Environmental Due Diligence Assessment

PROJECT ROCKET - HOLBEACH ST MARKS, LINCOLNSHIRE

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Client:

BAKKAVOR ESTATES LIMITED AND THE RELIANCE PARTIES (AS DEFINED)

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Reference:	30332-08E/R/1.5.1/JNL
Status:	FINAL ISSUE
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EXECUTIVE SUMMARY

Waterman Environmental was commissioned to complete a Phase I Environmental Due Diligence Assessment of Holbeach St Marks, Lincolnshire. The benefit of this report is made to Bakkavor Estates Limited and the Reliance Parties as defined in the Facility Agreement dated 26 September 2008 between (1) Bakkavor Estates Limited; (2) Kaupthing Singer and Friedlander Limited (as mandated lead arranger); (3) the "Financial Institutions" listed in Schedule 1 Part II and Part III as lenders in the Facility Agreement; (4) Kaupthing Singer and Friedlander Limited (as agent of the other Finance Parties as defined in the Facility Agreement) and (5) Kaupthing Singer and Friedlander Limited (as security agent for the Secured Parties as defined in the Facility Agreement) ("Reliance Parties").

The objective of the Phase I Environmental Due Diligence Assessment was to assess the compliance of the property with key environmental legislation (as defined in the Fee Letter 30332E_F_003_PL, dated 26 September 2008) ("Fee Letter"), identify any breaches thereof, assess potential contamination liabilities and, where considered necessary, recommend further intrusive environmental investigations to clarify any liabilities.

The site is located at National Grid Reference 535100, 331980 and comprises five main units, of which two are currently used as food production facilities (Pizzeria and Freshcook). The remaining units comprise a currently disused salad production facility, a warehouse, a laboratory and a crèche. Undeveloped agricultural land is located in the north and east of the subject property.

The table below identifies key environmental issues with respect to the study site.

Issue	Principal Finding	Comment/Recommendations	Budget Estimate
Contaminated Land	Historical maps identify that the site remained undeveloped until the 1970s with development on the southern portion of the property. Industrial development of the site has continued and extended across the property up until the present day. Based on information obtained and observations made during the site inspection, there is considered potential that the operations onsite may have resulted in local environmental impact. Hydrocarbon staining was observed on concrete hardstanding at the base of a diesel above ground storage tank located at the centre of the site. Land in the north and east of the site is currently leased for agricultural use. As such, potential for significant environmental impact to soil and groundwater in these areas of the site is considered to be low. The site is in an area of moderate environmental sensitivity. T he site is indicated to be directly underlain by a Non-Aquifer and is not located within a groundwater Source Protection Zone. Furthermore, there are no active recorded groundwater abstractions within a 1km radius of the subject property. However, potential surface water receptors have been identified both at the site and in the immediate surrounding area. As the site is indicated to be directly underlain by a Non-Aquifer, comprising relatively impermeable deposits, the potential for migration of contamination off-site and towards identified surface water receptors (via groundwater) is considered to be low. Information provided by the EHO at Lincolnshire County Council indicates that the site has not been registered as contaminated land under the Environmental Protection Act (EPA) 1990. Furthermore, the subject property is not within the Council's prioritisation list under its contaminated land strategy.	On the basis of available information the site is considered to represent a **low to medium risk** of contaminative liabilities, as defined under the EPA 1990, in its current use and layout. No intrusive investigations recommended.	**No Costs**
Bulk Material Storage	A number of IBCs containing olive oil and 205 litre drums containing tomato paste, located on unbunded hardstanding in the warehouse delivery area to the east of the unit.	The Control of Pollution (Oil Storage) (England) Regulations 2001 require for containers with a capacity of more than 200 litres to be provided with an adequate secondary containment. It is therefore recommended that any IBCs containing oils (including cooking oils) are stored upon bunded drip trays of adequate capacity **(Non-Compliance)**.	**Allow £6,000 (including VAT and ancillary expenses)**

Issue	Principal Finding	Comment/Recommendations	Budget Estimate
Surface Water Management	Surface water discharge from the site comprises rainwater run-off from building roofs and external areas of hardstanding. The majority of surface water run-off drains to a hydrocarbon interceptor prior to discharge to Holbeach River, located adjacent to the western boundary of the site.	It should be determined whether consent for the discharge of surface water drainage to the controlled water is required by the Environment Agency (EA) under the Water resources Act 1991 **(Potential Non-Compliance)**.	**Management Time Only**
	Surface water run-off from the roof of the former salad production drains to a plastic lined balancing reservoir, located in the west of the site, prior to direct discharge to Holbeach River.	See above.	**See Above**
	The Landmark EnviroCheck report identifies a surface water discharge consent which is registered to Tinsley Foods, the previous site operator.	Site management should confirm that all active discharge consents have been transferred to the current operator's correct legal name **(Potential Non-Compliance)**.	**Management Time Only**
Waste	General waste is compacted and cardboard/plastics bailed at the waste storage area located in the centre of the site. An additional bailer is located to the north of the Freshcook unit.	Under the Environmental Permitting (England and Wales) Regulations 2007, the bailing of cardboard and paper below 3,000 tonnes per week; plastic below 1,000 tonnes per week and other general waste below 100 tonnes per week is exempted from an Environmental Permit. However, the business will still have to register this exemption with the EA under Schedule 2 of the abovementioned Regulations **(Potential Non-Compliance)**.	**Management Time Only**

1. INTRODUCTION

1.1 GENERAL

Waterman Environmental was commissioned to undertake a Phase I Environmental Due Diligence Assessment of the Bakkavor property at Holbeach St Marks, Lincoln. The benefit of this report is made to Bakkavor Estates Limited ("Bakkavor") and the Reliance Parties.

The assessment was undertaken in accordance with the scope agreed between Waterman Environmental and Eversheds LLP as documented in Waterman Environmental's Fee Letter, and with the standard consulting agreement agreed between Waterman Environmental and Eversheds LLP, on behalf of Bakkavor.

Waterman Environmental has endeavoured to assess all information provided during this investigation, but can make no guarantees or warranties as to the accuracy or completeness of this information. The scope of this project does not include an assessment of the presence of asbestos containing materials (ACMs) within or below buildings at the site or any of the three types of technical asbestos surveys detailed in the benchmark HSE Guidance Note MDHS 100.

1.2 OBJECTIVES

The objective of the Phase I Environmental Due Diligence Assessment was to assess the compliance of the property with key environmental legislation (as defined in the Fee Letter), identify any breaches thereof, assess potential contamination liabilities and, where considered necessary, recommend further intrusive environmental investigations to clarify any liabilities.

1.3 METHODOLOGY AND SCOPE OF WORK

The audit comprised a site tour and an interview with Nigel McConachie, the Health, Safety and Environmental Manager for the site.

An off-site review of additional information sources, including discussion with the local authority responsible for the site, was also conducted. An EnviroCheck report was commissioned from Landmark Group for the site to summarise information held on the public register.

The site visit was undertaken by Jim Lightbown of Waterman Environmental on 10 October 2008.

1.4 BASIS OF ENVIRONMENTAL RISK ASSESSMENT

In order to assess the risks associated with the presence of ground contamination, the linkages between the sources and potential receptors need to be established and evaluated. This is in accordance with Part IIA of the Environmental Protection Act (EPA) 1990, which provides a statutory definition of contaminated land. To fall within this definition it is necessary that, as a result of the condition of the land, substances may be present on or under the land such that:

a) significant harm is being caused or there is a significant possibility of such harm being caused; or

b) pollution of controlled waters is being, or is likely to be, caused.

Risk from contamination is assessed by consideration of possible linkages between contaminant sources and potential receptors which could be harmed or polluted, and the potential pathways between them.

