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Site Condition Report – Greencore Bristol

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Contents

Ε	xecı	ecutive Summary1					
1	I	Introdu	ction	3			
	1.1	Pur	pose	3			
	1.2	Sco	pe of Services	3			
		1.2.1	Desk Study	3			
		1.2.2	Site Inspection	4			
		1.2.3	Reporting	4			
	1.3	Sigr	nificant Assumptions	4			
	1.4	Use	er Reliance	4			
2	(Site De	escription	4			
	2.1	Site	Location	4			
	2.2	Site	Operations	5			
3	ı		v of Publicly Accessible Information				
	3.1		rironmental Setting				
	(3.1.1	Geology and Hydrogeology				
	(3.1.2	BGS Estimated Rural Soil Chemistry				
	3	3.1.3	Historical Landfill	7			
	3	3.1.4	Coal Mining and Ground Stability	7			
	3	3.1.5	Radon	7			
	(3.1.6	Hydrology and Flood Risk	7			
	3	3.1.7	Local Abstraction and River Discharges	8			
	3	3.1.8	Sensitive Land Uses	8			
	3	3.1.9	Summary of Site sensitivity	8			
	3.2	Env	ironmental Regulatory Database Review	8			
	3.3	Hist	ory of the Site and Surrounding Area	9			
	3.4	Plar	nning Department Records	10			
	3.5	Pre	vious Environmental Assessments, Investigations or Remediation	11			
4	(Site Wa	alkover and Inspection	11			
	4.1	Met	hodology and Limiting Conditions	11			
	4.2	Site	Overview	11			
	4.3	Rele	evant Hazardous Substance Containment	11			
	4.4	Dra	inage	12			
	4.5		ste storage				
5	(Soil an	oil and Groundwater Contamination Risk Assessment				
	5.1	Pote	ential Current On-Site Sources of Contamination	13			
	5.2						



5.3	B Potential Historical Sources of Contamination	13
5.4	Previous Reports	13
5.5	5 Review of Site Sensitivity	13
į	5.5.1 Environmental Receptors	13
į	5.5.2 Human Receptors	13
	Assessment of Soil and Groundwater Contamination Risk	
6 (Conceptual Site Model	14
7 (Conclusion of SCR	15
Appe	endices	16
	endix 1 - Borehole Records	
	endix 2 Landmark Envirocheck Reports	

Disclaimer

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This report is confidential to the client, and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at its own risk.



Executive Summary				
Introduction	This baseline Site Condition Report (SCR) is for the Greencore, Bristol facility located at Unit 3,4 & 6A Hawkley Drive, Woodlands Road, Bradley Stoke, Bristol, BS32 0BF, Grid reference: ST619833 (the 'Site').			
	This SCR makes up part of the submission for the Site's Environmental Permit application.			
Subject Site	The Site comprises an approximate 2ha plot spread over two units residing in Bradley Stoke, Bristol, South Gloucestershire. The site is immediately surrounded by other large warehousing units with residential areas to the south of the site. The facility produces various soups and sauce-based products for sale at UK retailers.			
	Operations include weighing and portioning of raw ingredients, mixing and heating, storage and subsequent distribution to customers.			
Surrounding Area	North A small brook neighbours the northern boundary of the facility running west to east. The M4 and M5 motorways meet just to the north where a large junction is located. Further to the north, beyond the M4 &M5, a small residential estate is present.			
	East Immediately to the East is the M4 motorway with a small treeline separating the site from the road. A large golf course is situated just beyond the M4 and includes small lakes and large areas of unmade ground. Rural pastures and farmland are located beyond the adjacent Golf Course.			
	South There are business plots neighbouring the sites southern boundary including a distribution hub and commercial printing business. Residential housing is located to the south, just beyond the neighbouring industrial facilities and stretch towards the centre of the town of Bradley Stoke			
	West Small business plots including offices intermixed with commercial units such as restaurants and car parks.			
Summary of sensitive land uses	 The Site and surrounding areas considered to be of Moderate sensitivity, based on the following key factors: The BGS categorises the bedrock below the site to be Blue Lias Formation which is designated as a secondary aquifer (undifferentiated). This aquifer is classified as a productive aquifer with a high vulnerability. The closest hydrological feature is a small stream that neighbours the sites 			
	 Uncontaminated surface water from the external yard area of the production unit is intended to discharge into the stream via the outfall. This outfall is fitted with a sluice gate which is closed under normal operation. No surface water is discharged to the stream under routine operation and can only be opened in a heavy rainfall/flooding event following completion of a risk assessment. Surface water is instead uplifted from the drainage system and taken off site. Uncontaminated surface water around the external perimeter of unit 3 & 4 as well as unit 6B is discharged to public sewer. Process water generated from cleaning activities is treated by the onsite effluent treatment plant and discharged to a wastewater treatment works operated by Wessex Water. The closest sensitive receptor would be Cattybrook Brickpit located 2.28km to the west of the site. The site resides in flood zone 1 meaning there is between a 0.1-1% chance of flooding each year from river and sea. The site is also of low risk from flooding because of surface water. The site is set to remain of low risk from flooding in future climate prediction models. The site is of low risk from groundwater flooding on a yearly basis. A large residential estate is located 120m to the south of the facility. 			
Summary of the History of the Site and Surrounding Area	Prior to 1990, the site was rural in nature consisting of woodland, pastures and farmland. Initial planning permission of the construction of the warehouse units that would go onto become unit 3 & 4 was approved in 1991. Once constructed, the site was original used as a storage and distribution warehouse until 1998 where it became an industrial, food production facility.			



