RICHARDS

MOOREHEAD & LAING LTD

HYDE'S BREWERY BAT SURVEY

for

HAMILTON BLACK DEVELOPMENTS LTD.

December 2013

2993/11

R I C H A R D S

M O O R E H E A D & L A I N G L T D

ENGINEERING, ENVIRONMENTAL and LANDSCAPE CONSULTANTS

HYDE'S BREWERY BAT SURVEY

for

HAMILTON BLACK DEVELOPMENTS LTD.

December 2013

2993/11

©Copyright. This report and figures remain the copyright of Richards, Moorehead & Laing Ltd.

QUALITY ASSURANCE PROCEDURES: QP4

Prepared by:	A. Hodnett & R. Jones	Date:	19/12/2013
Checked by:	A. Sumner	Date:	19/12/2013
Approved by:	A Sumner	Date:	20th December 2013

Visit RML's web site at www.rmlconsult.com for the latest information on our services and staff.

ail:

55 WELL STREET, RUTHIN, DENBIGHSHIRE LL15 1AF

Tel +44(0)1824 704366, Fax +44(0)1824 705450

email: rml@rmlconsult.com web: www.rmlconsult.com

Registered in England No. 1848683 VAT Reg. No. 401 4243 13

www.rmlconsult.com

CONTENTS

Page no.

INTRODUCTION 1

EXISTING BAT RECORDS 1

SURVEY METHODS 1
- Building Inspection 1
- Survey Limitations 2

RESULTS 3
- Site Description 3
- Building Inspection 3
- Breeding Birds 4
- General 4

RECOMMENDATIONS 5
- Bats 5
- Birds 6

SUMMARY 6
- APPENDIX A i
- Legal Protection of Bats ii
- APPENDIX B iii
- Site Photographs iv
- Figure 1: Sections of building surveyed vi

1 INTRODUCTION

In December 2013 Richards, Moorehead & Laing (RML) was commissioned by Foreshaw Land and Property Group Ltd on behalf of Hamilton Black Developments Ltd. to carry out an internal bat inspection of the former Hydes Brewery, Manchester.

The building is proposed for refurbishment and conversion to residential use, and had been subject to a planning application submitted by Foreshaw Land and Property Group Ltd to Manchester City Council (Ref:104122/FO/2013). However, the County Ecologist, Derek Richardson, advised that a bat survey was required. The Council could not validate the planning application until this survey was carried out and a report submitted.

A bat inspection survey was therefore required to assess for the potential presence or likely absence of bats. All species of bats benefit from legal protection, and the local planning authority is required to ensure bat survey information could be taken into consideration during the development control stage and appropriate mitigation measures included if required. Protected species legislation pertaining to bats is provided in Appendix A.

In advance of the survey visit, current design plans for the scheme were reviewed by the surveyor for information (drawing reference numbers 2350-01-01 to 2350-01-10). For completeness, the survey team also recorded evidence of breeding birds within the buildings, as this too could be of relevance at the design and construction stages.

2 EXISTING BAT RECORDS

No existing bat records were publicly available for the former brewery; however a brief review of the National Biodiversity Network (NBN) Gateway website was carried out to gain a general impression of existing records in a radius of 10km around Hydes Brewery. Four bat species were recorded within this radius:

- Pipistrelle *Pipistrellus pipistrellus/pygmaeus;*
- Daubenton's bat *Myotis daubentonii;*
- Whiskered/Brandt's bat *M. mystacinus/brandtii;* and
- Noctule *Nyctalus noctula*.

3 SURVEY METHODS

The surveys were carried out in accordance with the Bat Conservation Trust's Good Practice Guidelines[1].

3.1 Building Inspection

A daylight external and internal inspection of the brewery subject to conversion/refurbishment works was made on the 10th December 2013 by a licensed ecologist (Class licence number CLS002927) and an assistant. The weather conditions during the survey were fine and dry.

During the inspection, the main Brewery buildings were assessed for their suitability as a bat roost. The assessment was based on a non-intrusive visual appraisal using a high-powered torch and ladder. The features listed below are noted during bat inspections:

- Building type.

[1] Hundt, L. (2012). Bat Surveys: Good Practice Guidelines, 2nd Edition. Bat Conservation Trust.