The EPA 1990 and associated Secretary of State Guidance also establish the framework for the apportionment of responsibility, and hence financial liability, for the remediation of contaminated land ("the appropriate person(s)"), in accordance with the following general principles:

1. Any person(s) causing or knowingly permitting the release of substances in, on or under the land, which results in that land being classed as contaminated is designated the appropriate person.

2. Where two or more parties are responsible for the contamination, the liability will be apportioned appropriately, subject to the application of specific exclusion tests.
3. In the instance that those causing or knowingly permitting contamination cannot be found, the liability rests with the owner or occupier of the site.
4. Where neither the person causing contamination or the land owner/occupier can be determined (an "orphan linkage"), the regulator will be responsible for remediation.

It should be noted that, under no circumstances land should be designated as contaminated where a substance is already present in controlled waters, the entry into controlled waters of that substance from land has ceased and it is not likely that that further entry will take place. These exclusions do not necessarily preclude regulatory action under the Water Resources Act 1991, which makes it a criminal offence to cause, or knowingly permit, water pollution to occur. In England and Wales, an anti-pollution notice may be served by the regulator requiring appropriate investigation and clean-up.

In consideration of the regulatory regime and available information, the overall risk with respect to issues identified on the site has been assessed qualitatively as low, medium or high on the following basis:

Low Risk It is unlikely that the issue will arise as a liability/cost for the owner of the subject business/site

Low-Medium Risk It is considered unlikely that the issue will arise as a liability/cost for the owner/occupier of the site, whilst the site retains its current use. However, in the event that development occurs further assessment and costs may be incurred as a result of the development/change of use.

Medium Risk It is possible that the issue could arise as a liability/cost for the owner of the subject business/site. Further work may be required to clarify this risk

High Risk It is likely that the issue will arise as a liability/cost for the owner of the subject business/site.

It should be noted that this risk rating considers liabilities and costs associated with the contaminated land regime, as defined under the EPA 1990 only. The classification of waste arisings during redevelopment works (i.e. as hazardous, non-hazardous or inert) may not necessarily correspond to this assessment rating. As such, in the event of proposed redevelopment which will result in the disposal of significant volumes of excavated soil to landfill, it is strongly recommended that Waste Acceptance Criteria (WAC) testing of soils is undertaken to accurately assess waste disposal costs.

2. SITE DETAILS

2.1 SITE DESCRIPTION

The site is centred at National Grid Reference 535100, 331980 approximately 6km to the north of Holbeach, and 1km to the west of Holbeach St Marks. Site management reported that Bakkavor acquired the freehold for the site in approximately 2002. The subject property comprises six main units, as follows:

- Pizzeria – Pizza production facility, offices and welfare facilities. Located in the south of the site;
- Freshcook – Ready meal production facility, offices and welfare facilities. Located in the southeast of the site;
- Salad production facility – Disused prior to purchase of the site by Bakkavor. Located in the centre of the site and remains disused, save some dry storage of equipment in its eastern portion (access not available during site visit);
- Warehouse – Ambient, chilled and frozen storage for incoming goods and some mid-process products. Located in the southwest of the site;
- Laboratory – Laboratory for the analysis of foods and liquids submitted from this and other Bakkavor facilities. Located in the southwest of the site; and
- Crèche – Leased from Bakkavor as a child care facility with some office accommodation on the first floor. Located in the southwest of the site.

In addition, a disused former tray wash facility is located in the centre of the site. This is understood to have been redundant since occupation of the site by Bakkavor and is currently used for dry storage.

Agricultural land in the north and east of the subject property is understood to be leased by Bakkavor. Site management were unable to provide any further information on the management of this agricultural land.

A copy of the lease agreements for both the crèche and agricultural land have been requested and are currently pending.

All internal hardstanding comprises epoxy-coated or uncoated concrete, with sealed expansion joints, which was in good condition at the time of the site inspection. External hardstanding was observed to be either concrete or tarmac and was predominantly in average to good condition. A proportion of the site comprises landscaped areas and no signs of vegetation stress were observed during the audit.

A site location plan is presented as Figure A1 and a site layout as Figure A2.

2.2 SITE SURROUNDINGS

The property is located in a predominantly rural area, with undeveloped farmland bounding the site in all directions. A small residential property, Leadenhall Cottage, is located on the eastern boundary of the property, and a cluster of buildings associated with Sluice Farm is located beyond the southwestern corner.

2.3 SITE ACTIVITIES

The site comprises two food production facilities, namely Pizzeria and Freshcook. The Pizzeria facility produces pizzas that are supplied to a number of supermarket chains, including Marks and Spencer, Sainsburys and Tesco. The Freshcook facility produces ready meals and cook at home products exclusively for Marks and Spencer. The main processes at each of these facilities comprise the following:

<u>Pizzeria</u>

- Goods in: raw materials are delivered to the north of the processing facility, where they are stored in ambient, chilled or frozen storage rooms;
- Pizza base preparation: carried out along two production lines on the first floor of the facility. Generally, ingredients are mixed in one of eight mixing bowls with the resulting dough sheeted out and passed through a prover (approx. 30^{o}C) for yeast activation. The base is subsequently conveyed to the ground floor where it is cut and coated in either an oil wash or tomato sauce prior to baking in one of two ovens (approx. 200^{o}C). The cooked bases are passed into spiral freezers, which transfer them back to the first floor. These bases are subsequently either stored in a first floor chilled area for pending use or transferred to the warehouse for frozen storage;
- Sauce preparation: vegetable ingredients are passed through a wash flume and incoming packaged ingredients sanitised through a spray loop before passing into the preparation area. Sauces are manually prepared according to recipe and toppings sliced (i.e. meats, vegetables and cheese) or grated (cheese) by automated machinery before transfer to the assembly lines;
- Pizza assembly: carried out along two assembly lines on the ground floor of the facility. Prepared pizza bases are passed along a conveyer where the sauce is applied through dispensers and toppings manually added;
- Packing and product storage: the finished pizza is wrapped in plastic film before passing through a heat tunnel to shrink wrap the product. Where required, the wrapped pizza is also packaged in a cardboard box or sleeve. Packaged product is subsequently batched in either cardboard boxes or plastic trays for storage in a chilled goods out area prior to dispatch; and
- Cleaning of process trays and equipment: all process goods trays and equipment are cleaned using a dedicated tray wash in the southeast of the facility.

Ancillary support functions at this unit include offices, welfare facilities, a canteen and a unit maintenance workshop (including welding and metal grinding equipment and parts store) that is located in the north of the facility.

Freshcook

- Goods in: raw materials are delivered to the north of the processing facility, where they are stored in ambient, chilled or frozen storage rooms;
- Ingredient preparation: vegetable ingredients are passed through a wash flume and incoming packaged ingredients sanitised through a spray loop before passing into the preparation area. Sauces, meats, fish and vegetables are prepared by employees according to recipe;
- Ingredient cooking: sauces are cooked in three large pans located in the non-protein cooking area. Also located within this area are two cook/quench/chill lines for the cooking of pasta, potatoes and vegetables. Two belt ovens are located in a designated protein cooking area for the cooking of meat, fish and the roasting of vegetables. Also located within this area is a rotary oven for cooking joints of meat and steaming rice and a searing plate for when only partial cooking of meat is required;
- Ingredient cooling: ingredients cooked within the protein cooking area are transferred to one of three blast chillers for cooling prior to assembly. Further blast chillers are used for the cooling of ingredients that have been cooked in the non-protein cooking area. Two chilled water tumblers are used to cool cooked sauces that have been transferred to 5 litre bags;
- Product assembly: cooked ingredients are transferred to a number of process lines for manual assembly within individual packaging trays. Uncooked and part processed ingredients are also introduced at this stage. Similarly to ingredient preparation, incoming vegetable ingredients are passed through an additional wash flume and packaged ingredients through a further spray loop. Some machine processing (i.e. slicing and dicing) of these ingredients is carried out prior to addition to the product;
- Product packaging: a “modified atmosphere” (to increase product longevity) of oxygen, carbon dioxide and nitrogen is added to the product prior to heat sealing of the individual packaging trays with plastic film. Where required a cardboard box or sleeve is applied to the product;
- Pastry production: a separate process line is located in the unit for the production of pastry products (i.e. beef/salmon en croute and pies). These products are not packaged within a modified atmosphere;
- Product storage: packaged product is subsequently batched in plastic trays for storage in a chilled goods out area prior to dispatch; and
- Cleaning of process trays and equipment: all process goods trays and equipment are washed in either the preparation tray wash in the north of the unit or the high care tray wash in the centre.