The site has a long-term history of operating as a food and drink production facility. Historically the site has had one reported pollution incident take place prior to Greencore's ownership of the facility. In 2001 biodegradable material was discharged to the neighbouring brook. This incident was categorised as having a significant impact on water and a minor impact on land. It is unlikely this event has led to any long-term environmental impacts.

A historic landfill operated 209m to the east of the site between 1975-1980. The landfill has been inoperative for 45 years and was used to dispose of inert construction and demolition waste as well as asbestos. The landfill has been developed on top of and now is woodland as a part of a golf course. The surrounding land is not classified as contaminated land and given the non-polluting nature of waste deposited, it is not expected that the ground beneath the site is significantly contaminated. Therefore, no intrusive geoenvironmental assessment is deemed to be required.

Summary of Site Walkover Observations

The Greencore, Bristol site operates over 2 warehousing units either side of the main road – Unit 3 & 4 is the production facility and unit 6A is the storage facility. All permitted activities are confined to unit 3 & 4 with unit 6A used purely as a storage facility for raw materials. Unit 3 & 4 consists of internal production areas including kitchens, storage facilities, weighing and portioning stations and cleaning/chemical stores.

The external facilities of the production unit include an effluent treatment plant which finished construction in late 2024. The effluent treatment plant is used to treat process water generated from cleaning, hygiene and production related activities. The plant features a solid screen, balance tank, dissolved air floatation plant and bulk water treatment chemicals. All bulk water treatment chemicals were stored in self-bunded tanks. The effluent plant is also surrounded by a concrete containment wall which provides suitable containment for the single skinned balance tank and sludge tank. Hygiene and cleaning chemicals stored internally and in the yard were situated in robust storage shelters and bunded appropriately. Waste areas were generally in good condition with hazardous waste situated on bunding.

During normal operations, there are no discharges from site directly to controlled water. Treated effluent is discharged to sewer with uncontaminated surface water from unit 6B and rainwater from the roof and perimeter of unit 3 & 4 being discharged to public sewer. Surface water run off within the northern yard of the production unit is contained within below ground drainage infrastructure to be uplifted by an external contractor.

The site demonstrates strong containment philosophy with regards to all chemical storage through the provision of suitable secondary containment and a robust tertiary containment methodology. From an operational perspective, there are no clear pathways from site pollution sources to environmental receptors.

Conceptual Site Model

The CSM has been prepared based upon the desk-based assessment and walkover. See Section 6.

SCR Conclusion

While there are no intrusive records provided here to quantify ground condition, the operator is aware that upon surrender of the permit there may be a requirement to demonstrate an agreed status of underlying land condition. The operator acknowledges this potential liability and accepts the risk.

The Site's use and continued use a food manufacturer and the ongoing checks and audits at the Site indicate that it's unlikely that the Site poses an actual or significant risk to users and the baseline condition of the Site.



1 Introduction

1.1 Purpose

This baseline Site Condition Report (SCR) is for the Greencore, Bristol facility located at Unit 4 Hawkley Drive, Woodlands Road, Bradley Stoke, Bristol, BS32 0BF, Grid reference: ST619833 (the 'Site'). The SCR is required for the Site to show that any significant risk to land or groundwater have been identified and considered during their Industrial Emissions Directive (IED) permit application to the Environment Agency (EA) which states an SCR must include evidence of:

"Showing that land and groundwater are protected at installations, waste facilities, mining waste operations and non-nuclear radioactive substances facilities."

The SCR details the Site's location, its surrounding groundwater, soil, geology and the potential pollution sources to establish a comprehensive report on the Sites condition. The report will also, to the extent feasible, display the potential ground contamination sources, assess the hazard and estimate the pollution risks using the source-pathway-receptor (S-P-R) linkage methodology as well as evaluate the acceptability of land contamination risks.

1.2 Scope of Services

This Report includes the following:

- Assessment of the risk of soil and groundwater impacts at the Site, specifically in relation to current and past operational activities and related practices, by review of:
 - Publicly accessible information relating to the environmental setting and history of the Site and surrounding area,
 - o Interviews with Site personnel and a Site walkover,
 - Review of relevant documentation from a Landmark Envirocheck® Analysis including Historic Map and Site Sensitivity reports.
- The preparation of a preliminary conceptual Site model (CSM based upon the desk-based assessment and walkover).
- Recommendations on appropriate further works based on the acceptability of land contamination risk.

The scope of work does not include a detailed review of the quantitative calculations used for effluent discharge reporting, air emission inventories, or engineering designs.

1.2.1 Desk Study

The desk study comprised a review of publicly available information to establish:

- Site history,
- Surrounding land uses, nearby sensitive land uses and sites of ecological or scientific interest, using the Environment Agency (EA) Magic map as well as other publicly available online mapping.
- Information on geology and hydrogeology (including mining records and water abstractions), obtained from sources including:
 - the British Geological Survey (BGS),
 - o the EA Magic Map,
 - o Google Earth,
 - Landmark Envirocheck® Analysis, obtained in August 2024.
- Current and historic records of environmental permits, landfill and other waste records, pollution incidents, discharge consents, environmental prosecutions, and current and former petrol filling stations, using information from the above sources.



