	LOGTRIANGULAR(1.00E-03, 1.00E-02, 8.30E+00)
Ethylbenzene	LOGTRIANGULAR(1.00E-03, 1.00E-03, 8.75E+02)
Ethylene	UNIFORM(0.2, 5.8)
Ethylene dibromide	SINGLE(0.0)
Ethylene dichloride	LOGTRIANGULAR(0.006, 0.01, 1820.0)
Fluorotrichloromethane	LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.00E+03)
Formaldehyde (methanal)	LOGTRIANGULAR(0.026, 0.068, 0.188)
Freon 113	LOGTRIANGULAR(0.013, 4.8, 125.0)
Furan	LOGTRIANGULAR(0.02, 0.82, 6.2)
Halons	SINGLE(0.0)
Hexachlorocyclohexane (all isomers)	SINGLE(0.0)
Hexane	LOGTRIANGULAR(1.00E-03, 9.60E+00, 4.40E+01)
Hydrochlorofluorocarbons (HCFCs) (Total)	LOGTRIANGULAR(0.02, 128.8, 916.2)
Hydrofluorocarbons (HFCs) (Total)	SINGLE(0.0)
Hydrogen sulphide	LOGTRIANGULAR(2.4, 53.0, 580.0)
Limonene	LOGTRIANGULAR(1.00E-03, 1.00E-01, 2.40E+02)
Mercury	LOGUNIFORM(1.70E-04, 1.33E-03)
Methanethiol (methyl mercaptan)	LOGUNIFORM(1.00E-30, 6.62E-01)
Methyl chloride (chloromethane)	LOGTRIANGULAR(0.006, 0.2, 10.0)
Methyl chloroform (1,1,1-Trichloroethane)	LOGTRIANGULAR(1.00E-03, 1.80E+02, 1.60E+03)
Methyl ethyl ketone (2-butanone)	LOGTRIANGULAR(0.005, 0.005, 73.0)
Methyl isobutyl ketone	LOGTRIANGULAR(0.005, 0.2, 9.9)
Nitric acid	SINGLE(0.0)
Odour Units (Predicted)	TRIANGULAR(5.00E+04, 1.25E+05, 2.50E+05)
PAH (reported as Naphthalene)	LOGTRIANGULAR(1.00E-03, 2.00E-01, 1.70E+01)
para-Dichlorobenzene (modelled as 1,4-Dichlorobenzene)	LOGTRIANGULAR(0.006, 0.05, 2.7)
Pentane	LOGTRIANGULAR(0.02, 0.3, 105.0)
Pentene (all isomers)	LOGTRIANGULAR(0.24, 3.5, 12.0)
Perfluorocarbons (PFCs) (Total)	SINGLE(0.0)
Phenol	SINGLE(0.0)
PM10s	SINGLE(0.0)
Propane	LOGTRIANGULAR(1.00E-03, 1.90E+00, 1.29E+01)
Propanethiol	LOGUNIFORM(1.00E-30, 2.15E-01)
Sulphide, total simulations with H2S	LOGTRIANGULAR(1.00E-03, 2.40E+00, 5.58E+03)
Sulphide, total simulations without H2S	LOGTRIANGULAR(5.00E-04, 8.00E-03, 3.50E+00)
t-1,2-Dichloroethene	LOGTRIANGULAR(0.02, 0.24, 2.6)
Tetrachloroethane (modelled as 1,1,2,2-Tetrachloroethane)	LOGUNIFORM(1.00E-03, 5.00E+01)
Tetrachloroethylene (Tetrachloroethene)	LOGTRIANGULAR(1.00E-03, 1.00E-02, 7.70E+03)
Toluene	LOGTRIANGULAR(0.01, 0.1, 1250.0)
Trichlorobenzene (all isomers)	LOGTRIANGULAR(0.01, 0.01, 0.13)
Trichloroethylene (trichloroethene)	LOGTRIANGULAR(0.25, 1.65, 88.0)
Trichlorofluoromethane	LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.00E+03)
Trichlorotrifluoroethane	LOGTRIANGULAR(1.00E-03, 4.80E+00, 2.40E+01)
Trimethylbenzene (all isomers)	LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.87E+02)

Vinyl chloride (chloroethene, chloroethylene)		LOGTRIANGULAR(1.1, 31.0, 730.0)
Xylene (all isomers)		LOGTRIANGULAR(1.00E-03, 1.00E-03, 6.18E+04)
Justification:	[Default]	Default Value
VOC Halflife		NORMAL(4.11, 1.56)
Justification:	[Default]	Default Value

Waste Moisture Content

Degradation rate - Filling Phase		Wet
Justification:	[Changed]	site-specific
Degradation rate - after change		Wet
Justification:	[Changed]	site-specific
Waste Density		UNIFORM(0.8, 1.2)
Justification:	[Default]	Default Value
Leachate Head		SINGLE(1.0)
Justification:	[Default]	Default Value
Hydraulic Conductivity		LOGUNIFORM(1.00E-09, 1.00E-05)
Justification:	[Default]	Default Value

Engineered Controls

<i>Cap</i>		Single Clay
Cap Thickness		UNIFORM(0.9, 1.2)
Cap Hydraulic Conductivity		LOGUNIFORM(1.00E-10, 1.00E-09)
Justifications		
Cap	[Changed]	site-specific
Cap Thickness	[Changed]	site-specific
Cap Hydraulic Conductivity	[Changed]	site-specific
<i>liner</i>		Single Clay
Liner Thickness		UNIFORM(0.9, 1.2)
Liner Hydraulic Conductivity		LOGUNIFORM(1.00E-10, 1.00E-09)
Justifications		
Liner	[Changed]	site-specific
Liner Thickness	[Changed]	site-specific
Liner Hydraulic Conductivity	[Changed]	site-specific
Justification:	[Default]	Default Value
Methane Oxidation %		SINGLE(10.0)
Justification:	[Default]	Default Value
Land Raise Depth		SINGLE(0.0)

Geosphere

Ground Surface (mAOD)		4
Water Table (mAOD)		-1.95
Geosphere Moisture Content		UNIFORM(5.0, 10.0)
Geosphere Porosity		UNIFORM(24.0, 38.0)

North Eastern Extension

Infiltration		NORMAL(608.9, 60.9)
Justification:	[Changed]	site-specific

Waste Input

Year		AmountDeposited (t)
2005		UNIFORM(4.74E+04, 5.79E+04)
2006		UNIFORM(1.59E+05, 1.95E+05)
2007		UNIFORM(1.88E+05, 2.30E+05)
2008		UNIFORM(1.52E+05, 1.86E+05)
2009		UNIFORM(9.45E+04, 1.16E+05)
2010		UNIFORM(7.18E+04, 8.78E+04)
2011		UNIFORM(4.82E+04, 5.89E+04)
Justification:	[Changed]	site-specific

Waste Breakdown

2005		
Domestic		UNIFORM(1.0, 1.2)
Commercial		UNIFORM(39.0, 48.0)
Industrial		UNIFORM(39.0, 48.0)
Inert		UNIFORM(10.0, 12.0)
2006		
Industrial		UNIFORM(87.0, 100.0)
Inert		UNIFORM(3.0, 4.0)
2007		
Domestic		UNIFORM(1.0, 1.3)
Industrial		UNIFORM(79.0, 96.0)
Inert		UNIFORM(11.0, 13.0)
2008		
Domestic		UNIFORM(18.0, 21.0)
Industrial		UNIFORM(54.0, 66.0)
Inert		UNIFORM(18.0, 22.0)
2009		
Industrial		UNIFORM(81.0, 99.0)
Inert		UNIFORM(8.0, 10.0)
Sewage Sludge		UNIFORM(0.9, 1.1)
2010		
Industrial		UNIFORM(44.0, 54.0)
Inert		UNIFORM(46.0, 56.0)

2011

Industrial UNIFORM(32.0, 39.0)
 Inert UNIFORM(59.0, 72.0)
 Justification: [Default] Default Value

Trace Gases

Source Gases	Concentration [mg/m3]
1,1,1,2-Tetrafluorochloroethane	LOGTRIANGULAR(0.002, 0.2, 2.0)
1,1,1-Trichlorotrifluoroethane	LOGTRIANGULAR(0.005, 0.4, 8.0)
1,1,2-Trichloroethane	LOGTRIANGULAR(0.004, 1.0, 10.0)
1,1-Dichloroethane	LOGTRIANGULAR(0.02, 0.28, 3.9)
1,1-Dichloroethene	LOGTRIANGULAR(0.03, 2.8, 19.0)
1,1-Dichlorotetrafluoroethane	LOGTRIANGULAR(0.05, 0.25, 6.4)
1,2-Dichloropropane	SINGLE(0.0)
1,2-Dichlorotetrafluoroethane	LOGTRIANGULAR(0.01, 9.8, 300.0)
1-butanethiol	LOGUNIFORM(1.00E-30, 1.77E-01)
1-Chloro-1,1-difluoroethane	LOGTRIANGULAR(0.04, 0.57, 31.0)
2-butoxy ethanol	LOGUNIFORM(1.00E-30, 9.40E-02)
2-Chloro-1,1,1-trifluoroethane	LOGUNIFORM(0.05, 1.5)
2-Propanol	LOGTRIANGULAR(0.005, 2.0, 34.0)
Acetaldehyde (ethanal)	LOGUNIFORM(0.075, 2.546)
Acetone	LOGTRIANGULAR(0.005, 0.1, 50.0)
Acrylonitrile	LOGTRIANGULAR(0.02, 0.4, 38.0)
Arsenic	LOGTRIANGULAR(1.00E-04, 7.40E-03, 4.30E-01)
Benzene	LOGUNIFORM(3.1, 15.0)
Bromodichloromethane	SINGLE(0.0)
Butadiene (modelled as 1,3-Butadiene)	LOGUNIFORM(1.00E-30, 4.40E-02)
Butane	LOGTRIANGULAR(0.19, 1.0, 709.0)
Butene isomers	LOGTRIANGULAR(1.00E-03, 2.00E-01, 1.80E+00)
Butyric acid	LOGTRIANGULAR(1.00E-30, 1.00E-01, 1.75E+01)
Carbon disulphide	LOGUNIFORM(0.9, 170.0)
Carbon monoxide	LOGTRIANGULAR(0.11, 1.1, 5000.0)
Carbon tetrachloride (tetrachloromethane)	LOGUNIFORM(1.00E-30, 4.10E-02)
Carbonyl sulphide	LOGTRIANGULAR(0.006, 0.2, 4.4)
Chlorobenzene	LOGUNIFORM(0.002, 3000.0)
Chlorodifluoromethane	LOGTRIANGULAR(0.005, 0.1, 9900.0)
Chloroethane	LOGUNIFORM(1.00E-30, 5.30E+00)
Chlorofluorocarbons (CFCs) (Total)	LOGTRIANGULAR(0.06, 102.3, 1230.0)
Chlorofluoromethane	LOGTRIANGULAR(0.008, 0.2, 110.0)
Chloroform (trichloromethane)	LOGTRIANGULAR(1.00E-03, 2.00E-01, 7.00E+01)
Chlorotrifluoromethane	LOGTRIANGULAR(0.1, 0.2, 49.0)
Dichlorodifluoromethane	LOGTRIANGULAR(0.01, 9.0, 790.0)
Dichlorofluoromethane	LOGTRIANGULAR(1.00E-03, 1.00E-02, 6.02E+02)
Dichloromethane (methylene chloride)	LOGTRIANGULAR(1.00E-03, 2.00E-02, 1.52E+03)
Diethyl disulphide	LOGTRIANGULAR(1.00E-03, 2.00E-02, 2.60E+00)
Dimethyl disulphide	LOGTRIANGULAR(0.03, 0.17, 12.0)
Dimethyl sulphide	LOGTRIANGULAR(0.03, 0.73, 24.3)
Ethane	LOGTRIANGULAR(0.005, 6.25, 200.0)
Ethanethiol (ethyl mercaptan)	LOGUNIFORM(1.00E-30, 2.52E-01)
Ethanol	LOGTRIANGULAR(0.005, 0.2, 810.0)
Ethyl butyrate	LOGUNIFORM(0.41, 42.0)
Ethyl toluene (all isomers)	LOGTRIANGULAR(1.00E-03, 1.00E-02, 8.30E+00)
Ethylbenzene	LOGTRIANGULAR(1.00E-03, 1.00E-03, 8.75E+02)
Ethylene	UNIFORM(0.2, 5.8)
Ethylene dibromide	SINGLE(0.0)
Ethylene dichloride	LOGTRIANGULAR(0.006, 0.01, 1820.0)
Fluorotrichloromethane	LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.00E+03)
Formaldehyde (methanal)	LOGTRIANGULAR(0.026, 0.068, 0.188)
Freon 113	LOGTRIANGULAR(0.013, 4.8, 125.0)
Furan	LOGTRIANGULAR(0.02, 0.82, 6.2)
Halons	SINGLE(0.0)
Hexachlorocyclohexane (all isomers)	SINGLE(0.0)
Hexane	LOGTRIANGULAR(1.00E-03, 9.60E+00, 4.40E+01)
Hydrochlorofluorocarbons (HCFCs) (Total)	LOGTRIANGULAR(0.02, 128.8, 916.2)
Hydrofluorocarbons (HFCs) (Total)	SINGLE(0.0)
Hydrogen sulphide	LOGTRIANGULAR(2.4, 53.0, 580.0)
Limonene	LOGTRIANGULAR(1.00E-03, 1.00E-01, 2.40E+02)
Mercury	LOGUNIFORM(1.70E-04, 1.33E-03)
Methanethiol (methyl mercaptan)	LOGUNIFORM(1.00E-30, 6.62E-01)
Methyl chloride (chloromethane)	LOGTRIANGULAR(0.006, 0.2, 10.0)
Methyl chloroform (1,1,1-Trichloroethane)	LOGTRIANGULAR(1.00E-03, 1.80E+02, 1.60E+03)
Methyl ethyl ketone (2-butanone)	LOGTRIANGULAR(0.005, 0.005, 73.0)
Methyl isobutyl ketone	LOGTRIANGULAR(0.005, 0.2, 9.9)
Nitric acid	SINGLE(0.0)
Odour Units (Predicted)	TRIANGULAR(5.00E+04, 1.25E+05, 2.50E+05)
PAH (reported as Naphthalene)	LOGTRIANGULAR(1.00E-03, 2.00E-01, 1.70E+01)
para-Dichlorobenzene (modelled as 1,4-Dichlorobenzene)	LOGTRIANGULAR(0.006, 0.05, 2.7)
Pentane	LOGTRIANGULAR(0.02, 0.3, 105.0)
Pentene (all isomers)	LOGTRIANGULAR(0.24, 3.5, 12.0)
Perfluorocarbons (PFCs) (Total)	SINGLE(0.0)
Phenol	SINGLE(0.0)

PM10s		SINGLE(0.0)
Propane		LOGTRIANGULAR(1.00E-03, 1.90E+00, 1.29E+01)
Propanethiol		LOGUNIFORM(1.00E-30, 2.15E-01)
Sulphide, total simulations with H2S		LOGTRIANGULAR(1.00E-03, 2.40E+00, 5.58E+03)
Sulphide, total simulations without H2S		LOGTRIANGULAR(5.00E-04, 8.00E-03, 3.50E+00)
t-1,2-Dichloroethene		LOGTRIANGULAR(0.02, 0.24, 2.6)
Tetrachloroethane (modelled as 1,1,2,2-Tetrachloroethane)		LOGUNIFORM(1.00E-03, 5.00E+01)
Tetrachloroethylene (Tetrachloroethene)		LOGTRIANGULAR(1.00E-03, 1.00E-02, 7.70E+03)
Toluene		LOGTRIANGULAR(0.01, 0.1, 1250.0)
Trichlorobenzene (all isomers)		LOGTRIANGULAR(0.01, 0.01, 0.13)
Trichloroethylene (trichloroethene)		LOGTRIANGULAR(0.25, 1.65, 88.0)
Trichlorofluoromethane		LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.00E+03)
Trichlorotrifluoroethane		LOGTRIANGULAR(1.00E-03, 4.80E+00, 2.40E+01)
Trimethylbenzene (all isomers)		LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.87E+02)
Vinyl chloride (chloroethene, chloroethylene)		LOGTRIANGULAR(1.1, 31.0, 730.0)
Xylene (all isomers)		LOGTRIANGULAR(1.00E-03, 1.00E-03, 6.18E+04)
Justification:	[Default]	Default Value
VOC Halflife		NORMAL(4.11, 1.56)
Justification:	[Default]	Default Value
Waste Moisture Content		
Degradation rate - Filling Phase		Wet
Justification:	[Changed]	site-specific
Degradation rate - after change		Wet
Justification:	[Changed]	site-specific
Waste Density		UNIFORM(0.8, 1.2)
Justification:	[Default]	Default Value
Leachate Head		SINGLE(1.0)
Justification:	[Default]	Default Value
Hydraulic Conductivity		LOGUNIFORM(1.00E-09, 1.00E-05)
Justification:	[Default]	Default Value
Engineered Controls		
<i>Cap</i>		
Cap Thickness		Single Clay
Cap Hydraulic Conductivity		UNIFORM(0.9, 1.2)
Justifications		LOGUNIFORM(1.00E-10, 1.00E-09)
Cap	[Changed]	site-specific
Cap Thickness	[Changed]	site-specific
Cap Hydraulic Conductivity	[Changed]	site-specific
<i>liner</i>		
Liner Thickness		Single Clay
Liner Hydraulic Conductivity		UNIFORM(0.9, 1.2)
Justifications		LOGUNIFORM(1.00E-10, 1.00E-09)
Liner	[Changed]	site-specific
Liner Thickness	[Changed]	site-specific
Liner Hydraulic Conductivity	[Changed]	site-specific
Justification:	[Default]	Default Value
Methane Oxidation %		SINGLE(10.0)
Justification:	[Default]	Default Value
Land Raise Depth		SINGLE(0.0)
Geosphere		
Ground Surface (mAOD)		4
Water Table (mAOD)		-1.95
Geosphere Moisture Content		UNIFORM(5.0, 10.0)
Geosphere Porosity		UNIFORM(24.0, 38.0)
Southern Extension		
Infiltration		NORMAL(608.9, 60.9)
Justification:	[Changed]	site-specific
Waste Input		
Year		AmountDeposited (t)
2011		UNIFORM(4.82E+04, 5.89E+04)
2012		UNIFORM(8.00E+04, 9.78E+04)
2013		UNIFORM(9.84E+04, 1.20E+05)
2014		UNIFORM(1.33E+05, 1.62E+05)
2015		UNIFORM(1.15E+05, 1.41E+05)
2016		UNIFORM(9.18E+04, 1.12E+05)
2017		UNIFORM(8.58E+04, 1.05E+05)
2018		UNIFORM(1.18E+05, 1.44E+05)
2019		UNIFORM(1.28E+05, 1.56E+05)
2020		UNIFORM(1.31E+05, 1.61E+05)
2021		UNIFORM(1.59E+05, 1.94E+05)
2022		UNIFORM(1.84E+05, 2.25E+05)
2023		UNIFORM(1.89E+05, 2.31E+05)
Justification:	[Changed]	site-specific
Waste Breakdown		
2011		
Industrial		UNIFORM(32.0, 39.0)

Inert	UNIFORM(59.0, 72.0)
2012	
Industrial	UNIFORM(67.0, 81.0)
Inert	UNIFORM(23.0, 29.0)
2013	
Industrial	UNIFORM(54.0, 66.0)
Inert	UNIFORM(36.0, 44.0)
2014	
Industrial	UNIFORM(45.0, 55.0)
Inert	UNIFORM(45.0, 55.0)
2015	
Domestic	UNIFORM(1.8, 2.1)
Industrial	UNIFORM(40.0, 49.0)
Inert	UNIFORM(44.0, 54.0)
Fines	UNIFORM(4.0, 5.0)
2016	
Industrial	UNIFORM(34.0, 42.0)
Inert	UNIFORM(33.0, 41.0)
Fines	UNIFORM(22.0, 27.0)
2017	
Industrial	UNIFORM(40.0, 49.0)
Inert	UNIFORM(27.0, 33.0)
Fines	UNIFORM(23.0, 29.0)
2018	
Industrial	UNIFORM(63.0, 78.0)
Inert	UNIFORM(10.0, 12.0)
Fines	UNIFORM(17.0, 21.0)
2019	
Industrial	UNIFORM(58.0, 71.0)
Inert	UNIFORM(24.0, 30.0)
Fines	UNIFORM(8.0, 9.0)
2020	
Industrial	UNIFORM(51.0, 62.0)
Inert	UNIFORM(35.0, 43.0)
Fines	UNIFORM(4.0, 5.0)
2021	
Industrial	UNIFORM(49.0, 60.0)
Inert	UNIFORM(37.0, 45.0)
Fines	UNIFORM(4.0, 5.0)
2022	
Industrial	UNIFORM(50.0, 62.0)
Inert	UNIFORM(23.0, 28.0)
Fines	UNIFORM(17.0, 21.0)
2023	
Industrial	UNIFORM(47.0, 58.0)
Inert	UNIFORM(26.0, 32.0)
Fines	UNIFORM(16.0, 20.0)
Justification:	[Default] Default Value

Trace Gases

Source Gases	Concentration [mg/m3]
1,1,1,2-Tetrafluoroethane	LOGTRIANGULAR(0.002, 0.2, 2.0)
1,1,1-Trichlorotrifluoroethane	LOGTRIANGULAR(0.005, 0.4, 8.0)
1,1,2-Trichloroethane	LOGTRIANGULAR(0.004, 1.0, 10.0)
1,1-Dichloroethane	LOGTRIANGULAR(0.02, 0.28, 3.9)
1,1-Dichloroethene	LOGTRIANGULAR(0.03, 2.8, 19.0)
1,1-Dichlorotetrafluoroethane	LOGTRIANGULAR(0.05, 0.25, 6.4)
1,2-Dichloropropane	SINGLE(0.0)
1,2-Dichlorotetrafluoroethane	LOGTRIANGULAR(0.01, 9.8, 300.0)
1-butanethiol	LOGUNIFORM(1.00E-30, 1.77E-01)
1-Chloro-1,1-difluoroethane	LOGTRIANGULAR(0.04, 0.57, 31.0)
2-butoxy ethanol	LOGUNIFORM(1.00E-30, 9.40E-02)
2-Chloro-1,1,1-trifluoroethane	LOGUNIFORM(0.05, 1.5)
2-Propanol	LOGTRIANGULAR(0.005, 2.0, 34.0)
Acetaldehyde (ethanal)	LOGUNIFORM(0.075, 2.546)
Acetone	LOGTRIANGULAR(0.005, 0.1, 50.0)
Acrylonitrile	LOGTRIANGULAR(0.02, 0.4, 38.0)
Arsenic	LOGTRIANGULAR(1.00E-04, 7.40E-03, 4.30E-01)
Benzene	LOGUNIFORM(3.1, 15.0)
Bromodichloromethane	SINGLE(0.0)
Butadiene (modelled as 1,3-Butadiene)	LOGUNIFORM(1.00E-30, 4.40E-02)
Butane	LOGTRIANGULAR(0.19, 1.0, 709.0)
Butene isomers	LOGTRIANGULAR(1.00E-03, 2.00E-01, 1.80E+00)
Butyric acid	LOGTRIANGULAR(1.00E-30, 1.00E-01, 1.75E+01)
Carbon disulphide	LOGUNIFORM(0.9, 170.0)
Carbon monoxide	LOGTRIANGULAR(0.11, 1.1, 5000.0)
Carbon tetrachloride (tetrachloromethane)	LOGUNIFORM(1.00E-30, 4.10E-02)
Carbonyl sulphide	LOGTRIANGULAR(0.006, 0.2, 4.4)
Chlorobenzene	LOGUNIFORM(0.002, 3000.0)
Chlorodifluoromethane	LOGTRIANGULAR(0.005, 0.1, 9900.0)
Chloroethane	LOGUNIFORM(1.00E-30, 5.30E+00)
Chlorofluorocarbons (CFCs) (Total)	LOGTRIANGULAR(0.06, 102.3, 1230.0)

Chlorofluoromethane		LOGTRIANGULAR(0.008, 0.2, 110.0)
Chloroform (trichloromethane)		LOGTRIANGULAR(1.00E-03, 2.00E-01, 7.00E+01)
Chlorotrifluoromethane		LOGTRIANGULAR(0.1, 0.2, 49.0)
Dichlorodifluoromethane		LOGTRIANGULAR(0.01, 9.0, 790.0)
Dichlorofluoromethane		LOGTRIANGULAR(1.00E-03, 1.00E-02, 6.02E+02)
Dichloromethane (methylene chloride)		LOGTRIANGULAR(1.00E-03, 2.00E-02, 1.52E+03)
Diethyl disulphide		LOGTRIANGULAR(1.00E-03, 2.00E-02, 2.60E+00)
Dimethyl disulphide		LOGTRIANGULAR(0.03, 0.17, 12.0)
Dimethyl sulphide		LOGTRIANGULAR(0.03, 0.73, 24.3)
Ethane		LOGTRIANGULAR(0.005, 6.25, 200.0)
Ethanethiol (ethyl mercaptan)		LOGUNIFORM(1.00E-30, 2.52E-01)
Ethanol		LOGTRIANGULAR(0.005, 0.2, 810.0)
Ethyl butyrate		LOGUNIFORM(0.41, 42.0)
Ethyl toluene (all isomers)		LOGTRIANGULAR(1.00E-03, 1.00E-02, 8.30E+00)
Ethylbenzene		LOGTRIANGULAR(1.00E-03, 1.00E-03, 8.75E+02)
Ethylene		UNIFORM(0.2, 5.8)
Ethylene dibromide		SINGLE(0.0)
Ethylene dichloride		LOGTRIANGULAR(0.006, 0.01, 1820.0)
Fluorotrchloromethane		LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.00E+03)
Formaldehyde (methanal)		LOGTRIANGULAR(0.026, 0.068, 0.188)
Freon 113		LOGTRIANGULAR(0.013, 4.8, 125.0)
Furan		LOGTRIANGULAR(0.02, 0.82, 6.2)
Halons		SINGLE(0.0)
Hexachlorocyclohexane (all isomers)		SINGLE(0.0)
Hexane		LOGTRIANGULAR(1.00E-03, 9.60E+00, 4.40E+01)
Hydrochlorofluorocarbons (HCFCs) (Total)		LOGTRIANGULAR(0.02, 128.8, 916.2)
Hydrofluorocarbons (HFCs) (Total)		SINGLE(0.0)
Hydrogen sulphide		LOGTRIANGULAR(2.4, 53.0, 580.0)
Limonene		LOGTRIANGULAR(1.00E-03, 1.00E-01, 2.40E+02)
Mercury		LOGUNIFORM(1.70E-04, 1.33E-03)
Methanethiol (methyl mercaptan)		LOGUNIFORM(1.00E-30, 6.62E-01)
Methyl chloride (chloromethane)		LOGTRIANGULAR(0.006, 0.2, 10.0)
Methyl chloroform (1,1,1-Trichloroethane)		LOGTRIANGULAR(1.00E-03, 1.80E+02, 1.60E+03)
Methyl ethyl ketone (2-butanone)		LOGTRIANGULAR(0.005, 0.005, 73.0)
Methyl isobutyl ketone		LOGTRIANGULAR(0.005, 0.2, 9.9)
Nitric acid		SINGLE(0.0)
Odour Units (Predicted)		TRIANGULAR(5.00E+04, 1.25E+05, 2.50E+05)
PAH (reported as Naphthalene)		LOGTRIANGULAR(1.00E-03, 2.00E-01, 1.70E+01)
para-Dichlorobenzene (modelled as 1,4-Dichlorobenzene)		LOGTRIANGULAR(0.006, 0.05, 2.7)
Pentane		LOGTRIANGULAR(0.02, 0.3, 105.0)
Pentene (all isomers)		LOGTRIANGULAR(0.24, 3.5, 12.0)
Perfluorocarbons (PFCs) (Total)		SINGLE(0.0)
Phenol		SINGLE(0.0)
PM10s		SINGLE(0.0)
Propane		LOGTRIANGULAR(1.00E-03, 1.90E+00, 1.29E+01)
Propanethiol		LOGUNIFORM(1.00E-30, 2.15E-01)
Sulphide, total simulations with H2S		LOGTRIANGULAR(1.00E-03, 2.40E+00, 5.58E+03)
Sulphide, total simulations without H2S		LOGTRIANGULAR(5.00E-04, 8.00E-03, 3.50E+00)
t-1,2-Dichloroethene		LOGTRIANGULAR(0.02, 0.24, 2.6)
Tetrachloroethane (modelled as 1,1,2,2-Tetrachloroethane)		LOGUNIFORM(1.00E-03, 5.00E+01)
Tetrachloroethylene (Tetrachloroethene)		LOGTRIANGULAR(1.00E-03, 1.00E-02, 7.70E+03)
Toluene		LOGTRIANGULAR(0.01, 0.1, 1250.0)
Trichlorobenzene (all isomers)		LOGTRIANGULAR(0.01, 0.01, 0.13)
Trichloroethylene (trichloroethene)		LOGTRIANGULAR(0.25, 1.65, 88.0)
Trichlorofluoromethane		LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.00E+03)
Trichlorotrifluoroethane		LOGTRIANGULAR(1.00E-03, 4.80E+00, 2.40E+01)
Trimethylbenzene (all isomers)		LOGTRIANGULAR(1.00E-03, 1.00E-02, 1.87E+02)
Vinyl chloride (chloroethene, chloroethylene)		LOGTRIANGULAR(1.1, 31.0, 730.0)
Xylene (all isomers)		LOGTRIANGULAR(1.00E-03, 1.00E-03, 6.18E+04)
Justification:	[Default]	Default Value
VOC Half-life		NORMAL(4.11, 1.56)
Justification:	[Default]	Default Value
Waste Moisture Content		
Degradation rate - Filling Phase		Wet
Justification:	[Changed]	site-specific
Degradation rate - after change		Wet
Justification:	[Changed]	site-specific
Waste Density		UNIFORM(0.8, 1.2)
Justification:	[Default]	Default Value
Leachate Head		SINGLE(1.0)
Justification:	[Default]	Default Value
Hydraulic Conductivity		LOGUNIFORM(1.00E-09, 1.00E-05)
Justification:	[Default]	Default Value
Engineered Controls		
Cap		Single Liner
Cap Thickness		SINGLE(1.00E-03)
Cap Hydraulic Conductivity		LOGUNIFORM(1.00E-14, 1.00E-12)