Ancillary support functions at the Freshcook unit include offices, welfare facilities and a unit maintenance workshop (including welding and metal grinding equipment and parts store) that is located in the northeast of the facility.

2.4 GEOLOGY, HYDROGEOLOGY AND HYDROLOGY

The British Geological Society (BGS) Map for the area (Sheet 144, Spalding Solid & Drift Edition) indicates that the site is directly underlain by Terrington Beds (comprising younger marine alluvium, salt marsh, tidal creek and river deposits) indicated to overlie the West Walton Formation (comprising predominantly silty mudstones and calcareous mudstones). The West Walton Formation is indicated to be underlain by Oxford Clay to depth. The site is not located in an area which may be affected by coal mining.

The Environment Agency (EA) Groundwater Vulnerability Map for the area (Sheet 24, North Northamptonshire) indicates that the site is directly underlain by a Non-Aquifer. This is considered to relate to the Terrington Beds directly underlying the site. The West Walton Formation and Oxford Clay are also classified as Non-Aquifers by the EA.

There are no active recorded groundwater abstractions within a 1km radius of the site and the site is not indicated as located within a groundwater Source Protection Zone (SPZ).

There are no confirmed active groundwater discharge consents within a 1km radius

There are several unnamed land drains in the area, the closest of which are in the centre of the property, and bound the site to the south, east and northeast. Site representative were unaware of any culverts

that may be located on the site. A lined balancing reservoir is also located on the southwestern portion of the property. The nearest major surface water feature is the Holbeach River which flows from south to north along the western boundary of the property. The River Whaplode, which forms a tributary to the Holbeach River approximately 500m to the south, was classified as Grade E (poor) for the year 2000 under the EA's General Quality Assessment scheme. The quality of the Holbeach River has not been assessed in the vicinity of the site.

There are no active recorded surface water abstractions within a 1km radius of the site. Tinsley Foods Limited were recorded as previously holding a license to abstract water from the Holbeach River for onsite industrial processing purposes, but this is recorded as revoked. It is understood that no surface water abstraction is currently carried out at the site.

There are two active recorded surface water discharge consents within a 1km radius of the site. These are registered to Tinsley Foods Limited and Bakkavor Foods Limited for discharge of process water to the Holbeach River 110m to the southwest, and are considered likely to be associated with current site activities.

According to the current EA flood maps the site is located within an area at significant risk of fluvial flooding, with the chance of flooding each year being 1% (1 in 100) or less. There are recorded flood defences in the area, and the impact of these has been included in the EA's flood risk calculations. Site management confirmed that, to their knowledge, there have been no flooding incidents on-site.

There have been six recorded pollution incidents to controlled waters within a 500m radius of the site, one of which was recorded at the subject property itself. The event occurred in July 1992 and involved the discharge of unknown pollutants into the Holbeach River, although no party is named in the records. The incident was classified as Category 3 (Minor) by the EA. A further two recorded pollution incidents have been attributed to the food industry (although this is not necessarily related to the site, and it is notable that the site is not named as a polluter). The records both relate to an incident which occurred in May 1997 in which organic wastes were identified in a roadside dyke, attributed to an accidental leak/spillage. The event was also classified as Category 3 (Minor) by the EA. Of the remaining events, one was recorded as having a Category 2 (Significant) impact to the Holbeach River. The event occurred in July 1993 and was the result of unknown pollutants. Current site management had no knowledge of these incidents as they occurred prior to occupation of the subject property by Bakkavor.

However, it was reported that a pollution incident occurred at the site in early 2008. The incident involved spillage during dispensing of diesel fuel from an aboveground storage tank (AST) located in the centre of the site. Approximately 20 to 30 litres of fuel is understood to have entered the surface water drainage system and been captured within the onsite oil interceptor. Fuel within the interceptor was subsequently removed by vacuum tanker and disposed of by a licensed contractor. The EA were not informed of the incident and no further action was deemed to be required by the site. This incident is not considered to correlate with any of those recorded within the EnviroCheck report.

2.5 SITE HISTORY

2.5.1 Summary

According to historical information, the site was undeveloped, save for a small pit or pond and a field drain until circa 1970. Historical maps indicate that the pit/pond was infilled during the early 20th century, and the field drain was infilled by the mid-20th century. Buildings were first constructed onsite during the early 1970s, an expansion of Sluice Farm to the south. Further buildings, tanks and ponds were added to the southern portion of the site from this time until the current day.

Historical maps suggest that surrounding land has been predominantly undeveloped.

2.5.2 Detailed Site History

Relevant site history is shown in chronological order in Table 1 below:

Table 1: History for the subject site

Source	Scale	Site[a]	Surrounding Land Use[a]
OS Map 1888 1890	1:1,250 1:10,560	Site is marked as undeveloped land, with a field drain running through the centre of the property. A small pond / pit are located in the southwest corner.	Surrounding land use is predominantly undeveloped. Leaden Hall is located circa 50m to the east of the site, and Sluice Farm is located on the southern boundary of the property. A large area of marshland is located to the immediate north. Various small ponds are located in the surrounding area, the closest of these is 50m to the east.
OS Map 1905 1906	1:1:250 1:10,560	Site remains undeveloped, and pond/pit is no longer marked, possibly ***infilled***.	Surrounding land remains predominantly unchanged. Marshland to the north has been drained.
OS Map 1931 1951 1956	1:10,560 1:10,560 1:10,560	Site remains undeveloped. Field drain in centre of site has been ***infilled***.	Surrounding land use remains predominantly unchanged. Pond to the east is no longer marked, possibly ***infilled***.
OS Map 1971 1979	1:2,500 1:10,000	Expansion of ***Sluice Farm***'s buildings onto the southern portion of the site, including three ponds.	Surrounding land use remains predominantly unchanged.
OS Map 1991 1995	1:2,500	***Tanks*** with unspecified content identified on southern and southeastern portions of site. Three more ponds constructed on-site.	Surrounding land use remains predominantly unchanged.
OS Map 2000 2008	1:10,000 1:10,000	Further expansion of farm buildings on southern portion of the site.	Surrounding land use predominantly unchanged.

[a] Potentially contaminative uses are shown in bold italics.

2.6 PREVIOUS INVESTIGATIONS

No previous reports were provided by the site for review as part of this assessment.

2.7 CONSULTATIONS

2.7.1 Database Search

The EnviroCheck report identified the following issues of significance with respect to the site:

- There are no recorded active Environmental Permits, previously registered under the Local Authority Air Pollution Control (LAPPC), the Local Authority Integrated Pollution Prevention Control (LAIPPC) or Integrated Pollution Prevention and Control (IPPC) regimes, located within a 1km radius of the site;
- There are no recorded Control of Major Accident Hazards (COMAH) sites, Notifications of Installations Handling Hazardous Substances (NIHHS) sites or registered radioactive substances consents held within a 500m radius of the site;
- A licensed waste management facility (household, commercial and industrial transfer station) was previously located on the eastern boundary of the site, and was registered to Lambert House, Holbeach St Johns. No further information is available to confirm the exact nature of these activities;
- There is one recorded historical landfill site within a 500m radius, located 330m to the northwest. No further information is available within the dataset to confirm the exact nature of these activities, and it is notable that there is no evidence of landfilling activities in this area on historical map extracts;

- The site is located within an area where less than 1% of homes are above the radon action level. As such, no radon protection measures are necessary in the construction of new dwellings or extensions; and
- There are no statutory protect habitats located within a 500m radius of the site.