1.2.2 Site Inspection

EHS Projects representative Bradley Wallace undertook a Site visit which included interviews with Site management, a review of pertinent documentation and a detailed walkover inspection of the facility. The Site inspection and associated desk study assessment were conducted with due regard to the following guidance:

- Environmental permitting: H5 Site condition report GOV.UK
- National Planning Policy Framework Guidance GOV.UK
- Land contamination risk management (LCRM) GOV.UK Stage 1

Within the above guidance, the following areas were specifically assessed:

- Hazardous materials storage
- Review of available drainage information
- Waste management and storage
- Wastewater and storm water management and discharge
- Evidence of existing soil and/or groundwater contamination

1.2.3 Reporting

This assessment resulted in the completion of the following Site Condition Report (SCR). The Report includes a list of potential sources of contamination, identification of potential receptors of any such contamination and, based on these findings, an assessment of the contaminated land risk associated with the Site.

1.3 Significant Assumptions

This report presents EHS' observations, findings, and conclusions as they existed on the date that this report was issued. This report is subject to modification if EHS becomes aware of additional information after the date of this report that is material to its findings and conclusions.

The reliability of information provided by others to EHS cannot be guaranteed to be accurate or complete. Performance of this Report is intended to reduce, but not eliminate, uncertainty of environmental conditions associated with the subject Site; therefore, the findings and conclusions made in this report should not be construed to warrant or guarantee the subject Site, or express or imply, including without limitation, warranties as to its marketability for a particular use. EHS found no reason to question the validity of information received unless explicitly noted elsewhere in this report.

1.4 User Reliance

This report was prepared for Greencore, Bristol. Reliance on the Report by any other third party is subject to requesting and fully executing a reliance letter between EHS and the third party that acknowledges the EHS Standard Terms and Conditions with the Client, to the same extent as if they were the Client thereunder.

EHS has been provided with information from third parties for information purposes only and without representation or warranty, express or implied as to its accuracy or completeness and without any liability on such third parties part to revise or update the information. Where reliance has been provided by third parties to potential purchasers this is noted in our report.

2 Site Description

2.1 Site Location

The Site comprises an approximately 2ha plot residing in Bradley Stoke, Bristol within the Bristol Distribution Park. The site is located within a small industrial estate within a wider commercial-residential area. The facility is located adjacent to the M4



A summary of the surrounding areas is outlined below:

Direction	Land use
North	A small brook neighbours the northern boundary of the facility running west to east. The M4 and M5 motorways meet just to the north where a large junction is located. Further to the north, beyond the M4 &M5, a small residential estate is present.
East	Immediately to the East is the M4 motorway with a small treeline in between. A large golf course is situated just beyond the M4 - consisting of small lakes and large areas of unmade ground. Rural pastures and farmland are located beyond the adjacent Golf Course
South	There are business plots neighbouring the sites southern boundary including a distribution hub and commercial printing business. Residential housing is located to the south, just beyond the neighbouring industrial facilities and stretch towards the centre of the town of Bradley Stoke
West	Small business plots including offices intermixed with commercial units such as restaurants and car parks.

2.2 Site Operations

The facility produced various types of 'Soups and Sauces' for distribution to commercial customers. The production activity includes input of raw ingredients into various cooking and mixing plant equipment to be packaged in small containers for dispatch to UK retailers. Production includes industrial scale kitchens equipped with kettles, holding tanks, mixing and heating vessels. Product is packaged in filler lines and chilled using spiral chiller units before being stored prior to dispatch. Operations also include cleaning in place (CIP) programmes which generates the majority of the sites process wastewater which is received at the onsite effluent treatment plant (ETP).

3 Review of Publicly Accessible Information

3.1 Environmental Setting

The environmental setting of the Site can influence the susceptibility to, and relative magnitude of, environmental impacts and liabilities associated with on and off-Site sources of ground and groundwater contamination. The following sections presents a summary of environmental reviews conducted on publicly available records.

3.1.1 Geology and Hydrogeology

British Geological Survey (BGS) geological mapping and Landmark Envirocheck hydrogeological mapping indicate the following geological progression:

Geology	Geology Description	Aquifer Status	Aquifer Description
Superficial Deposits: N/A	The BGS designated there to be no overlaying superficial deposits at this location.	Superficial Drift: N/A	N/A



Bedrock: Blue Lias Formation	The Blue Lias Formation is composed of alternating thin layers of limestone and mudstone or shale, deposited in a shallow marine environment.	_	The Blue Lias Formation is a secondary (undifferentiated) aquifer of moderate sensitivity. Groundwater is able to be stored and transported in moderately large volumes and it is expected movement of water will be confined to local movements.
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The review of EA Magic hydrogeological mapping shows that the Site is situated in an area designated as a secondary (undifferentiated) aquifer. The aquifer is designated a vulnerable aquifer with a high productivity. The bedrock flow rate is understood to be relatively high with well-connected fractures present as a part of the geology. Migration of pollutants through the bedrock is understood to be low. It is likely that the geology does not facilitate the transport of groundwater on a large, regional scale but is in strong continuity with local groundwater and surface features. This aquifer designation presents a moderate sensitivity.

There are no boreholes within the footprint of the facility however there are several borehole records just to the east of the facility on the M4. The nearest relevant and publicly available boreholes are ST68SW164, and ST68SW165.

