STUART DAVIDSON
ARCHITECTURE

Design Statement in Favour of:

Proposed Development Longnewton Farm, Nr Gifford

1.00 Introduction

The “Design + Access” statement has been prepared in support of the application for re-development of the traditional former farm steading + associated buildings, which conforms with the SPP 2014 encouraging the re-use of existing farm buildings.

The scheme concerns a currently vacant site which consists of a mixture of farm buildings varying from former grain stores, cattle courts, stables + vehicle garaging located near the village of Gifford.

The age + style of the structures varies greatly with some older structures being adapted for modern farming methods in the past, there are no listings on the buildings + all vary in condition + overall aesthetic quality.

This statement is provided to show the analysis of the historic fabric to ensure that important areas of the site are preserved and enhanced as part of the proposal. The buildings vary in overall quality which have been identified in the below drawing excerpt:

Site structure categories

Green – denotes modern steel frame structures dating from circa 1990's onwards

Blue – denotes adapted structures dating form 1880's onwards, all of which have been severely adapted to suit modern farming use of large scale wide barns with steel frame + sheeted roofs.

Purple – denotes largely original 1880-1900's structures which are in varying stages of condition

To give further clarity the materials of each are as follows:

Green – steel frame structure on concrete pad foundations, concrete/hardcore floors with steel sheeted walls + roof.

Blue – external walls of former structures formed in stone with numerous alterations + intrusions, any internal structures have been removed to from wide clear cattle courts. The majority of stonework is in a poor condition with the main structural load resting on steel frames. All roofs are formed from varying corrugated sheeting materials with earth/stone floors generally throughout.

Purple – These form traditional narrow span steading structures with natural random stone walling with various window/door openings, all vary between single + double storey in height, all except a 2 storey section clay pantile structure are finished with natural slate on sarking.

The proposals aim to retain the valuable historic core of the steadings whilst removing the lesser quality structures to allow high quality contemporary new build structures aimed to retain the farm steading massing as well as complement the retained structures.

The structures ceased being used for every day farm use in the mid 2000's + had been farmed by the applicant's family continually from 1954 until then, forming the hub of a large mixed farm, which has been sold on some time ago + the buildings now have no feasible farming use.

Since then general repairs have been carried out on the building but all except the most modern structures are falling in to a low state of disrepair, suffering storm damage over the last 2 years.

2.00 Context

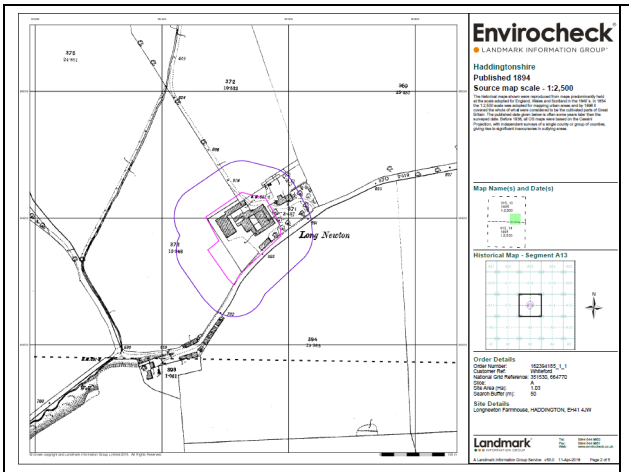
2.01 Context - Surrounding Area/Setting

The site is located around 3 miles from the East Lothian village of Gifford + 20 miles from Edinburgh within mixed arable/pastoral farmland. The steading itself nestles into the landscape + adjoining domestic housing, forming a traditional representation of an evolved farm steading mirroring that of several nearby working farms.

The site is bounded to the North + West by pastoral farmland, to the East by the former Longnewton Farmhouse + its densely planted garden + the South by the unnamed Kidilaw-Longyester public road.

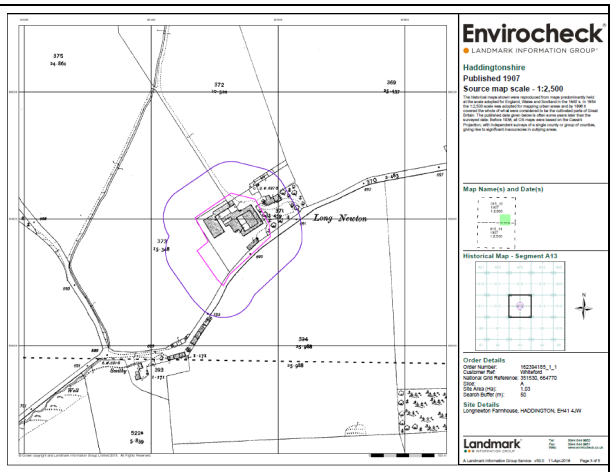
The existing buildings on the site vary greatly in age + quality. The overall footprints of the majority of structures date from circa 1890's (noted on OS Envirocheck 1894 map). Whether any of these predate this is unknown though based on the form + quality of structure it is expected that any forms prior to this would have been rebuilt, with several of the current building styles dating from around 1880-1890.

As previously noted a large section of these buildings have been adapted + modernised with only sections of external walls predating circa 1960's (highlighted on OS Envirocheck 1967 map) still being present, the vast majority of these are in very low condition.



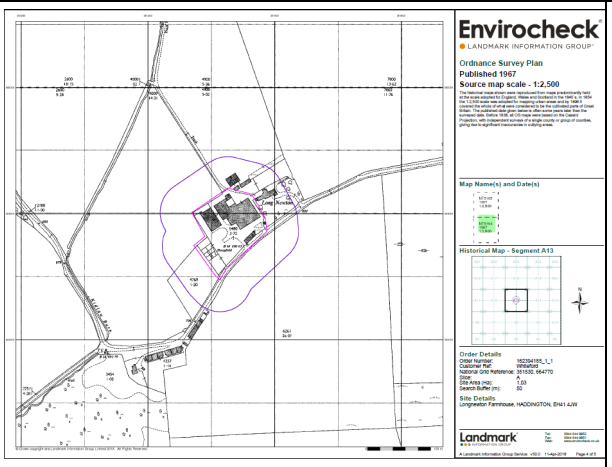
Longnewton farm 1894

Source: Landmark Envirocheck



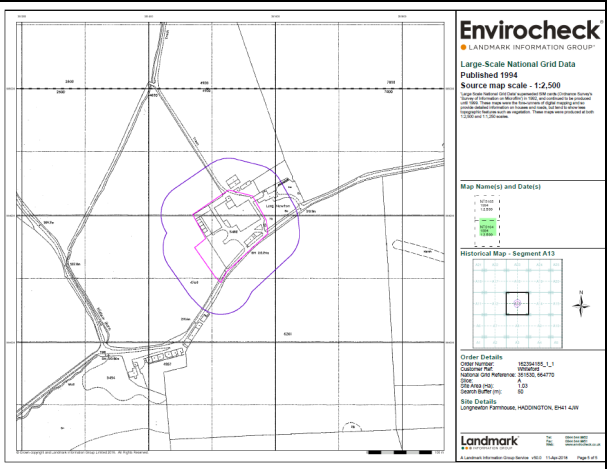
Longnewton Farm 1904

Source: Landmark Envirocheck



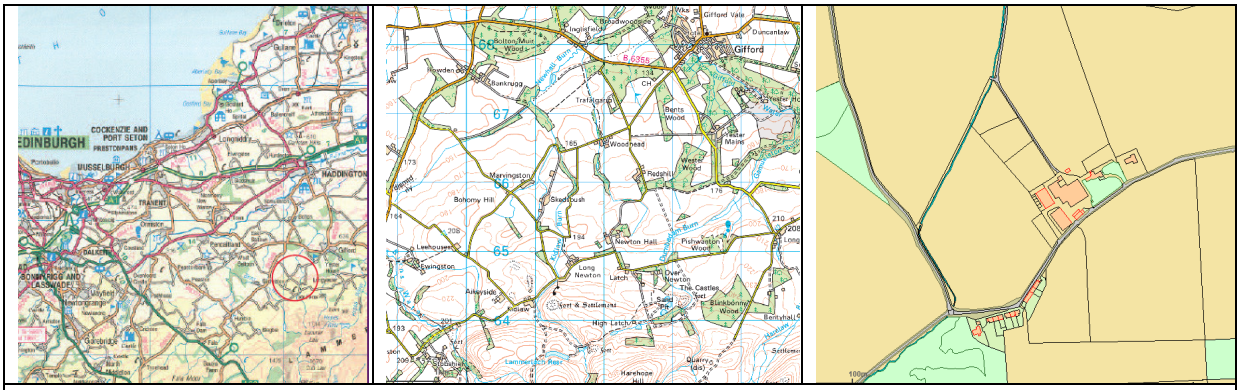
Longnewton farm 1967

Source: Landmark Envirocheck



Longnewton farm 1994

Source: Landmark Envirocheck



Site locality

2.02 Context – Site History

The site has been a known developed cluster of buildings in farm use since 1854 this developed into a large scale farming concern, coming under estate ownership + providing both arable + pastoral farming with the main supply chain serving the city of Edinburgh + local network of traders.

The farm + its associated buildings remained in estate ownership until 1954 when the Whiteford family took over the running + thereafter ownership. The Whiteford family further developed the cluster of buildings making a number of the noted changes to accommodate modern farming methods, with the farm passing from generation to generation.

On the retiral of our clients who were the final farming members of the family the farmland was sold in the mid 2000's with the farm buildings being retained along with a section of pastoral/grazing land.

A Full Planning application was submitted in 2006 to redevelop the overall site into 16 units, primarily using sections of the original structures as anchor points with additions + conversions.