2.7.2 Environmental Health

Information provided by the Environmental Health Officer (EHO) of Lincolnshire County Council indicates that:

- The site is not registered as contaminated land under the EPA 1990 and is unlikely to be registered in the future;
- The site is not on the Council's prioritisation list as part of its contaminated land strategy;
- The council is not aware of any pollution or contamination incidents at or near the site;
- There are no records of landfills/made ground present at or near the site;
- There are no Part B process on the site or nearby; and
- The Council have had two complaints regarding the site. The first of these was recorded in April 2002 and concerned the water quality of a dyke running across the site. The council referred the complainant to the EA. The second was recorded in August 2004 and concerned a cooking odour from the Pizzaria. The Council officer was unable to witness a statutory nuisance and the case was closed.

2.7.3 Planning Department

Information has been requested from the Planning Department of Lincolnshire County Council and a response is pending.

According to the planning history supplied as part of the Local Authority Searches (CON-29 Form), as provided by Eversheds LLP, the first planning permission was granted in 1958 for the erection of a carrot washing shed. Since this time, various proposals have been approved for the extension of the food processing activities and associated buildings. Of most environmental significance are the following:

- H09/0453/82 - Erection of boiler room and transformer compound which was approved on 21 July 1982;
- H09/1950/88 – Modification to effluent treatment facility, approved on 22 March 1989;
- H09/0057/92 – Extension to existing effluent treatment plant and provision of new outfall was granted outline consent on 2 April 1992, with subsequent approval of reserve matters;
- H09/0695/94 – Extension to existing effluent treatment plant was approved in full on 1 September 1994.

Most recently, there have been two approved applications for change of use for certain buildings on-site to adult education, child care and community facilities, and for office/light industrial use. These were granted approval on 12 October 2004 and 17 January 2005 respectively.

2.7.4 Building Control Department

Information has been requested from the Building Control Department of Lincolnshire County Council and a response is pending.

2.7.5 Environment Agency

Information was requested from the EA with regards to the site's location within an indicative floodplain but a response is currently pending.

3. SUMMARY OF KEY ISSUES

The following section of this report highlights the key environmental issues identified with respect to the study site.

Finding/Issue	Comments/Recommendation	Budget Estimate
CONTAMINATED LAND ASSESSMENT		
Based on information obtained and observations made during the site inspection, there is considered potential that the operations onsite may have resulted in localised environmental impact. Large volumes of liquid hazardous substances (particularly oils) are currently stored and used at the site. Hydrocarbon staining was observed on concrete hardstanding at the base of a diesel above ground storage tank located at the centre of the site. Land in the north and east of the site is currently leased for agricultural use. As such, potential for significant environmental impact to soil and groundwater in these areas of the site is considered to be low.	On this basis, there is considered potential that current activities in the north of the site may have had a localised impact to soil and/or groundwater quality beneath the site.	**No Costs**
Historical maps identify that the site was undeveloped, save for a small pit or pond and a field drain until circa 1970. Historical maps indicate that the pit/pond was infilled prior to the 1900s, and the field drain was infilled by the 1930s. However based on the age of the infill, potential for ongoing ground gas generation from these infilled features is considered to be low. Buildings were first constructed on-site during the early 1970s, an expansion of Sluice Farm to the south. Further buildings, tanks and ponds were added to the southern portion of the site from this time until the present day.	The site has been occupied by industrial land use since the 1970s. Potential for detrimental impact to soil and/or groundwater quality beneath the site from identified historical site uses cannot, at this stage, be discounted.	
Historical maps suggest that surrounding land has been predominantly undeveloped and remains so to present. An unnamed pond to the east of the site is indicated to have been potentially infilled since the 1930s. However based on the age of the infill, potential for ongoing ground gas generation from this material is considered to be low.		
A recorded landfill has been identified within the dataset 330m to the northwest. There is no evidence of this landfill on historical map extracts, and further information has been requested from the local authority,	Potential for contamination of soil and/or groundwater by identified current and historical off-site activities is considered to be low, with the exception of the nearby landfill.	

Finding/Issue	Comments/Recommendation	Budget Estimate
The subject property is considered to be of moderate environmental sensitivity. The site is indicated to be directly underlain by a Non-Aquifer and is not located within a groundwater SPZ. Furthermore, there are no active recorded groundwater abstractions within a 1km radius of the subject property. However, unnamed land drains have been identified as located across the centre of the property and at its southern, eastern and northeastern boundaries. The nearest major surface water feature is the Holbeach River which flows from south to north along the western boundary of the property. A balancing reservoir is also located on the southwestern portion of the property, however this was observed to be plastic lined.	The site is indicated to be directly underlain by a Non-Aquifer comprising relatively impermeable deposits. As such, the potential for migration of onsite contamination towards identified surface water receptors (via groundwater) is considered to be low. In addition, the low permeability deposits are likely to restrict the on-site migration of any gas generated from the decomposition of waste within the nearby recorded landfill.	
Information provided by the EHO at Lincolnshire County Council indicates that the site has not been registered as contaminated land under the Environmental Protection Act (EPA) 1990. Furthermore, the subject property is not within the Council's prioritisation list under its contaminated land strategy.	On the basis of available information the site is considered to represent a **low to medium risk** of contaminative liabilities, as defined under the EPA 1990, in its current use and layout. No intrusive investigations recommended.	**No Costs**

GENERAL PERMITTING REQUIREMENTS

The Environmental Permitting Regulations (England and Wales) Regulations 2007 (EP Regulations) came into for in England and Wales on 6 April 2008. This new permitting regime covers facilities previously regulated under the Pollution Prevention and Control (PPC) Regulations and Waste Management Licensing and exemptions. Under the EP Regulations, operators holding a waste licence or a PPC authorisation have now had their permits automatically transferred and become environmental permits under this new regime. It should be noted that all conditions imposed as part of their PPC authorisation are still valid under the new regime. As such, holders of previous PPC authorisations should ensure that conditions set by the environmental regulator in their previous authorisations are still complied with.

Finding/Issue	Comments/Recommendation	Budget Estimate
In accordance with Section 6.8 of these Regulations, an Environmental Permit is required for any plant that processes: • vegetable raw materials with a finished product capacity of greater than 300 tonnes per day (average value on a quarterly basis); or • animal raw materials (other than milk) at a plant with a finished product production capacity of more than 75 tonnes per day.	Although site representatives were unable to confirm daily tonnage of finished product from either the Pizzeria or Freshcook food production facilities, it was reported that neither facility exceed these specified thresholds and that this has been confirmed with the EA.	**No Costs**
The regulations further stipulate that the treatment of animal or vegetable matter which may result in the release of substances into controlled waters requires an Environmental Permit.	Based on available information, it is understood that such releases to controlled water do not occur from the onsite processes.	
BULK MATERIAL STORAGE *Aboveground Storage Tanks* The following ASTs are known to be located at the site for the storage of liquid hazardous substances: • Two connected bunded gas oil ASTs of steel construction with a combined capacity of approximately 30,000 litres, located to the west of the Freshcook unit. This is used to power the main onsite boiler, located in the west of the Freshcook facility; • One currently disused, bunded, 10,000 litre gas oil AST of single skin steel construction, located at the northwest corner of the former salad production unit. This was used to power the redundant boiler within the unit; • 2,500 litre internally bunded AST of plastic construction containing diesel, located on concrete hardstanding in the centre of the site. The fuel is dispensed for powering refrigerated Heavy Goods Vehicle (HGV) trailers parked in the vicinity;		**No Costs**

Finding/Issue	Comments/Recommendation	Budget Estimate

- 10,000 litre bunded AST of steel construction containing coagulant for use in the trade effluent treatment process, located at the trade effluent treatment plant in the west of the site;
- Two 7,500 litre internally bunded ASTs of steel construction for the storage of detergent (PrimeCIP VC93) and cleaner (Oxofoam VF5), located to the north of the Pizzeria unit;
- One currently disused unbunded 2,000 litre sodium hypochlorite AST, located at the northwest corner of the former salad production unit; and
- Two 1,300 litre plastic ASTs for the storage of sodium chloride and hydrochloric acid respectively, located to the north of the Freshcook unit.