Borehole ST68SW164 was drilled 22nd May 2001 as part of improvement work being carried out on the M4/M5 roadways and is located <15m from the site. Findings are outlined below:

- Ground level 2.85m: Surface consists of made ground. Green, grey/orang-brown clay is located below the 1m depth with limestone cobble and medium-coarse limestone gravel present past the 2.35m depth.
- 2.85m 3.15m: Stiff, thinly laminated green-grey clay
- 3.15m- 6.95m: Bands of grey/black limestone with dark grey/black mudstone present below 6.55m
- 6.95m 8.65m (end of borehole): Moderately strong indistinctly bedded green-grey mudstone. Silty/sandy gravel becomes apparent below the depth of 7.70m

Borehole ST68SW165 was also drilled 22^{nd} May 2001 as part of improvement work to the M4/M5 and is located ~40m from the site. Findings are outlined below:

- Ground level 4.15m: Made ground with sections of green-grey clay
- 4.15m 7.70m: light grey limestone bands with mudstone present below 7m
- 7.70m 9.15m (end of borehole): Moderately strong indistinctly bedded green-grey mudstone. Silty/sandy gravel becomes apparent below the depth of 8.75m

3.1.2 BGS Estimated Rural Soil Chemistry

The British Geological Survey, National Geoscience Information Service has provided estimated rural soil chemistry data for the Site, held within the Envirocheck report. This data estimates the average soil pollutant concentrations:

Arsenic: 25-35 mg/kg
Cadmium: <1.8 mg/kg
Chromium: 90-120 mg/kg
Lead: 100-200 mg/kg
Nickel: 30-45 mg/kg



3.1.3 Historical Landfill

Landmark Envirocheck records indicate that there was a landfill operation taking place between 1975 and 1980 located 209m from the site - with the border of the landfill anticipated to be 90m to the west of the site. The material deposited here include non-hazardous/inert construction and demolition waste, excavated natural material waste, inert industrial waste, paper making waste and asbestos. Waste prohibited at the site included all liquid waste, all poisonous/noxious/toxic waste and any polluting waste. This historical landfill is not designated as 'contaminated land' suggesting the local authority has not deemed the landfill to significantly cause harm to health nor likely to cause significant pollution to controlled waters. Approved planning applications from the site and surrounding businesses designate the land not to be contaminated. Whilst the landfill was reported as accepting asbestos, the substance is not mobile, therefore buried underground it presents a negligible risk given it remains undisturbed. It is unlikely that this historic landfill has significantly affected the condition of the Greencore site.

Another historical landfill is located 667m to the southeast of the site and is understood to have been used for the deposition of 'other wastes' (construction, demolition, dredgings). This landfill is understood to only have accepted non-hazardous and inert solid waste material. This waste material is not expected to be mobile as to directly influence the condition of the ground and land at the site.

3.1.4 Coal Mining and Ground Stability

Review of Envirocheck data shows that the Site is not located in a Coal Mining Affected Area. It is noted that extractive industries or potential excavations took place between 1950-1980 less than 250m from the site. The summary of ground stability risks are described below:

- Potential for Collapsible Ground Stability Hazards: Very Low.
- Potential for Compressible Ground Stability Hazards: No Hazard.
- Potential for Ground Dissolution Stability Hazards: No Hazard.
- Potential for Landslide Ground Stability Hazards: Very Low.
- Potential for Running Sand Ground Stability Hazards: No Hazard.
- Potential for Shrinking or Swelling Clay Ground Stability: Low.

3.1.5 Radon

The property is in a lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). No radon protective measures are necessary in the construction of new dwellings or extensions.

3.1.6 Hydrology and Flood Risk

Environmental records and site walkover observations indicate that there are no surface water features within the site boundary. There is a small brook that neighbours the sites northern boundary. The site has a surface water discharge point into the brook which is fitted with a Sluice gate which is always closed. Surface water is instead contained within a below ground tank and within the drainage infrastructure located in the yard. Surface water is removed from site by an external waste contractor on a routine basis. Should a flooding event or similar emergency event take place, the site can open the sluice gate to permit uncontaminated surface water to be discharged into the brook only after a risk assessment has been conducted. The surface water outfall and sluice gate is subject to weekly PMM checks to ensure no surface water is discharged.

According to the EA's Flood Map for Planning, both the production site and storage unit are located within flood zone 1 meaning there is a very low chance (less than 0.1% annual chance) of flooding from river or sea. The long-term predictions for both the units suggest the site is to remain of very low chance from rivers and sea between 2036 and 2069. There is also a very low chance of flooding as a result of surface water with the site set to remain at a very low risk between 2040-2060.



3.1.7 Local Abstraction and River Discharges

The review of Landmark Envirocheck data, suggests there are no water abstraction licences within 500m of the site. The closest abstraction points are located 936m and 939m to the southeast at 'Trench Lake'. There are currently 2 active discharge authorisations to river within 1,000m. These include treated effluent from Great Western Air Ambulance Charity and sewage discharges from Wessex Water. Historically there has been four discharge consents to surface between 1989-2009 with all 4 now revoked.

3.1.8 Sensitive Land Uses

The site is located within a small industrial estate on the outskirts of Bristol. The site neighbours a large distribution hub and commercial printing facility. The closest sensitive receptor would be the Cattybrook Brickpit Site of Special Scientific Interest (SSSI) located 2.28km to the west of the site. The Severn Estuary is located 7.62km to the west of the site and is designated as a RAMSAR site, SSSI, Special Area of Conservation (SAC) and Special Protection Area (SPA). The large distance between the site and this sensitive receptor means there is a negligible risk posed by on site activities. The site is not located within a Nitrate Vulnerable Zone (NVZ) with the Feltham Brook NVZ located 9.5km to the southeast of the site representing the closest NVZ.