Since this time the site has been marketed with no interest due to the overall conversion costs associated with the existing building group, there have been a marked degradation of the structures since this time due to weather damage, our clients have attempted to repair + upgrade these but the structures are now failing + becoming unsafe to repair, as illustrated below:

Elevation to retained unit 9 2006

Elevation to retained unit 9 2018

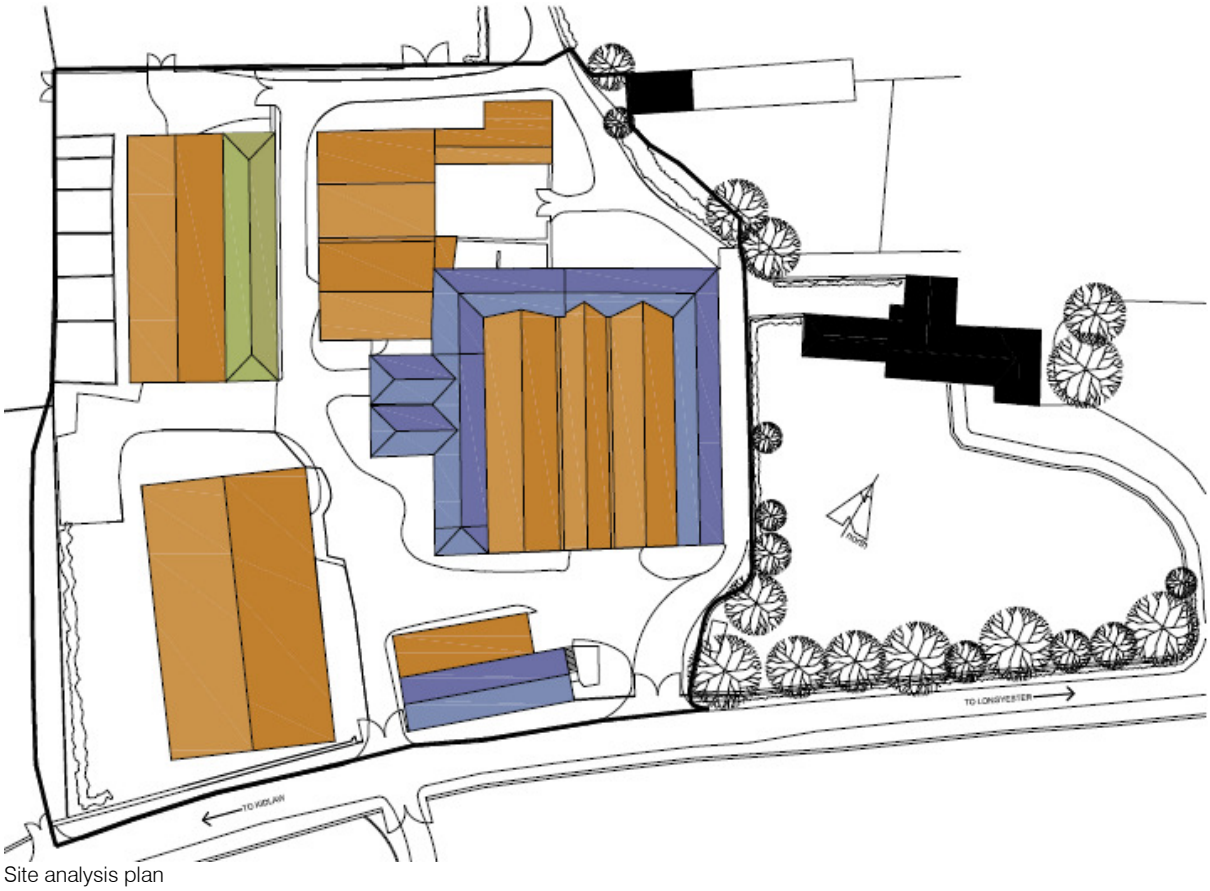
Elevation to retained unit 7 2006

Elevation to retained unit 7 2018

Elevation to retained unit 8,9 2006

Elevation to retained unit 8,9 2018

The analysis plan below refers to the importance of the structures within the context of the site + surrounding area; it is clear though the buildings have differing ages that either the actual structure or aesthetic form provides a greater understanding of the site evolution.
Looking in more detail it is clear that depending on the structure limited original features of 1) remain or as with building 2) have been altered over the period of time.



Site analysis plan

Blue – structure of high importance
Green – structure of medium importance
Brown – structures of low quality/importance

3.00 Structure

The mixed condition of the structures are self-evident + listed in the structural report supplied by CRA Structural Engineers this balanced with low quality + damaged finishes result in sections of building which cannot be feasibly re-used.

3.01 External Features

Elevation to retained unit 7,8,9 2018

Elevation to existing stables cattle court to be demolished 2018

Elevation to retained unit 7 2018

Elevation to section of unit 8 to be re-built 2018

Internal of cattle court/stables to be demolished 2018

Elevation of unit 1 to be retained + refurbished 2018

3.02 Internal Features

The internal fabric mirrors that of the external with a simple functional structure of mixed stone/concrete uneven floors forming the ground floor base

Walls are a continuation of the random coursed natural stone again to mixed levels of condition + quality.

Internal wall between existing stables + cattle court to be demolished 2018

Internal of cattle courts to be removed 2018

Internal of cattle court to be removed 2018

Existing internal valley + rafters of structure to be removed 2018

Existing sections of building to be removed 2018

4.00 Demolition + Regeneration of Surrounding Areas

As part of the overall scheme it is proposed to demolish the modern structures along with those seen as being structurally unstable leaving the aesthetically valuable core of steadings with the aim to create a setting that both regenerates the area but also ensures that the traditional farm steading aesthetic, mass + form are retained.

The initial works to remove the current structures raises the issue of both safety + protection of retained structures, this will be carried out by means of a 2 phase demolition plan which will be taken forward to the Construction Phase Health + Safety Plan.

The “site” as a whole including all buildings will be secured off + made safe prior to any demolitions.

Initially a site hoarding will be constructed to secure the site as below demolition plan.

It is proposed to carry out phase 1 of the demolition works by removing all structures that have been significantly adapted + in low levels of construction as well as removal of the modern structures to clear the development space as follows:

Phase 1

Roof – strip existing slate/tile roof my hand exposing roof structure below
Carefully cut roof structure into sections for controlled mechanical removal by hi-ab or similar.

Walls - Following removal main sections of walls + structure all to be removed in sections by mechanical grabber + limited manual removal.
Sections of structure within 5m of retained structures to be carefully removed by hand + manual labour to reduce any possible damage by mechanical operations. All to be removed to ground level + laid aside for re-sure on new structures.

Protection - On completion of the noted works hoarding to be extended to all exposed Boundaries to correlate a clear exclusion zone from any site works or traffic.

Phase 2

Demolitions will then take place including the demolition of the large industrial units, again this will be removed in sections from the specialist removal of the roofing material to the structure. All site works will be restricted for safe removal.

Fig 9: demolition plan to surrounding areas.

Only on completion of the above works would any controlled works be carried out on the retained structures. It is imperative that works on these buildings should be carried out in a controlled + concise

manner to ensure maximum protection not only form site works is carried out but also for the elements protecting the materials internally.

The 1st phase of this would be the removal of the roof finishes as follows:

Asbestos	Where present, to be removed by specialist contractor, work to be carried out from hydraulic platform such as cherry picker + fully scaffolded internally + externally allowing access to all areas of roof structure + protecting the internal frames.
Slates/Tiles	All roof slates/tiles to be carefully removed + stacked on site for re-use on completion of works, sample slate to be removed prior to any works to agree suitable matching slate with planning authority.

On reformation of the roof + protection of the structure all openings will be secured from weather + birds to allow a controlled conversion of the buildings in a phased manner.

5.00 Design Impact

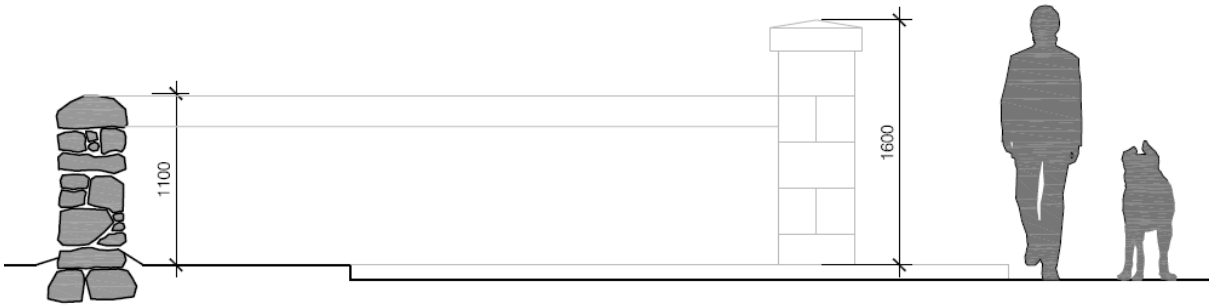
5.01 External Fabric

Conceptually, the scheme proposed has been considered in terms of limiting the effect on the retained courtyards whilst including the traditional courtyard forms throughout the new build sections, overall looking to return it to useful life. The mix of conversion + new build units is seen as the best viable proposal for the site to be redeveloped + the buildings of value retained for future use.

It is imperative that the significance of the retained structures is not undermined by the proposed adjoining buildings, by retaining the clear sightlines + courtyard appearance along with intertwining farm style tracks linking all sections we feel that the overall former farm structures will be further enhanced.

The formation of the traditional footprint “steading style of units 2 + 3 provide a cornerstone to the site + with the use of high farm walling at the main entrance to the site close off the vistas form the main public road using traditional farm forms to integrate this with the retained units of 1,7, 8 + 9.

This further links on via a low impact track to a small walled court area with linking driveways to units 4, 5 + 6 set within mixed berry hedged plots allowing the properties to be landscaped into the overall development in the lowest impact corner of the site, hidden by the mass of the main structures on the roadside.



Visual of proposed courtyard form integrating built form + soft landscaping

5.02 External Roof

It is proposed that all roofs will be formed to traditional pitches with a mixture of natural slate to all main roofs with subservient roofs finished in standing seam zinc, all will be finished with skewed ends finished in a mixture of natural stone + lead caps (depending on the adjoining wall finishes)

5.03 External Walls

All existing walls should be dressed back + re-built where required + repointed with lime mortar to match the existing structures.

All new walls are to be finished as shown with a mixture of the following:

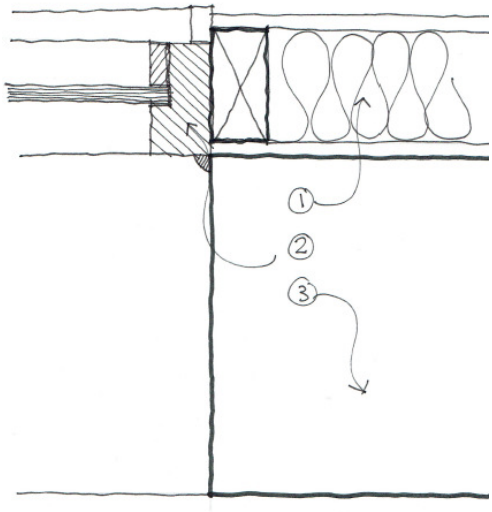
Natural stone – reclaimed from demolished structures to be built in random form to match existing walling forming deep reveals to all openings (150-200mm) + lime pointed, all walls where stopped before eaves level to be capped with precoloured steel capping to match windows/doors.

Timber Cladding – all cladding to be formed as shown with 60mm open jointed larch cladding formed with stainless steel nails in measured rows.

Render – new sections of render to be in precoloured k-rend or equal scraped finish to provide backdrop contrast to timber + stone.

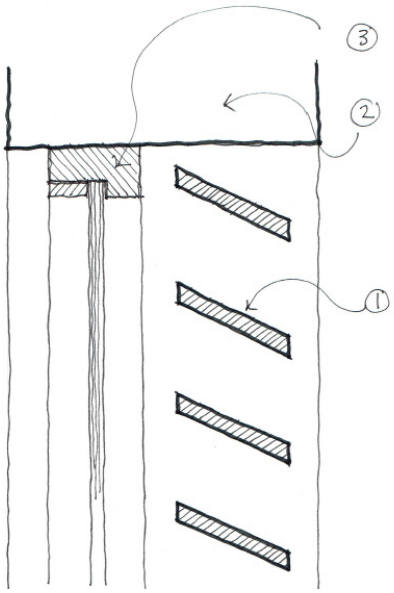
5.04 Doors + Windows

All new windows + doors are to be high performance double glazed units with frames pre-finished to agreed “estate” colour, all to forms + styles shown. It is proposed to maintain the character of the existing buildings + extenuate the opening rather than the infill of glazing to recess all windows + screens back into the new insulated frame, this both improves the thermal performance of the building + also exposes the full 550mm depth of flat stone reveal to each opening. Selected windows are proposed to have fixed timber louvres fixed to the external, both to provide privacy to neighbouring properties + to reduce the impact of large glazed sections on the overall development aesthetic, using a traditional farm steading form to do so.