Each of these ASTs was observed to be located on hardstanding of adequate quality. The fill points for gas oil, diesel fuel and coagulant ASTs are located within secondary containment. However, those fill points for the remaining ASTs were observed to be without secondary containment.

The ASTs for the storage of gas oil, coagulant and sodium hypochlorite were reported to pre-date occupation of the site by Bakkavor. The remaining ASTs are understood to be relatively recent in age.

Heavy staining was observed on hardstanding at the base of the diesel AST where spillage had occurred during the dispensing of product. It is understood that surface water run-off from this area discharges to the surface water drainage system. In addition, localised staining was observed on hardstanding at the base of the fill points for the detergent and cleaner ASTs. Site management were unable to confirm whether surface water run-off from this area also discharged to the surface water drainage system. Little to no staining was observed on hardstanding at the base of the remaining ASTs.

The following ASTs associated with the storage of mains water are known to be located at the site:

- Approximately 125,000 litre AST, located to the west of the Pizzeria facility;
- Approximately 100,000 litre redundant AST, located at the northwest corner of the former salad production unit; and
- Approximately 50,000 litre AST, located to the north of the Freshcook unit.

Finding/Issue	Comments/Recommendation	Budget Estimate

Each of these ASTs is of plastic/steel construction and located on concrete hardstanding of good quality. All are understood to pre-date occupation of the site by Bakkavor. It is not considered that the contents of these ASTs pose a significant contaminative risk.

The following ASTs are associated with the onsite trade effluent treatment and are located in the west of the site:

- 1,500,000 litre aeration AST;
- 700,000 litre effluent balancing AST;
- 640,000 litre bio-tower AST;
- Two 540,000 litre clarifier ASTs; and
- 220,000 litre sludge collection AST.

Each of these ASTs is of steel construction and located on concrete hardstanding of good quality. All are understood to pre-date occupation of the site by Bakkavor. It is not considered that the contents of these ASTs pose a significant contaminative risk.

Three large steel ASTs of unknown capacity for the storage of gases (nitrogen, carbon dioxide and oxygen respectively) are located to the west of the Freshcook unit. The carbon dioxide and oxygen ASTs are owned, maintained and refilled as required by Cryoservice and the Nitrogen AST by Air Products. It was reported that these tanks are constantly monitored and intermittently pressure tested for leaks by these companies and that no recorded failures in the integrity of the tank have been encountered during this testing.

A tank farm comprising ten 5,000 litre ASTs for the storage of Liquid Petroleum Gas (LPG) are located in the centre of the site. A further tank farm comprising four 5,000 litre ASTs is located to the north of Freshcook. These ASTs provide gas supply to the Pizzeria and Freshcook facilities respectively. A 3,600 litre propane tank, located to the east of the warehouse, is used to fuel external forklift trucks. In addition, a 2,200 litre propane tank located to the northwest of the Pizzeria facility is used to supply the canteen area.

Finding/Issue	Comments/Recommendation	Budget Estimate
Two 24 tonne silos are located to the south of the Pizzeria facility for the storage of flour for use in the manufacture of pizza bases. *Underground Storage Tanks* Site personnel reported that no former or current underground storage tanks are present at the site and no evidence of such structures was observed by Waterman Environmental during the site walkover. *Drummed Liquid Storage* Other non-bulk liquids observed as located at the site during the walkover include: • A large number of cleaning fluids (Acifoam, Super Scalox and Samplex Fatsolve) within 25 litre plastic containers, which are stored in a secure compound located upon concrete hardstanding to the immediate north of the Freshcook facility. In addition to these, Intermediate Bulk Containers (IBCs) containing cleaning fluids (PrimeCip VC35, Quatdet Clear and Ultra Clean) were located within this area. All of these vessels were observed as located on drip trays; • A secure bunded freight container for the storage of cleaning fluids located upon concrete hardstanding to the immediate north of the Pizzeria facility. This store was locked and could not be accessed during the site walkover; • Three IBCs containing caustic soda, located on unsurfaced ground in the west of the water effluent plant; • Two IBCs containing coolant for unknown use, located externally on unbunded concrete hardstanding adjacent to the boiler house to the west of the Freshcook facility; • A 205 litre drum of refrigeration oil located on unbunded concrete hardstanding adjacent to the ammonia chiller system plant house to the north of the Pizzeria facility; • Numerous containers (of 25 litres or less) of various grades of lubricant and coolant oils located in the Pizzeria workshop yard to the northwest of the unit. These products are stored within an unbunded cage and are understood to be used for equipment maintenance and other workshop activities. A number of gas cylinders containing welding gas were also observed to be stored within this cage;		**No Costs**

Finding/Issue	Comments/Recommendation	Budget Estimate
• Numerous containers (25 litre or less) of various grades of lubricant, coolant oils and paints within freight containers that are currently used as engineering workshops and located to the northeast of the Freshcook facility; and • A number of IBCs containing olive oil and 205 litre drums containing tomato paste, located on unbunded hardstanding in the warehouse delivery area to the east of the unit.	The Control of Pollution (Oil Storage) (England) Regulations 2001 require for containers with a capacity of more than 200 litres to be provided with an adequate secondary containment. It is therefore recommended that any IBCs containing oils (including cooking oils) are stored upon bunded drip trays of adequate capacity **(Non-Compliance)**.	**Allow £6,000 (including VAT and ancillary expenses)**
Where present, concrete hardstanding within non-bulk liquid storage areas was observed to be of adequate quality and showed little or no evidence of staining.		
WASTEWATER MANAGEMENT		
Site Drainage System A comprehensive site drainage plan was not made available for review during this assessment. Although there are separate internal drainage systems for foul and process water, it is understood that these are combined prior to treatment by the onsite effluent treatment plant. There is a separate drainage network for the majority of surface water run-off.		**No Costs**
Surface Water Surface water discharge from the site comprises rainwater run-off from building roofs and external areas of hardstanding. The majority of surface water run-off drains to a hydrocarbon interceptor prior to discharge to Holbeach River, located adjacent to the western boundary of the site.	It should be determined whether consent for the discharge of surface water drainage to the controlled water is required by the EA, under the Water Resources Act 1991 **(Potential Non-Compliance)**.	**Management Time Only**
Surface water run-off from the roof of the former salad production drains to a plastic lined balancing reservoir, located in the west of the site, prior to direct discharge to Holbeach River. It was reported that there is no consent for either of these discharges.	See above.	**See Above**