3.1.9 Summary of Site sensitivity

The Site is and surrounding areas are considered to be of **Moderate** sensitivity, based on the following key factors:

- The BGS categorises the bedrock below the site to be Blue Lias Formation which is designated as a secondary aquifer (undifferentiated). This aquifer is designated as a productive aquifer with a high vulnerability. The aquifer is likely to be in strong continuity with local groundwater and surface water receptors however is unlikely to facilitate the movement of groundwater on a larger, regional scale.
- The closest hydrological feature is a small stream that neighbours the sites northern perimeter.
- The surface water outfall for surface water within the external yard area of the production unit is intended to discharge to the stream. This outfall is fitted with a sluice gate which is closed under normal operation. No surface water is discharged to the stream under routine operation and can only be opened in a heavy rainfall/flooding event following completion of a risk assessment. Surface water is uplifted from the site on a routine basis.
- Uncontaminated surface water around the external perimeter of unit 3 & 4 as well as unit 6B is discharged to public sewer.
- Process water generated from cleaning activities is treated by the onsite effluent treatment plant and discharged to a wastewater treatment works operated by Wessex Water.
- The closest sensitive receptor would be Cattybrook Brickpit located 2.28km to the west of the site
- The site resides in flood zone 1 meaning there is between a 0.1-1% chance of flooding each
 year from river and sea. The site is set to remain of low risk from flooding in future climate
 prediction models.
- The site is of low risk from groundwater flooding on a yearly basis.

3.2 Environmental Regulatory Database Review

The following environmental data has been obtained from a search of databases including a recently acquired Landmark Envirocheck® Report (prepared by Landmark Information Group), and publicly available online resources of the British Geological Survey (BGS), EA, and Google Earth. The full Landmark Envirocheck Report is provided as Appendix 2 Envirocheck Reports.

The table below summarizes issues identified on-Site and within 500 m of the Site.



Database	On- Site	0 – 500m	Description	
Contaminated land register entries	0	0	None-identified.	
Current registered landfills	0	0	None-identified.	
Closed landfills	0	1	A historical landfill is located 90 to the west of the site and is understood to have accepted inert waste from construction and demolition industries as well asbestos.	
Current registered waste transfer/ treatment facilities	0	1	A clinical waste transfer station is located 273m to the west of the facility. The licence was issued in 2022 and is operated by Citron Hygiene.	
Closed waste transfer/ treatment facilities	0	1	A waste management operation was carried out at the Woodlands Golf course for: The Use of Waste in Construction < 100,000 tps. The licence was surrendered in March of 2011	
Contemporary Trade Directory Entries	0	9 (31)	9 active, 31 inactive. Active trade directories include surrounding commercial and industrial businesses	
Manufacturing and Production Sites	0	2	2 manufacturing/production installations. No extractive industries within 500m	
Licensed radioactive substances	0	0	None-identified.	
Enforcements, prohibitions or prosecutions	0	0	None-identified.	
Active surface water discharge consents	0	0	None-identified.	
Pollution incidents	1	1	On-site pollution incident described as; biodegradable material and waste: food and drink having been discharged to surface water in 2001. Categorised as significant incident with regards to water impact, and minor incident with regards to land impact. Offsite pollution incident recorded following release of atmospheric pollutants. Categorised as a significant incident with regards to air impact.	
COMAH, NIHHS, or PHS sites.	0	0	No COMAH, NIHHS, or PHS sites are active within 500m of Site.	
Petrol filling stations	0	2	None identified within 500m	

3.3 History of the Site and Surrounding Area

The history of development on the Site was investigated with using the Envirocheck Report. The Site History is summarised below:

Timeframe	Site Description	Description of Surroundings (within 250m)
1886	The site appears to be undeveloped and compromises of woodland and fields	Small roads are located to the west and south of the site. There appears to be a small village to the east with several residential houses and farming related building.
1903	No significant changes	Slight expansion of the village to the east
1916-1938	No significant changes	There is further expansion of the village with there now being an 'allotment garden' present on the western side of the village
1955	No significant changes	No significant changes



1967	The M5 motorway now runs adjacent to the eastern boundary of the facility with the footprint of the site remaining rural.	The M5 motorway is adjacent to the east of the facility and runs north to south. The M4 is partially constructed and is located to the north of the site running east to west. A large junction connecting the M4 and M5 is partially constructed and is located to the north of the site.
1973	No significant changes other than powerlines now running through the site with a pylon located to the western boundary of what will become the production facility.	The M4/M5 junction is now complete. Several farms become apparent within the village to the west.
1982	No significant changes	No significant changes
1989	No significant changes	A small housing estate is constructed ~200m to the south of the site
1995	A large warehousing structure is present which represents 2 separate units. These two units go onto house the production area and offices (Unit 3&4). These units are initially classed as B8 – storage and distribution facilities based on planning records.	A large housing estate is constructed to the south of the site. A business park is constructed to the west of the facility as well as a large industrial building constructed which neighbours the southern boundary of the site. New road connections are constructed and infrastructure generally improved. A golf course is now located to the east of facility – just beyond the M5.
1999	The facility known today as Unit 6A, the storage facility, is constructed across the road from the production facility. This used as an industrial storage unit. Unit 3 & 4 has a premise change from B8 – storage and distribution facility to B2 – Industrial use. The site understood to be a food production point from this point.	There is expansion of the surrounding residential and industrial areas.
2006	No significant changes. Unit 4 & 5 operates as R & B Bristol as a food production facility.	No significant changes
2024	Greencore have ownership of unit 4 & 5 and lease unit 6A. There has been an expansion to the footprint of the main building as well as development to the yard area of the site.	No significant changes
2025 (Present)	Since 2024, a new onsite effluent plant has been constructed consisting of various bulk tanks and drainage infrastructure such as sumps and pipework. The new effluent plant is located in the northwestern portion of the site and includes a balance tank, sludge tank, bulk chemical storage and a dissolved air floatation (DAF) plant.	No significant changes

3.4 Planning Department Records

The South Gloucestershire Planning Applications register (<u>Planning Application Search</u>) has been reviewed. At the time of the report being written there are no open planning applications or appeals that are relevant to this site condition report. The two open planning applications include:



The site still has open planning permission for installation of assets compromising the ETP. Construction was completed in late 2024 and has been operational for ~6 months.