1. New insulated internal leaf
2. New painted double glazed window
3. 550mm external stone jamb

Fig 10: proposed window jamb detail.



1. Hardwood timber fixed louvres
2. Natural stone walling
3. New painted double glazed window

5.05 Rooflights

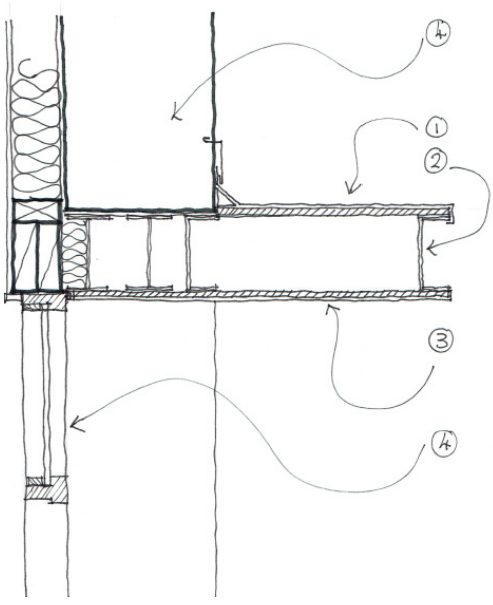
Each rooflight has been positioned to create maximum benefit to the internal space, this has been balanced against the external character + form of the buildings, they have been located to match the pattern already created by the existing openings of the existing buildings.

The rooflights are proposed to be “rooflight company” or equal conservation style rooflights ensuring the frame profiles are thinner than standard + inserted into the roof with low profile flashings to set the rooflight down level with the surrounding slates.

Rainwater Goods

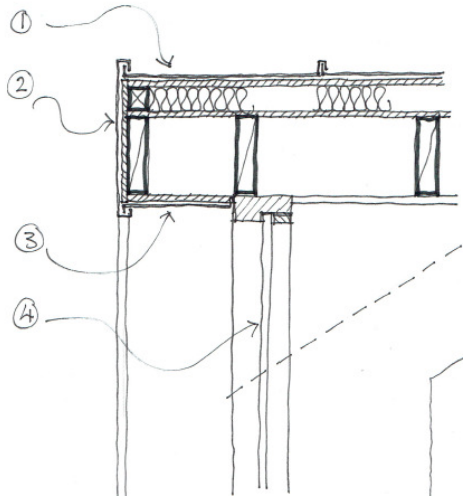
It is apparent that some buildings originally may not have been furnished with rainwater goods though have since been fitted with cast iron semi elliptical rainwater goods, we propose to re-fit the whole roof with painted cast iron guttering + downpipes as the roof structure is not interrupted we aim to retain single rainwater drops so not to leave the facades cluttered by services.

Entrance Canopy



1. Folded seam Zinc cladding
2. Painted steel c section to outer edges
3. Zinc zladding
4. Double galzed window/door screen
5. Natural stone wall

Dormers



1. Standing seam Zinc cladding
2. Folded seam zinc cladding
3. Zinc zladding
4. Double galzed window/door screen

7.00 Restoration + Materials

The overall appearance as noted in previous sections creates the intrinsic value of the building with the external + internal holding differing but equally important values.

As previously detailed the palette of materials proposed are aimed at retaining rather than altering the structure overall.

For simplicity each sections + materials are listed, this list covers the main elements of structure:

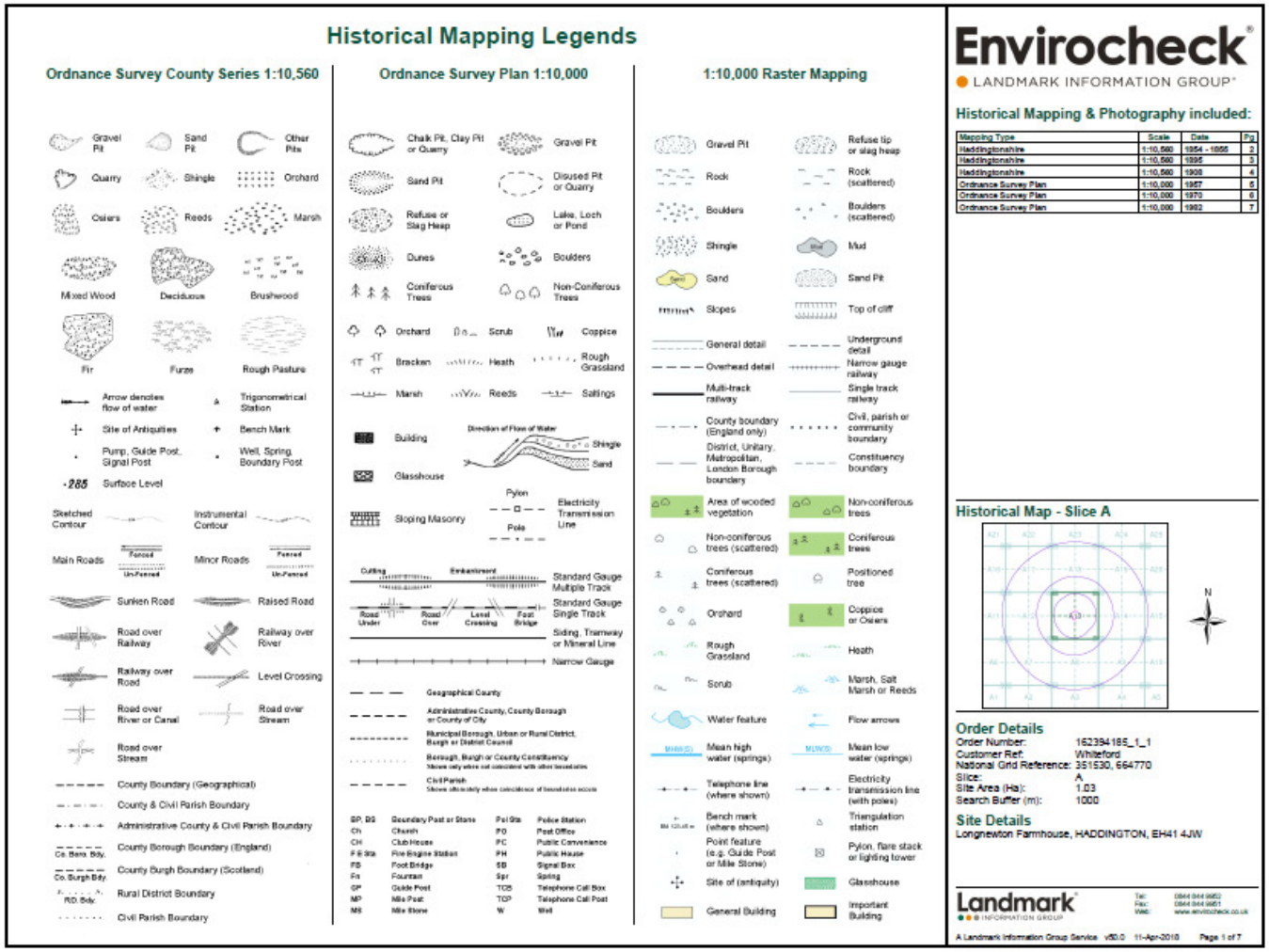
Roof	natural slate – re-use existing where suitable Source approved replacement matching clay tiles to all areas Haunching to be strong mix NHL lime mix
Rooflights	Rooflight company or equal conservation rooflights with recessed flashing kit, all in black.
Walls (external)	defective + cementicions pointing to be removed + localised lime/shail pointing to be carried out to match original, creating continual finish in material + colour.
Walls (internal)	Existing walls to be framed internally to create insulated fabric, existing walls to remain intact + unaltered behind, no skirting's or architraves.
Roof (internal)	Existing ceilings to be framed infilled internally to create insulated fabric, existing walls to remain intact + unaltered behind
Ground Floor	Existing uneven floors removed with minimal sub base, new insulated concrete floor formed
Windows + doors	fully glazed screens + opening sections, all finished with double glazing + painted timber frames in estate colour

8.00 Conclusion

We have focuses the design + proposed structures + new materials to ensure the structure though being proposed to be domestic would ensure the structure still gives the story of “form, function + use” providing a simple design that retains the original farm steading feel to be retained.

We feel that through the preceding analysis + reviewing all current policy + guidance that the overriding benefits to bring a cluster of derelict + building under risk back into use + provide long term security for the structure by the minimalist alterations we have demonstrated that this will provide “less than substantial harm” to the area + enhance the existing structures utilising it as a main cornerstone + feature to the larger regeneration of the full site.

9.00 Supporting Information



Historical Mapping Legends

Ordnance Survey County Series 1:10,560

Gravel Pit
Sand Pit
Other Pits
Quarry
Shingle
Orchard
Osiers
Reeds
Marsh
Mixed Wood
Deciduous
Brushwood
Fir
Furze
Rough Pasture
Arrow denotes flow of water
Trigonometrical Station
Site of Antiquities
Bench Mark
Pump, Guide Post, Signal Post
Well, Spring, Boundary Post
285 Surface Level
Sketched Contour
Instrumental Contour
Main Roads
Minor Roads
Sunken Road
Raised Road
Road over Railway
Railway over River
Railway over Road
Level Crossing
Road over River or Canal
Road over Stream
Road over Stream
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
County Borough Boundary (England)
County Burgh Boundary (Scotland)
Rural District Boundary
Civil Parish Boundary

Ordnance Survey Plan 1:10,000

Chalk Pit, Clay Pit or Quarry
Gravel Pit
Sand Pit
Disused Pit or Quarry
Refuse or Slag Heap
Lake, Loch or Pond
Dunes
Boulders
Coniferous Trees
Non-Coniferous Trees
Orchard
Scrub
Coppice
Bracken
Heath
Rough Grassland
Marsh
Reeds
Saltings
Building
Direction of Flow of Water
Shingle
Sand
Glasshouse
Pylon
Sloping Masonry
Electricity Transmission Line
Pole
Cutting
Embankment
Standard Gauge Multiple Track
Road Under
Road Over
Level Crossing
Foot Bridge
Standard Gauge Single Track
Siding, Tramway or Mineral Line
Narrow Gauge
Geographical County
Administrative County, County Borough or County of City
Municipal Borough, Urban or Rural District, Burgh or District Council
Borough, Burgh or County Constituency
Civil Parish

BP, BS	Boundary Post or Stone	Pol Sta	Police Station
Ch	Church	PO	Post Office
CH	Club House	PC	Public Convenience
F E Sta	Fire Engine Station	PH	Public House
FB	Foot Bridge	SB	Signal Box
Fo	Fountain	Spr	Spring
GP	Guide Post	TCB	Telephone Call Box
MP	Mile Post	TCP	Telephone Call Post
MS	Mile Stone	W	Well

