Site Condition Report

Issue 2.0

Produced for **L E Barnes & Sons Ltd**

Document Reference **[LEB-A04]**

Roxhill Manor Farm

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1.0 SITE DETAILS

Name of the applicant	L. E. Barnes & Sons Ltd.
Activity address	Roxhill Manor Farm Roxhill Rd Bedford Bedfordshire MK43 0QG
National grid reference	NGR SP 97612 43498

Document reference and dates for Site Condition Report at permit application and surrender	Date at application: LEB-A04 (01/09/2020)

Document references for site plans (including location and boundaries)	Site location plan: [LEB_001_Site_Location_Plan Site layout plan: LEB_002_Site_Layout_Plan

2.0 CONDITION OF THE LAND AT PERMIT ISSUE

Environmental setting	L E Barnes & Sons Ltd (referred to as LE Barnes hereafter) are seeking permission to import 47,967m^3 of inert waste material onto site, located at Roxhill Manor Farm. The waste will be recovered through a number of engineering operations comprised of the following: • landscaping of an engineering operation to raise land levels and create 3 tier levels to an existing reservoir; • the construction of a soil batter on which a hedge will be planted to visually screen the coach car park; • creation of three level tiered lawn areas in front of the new hospitality and amenity venue, and; • the levelling of land required for the construction of a car park. As LE Barnes plan to recover over 47,967m^3 of waste. The only site access is via Roxhill Road, a single lane road with access only to Roxhill Manor Farm, which is located off Bedford Road. It is approximately 1.5km north east of Broad Green village and 9.2km south west from the centre of Bedford. The site is situated within agricultural land. The site is comprised of several agricultural buildings and is situated within agricultural land. To the west of the site there is an agricultural reservoir which will be altered by the proposed landscaping works to increase wildlife habitats. The closest sensitive receptors are residential properties located approximately 500m south east of the site at the Roxhill Road – Bedford Road junction. There are no other properties located within 500m of the site. **Geology** The underlying geology of the site is as follows: • The site is underlain by the Stewartby Member, a Jurassic mudstone bedrock formed approximately 164 to 166 million years ago, and deposited in a shallow-marine setting, which extends from Dorset to the Humberside. This formation is composed predominantly of pale to mid-grey, smooth to slightly silty, calcareous, blocky mudstone. These rocks are detrital with grain sizes ranging from coarse to fine. The Member is generally poorly fossiliferous but has been found to contain ammonites sporadically. The small hills found in the area could be attributed to the thin beds of nodular cement stone and weak, calcareous siltstone that are observed in the upper beds of the formation. • There are deposits recorded beneath the site. The first, which comprises the majority of the site is Oadby member – a Diamicton deposit formed up to 2 million

years ago under ice age conditions during the Quaternary Period. Towards the south of the site the superficial deposits are a mixture of Clay, Silt, Sand and Gravel, subaerial in origin, formed up to 3 million years ago in the Quaternary Period.

Hydrogeology

The hydrogeological features of the subsurface features of the site are:

- The Bedrock Aquifer is designated as a Unproductive. These are rock layers with low permeability that have negligible significance for water supply or river base flow.
- The Superficial Aquifer across the site is designated as Secondary Undifferentiated, assigned in cases where it has not been possible to attribute a Secondary Aquifer A or B classification to the rock type. Consequently, the superficial layer has is likely to have been previously designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type.

Groundwater

The groundwater characteristics for the site location are presented below:

- The site is not situated within a Groundwater Source Protection Zone (SPZ).
- The combined groundwater vulnerability beneath the site is designated as Unproductive to Medium as a result of some areas having unproductive vulnerability based on the unproductive bedrock aquifer and some areas having medium vulnerability based on the medium vulnerability secondary superficial aquifer.
- There is limited potential for groundwater flooding to occur in the north and central portion of the site, but there are small areas of the southern portion of the site where there is potential for groundwater flooding to occur at a property situated below ground level, and potential for groundwater flooding to occur at the surface.
- The nearest groundwater abstraction licence is recorded approximately 735m north west of the site at a well operated by Pristons Farms Limited.

Flooding

- The site is located in Flood Zone 1 according to the EA Flood map for planning tool (see Appendix D Flood Zone Map). This indicates that there is no flood risk at site.

	Hydrology • The nearest surface water feature is the existing reservoir that is located on site.
Pollution history	**Historical Land Use** • The land within the site boundary is indicated from historical maps, dating back to 1883. On the oldest map, the land still appears to be of agricultural nature, with a number of farms on neighbouring land within 1km of the site. • The map from 1900 does not show much change, other than the fact that the trees/hedgerows running parallel to the west and located in the north west corner of the site appear to have been cleared and given up for pasture land and farm land. • The formal development of Roxhill Manor Farm, which is adjacent to the south east of the site, appears to occur sometime between 1900 and 1902. • There appears to be very little change on the site between 1902 and 1975, until 1976 where residential dwellings appear to have been constructed at the south east corner of the site, on Lower Roxhill Farm. • Between 1976 and 1983, development of the Roxhill Manor farm site appears to have taken place, with a number of additional buildings being constructed within the central portion of the site. • There appears to be no further change to the site until a time between 2006 and 2020, when an additional building has been added to the site, along with an expansion to the reservoir, also situated in the centre of the site. **Pollution Incidents** • There has been 1 pollution incident to controlled waters within 1km of the site location. This was recorded as a Category 3 – Minor Incident and occurred approximately 300m south of the site location in 1995. The incident was an accidental spillage of diesel oil. • There have been no recorded pollution incidents to air or land within 2km of the site. **Waste Register** • There are no active or historical landfill sites within 1km of the site. • There are no Licensed Waste Management Facilities within 1km of the site. **Industrial Activity** There are several industrial and commercial activities that have taken place within the general vicinity of the site in previous times, with the closest being plant and machinery repairs at a site located approximately 240m south east of site. Others include a car dealership, a plastic products manufacturer and a fencing manufacturer. However, at the time of writing, all companies are inactive.