Justifications
 Cap [Changed] site-specific
 Cap Thickness [Changed] site-specific
 Cap Hydraulic Conductivity [Changed] site-specific
liner
 Liner Thickness UNIFORM(0.9, 1.2)
 Liner Hydraulic Conductivity LOGUNIFORM(1.00E-10, 1.00E-09)

Justifications
 Liner [Changed] site-specific
 Liner Thickness [Changed] site-specific
 Liner Hydraulic Conductivity [Changed] site-specific
 Justification: [Default] Default Value
 Methane Oxidation % SINGLE(10.0)
 Justification: [Default] Default Value
 Land Raise Depth SINGLE(0.0)

Geosphere

Ground Surface (mAOD) 4
 Water Table (mAOD) -1.95
 Geosphere Moisture Content UNIFORM(5.0, 10.0)
 Geosphere Porosity UNIFORM(24.0, 38.0)

Site Characteristics

Proportion to CO2 [%] SINGLE(41.0)
 Justification: [Changed] site-specific
 Proportion to CH4 [%] SINGLE(59.0)
 Justification: [Changed] site-specific

Cellulose Decay Rates

	Slow	Moderate	Fast
Dry	SINGLE(0.013)	SINGLE(0.046)	SINGLE(0.076)
Average	SINGLE(0.046)	SINGLE(0.076)	SINGLE(0.116)
Wet	SINGLE(0.076)	SINGLE(0.116)	SINGLE(0.694)
Saturated	SINGLE(0.013)	SINGLE(0.046)	SINGLE(0.076)
User Defined 1	SINGLE(0.046)	UNIFORM(0.046, 0.076)	UNIFORM(0.076, 0.116)
User Defined 2	UNIFORM(0.046, 0.076)	UNIFORM(0.076, 0.116)	UNIFORM(0.116, 0.694)
Justification:	[Default] Default Value		

Gas Plant

Jenbacher 320
 March 2011 to December 2100 Spark Ignition Engine
 300 to 600 Downtime [%]: UNIFORM(8.0, 12.0)
 Justification: [Changed] site-specific
 Destruction Efficiency CH4 [Changed] site-specific
 Destruction Efficiency H2 [Changed] site-specific
 Properties [Changed] site-specific
Jenbacher 312
 March 2011 to December 2100 Spark Ignition Engine
 150 to 300 Downtime [%]: UNIFORM(8.0, 12.0)
 Justification: [Changed] site-specific
 Destruction Efficiency CH4 [Changed] site-specific
 Destruction Efficiency H2 [Changed] site-specific
 Properties [Changed] site-specific
FlareTech
 January 2010 to December 2100 Flare
 150 to 750 Downtime [%]: UNIFORM(3.0, 5.0)
 Justification: [Changed] site-specific
 Destruction Efficiency CH4 [Changed] site-specific
 Destruction Efficiency H2 [Changed] site-specific
 Properties [Changed] site-specific
 Engine/Flare Order [Changed] site-specific

Trace Gas Plant

1,1,1,2-Tetrafluoroethane
 Spark Ignition Engine: non-combustion products SINGLE(99.0)
 Dual Fuel Engine: non-combustion products SINGLE(99.0)
 Other Engine: non-combustion products SINGLE(99.0)
 Flare: non-combustion products SINGLE(99.0)
1,1,1-Trichlorotrifluoroethane
 Spark Ignition Engine: non-combustion products SINGLE(99.0)
 Dual Fuel Engine: non-combustion products SINGLE(99.0)
 Other Engine: non-combustion products SINGLE(99.0)
 Flare: non-combustion products SINGLE(99.0)
1,1,2-Trichloroethane
 Spark Ignition Engine: non-combustion products SINGLE(99.0)
 Dual Fuel Engine: non-combustion products SINGLE(99.0)
 Other Engine: non-combustion products SINGLE(99.0)
 Flare: non-combustion products SINGLE(99.0)
1,1-Dichloroethane
 Spark Ignition Engine: non-combustion products SINGLE(99.0)
 Dual Fuel Engine: non-combustion products SINGLE(99.0)
 Other Engine: non-combustion products SINGLE(99.0)
 Flare: non-combustion products SINGLE(99.0)
1,1-Dichloroethene
 Spark Ignition Engine: non-combustion products SINGLE(99.0)

Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>1,1-Dichlorotetrafluoroethane</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>1,2-Dichloropropane</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>1,2-Dichlorotetrafluoroethane</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>1-butanethiol</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>1-Chloro-1,1-difluoroethane</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>2-butoxy ethanol</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>2-Chloro-1,1,1-trifluoroethane</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>2-Propanol</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Acetaldehyde (ethanal)</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Acetone</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Acrylonitrile</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Arsenic</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Benzene</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Benzo(a)pyrene</i>		
Spark Ignition Engine:	combustion products	LOGUNIFORM(1.10E-12, 9.60E-10)
Dual Fuel Engine:	combustion products	LOGUNIFORM(1.10E-12, 9.60E-10)
Other Engine:	combustion products	SINGLE(0.0)
Flare:	combustion products	LOGUNIFORM(1.00E-06, 6.00E-04)
<i>Bromodichloromethane</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Butadiene (modelled as 1,3-Butadiene)</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)

Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Butane</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Butene isomers</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Butyric acid</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Carbon disulphide</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Carbon monoxide</i>		
Spark Ignition Engine:	combustion products	SINGLE(1.40E+03)
Dual Fuel Engine:	combustion products	SINGLE(0.0)
Other Engine:	combustion products	SINGLE(0.0)
Flare:	combustion products	SINGLE(100.0)
<i>Carbon tetrachloride (tetrachloromethane)</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Carbonyl sulphide</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Chlorobenzene</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Chlorodifluoromethane</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Chloroethane</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Chlorofluorocarbons (CFCs) (Total)</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Chlorofluoromethane</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Chloroform (trichloromethane)</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Chlorotrifluoromethane</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Dichlorodifluoromethane</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Dichlorofluoromethane</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)

Flare:	non-combustion products	SINGLE(99.0)
<i>Dichloromethane (methylene chloride)</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Diethyl disulphide</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Dimethyl disulphide</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Dimethyl sulphide</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Dioxins and furans (modelled as 2,3,7,8-TCDD)</i>		
Spark Ignition Engine:	combustion products	LOGUNIFORM(7.00E-10, 2.30E-06)
Dual Fuel Engine:	combustion products	LOGUNIFORM(7.00E-10, 2.30E-06)
Other Engine:	combustion products	SINGLE(0.0)
Flare:	combustion products	LOGTRIANGULAR(9.00E-09, 3.10E-08, 3.60E-07)
<i>Ethane</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Ethanethiol (ethyl mercaptan)</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Ethanol</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Ethyl butyrate</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Ethyl toluene (all isomers)</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Ethylbenzene</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Ethylene</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Ethylene dibromide</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Ethylene dichloride</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Fluorotrichloromethane</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Formaldehyde (methanal)</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)

Freon 113

Spark Ignition Engine: non-combustion products SINGLE(99.0)
Dual Fuel Engine: non-combustion products SINGLE(99.0)
Other Engine: non-combustion products SINGLE(99.0)
Flare: non-combustion products SINGLE(99.0)

Furan

Spark Ignition Engine: non-combustion products SINGLE(99.0)
Dual Fuel Engine: non-combustion products SINGLE(99.0)
Other Engine: non-combustion products SINGLE(99.0)
Flare: non-combustion products SINGLE(99.0)

Halons

Spark Ignition Engine: non-combustion products SINGLE(99.0)
Dual Fuel Engine: non-combustion products SINGLE(99.0)
Other Engine: non-combustion products SINGLE(99.0)
Flare: non-combustion products SINGLE(99.0)

Hexachlorocyclohexane (all isomers)

Spark Ignition Engine: non-combustion products SINGLE(99.0)
Dual Fuel Engine: non-combustion products SINGLE(99.0)
Other Engine: non-combustion products SINGLE(99.0)
Flare: non-combustion products SINGLE(99.0)

Hexane

Spark Ignition Engine: non-combustion products SINGLE(99.0)
Dual Fuel Engine: non-combustion products SINGLE(99.0)
Other Engine: non-combustion products SINGLE(99.0)
Flare: non-combustion products SINGLE(99.0)

Hydrochlorofluorocarbons (HCFCs) (Total)

Spark Ignition Engine: non-combustion products SINGLE(99.0)
Dual Fuel Engine: non-combustion products SINGLE(99.0)
Other Engine: non-combustion products SINGLE(99.0)
Flare: non-combustion products SINGLE(99.0)

Hydrofluorocarbons (HFCs) (Total)

Spark Ignition Engine: non-combustion products SINGLE(99.0)
Dual Fuel Engine: non-combustion products SINGLE(99.0)
Other Engine: non-combustion products SINGLE(99.0)
Flare: non-combustion products SINGLE(99.0)

Hydrogen chloride, or (Total chloride (reported as HCl))

Spark Ignition Engine: combustion products LOGTRIANGULAR(5.00E-04, 1.00E+01, 5.84E+02)
Dual Fuel Engine: combustion products SINGLE(0.0)
Other Engine: combustion products SINGLE(0.0)
Flare: combustion products LOGUNIFORM(0.5, 36.0)

Hydrogen fluoride, or (Total fluoride (reported as HF))

Spark Ignition Engine: combustion products LOGTRIANGULAR(2.00E-04, 7.00E+00, 4.50E+01)
Dual Fuel Engine: combustion products SINGLE(0.0)
Other Engine: combustion products SINGLE(0.0)
Flare: combustion products LOGUNIFORM(0.4, 21.0)

Hydrogen sulphide

Spark Ignition Engine: non-combustion products SINGLE(99.0)
Dual Fuel Engine: non-combustion products SINGLE(99.0)
Other Engine: non-combustion products SINGLE(99.0)
Flare: non-combustion products SINGLE(99.0)

Limonene

Spark Ignition Engine: non-combustion products SINGLE(99.0)
Dual Fuel Engine: non-combustion products SINGLE(99.0)
Other Engine: non-combustion products SINGLE(99.0)
Flare: non-combustion products SINGLE(99.0)

Mercury

Spark Ignition Engine: non-combustion products SINGLE(99.0)
Dual Fuel Engine: non-combustion products SINGLE(99.0)
Other Engine: non-combustion products SINGLE(99.0)
Flare: non-combustion products SINGLE(99.0)

Methanethiol (methyl mercaptan)

Spark Ignition Engine: non-combustion products SINGLE(99.0)
Dual Fuel Engine: non-combustion products SINGLE(99.0)
Other Engine: non-combustion products SINGLE(99.0)
Flare: non-combustion products SINGLE(99.0)

Methyl chloride (chloromethane)

Spark Ignition Engine: non-combustion products SINGLE(99.0)
Dual Fuel Engine: non-combustion products SINGLE(99.0)
Other Engine: non-combustion products SINGLE(99.0)
Flare: non-combustion products SINGLE(99.0)

Methyl chloroform (1,1,1-Trichloroethane)

Spark Ignition Engine: non-combustion products SINGLE(99.0)
Dual Fuel Engine: non-combustion products SINGLE(99.0)
Other Engine: non-combustion products SINGLE(99.0)
Flare: non-combustion products SINGLE(99.0)

Methyl ethyl ketone (2-butanone)

Spark Ignition Engine: non-combustion products SINGLE(99.0)
Dual Fuel Engine: non-combustion products SINGLE(99.0)
Other Engine: non-combustion products SINGLE(99.0)
Flare: non-combustion products SINGLE(99.0)

Methyl isobutyl ketone

Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Nitric acid</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Nitrogen dioxide (NO2)</i>		
Spark Ignition Engine:	combustion products	SINGLE(0.0)
Dual Fuel Engine:	combustion products	SINGLE(0.0)
Other Engine:	combustion products	SINGLE(0.0)
Flare:	combustion products	SINGLE(0.0)
<i>Nitrogen monoxide (NO)</i>		
Spark Ignition Engine:	combustion products	SINGLE(0.0)
Dual Fuel Engine:	combustion products	SINGLE(0.0)
Other Engine:	combustion products	SINGLE(0.0)
Flare:	combustion products	SINGLE(0.0)
<i>Nitrogen oxides (NOx)</i>		
Spark Ignition Engine:	combustion products	SINGLE(500.0)
Dual Fuel Engine:	combustion products	SINGLE(0.0)
Other Engine:	combustion products	SINGLE(0.0)
Flare:	combustion products	SINGLE(150.0)
<i>Odour Units (Predicted)</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>PAH (reported as Naphthalene)</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>para-Dichlorobenzene (modelled as 1,4-Dichlorobenzene)</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Pentane</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Pentene (all isomers)</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Perfluorocarbons (PFCs) (Total)</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Phenol</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>PM10s</i>		
Spark Ignition Engine:	combustion products	TRIANGULAR(1.2, 4.6, 12.5)
Dual Fuel Engine:	combustion products	SINGLE(0.0)
Other Engine:	combustion products	SINGLE(0.0)
Flare:	combustion products	UNIFORM(1.0, 10.0)
<i>Propane</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Propanethiol</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Sulphide, total simulations with H2S</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Sulphide, total simulations without H2S</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)

Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Sulphur dioxide</i>		
Spark Ignition Engine:	combustion products	LOGUNIFORM(18.0, 402.0)
Dual Fuel Engine:	combustion products	SINGLE(0.0)
Other Engine:	combustion products	SINGLE(0.0)
Flare:	combustion products	UNIFORM(0.0, 482.0)
<i>t-1,2-Dichloroethene</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Tetrachloroethane (modelled as 1,1,2,2-Tetrachloroethane)</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Tetrachloroethylene (Tetrachloroethene)</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Toluene</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Total non-methane volatile organic compounds (NMVOCs)</i>		
Spark Ignition Engine:	combustion products	LOGTRIANGULAR(0.0118, 18.1, 90.0)
Dual Fuel Engine:	combustion products	TRIANGULAR(0.0118, 18.1, 90.0)
Other Engine:	combustion products	SINGLE(0.0)
Flare:	combustion products	LOGUNIFORM(1.0, 30.0)
<i>Total volatile organic compounds (VOCs)</i>		
Spark Ignition Engine:	combustion products	SINGLE(1.00E+03)
Dual Fuel Engine:	combustion products	SINGLE(0.0)
Other Engine:	combustion products	SINGLE(0.0)
Flare:	combustion products	SINGLE(10.0)
<i>Trichlorobenzene (all isomers)</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Trichloroethylene (trichloroethene)</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Trichlorofluoromethane</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Trichlorotrifluoroethane</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Trimethylbenzene (all isomers)</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Vinyl chloride (chloroethene, chloroethylene)</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
<i>Xylene (all isomers)</i>		
Spark Ignition Engine:	non-combustion products	SINGLE(99.0)
Dual Fuel Engine:	non-combustion products	SINGLE(99.0)
Other Engine:	non-combustion products	SINGLE(99.0)
Flare:	non-combustion products	SINGLE(99.0)
Justification:	[Changed]	site-specific

Global Impact

Bulk Gases

Global Warming Potential	
Carbon Dioxide [t]:	1
Methane [t carbon dioxide]:	21
Hydrogen [t carbon dioxide]:	0

Justification: [Default] Default Value
 Ozone Depletion Potential
 Carbon Dioxide [t trichlorofluoromethane]: 0
 Methane [t trichlorofluoromethane]: 0
 Hydrogen [t trichlorofluoromethane]: 0
 Justification: [Default] Default Value

Trace Gases

Gas	Global Warming Potential	Ozone Depletion Potential
1,1,1,2-Tetrafluorochloroethane	609	0.02
1,1,1-Trichlorotrifluoroethane	6130	1
1,1,2-Trichloroethane	0	0
1,1-Dichloroethane	0	0
1,1-Dichloroethene	0	0
1,1-Dichlorotetrafluoroethane	10000	0.94
1,2-Dichloropropane	0	0
1,2-Dichlorotetrafluoroethane	0	0
1-butanethiol	0	0
1-Chloro-1,1-difluoroethane	2310	0.07
2-butoxy ethanol	0	0
2-Chloro-1,1,1-trifluoroethane	0	0
2-Propanol	0	0
Acetaldehyde (ethanal)	1.3	0
Acetone	0.5	0
Acrylonitrile	0	0
Arsenic	0	0
Benzene	0	0
Benzo(a)pyrene	0	0
Bromodichloromethane	1300	1890
Butadiene (modelled as 1,3-Butadiene)	0	0
Butane	4	0
Butene isomers	0	0
Butyric acid	0	0
Carbon disulphide	0	0
Carbon monoxide	0	0
Carbon tetrachloride (tetrachloromethane)	1400	0.73
Carbonyl sulphide	0	0
Chlorobenzene	0	0
Chlorodifluoromethane	1810	0.05
Chloroethane	0	0
Chlorofluorocarbons (CFCs) (Total)	0	0
Chlorofluoromethane	0	0
Chloroform (trichloromethane)	30	0
Chlorotrifluoromethane	14400	0
Dichlorodifluoromethane	10900	1
Dichlorofluoromethane	210	0
Dichloromethane (methylene chloride)	9	0
Diethyl disulphide	0	0
Dimethyl disulphide	0	0
Dimethyl sulphide	0	0
Dioxins and furans (modelled as 2,3,7,8-TCDD)	0	0
Ethane	5.5	0
Ethanethiol (ethyl mercaptan)	0	0
Ethanol	0	0
Ethyl butyrate	0	0
Ethyl toluene (all isomers)	0	0
Ethylbenzene	0	0
Ethylene	3.7	0
Ethylene dibromide	0	0
Ethylene dichloride	0	0
Fluorotrichloromethane	4750	1
Formaldehyde (methanal)	0	0
Freon 113	6130	1
Furan	0	0
Halons	0	0
Hexachlorocyclohexane (all isomers)	0	0
Hexane	0	0
Hydrochlorofluorocarbons (HCFCs) (Total)	0	0
Hydrofluorocarbons (HFCs) (Total)	0	0
Hydrogen chloride, or (Total chloride (reported as HCl))	0	0
Hydrogen fluoride, or (Total fluoride (reported as HF))	0	0
Hydrogen sulphide	0	0
Limonene	0	0
Mercury	0	0
Methanethiol (methyl mercaptan)	0	0
Methyl chloride (chloromethane)	146	0
Methyl chloroform (1,1,1-Trichloroethane)	0	0
Methyl ethyl ketone (2-butanone)	0	0
Methyl isobutyl ketone	0	0

Nitric acid	0	0
Nitrogen dioxide (NO2)	0	0
Nitrogen monoxide (NO)	0	0
Nitrogen oxides (NOx)	0	0
Odour Units (Predicted)	0	0
PAH (reported as Naphthalene)	0	0
para-Dichlorobenzene (modelled as 1,4-Dichlorobenzene)	0	0
Pentane	0	0
Pentene (all isomers)	0	0
Perfluorocarbons (PFCs) (Total)	0	0
Phenol	0	0
PM10s	0	0
Propane	3.3	0
Propanethiol	0	0
Sulphide, total simulations with H2S	0	0
Sulphide, total simulations without H2S	0	0
Sulphur dioxide	0	0
t-1,2-Dichloroethene	0	0
Tetrachloroethane (modelled as 1,1,2,2-Tetrachloroethane)	0	0
Tetrachloroethylene (Tetrachloroethene)	0	0
Toluene	2.7	0
Total non-methane volatile organic compounds (NMVOCs)	0	0
Total volatile organic compounds (VOCs)	0	0
Trichlorobenzene (all isomers)	0	0
Trichloroethylene (trichloroethene)	0	0
Trichlorofluoromethane	4750	1
Trichlorotrifluoroethane	6130	1
Trimethylbenzene (all isomers)	0	0
Vinyl chloride (chloroethene, chloroethylene)	0	0
Xylene (all isomers)	0	0

Lateral Migration

Bulk Gases

Air Diffusion Coefficients	
CO2 Dispersivity	SINGLE(0.1613)
CH4 Dispersivity	SINGLE(0.2192)
H2 Dispersivity	#UNDEFINED?
Justification:	[Default] Default Value

Geosphere

<i>Cell</i>	Cell 9
Geosphere Moisture Content	UNIFORM(5.0, 10.0)
Geosphere Porosity	UNIFORM(24.0, 38.0)
<i>Cell</i>	Cell 10
Geosphere Moisture Content	UNIFORM(5.0, 10.0)
Geosphere Porosity	UNIFORM(24.0, 38.0)
<i>Cell</i>	Cell 12
Geosphere Moisture Content	UNIFORM(5.0, 10.0)
Geosphere Porosity	UNIFORM(24.0, 38.0)
<i>Cell</i>	Cell 11
Geosphere Moisture Content	UNIFORM(5.0, 10.0)
Geosphere Porosity	UNIFORM(24.0, 38.0)
<i>Cell</i>	Cell 13
Geosphere Moisture Content	UNIFORM(5.0, 10.0)
Geosphere Porosity	UNIFORM(24.0, 38.0)
<i>Cell</i>	Cell 14
Geosphere Moisture Content	UNIFORM(5.0, 10.0)
Geosphere Porosity	UNIFORM(24.0, 38.0)
<i>Cell</i>	Cell 15
Geosphere Moisture Content	UNIFORM(5.0, 10.0)
Geosphere Porosity	UNIFORM(24.0, 38.0)
<i>Cell</i>	Cell 16
Geosphere Moisture Content	UNIFORM(5.0, 10.0)
Geosphere Porosity	UNIFORM(24.0, 38.0)
<i>Cell</i>	Cell 17
Geosphere Moisture Content	UNIFORM(5.0, 10.0)
Geosphere Porosity	UNIFORM(24.0, 38.0)
<i>Cell</i>	Cell 18
Geosphere Moisture Content	UNIFORM(5.0, 10.0)
Geosphere Porosity	UNIFORM(24.0, 38.0)
<i>Cell</i>	Central Area
Geosphere Moisture Content	UNIFORM(5.0, 10.0)
Geosphere Porosity	UNIFORM(24.0, 38.0)
<i>Cell</i>	Northern Extension
Geosphere Moisture Content	UNIFORM(5.0, 10.0)
Geosphere Porosity	UNIFORM(24.0, 38.0)
<i>Cell</i>	North Eastern Extension
Geosphere Moisture Content	UNIFORM(5.0, 10.0)

Geosphere Porosity	UNIFORM(24.0, 38.0)
Cell	Southern Extension
Geosphere Moisture Content	UNIFORM(5.0, 10.0)
Geosphere Porosity	UNIFORM(24.0, 38.0)
Justification:	[Changed] site-specific
Trace Gases	
Gas	
1,1,1,2-Tetrafluorochloroethane	Air Diffusion Coefficient
1,1,1-Trichlorotrifluoroethane	SINGLE(0.071)
1,1,2-Trichloroethane	#UNDEFINED?
1,1-Dichloroethane	#UNDEFINED?
1,1-Dichloroethene	SINGLE(0.0742)
1,1-Dichlorotetrafluoroethane	#UNDEFINED?
1,2-Dichloropropane	#UNDEFINED?
1,2-Dichlorotetrafluoroethane	#UNDEFINED?
1-butanethiol	#UNDEFINED?
1-Chloro-1,1-difluoroethane	#UNDEFINED?
2-butoxy ethanol	#UNDEFINED?
2-Chloro-1,1,1-trifluoroethane	#UNDEFINED?
2-Propanol	#UNDEFINED?
Acetaldehyde (ethanal)	SINGLE(0.1235)
Acetone	#UNDEFINED?
Acrylonitrile	#UNDEFINED?
Arsenic	#UNDEFINED?
Benzene	SINGLE(0.088)
Benzo(a)pyrene	SINGLE(0.043)
Bromodichloromethane	#UNDEFINED?
Butadiene (modelled as 1,3-Butadiene)	SINGLE(0.102)
Butane	#UNDEFINED?
Butene isomers	SINGLE(0.0977)
Butyric acid	#UNDEFINED?
Carbon disulphide	SINGLE(0.108)
Carbon monoxide	SINGLE(0.2013)
Carbon tetrachloride (tetrachloromethane)	SINGLE(0.078)
Carbonyl sulphide	#UNDEFINED?
Chlorobenzene	SINGLE(0.073)
Chlorodifluoromethane	#UNDEFINED?
Chloroethane	SINGLE(0.1085)
Chlorofluorocarbons (CFCs) (Total)	SINGLE(0.0826)
Chlorofluoromethane	#UNDEFINED?
Chloroform (trichloromethane)	SINGLE(0.104)
Chlorotrifluoromethane	#UNDEFINED?
Dichlorodifluoromethane	#UNDEFINED?
Dichlorofluoromethane	#UNDEFINED?
Dichloromethane (methylene chloride)	SINGLE(0.099)
Diethyl disulphide	#UNDEFINED?
Dimethyl disulphide	SINGLE(0.0898)
Dimethyl sulphide	SINGLE(0.0898)
Dioxins and furans (modelled as 2,3,7,8-TCDD)	SINGLE(0.104)
Ethane	#UNDEFINED?
Ethanethiol (ethyl mercaptan)	#UNDEFINED?
Ethanol	#UNDEFINED?
Ethyl butyrate	#UNDEFINED?
Ethyl toluene (all isomers)	SINGLE(0.0796)
Ethylbenzene	#UNDEFINED?
Ethylene	SINGLE(0.0796)
Ethylene dibromide	#UNDEFINED?
Ethylene dichloride	SINGLE(0.104)
Fluorotrchloromethane	#UNDEFINED?
Formaldehyde (methanal)	SINGLE(0.1591)
Freon 113	#UNDEFINED?
Furan	#UNDEFINED?
Halons	SINGLE(0.0754)
Hexachlorocyclohexane (all isomers)	#UNDEFINED?
Hexane	#UNDEFINED?
Hydrochlorofluorocarbons (HCFCs) (Total)	SINGLE(0.0967)
Hydrofluorocarbons (HFCs) (Total)	#UNDEFINED?
Hydrogen chloride, or (Total chloride (reported as HCl))	SINGLE(0.1763)
Hydrogen fluoride, or (Total fluoride (reported as HF))	SINGLE(0.2081)
Hydrogen sulphide	SINGLE(0.1623)
Limonene	#UNDEFINED?
Mercury	#UNDEFINED?
Methanethiol (methyl mercaptan)	#UNDEFINED?
Methyl chloride (chloromethane)	SINGLE(0.1724)
Methyl chloroform (1,1,1-Trichloroethane)	SINGLE(0.078)
Methyl ethyl ketone (2-butanone)	#UNDEFINED?
Methyl isobutyl ketone	#UNDEFINED?
Nitric acid	#UNDEFINED?