An application for the installation of 2 parabolic reflectors on the roof of a neighbouring business (unit 2) was approved in 2022. It is understood this is not expected to impact the Greencore facility with regards to this site condition report.

3.5 Previous Environmental Assessments, Investigations or Remediation

As far as aware at the time of the report being written, there have been no previous Environmental Assessments, Investigations or Remediation works in the Site location or its immediate surrounding areas relevant to this Site Condition Report.

4 Site Walkover and Inspection

4.1 Methodology and Limiting Conditions

EHS Projects visited the Site on Wednesday 28th May 2025 to undertake a Site walkover, they were accompanied by the Safety, Health and Environment (SHE) Manager. The external areas were all accessed and inspected. An internal walkover was also conducted which included the internal production area, bulk chemical storage and CIP areas.

4.2 Site Overview

The Site comprises of two units with a combined area of approximately 2ha. The site is located within the town of Bradley Stoke, Bristol, within the Bristol Distribution Park. The site is composed of a large joint warehousing unit (unit 3&4) which contains the food production areas as well as a yard area. Delivery vehicles park on the road just outside the main reception area awaiting entry onto site which is controlled by allotted time slots. Across Hawkley Drive Road is unit 6A which is used as a storage facility for raw ingredients which are transported over to the production facility as required.

The site produces various sauces and soups for sale to UK retailers. The site operates 24 hours a day, 7 days a week with an anticipated theoretical production capacity exceeding the threshold requiring an environmental permit. Unit 4 & 5 is where all permitted activities at the site are confined to. This includes the production of soups and sauces, operation of the on-site effluent treatment plant (ETP), bulk chemical storage, chemical and material handling and storage, and cleaning and hygiene operations. Unit 6A is used purely as a storge facility for raw ingredients. Although this facility will be included within the permitted boundary, no permitted activities are expected to take place. No effluent is to be generated within this unit with only dry-cleaning taking place.

The production unit consist of the production halls made up of preparation and weighing stations, kitchen and production areas, packaging and dispatch, and ingredient storage areas. There are small chemical storage areas located both internally and externally which are used as part of the site's cleaning operation. Bulk chemical tanks are stored within the yard area of Unit 3&4 including a bulk caustic tank, caustic and acidic effluent treatment chemicals and waste storage areas.

4.3 Relevant Hazardous Substance Containment

Operations across the Site can be associated with the use and storage of relevant hazardous substances. Relevant hazardous substances are those substances or mixtures defined within Article 3 of Regulation (EC) No 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) which, as a result of their hazardousness, mobility, persistence and biodegradability (as well as other characteristics), are capable of contaminating soil or groundwater and are used, produced and/or released by the installation.

By volume, the most used chemicals are water treatment chemicals as used within the onsite effluent treatment plant and hygiene chemicals used as part of the sites Cleaning in Place (CIP) activities. The ETP is located to the northwest of the facility and is used to treat process water generated from production related activities with the majority coming from cleaning and hygiene operations. Located within the ETP is a 81,000L balance tank, 33,000L sludge tank, 3,500L sulphuric acid tank, 3,500L



caustic tank and 3500L poly aluminium chloride (PAC) tank. Bulk chemicals are stored in self-bunded tanks with the balance and sludge tank single skinned. The ETP is surrounded by a concrete bund thereby providing secondary containment for the balance and sludge tanks as well as for the dissolved air floatation (DAF) plant. Adjacent to the ETP bund is the chemical delivery area which is situated within a separately bunded area as to contain any spills or losses during the delivery of chemicals or the removal of sludge. A 7,000L caustic tank is located within the yard of the site and is used for CIP activities. This tank is self-bunded. IBCs and smaller chemicals used for cleaning and hygiene operations were located within robust, bunded chemical stores both within the yard and internally. A variety of other handheld quantities of hygiene chemicals listed under the CLP regulations are stored within internal COSHH cabinets.

Spill kits are available across the facility which consist of boons, absorbents, putty and magnetic drain covers. All operatives on site are given spill response training as part of the induction programme. Procedural walkover monitoring, preventative maintenance schedules and internal incident reporting practices provide a good framework for mitigating pollution to ground.

4.4 Drainage

The drainage map indicates the full separation of foul from surface water. Effluent is generated mainly from cleaning and hygiene activities including the CIP procedure. Floor water from the facility is directed initially to 'blanked' interceptor which remains as a remanent of the previous effluent treatment arrangements prior to installation of the new ETP. The interceptor no longer acts as a separation unit and receives a regular clean out every 2-3 months. It is reported this asset will be removed in the near future as it is no longer required. Effluent is pumped from this interceptor chamber into a newly constructed sump. The sump is of concrete construction and undergoes planned cleaning operations allowing for visual integrity assessments to be conducted. Effluent is discharged from the sump through pipework initially found below ground which come above ground before entering the balance tank. Above ground pipework is subject to routine visual inspections as to detect damage to the integrity of the pipework that may lead to leaks.