1:10,000 Raster Mapping

Gravel Pit
Refuse tip or slag heap
Rock
Rock (scattered)
Boulders
Boulders (scattered)
Shingle
Mud
Sand
Sand Pit
Slopes
Top of cliff
General detail
Underground detail
Overhead detail
Narrow gauge railway
Multi-track railway
Single track railway
County boundary (England only)
Civil, parish or community boundary
District, Unitary, Metropolitan, London Borough boundary
Constituency boundary
Area of wooded vegetation
Non-coniferous trees
Non-coniferous trees (scattered)
Coniferous trees
Coniferous trees (scattered)
Positioned tree
Orchard
Coppice or Osiers
Rough Grassland
Heath
Scrub
Marsh, Salt Marsh or Reeds
Water feature
Flow arrows
Mean high water (springs)
Mean low water (springs)
Telephone line (where shown)
Electricity transmission line (with poles)
Bench mark (where shown)
Triangulation station
Point feature (e.g. Guide Post or Mile Stone)
Pylon, flare stack or lighting tower
Site of (antiquity)
Glasshouse
General Building
Important Building

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LANDMARK INFORMATION GROUP

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Haddingtonshire	1:10,560	1854 - 1855	2
Haddingtonshire	1:10,560	1896	3
Haddingtonshire	1:10,560	1908	4
Ordnance Survey Plan	1:10,000	1957	5
Ordnance Survey Plan	1:10,000	1970	6
Ordnance Survey Plan	1:10,000	1982	7

Historical Map - Slice A

Order Details

Order Number: 162394185_1_1
Customer Ref: Whitelford
National Grid Reference: 351530, 664770
Slice: A
Site Area (Ha): 1.03
Search Buffer (m): 1000

Site Details

Longnewton Farmhouse, HADDINGTON, EH41 4JW

Landmark INFORMATION GROUP

A Landmark Information Group Service v50.0 11-Apr-2018 Page 1 of 7

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LANDMARK INFORMATION GROUP

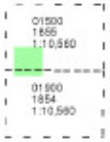
Haddingtonshire

Published 1854 - 1855

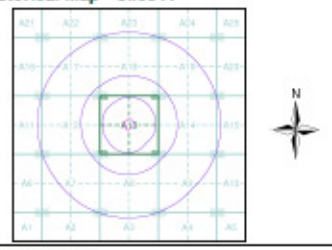
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1930, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

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Site Area (Ha):	1.03
Search Buffer (m):	1000

Site Details

Longnewton Farmhouse, HADDINGTON, EH41 4JW

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LANDMARK INFORMATION GROUP

Haddingtonshire

Published 1894

Source map scale - 1:2,500

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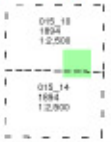
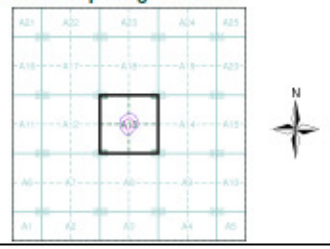
Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

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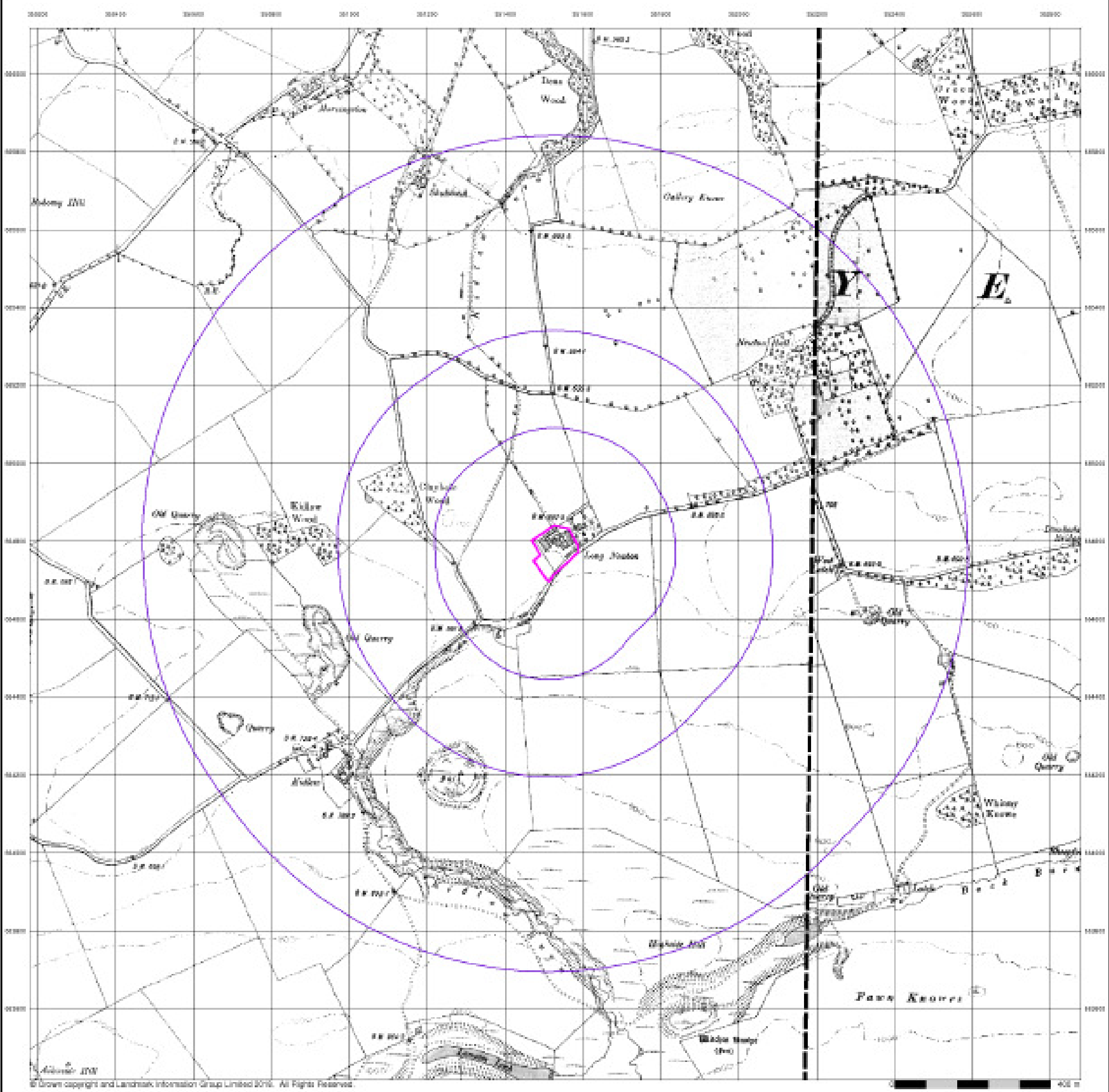
Search Buffer (m):	50

Site Details

Longnewton Farmhouse, HADDINGTON, EH41 4JW



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Haddingtonshire

Published 1895

Source map scale - 1:10,560

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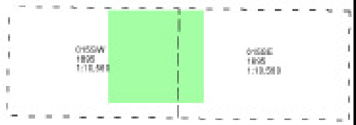

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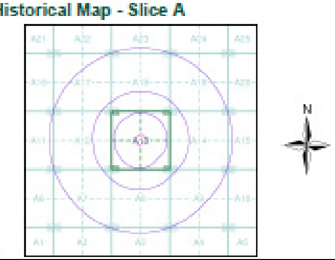

Order Details

Order Number: 162394185_1_1
Customer Ref: Whiteford
National Grid Reference: 351530, 664770
Slice: A
Site Area (Ha): 1.03
Search Buffer (m): 1000

Site Details

Longnewton Farmhouse, HADDINGTON, EH41 4JW

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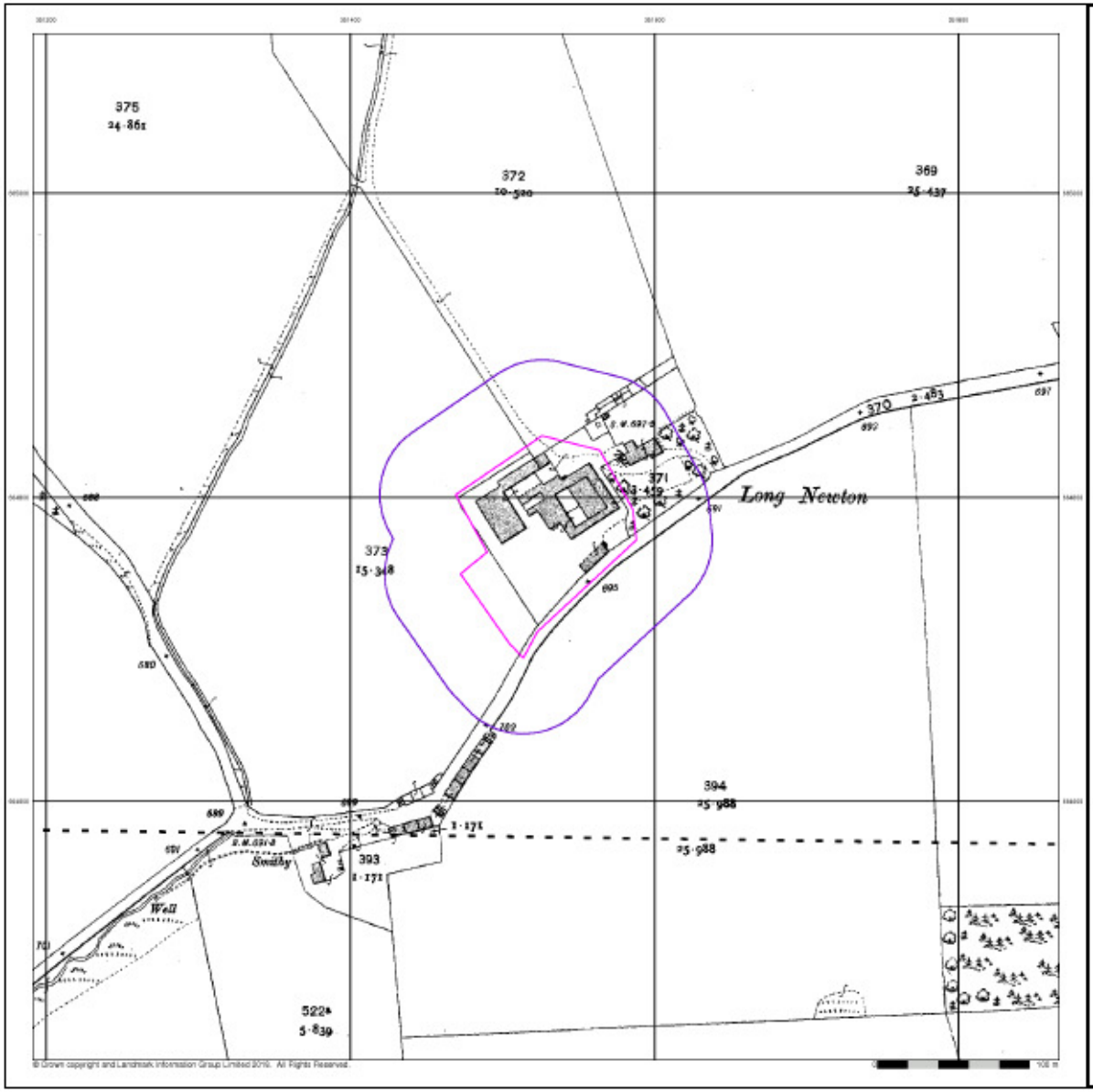