Nitrogen dioxide (NO2)		SINGLE(0.2276)
Nitrogen monoxide (NO)		SINGLE(0.2276)
Nitrogen oxides (NOx)		SINGLE(0.2276)
Odour Units (Predicted)		#UNDEFINED?
PAH (reported as Naphthalene)		SINGLE(0.059)
para-Dichlorobenzene (modelled as 1,4-Dichlorobenzene)		SINGLE(0.069)
Pentane		SINGLE(0.1999)
Pentene (all isomers)		SINGLE(0.1999)
Perfluorocarbons (PFCs) (Total)		SINGLE(0.071)
Phenol		#UNDEFINED?
PM10s		#UNDEFINED?
Propane		#UNDEFINED?
Propanethiol		#UNDEFINED?
Sulphide, total simulations with H2S		#UNDEFINED?
Sulphide, total simulations without H2S		#UNDEFINED?
Sulphur dioxide		SINGLE(0.1289)
t-1,2-Dichloroethene		#UNDEFINED?
Tetrachloroethane (modelled as 1,1,2,2-Tetrachloroethane)		SINGLE(0.071)
Tetrachloroethylene (Tetrachloroethene)		SINGLE(0.072)
Toluene		SINGLE(0.087)
Total non-methane volatile organic compounds (NMVOCs)		#UNDEFINED?
Total volatile organic compounds (VOCs)		#UNDEFINED?
Trichlorobenzene (all isomers)		SINGLE(0.03)
Trichloroethylene (trichloroethene)		SINGLE(0.079)
Trichlorofluoromethane		#UNDEFINED?
Trichlorotrifluoroethane		#UNDEFINED?
Trimethylbenzene (all isomers)		SINGLE(0.0619)
Vinyl chloride (chloroethene, chloroethylene)		SINGLE(0.1126)
Xylene (all isomers)		SINGLE(0.0684)
Justification:	[Default]	Default Value

APPENDIX GRA 3

Tier 1 Screening

Year of Interest: All

		Short Term EQS or EAL µg/m3	Long Term EQS or EAL µg/m3	Background Concentration µg/m3
Acrylonitrile - surface	1984	264	8.8	0
Acrylonitrile - surface	1985	264	8.8	0
Acrylonitrile - surface	1986	264	8.8	0
Acrylonitrile - surface	1987	264	8.8	0
Acrylonitrile - surface	1988	264	8.8	0
Acrylonitrile - surface	1989	264	8.8	0
Acrylonitrile - surface	1990	264	8.8	0
Acrylonitrile - surface	1991	264	8.8	0
Acrylonitrile - surface	1992	264	8.8	0
Acrylonitrile - surface	1993	264	8.8	0
Acrylonitrile - surface	1994	264	8.8	0
Acrylonitrile - surface	1995	264	8.8	0
Acrylonitrile - surface	1996	264	8.8	0
Acrylonitrile - surface	1997	264	8.8	0
Acrylonitrile - surface	1998	264	8.8	0
Acrylonitrile - surface	1999	264	8.8	0
Acrylonitrile - surface	2000	264	8.8	0
Acrylonitrile - surface	2001	264	8.8	0
Acrylonitrile - surface	2002	264	8.8	0
Acrylonitrile - surface	2003	264	8.8	0
Acrylonitrile - surface	2004	264	8.8	0
Acrylonitrile - surface	2005	264	8.8	0
Acrylonitrile - surface	2006	264	8.8	0
Acrylonitrile - surface	2007	264	8.8	0
Acrylonitrile - surface	2008	264	8.8	0
Acrylonitrile - surface	2009	264	8.8	0
Acrylonitrile - surface	2010	264	8.8	0
Acrylonitrile - surface	2011	264	8.8	0
Acrylonitrile - surface	2012	264	8.8	0
Acrylonitrile - surface	2019	264	8.8	0

		Short Term EQS or EAL µg/m3	Long Term EQS or EAL µg/m3	Background Concentration µg/m3
Acrylonitrile - surface	2020	264	8.8	0
Acrylonitrile - surface	2021	264	8.8	0
Acrylonitrile - surface	2022	264	8.8	0
Acrylonitrile - surface	2023	264	8.8	0
Acrylonitrile - surface	2024	264	8.8	0
Acrylonitrile - surface	2025	264	8.8	0
Acrylonitrile - surface	2029	264	8.8	0
Acrylonitrile - surface	2036	264	8.8	0
Acrylonitrile - surface	2038	264	8.8	0
Arsenic - surface	1981	0	0.006	0
Arsenic - surface	1982	0	0.006	0
Arsenic - surface	1983	0	0.006	0
Arsenic - surface	1984	0	0.006	0
Arsenic - surface	1985	0	0.006	0
Arsenic - surface	1986	0	0.006	0
Arsenic - surface	1987	0	0.006	0
Arsenic - surface	1988	0	0.006	0
Arsenic - surface	1989	0	0.006	0
Arsenic - surface	1990	0	0.006	0
Arsenic - surface	1991	0	0.006	0
Arsenic - surface	1992	0	0.006	0
Arsenic - surface	1993	0	0.006	0
Arsenic - surface	1994	0	0.006	0
Arsenic - surface	1995	0	0.006	0
Arsenic - surface	1996	0	0.006	0
Arsenic - surface	1997	0	0.006	0
Arsenic - surface	1998	0	0.006	0
Arsenic - surface	1999	0	0.006	0
Arsenic - surface	2000	0	0.006	0
Arsenic - surface	2001	0	0.006	0
Arsenic - surface	2002	0	0.006	0
Arsenic - surface	2003	0	0.006	0
Arsenic - surface	2004	0	0.006	0
Arsenic - surface	2005	0	0.006	0
Arsenic - surface	2006	0	0.006	0
Arsenic - surface	2007	0	0.006	0
Arsenic - surface	2008	0	0.006	0
Arsenic - surface	2009	0	0.006	0

		Short Term EQS or EAL µg/m3	Long Term EQS or EAL µg/m3	Background Concentration µg/m3
Arsenic - surface	2010	0	0.006	0
Arsenic - surface	2011	0	0.006	0
Arsenic - surface	2012	0	0.006	0
Arsenic - surface	2013	0	0.006	0
Arsenic - surface	2014	0	0.006	0
Arsenic - surface	2015	0	0.006	0
Arsenic - surface	2016	0	0.006	0
Arsenic - surface	2017	0	0.006	0
Arsenic - surface	2018	0	0.006	0
Arsenic - surface	2019	0	0.006	0
Arsenic - surface	2020	0	0.006	0
Arsenic - surface	2021	0	0.006	0
Arsenic - surface	2022	0	0.006	0
Arsenic - surface	2023	0	0.006	0
Arsenic - surface	2024	0	0.006	0
Arsenic - surface	2025	0	0.006	0
Arsenic - surface	2026	0	0.006	0
Arsenic - surface	2027	0	0.006	0
Arsenic - surface	2028	0	0.006	0
Arsenic - surface	2029	0	0.006	0
Arsenic - surface	2030	0	0.006	0
Arsenic - surface	2031	0	0.006	0
Arsenic - surface	2032	0	0.006	0
Arsenic - surface	2033	0	0.006	0
Arsenic - surface	2034	0	0.006	0
Arsenic - surface	2035	0	0.006	0
Arsenic - surface	2036	0	0.006	0
Arsenic - surface	2037	0	0.006	0
Arsenic - surface	2038	0	0.006	0
Arsenic - surface	2039	0	0.006	0
Arsenic - surface	2040	0	0.006	0
Arsenic - surface	2041	0	0.006	0
Arsenic - surface	2043	0	0.006	0
Benzene - surface	1982	30	5	0.21
Benzene - surface	1983	30	5	0.21
Benzene - surface	1984	30	5	0.21
Benzene - surface	1985	30	5	0.21
Benzene - surface	1986	30	5	0.21

		Short Term EQS or EAL µg/m3	Long Term EQS or EAL µg/m3	Background Concentration µg/m3
Benzene - surface	1987	30	5	0.21
Benzene - surface	1988	30	5	0.21
Benzene - surface	1989	30	5	0.21
Benzene - surface	1990	30	5	0.21
Benzene - surface	1991	30	5	0.21
Benzene - surface	1992	30	5	0.21
Benzene - surface	1993	30	5	0.21
Benzene - surface	1994	30	5	0.21
Benzene - surface	1995	30	5	0.21
Benzene - surface	1996	30	5	0.21
Benzene - surface	1997	30	5	0.21
Benzene - surface	1998	30	5	0.21
Benzene - surface	1999	30	5	0.21
Benzene - surface	2000	30	5	0.21
Benzene - surface	2001	30	5	0.21
Benzene - surface	2002	30	5	0.21
Benzene - surface	2003	30	5	0.21
Benzene - surface	2004	30	5	0.21
Benzene - surface	2005	30	5	0.21
Benzene - surface	2006	30	5	0.21
Benzene - surface	2007	30	5	0.21
Benzene - surface	2008	30	5	0.21
Benzene - surface	2009	30	5	0.21
Benzene - surface	2010	30	5	0.21
Benzene - surface	2011	30	5	0.21
Benzene - surface	2012	30	5	0.21
Benzene - surface	2013	30	5	0.21
Benzene - surface	2014	30	5	0.21
Benzene - surface	2015	30	5	0.21
Benzene - surface	2016	30	5	0.21
Benzene - surface	2017	30	5	0.21
Benzene - surface	2018	30	5	0.21
Benzene - surface	2019	30	5	0.21
Benzene - surface	2020	30	5	0.21
Benzene - surface	2021	30	5	0.21
Benzene - surface	2022	30	5	0.21
Benzene - surface	2023	30	5	0.21
Benzene - surface	2024	30	5	0.21

		Short Term EQS or EAL µg/m3	Long Term EQS or EAL µg/m3	Background Concentration µg/m3
Benzene - surface	2025	30	5	0.21
Benzene - surface	2026	30	5	0.21
Benzene - surface	2027	30	5	0.21
Benzene - surface	2028	30	5	0.21
Benzene - surface	2029	30	5	0.21
Benzene - surface	2030	30	5	0.21
Benzene - surface	2031	30	5	0.21
Benzene - surface	2032	30	5	0.21
Benzene - surface	2033	30	5	0.21
Benzene - surface	2034	30	5	0.21
Benzene - surface	2035	30	5	0.21
Benzene - surface	2036	30	5	0.21
Benzene - surface	2037	30	5	0.21
Benzene - surface	2038	30	5	0.21
Carbon disulphide - surface	1982	100	64	0
Carbon disulphide - surface	1983	100	64	0
Carbon disulphide - surface	1984	100	64	0
Carbon disulphide - surface	1985	100	64	0
Carbon disulphide - surface	1986	100	64	0
Carbon disulphide - surface	1987	100	64	0
Carbon disulphide - surface	1988	100	64	0
Carbon disulphide - surface	1989	100	64	0
Carbon disulphide - surface	1990	100	64	0
Carbon disulphide - surface	1991	100	64	0
Carbon disulphide - surface	1992	100	64	0
Carbon disulphide - surface	1993	100	64	0
Carbon disulphide - surface	1994	100	64	0
Carbon disulphide - surface	1995	100	64	0
Carbon disulphide - surface	1996	100	64	0
Carbon disulphide - surface	1997	100	64	0
Carbon disulphide - surface	1998	100	64	0
Carbon disulphide - surface	1999	100	64	0
Carbon disulphide - surface	2000	100	64	0
Carbon disulphide - surface	2001	100	64	0
Carbon disulphide - surface	2002	100	64	0
Carbon disulphide - surface	2003	100	64	0
Carbon disulphide - surface	2004	100	64	0
Carbon disulphide - surface	2005	100	64	0

		Short Term EQS or EAL µg/m3	Long Term EQS or EAL µg/m3	Background Concentration µg/m3
Carbon disulphide - surface	2006	100	64	0
Carbon disulphide - surface	2007	100	64	0
Carbon disulphide - surface	2008	100	64	0
Carbon disulphide - surface	2009	100	64	0
Carbon disulphide - surface	2010	100	64	0
Carbon disulphide - surface	2011	100	64	0
Carbon disulphide - surface	2012	100	64	0
Carbon disulphide - surface	2013	100	64	0
Carbon disulphide - surface	2014	100	64	0
Carbon disulphide - surface	2015	100	64	0
Carbon disulphide - surface	2016	100	64	0
Carbon disulphide - surface	2017	100	64	0
Carbon disulphide - surface	2018	100	64	0
Carbon disulphide - surface	2019	100	64	0
Carbon disulphide - surface	2020	100	64	0
Carbon disulphide - surface	2021	100	64	0
Carbon disulphide - surface	2022	100	64	0
Carbon disulphide - surface	2023	100	64	0
Carbon disulphide - surface	2024	100	64	0
Carbon disulphide - surface	2025	100	64	0
Carbon disulphide - surface	2026	100	64	0
Carbon disulphide - surface	2027	100	64	0
Carbon disulphide - surface	2028	100	64	0
Carbon disulphide - surface	2029	100	64	0
Carbon disulphide - surface	2030	100	64	0
Carbon disulphide - surface	2031	100	64	0
Carbon disulphide - surface	2032	100	64	0
Carbon disulphide - surface	2033	100	64	0
Carbon disulphide - surface	2034	100	64	0
Carbon disulphide - surface	2035	100	64	0
Carbon disulphide - surface	2036	100	64	0
Carbon disulphide - surface	2037	100	64	0
Carbon disulphide - surface	2038	100	64	0
Carbon disulphide - surface	2039	100	64	0
Chloroform (trichloromethane) - surface	2007	100	0	0
Chloroform (trichloromethane) - surface	2008	100	0	0
Chloroform (trichloromethane) - surface	2009	100	0	0
Chloroform (trichloromethane) - surface	2010	100	0	0

		Short Term EQS or EAL µg/m3	Long Term EQS or EAL µg/m3	Background Concentration µg/m3
Ethylene dichloride - surface	1981	0	3	0
Ethylene dichloride - surface	1982	0	3	0
Ethylene dichloride - surface	1983	0	3	0
Ethylene dichloride - surface	1984	0	3	0
Ethylene dichloride - surface	1985	0	3	0
Ethylene dichloride - surface	1986	0	3	0
Ethylene dichloride - surface	1987	0	3	0
Ethylene dichloride - surface	1988	0	3	0
Ethylene dichloride - surface	1989	0	3	0
Ethylene dichloride - surface	1990	0	3	0
Ethylene dichloride - surface	1991	0	3	0
Ethylene dichloride - surface	1992	0	3	0
Ethylene dichloride - surface	1993	0	3	0
Ethylene dichloride - surface	1994	0	3	0
Ethylene dichloride - surface	1995	0	3	0
Ethylene dichloride - surface	1996	0	3	0
Ethylene dichloride - surface	1997	0	3	0
Ethylene dichloride - surface	1998	0	3	0
Ethylene dichloride - surface	1999	0	3	0
Ethylene dichloride - surface	2000	0	3	0
Ethylene dichloride - surface	2001	0	3	0
Ethylene dichloride - surface	2002	0	3	0
Ethylene dichloride - surface	2003	0	3	0
Ethylene dichloride - surface	2004	0	3	0
Ethylene dichloride - surface	2005	0	3	0
Ethylene dichloride - surface	2006	0	3	0
Ethylene dichloride - surface	2007	0	3	0
Ethylene dichloride - surface	2008	0	3	0
Ethylene dichloride - surface	2009	0	3	0
Ethylene dichloride - surface	2010	0	3	0
Ethylene dichloride - surface	2011	0	3	0
Ethylene dichloride - surface	2012	0	3	0
Ethylene dichloride - surface	2013	0	3	0
Ethylene dichloride - surface	2014	0	3	0
Ethylene dichloride - surface	2015	0	3	0
Ethylene dichloride - surface	2016	0	3	0
Ethylene dichloride - surface	2017	0	3	0
Ethylene dichloride - surface	2018	0	3	0

		Short Term EQS or EAL µg/m3	Long Term EQS or EAL µg/m3	Background Concentration µg/m3
Ethylene dichloride - surface	2019	0	3	0
Ethylene dichloride - surface	2020	0	3	0
Ethylene dichloride - surface	2021	0	3	0
Ethylene dichloride - surface	2022	0	3	0
Ethylene dichloride - surface	2023	0	3	0
Ethylene dichloride - surface	2024	0	3	0
Ethylene dichloride - surface	2025	0	3	0
Ethylene dichloride - surface	2026	0	3	0
Ethylene dichloride - surface	2027	0	3	0
Ethylene dichloride - surface	2028	0	3	0
Ethylene dichloride - surface	2029	0	3	0
Ethylene dichloride - surface	2030	0	3	0
Ethylene dichloride - surface	2031	0	3	0
Ethylene dichloride - surface	2032	0	3	0
Ethylene dichloride - surface	2033	0	3	0
Ethylene dichloride - surface	2034	0	3	0
Ethylene dichloride - surface	2035	0	3	0
Ethylene dichloride - surface	2036	0	3	0
Ethylene dichloride - surface	2037	0	3	0
Ethylene dichloride - surface	2038	0	3	0
Ethylene dichloride - surface	2039	0	3	0
Ethylene dichloride - surface	2040	0	3	0
Ethylene dichloride - surface	2041	0	3	0
Ethylene dichloride - surface	2042	0	3	0
Ethylene dichloride - surface	2043	0	3	0
Ethylene dichloride - surface	2044	0	3	0
Ethylene dichloride - surface	2045	0	3	0
Ethylene dichloride - surface	2046	0	3	0
Ethylene dichloride - surface	2047	0	3	0
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine	2012	160	16	0
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine	2013	160	16	0
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine	2014	160	16	0
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine	2015	160	16	0
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine	2016	160	16	0
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine	2024	160	16	0
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine	2025	160	16	0
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine	2026	160	16	0
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine	2027	160	16	0

		Short Term EQS or EAL µg/m3	Long Term EQS or EAL µg/m3	Background Concentration µg/m3
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine	2028	160	16	0
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine	2029	160	16	0
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine	2030	160	16	0
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine	2031	160	16	0
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine	2032	160	16	0
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine	2033	160	16	0
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine	2034	160	16	0
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine	2035	160	16	0
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine	2036	160	16	0
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine	2037	160	16	0
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine	2038	160	16	0
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine	2039	160	16	0
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine	2040	160	16	0
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine	2041	160	16	0
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine	2042	160	16	0
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine	2043	160	16	0
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine	2044	160	16	0
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine	2045	160	16	0
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine	2046	160	16	0
Hydrogen sulphide - surface	1982	150	140	0
Hydrogen sulphide - surface	1983	150	140	0
Hydrogen sulphide - surface	1984	150	140	0
Hydrogen sulphide - surface	1985	150	140	0
Hydrogen sulphide - surface	1986	150	140	0
Hydrogen sulphide - surface	1987	150	140	0
Hydrogen sulphide - surface	1988	150	140	0
Hydrogen sulphide - surface	1989	150	140	0
Hydrogen sulphide - surface	1990	150	140	0
Hydrogen sulphide - surface	1991	150	140	0
Hydrogen sulphide - surface	1992	150	140	0
Hydrogen sulphide - surface	1993	150	140	0
Hydrogen sulphide - surface	1994	150	140	0
Hydrogen sulphide - surface	1995	150	140	0
Hydrogen sulphide - surface	1996	150	140	0
Hydrogen sulphide - surface	1997	150	140	0
Hydrogen sulphide - surface	1998	150	140	0
Hydrogen sulphide - surface	1999	150	140	0
Hydrogen sulphide - surface	2000	150	140	0

		Short Term EQS or EAL µg/m3	Long Term EQS or EAL µg/m3	Background Concentration µg/m3
Hydrogen sulphide - surface	2001	150	140	0
Hydrogen sulphide - surface	2002	150	140	0
Hydrogen sulphide - surface	2003	150	140	0
Hydrogen sulphide - surface	2004	150	140	0
Hydrogen sulphide - surface	2005	150	140	0
Hydrogen sulphide - surface	2006	150	140	0
Hydrogen sulphide - surface	2007	150	140	0
Hydrogen sulphide - surface	2008	150	140	0
Hydrogen sulphide - surface	2009	150	140	0
Hydrogen sulphide - surface	2010	150	140	0
Hydrogen sulphide - surface	2011	150	140	0
Hydrogen sulphide - surface	2012	150	140	0
Hydrogen sulphide - surface	2013	150	140	0
Hydrogen sulphide - surface	2014	150	140	0
Hydrogen sulphide - surface	2015	150	140	0
Hydrogen sulphide - surface	2016	150	140	0
Hydrogen sulphide - surface	2017	150	140	0
Hydrogen sulphide - surface	2018	150	140	0
Hydrogen sulphide - surface	2019	150	140	0
Hydrogen sulphide - surface	2020	150	140	0
Hydrogen sulphide - surface	2021	150	140	0
Hydrogen sulphide - surface	2022	150	140	0
Hydrogen sulphide - surface	2023	150	140	0
Hydrogen sulphide - surface	2024	150	140	0
Hydrogen sulphide - surface	2025	150	140	0
Hydrogen sulphide - surface	2026	150	140	0
Hydrogen sulphide - surface	2027	150	140	0
Hydrogen sulphide - surface	2028	150	140	0
Hydrogen sulphide - surface	2029	150	140	0
Hydrogen sulphide - surface	2030	150	140	0
Hydrogen sulphide - surface	2031	150	140	0
Hydrogen sulphide - surface	2032	150	140	0
Hydrogen sulphide - surface	2033	150	140	0
Hydrogen sulphide - surface	2034	150	140	0
Hydrogen sulphide - surface	2035	150	140	0
Hydrogen sulphide - surface	2036	150	140	0
Hydrogen sulphide - surface	2037	150	140	0
Hydrogen sulphide - surface	2038	150	140	0

		Short Term EQS or EAL µg/m3	Long Term EQS or EAL µg/m3	Background Concentration µg/m3
Hydrogen sulphide - surface	2039	150	140	0
Methyl chloroform (1,1,1-Trichloroethane) - surface	2007	5000	0	0
Methyl chloroform (1,1,1-Trichloroethane) - surface	2008	5000	0	0
Methyl chloroform (1,1,1-Trichloroethane) - surface	2009	5000	0	0
Methyl chloroform (1,1,1-Trichloroethane) - surface	2010	5000	0	0
Methyl chloroform (1,1,1-Trichloroethane) - surface	2023	5000	0	0
Nitrogen oxides (NOx) - engine	2011	200	40	8.16
Nitrogen oxides (NOx) - engine	2012	200	40	8.16
Nitrogen oxides (NOx) - engine	2013	200	40	8.16
Nitrogen oxides (NOx) - engine	2014	200	40	8.16
Nitrogen oxides (NOx) - engine	2015	200	40	8.16
Nitrogen oxides (NOx) - engine	2016	200	40	8.16
Nitrogen oxides (NOx) - engine	2017	200	40	8.16
Nitrogen oxides (NOx) - engine	2018	200	40	8.16
Nitrogen oxides (NOx) - engine	2019	200	40	8.16
Nitrogen oxides (NOx) - engine	2020	200	40	8.16
Nitrogen oxides (NOx) - engine	2021	200	40	8.16
Nitrogen oxides (NOx) - engine	2022	200	40	8.16
Nitrogen oxides (NOx) - engine	2023	200	40	8.16
Nitrogen oxides (NOx) - engine	2024	200	40	8.16
Nitrogen oxides (NOx) - engine	2025	200	40	8.16
Nitrogen oxides (NOx) - engine	2026	200	40	8.16
Nitrogen oxides (NOx) - engine	2027	200	40	8.16
Nitrogen oxides (NOx) - engine	2028	200	40	8.16
Nitrogen oxides (NOx) - engine	2029	200	40	8.16
Nitrogen oxides (NOx) - engine	2030	200	40	8.16
Nitrogen oxides (NOx) - engine	2031	200	40	8.16
Nitrogen oxides (NOx) - engine	2032	200	40	8.16
Nitrogen oxides (NOx) - engine	2033	200	40	8.16
Nitrogen oxides (NOx) - engine	2034	200	40	8.16
Nitrogen oxides (NOx) - engine	2035	200	40	8.16
Nitrogen oxides (NOx) - engine	2036	200	40	8.16
Nitrogen oxides (NOx) - engine	2037	200	40	8.16
Nitrogen oxides (NOx) - engine	2038	200	40	8.16
Nitrogen oxides (NOx) - engine	2039	200	40	8.16
Nitrogen oxides (NOx) - engine	2040	200	40	8.16
Nitrogen oxides (NOx) - engine	2041	200	40	8.16
Nitrogen oxides (NOx) - engine	2042	200	40	8.16

		Short Term EQS or EAL µg/m3	Long Term EQS or EAL µg/m3	Background Concentration µg/m3
Nitrogen oxides (NOx) - engine	2043	200	40	8.16
Nitrogen oxides (NOx) - engine	2044	200	40	8.16
Nitrogen oxides (NOx) - engine	2045	200	40	8.16
Nitrogen oxides (NOx) - engine	2046	200	40	8.16
Nitrogen oxides (NOx) - engine	2047	200	40	8.16
Nitrogen oxides (NOx) - engine	2048	200	40	8.16
Nitrogen oxides (NOx) - engine	2049	200	40	8.16
Nitrogen oxides (NOx) - engine	2050	200	40	8.16
Nitrogen oxides (NOx) - engine	2051	200	40	8.16
Nitrogen oxides (NOx) - engine	2052	200	40	8.16
Nitrogen oxides (NOx) - engine	2053	200	40	8.16
Nitrogen oxides (NOx) - engine	2054	200	40	8.16
Nitrogen oxides (NOx) - engine	2055	200	40	8.16
Nitrogen oxides (NOx) - engine	2056	200	40	8.16
Nitrogen oxides (NOx) - engine	2057	200	40	8.16
Nitrogen oxides (NOx) - engine	2058	200	40	8.16
Nitrogen oxides (NOx) - engine	2059	200	40	8.16
Sulphur dioxide - engine	2012	350	0	2.58
Sulphur dioxide 15 min - engine	2012	266		2.58
Sulphur dioxide 24 hour - engine	2012	125		2.58
Sulphur dioxide - engine	2013	350	0	2.58
Sulphur dioxide 15 min - engine	2013	266		2.58
Sulphur dioxide 24 hour - engine	2013	125		2.58
Sulphur dioxide 15 min - engine	2014	266		2.58
Sulphur dioxide 24 hour - engine	2014	125		2.58
Sulphur dioxide 15 min - engine	2015	266		2.58
Sulphur dioxide 24 hour - engine	2015	125		2.58
Sulphur dioxide 15 min - engine	2016	266		2.58
Sulphur dioxide 24 hour - engine	2016	125		2.58
Sulphur dioxide 15 min - engine	2017	266		2.58
Sulphur dioxide 24 hour - engine	2017	125		2.58
Sulphur dioxide 15 min - engine	2018	266		2.58
Sulphur dioxide 24 hour - engine	2018	125		2.58
Sulphur dioxide 15 min - engine	2019	266		2.58
Sulphur dioxide 24 hour - engine	2019	125		2.58
Sulphur dioxide - engine	2024	350	0	2.58
Sulphur dioxide 15 min - engine	2024	266		2.58
Sulphur dioxide 24 hour - engine	2024	125		2.58

		Short Term EQS or EAL µg/m3	Long Term EQS or EAL µg/m3	Background Concentration µg/m3
Sulphur dioxide - engine	2025	350	0	2.58
Sulphur dioxide 15 min - engine	2025	266		2.58
Sulphur dioxide 24 hour - engine	2025	125		2.58
Sulphur dioxide - engine	2026	350	0	2.58
Sulphur dioxide 15 min - engine	2026	266		2.58
Sulphur dioxide 24 hour - engine	2026	125		2.58
Sulphur dioxide - engine	2027	350	0	2.58
Sulphur dioxide 15 min - engine	2027	266		2.58
Sulphur dioxide 24 hour - engine	2027	125		2.58
Sulphur dioxide - engine	2028	350	0	2.58
Sulphur dioxide 15 min - engine	2028	266		2.58
Sulphur dioxide 24 hour - engine	2028	125		2.58
Sulphur dioxide - engine	2029	350	0	2.58
Sulphur dioxide 15 min - engine	2029	266		2.58
Sulphur dioxide 24 hour - engine	2029	125		2.58
Sulphur dioxide - engine	2030	350	0	2.58
Sulphur dioxide 15 min - engine	2030	266		2.58
Sulphur dioxide 24 hour - engine	2030	125		2.58
Sulphur dioxide - engine	2031	350	0	2.58
Sulphur dioxide 15 min - engine	2031	266		2.58
Sulphur dioxide 24 hour - engine	2031	125		2.58
Sulphur dioxide - engine	2032	350	0	2.58
Sulphur dioxide 15 min - engine	2032	266		2.58
Sulphur dioxide 24 hour - engine	2032	125		2.58
Sulphur dioxide - engine	2033	350	0	2.58
Sulphur dioxide 15 min - engine	2033	266		2.58
Sulphur dioxide 24 hour - engine	2033	125		2.58
Sulphur dioxide - engine	2034	350	0	2.58
Sulphur dioxide 15 min - engine	2034	266		2.58
Sulphur dioxide 24 hour - engine	2034	125		2.58
Sulphur dioxide - engine	2035	350	0	2.58
Sulphur dioxide 15 min - engine	2035	266		2.58
Sulphur dioxide 24 hour - engine	2035	125		2.58
Sulphur dioxide - engine	2036	350	0	2.58
Sulphur dioxide 15 min - engine	2036	266		2.58
Sulphur dioxide 24 hour - engine	2036	125		2.58
Sulphur dioxide - engine	2037	350	0	2.58
Sulphur dioxide 15 min - engine	2037	266		2.58