- Approximate age of the property (if known).
- Roof material.
- Roof construction, i.e. whether it could have a loft; gables – the gable apex is a favoured roost entrance/exit point for some species.
- Features frequently used by roosting bats, such as bargeboards, fascia or soffits under the eaves, i.e. boxed structures; or structures that are flat against the wall but with gaps underneath that are large enough to allow bat access.
- Wall material and structure, i.e. whether there are cavity walls.
- Any gaps crack or crevices in the walls, roof or around doors and window frames that would allow bat access to any of the above features.
- The aspect of potential roost spaces - maternity groups in particular favour south/southwest-facing roost sites.
- Whether the building is occupied; if not, the estimated length of time for which it has been unoccupied and whether the windows are boarded or curtained, excluding daylight.
- Proximity of the building to suitable foraging and commuting habitats, such as woodland or a waterbody/water course.

During the inspection, signs of the presence of bats were searched for. Signs of roosting bats may be indicated by one or more of the following:

- bat droppings beneath a hole, or resting area;
- bat droppings and/or insect remains beneath a feeding area; and,
- dead bats - usually young from a nursery roost site.

3.2 Survey Limitations

Buildings are used in different ways by different bat species over the course of the year, with some species using them for both summer and winter (including hibernation) roost sites. Although the inspection was carried out in December, when bats would be overwintering, if a maternity colony or significant numbers of roosting bats had been using the building in summer 2013, it would have been possible to identify this from evidence such as accumulations of droppings or feeding signs. Use of the building as a hibernation roost would not have left such visible signs, and would rely on visual inspection of suitable microhabitat within the building, where accessible.

As with most bat surveys of old buildings, the extent and complexity of the building was such that not all of the structures could be safely accessed for a detailed inspection. For example, one area was sealed off due to the presence of asbestos, and access to view all of the roof beams/joists was restricted due to the risk posed by the poor condition of some of the buildings' interior joists and floors. Additionally, most of the surfaces were dusty, potentially limiting the detection of scattered old droppings, but this would not have obscured any recent droppings or accumulations of old ones. Torch light was deployed to maximise the area inspected closely, and it is considered that the data was the best that possibly could be gathered at this site.

In view of the above, it is considered that, whilst there were potentially significant limitations to the effectiveness of the bat surveys at Hydes Brewery, these limitations did not affect the robustness of the data gathered.

4 RESULTS

4.1 Site Description

The site was located in Manchester to the south of the city centre off Moss Lane West. The habitats immediately surrounding the site were predominantly urban areas of semi-detached housing, with a limited number of small managed green open spaces such as parkland.

Approximately 500m south was Alexandra Park, a larger green area with trees and open water, which would provide suitable bat foraging habitat.

4.2 Building Inspection

Descriptions of the building and observed features are provided in Table 1 below, with photographs provided at Appendix B. For ease of description the building has been divided into four sections due to its variable characteristics, although it was one complete structure. The sections are annotated in Figure 1 below.

Table 1: Building Descriptions

Building Number	Description	Observed features
1	This section was constructed from brick finished with a symmetrically pitched slate roof. The section consisted of three separate buildings. A garage at the northern end, a building which held some of the brewery vessels and a third section. The third section the surveyor was unable to access due to a padlocked door. The garage had a small loft space.	There were potential access and roosting features under roof slates, gaps under the ridge tiles, under the facia boards and direct flight access into the middle building where the pipes exit the building. The loft space provides roosting potential above the garage, not only for loft void roosting bats but also for crevice dwelling bats between the slates and the roofing felt. There was however no evidence of bats found at the time of the survey.
2	This section of the building was constructed from brick finished with a slate roof. The section consists of four floors, a basement, and first, second and third floor. The building still housed all the brewery vessels.	There was direct flight access into the whole of this section of the building through open doors and windows and broken windows. There was a loft space located to the south side of the section approximately 6m x 4m in size which lead to a boarded-off smaller section of enclosed loft space which was accessible through a missing wooden panel or from the other side by a closed door. In this area of loft space there were droppings present, which due to their age and the humidity of the area it was not possible to say with certainty whether they were from a rodent or a bat. A sample of the droppings was taken for DNA analysis to confirm whether they were from bats. There was no other evidence of bats found. The basement had direct flight access into the area and the conditions were found to offer potential for hibernating bats.
3	This section is the southernmost section of	There was direct flight access into this building

Building Number	Description	Observed features
	the building which had three floors. The section was also constructed from brick finished with a slate roof. There were no loft spaces to the eastern side but smaller loft spaces were found on the western side on the building.	from the other sections of the building and from the lower floor. The main area of the building which housed the clock tower offered little or no potential for roosting bats. The smaller loft spaces found to the western side of the section also offer little or no potential for bat due to open air flow and light levels within them. However it was found that these areas had roosting feral pigeon with old nests found to be present.
4	This section is presently occupied by tenants. There were two loft spaces which were accessible and a cellar present. The building was constructed in brick and was finished with a symmetrically pitched slate roof.	The cellar was not accessible for bats, nor were the other rooms within the building. The loft spaces however had direct flight access into them under the facia boards and over the wall plate and under the slates through the roofing felt, which was torn in places. There was no evidence of bats found.