Baseline soil and groundwater reference data	No baseline soil and groundwater reference data has been collated for the site. Given the historical land use on and around the site, it is considered that there is only a very low likelihood that the land beneath the site has levels of contamination. The client has accepted that the lack of any baseline soil or groundwater data means that they are liable for any remedial works required following permit surrender in order to return the land to an uncontaminated state.
Supporting information	• Appendix A: Historical Site Maps • Appendix B: Environmental Setting Maps • Appendix C: Datasheet • Appendix D: Flood Zone Map

3.0 PERMITTED ACTIVITIES

Permitted activities	**Current** LE Barnes do not currently hold an environmental permit. LE Barnes currently hold a U1 exemption for the use of waste in construction. **Proposed** L E Barnes are seeking permission to import 47,967m^3 of inert waste material onto site for recovery. The waste will be recovered in a number of engineering operations. **R13**: Storage of wastes pending any of the operations numbered R5 and R10 **R5**: Recycling or reclamation of other inorganic materials **R10**: Land treatment resulting in benefit to agriculture or ecological improvement
Non-permitted activities undertaken	There are no non-permitted activities undertaken.
Document references for: **Plan showing activity layout** **Historical land use maps** **Site sensitivity maps**	Layout Plan: Historical Land Use Maps: Appendix A Environmental Setting Maps: Appendix B Datasheet: Appendix C Flood Zone Map – Appendix D

4.0 CHANGES TO THE ACTIVITY

To be maintained during the life of the permit

Have there been any changes to the activity boundary?	If yes, provide a plan showing the changes to the activity boundary.
Have there been any changes to the permitted activities?	If yes, provide a description of the changes to the permitted activities
Have any 'dangerous substances' not identified in the Application Site Condition Report been used or produced as a result of the permitted activities?	If yes, list of them
Checklist of supporting information	• Plan showing any changes to the boundary (where relevant) • Description of the changes to the permitted activities (where relevant) • List of 'dangerous substances' used/produced by the permitted activities that were not identified in the Application Site Condition Report (where relevant)

4.1 Measures Taken to Protect Land

Use records that you collected during the life of the permit to summarise whether pollution prevention measures worked. If you can't, you need to collect land and/or groundwater data to assess whether the land has deteriorated.	
Checklist of supporting information	• Inspection records and summary of findings of inspections for all pollution prevention measures • Records of maintenance, repair and replacement of pollution prevention measures

4.2 Pollution Incidents and Remediation

Summarise any pollution incidents that may have damaged the land. Describe how you investigated and remedied each one. If you can't, you need to collect land and /or groundwater reference data to assess whether the land has deteriorated while you've been there.	
Checklist of supporting information	• Records of pollution incidents that may have impacted on land • Records of their investigation and remediation

4.3 Soil Gas and Water Quality Monitoring

Provide details of any soil gas and/or water monitoring you did. Include a summary of the findings. Say whether it shows that the land deteriorated as a result of the permitted activities. If it did, outline how you investigated and remedied this.	
Checklist of supporting information	• Description of soil gas and/or water monitoring undertaken • Monitoring results (including graphs)

5.0 DECOMMISSIONING AND REMOVAL OF POLLUTION RISK

To be completed at permit surrender

Describe how the site was decommissioned. Demonstrate that all sources of pollution risk have been removed. Describe whether the decommissioning had any impact on the land. Outline how you investigated and remedied this.	
Checklist of supporting information	• Site closure plan • List of potential sources of pollution risk • Investigation and remediation reports (where relevant)

5.1 Reference Data and Remediation

Say whether you had to collect land and/or groundwater data. Or say that you didn't need to because the information from Section 4 of the Surrender Site Condition Report shows that the land has not deteriorated. If you did collect land and/or groundwater reference data, summarise what this entailed, and what your data found. Say whether the data shows that the condition of the land has deteriorated, or whether the land at the site is in a "satisfactory state". If it isn't, summarise what you did to remedy this. Confirm that the land is now in a "satisfactory state" at surrender.	
Checklist of supporting information	• Land and/or groundwater data collected at application (if collected) • Land and/or groundwater data collected at surrender (where needed) • Assessment of satisfactory state • Remediation and verification reports (where undertaken)

5.2 Statement of Site Condition

Using the information from sections 4 and 5, give a statement about the condition of the land at the site. This should confirm that:

- the permitted activities have stopped
- decommissioning is complete, and the pollution risk has been removed
- the land is in a satisfactory condition.

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