		Short Term EQS or EAL µg/m3	Long Term EQS or EAL µg/m3	Background Concentration µg/m3
Sulphur dioxide 24 hour - engine	2037	125		2.58
Sulphur dioxide - engine	2038	350	0	2.58
Sulphur dioxide 15 min - engine	2038	266		2.58
Sulphur dioxide 24 hour - engine	2038	125		2.58
Sulphur dioxide - engine	2039	350	0	2.58
Sulphur dioxide 15 min - engine	2039	266		2.58
Sulphur dioxide 24 hour - engine	2039	125		2.58
Sulphur dioxide - engine	2040	350	0	2.58
Sulphur dioxide 15 min - engine	2040	266		2.58
Sulphur dioxide 24 hour - engine	2040	125		2.58
Sulphur dioxide - engine	2041	350	0	2.58
Sulphur dioxide 15 min - engine	2041	266		2.58
Sulphur dioxide 24 hour - engine	2041	125		2.58
Sulphur dioxide - engine	2042	350	0	2.58
Sulphur dioxide 15 min - engine	2042	266		2.58
Sulphur dioxide 24 hour - engine	2042	125		2.58
Sulphur dioxide - engine	2043	350	0	2.58
Sulphur dioxide 15 min - engine	2043	266		2.58
Sulphur dioxide 24 hour - engine	2043	125		2.58
Sulphur dioxide 15 min - engine	2044	266		2.58
Sulphur dioxide 24 hour - engine	2044	125		2.58
Sulphur dioxide 15 min - engine	2045	266		2.58
Sulphur dioxide 24 hour - engine	2045	125		2.58
Sulphur dioxide 15 min - engine	2046	266		2.58
Sulphur dioxide 24 hour - engine	2046	125		2.58
Sulphur dioxide 15 min - engine	2047	266		2.58
Sulphur dioxide 24 hour - engine	2047	125		2.58
Sulphur dioxide 15 min - engine	2048	266		2.58
Sulphur dioxide 24 hour - engine	2048	125		2.58
Sulphur dioxide 15 min - engine	2049	266		2.58
Sulphur dioxide 24 hour - engine	2049	125		2.58
Sulphur dioxide 15 min - engine	2050	266		2.58
Tetrachloroethylene (Tetrachloroethene) - surface	1981	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	1982	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	1983	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	1984	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	1985	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	1986	40	0	0

		Short Term EQS or EAL µg/m3	Long Term EQS or EAL µg/m3	Background Concentration µg/m3
Tetrachloroethylene (Tetrachloroethene) - surface	1987	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	1988	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	1989	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	1990	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	1991	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	1992	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	1993	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	1994	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	1995	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	1996	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	1997	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	1998	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	1999	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2000	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2001	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2002	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2003	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2004	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2005	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2006	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2007	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2008	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2009	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2010	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2011	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2012	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2013	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2014	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2015	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2016	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2017	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2018	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2019	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2020	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2021	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2022	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2023	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2024	40	0	0

		Short Term EQS or EAL µg/m3	Long Term EQS or EAL µg/m3	Background Concentration µg/m3
Tetrachloroethylene (Tetrachloroethene) - surface	2025	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2026	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2027	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2028	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2029	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2030	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2031	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2032	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2033	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2034	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2035	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2036	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2037	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2038	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2039	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2040	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2041	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2042	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2043	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2044	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2045	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2046	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2047	40	0	0
Tetrachloroethylene (Tetrachloroethene) - surface	2048	40	0	0
Trichloroethylene (trichloroethene) - surface	1981	0	2	0
Trichloroethylene (trichloroethene) - surface	1982	0	2	0
Trichloroethylene (trichloroethene) - surface	1983	0	2	0
Trichloroethylene (trichloroethene) - surface	1984	0	2	0
Trichloroethylene (trichloroethene) - surface	1985	0	2	0
Trichloroethylene (trichloroethene) - surface	1986	0	2	0
Trichloroethylene (trichloroethene) - surface	1987	0	2	0
Trichloroethylene (trichloroethene) - surface	1988	0	2	0
Trichloroethylene (trichloroethene) - surface	1989	0	2	0
Trichloroethylene (trichloroethene) - surface	1990	0	2	0
Trichloroethylene (trichloroethene) - surface	1991	0	2	0
Trichloroethylene (trichloroethene) - surface	1992	0	2	0
Trichloroethylene (trichloroethene) - surface	1993	0	2	0
Trichloroethylene (trichloroethene) - surface	1994	0	2	0

		Short Term EQS or EAL µg/m3	Long Term EQS or EAL µg/m3	Background Concentration µg/m3
Trichloroethylene (trichloroethene) - surface	1995	0	2	0
Trichloroethylene (trichloroethene) - surface	1996	0	2	0
Trichloroethylene (trichloroethene) - surface	1997	0	2	0
Trichloroethylene (trichloroethene) - surface	1998	0	2	0
Trichloroethylene (trichloroethene) - surface	1999	0	2	0
Trichloroethylene (trichloroethene) - surface	2000	0	2	0
Trichloroethylene (trichloroethene) - surface	2001	0	2	0
Trichloroethylene (trichloroethene) - surface	2002	0	2	0
Trichloroethylene (trichloroethene) - surface	2003	0	2	0
Trichloroethylene (trichloroethene) - surface	2004	0	2	0
Trichloroethylene (trichloroethene) - surface	2005	0	2	0
Trichloroethylene (trichloroethene) - surface	2006	0	2	0
Trichloroethylene (trichloroethene) - surface	2007	0	2	0
Trichloroethylene (trichloroethene) - surface	2008	0	2	0
Trichloroethylene (trichloroethene) - surface	2009	0	2	0
Trichloroethylene (trichloroethene) - surface	2010	0	2	0
Trichloroethylene (trichloroethene) - surface	2011	0	2	0
Trichloroethylene (trichloroethene) - surface	2012	0	2	0
Trichloroethylene (trichloroethene) - surface	2013	0	2	0
Trichloroethylene (trichloroethene) - surface	2014	0	2	0
Trichloroethylene (trichloroethene) - surface	2015	0	2	0
Trichloroethylene (trichloroethene) - surface	2016	0	2	0
Trichloroethylene (trichloroethene) - surface	2017	0	2	0
Trichloroethylene (trichloroethene) - surface	2018	0	2	0
Trichloroethylene (trichloroethene) - surface	2019	0	2	0
Trichloroethylene (trichloroethene) - surface	2020	0	2	0
Trichloroethylene (trichloroethene) - surface	2021	0	2	0
Trichloroethylene (trichloroethene) - surface	2022	0	2	0
Trichloroethylene (trichloroethene) - surface	2023	0	2	0
Trichloroethylene (trichloroethene) - surface	2024	0	2	0
Trichloroethylene (trichloroethene) - surface	2025	0	2	0
Trichloroethylene (trichloroethene) - surface	2026	0	2	0
Trichloroethylene (trichloroethene) - surface	2027	0	2	0
Trichloroethylene (trichloroethene) - surface	2028	0	2	0
Trichloroethylene (trichloroethene) - surface	2029	0	2	0
Trichloroethylene (trichloroethene) - surface	2030	0	2	0
Trichloroethylene (trichloroethene) - surface	2031	0	2	0
Trichloroethylene (trichloroethene) - surface	2032	0	2	0

		Short Term EQS or EAL µg/m3	Long Term EQS or EAL µg/m3	Background Concentration µg/m3
Trichloroethylene (trichloroethene) - surface	2033	0	2	0
Trichloroethylene (trichloroethene) - surface	2034	0	2	0
Trichloroethylene (trichloroethene) - surface	2035	0	2	0
Trichloroethylene (trichloroethene) - surface	2036	0	2	0
Trichloroethylene (trichloroethene) - surface	2037	0	2	0
Trichloroethylene (trichloroethene) - surface	2038	0	2	0
Trichloroethylene (trichloroethene) - surface	2039	0	2	0
Trichloroethylene (trichloroethene) - surface	2040	0	2	0
Trichloroethylene (trichloroethene) - surface	2041	0	2	0
Vinyl chloride (chloroethene, chloroethylene) - surface	1981	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	1982	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	1983	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	1984	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	1985	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	1986	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	1987	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	1988	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	1989	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	1990	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	1991	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	1992	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	1993	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	1994	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	1995	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	1996	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	1997	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	1998	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	1999	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2000	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2001	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2002	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2003	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2004	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2005	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2006	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2007	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2008	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2009	1300	10	0

		Short Term EQS or EAL µg/m3	Long Term EQS or EAL µg/m3	Background Concentration µg/m3
Vinyl chloride (chloroethene, chloroethylene) - surface	2010	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2011	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2012	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2013	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2014	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2015	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2016	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2017	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2018	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2019	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2020	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2021	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2022	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2023	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2024	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2025	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2026	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2027	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2028	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2029	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2030	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2031	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2032	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2033	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2034	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2035	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2036	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2037	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2038	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2039	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2040	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2041	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2042	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2043	1300	10	0
Vinyl chloride (chloroethene, chloroethylene) - surface	2044	1300	10	0
Xylene (all isomers) - surface	1987	66200	4410	0
Xylene (all isomers) - surface	1988	66200	4410	0
Xylene (all isomers) - surface	1989	66200	4410	0

		Short Term EQS or EAL µg/m3	Long Term EQS or EAL µg/m3	Background Concentration µg/m3
Xylene (all isomers) - surface	1990	66200	4410	0
Xylene (all isomers) - surface	1991	66200	4410	0
Xylene (all isomers) - surface	1992	66200	4410	0
Xylene (all isomers) - surface	1993	66200	4410	0
Xylene (all isomers) - surface	1994	66200	4410	0
Xylene (all isomers) - surface	1995	66200	4410	0
Xylene (all isomers) - surface	1996	66200	4410	0
Xylene (all isomers) - surface	1997	66200	4410	0
Xylene (all isomers) - surface	1998	66200	4410	0
Xylene (all isomers) - surface	1999	66200	4410	0
Xylene (all isomers) - surface	2000	66200	4410	0
Xylene (all isomers) - surface	2001	66200	4410	0
Xylene (all isomers) - surface	2002	66200	4410	0
Xylene (all isomers) - surface	2003	66200	4410	0
Xylene (all isomers) - surface	2004	66200	4410	0
Xylene (all isomers) - surface	2005	66200	4410	0
Xylene (all isomers) - surface	2006	66200	4410	0
Xylene (all isomers) - surface	2007	66200	4410	0
Xylene (all isomers) - surface	2008	66200	4410	0

	Short Term				Long term			
	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?
Acrylonitrile - surface - 1984	3.08226(132.185m)	4.60358(10.4403m)	Yes	No	0.0330711(132.185m)	0.0949488(10.4403m)	Yes (at boundary)	No
Acrylonitrile - surface - 1985	3.63952(132.185m)	5.43589(10.4403m)	Yes	No	0.0390502(132.185m)	0.112115(10.4403m)	Yes (at boundary)	No
Acrylonitrile - surface - 1986	3.94916(132.185m)	5.89835(10.4403m)	Yes	No	0.0423724(132.185m)	0.121653(10.4403m)	Yes (at boundary)	No
Acrylonitrile - surface - 1987	4.22175(132.185m)	6.30549(10.4403m)	Yes	No	0.0452972(132.185m)	0.130051(10.4403m)	Yes (at boundary)	No
Acrylonitrile - surface - 1988	4.26194(132.185m)	6.36551(10.4403m)	Yes	No	0.0457284(132.185m)	0.131289(10.4403m)	Yes (at boundary)	No
Acrylonitrile - surface - 1989	4.29127(132.185m)	6.40932(10.4403m)	Yes	No	0.0460431(132.185m)	0.132192(10.4403m)	Yes (at boundary)	No
Acrylonitrile - surface - 1990	4.375(132.185m)	6.53438(10.4403m)	Yes	No	0.0469415(132.185m)	0.134772(10.4403m)	Yes (at boundary)	No
Acrylonitrile - surface - 1991	4.33493(132.185m)	6.47452(10.4403m)	Yes	No	0.0465115(132.185m)	0.133537(10.4403m)	Yes (at boundary)	No
Acrylonitrile - surface - 1992	4.39578(132.185m)	6.56542(10.4403m)	Yes	No	0.0471644(132.185m)	0.135412(10.4403m)	Yes (at boundary)	No
Acrylonitrile - surface - 1993	4.46071(132.185m)	6.66239(10.4403m)	Yes	No	0.0478611(132.185m)	0.137412(10.4403m)	Yes (at boundary)	No
Acrylonitrile - surface - 1994	4.4426(132.185m)	6.63534(10.4403m)	Yes	No	0.0476667(132.185m)	0.136854(10.4403m)	Yes (at boundary)	No
Acrylonitrile - surface - 1995	4.30895(132.185m)	6.43572(10.4403m)	Yes	No	0.0462327(132.185m)	0.132737(10.4403m)	Yes (at boundary)	No
Acrylonitrile - surface - 1996	4.27248(132.185m)	6.38126(10.4403m)	Yes	No	0.0458415(132.185m)	0.131613(10.4403m)	Yes (at boundary)	No
Acrylonitrile - surface - 1997	4.40385(132.185m)	6.57747(10.4403m)	Yes	No	0.047251(132.185m)	0.13566(10.4403m)	Yes (at boundary)	No
Acrylonitrile - surface - 1998	4.51752(132.185m)	6.74724(10.4403m)	Yes	No	0.0484706(132.185m)	0.139162(10.4403m)	Yes (at boundary)	No
Acrylonitrile - surface - 1999	4.36045(132.185m)	6.51265(10.4403m)	Yes	No	0.0467854(132.185m)	0.134323(10.4403m)	Yes (at boundary)	No
Acrylonitrile - surface - 2000	4.35138(132.185m)	6.4991(10.4403m)	Yes	No	0.0466881(132.185m)	0.134044(10.4403m)	Yes (at boundary)	No
Acrylonitrile - surface - 2001	3.54172(132.185m)	5.28981(10.4403m)	Yes	No	0.0380008(132.185m)	0.109102(10.4403m)	Yes (at boundary)	No
Acrylonitrile - surface - 2002	3.58429(132.185m)	5.35339(10.4403m)	Yes	No	0.0384575(132.185m)	0.110414(10.4403m)	Yes (at boundary)	No
Acrylonitrile - surface - 2003	3.28787(132.185m)	4.91067(10.4403m)	Yes	No	0.0352771(132.185m)	0.101283(10.4403m)	Yes (at boundary)	No
Acrylonitrile - surface - 2004	3.68849(132.185m)	5.50902(10.4403m)	Yes	No	0.0395755(132.185m)	0.113623(10.4403m)	Yes (at boundary)	No
Acrylonitrile - surface - 2005	8.79227(13.0384m)	8.79227(10.4403m)	Yes	No	0.181341(13.0384m)	0.181341(10.4403m)	No	No
Acrylonitrile - surface - 2006	10.0768(13.0384m)	10.0768(10.4403m)	Yes	No	0.207835(13.0384m)	0.207835(10.4403m)	No	No
Acrylonitrile - surface - 2007	12.3(13.0384m)	12.3(10.4403m)	Yes	No	0.253687(13.0384m)	0.253687(10.4403m)	No	No
Acrylonitrile - surface - 2008	15.9647(13.0384m)	15.9647(10.4403m)	Yes	No	0.329273(13.0384m)	0.329273(10.4403m)	No	No
Acrylonitrile - surface - 2009	17.8901(13.0384m)	17.8901(10.4403m)	Yes	No	0.368984(13.0384m)	0.368984(10.4403m)	No	No
Acrylonitrile - surface - 2010	15.5141(13.0384m)	15.5141(10.4403m)	Yes	No	0.319979(13.0384m)	0.319979(10.4403m)	No	No
Acrylonitrile - surface - 2011	12.0871(13.0384m)	12.0871(10.4403m)	Yes	No	0.249296(13.0384m)	0.249296(10.4403m)	No	No
Acrylonitrile - surface - 2012	4.34367(13.0384m)	4.34367(10.4403m)	Yes	No	0.0895882(13.0384m)	0.0895882(10.4403m)	No	No
Acrylonitrile - surface - 2019	4.75061(13.0384m)	4.75061(10.4403m)	Yes	No	0.0979813(13.0384m)	0.0979813(10.4403m)	No	No
Acrylonitrile - surface - 2020	5.28421(13.0384m)	5.28421(10.4403m)	Yes	No	0.108987(13.0384m)	0.108987(10.4403m)	No	No
Acrylonitrile - surface - 2021	5.90068(13.0384m)	5.90068(10.4403m)	Yes	No	0.121701(13.0384m)	0.121701(10.4403m)	No	No
Acrylonitrile - surface - 2022	6.44552(13.0384m)	6.44552(10.4403m)	Yes	No	0.132939(13.0384m)	0.132939(10.4403m)	No	No
Acrylonitrile - surface - 2023	8.44285(13.0384m)	8.44285(10.4403m)	Yes	No	0.174134(13.0384m)	0.174134(10.4403m)	No	No
Acrylonitrile - surface - 2024	5.21785(13.0384m)	5.21785(10.4403m)	Yes	No	0.107618(13.0384m)	0.107618(10.4403m)	No	No
Acrylonitrile - surface - 2025	4.84755(13.0384m)	4.84755(10.4403m)	Yes	No	0.0999808(13.0384m)	0.0999808(10.4403m)	No	No

	Short Term				Long term			
	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?
Acrylonitrile - surface - 2029	5.13729(13.0384m)	5.13729(10.4403m)	Yes	No	0.105957(13.0384m)	0.105957(10.4403m)	No	No
Acrylonitrile - surface - 2036	4.84765(9.43398m)	4.84765(10.4403m)	Yes	No	0.0999828(9.43398m)	0.0999828(10.4403m)	No	No
Acrylonitrile - surface - 2038	5.89484(9.43398m)	5.89484(10.4403m)	Yes	No	0.121581(9.43398m)	0.121581(10.4403m)	No	No
Arsenic - surface - 1981	0.00494324(132.185m)	0.00738309(10.4403m)	No EAL	No EAL	5.30384e-005(132.185m)	0.000152276(10.4403m)	Yes (at boundary)	No
Arsenic - surface - 1982	0.0194755(132.185m)	0.029088(10.4403m)	No EAL	No EAL	0.000208962(132.185m)	0.000599941(10.4403m)	No	No
Arsenic - surface - 1983	0.0286462(132.185m)	0.0427852(10.4403m)	No EAL	No EAL	0.000307359(132.185m)	0.000882444(10.4403m)	No	No
Arsenic - surface - 1984	0.0345781(132.185m)	0.0516449(10.4403m)	No EAL	No EAL	0.000371005(132.185m)	0.00106518(10.4403m)	No	No
Arsenic - surface - 1985	0.0381836(132.185m)	0.0570299(10.4403m)	No EAL	No EAL	0.000409689(132.185m)	0.00117624(10.4403m)	No	No
Arsenic - surface - 1986	0.0411704(132.185m)	0.0614909(10.4403m)	No EAL	No EAL	0.000441737(132.185m)	0.00126825(10.4403m)	No	No
Arsenic - surface - 1987	0.0445452(132.185m)	0.0665315(10.4403m)	No EAL	No EAL	0.000477947(132.185m)	0.00137221(10.4403m)	No	No
Arsenic - surface - 1988	0.0475836(132.185m)	0.0710695(10.4403m)	No EAL	No EAL	0.000510547(132.185m)	0.00146581(10.4403m)	No	No
Arsenic - surface - 1989	0.0484428(132.185m)	0.0723528(10.4403m)	No EAL	No EAL	0.000519766(132.185m)	0.00149228(10.4403m)	No	No
Arsenic - surface - 1990	0.0483047(132.185m)	0.0721465(10.4403m)	No EAL	No EAL	0.000518284(132.185m)	0.00148802(10.4403m)	No	No
Arsenic - surface - 1991	0.0482539(132.185m)	0.0720706(10.4403m)	No EAL	No EAL	0.000517739(132.185m)	0.00148646(10.4403m)	No	No
Arsenic - surface - 1992	0.0501735(132.185m)	0.0749377(10.4403m)	No EAL	No EAL	0.000538335(132.185m)	0.00154559(10.4403m)	No	No
Arsenic - surface - 1993	0.0513977(132.185m)	0.0767662(10.4403m)	No EAL	No EAL	0.000551471(132.185m)	0.00158333(10.4403m)	No	No
Arsenic - surface - 1994	0.0514958(132.185m)	0.0769127(10.4403m)	No EAL	No EAL	0.000552523(132.185m)	0.00158632(10.4403m)	No	No
Arsenic - surface - 1995	0.0505388(132.185m)	0.0754832(10.4403m)	No EAL	No EAL	0.000542254(132.185m)	0.00155684(10.4403m)	No	No
Arsenic - surface - 1996	0.0501217(132.185m)	0.0748604(10.4403m)	No EAL	No EAL	0.00053778(132.185m)	0.001544(10.4403m)	No	No
Arsenic - surface - 1997	0.049009(132.185m)	0.0731985(10.4403m)	No EAL	No EAL	0.000525841(132.185m)	0.00150972(10.4403m)	No	No
Arsenic - surface - 1998	0.0490018(132.185m)	0.0731876(10.4403m)	No EAL	No EAL	0.000525763(132.185m)	0.0015095(10.4403m)	No	No
Arsenic - surface - 1999	0.0514522(132.185m)	0.0768475(10.4403m)	No EAL	No EAL	0.000552055(132.185m)	0.00158498(10.4403m)	No	No
Arsenic - surface - 2000	0.0505685(132.185m)	0.0755276(10.4403m)	No EAL	No EAL	0.000542573(132.185m)	0.00155776(10.4403m)	No	No
Arsenic - surface - 2001	0.0384111(132.185m)	0.0573698(10.4403m)	No EAL	No EAL	0.000412131(132.185m)	0.00118325(10.4403m)	No	No
Arsenic - surface - 2002	0.0371642(132.185m)	0.0555073(10.4403m)	No EAL	No EAL	0.000398752(132.185m)	0.00114484(10.4403m)	No	No
Arsenic - surface - 2003	0.040423(132.185m)	0.0603746(10.4403m)	No EAL	No EAL	0.000433717(132.185m)	0.00124523(10.4403m)	No	No
Arsenic - surface - 2004	0.0439993(132.185m)	0.065716(10.4403m)	No EAL	No EAL	0.000472089(132.185m)	0.00135539(10.4403m)	No	No
Arsenic - surface - 2005	0.108882(13.0384m)	0.108882(10.4403m)	No EAL	No EAL	0.00224569(13.0384m)	0.00224569(10.4403m)	No	No
Arsenic - surface - 2006	0.118144(13.0384m)	0.118144(10.4403m)	No EAL	No EAL	0.00243673(13.0384m)	0.00243673(10.4403m)	No	No
Arsenic - surface - 2007	0.109387(13.0384m)	0.109387(10.4403m)	No EAL	No EAL	0.0022561(13.0384m)	0.0022561(10.4403m)	No	No
Arsenic - surface - 2008	0.127253(13.0384m)	0.127253(10.4403m)	No EAL	No EAL	0.00262459(13.0384m)	0.00262459(10.4403m)	No	No
Arsenic - surface - 2009	0.120281(13.0384m)	0.120281(10.4403m)	No EAL	No EAL	0.00248079(13.0384m)	0.00248079(10.4403m)	No	No
Arsenic - surface - 2010	0.101036(13.0384m)	0.101036(10.4403m)	No EAL	No EAL	0.00208387(13.0384m)	0.00208387(10.4403m)	No	No
Arsenic - surface - 2011	0.0811904(13.0384m)	0.0811904(10.4403m)	No EAL	No EAL	0.00167455(13.0384m)	0.00167455(10.4403m)	No	No
Arsenic - surface - 2012	0.0352674(13.0384m)	0.0352674(10.4403m)	No EAL	No EAL	0.000727391(13.0384m)	0.000727391(10.4403m)	No	No
Arsenic - surface - 2013	0.0294589(13.0384m)	0.0294589(10.4403m)	No EAL	No EAL	0.00060759(13.0384m)	0.00060759(10.4403m)	No	No

	Short Term				Long term			
	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?
Arsenic - surface - 2014	0.0403288(13.0384m)	0.0403288(10.4403m)	No EAL	No EAL	0.000831782(13.0384m)	0.000831782(10.4403m)	No	No
Arsenic - surface - 2015	0.0477941(13.0384m)	0.0477941(10.4403m)	No EAL	No EAL	0.000985753(13.0384m)	0.000985753(10.4403m)	No	No
Arsenic - surface - 2016	0.0498475(13.0384m)	0.0498475(10.4403m)	No EAL	No EAL	0.00102811(13.0384m)	0.00102811(10.4403m)	No	No
Arsenic - surface - 2017	0.0482151(13.0384m)	0.0482151(10.4403m)	No EAL	No EAL	0.000994437(13.0384m)	0.000994437(10.4403m)	No	No
Arsenic - surface - 2018	0.0518689(13.0384m)	0.0518689(10.4403m)	No EAL	No EAL	0.0010698(13.0384m)	0.0010698(10.4403m)	No	No
Arsenic - surface - 2019	0.0648068(13.0384m)	0.0648068(10.4403m)	No EAL	No EAL	0.00133664(13.0384m)	0.00133664(10.4403m)	No	No
Arsenic - surface - 2020	0.0735163(13.0384m)	0.0735163(10.4403m)	No EAL	No EAL	0.00151627(13.0384m)	0.00151627(10.4403m)	No	No
Arsenic - surface - 2021	0.0804644(13.0384m)	0.0804644(10.4403m)	No EAL	No EAL	0.00165958(13.0384m)	0.00165958(10.4403m)	No	No
Arsenic - surface - 2022	0.0903621(13.0384m)	0.0903621(10.4403m)	No EAL	No EAL	0.00186372(13.0384m)	0.00186372(10.4403m)	No	No
Arsenic - surface - 2023	0.111851(13.0384m)	0.111851(10.4403m)	No EAL	No EAL	0.00230692(13.0384m)	0.00230692(10.4403m)	No	No
Arsenic - surface - 2024	0.0691747(13.0384m)	0.0691747(10.4403m)	No EAL	No EAL	0.00142673(13.0384m)	0.00142673(10.4403m)	No	No
Arsenic - surface - 2025	0.0878414(13.0384m)	0.0878414(10.4403m)	No EAL	No EAL	0.00181173(13.0384m)	0.00181173(10.4403m)	No	No
Arsenic - surface - 2026	0.0589543(13.0384m)	0.0589543(10.4403m)	No EAL	No EAL	0.00121593(13.0384m)	0.00121593(10.4403m)	No	No
Arsenic - surface - 2027	0.0374689(13.0384m)	0.0374689(10.4403m)	No EAL	No EAL	0.000772795(13.0384m)	0.000772795(10.4403m)	No	No
Arsenic - surface - 2028	0.0390721(13.0384m)	0.0390721(10.4403m)	No EAL	No EAL	0.000805863(13.0384m)	0.000805863(10.4403m)	No	No
Arsenic - surface - 2029	0.0669063(13.0384m)	0.0669063(10.4403m)	No EAL	No EAL	0.00137994(13.0384m)	0.00137994(10.4403m)	No	No
Arsenic - surface - 2030	0.0451869(13.0384m)	0.0451869(10.4403m)	No EAL	No EAL	0.000931979(13.0384m)	0.000931979(10.4403m)	No	No
Arsenic - surface - 2031	0.0541239(12m)	0.0541239(10.4403m)	No EAL	No EAL	0.0011163(12m)	0.0011163(10.4403m)	No	No
Arsenic - surface - 2032	0.0525797(12m)	0.0525797(10.4403m)	No EAL	No EAL	0.00108446(12m)	0.00108446(10.4403m)	No	No
Arsenic - surface - 2033	0.0379257(10.6301m)	0.0379257(10.4403m)	No EAL	No EAL	0.000782218(10.6301m)	0.000782218(10.4403m)	No	No
Arsenic - surface - 2034	0.0364028(10.6301m)	0.0364028(10.4403m)	No EAL	No EAL	0.000750808(10.6301m)	0.000750808(10.4403m)	No	No
Arsenic - surface - 2035	0.047734(9.43398m)	0.047734(10.4403m)	No EAL	No EAL	0.000984515(9.43398m)	0.000984515(10.4403m)	No	No
Arsenic - surface - 2036	0.057098(9.43398m)	0.057098(10.4403m)	No EAL	No EAL	0.00117765(9.43398m)	0.00117765(10.4403m)	No	No
Arsenic - surface - 2037	0.0442269(9.43398m)	0.0442269(10.4403m)	No EAL	No EAL	0.000912179(9.43398m)	0.000912179(10.4403m)	No	No
Arsenic - surface - 2038	0.0499443(9.43398m)	0.0499443(10.4403m)	No EAL	No EAL	0.0010301(9.43398m)	0.0010301(10.4403m)	No	No
Arsenic - surface - 2039	0.0107354(9.43398m)	0.0107354(10.4403m)	No EAL	No EAL	0.000221418(9.43398m)	0.000221418(10.4403m)	No	No
Arsenic - surface - 2040	0.00525412(9.43398m)	0.00525412(10.4403m)	No EAL	No EAL	0.000108366(9.43398m)	0.000108366(10.4403m)	No	No
Arsenic - surface - 2041	0.00396916(9.43398m)	0.00396916(10.4403m)	No EAL	No EAL	8.18639e-005(9.43398m)	8.18639e-005(10.4403m)	No	No
Arsenic - surface - 2043	0.00308422(9.43398m)	0.00308422(10.4403m)	No EAL	No EAL	6.36121e-005(9.43398m)	6.36121e-005(10.4403m)	No	No
Benzene - surface - 1982	2.02674(132.185m)	3.02707(10.4403m)	Yes (at boundary)	No	0.0217458(132.185m)	0.0624334(10.4403m)	Yes (at boundary)	No
Benzene - surface - 1983	3.04517(132.185m)	4.54817(10.4403m)	No	No	0.032673(132.185m)	0.0938061(10.4403m)	Yes (at boundary)	No
Benzene - surface - 1984	3.68307(132.185m)	5.50093(10.4403m)	No	No	0.0395174(132.185m)	0.113457(10.4403m)	Yes (at boundary)	No
Benzene - surface - 1985	4.13512(132.185m)	6.17609(10.4403m)	No	No	0.0443676(132.185m)	0.127382(10.4403m)	Yes (at boundary)	No
Benzene - surface - 1986	4.5095(132.185m)	6.73526(10.4403m)	No	No	0.0483845(132.185m)	0.138915(10.4403m)	Yes (at boundary)	No
Benzene - surface - 1987	4.72581(132.185m)	7.05833(10.4403m)	No	No	0.0507054(132.185m)	0.145578(10.4403m)	No	No
Benzene - surface - 1988	4.82812(132.185m)	7.21114(10.4403m)	No	No	0.0518032(132.185m)	0.14873(10.4403m)	No	No