Finding/Issue	Comments/Recommendation	Budget Estimate
Process Water and Wastewater All mains water entering the site is initially stored within a 125,000 litre AST, located to the west of the Pizzeria facility, prior to distribution to the individual units. Process water is predominantly used for equipment, tray and floor washing within the food production facilities. However, it is also used for food production (washing, cooking and chilling) and for domestic purposes. Water used for the washing of equipment, trays and floors within the Pizzeria facility is automatically dosed with detergent and cleaner from the ASTs located to the north of the unit. However, where required, individual 25 litre containers of cleaning fluids (i.e. PrimeCip and Quatdet Clear) are used to dose water locally at the point of use. Water used for such washing in the Freshcook unit is dosed locally at the point of use from individual 25 litre containers of cleaning fluids. All process water for food production in the Pizzeria unit undergoes filtration for solids and UV treatment (for bacteria elimination) prior to use. Further process water treatment in this unit comprises dosing of vegetable wash flume water with Antibac and the application of Oxofoam to water used in the spray loop (for sanitising incoming packaged ingredients). The chemicals used within these respective processes are applied from 25 litre plastic containers using automated dosing systems at the point of use. All process water for food production in Freshcook is initially stored within a 50,000 litre AST, located to the north of unit. Water within this AST is sanitised using chlorine dioxide (produced from the addition of sodium chloride and hydrochloric acid from the 1,300 litre ASTs). Water abstracted from this tank subsequently undergoes ultrafiltration (eliminating cryptosporidium) and UV treatment prior to use. Water used within the ingredients is additionally passed through a denitrification system in order to prevent discolouring of food product. Where required, water used within the individual production processes within the unit is softened using local plant in order to prevent limescale build up on equipment. Vegetable wash flume and spay loop water within this unit is dosed similarly to that in the Pizzeria facility.		**No Costs**

Finding/Issue	Comments/Recommendation	Budget Estimate
Site management reported that the quality of the water entering the food production process is regularly analysed at both the Pizzeria and Freshcook units. It was reported that there have been no incidents of business interruption through failure in the quality of mains supplied water. It is understood that external surface water run-off from hardstanding in the waste storage area and an area of hardstanding adjacent to the disused tray wash building also drains to the process water drainage system. Furthermore, blowdown from the three air compressors located at the Pizzeria unit and two located at the Freshcook unit discharges via an oil/water separator to this system. All process water drains through a series of sumps where it is combined with foul water prior to transfer to the onsite effluent treatment plant. *Effluent Treatment* All process water (including some surface run-off from external areas) and foul water is processed by the effluent treatment plant located in the west of the site. This wastewater is pumped from a sump in the centre of the site to the balancing tank for preliminary storage. The wastewater from this tank is pumped through a two stage filter to eliminate gross debris prior to processing within a dissolved air flotation unit (DAF). Coagulant (from the 10,000 litre AST), caustic soda (from an IBC) and flocculent (from 25 litre plastic containers) are applied to the wastewater within the DAF and agitated water injected at the base of the water column in order to draw contaminants and debris to the surface. The resulting surficial sludge is skimmed and transferred to the sludge tank. The wastewater is pumped from the DAF to the bio-tower AST for primary biological treatment. The wastewater is sprayed over plastic media within the AST that have been coated in a microbe pregnated bio-film surface. Wastewater that has filtered to the base of this media is transferred to a clarifier where any settleable solids sink to the base of the water column. These solids are subsequently removed and stored within the sludge tank.		**No Costs**

Finding/Issue	Comments/Recommendation	Budget Estimate
The water is pumped from this clarifier to the aeration AST for secondary biological treatment with active sludge containing aerobic microbes. Following this, the wastewater is transferred to a second clarifier prior to discharge to Holbeach River. Site management reported that the site has consent for this discharge from the EA. Although a copy of this consent was not available for review during the site visit, management reported that conditions applied to this discharge include: • Limit of 400mg/l biological oxygen demand; • Limit of 100mg/l suspended solids; • pH range limit of pH6 to pH8; • No visible oils or greases; and • Maximum discharge of 1,310m^3 per day. Waterman Environmental were informed that samples of the discharge from the effluent treatment plant are submitted to the EA for analysis on a weekly basis. Furthermore, the site submits a duplicate sample for independent analysis by an accredited laboratory for parameters stipulated within the consent. Site representatives informed Waterman Environmental that although three marginal exceedances of the upper pH limit had been detected within the past year, no formal action measures have been requested from the EA and none are expected. The results of weekly water quality analysis for the past year were made available to Waterman Environmental for review as part of this assessment. It is considered likely that this discharge consent correlates with that recorded within the EnviroCheck report as registered at the site.		
The EnviroCheck report also identifies a surface water discharge consent which is registered to Tinsley Foods, the previous site operator.	Site management should confirm that all active discharge consents have been transferred to the current operator's correct legal name **(Potential Non-Compliance)**.	**Management Time Only**

Finding/Issue	Comments/Recommendation	Budget Estimate
It was reported that the effluent treatment plant was shut down approximately three years ago after the site identified that a fault within the DAF unit was resulting in notable exceedance of discharge consent limits. The EA were informed of this issue and no action was made against the site. The DAF unit was replaced and no failures in effluent treatment plant infrastructure have occurred since. During shut down, effluent was removed directly from the balancing AST via vacuum tanker and disposed of by a licensed contractor. Site representatives informed Waterman Environmental that no business interruption occurred as a result of this incident		
Water Abstraction All water is mains supplied and, consequently, the site does not currently abstract groundwater.		**No Costs**
EMISSIONS TO AIR		
Point Source Process Emissions Point sources of process air emissions comprise waste heat and steam from cooking equipment/ovens located within both food production units. In addition, waste heat is generated by the main gas oil fired boiler for the site that is located in the west of the Freshcook unit. This boiler also supplies a calorifier located in the Pizzeria unit. Air emissions monitoring from point sources onsite has not been undertaken and is not required under any environmental law.		**No Costs**
Fugitive Emissions Fugitive air emissions largely comprise heat from the manufacturing process. An assessment of these emissions has not been undertaken.		**No Costs**

Finding/Issue	Comments/Recommendation	Budget Estimate

SOLID AND HAZARDOUS WASTE MANAGEMENT

Waste Management

The site generates the following waste streams, namely:

- General waste – comprising mixed non-hazardous/non-recyclable waste. This is compacted and stored within three skips located in the waste storage area and collected as required by Biffa;
- Cardboard and non-contaminated plastics (i.e. trays and packaging film) – separated at source and bailed prior to storage in the waste storage area. Both waste streams are collected for recycling by Cardboard Connections as required;
- Paper – stored in a skip located in the waste storage area and collected by Haven Waste as required;
- General food waste – food wastes contaminated with raw meets are disposed of within general waste skips. Uncontaminated food waste is stored within an HGV wagon located in the waste storage area for collection by M. Gaze for composting;
- Waste dough – All dough is transferred from the Pizzeria unit by flue to a skip located to the northeast of the Pizzeria unit. Non-contaminated waste dough is collected by A.C. Shropshires for animal feed. Contaminated dough is either collected by Laughing Dog for use in the production of dog biscuits or by M. Gaze for composting;
- Pallets – Stored in the waste storage area and collected by South Lincs Pallets as required;
- Metals – stored within two skips located in the waste storage area and collected by Boswells as required;