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Haddingtonshire

Published 1907

Source map scale - 1:2,500

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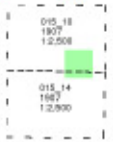

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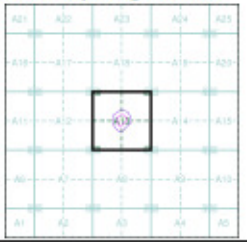

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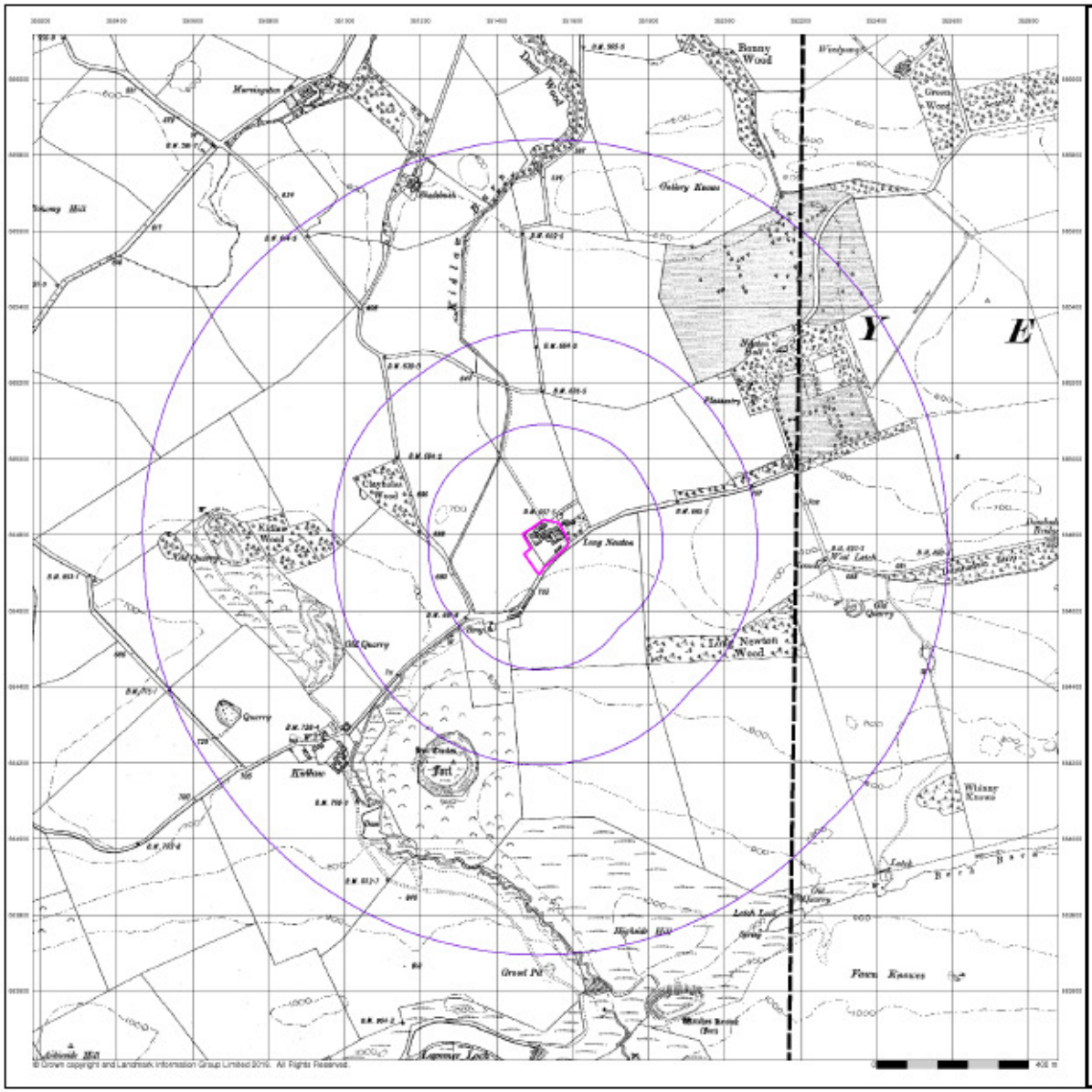

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Haddingtonshire

Published 1908

Source map scale - 1:10,560

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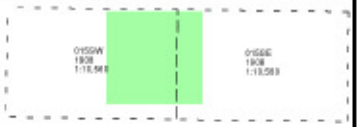

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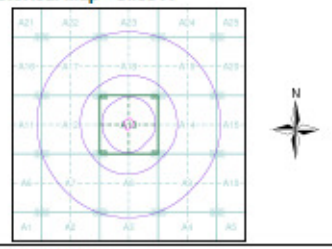

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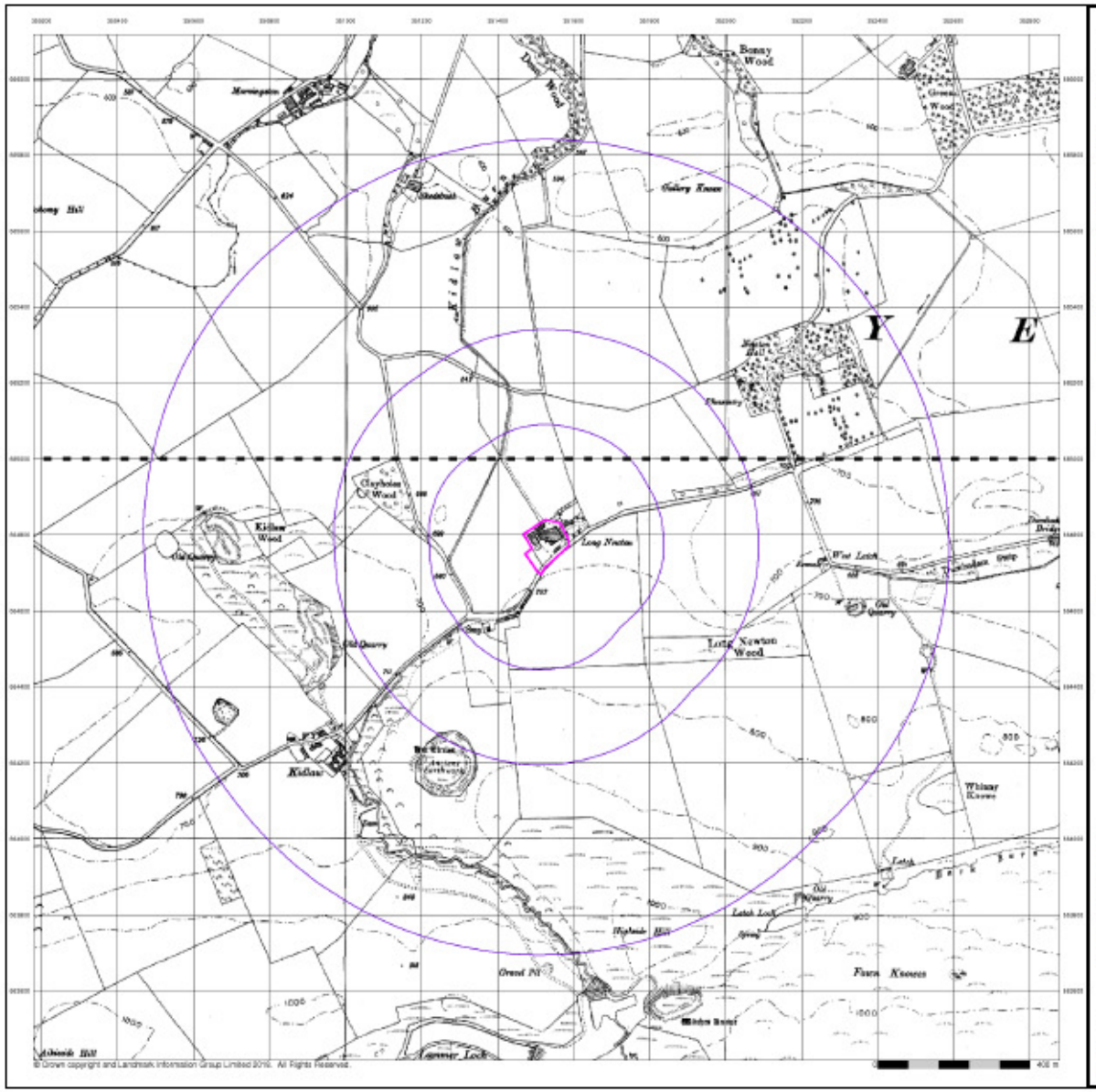

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Ordnance Survey Plan

Published 1957

Source map scale - 1:10,000

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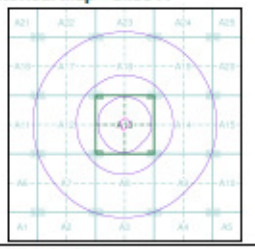

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Ordnance Survey Plan

Published 1967

Source map scale - 1:2,500

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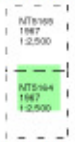

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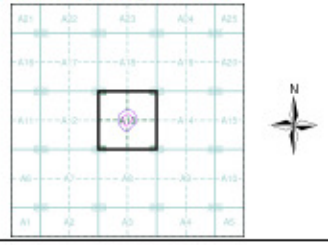

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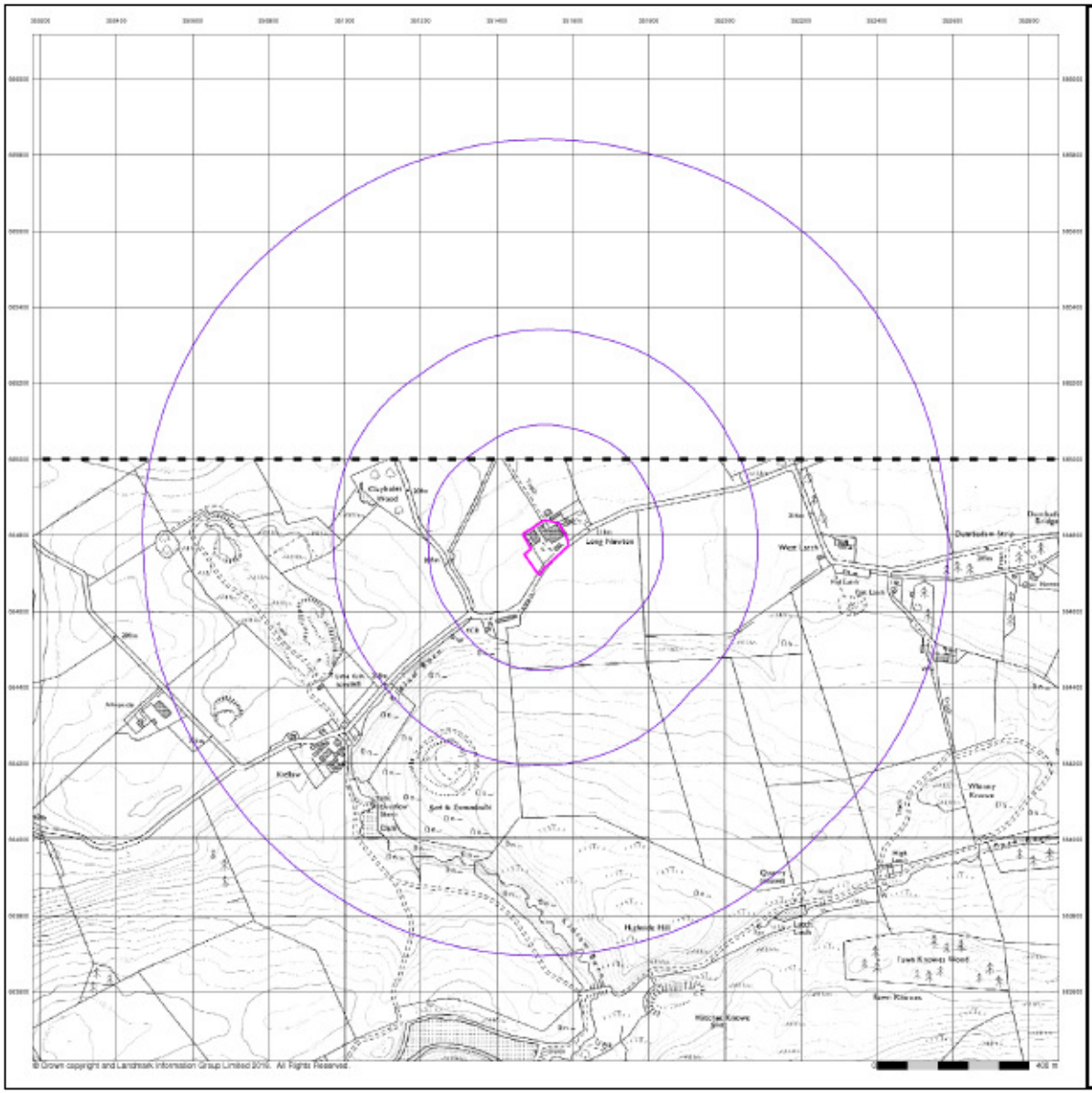