It is considered that the building had many features that would be classified as having a **high potential for roosting bats**. The building offers potential for bats to roost due to the accessibility of the building through direct flight access, with the loft spaces providing potential habitat for maternity roosts and single seasonal occupancy, and the basement providing appropriate habitat for hibernation.

No evidence of bats was noted during the internal and external inspection, apart from the potential bat droppings found in the loft space of section 2 of the building (a sample of which have been taken). However, given the scale of the building, and the extent of potential habitat for crevice-dwelling bat species at any time of year, it is unrealistic to assume that this building will be able to be guaranteed 'bat free' at the time when refurbishment works commence. Therefore, having established through evidence gathered during this early winter survey that it does not appear to support any significant colony of bats, the most appropriate course of action will be to assume that individual crevice-dwelling bats could be present at this site during that time of year, and to proceed with mitigation on this basis.

Breeding Birds

No sign of barn owls *Tyto alba* having been present was recorded during the survey.

Small numbers of old nest sites of feral pigeon *Columba livia* were recorded in section 3 which housed the clock tower. It was also noted that pigeons were present in the building at the time of the survey within this section. There were no other nests or evidence of bird activity, e.g. owl pellets, recorded. However there was direct flight access to the majority of all internal parts of the out buildings with the exception of section 4 which was occupied by tenants.

General

No other evidence of protected species was recorded in or immediately surrounding the brewery at the time of survey.

RECOMMENDATIONS

Bats

As a general note, Sections 1 to 4 of the building at Hydes Brewery offer potential for a range of over-wintering, maternity and single seasonal occupancy sites for bats. As use of buildings in this manner can be sporadic, the potential for individual bats roosting there from time to time cannot be ruled out.

The conclusion of this assessment is therefore that the survey of the former Hydes Brewery does not provide evidence of use as a maternity roost or for foraging or commuting bats. There is, however, the possibility that the building could be used for over-wintering and for seasonal occupancy by bats at other times of year.

As the building offers high bat roost potential, it is recommended that further bat surveys are carried out in order to confirm the presence or likely absence of this European protected species to inform the incorporation of appropriate mitigation measures in the construction works and scheme design. Given the assessment that the former brewery has potential for both over-wintering bats and occupancy of individual bats in the active season, further survey work is recommended during these seasons:

- Placement of static bat detectors (such as Song Meter 2 or similar) within the basement sections identified as suitable for over-wintering bats to record any bats that may be present. This would ideally be carried out for a suitable period between late February and March;
- Placement of static bat detectors within the main building sections towards the beginning of the active bat season (late March – April, weather dependent) to record any bat activity, with the timing of records around dusk and dawn and presence of social calls interpreted to indicate likelihood of roosting. It is considered that due to the vast size of the brewery and likely presence of multiple suitable entrance/exit points, an initial emergence/return survey is unlikely to provide conclusive results. However, dependent on the results of the static detectors, if bats are recorded in a particular section of the building, further more targeted emergence/return surveys could then be undertaken to enable counts and identification of entrance/exit points;
- DNA analysis of the dropping samples as soon as possible.

A programme of spring/summer emergence surveys is not recommended at this stage because, even if emergence surveys failed to record any bats on a given date, it would still not be appropriate to consider bats absent due to the sheer scale of the building and the number of the potential access points into it.

Instead, it is currently recommended that a more realistic and practicable approach in this case would be for a precautionary Bat Mitigation Strategy to be designed for the building conversion project, based on the assumption that individual or small groups of bats could potentially be present in different types of micro-habitat at different times of year.

The Strategy would consist of a range of precautionary impact avoidance measures to be implemented at the detailed design and construction stages to ensure that the works are carried out in a way that minimises the risk of bats being disturbed in different parts of the building, but that if any were present then they would be certain to be discovered and recognised as needing special treatment before they were harmed; that works would be stopped and a bat worker available to assist with their rescue, and that suitable alternative habitat had been pre-prepared and made available for their relocation. This Mitigation Strategy would also include flexible provision for further detailed searches, and emergence surveys of discrete area/features shortly prior to works on them, and of course if bats were found at any stage in the future then legislation would require that any prospective activities be carried out only under an appropriate Habitats Regulations 'mitigation' licence based on a more detailed Mitigation Method Statement.