	Short Term				Long term			
	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?
Benzene - surface - 1989	4.96198(132.185m)	7.41107(10.4403m)	No	No	0.0532394(132.185m)	0.152853(10.4403m)	No	No
Benzene - surface - 1990	4.96219(132.185m)	7.41138(10.4403m)	No	No	0.0532417(132.185m)	0.15286(10.4403m)	No	No
Benzene - surface - 1991	5.17401(132.185m)	7.72775(10.4403m)	No	No	0.0555144(132.185m)	0.159385(10.4403m)	No	No
Benzene - surface - 1992	5.29647(132.185m)	7.91065(10.4403m)	No	No	0.0568283(132.185m)	0.163157(10.4403m)	No	No
Benzene - surface - 1993	5.26202(132.185m)	7.85919(10.4403m)	No	No	0.0564586(132.185m)	0.162096(10.4403m)	No	No
Benzene - surface - 1994	5.25957(132.185m)	7.85555(10.4403m)	No	No	0.0564325(132.185m)	0.162021(10.4403m)	No	No
Benzene - surface - 1995	5.29004(132.185m)	7.90104(10.4403m)	No	No	0.0567593(132.185m)	0.162959(10.4403m)	No	No
Benzene - surface - 1996	5.23768(132.185m)	7.82284(10.4403m)	No	No	0.0561975(132.185m)	0.161346(10.4403m)	No	No
Benzene - surface - 1997	5.2713(132.185m)	7.87306(10.4403m)	No	No	0.0565583(132.185m)	0.162382(10.4403m)	No	No
Benzene - surface - 1998	5.27342(132.185m)	7.87622(10.4403m)	No	No	0.056581(132.185m)	0.162447(10.4403m)	No	No
Benzene - surface - 1999	5.29309(132.185m)	7.90561(10.4403m)	No	No	0.0567921(132.185m)	0.163053(10.4403m)	No	No
Benzene - surface - 2000	5.27688(132.185m)	7.88139(10.4403m)	No	No	0.0566181(132.185m)	0.162554(10.4403m)	No	No
Benzene - surface - 2001	4.8572(132.185m)	7.25457(10.4403m)	No	No	0.0521151(132.185m)	0.149625(10.4403m)	No	No
Benzene - surface - 2002	4.64423(132.185m)	6.93649(10.4403m)	No	No	0.0498302(132.185m)	0.143065(10.4403m)	Yes (at boundary)	No
Benzene - surface - 2003	4.45575(132.185m)	6.65497(10.4403m)	No	No	0.0478078(132.185m)	0.137259(10.4403m)	Yes (at boundary)	No
Benzene - surface - 2004	4.55147(132.185m)	6.79794(10.4403m)	No	No	0.0488348(132.185m)	0.140207(10.4403m)	Yes (at boundary)	No
Benzene - surface - 2005	10.2149(13.0384m)	10.2149(10.4403m)	No	Yes	0.210683(13.0384m)	0.210683(10.4403m)	No	No
Benzene - surface - 2006	14.0427(13.0384m)	14.0427(10.4403m)	No	Yes	0.28963(13.0384m)	0.28963(10.4403m)	No	No
Benzene - surface - 2007	16.5948(13.0384m)	16.5948(10.4403m)	No	Yes	0.342267(13.0384m)	0.342267(10.4403m)	No	No
Benzene - surface - 2008	19.4638(13.0384m)	19.4638(10.4403m)	No	Yes	0.401441(13.0384m)	0.401441(10.4403m)	No	No
Benzene - surface - 2009	20.5825(13.0384m)	20.5825(10.4403m)	No	Yes	0.424514(13.0384m)	0.424514(10.4403m)	No	No
Benzene - surface - 2010	15.6868(13.0384m)	15.6868(10.4403m)	No	Yes	0.32354(13.0384m)	0.32354(10.4403m)	No	No
Benzene - surface - 2011	12.7925(13.0384m)	12.7925(10.4403m)	No	Yes	0.263844(13.0384m)	0.263844(10.4403m)	No	No
Benzene - surface - 2012	5.69319(13.0384m)	5.69319(10.4403m)	No	No	0.117422(13.0384m)	0.117422(10.4403m)	No	No
Benzene - surface - 2013	4.99241(13.0384m)	4.99241(10.4403m)	No	No	0.102968(13.0384m)	0.102968(10.4403m)	No	No
Benzene - surface - 2014	6.46132(13.0384m)	6.46132(10.4403m)	No	Yes	0.133265(13.0384m)	0.133265(10.4403m)	No	No
Benzene - surface - 2015	7.61924(13.0384m)	7.61924(10.4403m)	No	Yes	0.157147(13.0384m)	0.157147(10.4403m)	No	No
Benzene - surface - 2016	7.8454(13.0384m)	7.8454(10.4403m)	No	Yes	0.161811(13.0384m)	0.161811(10.4403m)	No	No
Benzene - surface - 2017	7.38375(13.0384m)	7.38375(10.4403m)	No	Yes	0.15229(13.0384m)	0.15229(10.4403m)	No	No
Benzene - surface - 2018	8.05562(13.0384m)	8.05562(10.4403m)	No	Yes	0.166147(13.0384m)	0.166147(10.4403m)	No	No
Benzene - surface - 2019	10.1367(13.0384m)	10.1367(10.4403m)	No	Yes	0.20907(13.0384m)	0.20907(10.4403m)	No	No
Benzene - surface - 2020	11.4123(13.0384m)	11.4123(10.4403m)	No	Yes	0.235378(13.0384m)	0.235378(10.4403m)	No	No
Benzene - surface - 2021	12.1076(13.0384m)	12.1076(10.4403m)	No	Yes	0.249718(13.0384m)	0.249718(10.4403m)	No	No
Benzene - surface - 2022	13.2841(13.0384m)	13.2841(10.4403m)	No	Yes	0.273985(13.0384m)	0.273985(10.4403m)	No	No
Benzene - surface - 2023	17.3417(13.0384m)	17.3417(10.4403m)	No	Yes	0.357672(13.0384m)	0.357672(10.4403m)	No	No
Benzene - surface - 2024	8.44919(13.0384m)	8.44919(10.4403m)	No	Yes	0.174265(13.0384m)	0.174265(10.4403m)	No	No

	Short Term				Long term			
	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?
Benzene - surface - 2025	8.84941(13.0384m)	8.84941(10.4403m)	No	Yes	0.182519(13.0384m)	0.182519(10.4403m)	No	No
Benzene - surface - 2026	6.65533(13.0384m)	6.65533(10.4403m)	No	Yes	0.137266(13.0384m)	0.137266(10.4403m)	No	No
Benzene - surface - 2027	4.92424(13.0384m)	4.92424(10.4403m)	No	No	0.101562(13.0384m)	0.101562(10.4403m)	No	No
Benzene - surface - 2028	5.19147(13.0384m)	5.19147(10.4403m)	No	No	0.107074(13.0384m)	0.107074(10.4403m)	No	No
Benzene - surface - 2029	7.69514(13.0384m)	7.69514(10.4403m)	No	Yes	0.158712(13.0384m)	0.158712(10.4403m)	No	No
Benzene - surface - 2030	5.4938(13.0384m)	5.4938(10.4403m)	No	No	0.11331(13.0384m)	0.11331(10.4403m)	No	No
Benzene - surface - 2031	7.41037(12m)	7.41037(10.4403m)	No	Yes	0.152839(12m)	0.152839(10.4403m)	No	No
Benzene - surface - 2032	6.54418(12m)	6.54418(10.4403m)	No	Yes	0.134974(12m)	0.134974(10.4403m)	No	No
Benzene - surface - 2033	5.16341(10.6301m)	5.16341(10.4403m)	No	No	0.106495(10.6301m)	0.106495(10.4403m)	No	No
Benzene - surface - 2034	4.92538(10.6301m)	4.92538(10.4403m)	No	No	0.101586(10.6301m)	0.101586(10.4403m)	No	No
Benzene - surface - 2035	6.55196(9.43398m)	6.55196(10.4403m)	No	Yes	0.135134(9.43398m)	0.135134(10.4403m)	No	No
Benzene - surface - 2036	6.81216(9.43398m)	6.81216(10.4403m)	No	Yes	0.140501(9.43398m)	0.140501(10.4403m)	No	No
Benzene - surface - 2037	5.91823(9.43398m)	5.91823(10.4403m)	No	Yes	0.122063(9.43398m)	0.122063(10.4403m)	No	No
Benzene - surface - 2038	7.27964(9.43398m)	7.27964(10.4403m)	No	Yes	0.150143(9.43398m)	0.150143(10.4403m)	No	No
Carbon disulphide - surface - 1982	17.8257(132.185m)	26.6239(10.4403m)	No	No	0.19126(132.185m)	0.549118(10.4403m)	Yes	No
Carbon disulphide - surface - 1983	26.1235(132.185m)	39.0172(10.4403m)	No	Yes	0.280291(132.185m)	0.80473(10.4403m)	Yes (at boundary)	No
Carbon disulphide - surface - 1984	33.1122(132.185m)	49.4555(10.4403m)	No	Yes	0.355277(132.185m)	1.02002(10.4403m)	Yes (at boundary)	No
Carbon disulphide - surface - 1985	37.7581(132.185m)	56.3945(10.4403m)	No	Yes	0.405125(132.185m)	1.16314(10.4403m)	Yes (at boundary)	No
Carbon disulphide - surface - 1986	40.7877(132.185m)	60.9193(10.4403m)	No	Yes	0.43763(132.185m)	1.25646(10.4403m)	Yes (at boundary)	No
Carbon disulphide - surface - 1987	42.5962(132.185m)	63.6205(10.4403m)	No	Yes	0.457035(132.185m)	1.31217(10.4403m)	Yes (at boundary)	No
Carbon disulphide - surface - 1988	44.4211(132.185m)	66.346(10.4403m)	No	Yes	0.476614(132.185m)	1.36839(10.4403m)	Yes (at boundary)	No
Carbon disulphide - surface - 1989	44.7647(132.185m)	66.8593(10.4403m)	No	Yes	0.480302(132.185m)	1.37897(10.4403m)	Yes (at boundary)	No
Carbon disulphide - surface - 1990	45.6398(132.185m)	68.1662(10.4403m)	No	Yes	0.489691(132.185m)	1.40593(10.4403m)	Yes (at boundary)	No
Carbon disulphide - surface - 1991	46.8188(132.185m)	69.9273(10.4403m)	No	Yes	0.502341(132.185m)	1.44225(10.4403m)	Yes (at boundary)	No
Carbon disulphide - surface - 1992	46.7073(132.185m)	69.7606(10.4403m)	No	Yes	0.501144(132.185m)	1.43881(10.4403m)	Yes (at boundary)	No
Carbon disulphide - surface - 1993	47.2126(132.185m)	70.5154(10.4403m)	No	Yes	0.506566(132.185m)	1.45438(10.4403m)	Yes (at boundary)	No
Carbon disulphide - surface - 1994	47.8326(132.185m)	71.4414(10.4403m)	No	Yes	0.513219(132.185m)	1.47348(10.4403m)	Yes (at boundary)	No
Carbon disulphide - surface - 1995	48.542(132.185m)	72.501(10.4403m)	No	Yes	0.52083(132.185m)	1.49533(10.4403m)	Yes (at boundary)	No
Carbon disulphide - surface - 1996	48.7949(132.185m)	72.8787(10.4403m)	No	Yes	0.523544(132.185m)	1.50312(10.4403m)	Yes (at boundary)	No
Carbon disulphide - surface - 1997	48.1851(132.185m)	71.9678(10.4403m)	No	Yes	0.517001(132.185m)	1.48434(10.4403m)	Yes (at boundary)	No
Carbon disulphide - surface - 1998	49.3468(132.185m)	73.703(10.4403m)	No	Yes	0.529466(132.185m)	1.52012(10.4403m)	Yes (at boundary)	No
Carbon disulphide - surface - 1999	49.9913(132.185m)	74.6656(10.4403m)	No	Yes	0.536381(132.185m)	1.53998(10.4403m)	Yes (at boundary)	No
Carbon disulphide - surface - 2000	48.9759(132.185m)	73.1489(10.4403m)	No	Yes	0.525485(132.185m)	1.5087(10.4403m)	Yes (at boundary)	No
Carbon disulphide - surface - 2001	41.6076(132.185m)	62.1439(10.4403m)	No	Yes	0.446428(132.185m)	1.28172(10.4403m)	Yes (at boundary)	No
Carbon disulphide - surface - 2002	34.8419(132.185m)	52.0388(10.4403m)	No	Yes	0.373835(132.185m)	1.0733(10.4403m)	Yes (at boundary)	No
Carbon disulphide - surface - 2003	32.9947(132.185m)	49.28(10.4403m)	No	Yes	0.354016(132.185m)	1.0164(10.4403m)	Yes (at boundary)	No

	Short Term				Long term			
	Predicted Boundary Concentration $\mu\text{g}/\text{m}^3$	Predicted Nearest Receptor Concentration $\mu\text{g}/\text{m}^3$	Is the emission rate Insignificant?	Is detailed modelling required?	Predicted Boundary Concentration $\mu\text{g}/\text{m}^3$	Predicted Nearest Receptor Concentration $\mu\text{g}/\text{m}^3$	Is the emission rate Insignificant?	Is detailed modelling required?
Carbon disulphide - surface - 2004	36.5004(132.185m)	54.516(10.4403m)	No	Yes	0.39163(132.185m)	1.12439(10.4403m)	Yes (at boundary)	No
Carbon disulphide - surface - 2005	86.2754(13.0384m)	86.2754(10.4403m)	No	Yes	1.77943(13.0384m)	1.77943(10.4403m)	No	No
Carbon disulphide - surface - 2006	99.6854(13.0384m)	99.6854(10.4403m)	No	Yes	2.05601(13.0384m)	2.05601(10.4403m)	No	No
Carbon disulphide - surface - 2007	107.71(13.0384m)	107.71(10.4403m)	No	Yes	2.22152(13.0384m)	2.22152(10.4403m)	No	No
Carbon disulphide - surface - 2008	136.433(13.0384m)	136.433(10.4403m)	No	Yes	2.81394(13.0384m)	2.81394(10.4403m)	No	No
Carbon disulphide - surface - 2009	142.654(13.0384m)	142.654(10.4403m)	No	Yes	2.94223(13.0384m)	2.94223(10.4403m)	No	No
Carbon disulphide - surface - 2010	115.198(13.0384m)	115.198(10.4403m)	No	Yes	2.37596(13.0384m)	2.37596(10.4403m)	No	No
Carbon disulphide - surface - 2011	88.8003(13.0384m)	88.8003(10.4403m)	No	Yes	1.83151(13.0384m)	1.83151(10.4403m)	No	No
Carbon disulphide - surface - 2012	41.7049(13.0384m)	41.7049(10.4403m)	No	Yes	0.860165(13.0384m)	0.860165(10.4403m)	No	No
Carbon disulphide - surface - 2013	43.8958(13.0384m)	43.8958(10.4403m)	No	Yes	0.90535(13.0384m)	0.90535(10.4403m)	No	No
Carbon disulphide - surface - 2014	59.6666(13.0384m)	59.6666(10.4403m)	No	Yes	1.23062(13.0384m)	1.23062(10.4403m)	No	No
Carbon disulphide - surface - 2015	71.489(13.0384m)	71.489(10.4403m)	No	Yes	1.47446(13.0384m)	1.47446(10.4403m)	No	No
Carbon disulphide - surface - 2016	73.0957(13.0384m)	73.0957(10.4403m)	No	Yes	1.5076(13.0384m)	1.5076(10.4403m)	No	No
Carbon disulphide - surface - 2017	69.5603(13.0384m)	69.5603(10.4403m)	No	Yes	1.43468(13.0384m)	1.43468(10.4403m)	No	No
Carbon disulphide - surface - 2018	76.5894(13.0384m)	76.5894(10.4403m)	No	Yes	1.57966(13.0384m)	1.57966(10.4403m)	No	No
Carbon disulphide - surface - 2019	97.9913(13.0384m)	97.9913(10.4403m)	No	Yes	2.02107(13.0384m)	2.02107(10.4403m)	No	No
Carbon disulphide - surface - 2020	108.698(13.0384m)	108.698(10.4403m)	No	Yes	2.2419(13.0384m)	2.2419(10.4403m)	No	No
Carbon disulphide - surface - 2021	116.551(13.0384m)	116.551(10.4403m)	No	Yes	2.40387(13.0384m)	2.40387(10.4403m)	No	No
Carbon disulphide - surface - 2022	127.749(13.0384m)	127.749(10.4403m)	No	Yes	2.63483(13.0384m)	2.63483(10.4403m)	No	No
Carbon disulphide - surface - 2023	163.788(13.0384m)	163.788(10.4403m)	No	Yes	3.37812(13.0384m)	3.37812(10.4403m)	No	No
Carbon disulphide - surface - 2024	60.8679(13.0384m)	60.8679(10.4403m)	No	Yes	1.2554(13.0384m)	1.2554(10.4403m)	No	No
Carbon disulphide - surface - 2025	73.3197(13.0384m)	73.3197(10.4403m)	No	Yes	1.51222(13.0384m)	1.51222(10.4403m)	No	No
Carbon disulphide - surface - 2026	57.954(13.0384m)	57.954(10.4403m)	No	Yes	1.1953(13.0384m)	1.1953(10.4403m)	No	No
Carbon disulphide - surface - 2027	37.0826(13.0384m)	37.0826(10.4403m)	No	Yes	0.764829(13.0384m)	0.764829(10.4403m)	No	No
Carbon disulphide - surface - 2028	36.6429(13.0384m)	36.6429(10.4403m)	No	Yes	0.75576(13.0384m)	0.75576(10.4403m)	No	No
Carbon disulphide - surface - 2029	63.8421(13.0384m)	63.8421(10.4403m)	No	Yes	1.31674(13.0384m)	1.31674(10.4403m)	No	No
Carbon disulphide - surface - 2030	47.217(13.0384m)	47.217(10.4403m)	No	Yes	0.973851(13.0384m)	0.973851(10.4403m)	No	No
Carbon disulphide - surface - 2031	58.2269(12m)	58.2269(10.4403m)	No	Yes	1.20093(12m)	1.20093(10.4403m)	No	No
Carbon disulphide - surface - 2032	52.3805(12m)	52.3805(10.4403m)	No	Yes	1.08035(12m)	1.08035(10.4403m)	No	No
Carbon disulphide - surface - 2033	41.1135(10.6301m)	41.1135(10.4403m)	No	Yes	0.847967(10.6301m)	0.847967(10.4403m)	No	No
Carbon disulphide - surface - 2034	35.2738(10.6301m)	35.2738(10.4403m)	No	Yes	0.727522(10.6301m)	0.727522(10.4403m)	No	No
Carbon disulphide - surface - 2035	45.0682(9.43398m)	45.0682(10.4403m)	No	Yes	0.929532(9.43398m)	0.929532(10.4403m)	No	No
Carbon disulphide - surface - 2036	56.9298(9.43398m)	56.9298(10.4403m)	No	Yes	1.17418(9.43398m)	1.17418(10.4403m)	No	No
Carbon disulphide - surface - 2037	49.8814(9.43398m)	49.8814(10.4403m)	No	Yes	1.0288(9.43398m)	1.0288(10.4403m)	No	No
Carbon disulphide - surface - 2038	69.3439(9.43398m)	69.3439(10.4403m)	No	Yes	1.43022(9.43398m)	1.43022(10.4403m)	No	No
Carbon disulphide - surface - 2039	14.4648(9.43398m)	14.4648(10.4403m)	No	No	0.298337(9.43398m)	0.298337(10.4403m)	Yes	No

	Short Term				Long term			
	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?
Chloroform (trichloromethane) - surface - 2007	13.6315(13.0384m)	13.6315(10.4403m)	No	No	0.28115(13.0384m)	0.28115(10.4403m)	No EAL	No EAL
Chloroform (trichloromethane) - surface - 2008	14.8097(13.0384m)	14.8097(10.4403m)	No	No	0.30545(13.0384m)	0.30545(10.4403m)	No EAL	No EAL
Chloroform (trichloromethane) - surface - 2009	14.2037(13.0384m)	14.2037(10.4403m)	No	No	0.292951(13.0384m)	0.292951(10.4403m)	No EAL	No EAL
Chloroform (trichloromethane) - surface - 2010	11.187(13.0384m)	11.187(10.4403m)	No	No	0.230732(13.0384m)	0.230732(10.4403m)	No EAL	No EAL
Ethylene dichloride - surface - 1981	5.16624(132.185m)	7.71614(10.4403m)	No EAL	No EAL	0.055431(132.185m)	0.159145(10.4403m)	No	No
Ethylene dichloride - surface - 1982	20.3917(132.185m)	30.4564(10.4403m)	No EAL	No EAL	0.218792(132.185m)	0.628163(10.4403m)	No	No
Ethylene dichloride - surface - 1983	31.5681(132.185m)	47.1492(10.4403m)	No EAL	No EAL	0.338709(132.185m)	0.972452(10.4403m)	No	No
Ethylene dichloride - surface - 1984	39.0402(132.185m)	58.3093(10.4403m)	No EAL	No EAL	0.418881(132.185m)	1.20263(10.4403m)	No	No
Ethylene dichloride - surface - 1985	43.8171(132.185m)	65.444(10.4403m)	No EAL	No EAL	0.470135(132.185m)	1.34978(10.4403m)	No	No
Ethylene dichloride - surface - 1986	44.9858(132.185m)	67.1895(10.4403m)	No EAL	No EAL	0.482674(132.185m)	1.38578(10.4403m)	No	No
Ethylene dichloride - surface - 1987	46.9979(132.185m)	70.1947(10.4403m)	No EAL	No EAL	0.504262(132.185m)	1.44777(10.4403m)	No	No
Ethylene dichloride - surface - 1988	49.5926(132.185m)	74.07(10.4403m)	No EAL	No EAL	0.532102(132.185m)	1.52769(10.4403m)	No	No
Ethylene dichloride - surface - 1989	51.6622(132.185m)	77.1612(10.4403m)	No EAL	No EAL	0.554308(132.185m)	1.59145(10.4403m)	No	No
Ethylene dichloride - surface - 1990	53.3103(132.185m)	79.6227(10.4403m)	No EAL	No EAL	0.571991(132.185m)	1.64222(10.4403m)	No	No
Ethylene dichloride - surface - 1991	53.9413(132.185m)	80.5651(10.4403m)	No EAL	No EAL	0.578761(132.185m)	1.66166(10.4403m)	No	No
Ethylene dichloride - surface - 1992	55.4079(132.185m)	82.7557(10.4403m)	No EAL	No EAL	0.594498(132.185m)	1.70684(10.4403m)	No	No
Ethylene dichloride - surface - 1993	55.466(132.185m)	82.8425(10.4403m)	No EAL	No EAL	0.595121(132.185m)	1.70863(10.4403m)	No	No
Ethylene dichloride - surface - 1994	55.9102(132.185m)	83.5059(10.4403m)	No EAL	No EAL	0.599887(132.185m)	1.72231(10.4403m)	No	No
Ethylene dichloride - surface - 1995	54.6687(132.185m)	81.6515(10.4403m)	No EAL	No EAL	0.586566(132.185m)	1.68406(10.4403m)	No	No
Ethylene dichloride - surface - 1996	54.7651(132.185m)	81.7956(10.4403m)	No EAL	No EAL	0.587601(132.185m)	1.68703(10.4403m)	No	No
Ethylene dichloride - surface - 1997	56.148(132.185m)	83.8611(10.4403m)	No EAL	No EAL	0.602439(132.185m)	1.72963(10.4403m)	No	No
Ethylene dichloride - surface - 1998	57.7774(132.185m)	86.2947(10.4403m)	No EAL	No EAL	0.619921(132.185m)	1.77983(10.4403m)	No	No
Ethylene dichloride - surface - 1999	55.9925(132.185m)	83.6287(10.4403m)	No EAL	No EAL	0.60077(132.185m)	1.72484(10.4403m)	No	No
Ethylene dichloride - surface - 2000	56.3373(132.185m)	84.1437(10.4403m)	No EAL	No EAL	0.604469(132.185m)	1.73546(10.4403m)	No	No
Ethylene dichloride - surface - 2001	59.2104(132.185m)	88.4349(10.4403m)	No EAL	No EAL	0.635296(132.185m)	1.82397(10.4403m)	No	No
Ethylene dichloride - surface - 2002	64.0053(132.185m)	95.5965(10.4403m)	No EAL	No EAL	0.686743(132.185m)	1.97168(10.4403m)	No	No
Ethylene dichloride - surface - 2003	76.1018(132.185m)	113.663(10.4403m)	No EAL	No EAL	0.816532(132.185m)	2.34431(10.4403m)	No	No
Ethylene dichloride - surface - 2004	75.2747(132.185m)	112.428(10.4403m)	No EAL	No EAL	0.807658(132.185m)	2.31883(10.4403m)	No	No
Ethylene dichloride - surface - 2005	175.308(13.0384m)	175.308(10.4403m)	No EAL	No EAL	3.61574(13.0384m)	3.61574(10.4403m)	No	Yes
Ethylene dichloride - surface - 2006	196.246(13.0384m)	196.246(10.4403m)	No EAL	No EAL	4.04758(13.0384m)	4.04758(10.4403m)	No	Yes
Ethylene dichloride - surface - 2007	253.304(13.0384m)	253.304(10.4403m)	No EAL	No EAL	5.22439(13.0384m)	5.22439(10.4403m)	No	Yes
Ethylene dichloride - surface - 2008	240.147(13.0384m)	240.147(10.4403m)	No EAL	No EAL	4.95302(13.0384m)	4.95302(10.4403m)	No	Yes
Ethylene dichloride - surface - 2009	181.043(13.0384m)	181.043(10.4403m)	No EAL	No EAL	3.734(13.0384m)	3.734(10.4403m)	No	Yes
Ethylene dichloride - surface - 2010	109.605(13.0384m)	109.605(10.4403m)	No EAL	No EAL	2.26061(13.0384m)	2.26061(10.4403m)	No	Yes
Ethylene dichloride - surface - 2011	77.477(13.0384m)	77.477(10.4403m)	No EAL	No EAL	1.59796(13.0384m)	1.59796(10.4403m)	No	No
Ethylene dichloride - surface - 2012	38.9366(13.0384m)	38.9366(10.4403m)	No EAL	No EAL	0.803067(13.0384m)	0.803067(10.4403m)	No	No