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Ordnance Survey Plan

Published 1982

Source map scale - 1:10,000

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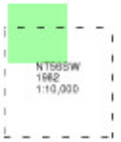

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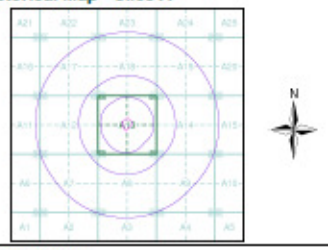

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Large-Scale National Grid Data

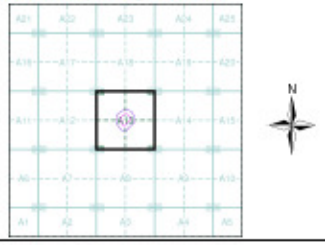
Published 1994

Source map scale - 1:2,500

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

Historical Map - Segment A13



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GAP DEVELOPMENTS LIMITED
3 WALKER STREET
EDINBURGH
EH3 7JY

PROPOSED DEVELOPMENT AT
LONG NEWTON FARM
NR. HADDINGTON, EAST LOTHIAN

SITE INVESTIGATION REPORT

Date APRIL 2008

DAVID R. MURRAY AND ASSOCIATES
CONSULTING ENGINEERS

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E8538/KC/NJH

APRIL 2008

CONTENTS

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Appendix A	Site Location Plan
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Appendix C	Basic Geological Assessment Reports by British Geological Survey
Appendix D	Report on Ground Investigation by SKF Limited
Appendix E	Site Investigation Location Plan B8538/002
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Appendix G	Assessment Levels Calculated Using the CLEA model
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Appendix K	Water Pipe Specification

1.0 INTRODUCTION

1.01 Gap Developments have appointed David R Murray and Associates to undertake intrusive investigations on a proposed residential development site located on a farmstead at Long Newton, to the south of Haddington, East Lothian, Appendix A.

1.02 The site, which is currently developed, contains a number of stone built farm buildings, which are for the most part still in use to house livestock and machinery. A large and more recent steel frame building and a concrete lined silage pit are located on the southern portion of the site, adjacent to the road. Land in the vicinity of the site slopes down towards the north-west. Agricultural land is present to the north, east, west and south, while a small development of cottages lies 80m to the southwest.

1.03 A development layout plan confirms that there is a proposal to demolish the more recently constructed farm building and to convert the majority of the existing stone built steading buildings for residential usage. Private garden areas would be incorporated within the finished development.

1.04 The current investigation involved the review of archive information and assessment of the ground conditions and contaminant levels encountered during intrusive investigations and the impact that these would have on the development layout proposed.

1.05 Review of ground conditions and remedial measures to address any potential construction constraints identified as a result of the works undertaken are also provided in this report.

1.06 The report has been prepared taking due cognisance of current best practice and legislation. The investigations were undertaken and recommendations made on the basis of a residential end use incorporating private garden areas.

1.07 This report has been prepared for the exclusive use of Gap Developments and their representatives. Any use of this report by a third party, or any reliance on or decisions made based on it, are the responsibility of such third parties unless written confirmation at the request of Gap Developments has been provided by David R. Murray and Associates.

1.08 If new information becomes available in respect of the site, and/or legislation changes after the submission of this report and/or one year has elapsed since submission, the report should be referred back to David R. Murray & Associates for comment or amendment to some or all of the report where necessary.

1.1 Objectives of Investigation

The objectives of the investigation were as follows:

- To review available archive information in order to identify any potential geotechnical, mineral and/or environmental constraints to the development proposed.
- To design an intrusive investigation, based upon review of available information, to further assess and quantify the potential construction constraints and environmental issues identified as a result of the review of archive information
- To investigate ground conditions by advancing hand pits and boreholes across the development area of the site and collect representative soil and groundwater samples for analysis.
- Based upon the results of intrusive investigations, to provide an assessment of ground conditions in respect of the development proposals.
- To provide recommendations, where necessary, on measures to address any soil and groundwater contamination levels and soil-gassing levels identified as a result of the intrusive investigations and risk assessments undertaken.

1.2 Overview of Investigation Methodology

1.2.1 Prior to undertaking site investigations available historical archive information was reviewed in order to provide an indication of likely ground conditions and possible environmental issues associated with the redevelopment proposals.

1.2.2 This information was used to formalise a Conceptual Site Model (CSM) in terms of potential contaminants, and contaminant/pathway/receptor linkages, which might be associated with the site. The archive information reviewed and the CSM were used to design site investigations suitable in order to allow a detailed assessment of ground conditions and potential environmental constraints to development.

1.2.3 The subsequent investigations comprised of hand pits and boreholes which were advanced at selected locations on the site. Representative soil samples were collected from hand pits and boreholes for detailed chemical and geotechnical testing, whilst gas monitoring and groundwater sampling were also carried out.

1.2.4 As previously indicated, the results of in situ geotechnical and laboratory tests on disturbed and undisturbed soil samples were reviewed and comment made on any implications these may have upon the design of the development proposed.

1.2.5 The significance of the laboratory and gas monitoring data obtained during the investigation was assessed in terms of site-specific contamination assessment criteria for various contaminant parameters and current guidelines relating to landfill gas.

1.2.6 The field and laboratory data obtained and the assessment of this data in respect of the Conceptual Site Model was used to identify potential environmental risks and to design suitable remedial measures to adequately address these risks.

2.0 SITE SETTING & DESCRIPTION

2.01 The site (the centre of which is located at NGR N1 15_{30} 47_{80}) extends to approximately 0.81Ha and is approximately square in shape. The site is currently developed and contains a number of stone built farm steading buildings, which are for the most part still in use for sheltering and feeding livestock and horses. A small number of these stone buildings are dilapidated.

2.02 A large steel framed building is present on the southern portion of the site, which is also in use for housing livestock. Adjacent to this building is a mound of silage material which is covered and which is located on a concrete slab. This is outwith the area proposed for development.

2.03 A tarmac access road leads to the adjacent residential property along the eastern boundary, while the rest of the site is roughly surfaced with stone and gravel. Some small areas of the site are roughly grassed.

2.04 Agricultural equipment and materials are scattered across the site, and a number of farm vehicles are stored within the steading buildings. A drum containing oil is present in one of the buildings.

2.05 Land in the area slopes down towards the northwest and the site is bounded generally to the north, east, south and west by agricultural land. Two residential properties lie just to the east of the site, while a minor road forms the southern boundary.

2.06 A number of cottages lie approximately 80m to the southwest of the site, and the nearest water course in the vicinity of the site is the Kidlaw Burn which is located 150m to the west of the site. This burn flows towards the north.

3.0 DESK STUDIES

Archive information from the following sources was reviewed in order to allow an assessment of potential construction constraints to be made.

- An Envirocheck Report, Appendix B, containing Ordnance Survey map extracts covering the period 1854 to 2007, and statutory information from SEPA and East Lothian Council.

- A Basic Geological Assessment by the British Geological Survey (BGS), Appendix C.

- Aerial photographs relating to the site and surrounding area.

3.1 Summary of Site History

3.1.1 A review of Ordnance Survey maps, Appendix B, was undertaken in order to assess historical land uses and major changes which could provide an indication of ground conditions and potential environmental issues.

3.1.2 The site has remained largely unchanged throughout its entire history. A farm steading, Long Newton, comprising of a number of buildings, was present on the site from at least 1854. A house was also present at this time, adjacent to the eastern boundary, while agricultural land was present all around. A number of cottages were indicated 75m to the south of the site, adjacent to the minor road forming the southern boundary. Quarrying (limestone) was present 570m to the southwest and west.

3.1.3 The configuration of the buildings has essentially remained unchanged, although a small part of one steading was demolished on the northern portion between 1907 and 1957. The modern shed on the southern portion was erected between 1999 and 2007.

3.1.4 Land surrounding the site has remained essentially unchanged since the mid 19th Century although the quarries to the west and southwest were indicated to be abandoned by the start of the 20th Century.

3.1.5 The history of the site and immediate surrounding area is summarised overleaf.

Map Survey Date	Subject Site	Site Environs
1854-55 1:10,560	The site comprised of a number of farm steading buildings A track/road runs through the southern portion	Land surrounding is largely agricultural. Large manor house present adjacent to the eastern boundary School and cottages present 75m to the southwest A number of limestone quarries present 570m to the west and southwest Unnamed watercourse (presumably the Kidlaw Burn) 160m to the west.
1894 1:2,500	Steading buildings enlarged on northern and western portions Road now runs adjacent to southern boundary.	Little significant change
1907/8 1:2,500/1:10,560	Little significant change on site	Quarries to the west/southwest largely abandoned.
1957 1:10,560	Minor demolition of building on northern portion, and enlargement of building on central portion, but otherwise little significant change.	Little significant change
1967 1:2,500	Little significant change on site	Minor extension to adjacent manor house, while additional outbuildings erected close to northern boundary.
1970-82 1:10,000	Little significant change on site	Little significant change
1994 1:2,500	Little significant change on site	Little significant change
1999 1:10,000	Little significant change on site	Little significant change
2007 1:10,000	New building added to southern portion of site.	Little significant change

3.2 General Geology of the Area

3.2.1 The Basic Geological Assessment by the British Geological Survey (BGS), Appendix C, confirms that their records show no evidence of significant made ground or infilled ground on the site, although they do confirm that made ground associated with the former development may be encountered. Given the presence of a steading some made ground could be anticipated.