Birds

The building recorded a small number of old nests constructed by pigeons. All wild birds, their nests and their eggs are protected when breeding by the Wildlife & Countryside Act 1981 as amended. It is an offence (with certain exceptions), to intentionally kill, injure or take any wild bird; to take, damage or destroy any wild bird's nest while it is use or being built; and to take or destroy the egg of any wild bird. The definition of a wild bird is 'any bird of a kind which is resident in or a visitor to Great Britain in a wild state'.

The typical nesting season for birds in Britain runs from early-March to early-August, however recent seasonal weather patterns have recorded nesting activity for thrushes *Turdus* species in February and third brood nests for swallows into September. At present direct flight is available for the pigeons and other bird species, it is therefore advised that if works are to be undertaken within these periods, that secondary check surveys are undertaken immediately prior to undertaking the works, i.e. within 24 hrs, to ensure no new nests have been built since the survey. Potential nesting areas, deemed clear of activity should be protected to prevent access during the construction phase by birds, where feasible.

SUMMARY

Bat surveys were undertaken at the former Hydes Brewery by suitably licensed and experienced surveyors during 2013. The only evidence found at the time of the survey was droppings which may potentially be bats in the loft space in section 2 of the building. Due to their damp nature, the usual definitive tests to check between bats and rodents was not possible on this occasion. Samples were taken and it is therefore recommended that these droppings are sent off for DNA analysis at an appropriate time.

It is recommended, due to the size of the building, that static bat detectors are placed within the basement during late February to early March to assess whether bats have been using the building for hibernation, and also to place static bat detectors within the loft spaces from late March – April to assess the use of the building by bats during the active season. From the static detector recordings, it could be determined whether bats are likely to be using the building at present. This could then inform specific recommendations as part of a Mitigation Strategy to ensure protection from disturbance during construction and the long-term retention of bat roost habitat and enhancement of habitat for foraging within the design of the new development.

APPENDIX A

Legal Protection of Bats

Bats and their roosts (irrespective of whether bats are present at the time) are afforded full statutory protection as bats are a European protected species listed on Schedule 2 of The Conservation of Species and Habitat Regulations 2010, as amended. These regulations, commonly known as the 'Habitats Regulations', transpose into British law EC Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (known as the 'Habitats Directive') and supersede previous legislation known as The Conservation (Natural Habitats, &c.) Regulations 1994, as amended.

Under the terms of Regulation 41, with certain exceptions, a person commits an offence if he/she:

"(1) …

(a) deliberately captures, injures or kills any [bat],

(b) deliberately disturbs wild [bats],

… or

(d) damages or destroys a breeding site or resting place of [a bat],

…(2) For the purposes of paragraph (1)(b), disturbance of animals includes in particular any disturbance which is likely —

(a) to impair their ability –

(i) to survive, to breed or reproduce, or rear or nurture their young, or

(ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate; or

(b) to affect significantly the local distribution or abundance of [bats]."

"(3) It is an offence for any person —

(a) to be in possession of, or to control,

(b) to transport,

(c) to sell or exchange, or

(d) to offer for sale or exchange,

[a bat]."

All of the above protections apply regardless of the stage of the life of the animal and, in the case of roosts) irrespective of whether bats are actually in occupation at the time of any disturbance/damage.

Protection of bats is also provided for in the Wildlife and Countryside Act 1981, as amended. All species of bat in Britain are listed on Schedule 5 of the Act, and are afforded partial protection under the terms of sections 9(4)(b) and (c) and (5). This makes it an offence if any person:

"9 …

(4) "… intentionally or recklessly … (b) … disturbs any [bat] *while it is occupying a structure or place which it uses for shelter or protection; or (c) … obstructs access to any structure or place which any* [bat] *uses for shelter or protection."*

(5) "… (a) sells, offers or exposes for sale, or has in his possession or transports for the purpose of sale, any live or dead [bat], *or any part of, or anything derived from, such an animal; or (b) publishes or causes to be published any advertisement likely to be understood as conveying that he buys or sells, or intends to buy or sell, any of those things".*

APPENDIX B

Site Photographs



Section 1 and Section 2: showing the southern inaccessible side of section 1 and the top of section two.



Section 1: Inside the northern side, showing the loft space above the garage .



Section 1: Inside the loft space above the garage.



Section 2: Second floor within section 2.



Section 2: showing the droppings found within the loft space, blue pen to mark scale.



Section 2: showing the loft space.



Section 2: showing the basement.