Finding/Issue	Comments/Recommendation	Budget Estimate
• Contaminated plastic – empty plastic 25 litre chemical containers stored within the respective hazardous chemical storage areas for each food production unit and collected by the supplier as required. Empty IBCs are stored on concrete hardstanding to the north of the Pizzeria facility and also collected by the supplier as required; • Waste oil – stored within respective 205 litre drums in designated areas for each of the food production units (to the north of the Pizzeria facility and to the northwest of Freshcook) and collected by SafetyKleen as required; • Waste ink cartridges – stored within respective 205 litre drums adjacent to those for waste oil storage and collected by SafetyKleen as required; • Fluorescent tubes – stored within designated coffins at each of the food production units and collected by Lampcare UK as required; and • Sludge generated during the treatment of trade effluent – stored within the sludge AST and collected by Envirowaste as required via vacuum tanker.		
All waste was observed to be located on concrete hardstanding of good quality with little to no staining at the base of storage vessels. The majority of waste storage is carried out in the waste storage area in the centre of the site and housekeeping within this area was observed to be good. The general waste compactor and a cardboard/plastics bailer are located in this area. An additional bailer is located on hardstanding to the north of the Freshcook unit.	Under the Environmental Permitting (England and Wales) Regulations 2007, the baling of cardboard and paper below 3,000 tonnes per week; plastic below 1,000 tonnes per week and other general waste below 100 tonnes per week is exempted from an Environmental Permit. However, the business will still have to register this exemption with the EA under Schedule 2 of the abovementioned Regulations **(Potential Non- Compliance)**.	**Management Time Only**
The 205 litre drum for storage of waste oil generated by Freshcook was observed as located upon a designated drip tray. However, that for the storage of waste oil generated from the Pizzeria facility was located directly upon unbunded concrete hardstanding. In addition, two 205 litre drums containing reclaimed electrical equipment insulation oil were observed as located on unbunded concrete hardstanding to the immediate northeast of the Pizzeria facility;		
Empty contaminated plastic containers generated by the Pizzeria unit are stored within its secure bunded hazardous chemical storage area. Conversely, Those from the Freshcook unit are stored within unbunded containers directly upon concrete hardstanding.		

Finding/Issue	Comments/Recommendation	Budget Estimate
The site is registered with the EA as a hazardous waste producer under registration AAN469. All appropriate waste documentation was made available for review during the site visit by Waterman Environmental. *Onsite Waste Disposal* Site personnel reported that no waste disposal occurs or has historically been undertaken onsite. **HAZARDOUS MATERIALS** *Polychlorinated Biphenyls* Site personnel were unable to confirm the number of substations and transformers located at the site. Electricity transformers were observed as located to the northwest of the Pizzeria unit, to the east of the warehouse, to the northeast of the former salad production unit and to the west of the Freshcook Unit during the site walkover. In addition, a substation was indicated as located within plant rooms located in the northeast of the Pizzeria unit and the west of the Freshcook facility. Maintenance of this equipment is the responsibility of the site and it was reported that all polychlorinated biphenyls identified within this equipment have been removed and replaced.		**No Costs**
Radioactive Materials Site personnel reported that there are no radioactive substances present on-site.		**No Costs**
Ozone Depleting Substances An ammonia based chiller system for two spiral freezers within the Pizzeria facility is located to the north of the unit. It is understood that this system is monitored and maintained under contract by the original supplier. A number of refrigeration units are also located to the north of the Pizzeria facility for air temperature control within food production and storage rooms. It was reported that these units contain refrigerant R22, R404A and R407C. Site management were unable to confirm either the number of these units or the charge of refrigerant contained therein.		**No Costs**

Finding/Issue	Comments/Recommendation	Budget Estimate
Approximately twenty five individual refrigeration units are located at the Freshcook facility for both production room temperature and process water chilling purposes. Again, it was reported that these units contain refrigerant R22, R404A and R407C. However, the charge of each within this equipment could not be confirmed by site representatives. A single refrigeration unit is understood to regulate the temperature of the chilled and frozen storage areas within the warehouse. This refrigeration unit was reported to contain R22 of unknown charge. A number of small refrigeration units for temperature control within office, laboratory and welfare facilities were observed at locations around the site. These were observed as containing R407C and R410A.		
All refrigeration units at the site are regularly monitored and maintained under contract by GEA Grenco.	The site is currently compliant with the EC Regulation 842/2006, setting out management and recovery requirements for all HCFC and HFC-containing equipment with a refrigerant charge of greater than 3kg.	**No Costs**
Three leased Dawson cold storage units and a number of refrigerated HGV trailers are located at the site. However, it is understood that the maintenance and responsibility of refrigerant within these units/trailers lies with the owners of the equipment and not the site.		
STATUTORY NUISANCE		
Site management reported that a single complaint has been made to the site within the past two years. This complaint was made by a local resident with regards to a 'burned toast' odour emanating from the facility. The origin of this odour was investigated by the site with no apparent cause identified. No repeat complaints have been made by the resident and there are no outstanding issues with regards to this incident.		**No Costs**

Finding/Issue	Comments/Recommendation	Budget Estimate
The Council have records of two complaints regarding the site. The first of these was recorded in April 2002 and concerned the water quality of a dyke running across the site. The council referred the complainant to the EA. The second was recorded in August 2004 and concerned a cooking odour from the Pizzaria. The Council officer was unable to witness a statutory nuisance and the case was closed. The latter complaint is considered to correlate with that reported by site representatives. No further information with regards to these complaints was provided by the EHO		
ENVIRONMENTAL MANAGEMENT All Bakkavor operations at the site are carried out under the Bakkavor Environmental Policy. This policy identifies the main potential environmental impacts from the business activities as being energy, water and wastewater, solid wastes, packaging, transport and agriculture. Bakkavor has committed to address these issues by the implementation of individual strategies. This policy is reviewed annually. Although the site has integrated environmental aspects into its current management systems, there is currently no formal Environmental Management System (EMS) in line with the requirements of ISO 14001. Although there are currently no plans to implement such a system, site representatives reported that discussions are ongoing to implement an internal EMS of a comparable standard. In general, site management demonstrated both good knowledge and awareness of all environmental aspects and potential impacts associated with current operations at the facility. Additionally, site management appears to be proactive in many areas of environmental management and onsite personnel demonstrated a good understanding of environmental issues.		**No Costs**

Appendix A PLANS

- SITE LOCATION PLAN (FIG. A1)
- SITE PLAN (FIG. A2)

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Drawing Title	Figure A1: Site Location Plan
Project Title	Project Rocket, Holbeach St Marks, Lincolnshire
Drawing No	30332E-08_GR_DS_A1
Date	October 2008
File Location	\\nt-lnss\wel\projects\30000s\30332E\graphics\08\issued figures