3.2.2 Natural soils underlying any made ground present are expected to comprise of poorly consolidated sands and gravels, overlying glacial till (boulder clay), which is typically firm to very stiff clay with pebble to boulder size rock clasts, and which is often softer and siltier where weathered close to ground surface. Irregular bands of sand and gravel can be expected within the till. The thickness of the drift deposits is unknown, but the BGS anticipate that rock would be expected at depths of less than 5m.

3.2.3 The Lammermuir Fault, which trends southwest to northeast, is thought to be present beneath the northern edge of the site. This would be represented at rockhead by a zone of broken or disturbed rock.

3.2.4 To the south of the fault, solid rock underlying the drift deposits within the majority of the site boundary is expected to be of Ordovician age, and comprise medium to thick bedded sandstones, with thinner shales, mudstones and siltstones. The dip of these strata is likely to be up to 70°, dipping to the northwest.

3.2.5 To the north of the fault, perhaps underlying a small portion of the site, lies Lower Carboniferous strata comprising sandstones, siltstones and mudstones, which dip generally to the north or northeast.

3.2.6 A search of mine plan data held by the BGS did not reveal any plan record of underground mineral workings in the vicinity of the site. The BGS consider it unlikely that any undocumented workings would be present in the vicinity of the site.

3.2.7 The BGS also confirm that they have no records of current or former mine entrances on or immediately adjacent to the site, and no records of quarrying activities within or close to the site boundary.

3.3 Mining Issues

3.3.1 Bedrock strata at shallow depths beneath the site are not recorded to contain mineral seams of economic importance, and Long Newton lies outwith any defined Scottish coalfields.

3.3.2 Based on the reports from the British Geological Survey and on our knowledge of the area, we would conclude that the mineral stability of the site is satisfactory and that intrusive investigations, in order to investigate mineral stability, are not necessary.

3.4 Regulatory Authorities Archives

3.4.1 The Envirocheck report, Appendix B, contains information on landfill sites, waste treatment and transfer operations, discharge consents and emissions consents, sites holding radioactive substances authorisations and hazardous substances consents, information from contemporary trade directories and information on sites where fuels are stored

3.4.2 Review of this information confirms that there are no records of prescribed processes, discharge consents, waste disposal sites, landfill sites, contemporary trade directory entries, etc. within the site boundary.

3.4.3 There are two discharge consents associated with a septic tank discharge within 200m of the site, and a further consent at 206m.

3.4.4 A water abstraction permit, held by East Scotland Water Authority is present 747m to the southwest of the site, relating to abstraction from a small reservoir feeding the Kidlaw Burn.

3.4.5 None of the sites identified in the Envirocheck report are considered to pose any significant risk in terms of the development proposed for the subject site

3.4.6 There are no Sites of Special Scientific Interest (SSSI), nature reserves, environmentally sensitive areas, green belt or protection areas, etc. on or in the immediate vicinity of the site.

3.5 Hydrology and Hydrogeology

3.5.1 As previously confirmed the nearest watercourse in the vicinity of the site is the Kidlaw Burn which is located some 160m to the west of the site, and flows from south to north.

3.5.2 Given the local topography it is not unreasonable to assume that the general direction of groundwater and surface water flow in the area would be towards the northwest. Therefore contaminants generated on the site, if any, would be expected to impact upon groundwater in this general direction, however, given the distance from the site to the Kidlaw Burn, and the presumed direction of groundwater flow, it is unlikely that this water body would be impacted.

3.5.3 No classification of water quality was provided in the Envirocheck report, however given the water abstraction permits pertaining to the reservoirs upstream of the site, water quality would be anticipated to be good

3.5.4 Review of flood maps in the Envirocheck report and on line SEPA flood maps (www.sepa.org.uk/flooding), showed that the site is not in an area likely to be at risk of flooding

3.6 Summary of Desk Study Information

3.6.1 The following issues/potential construction constraints have been identified from the archive information reviewed.

Engineering: There are no plans to erect new structures on the site and it is considered that the existing buildings would be founded on the sand and gravel deposits or the underlying glacial clays identified by the BGS. Given the age of the buildings on the site any settlement is likely to have long since occurred.

An assessment of ground conditions and foundations of existing buildings was however undertaken as part of the site investigation works

Environmental: Made ground is unlikely to be present across the site area, therefore potential environmental issues are unlikely to be significant.

Due diligence site investigations will be necessary in order to confirm ground conditions and potential environmental risks associated with soils on the site.

Mining: Review of available archive information indicates that the site would not be impacted by shallow mining and no further work in order to assess mineral stability was considered to be necessary.

4.0 PRELIMINARY CONCEPTUAL SITE MODEL

4.01 The main purpose of the desk study review was to enable an assessment to be made of potential environmental risks and liabilities that might be associated with the site as a result of both its current and historical usage and the usage of adjacent properties. The information obtained from review of available archive material was then used to prepare a Conceptual Model for the site in terms of potential types and sources of contamination and their potential impact on identified receptors and on the proposed end use of the site.

4.02 The Conceptual Site Model (CSM) is used to identify the presence of potential sources and types of contamination either on or within influencing distance of a development site. Where potential sources are identified it is necessary to identify viable routes of exposure (pathways) by which contaminants could migrate and, hence, the potential for contaminants to ultimately impact upon identified receptors. The types of receptors that may be impacted are dependent upon the proposed end usage of a site.

4.03 The CSM is also integral to the design of site investigations, which should be carried out to examine if any contaminants are present and whether viable pathways exist between contaminants and the receptors identified. Where possible pollutant linkages are identified as a result of sampling and analysis, the level of likely harm to receptors is risk assessed and recommendations to reduce/remove potential risks to acceptable levels are formulated. Risk assessment methodologies are discussed later in this report.

4.04 Following completion of intrusive investigations and risk assessment the CSM is revised and, where necessary, recommendations to break identified potential pollutant linkages are made. The most suitable form of remediation will depend to a large extent upon the contaminant identified, and the nature of risk and likely receptor. The aim of the remediation is to break the source-pathway receptor linkage which can be achieved in a variety of ways. If any of the linkages are broken, the identified risk is deemed to have been removed. For instance, removal of a point source of contamination removes its potential to impact upon the identified receptor and the link between contaminant and receptor is broken. Likewise where a barrier is placed between the contaminant source and receptor the linkage is again broken as the receptor cannot come into contact with the contaminant source.

4.05 Based on the information reviewed and on observations made during basic walkover site inspections, the potential environmental risks associated with the development proposed are considered to be low.

4.06 The information reviewed indicates that the site has only ever been developed for agricultural use.

4.07 Taking cognisance of DEFRA's R&D Publication, CLR8 and DoE Industry Profiles, potential contaminants possibly associated with historical activities on the site have been identified in the CSM summary which is provided below.

Location of Potentially Contaminating Activity	Possible Contaminants	Pathways (if contaminants and landfill/mine gas were identified)	Receptor	Perceived Risk
Site has remained in constant agricultural use therefore no potentially significant contaminating activities have been identified	No site specific contaminants other than, possibly, pesticides are likely to be present. Gas monitoring should be undertaken in order to confirm the absence of landfill gas. A general suite of analyses should be carried out on the soil samples collected in order to confirm the absence of contaminants at concentrations of concern.	1. Dermal contact and ingestion 2. Dermal contact 3. Inhalation of dust/fibres/vapours (indoors and outdoors). 4. Contact with buildings/services 5. Migration of contaminants and landfill gas through service runs and subsequent accumulation of gas in buildings. 6. Leaching of contaminants into groundwater and off-site migration. 7. Ingestion of site grown vegetables.	Site contractors during development	1,2,3 (very low)
			Future site residents.	1,2,3,7 (very low)
			Adjacent land users.	3,5 (very low)
			Flora and fauna on the site and surrounding area.	1 (very low)
			Buildings and Services.	4,5 (very low)
			Groundwater and surface waters	5,6 (very low)

4.08 The preliminary CSM therefore indicates that the overall potential risk associated with the redevelopment of this site for residential use with garden areas is likely to be very low. Due diligence geotechnical and environmental investigations were however considered to be necessary in order confirm the absence of significant risks associated with the site.

4.09 Potential risks to the site from soils in the general vicinity were not considered to be significant given the absence of contaminant sources.

4.10 The investigations undertaken were therefore designed to provide confirmation of ground conditions across the site area as a whole and provide chemical and gas monitoring data upon which more detailed risk assessments could be undertaken. These investigations are described in more detail in the following section of this report.

5.0 SITE INVESTIGATIONS

5.01 Based upon the desk study researches undertaken and with reference to the preliminary CSM the investigation was designed to achieve the following objectives:

- To identify the presence or absence of made ground across the site area as a whole.
- To identify the nature, extent and significance of any contaminant levels associated with made ground and/or natural soils
- To determine the likely impact that any contaminants present are likely to have on identified site receptors both during and following development
- To determine the likely impact that any contaminants present in soils and/or groundwater are having or are likely to have on groundwater and surface water bodies outwith the site boundary.
- To establish soil gassing levels within the site boundary.
- To confirm the nature of natural soils underlying made ground and to allow a general assessment of the potential bearing capacity of these soils.

5.1 Investigation Methodology

5.1.1 David R Murray and Associates commissioned SKF Limited to carry out an intrusive investigation at the site and a report outlining these works, prepared by SKF is provided in Appendix D.

5.1.2 The soil investigations were undertaken taking due cognisance of British Standards BS5930:1999 and BS10175/2001 guidance and codes of practice. Guidance from Scottish Enterprise 1998 was also taken.

5.1.3 Trial pits (excavated by hand) and soils bores were advanced on an approximate non-targeted 30m grid across the site area. Historical archives had suggested that the site had never been developed for potentially contaminative uses and therefore that the presence of made ground was unlikely.

5.1.4 Non-targeted sampling was carried in order to provide a representative indication of ground conditions across the site as a whole. Given the absence of any specific areas of concern identified in the CSM it was not considered necessary to reduce the spacings further as there were no contaminant 'target areas'.

5.1.5 Five soils boreholes, BH1-BH5 were advanced on the site to depths of between 2.65m and 3.80m below existing ground levels on January 17th 2008. On completion of the drilling operations, 50mm diameter gas/groundwater standpipes were installed in three of the boreholes (BH1, BH4 & BH5) to allow soil gas and groundwater levels to be monitored

5.1.6 Seven hand excavated pits, numbered HP1-HP7, were advanced to a maximum depth of 0.85m below existing ground levels in the vicinity of the existing buildings on the site on January 30th, 2008 in order to assess existing foundations.

5.1.7 Two hand pits (S1 and S2) were also advanced in the vicinity of silage mound on the south-western portion of the site in order to assess ground conditions in this area and to allow the collection of soil samples for possible future analysis if necessary.

5.1.8 Trial pit and borehole logs are provided in the SKF report, Appendix D, whilst a plan showing the approximate locations of all of the trial pits and boreholes advanced on the site is provided in Appendix E.

5.2 Sampling Strategy and Analysis

5.2.1 As the boreholes and hand pits were advanced, details and depth of the strata encountered were noted, together with the depth of disturbed and undisturbed samples taken. The stability of the sides of the pits was also recorded.

5.2.2 As the boreholes were advanced, in-situ Standard Penetration Tests and undisturbed samples were taken and observations on groundwater conditions noted.

5.2.3 Representative samples of made ground and natural soils were collected from the boreholes and trial pits advanced for more detailed examination and geotechnical and geochemical analysis.