	Short Term				Long term			
	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?
Ethylene dichloride - surface - 2013	36.5768(13.0384m)	36.5768(10.4403m)	No EAL	No EAL	0.754397(13.0384m)	0.754397(10.4403m)	No	No
Ethylene dichloride - surface - 2014	43.5382(13.0384m)	43.5382(10.4403m)	No EAL	No EAL	0.897976(13.0384m)	0.897976(10.4403m)	No	No
Ethylene dichloride - surface - 2015	43.293(13.0384m)	43.293(10.4403m)	No EAL	No EAL	0.892918(13.0384m)	0.892918(10.4403m)	No	No
Ethylene dichloride - surface - 2016	44.9151(13.0384m)	44.9151(10.4403m)	No EAL	No EAL	0.926374(13.0384m)	0.926374(10.4403m)	No	No
Ethylene dichloride - surface - 2017	42.4351(13.0384m)	42.4351(10.4403m)	No EAL	No EAL	0.875223(13.0384m)	0.875223(10.4403m)	No	No
Ethylene dichloride - surface - 2018	45.0174(13.0384m)	45.0174(10.4403m)	No EAL	No EAL	0.928485(13.0384m)	0.928485(10.4403m)	No	No
Ethylene dichloride - surface - 2019	55.2179(13.0384m)	55.2179(10.4403m)	No EAL	No EAL	1.13887(13.0384m)	1.13887(10.4403m)	No	No
Ethylene dichloride - surface - 2020	61.9337(13.0384m)	61.9337(10.4403m)	No EAL	No EAL	1.27738(13.0384m)	1.27738(10.4403m)	No	No
Ethylene dichloride - surface - 2021	65.2607(13.0384m)	65.2607(10.4403m)	No EAL	No EAL	1.346(13.0384m)	1.346(10.4403m)	No	No
Ethylene dichloride - surface - 2022	70.7187(13.0384m)	70.7187(10.4403m)	No EAL	No EAL	1.45857(13.0384m)	1.45857(10.4403m)	No	No
Ethylene dichloride - surface - 2023	95.2044(13.0384m)	95.2044(10.4403m)	No EAL	No EAL	1.96359(13.0384m)	1.96359(10.4403m)	No	No
Ethylene dichloride - surface - 2024	79.8965(13.0384m)	79.8965(10.4403m)	No EAL	No EAL	1.64786(13.0384m)	1.64786(10.4403m)	No	No
Ethylene dichloride - surface - 2025	86.9545(13.0384m)	86.9545(10.4403m)	No EAL	No EAL	1.79344(13.0384m)	1.79344(10.4403m)	No	No
Ethylene dichloride - surface - 2026	58.0216(13.0384m)	58.0216(10.4403m)	No EAL	No EAL	1.1967(13.0384m)	1.1967(10.4403m)	No	No
Ethylene dichloride - surface - 2027	47.2401(13.0384m)	47.2401(10.4403m)	No EAL	No EAL	0.974327(13.0384m)	0.974327(10.4403m)	No	No
Ethylene dichloride - surface - 2028	36.081(13.0384m)	36.081(10.4403m)	No EAL	No EAL	0.74417(13.0384m)	0.74417(10.4403m)	No	No
Ethylene dichloride - surface - 2029	31.3341(13.0384m)	31.3341(10.4403m)	No EAL	No EAL	0.646266(13.0384m)	0.646266(10.4403m)	No	No
Ethylene dichloride - surface - 2030	38.8068(13.0384m)	38.8068(10.4403m)	No EAL	No EAL	0.80039(13.0384m)	0.80039(10.4403m)	No	No
Ethylene dichloride - surface - 2031	53.8562(12m)	53.8562(10.4403m)	No EAL	No EAL	1.11078(12m)	1.11078(10.4403m)	No	No
Ethylene dichloride - surface - 2032	41.3628(12m)	41.3628(10.4403m)	No EAL	No EAL	0.853109(12m)	0.853109(10.4403m)	No	No
Ethylene dichloride - surface - 2033	35.4287(10.6301m)	35.4287(10.4403m)	No EAL	No EAL	0.730716(10.6301m)	0.730716(10.4403m)	No	No
Ethylene dichloride - surface - 2034	44.0967(10.6301m)	44.0967(10.4403m)	No EAL	No EAL	0.909495(10.6301m)	0.909495(10.4403m)	No	No
Ethylene dichloride - surface - 2035	53.8561(9.43398m)	53.8561(10.4403m)	No EAL	No EAL	1.11078(9.43398m)	1.11078(10.4403m)	No	No
Ethylene dichloride - surface - 2036	59.8584(9.43398m)	59.8584(10.4403m)	No EAL	No EAL	1.23458(9.43398m)	1.23458(10.4403m)	No	No
Ethylene dichloride - surface - 2037	59.6304(9.43398m)	59.6304(10.4403m)	No EAL	No EAL	1.22988(9.43398m)	1.22988(10.4403m)	No	No
Ethylene dichloride - surface - 2038	58.4064(9.43398m)	58.4064(10.4403m)	No EAL	No EAL	1.20463(9.43398m)	1.20463(10.4403m)	No	No
Ethylene dichloride - surface - 2039	14.3653(9.43398m)	14.3653(10.4403m)	No EAL	No EAL	0.296283(9.43398m)	0.296283(10.4403m)	No	No
Ethylene dichloride - surface - 2040	6.59927(9.43398m)	6.59927(10.4403m)	No EAL	No EAL	0.13611(9.43398m)	0.13611(10.4403m)	No	No
Ethylene dichloride - surface - 2041	4.76958(9.43398m)	4.76958(10.4403m)	No EAL	No EAL	0.0983725(9.43398m)	0.0983725(10.4403m)	No	No
Ethylene dichloride - surface - 2042	3.13006(9.43398m)	3.13006(10.4403m)	No EAL	No EAL	0.0645576(9.43398m)	0.0645576(10.4403m)	No	No
Ethylene dichloride - surface - 2043	4.45777(9.43398m)	4.45777(10.4403m)	No EAL	No EAL	0.0919415(9.43398m)	0.0919415(10.4403m)	No	No
Ethylene dichloride - surface - 2044	3.22025(9.43398m)	3.22025(10.4403m)	No EAL	No EAL	0.0664177(9.43398m)	0.0664177(10.4403m)	No	No
Ethylene dichloride - surface - 2045	2.41792(9.43398m)	2.41792(10.4403m)	No EAL	No EAL	0.0498696(9.43398m)	0.0498696(10.4403m)	No	No
Ethylene dichloride - surface - 2046	1.92295(9.43398m)	1.92295(10.4403m)	No EAL	No EAL	0.0396609(9.43398m)	0.0396609(10.4403m)	No	No
Ethylene dichloride - surface - 2047	1.49429(9.43398m)	1.49429(10.4403m)	No EAL	No EAL	0.0308197(9.43398m)	0.0308197(10.4403m)	No	No
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine - 2012	0.701619(359.201m)	2.08797(136.565m)	Yes	No	0.0701619(359.201m)	0.205646(136.565m)	Yes (at boundary)	No

	Short Term				Long term			
	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine - 2013	0.762462(359.201m)	2.26904(136.565m)	Yes	No	0.0762462(359.201m)	0.22348(136.565m)	Yes (at boundary)	No
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine - 2014	0.690982(359.201m)	2.05632(136.565m)	Yes	No	0.0690982(359.201m)	0.202529(136.565m)	Yes (at boundary)	No
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine - 2015	0.620201(359.201m)	1.84568(136.565m)	Yes	No	0.0620201(359.201m)	0.181783(136.565m)	Yes (at boundary)	No
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine - 2016	0.558545(359.201m)	1.66219(136.565m)	Yes	No	0.0558545(359.201m)	0.163711(136.565m)	Yes (at boundary)	No
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine - 2024	0.911858(359.201m)	2.71363(136.565m)	Yes	No	0.0911858(359.201m)	0.267268(136.565m)	Yes (at boundary)	No
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine - 2025	0.994709(359.201m)	2.96019(136.565m)	Yes	No	0.0994709(359.201m)	0.291552(136.565m)	Yes (at boundary)	No
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine - 2026	1.03907(359.201m)	3.0922(136.565m)	Yes	No	0.103907(359.201m)	0.304553(136.565m)	Yes (at boundary)	No
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine - 2027	1.03907(359.201m)	3.0922(136.565m)	Yes	No	0.103907(359.201m)	0.304553(136.565m)	Yes (at boundary)	No
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine - 2028	1.03907(359.201m)	3.0922(136.565m)	Yes	No	0.103907(359.201m)	0.304553(136.565m)	Yes (at boundary)	No
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine - 2029	1.03907(359.201m)	3.0922(136.565m)	Yes	No	0.103907(359.201m)	0.304553(136.565m)	Yes (at boundary)	No
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine - 2030	1.03907(359.201m)	3.0922(136.565m)	Yes	No	0.103907(359.201m)	0.304553(136.565m)	Yes (at boundary)	No
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine - 2031	1.03907(359.201m)	3.0922(136.565m)	Yes	No	0.103907(359.201m)	0.304553(136.565m)	Yes (at boundary)	No
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine - 2032	1.03907(359.201m)	3.0922(136.565m)	Yes	No	0.103907(359.201m)	0.304553(136.565m)	Yes (at boundary)	No
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine - 2033	1.03907(359.201m)	3.0922(136.565m)	Yes	No	0.103907(359.201m)	0.304553(136.565m)	Yes (at boundary)	No
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine - 2034	1.03907(359.201m)	3.0922(136.565m)	Yes	No	0.103907(359.201m)	0.304553(136.565m)	Yes (at boundary)	No
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine - 2035	1.03907(359.201m)	3.0922(136.565m)	Yes	No	0.103907(359.201m)	0.304553(136.565m)	Yes (at boundary)	No
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine - 2036	1.03907(359.201m)	3.0922(136.565m)	Yes	No	0.103907(359.201m)	0.304553(136.565m)	Yes (at boundary)	No
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine - 2037	1.03907(359.201m)	3.0922(136.565m)	Yes	No	0.103907(359.201m)	0.304553(136.565m)	Yes (at boundary)	No
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine - 2038	1.03907(359.201m)	3.0922(136.565m)	Yes	No	0.103907(359.201m)	0.304553(136.565m)	Yes (at boundary)	No
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine - 2039	1.03907(359.201m)	3.0922(136.565m)	Yes	No	0.103907(359.201m)	0.304553(136.565m)	Yes (at boundary)	No
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine - 2040	1.03907(359.201m)	3.0922(136.565m)	Yes	No	0.103907(359.201m)	0.304553(136.565m)	Yes (at boundary)	No
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine - 2041	1.03907(359.201m)	3.0922(136.565m)	Yes	No	0.103907(359.201m)	0.304553(136.565m)	Yes (at boundary)	No
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine - 2042	0.971146(359.201m)	2.89007(136.565m)	Yes	No	0.0971146(359.201m)	0.284646(136.565m)	Yes (at boundary)	No
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine - 2043	0.779331(359.201m)	2.31924(136.565m)	Yes	No	0.0779331(359.201m)	0.228424(136.565m)	Yes (at boundary)	No
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine - 2044	0.693649(359.201m)	2.06425(136.565m)	Yes	No	0.0693649(359.201m)	0.20331(136.565m)	Yes (at boundary)	No
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine - 2045	0.653463(359.201m)	1.94466(136.565m)	Yes	No	0.0653463(359.201m)	0.191532(136.565m)	Yes (at boundary)	No
Hydrogen fluoride, or (Total fluoride (reported as HF)) - engine - 2046	0.592912(359.201m)	1.76447(136.565m)	Yes	No	0.0592912(359.201m)	0.173784(136.565m)	Yes (at boundary)	No
Hydrogen sulphide - surface - 1982	34.2835(132.185m)	51.2048(10.4403m)	No	Yes	0.367844(132.185m)	1.0561(10.4403m)	Yes	No
Hydrogen sulphide - surface - 1983	49.3991(132.185m)	73.781(10.4403m)	No	Yes	0.530026(132.185m)	1.52173(10.4403m)	Yes (at boundary)	No
Hydrogen sulphide - surface - 1984	59.7185(132.185m)	89.1938(10.4403m)	No	Yes	0.640748(132.185m)	1.83962(10.4403m)	Yes (at boundary)	No
Hydrogen sulphide - surface - 1985	67.3897(132.185m)	100.651(10.4403m)	No	Yes	0.723056(132.185m)	2.07593(10.4403m)	Yes (at boundary)	No
Hydrogen sulphide - surface - 1986	70.0844(132.185m)	104.676(10.4403m)	No	Yes	0.751969(132.185m)	2.15894(10.4403m)	Yes (at boundary)	No
Hydrogen sulphide - surface - 1987	75.2306(132.185m)	112.362(10.4403m)	No	Yes	0.807184(132.185m)	2.31747(10.4403m)	Yes (at boundary)	No
Hydrogen sulphide - surface - 1988	81.9759(132.185m)	122.437(10.4403m)	No	Yes	0.879558(132.185m)	2.52526(10.4403m)	Yes (at boundary)	No
Hydrogen sulphide - surface - 1989	86.6567(132.185m)	129.428(10.4403m)	No	Yes	0.92978(132.185m)	2.66945(10.4403m)	Yes (at boundary)	No
Hydrogen sulphide - surface - 1990	87.8489(132.185m)	131.209(10.4403m)	No	Yes	0.942572(132.185m)	2.70618(10.4403m)	Yes (at boundary)	No

	Short Term				Long term			
	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?
Hydrogen sulphide - surface - 1991	86.0936(132.185m)	128.587(10.4403m)	No	Yes	0.923739(132.185m)	2.6521(10.4403m)	Yes (at boundary)	No
Hydrogen sulphide - surface - 1992	87.31(132.185m)	130.404(10.4403m)	No	Yes	0.93679(132.185m)	2.68958(10.4403m)	Yes (at boundary)	No
Hydrogen sulphide - surface - 1993	90.5319(132.185m)	135.216(10.4403m)	No	Yes	0.97136(132.185m)	2.78883(10.4403m)	Yes (at boundary)	No
Hydrogen sulphide - surface - 1994	92.4548(132.185m)	138.088(10.4403m)	No	Yes	0.991991(132.185m)	2.84806(10.4403m)	Yes (at boundary)	No
Hydrogen sulphide - surface - 1995	92.7366(132.185m)	138.509(10.4403m)	No	Yes	0.995015(132.185m)	2.85674(10.4403m)	Yes (at boundary)	No
Hydrogen sulphide - surface - 1996	90.8102(132.185m)	135.631(10.4403m)	No	Yes	0.974345(132.185m)	2.7974(10.4403m)	Yes (at boundary)	No
Hydrogen sulphide - surface - 1997	92.777(132.185m)	138.569(10.4403m)	No	Yes	0.995448(132.185m)	2.85799(10.4403m)	Yes (at boundary)	No
Hydrogen sulphide - surface - 1998	90.8371(132.185m)	135.672(10.4403m)	No	Yes	0.974634(132.185m)	2.79823(10.4403m)	Yes (at boundary)	No
Hydrogen sulphide - surface - 1999	88.532(132.185m)	132.229(10.4403m)	No	Yes	0.949901(132.185m)	2.72722(10.4403m)	Yes (at boundary)	No
Hydrogen sulphide - surface - 2000	89.7842(132.185m)	134.099(10.4403m)	No	Yes	0.963337(132.185m)	2.76579(10.4403m)	Yes (at boundary)	No
Hydrogen sulphide - surface - 2001	71.4213(132.185m)	106.673(10.4403m)	No	Yes	0.766312(132.185m)	2.20013(10.4403m)	Yes (at boundary)	No
Hydrogen sulphide - surface - 2002	66.4949(132.185m)	99.3149(10.4403m)	No	Yes	0.713455(132.185m)	2.04837(10.4403m)	Yes (at boundary)	No
Hydrogen sulphide - surface - 2003	62.2098(132.185m)	92.9148(10.4403m)	No	Yes	0.667478(132.185m)	1.91637(10.4403m)	Yes (at boundary)	No
Hydrogen sulphide - surface - 2004	68.7597(132.185m)	102.698(10.4403m)	No	Yes	0.737755(132.185m)	2.11814(10.4403m)	Yes (at boundary)	No
Hydrogen sulphide - surface - 2005	150.385(13.0384m)	150.385(10.4403m)	No	Yes	3.10169(13.0384m)	3.10169(10.4403m)	No	No
Hydrogen sulphide - surface - 2006	210.236(13.0384m)	210.236(10.4403m)	No	Yes	4.33613(13.0384m)	4.33613(10.4403m)	No	No
Hydrogen sulphide - surface - 2007	245.173(13.0384m)	245.173(10.4403m)	No	Yes	5.05669(13.0384m)	5.05669(10.4403m)	No	No
Hydrogen sulphide - surface - 2008	319.849(13.0384m)	319.849(10.4403m)	No	Yes	6.59688(13.0384m)	6.59688(10.4403m)	No	No
Hydrogen sulphide - surface - 2009	343.644(13.0384m)	343.644(10.4403m)	No	Yes	7.08765(13.0384m)	7.08765(10.4403m)	No	No
Hydrogen sulphide - surface - 2010	289.032(13.0384m)	289.032(10.4403m)	No	Yes	5.96128(13.0384m)	5.96128(10.4403m)	No	No
Hydrogen sulphide - surface - 2011	215.493(13.0384m)	215.493(10.4403m)	No	Yes	4.44454(13.0384m)	4.44454(10.4403m)	No	No
Hydrogen sulphide - surface - 2012	100.639(13.0384m)	100.639(10.4403m)	No	Yes	2.07567(13.0384m)	2.07567(10.4403m)	No	No
Hydrogen sulphide - surface - 2013	92.2721(13.0384m)	92.2721(10.4403m)	No	Yes	1.90311(13.0384m)	1.90311(10.4403m)	No	No
Hydrogen sulphide - surface - 2014	122.745(13.0384m)	122.745(10.4403m)	No	Yes	2.53162(13.0384m)	2.53162(10.4403m)	No	No
Hydrogen sulphide - surface - 2015	148.282(13.0384m)	148.282(10.4403m)	No	Yes	3.05832(13.0384m)	3.05832(10.4403m)	No	No
Hydrogen sulphide - surface - 2016	149.741(13.0384m)	149.741(10.4403m)	No	Yes	3.08842(13.0384m)	3.08842(10.4403m)	No	No
Hydrogen sulphide - surface - 2017	139.361(13.0384m)	139.361(10.4403m)	No	Yes	2.87432(13.0384m)	2.87432(10.4403m)	No	No
Hydrogen sulphide - surface - 2018	151.569(13.0384m)	151.569(10.4403m)	No	Yes	3.12612(13.0384m)	3.12612(10.4403m)	No	No
Hydrogen sulphide - surface - 2019	197.397(13.0384m)	197.397(10.4403m)	No	Yes	4.07131(13.0384m)	4.07131(10.4403m)	No	No
Hydrogen sulphide - surface - 2020	219.572(13.0384m)	219.572(10.4403m)	No	Yes	4.52867(13.0384m)	4.52867(10.4403m)	No	No
Hydrogen sulphide - surface - 2021	232.272(13.0384m)	232.272(10.4403m)	No	Yes	4.79062(13.0384m)	4.79062(10.4403m)	No	No
Hydrogen sulphide - surface - 2022	258.471(13.0384m)	258.471(10.4403m)	No	Yes	5.33097(13.0384m)	5.33097(10.4403m)	No	No
Hydrogen sulphide - surface - 2023	334.421(13.0384m)	334.421(10.4403m)	No	Yes	6.89743(13.0384m)	6.89743(10.4403m)	No	No
Hydrogen sulphide - surface - 2024	148.896(13.0384m)	148.896(10.4403m)	No	Yes	3.07098(13.0384m)	3.07098(10.4403m)	No	No
Hydrogen sulphide - surface - 2025	145.098(13.0384m)	145.098(10.4403m)	No	Yes	2.99265(13.0384m)	2.99265(10.4403m)	No	No
Hydrogen sulphide - surface - 2026	112.04(13.0384m)	112.04(10.4403m)	No	Yes	2.31082(13.0384m)	2.31082(10.4403m)	No	No

	Short Term				Long term			
	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?
Hydrogen sulphide - surface - 2027	76.8986(13.0384m)	76.8986(10.4403m)	No	Yes	1.58603(13.0384m)	1.58603(10.4403m)	No	No
Hydrogen sulphide - surface - 2028	71.9324(13.0384m)	71.9324(10.4403m)	No	Yes	1.4836(13.0384m)	1.4836(10.4403m)	No	No
Hydrogen sulphide - surface - 2029	128.602(13.0384m)	128.602(10.4403m)	No	Yes	2.65242(13.0384m)	2.65242(10.4403m)	No	No
Hydrogen sulphide - surface - 2030	121.83(13.0384m)	121.83(10.4403m)	No	Yes	2.51275(13.0384m)	2.51275(10.4403m)	No	No
Hydrogen sulphide - surface - 2031	152.494(12m)	152.494(10.4403m)	No	Yes	3.14519(12m)	3.14519(10.4403m)	No	No
Hydrogen sulphide - surface - 2032	97.8758(12m)	97.8758(10.4403m)	No	Yes	2.01869(12m)	2.01869(10.4403m)	No	No
Hydrogen sulphide - surface - 2033	99.2381(10.6301m)	99.2381(10.4403m)	No	Yes	2.04679(10.6301m)	2.04679(10.4403m)	No	No
Hydrogen sulphide - surface - 2034	71.7164(10.6301m)	71.7164(10.4403m)	No	Yes	1.47915(10.6301m)	1.47915(10.4403m)	No	No
Hydrogen sulphide - surface - 2035	91.1269(9.43398m)	91.1269(10.4403m)	No	Yes	1.87949(9.43398m)	1.87949(10.4403m)	No	No
Hydrogen sulphide - surface - 2036	110.472(9.43398m)	110.472(10.4403m)	No	Yes	2.27848(9.43398m)	2.27848(10.4403m)	No	No
Hydrogen sulphide - surface - 2037	101.504(9.43398m)	101.504(10.4403m)	No	Yes	2.09352(9.43398m)	2.09352(10.4403m)	No	No
Hydrogen sulphide - surface - 2038	123.894(9.43398m)	123.894(10.4403m)	No	Yes	2.55531(9.43398m)	2.55531(10.4403m)	No	No
Hydrogen sulphide - surface - 2039	29.8533(9.43398m)	29.8533(10.4403m)	No	No	0.615724(9.43398m)	0.615724(10.4403m)	Yes	No
Methyl chloroform (1,1,1-Trichloroethane) - surface - 2007	530.249(13.0384m)	530.249(10.4403m)	No	No	10.9364(13.0384m)	10.9364(10.4403m)	No EAL	No EAL
Methyl chloroform (1,1,1-Trichloroethane) - surface - 2008	648.808(13.0384m)	648.808(10.4403m)	No	No	13.3817(13.0384m)	13.3817(10.4403m)	No EAL	No EAL
Methyl chloroform (1,1,1-Trichloroethane) - surface - 2009	685.532(13.0384m)	685.532(10.4403m)	No	No	14.1391(13.0384m)	14.1391(10.4403m)	No EAL	No EAL
Methyl chloroform (1,1,1-Trichloroethane) - surface - 2010	556.251(13.0384m)	556.251(10.4403m)	No	No	11.4727(13.0384m)	11.4727(10.4403m)	No EAL	No EAL
Methyl chloroform (1,1,1-Trichloroethane) - surface - 2023	593.363(13.0384m)	593.363(10.4403m)	No	No	12.2381(13.0384m)	12.2381(10.4403m)	No EAL	No EAL
Nitrogen oxides (NOx) - engine - 2011	3.93281(359.201m)	11.7038(136.565m)	Yes	No	0.786562(359.201m)	2.30543(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2012	8.87621(359.201m)	26.415(136.565m)	Yes (at boundary)	No	1.77524(359.201m)	5.20328(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2013	10.423(359.201m)	31.0182(136.565m)	Yes (at boundary)	No	2.0846(359.201m)	6.11003(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2014	8.66193(359.201m)	25.7773(136.565m)	Yes (at boundary)	No	1.73239(359.201m)	5.07767(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2015	7.99825(359.201m)	23.8023(136.565m)	Yes (at boundary)	No	1.59965(359.201m)	4.68862(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2016	7.20591(359.201m)	21.4443(136.565m)	Yes (at boundary)	No	1.44118(359.201m)	4.22415(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2017	6.5173(359.201m)	19.3951(136.565m)	Yes	No	1.30346(359.201m)	3.82048(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2018	5.90827(359.201m)	17.5826(136.565m)	Yes	No	1.18165(359.201m)	3.46346(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2019	5.36403(359.201m)	15.963(136.565m)	Yes	No	1.07281(359.201m)	3.14442(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2020	4.87474(359.201m)	14.5069(136.565m)	Yes	No	0.974948(359.201m)	2.8576(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2021	4.41904(359.201m)	13.1508(136.565m)	Yes	No	0.883807(359.201m)	2.59046(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2022	4.04885(359.201m)	12.0491(136.565m)	Yes	No	0.809771(359.201m)	2.37346(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2023	3.68609(359.201m)	10.9696(136.565m)	Yes	No	0.737219(359.201m)	2.16081(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2024	11.399(359.201m)	33.9228(136.565m)	Yes (at boundary)	No	2.2798(359.201m)	6.68217(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2025	12.4783(359.201m)	37.1345(136.565m)	Yes (at boundary)	No	2.49565(359.201m)	7.31482(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2026	13.0425(359.201m)	38.8136(136.565m)	Yes (at boundary)	No	2.6085(359.201m)	7.64558(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2027	13.007(359.201m)	38.708(136.565m)	Yes (at boundary)	No	2.6014(359.201m)	7.62478(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2028	13.0397(359.201m)	38.8053(136.565m)	Yes (at boundary)	No	2.60794(359.201m)	7.64395(136.565m)	No	No

	Short Term				Long term			
	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?
Nitrogen oxides (NOx) - engine - 2029	13.038(359.201m)	38.8002(136.565m)	Yes (at boundary)	No	2.6076(359.201m)	7.64294(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2030	13.044(359.201m)	38.8182(136.565m)	Yes (at boundary)	No	2.60881(359.201m)	7.64648(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2031	13.0361(359.201m)	38.7946(136.565m)	Yes (at boundary)	No	2.60722(359.201m)	7.64182(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2032	13.0465(359.201m)	38.8256(136.565m)	Yes (at boundary)	No	2.6093(359.201m)	7.64793(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2033	13.0433(359.201m)	38.8159(136.565m)	Yes (at boundary)	No	2.60865(359.201m)	7.64604(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2034	13.0441(359.201m)	38.8185(136.565m)	Yes (at boundary)	No	2.60883(359.201m)	7.64654(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2035	13.045(359.201m)	38.8212(136.565m)	Yes (at boundary)	No	2.609(359.201m)	7.64706(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2036	13.0465(359.201m)	38.8255(136.565m)	Yes (at boundary)	No	2.6093(359.201m)	7.64791(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2037	13.0433(359.201m)	38.816(136.565m)	Yes (at boundary)	No	2.60866(359.201m)	7.64605(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2038	13.0472(359.201m)	38.8275(136.565m)	Yes (at boundary)	No	2.60943(359.201m)	7.64831(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2039	13.0441(359.201m)	38.8185(136.565m)	Yes (at boundary)	No	2.60883(359.201m)	7.64654(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2040	13.0478(359.201m)	38.8293(136.565m)	Yes (at boundary)	No	2.60955(359.201m)	7.64867(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2041	12.9578(359.201m)	38.5617(136.565m)	Yes (at boundary)	No	2.59157(359.201m)	7.59595(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2042	12.2543(359.201m)	36.4679(136.565m)	Yes (at boundary)	No	2.45085(359.201m)	7.18352(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2043	10.964(359.201m)	32.6283(136.565m)	Yes (at boundary)	No	2.19281(359.201m)	6.42717(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2044	8.7322(359.201m)	25.9865(136.565m)	Yes (at boundary)	No	1.74644(359.201m)	5.11887(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2045	8.43704(359.201m)	25.1081(136.565m)	Yes (at boundary)	No	1.68741(359.201m)	4.94584(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2046	7.66345(359.201m)	22.8059(136.565m)	Yes (at boundary)	No	1.53269(359.201m)	4.49236(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2047	6.96021(359.201m)	20.7131(136.565m)	Yes (at boundary)	No	1.39204(359.201m)	4.08011(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2048	6.32675(359.201m)	18.828(136.565m)	Yes	No	1.26535(359.201m)	3.70877(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2049	5.75459(359.201m)	17.1253(136.565m)	Yes	No	1.15092(359.201m)	3.37337(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2050	5.23694(359.201m)	15.5848(136.565m)	Yes	No	1.04739(359.201m)	3.06992(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2051	4.76808(359.201m)	14.1895(136.565m)	Yes	No	0.953615(359.201m)	2.79507(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2052	4.33432(359.201m)	12.8987(136.565m)	Yes	No	0.866864(359.201m)	2.5408(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2053	3.9557(359.201m)	11.7719(136.565m)	Yes	No	0.79114(359.201m)	2.31885(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2054	3.60608(359.201m)	10.7315(136.565m)	Yes	No	0.721215(359.201m)	2.1139(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2055	3.28865(359.201m)	9.7868(136.565m)	Yes	No	0.657729(359.201m)	1.92782(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2056	3.00032(359.201m)	8.92875(136.565m)	Yes	No	0.600063(359.201m)	1.7588(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2057	2.73831(359.201m)	8.14905(136.565m)	Yes	No	0.547663(359.201m)	1.60521(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2058	2.50013(359.201m)	7.44024(136.565m)	Yes	No	0.500027(359.201m)	1.46559(136.565m)	No	No
Nitrogen oxides (NOx) - engine - 2059	2.28353(359.201m)	6.79562(136.565m)	Yes	No	0.456705(359.201m)	1.33861(136.565m)	No	No
Sulphur dioxide - engine - 2012	11.7875(359.201m)	35.0788(136.565m)	Yes (at boundary)	No	1.17875(359.201m)	3.45494(136.565m)	No EAL	No EAL
Sulphur dioxide 15 min - engine - 2012	15.7952(359.201m)	47.0056(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 24 hour - engine - 2012	6.95462(359.201m)	20.6965(136.565m)	Yes (at boundary)	No				
Sulphur dioxide - engine - 2013	13.8416(359.201m)	41.1918(136.565m)	Yes (at boundary)	No	1.38416(359.201m)	4.05702(136.565m)	No EAL	No EAL
Sulphur dioxide 15 min - engine - 2013	18.5478(359.201m)	55.197(136.565m)	Yes (at boundary)	No				