There is a sluice gate fitted to the surface water outfall which conjoins with the neighbouring brook. This sluice gate remains closed under normal operation thereby preventing any water from being discharged to controlled water. This sluice gate is subject to routine inspections and is part of the logistic/yard teams PPM regime.

Two below ground tanks are located within the yard area of the production facility. One tank is associated with the surface water drainage at the outfall point with the neighbouring brook. As this outfall is closed, surface water from this tank is uplifted routinely by an external contractor. The other holding tank is located below ground within the yard area as part of a drainage channel surrounding the dairy intake area. This drainage channel is built as to provide secondary containment as to capture any losses incurred during the dairy delivery process. This drainage system often collects uncontaminated surface water which is uplifted regularly by an external contractor. These tanks are maintained and inspected as a part of onsite PPMs.

The surface water drainage system of unit 6A discharges to sewer and not to controlled water. Whilst there are no infrastructural controls within the surface water drainage system of the storage unit, no permitted activities are undertaken at this unit and only dry cleaning is to take place. Most of the material stored within this unit is solid or viscous food based raw material which presents an inherently low risk to environmental receptors. There is no bulk liquid storage tank within this unit.

The older drainage network located within the internal production halls (unit 3 & 4) and storage facility (unit 6A) are understood to undergo routine CCTV inspections with the most recent taking place in November 2022.

4.5 Waste storage

Solid wastes are generated and stored on Site within the bounds of the Site area in dedicated skips and recycling bins. There are waste compactors within the yard area and are located within sheltered



buildings. Food waste arising from the solid screen as part of the ETP are stored within a skip and frequently uplifted as to prevent the risk of nuisance. Housekeeping in waste storage areas was observed to be good. The site stores relatively small quantities of hazardous waste material and was observed to be situated on appropriate bunding. Overall, waste storage on Site poses low risk to ground and soil receptors.

5 Soil and Groundwater Contamination Risk Assessment

5.1 Potential Current On-Site Sources of Contamination

There is an overall low risk of significant pollution to groundwater occurring on site. The largest risk associated with the site would be undetected losses resulting from below ground pipework and assets. There are various tanks and sumps located at the site which present a potential pathway to groundwater receptors. The site has carried out remedial work to underground pipework and has installed new pipework to sections found to be present integrity concerns. Whilst the newly constructed ETP pipework represent modern, good integrity infrastructure, the pipework within the footprint of the production area and within the yard area represents aging infrastructure and should be inspected and maintained accordingly as to prevent any losses to ground.

5.2 Potential Current Off-Site Sources of Contamination

The Site is in a partially industrial setting. There is, however, no evidence that any recent contamination that has impacted the subject Site.

5.3 Potential Historical Sources of Contamination

Landmark Envirocheck records indicate that a historical landfill is located 90m of the site. The landfill operated between 1975-1980 and is understood to have accepted inert wastes from construction and demolition as well as asbestos. The landfill was prohibited from accepting any pollutant material including toxic, poisonous or noxious agents and was being unable to accept any liquid wastes.

5.4 Previous Reports

Based on Envirocheck reports, a pollution incident occurred at the site in 2001 whereby biodegradable material and waste: food and drink were discharged to the neighbouring brook. The incident was reported as a category 2: significant incident with respect to water impact and category 3: minor incident with respect to land impact. As the pollutant material discharged was reported to be biodegradable material, it is unlikely there is any significant, long-term effects because of this incident.

5.5 Review of Site Sensitivity

The sensitivity of the Site and surrounding area to soil and groundwater contamination is assessed with respect to environmental and human health receptors.

5.5.1 Environmental Receptors

- Pollution to ground could affect the moderately vulnerability secondary A aquifer
- The Cattybrook Pit SSSI is located 2.28km to the west of the site and represents the closest designated receptor. It is highly unlikely that any on site activities would have a direct impact of this receptor.
- All indicators of ground instability suggest no hazard low hazard.
- The site is in a low-risk area from floods caused by rivers or the sea and from surface water. The site is set to remain at low risk from flooding in future prediction models.

5.5.2 Human Receptors

The Site is immediately surrounded by other industrial/commercial units with residential properties located 120m to the south. These residential properties make up a larger residential estate which



stretches towards the centre of the town of Bradley Stoke. These residential properties are unlikely to be affected by onsite activities, particularly with regards to any material losses or breach of containment.

5.6 Assessment of Soil and Groundwater Contamination Risk

Based on the Site inspection and environmental setting of the Site, the Site is considered to pose a low risk to groundwater contamination. The risks to pollution from the internal areas and chemical storage are appropriately mitigated via active controls and preventative measures including:

- Full coverage of site in hardstanding of good integrity.
- Provision of appropriate secondary containment for chemical storage areas and bulk tanks.
- Robust tertiary containment systems to protect environmental receptors in case of a loss of containment.
- Site kerbing.
- Spill kits placed appropriately and associated training for all relevant operatives in place.
- Regular inspections and checks on all areas of the site.
- Accident Plan in place detailing response actions in the event of an incident.

6 Conceptual Site Model

The Conceptual Site Model (CSM) has been prepared based upon the desk-based assessment and Site walkover. The methodology of this risk assessment uses the source-pathway-receptor pollutant linkage to provide a qualitative appraisal of environmental risks and potential liabilities associated with soil and groundwater contamination at the Site.