Section 3: Eastern elevation of building showing broken and open windows on the western side



Section4: Showing the eastern elevation

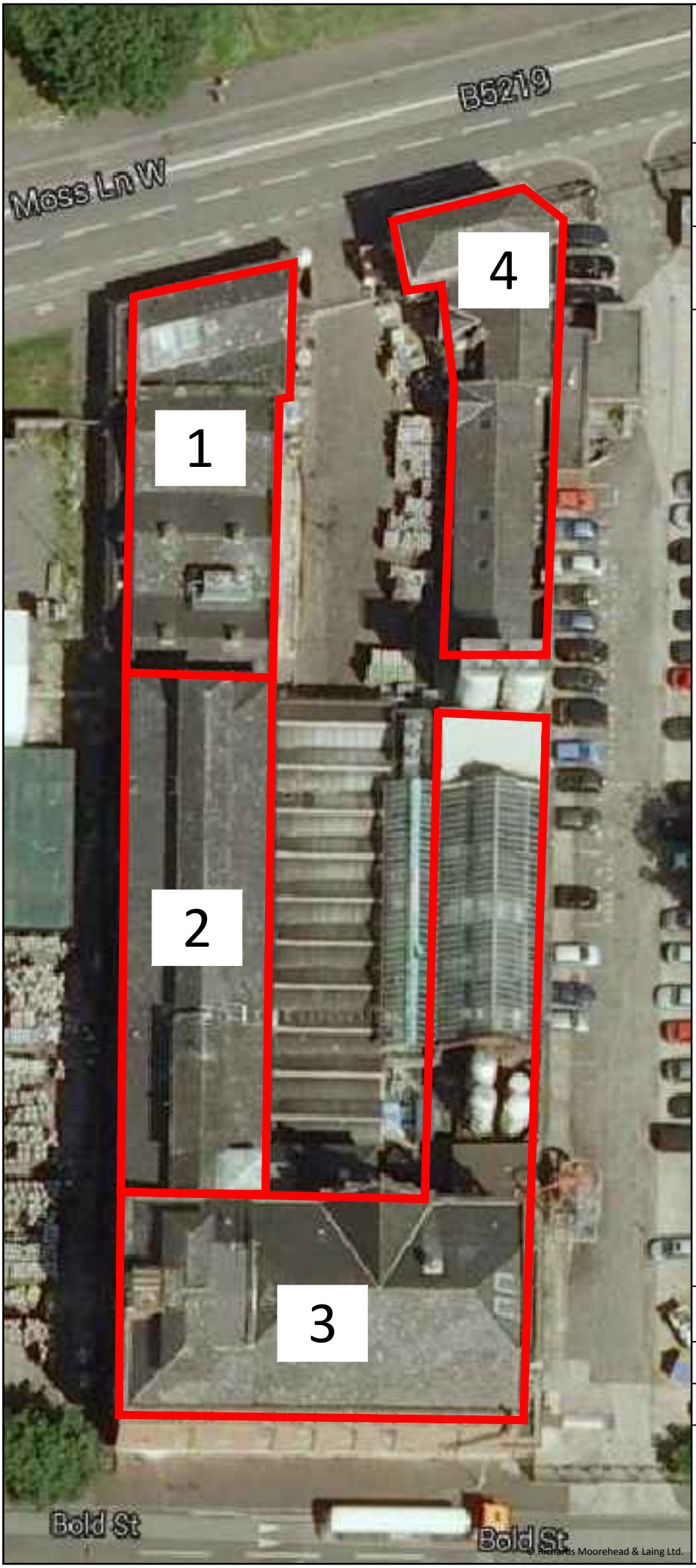


Section 4: Showing the loft space



Section 4: Showing the tear in the roofing felt.

Figure 1: Sections of building surveyed



© Richards Moorehead & Laing Ltd.

Cleient / Client:

HAMILTON BLACK DEVELOPMENTS LTD

Enw project / Project name:

Hydes Brewery Bat Survey

Teitl lluniad / Drawing title:

Building Sections

Eglurhad / Key:

Section outline

PRELIMINARY

NOT TO SCALE

Graddfa / Scale (A3):	Dyddiad / Date:	Darlunwyd gan: Drawn by:
not to scale	Dec 2013	RSLJ
		Gwiriwyd gan: Checked by: APCS
Rhif lluniad / Drawing number: 2993 / 101		Cywiriad: Revision: 01

Darparwyd gan / Prepared by:

RICHARDS
MOOREHEAD & LAING LTD

55 Stryd Y Ffynnon, Rhuthun, Sir Ddinbych, LL15 1AF.
55 Well Street, Ruthin, Denbighshire, LL15 1AF, UK.

Rhif Ffon/Tel: +44 (0)1824 704366, Ffacs/Fax: +44 (0)1824 705450,
e-bost/e-mail: rml@rmlconsult.com, Gwefan/Website: www.rmlconsult.com