	Short Term				Long term			
	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?
Sulphur dioxide 24 hour - engine - 2013	8.16656(359.201m)	24.3031(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 15 min - engine - 2014	15.4139(359.201m)	45.8708(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 24 hour - engine - 2014	6.78673(359.201m)	20.1969(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 15 min - engine - 2015	14.2329(359.201m)	42.3562(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 24 hour - engine - 2015	6.26673(359.201m)	18.6494(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 15 min - engine - 2016	12.8229(359.201m)	38.1603(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 24 hour - engine - 2016	5.64592(359.201m)	16.8019(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 15 min - engine - 2017	11.5976(359.201m)	34.5136(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 24 hour - engine - 2017	5.10638(359.201m)	15.1963(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 15 min - engine - 2018	10.5138(359.201m)	31.2883(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 24 hour - engine - 2018	4.6292(359.201m)	13.7762(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 15 min - engine - 2019	9.5453(359.201m)	28.4062(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 24 hour - engine - 2019	4.20278(359.201m)	12.5072(136.565m)	Yes (at boundary)	No				
Sulphur dioxide - engine - 2024	15.1377(359.201m)	45.049(136.565m)	Yes (at boundary)	No	1.51377(359.201m)	4.43692(136.565m)	No EAL	No EAL
Sulphur dioxide 15 min - engine - 2024	20.2846(359.201m)	60.3656(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 24 hour - engine - 2024	8.93127(359.201m)	26.5789(136.565m)	Yes (at boundary)	No				
Sulphur dioxide - engine - 2025	16.571(359.201m)	49.3141(136.565m)	Yes (at boundary)	No	1.6571(359.201m)	4.85699(136.565m)	No EAL	No EAL
Sulphur dioxide 15 min - engine - 2025	22.2051(359.201m)	66.0809(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 24 hour - engine - 2025	9.77687(359.201m)	29.0953(136.565m)	Yes (at boundary)	No				
Sulphur dioxide - engine - 2026	17.3203(359.201m)	51.544(136.565m)	Yes (at boundary)	No	1.73203(359.201m)	5.07662(136.565m)	No EAL	No EAL
Sulphur dioxide 15 min - engine - 2026	23.2092(359.201m)	69.069(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 24 hour - engine - 2026	10.219(359.201m)	30.411(136.565m)	Yes (at boundary)	No				
Sulphur dioxide - engine - 2027	17.2731(359.201m)	51.4038(136.565m)	Yes (at boundary)	No	1.72731(359.201m)	5.0628(136.565m)	No EAL	No EAL
Sulphur dioxide 15 min - engine - 2027	23.146(359.201m)	68.881(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 24 hour - engine - 2027	10.1912(359.201m)	30.3282(136.565m)	Yes (at boundary)	No				
Sulphur dioxide - engine - 2028	17.3166(359.201m)	51.533(136.565m)	Yes (at boundary)	No	1.73166(359.201m)	5.07553(136.565m)	No EAL	No EAL
Sulphur dioxide 15 min - engine - 2028	23.2042(359.201m)	69.0542(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 24 hour - engine - 2028	10.2168(359.201m)	30.4044(136.565m)	Yes (at boundary)	No				
Sulphur dioxide - engine - 2029	17.3143(359.201m)	51.5262(136.565m)	Yes (at boundary)	No	1.73143(359.201m)	5.07486(136.565m)	No EAL	No EAL
Sulphur dioxide 15 min - engine - 2029	23.2011(359.201m)	69.0451(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 24 hour - engine - 2029	10.2154(359.201m)	30.4005(136.565m)	Yes (at boundary)	No				
Sulphur dioxide - engine - 2030	17.3223(359.201m)	51.5501(136.565m)	Yes (at boundary)	No	1.73223(359.201m)	5.07721(136.565m)	No EAL	No EAL
Sulphur dioxide 15 min - engine - 2030	23.2119(359.201m)	69.0771(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 24 hour - engine - 2030	10.2202(359.201m)	30.4145(136.565m)	Yes (at boundary)	No				
Sulphur dioxide - engine - 2031	17.3118(359.201m)	51.5187(136.565m)	Yes (at boundary)	No	1.73118(359.201m)	5.07412(136.565m)	No EAL	No EAL
Sulphur dioxide 15 min - engine - 2031	23.1977(359.201m)	69.035(136.565m)	Yes (at boundary)	No				

	Short Term				Long term			
	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?
Sulphur dioxide 24 hour - engine - 2031	10.2139(359.201m)	30.396(136.565m)	Yes (at boundary)	No				
Sulphur dioxide - engine - 2032	17.3256(359.201m)	51.5598(136.565m)	Yes (at boundary)	No	1.73256(359.201m)	5.07818(136.565m)	No EAL	No EAL
Sulphur dioxide 15 min - engine - 2032	23.2163(359.201m)	69.0902(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 24 hour - engine - 2032	10.2221(359.201m)	30.4203(136.565m)	Yes (at boundary)	No				
Sulphur dioxide - engine - 2033	17.3213(359.201m)	51.5471(136.565m)	Yes (at boundary)	No	1.73213(359.201m)	5.07692(136.565m)	No EAL	No EAL
Sulphur dioxide 15 min - engine - 2033	23.2105(359.201m)	69.0731(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 24 hour - engine - 2033	10.2196(359.201m)	30.4128(136.565m)	Yes (at boundary)	No				
Sulphur dioxide - engine - 2034	17.3224(359.201m)	51.5504(136.565m)	Yes (at boundary)	No	1.73224(359.201m)	5.07725(136.565m)	No EAL	No EAL
Sulphur dioxide 15 min - engine - 2034	23.2121(359.201m)	69.0776(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 24 hour - engine - 2034	10.2202(359.201m)	30.4148(136.565m)	Yes (at boundary)	No				
Sulphur dioxide - engine - 2035	17.3236(359.201m)	51.554(136.565m)	Yes (at boundary)	No	1.73236(359.201m)	5.0776(136.565m)	No EAL	No EAL
Sulphur dioxide 15 min - engine - 2035	23.2136(359.201m)	69.0823(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 24 hour - engine - 2035	10.2209(359.201m)	30.4168(136.565m)	Yes (at boundary)	No				
Sulphur dioxide - engine - 2036	17.3255(359.201m)	51.5597(136.565m)	Yes (at boundary)	No	1.73255(359.201m)	5.07816(136.565m)	No EAL	No EAL
Sulphur dioxide 15 min - engine - 2036	23.2162(359.201m)	69.09(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 24 hour - engine - 2036	10.2221(359.201m)	30.4202(136.565m)	Yes (at boundary)	No				
Sulphur dioxide - engine - 2037	17.3213(359.201m)	51.5471(136.565m)	Yes (at boundary)	No	1.73213(359.201m)	5.07692(136.565m)	No EAL	No EAL
Sulphur dioxide 15 min - engine - 2037	23.2106(359.201m)	69.0731(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 24 hour - engine - 2037	10.2196(359.201m)	30.4128(136.565m)	Yes (at boundary)	No				
Sulphur dioxide - engine - 2038	17.3265(359.201m)	51.5624(136.565m)	Yes (at boundary)	No	1.73265(359.201m)	5.07843(136.565m)	No EAL	No EAL
Sulphur dioxide 15 min - engine - 2038	23.2174(359.201m)	69.0936(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 24 hour - engine - 2038	10.2226(359.201m)	30.4218(136.565m)	Yes (at boundary)	No				
Sulphur dioxide - engine - 2039	17.3224(359.201m)	51.5505(136.565m)	Yes (at boundary)	No	1.73224(359.201m)	5.07725(136.565m)	No EAL	No EAL
Sulphur dioxide 15 min - engine - 2039	23.2121(359.201m)	69.0776(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 24 hour - engine - 2039	10.2202(359.201m)	30.4148(136.565m)	Yes (at boundary)	No				
Sulphur dioxide - engine - 2040	17.3273(359.201m)	51.5648(136.565m)	Yes (at boundary)	No	1.73273(359.201m)	5.07867(136.565m)	No EAL	No EAL
Sulphur dioxide 15 min - engine - 2040	23.2185(359.201m)	69.0969(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 24 hour - engine - 2040	10.2231(359.201m)	30.4232(136.565m)	Yes (at boundary)	No				
Sulphur dioxide - engine - 2041	17.2078(359.201m)	51.2094(136.565m)	Yes (at boundary)	No	1.72078(359.201m)	5.04366(136.565m)	No EAL	No EAL
Sulphur dioxide 15 min - engine - 2041	23.0585(359.201m)	68.6206(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 24 hour - engine - 2041	10.1526(359.201m)	30.2135(136.565m)	Yes (at boundary)	No				
Sulphur dioxide - engine - 2042	16.2735(359.201m)	48.4289(136.565m)	Yes (at boundary)	No	1.62735(359.201m)	4.76981(136.565m)	No EAL	No EAL
Sulphur dioxide 15 min - engine - 2042	21.8065(359.201m)	64.8947(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 24 hour - engine - 2042	9.60137(359.201m)	28.573(136.565m)	Yes (at boundary)	No				
Sulphur dioxide - engine - 2043	14.5601(359.201m)	43.3299(136.565m)	Yes (at boundary)	No	1.45601(359.201m)	4.2676(136.565m)	No EAL	No EAL
Sulphur dioxide 15 min - engine - 2043	19.5105(359.201m)	58.0621(136.565m)	Yes (at boundary)	No				

	Short Term				Long term			
	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?
Sulphur dioxide 24 hour - engine - 2043	8.59045(359.201m)	25.5646(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 15 min - engine - 2044	15.539(359.201m)	46.243(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 24 hour - engine - 2044	6.84179(359.201m)	20.3607(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 15 min - engine - 2045	15.0137(359.201m)	44.6799(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 24 hour - engine - 2045	6.61052(359.201m)	19.6725(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 15 min - engine - 2046	13.6371(359.201m)	40.5832(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 24 hour - engine - 2046	6.00441(359.201m)	17.8687(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 15 min - engine - 2047	12.3857(359.201m)	36.8591(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 24 hour - engine - 2047	5.45341(359.201m)	16.229(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 15 min - engine - 2048	11.2585(359.201m)	33.5045(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 24 hour - engine - 2048	4.95708(359.201m)	14.752(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 15 min - engine - 2049	10.2403(359.201m)	30.4745(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 24 hour - engine - 2049	4.50879(359.201m)	13.4179(136.565m)	Yes (at boundary)	No				
Sulphur dioxide 15 min - engine - 2050	9.31914(359.201m)	27.7332(136.565m)	Yes (at boundary)	No				
Tetrachloroethylene (Tetrachloroethene) - surface - 1981	6.17542(132.185m)	9.22342(10.4403m)	No	No	0.0662589(132.185m)	0.190233(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 1982	24.6772(132.185m)	36.8572(10.4403m)	No	Yes	0.264774(132.185m)	0.760179(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 1983	35.9395(132.185m)	53.6783(10.4403m)	No	Yes	0.385612(132.185m)	1.10711(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 1984	42.8451(132.185m)	63.9922(10.4403m)	No	Yes	0.459705(132.185m)	1.31984(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 1985	50.4506(132.185m)	75.3515(10.4403m)	No	Yes	0.541308(132.185m)	1.55412(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 1986	56.7055(132.185m)	84.6937(10.4403m)	No	Yes	0.60842(132.185m)	1.74681(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 1987	61.7063(132.185m)	92.1628(10.4403m)	No	Yes	0.662076(132.185m)	1.90086(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 1988	63.7307(132.185m)	95.1864(10.4403m)	No	Yes	0.683797(132.185m)	1.96322(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 1989	63.9229(132.185m)	95.4734(10.4403m)	No	Yes	0.685859(132.185m)	1.96914(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 1990	65.3993(132.185m)	97.6785(10.4403m)	No	Yes	0.7017(132.185m)	2.01462(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 1991	67.4482(132.185m)	100.739(10.4403m)	No	Yes	0.723683(132.185m)	2.07773(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 1992	68.3191(132.185m)	102.039(10.4403m)	No	Yes	0.733028(132.185m)	2.10456(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 1993	70.9592(132.185m)	105.983(10.4403m)	No	Yes	0.761354(132.185m)	2.18589(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 1994	71.6358(132.185m)	106.993(10.4403m)	No	Yes	0.768615(132.185m)	2.20674(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 1995	70.1047(132.185m)	104.706(10.4403m)	No	Yes	0.752186(132.185m)	2.15957(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 1996	69.5943(132.185m)	103.944(10.4403m)	No	Yes	0.74671(132.185m)	2.14385(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 1997	70.2974(132.185m)	104.994(10.4403m)	No	Yes	0.754254(132.185m)	2.1655(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 1998	70.0925(132.185m)	104.688(10.4403m)	No	Yes	0.752056(132.185m)	2.15919(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 1999	71.6707(132.185m)	107.045(10.4403m)	No	Yes	0.768989(132.185m)	2.20781(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2000	71.99(132.185m)	107.522(10.4403m)	No	Yes	0.772415(132.185m)	2.21764(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2001	98.4524(132.185m)	147.046(10.4403m)	No	Yes	1.05634(132.185m)	3.03282(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2002	89.211(132.185m)	133.243(10.4403m)	No	Yes	0.957187(132.185m)	2.74814(10.4403m)	No EAL	No EAL

	Short Term				Long term			
	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?
Tetrachloroethylene (Tetrachloroethene) - surface - 2003	102.579(132.185m)	153.208(10.4403m)	No	Yes	1.10061(132.185m)	3.15993(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2004	115.97(132.185m)	173.21(10.4403m)	No	Yes	1.2443(132.185m)	3.57246(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2005	282.658(13.0384m)	282.658(10.4403m)	No	Yes	5.82982(13.0384m)	5.82982(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2006	530.598(13.0384m)	530.598(10.4403m)	No	Yes	10.9436(13.0384m)	10.9436(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2007	823.097(13.0384m)	823.097(10.4403m)	No	Yes	16.9764(13.0384m)	16.9764(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2008	657.319(13.0384m)	657.319(10.4403m)	No	Yes	13.5572(13.0384m)	13.5572(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2009	512.093(13.0384m)	512.093(10.4403m)	No	Yes	10.5619(13.0384m)	10.5619(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2010	258.653(13.0384m)	258.653(10.4403m)	No	Yes	5.33472(13.0384m)	5.33472(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2011	208.505(13.0384m)	208.505(10.4403m)	No	Yes	4.30042(13.0384m)	4.30042(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2012	184.293(13.0384m)	184.293(10.4403m)	No	Yes	3.80105(13.0384m)	3.80105(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2013	144.986(13.0384m)	144.986(10.4403m)	No	Yes	2.99034(13.0384m)	2.99034(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2014	199.114(13.0384m)	199.114(10.4403m)	No	Yes	4.10673(13.0384m)	4.10673(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2015	226.341(13.0384m)	226.341(10.4403m)	No	Yes	4.66829(13.0384m)	4.66829(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2016	180.021(13.0384m)	180.021(10.4403m)	No	Yes	3.71293(13.0384m)	3.71293(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2017	141.35(13.0384m)	141.35(10.4403m)	No	Yes	2.91535(13.0384m)	2.91535(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2018	134.694(13.0384m)	134.694(10.4403m)	No	Yes	2.77806(13.0384m)	2.77806(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2019	176.803(13.0384m)	176.803(10.4403m)	No	Yes	3.64656(13.0384m)	3.64656(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2020	195.154(13.0384m)	195.154(10.4403m)	No	Yes	4.02504(13.0384m)	4.02504(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2021	207.01(13.0384m)	207.01(10.4403m)	No	Yes	4.26959(13.0384m)	4.26959(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2022	229.971(13.0384m)	229.971(10.4403m)	No	Yes	4.74316(13.0384m)	4.74316(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2023	284.865(13.0384m)	284.865(10.4403m)	No	Yes	5.87534(13.0384m)	5.87534(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2024	174.897(13.0384m)	174.897(10.4403m)	No	Yes	3.60726(13.0384m)	3.60726(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2025	94.214(13.0384m)	94.214(10.4403m)	No	Yes	1.94316(13.0384m)	1.94316(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2026	165.801(13.0384m)	165.801(10.4403m)	No	Yes	3.41964(13.0384m)	3.41964(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2027	137.679(13.0384m)	137.679(10.4403m)	No	Yes	2.83964(13.0384m)	2.83964(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2028	141.948(13.0384m)	141.948(10.4403m)	No	Yes	2.92768(13.0384m)	2.92768(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2029	246.458(13.0384m)	246.458(10.4403m)	No	Yes	5.08319(13.0384m)	5.08319(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2030	94.2624(13.0384m)	94.2624(10.4403m)	No	Yes	1.94416(13.0384m)	1.94416(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2031	160.895(12m)	160.895(10.4403m)	No	Yes	3.31846(12m)	3.31846(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2032	224.907(12m)	224.907(10.4403m)	No	Yes	4.6387(12m)	4.6387(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2033	158.278(10.6301m)	158.278(10.4403m)	No	Yes	3.26448(10.6301m)	3.26448(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2034	136.428(10.6301m)	136.428(10.4403m)	No	Yes	2.81383(10.6301m)	2.81383(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2035	131.18(9.43398m)	131.18(10.4403m)	No	Yes	2.7056(9.43398m)	2.7056(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2036	145.602(9.43398m)	145.602(10.4403m)	No	Yes	3.00305(9.43398m)	3.00305(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2037	175.588(9.43398m)	175.588(10.4403m)	No	Yes	3.6215(9.43398m)	3.6215(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2038	124.773(9.43398m)	124.773(10.4403m)	No	Yes	2.57344(9.43398m)	2.57344(10.4403m)	No EAL	No EAL

	Short Term				Long term			
	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?
Tetrachloroethylene (Tetrachloroethene) - surface - 2039	35.6695(9.43398m)	35.6695(10.4403m)	No	Yes	0.735684(9.43398m)	0.735684(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2040	28.1917(9.43398m)	28.1917(10.4403m)	No	Yes	0.581454(9.43398m)	0.581454(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2041	18.8552(9.43398m)	18.8552(10.4403m)	No	Yes	0.388888(9.43398m)	0.388888(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2042	12.4115(9.43398m)	12.4115(10.4403m)	No	Yes	0.255987(9.43398m)	0.255987(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2043	20.572(9.43398m)	20.572(10.4403m)	No	Yes	0.424297(9.43398m)	0.424297(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2044	15.3168(9.43398m)	15.3168(10.4403m)	No	Yes	0.31591(9.43398m)	0.31591(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2045	10.41(9.43398m)	10.41(10.4403m)	No	Yes	0.214706(9.43398m)	0.214706(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2046	7.91962(9.43398m)	7.91962(10.4403m)	No	No	0.163342(9.43398m)	0.163342(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2047	6.04535(9.43398m)	6.04535(10.4403m)	No	No	0.124685(9.43398m)	0.124685(10.4403m)	No EAL	No EAL
Tetrachloroethylene (Tetrachloroethene) - surface - 2048	4.76676(9.43398m)	4.76676(10.4403m)	No	No	0.0983145(9.43398m)	0.0983145(10.4403m)	No EAL	No EAL
Trichloroethylene (trichloroethene) - surface - 1981	1.15558(132.185m)	1.72594(10.4403m)	No EAL	No EAL	0.0123988(132.185m)	0.0355975(10.4403m)	Yes (at boundary)	No
Trichloroethylene (trichloroethene) - surface - 1982	4.70269(132.185m)	7.02381(10.4403m)	No EAL	No EAL	0.0504574(132.185m)	0.144866(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 1983	7.13139(132.185m)	10.6512(10.4403m)	No EAL	No EAL	0.076516(132.185m)	0.219682(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 1984	8.58056(132.185m)	12.8157(10.4403m)	No EAL	No EAL	0.0920649(132.185m)	0.264323(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 1985	9.2649(132.185m)	13.8378(10.4403m)	No EAL	No EAL	0.0994075(132.185m)	0.285404(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 1986	9.88962(132.185m)	14.7708(10.4403m)	No EAL	No EAL	0.10611(132.185m)	0.304649(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 1987	10.3103(132.185m)	15.3992(10.4403m)	No EAL	No EAL	0.110624(132.185m)	0.317609(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 1988	10.7239(132.185m)	16.0168(10.4403m)	No EAL	No EAL	0.115061(132.185m)	0.330347(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 1989	11.2651(132.185m)	16.8252(10.4403m)	No EAL	No EAL	0.120869(132.185m)	0.347021(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 1990	11.8181(132.185m)	17.6512(10.4403m)	No EAL	No EAL	0.126802(132.185m)	0.364057(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 1991	12.0689(132.185m)	18.0258(10.4403m)	No EAL	No EAL	0.129493(132.185m)	0.371781(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 1992	12.2173(132.185m)	18.2474(10.4403m)	No EAL	No EAL	0.131085(132.185m)	0.376352(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 1993	12.4674(132.185m)	18.6209(10.4403m)	No EAL	No EAL	0.133768(132.185m)	0.384056(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 1994	12.4519(132.185m)	18.5978(10.4403m)	No EAL	No EAL	0.133602(132.185m)	0.383579(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 1995	12.5159(132.185m)	18.6934(10.4403m)	No EAL	No EAL	0.134289(132.185m)	0.385551(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 1996	13.0696(132.185m)	19.5203(10.4403m)	No EAL	No EAL	0.140229(132.185m)	0.402606(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 1997	12.8675(132.185m)	19.2185(10.4403m)	No EAL	No EAL	0.138061(132.185m)	0.396382(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 1998	12.614(132.185m)	18.8399(10.4403m)	No EAL	No EAL	0.135341(132.185m)	0.388573(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 1999	12.5144(132.185m)	18.6912(10.4403m)	No EAL	No EAL	0.134273(132.185m)	0.385505(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2000	12.5509(132.185m)	18.7456(10.4403m)	No EAL	No EAL	0.134664(132.185m)	0.386629(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2001	9.07435(132.185m)	13.5532(10.4403m)	No EAL	No EAL	0.0973629(132.185m)	0.279534(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2002	10.1292(132.185m)	15.1287(10.4403m)	No EAL	No EAL	0.108681(132.185m)	0.31203(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2003	9.71776(132.185m)	14.5142(10.4403m)	No EAL	No EAL	0.104266(132.185m)	0.299355(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2004	10.3613(132.185m)	15.4754(10.4403m)	No EAL	No EAL	0.111171(132.185m)	0.319179(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2005	25.199(13.0384m)	25.199(10.4403m)	No EAL	No EAL	0.519729(13.0384m)	0.519729(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2006	36.0523(13.0384m)	36.0523(10.4403m)	No EAL	No EAL	0.743578(13.0384m)	0.743578(10.4403m)	No	No

	Short Term				Long term			
	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?
Trichloroethylene (trichloroethene) - surface - 2007	39.7495(13.0384m)	39.7495(10.4403m)	No EAL	No EAL	0.819833(13.0384m)	0.819833(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2008	49.0002(13.0384m)	49.0002(10.4403m)	No EAL	No EAL	1.01063(13.0384m)	1.01063(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2009	53.6249(13.0384m)	53.6249(10.4403m)	No EAL	No EAL	1.10601(13.0384m)	1.10601(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2010	44.2156(13.0384m)	44.2156(10.4403m)	No EAL	No EAL	0.911948(13.0384m)	0.911948(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2011	32.5999(13.0384m)	32.5999(10.4403m)	No EAL	No EAL	0.672373(13.0384m)	0.672373(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2012	11.9414(13.0384m)	11.9414(10.4403m)	No EAL	No EAL	0.246292(13.0384m)	0.246292(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2013	9.74137(13.0384m)	9.74137(10.4403m)	No EAL	No EAL	0.200916(13.0384m)	0.200916(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2014	11.628(13.0384m)	11.628(10.4403m)	No EAL	No EAL	0.239828(13.0384m)	0.239828(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2015	13.7406(13.0384m)	13.7406(10.4403m)	No EAL	No EAL	0.2834(13.0384m)	0.2834(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2016	14.0443(13.0384m)	14.0443(10.4403m)	No EAL	No EAL	0.289663(13.0384m)	0.289663(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2017	13.6223(13.0384m)	13.6223(10.4403m)	No EAL	No EAL	0.28096(13.0384m)	0.28096(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2018	14.6912(13.0384m)	14.6912(10.4403m)	No EAL	No EAL	0.303006(13.0384m)	0.303006(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2019	18.1828(13.0384m)	18.1828(10.4403m)	No EAL	No EAL	0.375019(13.0384m)	0.375019(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2020	20.5848(13.0384m)	20.5848(10.4403m)	No EAL	No EAL	0.424562(13.0384m)	0.424562(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2021	22.2339(13.0384m)	22.2339(10.4403m)	No EAL	No EAL	0.458574(13.0384m)	0.458574(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2022	23.8956(13.0384m)	23.8956(10.4403m)	No EAL	No EAL	0.492847(13.0384m)	0.492847(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2023	30.8086(13.0384m)	30.8086(10.4403m)	No EAL	No EAL	0.635427(13.0384m)	0.635427(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2024	18.2991(13.0384m)	18.2991(10.4403m)	No EAL	No EAL	0.377419(13.0384m)	0.377419(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2025	19.4256(13.0384m)	19.4256(10.4403m)	No EAL	No EAL	0.400652(13.0384m)	0.400652(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2026	11.451(13.0384m)	11.451(10.4403m)	No EAL	No EAL	0.236176(13.0384m)	0.236176(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2027	7.43735(13.0384m)	7.43735(10.4403m)	No EAL	No EAL	0.153395(13.0384m)	0.153395(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2028	7.56062(13.0384m)	7.56062(10.4403m)	No EAL	No EAL	0.155938(13.0384m)	0.155938(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2029	14.22(13.0384m)	14.22(10.4403m)	No EAL	No EAL	0.293287(13.0384m)	0.293287(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2030	11.8966(13.0384m)	11.8966(10.4403m)	No EAL	No EAL	0.245366(13.0384m)	0.245366(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2031	14.4884(12m)	14.4884(10.4403m)	No EAL	No EAL	0.298824(12m)	0.298824(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2032	11.6566(12m)	11.6566(10.4403m)	No EAL	No EAL	0.240417(12m)	0.240417(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2033	8.02633(10.6301m)	8.02633(10.4403m)	No EAL	No EAL	0.165543(10.6301m)	0.165543(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2034	10.0362(10.6301m)	10.0362(10.4403m)	No EAL	No EAL	0.206997(10.6301m)	0.206997(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2035	14.1478(9.43398m)	14.1478(10.4403m)	No EAL	No EAL	0.291797(9.43398m)	0.291797(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2036	12.511(9.43398m)	12.511(10.4403m)	No EAL	No EAL	0.258039(9.43398m)	0.258039(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2037	12.0012(9.43398m)	12.0012(10.4403m)	No EAL	No EAL	0.247525(9.43398m)	0.247525(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2038	13.6242(9.43398m)	13.6242(10.4403m)	No EAL	No EAL	0.280999(9.43398m)	0.280999(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2039	2.75827(9.43398m)	2.75827(10.4403m)	No EAL	No EAL	0.0568892(9.43398m)	0.0568892(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2040	1.07802(9.43398m)	1.07802(10.4403m)	No EAL	No EAL	0.0222342(9.43398m)	0.0222342(10.4403m)	No	No
Trichloroethylene (trichloroethene) - surface - 2041	0.998141(9.43398m)	0.998141(10.4403m)	No EAL	No EAL	0.0205867(9.43398m)	0.0205867(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 1981	10.9945(132.185m)	16.421(10.4403m)	Yes	No	0.117965(132.185m)	0.338683(10.4403m)	No	No

	Short Term				Long term			
	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?
Vinyl chloride (chloroethene, chloroethylene) - surface - 1982	41.0431(132.185m)	61.3007(10.4403m)	Yes	No	0.44037(132.185m)	1.26433(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 1983	56.5753(132.185m)	84.4992(10.4403m)	Yes	No	0.607023(132.185m)	1.7428(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 1984	73.4543(132.185m)	109.709(10.4403m)	Yes	No	0.788126(132.185m)	2.26275(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 1985	83.5543(132.185m)	124.794(10.4403m)	Yes	No	0.896494(132.185m)	2.57388(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 1986	83.7077(132.185m)	125.023(10.4403m)	Yes	No	0.898139(132.185m)	2.57861(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 1987	85.9923(132.185m)	128.436(10.4403m)	Yes	No	0.922652(132.185m)	2.64899(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 1988	89.1797(132.185m)	133.196(10.4403m)	Yes (at boundary)	No	0.956851(132.185m)	2.74717(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 1989	93.0431(132.185m)	138.967(10.4403m)	Yes (at boundary)	No	0.998304(132.185m)	2.86619(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 1990	94.8849(132.185m)	141.717(10.4403m)	Yes (at boundary)	No	1.01806(132.185m)	2.92292(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 1991	92.9663(132.185m)	138.852(10.4403m)	Yes (at boundary)	No	0.997479(132.185m)	2.86382(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 1992	94.2413(132.185m)	140.756(10.4403m)	Yes (at boundary)	No	1.01116(132.185m)	2.90309(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 1993	95.4849(132.185m)	142.613(10.4403m)	Yes (at boundary)	No	1.0245(132.185m)	2.9414(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 1994	95.278(132.185m)	142.304(10.4403m)	Yes (at boundary)	No	1.02228(132.185m)	2.93503(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 1995	95.5684(132.185m)	142.738(10.4403m)	Yes (at boundary)	No	1.0254(132.185m)	2.94397(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 1996	94.7134(132.185m)	141.461(10.4403m)	Yes (at boundary)	No	1.01623(132.185m)	2.91764(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 1997	97.2665(132.185m)	145.274(10.4403m)	Yes (at boundary)	No	1.04362(132.185m)	2.99628(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 1998	99.4452(132.185m)	148.528(10.4403m)	Yes (at boundary)	No	1.06699(132.185m)	3.0634(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 1999	98.5957(132.185m)	147.26(10.4403m)	Yes (at boundary)	No	1.05788(132.185m)	3.03723(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2000	96.164(132.185m)	143.628(10.4403m)	Yes (at boundary)	No	1.03179(132.185m)	2.96232(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2001	87.7774(132.185m)	131.102(10.4403m)	Yes (at boundary)	No	0.941805(132.185m)	2.70397(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2002	78.6484(132.185m)	117.467(10.4403m)	Yes	No	0.843856(132.185m)	2.42276(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2003	81.361(132.185m)	121.518(10.4403m)	Yes	No	0.87296(132.185m)	2.50632(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2004	79.5833(132.185m)	118.863(10.4403m)	Yes	No	0.853887(132.185m)	2.45156(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2005	182.773(13.0384m)	182.773(10.4403m)	No	No	3.76969(13.0384m)	3.76969(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2006	246.754(13.0384m)	246.754(10.4403m)	No	No	5.0893(13.0384m)	5.0893(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2007	307.897(13.0384m)	307.897(10.4403m)	No	Yes	6.35038(13.0384m)	6.35038(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2008	391.126(13.0384m)	391.126(10.4403m)	No	Yes	8.06698(13.0384m)	8.06698(10.4403m)	No	Yes
Vinyl chloride (chloroethene, chloroethylene) - surface - 2009	407.613(13.0384m)	407.613(10.4403m)	No	Yes	8.40703(13.0384m)	8.40703(10.4403m)	No	Yes
Vinyl chloride (chloroethene, chloroethylene) - surface - 2010	313.77(13.0384m)	313.77(10.4403m)	No	Yes	6.47151(13.0384m)	6.47151(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2011	247.731(13.0384m)	247.731(10.4403m)	No	No	5.10945(13.0384m)	5.10945(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2012	104.995(13.0384m)	104.995(10.4403m)	Yes	No	2.16552(13.0384m)	2.16552(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2013	99.2495(13.0384m)	99.2495(10.4403m)	Yes	No	2.04702(13.0384m)	2.04702(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2014	132.148(13.0384m)	132.148(10.4403m)	No	No	2.72556(13.0384m)	2.72556(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2015	156.255(13.0384m)	156.255(10.4403m)	No	No	3.22275(13.0384m)	3.22275(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2016	159.358(13.0384m)	159.358(10.4403m)	No	No	3.28676(13.0384m)	3.28676(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2017	148.884(13.0384m)	148.884(10.4403m)	No	No	3.07073(13.0384m)	3.07073(10.4403m)	No	No