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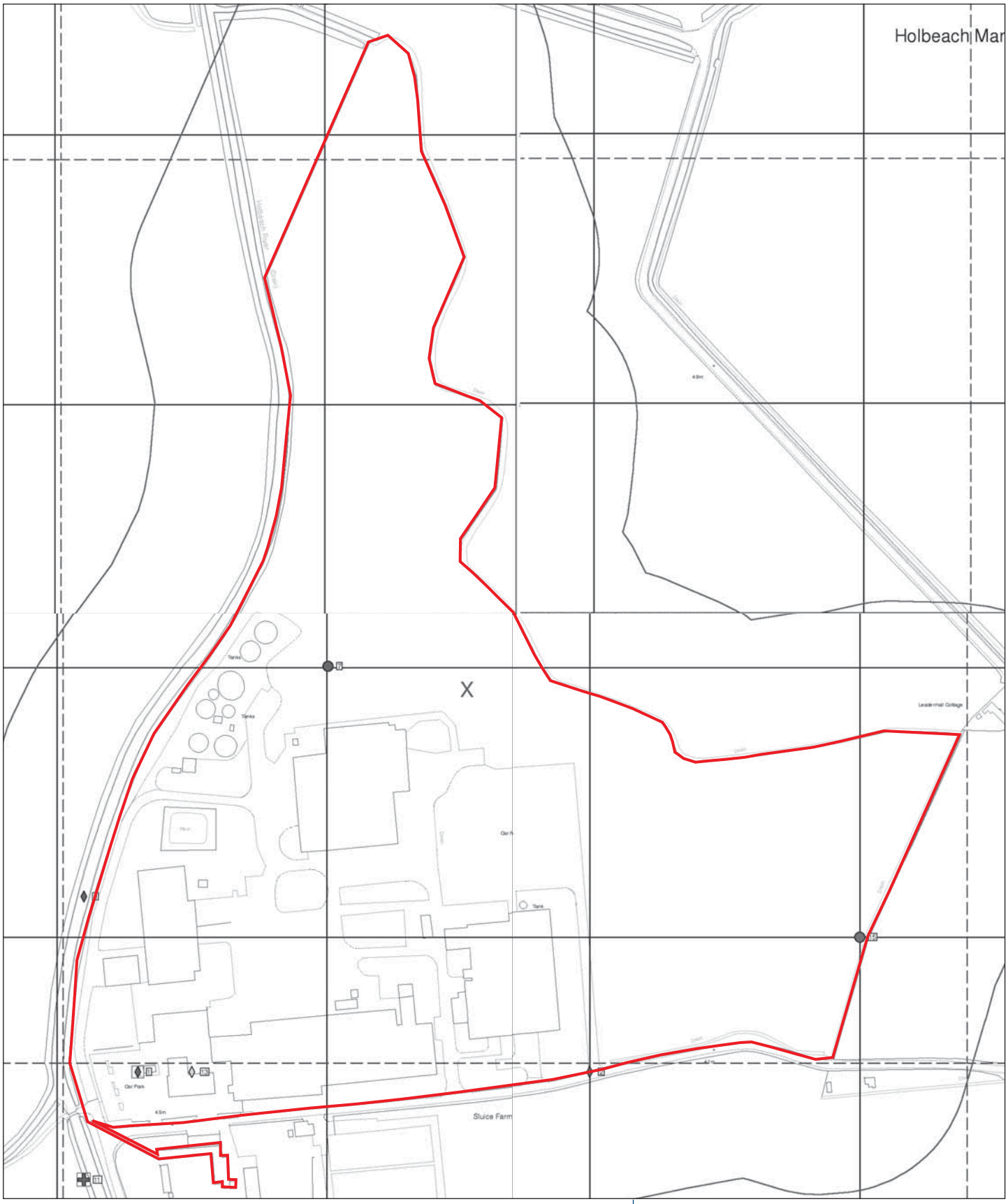

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Site boundary

Drawing Title	Figure A2: Site Plan
Project Title	Project Rocket, Holbeach St Marks, Lincolnshire
Drawing No	30332E-08_GR_DS_A2
Date	October 2008
File Location	\\nt-lnss\wel\projects\30000s\30332E\graphics\08\issued figures

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Appendix B ENVIRONMENTAL RECEPTORS

Table B.1: Pollution to controlled waters

'Section 78A (9) of the EPA 1990 defines the pollution of controlled waters as: "the entry into controlled waters of any poisonous, noxious or polluting matter or any solid waste matter".' (A35)
'Before determining that pollution of controlled water is being, or is likely to be, caused, the local authority should be satisfied that a substance is continuing to enter controlled waters or is likely to enter controlled waters. The local authority should regard something as being "likely" to be caused when the local authority judge it more likely than not to occur.' (A36)
'Land should **not** be designated as contaminated land where: (a) a substance is already present in controlled waters; (b) entry into controlled waters of that substance from land has ceased; and (c) it is not likely that further entry will take place.' (A37)
'Substances should be regarded as having entered controlled waters where: (a) they are dissolved or suspended in those waters; or (b) if they are immiscible with water, they have direct contact with those waters on or beneath the surface of the water.' (A38)
The term 'continuing to enter' should be taken to mean any entry additional to any which has already occurred. (A39)

Reproduced from DEFRA (2006) Contaminated Land: Implementation of Part IIA of the Environmental Protection Act 1990 Circular 01/2006 and Scottish Executive Rural Affairs Department (2006) Edition 2 (Paper SE/2006/44). Environmental Protection Act 1990: Part IIA – Contaminated Land.

Table B.2: Significant harm to various receptors

Type of receptor	**Description of harm to that type of receptor that is to be regarded as significant harm**
Human beings	Death, disease, serious injury, genetic mutation, birth defects or the impairment of reproductive functions. For these purposes, disease is to be taken to mean an unhealthy condition of the body or a part of it and can include, for example, cancer, liver dysfunction or extensive skin ailments. Mental dysfunction is included only insofar as it is attributable to the effects of a pollutant on the body of the person concerned. In the Guidance, this description of significant harm is referred to as a 'human health effect'.
Any ecological system, or living organism forming part of such a system, within a location which is: • an area notified as an area of Special Scientific Interest under Section 28 of the Wildlife and Countryside Act 1981; • any land declared a National Nature Reserve under Section 35 of that Act; • any area designated as a Marine Nature Reserve under Section 36 of that Act; • an area of Special Protection of Birds, established under Section 3 of that Act; • any European Site within the meaning of regulation 10 of the Conservation (Natural Habitats etc.) Regulations 1994 (i.e. Special Areas of Conservation and Special protection Areas); • any candidate Special Areas of Conservation or	For any protected location: Harm which results in an irreversible adverse change, or in some other substantial adverse change, in the functioning of the ecological system within any substantial part of that location; or Harm which affects any species of special interest within that location and which endangers the long-term maintenance of the population of that species at that location. In addition, in the case of a protected location, which is a European Site (or a candidate Special Area of Conservation or a potential Special Protection Ares), harm which is incompatible with the favourable conservation status of natural habitats at that location or species typically found there. In determining what constitutes such harm, the local

Type of receptor	Description of harm to that type of receptor that is to be regarded as significant harm
potential Special Protection Areas given equivalent protection; • any habitat or site afforded policy protection under paragraph 6 of Planning Policy Statement 9 (PPS9) on nature conservation (i.e. candidate Special Areas of Conservation, potential Special protection Areas and listed Ramsar sites); or • any nature reserve established under Section 21 of the National Parks and Access to the Countryside Act 1949.	authority should have regard to the advice of English nature and to the requirements of the Conservation (Natural Habitats) etc Regulations 1994. In the Guidance this description of significant harm is referred to as an 'ecological system effect'.
Property in the form of: • crops, including timber • produce grown domestically, or on allotments, for consumption • livestock • other owned or domesticated animals • wild animals which are the subject of shooting or fishing rights.	For crops, a substantial diminution in yield or other substantial loss in their value, resulting from death, disease or other physical damage. For domestic pets, death, serious disease or serious physical damage. For other property in this category, a substantial loss in its value resulting from death, disease or other serious physical damage. The local authority should regard a substantial loss in value as occurring only when a substantial proportion of the animals or crops are dead or otherwise no longer fit for their intended purpose. Food should be regarded as being no longer fit for purpose when it fails to comply with the provisions of the Food Safety Act 1990. Where a diminution in yield or loss in value is caused by a pollutant linkage, a 20% diminution or loss should be regarded as a benchmark for what constitutes a substantial diminution or loss. In the Guidance this description of significant harm is referred to as an 'animal or crop effect'.
Property in the form of buildings. For this purpose 'building' means any structure or erection and any part of a building, including any part below ground level, but does not include plant or machinery comprised in a building.	Structural failure, substantial damage or substantial interference with any right of occupation. For this purpose, the local authority should regard substantial damage or substantial interference as occurring when any part of the building ceases to be capable of being used for the purpose for which it is or was intended. Additionally, in the case of a scheduled Ancient Monument, substantial damage should be regarded as occurring when the damage significantly impairs the historic, architectural, traditional, artistic or archaeological interest by reason of which the monument was scheduled in the Guidance this description of significant harm is referred to as a 'building effect'.

Reproduced from DEFRA (2006) Contaminated Land: Implementation of Part IIA of the Environmental Protection Act 1990 Circular 01/2006 and Scottish Executive Rural Affairs Department (2006) Edition 2 (Paper SE/2006/44). Environmental Protection Act 1990: Part IIA – Contaminated Land.