The CSM is prepared based on the current and continued use of the Site:

Source	Major Pathways	Receptor	Risk
		On-Site Sources	
	Facility operatives dermal contact and contamination.	External environment leading to other listed sources.	Low Potential for movement of contaminants by operatives moving from production to external area. Risk very low as small quantities of chemicals are handled by individuals and chemicals used in cleaning procedures are automatically dosed to a safer concentration. PPE used appropriately.
Current Site operations associated with raw material delivery, the production process and storage of raw materials, finished product and	Overland run-off and drainage into surface water.	Local streams and controlled waters	Internal operations are contained by walls and hardstanding of good integrity. Surface water outfall into controlled water is closed under routine operations meaning any material losses occurring from a leak or spill are confined with the site boundary.
engineering and hygiene chemicals.		Local streams and controlled waters	Low Internal operations are contained by walls and hardstanding of good integrity. External chemicals are stored within appropriate
		Secondary aquifer (undifferentiated)	secondary containment measures as well as strong tertiary containment methodology.



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	Contact with buried services	Buried services	Should any new services be installed at the Site i.e., water pipes, then the water supply provider should be consulted to determine whether protective barrier pipes are required.
Vehicle use of roadways	Overland run off and drainage into surface water.	Local streams and controlled waters	Low The risk is mitigated by good waste housekeeping standards, good drainage integrity, good spill response and high hardstanding integrity. No evidence of significant drain damage. Further protection provided by interceptors.
and external waste storage.	Leaching of contaminants and vertical migration into groundwater	Local streams and controlled waters	Low The risk is mitigated by good waste housekeeping standards, drainage integrity, good spill response and high hardstanding integrity. Large portion of effluent drainage network runs above ground allowing for easy detection of any damage.
		Secondary aquifer (undifferentiated)	
		Off-Site Sources	
	Contractors and construction workers dermal contact and contamination	External environment leading to other listed sources	Low Risk pathway to be managed through good construction practices and use of PPE.
Contamination from	Overland run-off	Local streams and controlled waters	Low Surrounding business are not high-risk
neighbouring industrial premises.		Secondary A aquifer	industries with no history of pollution incidents impacting the ground. The Presence of a historical landfill located 90m from the site's boundary poses a low risk to
	Leaching of contaminants and vertical migration into groundwater	Local streams and controlled waters	l
		Secondary A aquifer	the site.

7 Conclusion of SCR

The above assessment makes up the Site Condition Report (SCR) for Greencore Bristol Site. The purpose of this report was, to the extent feasible, to establish potential ground contamination sources, assess the hazard and estimate the risk of pollution using the source-pathway-receptor (S-P-R) linkage and evaluate the acceptability of land contamination risk.

The site is deemed to be in an area of moderate environmental sensitivity based on the summary of environmental receptors. The bedrock beneath the site is designated as a secondary aquifer (undifferentiated) and thus is designated as sensitive receptor for pollutant material migrating through soil. The aquifer can facilitate the storage and movement of large volumes of groundwater however limited to a local scale rather than a regional scale. To the north the site neighbours a small brook which is also the designated outfall for the surface water within the yard area. A sluice gate is located at this outfall and is closed under normal operation with surface water being uplifted from the drainage network by an external contractor. A large residential estate is located 120m to the south of the facility which is



separated from the site by other warehouse plots and a main road. It is unlikely these residential receptors would be affected by any material losses or loss of containment. The Cattybrook Brickpit SSSI located 2.28km to the west is the closest sensitive environmental receptor. There is a very low risk of onsite activities effecting this receptor.

Surrounding businesses include distribution hubs, production facilities and commercial units. There have not been any reported issues of these business effecting the site nor the surrounding land. A historical landfill operating between 1975-1980 is present 90m to the east of the site having operated between 1975 – 1980. The landfill is reported to have received inert waste from construction and demolition industries, excavated natural material waste, inert industrial waste, paper making waste and asbestos. No polluting or toxic/poisonous material could be accepted at this landfill as well as no liquid waste. The history of the site demonstrates it has operated as a storage and distribution unit as well as a food production facility. Historically the surrounding businesses have been distribution hubs and low risk production sites.

The current risk of pollution from the internal areas, yard activities, detergents and chemical storage are understood to be mitigated appropriately by active controls and preventative measures which include but are not limited to:

- Full coverage of site in hardstanding of good integrity.
- High integrity concrete bunding of effluent treatment plant.
- Site kerbing.
- Provision of appropriate secondary containment for chemical storage areas and bulk tanks:
- Robust tertiary containment systems to protect environmental receptors in case of a loss of containment.
- Site kerbing.
- Spill kits and associated training in place.
- Routine inspections and PPM on pollution critical infrastructure and assets.
- Accident Plan in place detailing response actions in the event of an incident.

Overall, the Site is generally of low risk with respect to contaminated land liability. While there are no intrusive records provided here to quantify ground condition, the operator is aware that upon surrender of the permit there may be a requirement to demonstrate an agreed status of underlying land condition. The operator acknowledges this potential liability and accepts the risk.

The Site's use and continued use a food manufacturer and the ongoing checks and audits at the Site indicate that it's unlikely that the Site poses an actual or significant risk to users and the baseline condition of the Site.

Appendices

Appendix 1 - Borehole Records

BGS ID: 18946341 : BGS Reference: ST68SW164

BGS ID: 18946342 : BGS Reference: ST68SW165

Appendix 2 Landmark Envirocheck Reports