	Short Term				Long term			
	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?	Predicted Boundary Concentration µg/m3	Predicted Nearest Receptor Concentration µg/m3	Is the emission rate Insignificant?	Is detailed modelling required?
Vinyl chloride (chloroethene, chloroethylene) - surface - 2018	162.819(13.0384m)	162.819(10.4403m)	No	No	3.35815(13.0384m)	3.35815(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2019	204.265(13.0384m)	204.265(10.4403m)	No	No	4.21297(13.0384m)	4.21297(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2020	229.713(13.0384m)	229.713(10.4403m)	No	No	4.73783(13.0384m)	4.73783(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2021	251.588(13.0384m)	251.588(10.4403m)	No	No	5.18901(13.0384m)	5.18901(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2022	278.046(13.0384m)	278.046(10.4403m)	No	Yes	5.73469(13.0384m)	5.73469(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2023	358.105(13.0384m)	358.105(10.4403m)	No	Yes	7.38592(13.0384m)	7.38592(10.4403m)	No	Yes
Vinyl chloride (chloroethene, chloroethylene) - surface - 2024	146.605(13.0384m)	146.605(10.4403m)	No	No	3.02373(13.0384m)	3.02373(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2025	162.637(13.0384m)	162.637(10.4403m)	No	No	3.35438(13.0384m)	3.35438(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2026	101.968(13.0384m)	101.968(10.4403m)	Yes	No	2.10309(13.0384m)	2.10309(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2027	80.8113(13.0384m)	80.8113(10.4403m)	Yes	No	1.66673(13.0384m)	1.66673(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2028	84.0584(13.0384m)	84.0584(10.4403m)	Yes	No	1.7337(13.0384m)	1.7337(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2029	148.677(13.0384m)	148.677(10.4403m)	No	No	3.06646(13.0384m)	3.06646(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2030	103.171(13.0384m)	103.171(10.4403m)	Yes	No	2.1279(13.0384m)	2.1279(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2031	132.231(12m)	132.231(10.4403m)	No	No	2.72727(12m)	2.72727(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2032	138.749(12m)	138.749(10.4403m)	No	No	2.86169(12m)	2.86169(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2033	79.3442(10.6301m)	79.3442(10.4403m)	Yes	No	1.63647(10.6301m)	1.63647(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2034	74.2995(10.6301m)	74.2995(10.4403m)	Yes	No	1.53243(10.6301m)	1.53243(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2035	103.656(9.43398m)	103.656(10.4403m)	Yes	No	2.1379(9.43398m)	2.1379(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2036	125.891(9.43398m)	125.891(10.4403m)	Yes	No	2.59651(9.43398m)	2.59651(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2037	98.5766(9.43398m)	98.5766(10.4403m)	Yes	No	2.03314(9.43398m)	2.03314(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2038	155.655(9.43398m)	155.655(10.4403m)	No	No	3.21038(9.43398m)	3.21038(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2039	29.0736(9.43398m)	29.0736(10.4403m)	Yes	No	0.599643(9.43398m)	0.599643(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2040	13.0205(9.43398m)	13.0205(10.4403m)	Yes	No	0.268549(9.43398m)	0.268549(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2041	8.08882(9.43398m)	8.08882(10.4403m)	Yes	No	0.166832(9.43398m)	0.166832(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2042	5.18678(9.43398m)	5.18678(10.4403m)	Yes	No	0.106977(9.43398m)	0.106977(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2043	7.29741(9.43398m)	7.29741(10.4403m)	Yes	No	0.150509(9.43398m)	0.150509(10.4403m)	No	No
Vinyl chloride (chloroethene, chloroethylene) - surface - 2044	5.49176(9.43398m)	5.49176(10.4403m)	Yes	No	0.113267(9.43398m)	0.113267(10.4403m)	No	No
Xylene (all isomers) - surface - 1987	1460.91(132.185m)	2181.98(10.4403m)	Yes	No	15.6748(132.185m)	45.0033(10.4403m)	Yes (at boundary)	No
Xylene (all isomers) - surface - 1988	1535.43(132.185m)	2293.27(10.4403m)	Yes	No	16.4743(132.185m)	47.2988(10.4403m)	Yes (at boundary)	No
Xylene (all isomers) - surface - 1989	1566.25(132.185m)	2339.31(10.4403m)	Yes	No	16.8051(132.185m)	48.2482(10.4403m)	Yes (at boundary)	No
Xylene (all isomers) - surface - 1990	1630.78(132.185m)	2435.68(10.4403m)	Yes	No	17.4974(132.185m)	50.2359(10.4403m)	Yes (at boundary)	No
Xylene (all isomers) - surface - 1991	1695.73(132.185m)	2532.69(10.4403m)	Yes	No	18.1943(132.185m)	52.2367(10.4403m)	Yes (at boundary)	No
Xylene (all isomers) - surface - 1992	1724.97(132.185m)	2576.37(10.4403m)	Yes	No	18.508(132.185m)	53.1376(10.4403m)	Yes (at boundary)	No
Xylene (all isomers) - surface - 1993	1730.61(132.185m)	2584.79(10.4403m)	Yes	No	18.5685(132.185m)	53.3113(10.4403m)	Yes (at boundary)	No
Xylene (all isomers) - surface - 1994	1755.72(132.185m)	2622.3(10.4403m)	Yes	No	18.838(132.185m)	54.0849(10.4403m)	Yes (at boundary)	No
Xylene (all isomers) - surface - 1995	1785.14(132.185m)	2666.24(10.4403m)	Yes	No	19.1537(132.185m)	54.9912(10.4403m)	Yes (at boundary)	No

	Short Term				Long term			
	Predicted Boundary Concentration $\mu\text{g}/\text{m}^3$	Predicted Nearest Receptor Concentration $\mu\text{g}/\text{m}^3$	Is the emission rate Insignificant?	Is detailed modelling required?	Predicted Boundary Concentration $\mu\text{g}/\text{m}^3$	Predicted Nearest Receptor Concentration $\mu\text{g}/\text{m}^3$	Is the emission rate Insignificant?	Is detailed modelling required?
Xylene (all isomers) - surface - 1996	1793.52(132.185m)	2678.75(10.4403m)	Yes	No	19.2435(132.185m)	55.2492(10.4403m)	Yes (at boundary)	No
Xylene (all isomers) - surface - 1997	1793.25(132.185m)	2678.35(10.4403m)	Yes	No	19.2406(132.185m)	55.2409(10.4403m)	Yes (at boundary)	No
Xylene (all isomers) - surface - 1998	1760.42(132.185m)	2629.32(10.4403m)	Yes	No	18.8884(132.185m)	54.2297(10.4403m)	Yes (at boundary)	No
Xylene (all isomers) - surface - 1999	1786.99(132.185m)	2669(10.4403m)	Yes	No	19.1735(132.185m)	55.0482(10.4403m)	Yes (at boundary)	No
Xylene (all isomers) - surface - 2000	1769.61(132.185m)	2643.04(10.4403m)	Yes	No	18.987(132.185m)	54.5126(10.4403m)	Yes (at boundary)	No
Xylene (all isomers) - surface - 2001	2216.43(132.185m)	3310.4(10.4403m)	Yes	No	23.7811(132.185m)	68.2769(10.4403m)	Yes (at boundary)	No
Xylene (all isomers) - surface - 2002	1840.82(132.185m)	2749.39(10.4403m)	Yes	No	19.751(132.185m)	56.7062(10.4403m)	Yes (at boundary)	No
Xylene (all isomers) - surface - 2003	1910.05(132.185m)	2852.79(10.4403m)	Yes	No	20.4938(132.185m)	58.8388(10.4403m)	Yes (at boundary)	No
Xylene (all isomers) - surface - 2004	1915.3(132.185m)	2860.64(10.4403m)	Yes	No	20.5502(132.185m)	59.0007(10.4403m)	Yes (at boundary)	No
Xylene (all isomers) - surface - 2005	2734.33(13.0384m)	2734.33(10.4403m)	Yes	No	56.3957(13.0384m)	56.3957(10.4403m)	No	No
Xylene (all isomers) - surface - 2006	3196.03(13.0384m)	3196.03(10.4403m)	Yes	No	65.9182(13.0384m)	65.9182(10.4403m)	No	No
Xylene (all isomers) - surface - 2007	2478.93(13.0384m)	2478.93(10.4403m)	Yes	No	51.1279(13.0384m)	51.1279(10.4403m)	No	No
Xylene (all isomers) - surface - 2008	2525.45(13.0384m)	2525.45(10.4403m)	Yes	No	52.0874(13.0384m)	52.0874(10.4403m)	No	No

Not Modelled:

1,1,1,2-Tetrafluoroethane
1,1,1-Trichlorotrifluoroethane
1,1,2-Trichloroethane
1,1-Dichloroethane
1,1-Dichloroethene
1,1-Dichlorotetrafluoroethane
1,2-Dichloropropane
1,2-Dichlorotetrafluoroethane
1-butanethiol
1-Chloro-1,1-difluoroethane
2-butoxy ethanol
2-Chloro-1,1,1-trifluoroethane
2-Propanol
Bromodichloromethane
Butene isomers
Butyric acid
Carbonyl sulphide
Chlorobenzene
Chlorodifluoromethane
Chloroethane
Chlorofluorocarbons (CFCs) (Total)
Chlorofluoromethane
Chlorotrifluoromethane
Dichlorodifluoromethane
Dichlorofluoromethane
Diethyl disulphide
Dimethyl disulphide
Dimethyl sulphide
Dioxins and furans (modelled as 2,3,7,8-TCDD)
Ethane
Ethanethiol (ethyl mercaptan)
Ethanol
Ethyl butyrate
Ethyl toluene (all isomers)
Ethylene
Ethylene dibromide
Fluorotrichloromethane
Freon 113
Furan
Halon
Hexachlorocyclohexane (all isomers)
Hydrochlorofluorocarbons (HCFCs) (Total)
Hydrofluorocarbons (HFCs) (Total)
Limonene
Methanethiol (methyl mercaptan)

Methyl isobutyl ketone

Not Modelled:

Nitrogen dioxide (NO₂)

Nitrogen monoxide (NO)

Odour Units (Predicted)

Pentane

Pentene (all isomers)

Perfluorocarbons (PFCs) (Total)

Propane

Propanethiol

Sulphide, total simulations with H₂S

Sulphide, total simulations without H₂S

t-1,2-Dichloroethene

Tetrachloroethane (modelled as 1,1,2,2-Tetrachloroethane)

Total non-methane volatile organic compounds (NMVOCs)

Total volatile organic compounds (VOCs)

Trichlorofluoromethane

Trichlorotrifluoroethane

APPENDIX GRA 4

Tier 2 Modelling Result

Table 1: 1 Hour Short-Term Benzene Modelling Results

The 100 th %ile Maximum Hourly Concentration of Benzene						
Sensitive Receptor	EAL (µg/m ³)	Max. PC (µg/m ³)	% PC of EAL (%)	Background ^{1,2} (µg/m ³)	PEC ³ (µg/m ³)	% PEC of EAL (%)
DR001	30	0.34	1.13	0.42	0.76	2.53
DR002		0.41	1.37		0.83	2.77
DR003		0.43	1.43		0.85	2.83
DR004		0.35	1.17		0.77	2.57
DR005		1.76	5.87		2.18	7.27
DR006		1.9	6.33		2.32	7.73
DR007		2.21	7.37		2.63	8.77
DR008		0.31	1.03		0.73	2.43
DR009		0.32	1.07		0.74	2.47
DR010		0.51	1.70		0.93	3.10
DR011		0.32	1.07		0.74	2.47
DR012		0.58	1.93		1	3.33
DR013		0.39	1.30		0.81	2.70
DR014		0.49	1.63		0.91	3.03
DR015		0.53	1.77		0.95	3.17
DR016		0.6	2.00		1.02	3.40
DR017		0.68	2.27		1.1	3.67
DR018		0.79	2.63		1.21	4.03
DR019		0.9	3.00		1.32	4.40
DR021		1	3.33		1.42	4.73
DR021		1.09	3.63		1.51	5.03
DR022		1.23	4.10		1.65	5.50
DR023		1.36	4.53		1.78	5.93
DR024		1.53	5.10		1.95	6.50
DR025		1.95	6.50		2.37	7.90
DR026		2.32	7.73		2.74	9.13
DR027		2.59	8.63		3.01	10.03
DR028		2.8	9.33		3.22	10.73
DR029		2.69	8.97		3.11	10.37
DR030		2.37	7.90		2.79	9.30
DR031		2.96	9.87		3.38	11.27
DR032		2.62	8.73		3.04	10.13
DR033		1.96	6.53		2.38	7.93
DR034		4.98	16.60		5.4	18.00
DR035		4.5	15.00		4.92	16.40
DR036		3.08	10.27		3.5	11.67
DR037		2.8	9.33		3.22	10.73
DR038		2.05	6.83		2.47	8.23
DR039		1.39	4.63		1.81	6.03
DR040		1.36	4.53		1.78	5.93

The 100 th %ile Maximum Hourly Concentration of Benzene						
Sensitive Receptor	EAL ($\mu\text{g}/\text{m}^3$)	Max. PC ($\mu\text{g}/\text{m}^3$)	% PC of EAL (%)	Background ^{1,2} ($\mu\text{g}/\text{m}^3$)	PEC ³ ($\mu\text{g}/\text{m}^3$)	% PEC of EAL (%)
DR041		1.74	5.80		2.16	7.20
DR042		2.29	7.63		2.71	9.03
DR043		2.62	8.73		3.04	10.13
DR044		2.69	8.97		3.11	10.37
DR045		2.41	8.03		2.83	9.43
DR046		2.42	8.07		2.84	9.47
DR047		2.31	7.70		2.73	9.10
DR048		2.25	7.50		2.67	8.90
DR049		1.4	4.67		1.82	6.07
DR050		1.92	6.40		2.34	7.80
DR051		2.3	7.67		2.72	9.07
DR052		2.29	7.63		2.71	9.03
DR053		2.19	7.30		2.61	8.70
DR054		2	6.67		2.42	8.07
DR055		2.47	8.23		2.89	9.63
DR056		2.77	9.23		3.19	10.63
DR057		2.71	9.03		3.13	10.43
DR058		2.1	7.00		2.52	8.40
DR059		1.62	5.40		2.04	6.80

Notes:

- 1) Background air quality data for 2001 were obtained from Air Quality Archive for co-ordinates 524500E 301500N;
- 2) 1 hour background has taken as twice the long-term background; and
- 3) $PEC = PC + Background$.

Table 2: 1 Hour Short-Term H₂S Modelling Results

The 100 th %ile Maximum Hourly Concentration of H ₂ S						
Sensitive Receptor	EAL (µg/m ³)	Max. PC (µg/m ³)	% PC of EAL (%)	Background ¹ (µg/m ³)	PEC (µg/m ³)	% PEC of EAL (%)
DR001	150	5.27	3.51		5.27	3.51
DR002		6.55	4.37		6.55	4.37
DR003		6.62	4.41		6.62	4.41
DR004		5.29	3.53		5.29	3.53
DR005		27.04	18.03		27.04	18.03
DR006		28.96	19.31		28.96	19.31
DR007		34.14	22.76		34.14	22.76
DR008		4.84	3.23		4.84	3.23
DR009		4.97	3.31		4.97	3.31
DR010		7.81	5.21		7.81	5.21
DR011		4.97	3.31		4.97	3.31
DR012		9.02	6.01		9.02	6.01
DR013		6.1	4.07		6.1	4.07
DR014		7.51	5.01		7.51	5.01
DR015		8.09	5.39		8.09	5.39
DR016		9.16	6.11		9.16	6.11
DR017		10.52	7.01		10.52	7.01
DR018		12.06	8.04		12.06	8.04
DR019		13.88	9.25		13.88	9.25
DR021		15.38	10.25		15.38	10.25
DR021		16.74	11.16		16.74	11.16
DR022		18.91	12.61		18.91	12.61
DR023		20.97	13.98		20.97	13.98
DR024		23.34	15.56		23.34	15.56
DR025		29.89	19.93		29.89	19.93
DR026		35.56	23.71		35.56	23.71
DR027		39.84	26.56		39.84	26.56
DR028		43.04	28.69		43.04	28.69
DR029		41.49	27.66		41.49	27.66
DR030		36.11	24.07		36.11	24.07
DR031		45.3	30.20		45.3	30.20
DR032		40.29	26.86		40.29	26.86
DR033		29.74	19.83		29.74	19.83
DR034		76.16	50.77		76.16	50.77
DR035		68.94	45.96		68.94	45.96
DR036		46.74	31.16		46.74	31.16
DR037		42.6	28.40		42.6	28.40
DR038		31.12	20.75		31.12	20.75
DR039		21.1	14.07		21.1	14.07
DR040		20.71	13.81		20.71	13.81

The 100 th %ile Maximum Hourly Concentration of H ₂ S						
Sensitive Receptor	EAL (µg/m ³)	Max. PC (µg/m ³)	% PC of EAL (%)	Background ¹ (µg/m ³)	PEC (µg/m ³)	% PEC of EAL (%)
DR041		26.43	17.62		26.43	17.62
DR042		34.76	23.17		34.76	23.17
DR043		39.81	26.54		39.81	26.54
DR044		40.83	27.22		40.83	27.22
DR045		36.78	24.52		36.78	24.52
DR046		36.8	24.53		36.8	24.53
DR047		35.11	23.41		35.11	23.41
DR048		34.38	22.92		34.38	22.92
DR049		21.64	14.43		21.64	14.43
DR050		29.16	19.44		29.16	19.44
DR051		35.17	23.45		35.17	23.45
DR052		35.23	23.49		35.23	23.49
DR053		33.68	22.45		33.68	22.45
DR054		31.08	20.72		31.08	20.72
DR055		37.99	25.33		37.99	25.33
DR056		43.19	28.79		43.19	28.79
DR057		42.46	28.31		42.46	28.31
DR058		32.98	21.99		32.98	21.99
DR059		25.42	16.95		25.42	16.95

Notes:

1) There is no background data for H₂S and hence the PC = PEC.

Table 3: 1 Hour Short-Term CS₂ Modelling Results

The 100 th %ile Maximum Hourly Concentration of CS ₂							
Sensitive Receptor	EAL (µg/m ³)	Max. PC (µg/m ³)	% PC of EAL (%)	Background ¹ (µg/m ³)	PEC (µg/m ³)	% PEC of EAL (%)	
DR001	100	3.04	3.04		3.04	3.04	
DR002		3.72	3.72		3.72	3.72	
DR003		3.85	3.85		3.85	3.85	
DR004		3.08	3.08		3.08	3.08	
DR005		15.64	15.64		15.64	15.64	
DR006		16.87	16.87		16.87	16.87	
DR007		19.61	19.61		19.61	19.61	
DR008		2.79	2.79		2.79	2.79	
DR009		2.87	2.87		2.87	2.87	
DR010		4.51	4.51		4.51	4.51	
DR011		2.84	2.84		2.84	2.84	
DR012		5.12	5.12		5.12	5.12	
DR013		3.48	3.48		3.48	3.48	
DR014		4.33	4.33		4.33	4.33	
DR015		4.67	4.67		4.67	4.67	
DR016		5.3	5.30		5.30	5.3	5.30
DR017		6.08	6.08		6.08	6.08	6.08
DR018		6.97	6.97		6.97	6.97	6.97
DR019		8.03	8.03		8.03	8.03	8.03
DR021		8.89	8.89		8.89	8.89	8.89
DR021		9.67	9.67		9.67	9.67	9.67
DR022		10.93	10.93		10.93	10.93	10.93
DR023		12.12	12.12		12.12	12.12	12.12
DR024		13.54	13.54		13.54	13.54	13.54
DR025		17.31	17.31		17.31	17.31	17.31
DR026		20.58	20.58		20.58	20.58	20.58
DR027		23.03	23.03		23.03	23.03	23.03
DR028		24.85	24.85		24.85	24.85	24.85
DR029		23.91	23.91		23.91	23.91	23.91
DR030		21.02	21.02		21.02	21.02	21.02
DR031		26.32	26.32		26.32	26.32	26.32
DR032		23.29	23.29		23.29	23.29	23.29
DR033		17.36	17.36		17.36	17.36	17.36
DR034		44.23	44.23		44.23	44.23	44.23
DR035		39.98	39.98		39.98	39.98	39.98
DR036		27.29	27.29		27.29	27.29	27.29
DR037		24.87	24.87		24.87	24.87	24.87
DR038		18.17	18.17		18.17	18.17	18.17
DR039		12.32	12.32		12.32	12.32	12.32
DR040		12.09	12.09		12.09	12.09	12.09

The 100 th %ile Maximum Hourly Concentration of CS ₂						
Sensitive Receptor	EAL (µg/m ³)	Max. PC (µg/m ³)	% PC of EAL (%)	Background ¹ (µg/m ³)	PEC (µg/m ³)	% PEC of EAL (%)
DR041		15.43	15.43		15.43	15.43
DR042		20.3	20.30		20.3	20.30
DR043		23.25	23.25		23.25	23.25
DR044		23.84	23.84		23.84	23.84
DR045		21.42	21.42		21.42	21.42
DR046		21.48	21.48		21.48	21.48
DR047		20.49	20.49		20.49	20.49
DR048		20	20.00		20	20.00
DR049		12.38	12.38		12.38	12.38
DR050		17.02	17.02		17.02	17.02
DR051		20.46	20.46		20.46	20.46
DR052		20.31	20.31		20.31	20.31
DR053		19.43	19.43		19.43	19.43
DR054		17.79	17.79		17.79	17.79
DR055		21.89	21.89		21.89	21.89
DR056		24.62	24.62		24.62	24.62
DR057		24.11	24.11		24.11	24.11
DR058		18.67	18.67		18.67	18.67
DR059		14.39	14.39		14.39	14.39

Notes:

1) There is no background data for CS₂ and hence the PC = PEC.

Table 4: 24 Hour Short-Term Tetrachloroethylene Modelling Results

The 100 th %ile Maximum 24 Hour Concentration of Tetrachloroethylene						
Sensitive Receptor	EAL (µg/m ³)	Max. PC ¹ (µg/m ³)	% PC of EAL (%)	Background ² (µg/m ³)	PEC ³ (µg/m ³)	% PEC of EAL (%)
DR001	40	1.79	4.48		1.79	4.48
DR002		2.39	5.97		2.19	5.49
DR003		2.06	5.15		2.27	5.68
DR004		1.69	4.22		1.82	4.54
DR005		9.05	22.63		9.23	23.07
DR006		8.99	22.48		9.95	24.88
DR007		13.32	33.29		11.57	28.92
DR008		1.67	4.17		1.65	4.12
DR009		1.72	4.29		1.69	4.23
DR010		2.66	6.65		2.66	6.65
DR011		1.77	4.43		1.68	4.19
DR012		3.59	8.97		3.02	7.55
DR013		2.19	5.47		2.05	5.13
DR014		2.57	6.42		2.55	6.39
DR015		2.76	6.90		2.76	6.89
DR016		3.09	7.71		3.13	7.82
DR017		3.54	8.85		3.59	8.97
DR018		4.06	10.15		4.11	10.28
DR019		4.68	11.70		4.74	11.84
DR021		5.19	12.97		5.25	13.11
DR021		5.64	14.10		5.71	14.26
DR022		6.38	15.96		6.45	16.12
DR023		7.09	17.73		7.15	17.88
DR024		7.88	19.71		7.99	19.97
DR025		9.84	24.59		10.21	25.53
DR026		11.85	29.62		12.14	30.36
DR027		13.42	33.56		13.59	33.97
DR028		14.65	36.62		14.66	36.65
DR029		14.44	36.11		14.11	35.27
DR030		11.33	28.33		12.40	31.00
DR031		14.47	36.17		15.53	38.82
DR032		13.61	34.03		13.74	34.35
DR033		9.71	24.28		10.24	25.61
DR034		24.44	61.11		26.10	65.24
DR035		22.52	56.30		23.59	58.97
DR036		14.11	35.27		16.10	40.25
DR037		12.86	32.14		14.67	36.68
DR038		9.39	23.48		10.72	26.80
DR039		6.37	15.93		7.27	18.17
DR040		6.25	15.62		7.13	17.83

The 100 th %ile Maximum 24 Hour Concentration of Tetrachloroethylene						
Sensitive Receptor	EAL ($\mu\text{g}/\text{m}^3$)	Max. PC ¹ ($\mu\text{g}/\text{m}^3$)	% PC of EAL (%)	Background ² ($\mu\text{g}/\text{m}^3$)	PEC ³ ($\mu\text{g}/\text{m}^3$)	% PEC of EAL (%)
DR041		7.98	19.94		9.10	22.76
DR042		10.49	26.23		11.98	29.94
DR043		12.04	30.09		13.72	34.29
DR044		12.34	30.84		14.07	35.16
DR045		11.41	28.53		12.64	31.59
DR046		11.17	27.94		12.67	31.68
DR047		10.62	26.55		12.09	30.22
DR048		10.80	27.01		11.80	29.50
DR049		8.05	20.13		7.30	18.26
DR050		8.84	22.11		10.04	25.10
DR051		11.10	27.74		12.07	30.18
DR052		12.22	30.55		11.98	29.96
DR053		11.59	28.98		11.46	28.66
DR054		11.56	28.90		10.50	26.24
DR055		13.24	33.10		12.92	32.29
DR056		16.63	41.58		14.53	36.31
DR057		16.94	42.35		14.22	35.56
DR058		13.46	33.66		11.02	27.54
DR059		10.40	26.00		8.49	21.23

Notes:

- 1) The 24 Hour PC was calculated by multiplying the hourly PC with 0.59.
- 2) There is no background data for CS₂ and hence the PC = PEC.

Table 5: The 98%ile Maximum Short-Term (Hourly) Concentrations of Odour

The 98%ile Maximum Short-Term (Hourly) Concentrations of Odour	
Sensitive Receptor	PEC ¹ OUE/m ³
	Based on 98%ile Emission Rate
DR001	0.12
DR002	0.18
DR003	0.21
DR004	0.17
DR005	0.34
DR006	0.47
DR007	0.54
DR008	0.13
DR009	0.13
DR010	0.23
DR011	0.05
DR012	0.17
DR013	0.18
DR014	0.21
DR015	0.23
DR016	0.24
DR017	0.27
DR018	0.28
DR019	0.3
DR021	0.34
DR021	0.35
DR022	0.36
DR023	0.39
DR024	0.45
DR025	0.51
DR026	0.57
DR027	0.62
DR028	0.75
DR029	0.87
DR030	1.12
DR031	1.27
DR032	1.79
DR033	2.51
DR034	4.61
DR035	5.19
DR036	3.52
DR037	2.67
DR038	2.06
DR039	1.49
DR040	1.2

The 98%ile Maximum Short-Term (Hourly) Concentrations of Odour	
Sensitive Receptor	PEC ¹ OUE/m ³ Based on 98%ile Emission Rate
DR041	0.97
DR042	0.9
DR043	0.99
DR044	1
DR045	1.03
DR046	0.76
DR047	0.66
DR048	0.61
DR049	0.61
DR050	0.64
DR051	0.63
DR052	0.65
DR053	0.54
DR054	0.45
DR055	0.49
DR056	0.55
DR057	0.69
DR058	0.83
DR059	0.62

Notes:

1) There is no background data for CS₂ and hence the PC = PEC.



golder.com