5.2.4 Three samples were subjected to moisture content testing and two for Atterberg Limits, while due to the predominantly granular nature of made ground and natural soils only one undisturbed sample was collected from natural cohesive soils. This sample was subject to multistage triaxial testing, and for consolidation testing. Five samples comprising of granular materials were subjected to sieve analysis, and one sample was subject to California Bearing Ratio testing. The results of these tests are provided in the SKF report, Appendix D.

5.2.5 Following further assessment a total of thirteen soil samples (including one from outwith the proposed development area, S1) were selected for more detailed chemical analysis for a range of inorganic and organic analyses.

5.2.6 Given the proposed end use the main identified receptors on the site would be construction personnel during development activities and future site residents. With this in mind, soil samples selected for chemical analysis were generally collected from soil horizons within 1.0m of ground surface, as it is these soils that the identified receptors are most likely to come into contact with.

5.2.7 Groundwater samples were abstracted from boreholes BH1 and BH4, following well development and purging using dedicated sampling equipment. BH5 dried up immediately after purging so was not possible to collect any samples from this location.

5.2.8 Groundwater samples were collected into laboratory supplied amber glass sample bottles and plastic bottles that were filled to overflowing. Samples for more detailed organic analysis were collected into pre-cleaned, 40ml clear septum vials.

5.2.9 The selection of contaminant parameters for soils and groundwater was based on a number of factors, which included information reviewed as a part of the archive review and assessment of the various soil horizons encountered across the site during the intrusive investigation.

5.2.10 Samples selected for analysis were forwarded to a UKAS accredited laboratory and the results of analysis on all of the soil samples analysed are provided in the SKF Report, Appendix D.

5.2.11 All thirteen soil samples were analysed for a standard suite of contaminants normally scheduled on development sites which included the health-related contaminants arsenic, cadmium, total chromium, mercury, lead, selenium and nickel and the phytotoxic contaminants water soluble boron, copper, and zinc. These samples were also analysed for a number of other parameters, namely water soluble sulphate, sulphide, total phenols, total cyanide and pH. Three samples of made ground were analysed for the presence of asbestos.

5.2.12 Six soil samples were also submitted for leachate analysis to assess the potential bioavailability of the contaminants.

5.2.13 The percentage of natural organic matter in samples collected from various horizons was established by carrying out total organic carbon analysis on three samples.

5.2.14 Historical archives had not suggested the presence of contaminating activities having taken place on the site although made ground was identified in some locations. In order to provide a further indication of organic contaminant levels associated with soils, three samples were analysed for the presence of Texas Banded TPH's.

5.2.15 Given the historical usage of the site two samples were also analysed for the presence of organochlorine pesticides in order to allow an assessment of whether these contaminants were present.

5.2.16 The groundwater samples collected from BH1 and BH4 were analysed for the same standard suite as outlined in 5.2.10, while additional analyses for the presence of VOC's and SVOC's to provide an indication of whether synthetic organic contaminants were present.

5.2.17 The analysis suite undertaken is considered to be suitable in order to assess potential risks associated with inorganic and organic contaminants in soils given the previous use of the site.

5.2.18 Gas and groundwater levels in the three monitoring installations (BH1, BH4 & BH5) were measured on six occasions between January 28th, 2008 and March 10th, 2008, using a Geotechnical Instruments GA2000 infra-red gas analyser. The maximum methane, carbon dioxide, carbon monoxide and hydrogen sulphide concentrations and minimum oxygen concentration recorded in each installation over a sixty-second monitoring period were taken as the gas concentrations. The prevailing atmospheric pressure during each monitoring event was also recorded.

5.2.19 Gas flow rates were measured using a flow pod, which was attached to the gas monitor. Groundwater levels in the boreholes were measured using an electronic water dip meter.

6.0 SUMMARY OF SUBSOIL CONDITIONS

6.01 The soils encountered across the site area during the investigation were consistent with published data although made ground was present in most locations

6.02 Desk study information indicated that sands and gravels, overlying glacial soils would be present within the site boundary, and that bedrock would be no deeper than 5m. Intrusive investigations broadly corroborated this information, with bedrock being encountered at approximately 2.00m in a number of areas across the site.

6.03 The types of soils encountered are sub divided and discussed in the following sections.

6.1 Made Ground

6.1.1 Review of hand pit and borehole logs confirmed the presence of made ground to depths of up to 0.70m across the majority of the site, while within BH3, made ground was found to extend to 1.20m below existing ground levels.

6.1.2 Made ground generally comprised of gravelly sands or sandy gravel, with occasional cobbles and brick, tile or concrete fragments. Depending on the locations advanced, topsoil and tarmac were encountered overlying other made ground materials.

6.1.3 Soft to firm gravelly clay fill was encountered in HP06 and HP07. The base of made ground was not proven within trial pits HP01 and HP05.

6.2 Natural Superficial Deposits

6.2.1 Where proven immediately beneath made ground, natural soils comprised loose to medium dense sands and gravels within BH3-BH5 and HP3, and soft to firm, and firm to stiff clays within BH1, BH2, HP2, HP4, HP6 & HP7. Loose sand was encountered underlying clay within BH1, at a depth of 0.70m.

6.3 Rockhead and Rock Strata

6.3.1 Weathered rock, which was recovered as angular gravels of sandstone and siltstone, was encountered from depths of between 1.80m and 2.60m. Within BH3, an obstruction was encountered at 2.82m, which is thought to be bedrock.

6.4 Groundwater

6.4.1 Groundwater ingress was encountered at shallow depth during the drilling of some of the boreholes, which is unsurprising given the relatively shallow bedrock at the site, although the hand pits generally remained dry.

6.4.2 As previously indicated standpipes were installed in three of the boreholes advanced on the site following their completion in order to allow the monitoring of soil gases and to enable the longer term monitoring of groundwater levels.

6.4.3 Groundwater levels measured in the standpipes were recorded as follows:

Borehole Number	Water Depth(s) Below Existing Ground Level Over Monitoring Period
BH1	0.44-0.69m
BH4	0.69-1.50m
BH5	0.40-1.63m

6.4.4 The results of monitoring in standpipes would indicate that groundwater may be locally encountered even in shallow excavations if left open for any length of time.

6.4.5 The presence of groundwater in deeper excavations such as sewer/drainage tracks should also be anticipated although it should be possible to control by using open hole pumping techniques.

6.5 Buried Structures

6.5.1 No buried structures were encountered during the intrusive investigations, although a weak concrete was noted at 0.10-0.15m within HP6. Where present and if necessary, concrete slabs at ground surface would require to be broken out particularly in areas designated for gardens.

7.0 SUMMARY OF GEOTECHNICAL TEST RESULTS

7.01 Test results are described within the SKF report, Appendix D.

7.02 Where taken, in-situ Standard Penetration Tests recorded "N" values of 7 to 26 in the natural soils. No SPT values were recorded within made ground. The recorded values would indicate bearing capacities in the underlying natural soils to be in excess of 70kN/m^2.

7.03 N values in excess of 40 were achieved within weathered bedrock strata, and full penetration was unsurprisingly not possible within the bedrock strata.

7.04 Given the presence of sands and gravels, and weathered rock at relatively shallow depth, only one undisturbed clay sample and one suitable bulk clay sample were collected from the site. Testing was carried out on these samples in order to provide further information on the geotechnical properties of the cohesive soils

7.05 The apparent cohesion recorded after undrained triaxial compression tests on the clay sample BH2 1.00m was 18kPa and were measured in conjunction with a friction angle of 19°. Taking both parameters together, an allowable safe bearing capacity in excess of 70kN/m^2 would apply to this clay.

7.06 An Atterberg Limit test was also conducted on the BH2 1.00m sample. The moisture content recorded was 13%, the liquid limit was 27%, whilst the plastic limit recorded was 15%. These results would tend to confirm the firm to stiff nature of the clay.

7.07 The coefficient of volume compressibility measured in an oedometer test taken from slightly deeper in the sample was less than 0.260m^2/MN with a moisture content of 12.4%. This value would indicate an essentially low compressibility of the soil tested and again is in keeping with the field information and observations.

7.08 The results of particle size distribution curves on samples of granular soils collected from across the site generally confirmed field descriptions in respect of the samples and showed that they were relatively well graded.

7.09 The results of pH and sulphate testing carried out on soil samples collected from the site confirm that there is no requirement to protect buried concrete structures from sulphates (maximum measured concentration of 0.095g/l) or acid attack (pH's between pH 6.4 and pH 8.0).

7.10 Is considered that sulphate design class DS1 and ACEC class AC-1s as defined in BRE Special digest 1 would apply to buried concrete.

8.0 GEOTECHNICAL APPRAISAL

8.1 Foundation Design

8.1.1 Existing steading buildings at the site are to be converted for residential use Therefore no new development at the site is proposed

8.1.2 The investigation has however confirmed that the medium dense sands and gravels and firm clays underlying the made ground at the site would provide the bearing capacity necessary in order to support low rise housing.

8.1.3 The existing steading buildings appear for the most part to be founded within these natural soils and we would anticipate that, given their age any belated settlement would have long since occurred. We would however recommend that a structural survey of the buildings be undertaken prior to any refurbishment activities.

8.1.4 Should any new development or extensions to the existing buildings be proposed in the future we would consider that it should be possible to found on the natural deposits at shallow depth on traditional reinforced concrete strip foundations at depths of up to 1.20m below existing ground levels.

8.1.5 Concrete trench fill should therefore be used to replace any thin or localised softer/looser patches if these are identified at or within a metre of formation level.

8.1.6 In these conditions it is anticipated that total and differential settlements will be within acceptable limits.

8.1.7 Test pitting on a plot by plot basis should be undertaken immediately prior to any new construction, should any be proposed in the future, to confirm the nature of strata at formation depths

8.1.8 Groundwater may be locally met in drainage tracks but it should be possible to control water levels using open sump pumping techniques Allowance should be made for hard dig and possible breaking out of rock in drainage excavations.

8.1.9 Excavations on the site would be expected to remain stable however it is recommended, as is standard building practice, that deeper excavations such as for drainage should be suitably supported along their full length in the presence of water to guard against the potential for collapse.

8.2 Access Roads

8.2.1 As part of the current exercise, California Bearing Ratios (CBR's) were measured on a single bulk sample collected from BH3. CBR values in this sample exceeded 5% and were measured in conjunction with a natural moisture content of 15% and a dry density of 1.91Mg/m^2.

8.2.2 Based upon these results and on the site investigation information we would anticipate that minimal capping would be necessary beneath any new road pavement at the site. In situ CBR tests could be undertaken in order to confirm actual capping requirements once access roads and car parking areas are set out.

8.3 Existing Services

8.3.1 No major services are know to be present within the site boundary. Copies of the existing services drawings and correspondence with various utility companies is provided in Appendix

9.0 APPRAISAL OF ENVIRONMENTAL ISSUES

9.1 General

9.1.1 As previously discussed, the potential risk associated with soil contaminants has been assessed using the source–pathway-receptor principal. The investigation undertaken therefore was designed to explore more fully the potential for contaminants to be present on the site and to explore whether there were any viable pathways by which contaminants could impact upon identified receptors.

9.1.2 By carrying out such an assessment it is possible to assess whether land for redevelopment is 'suitable for use' in its present state. Where the risk assessment indicates that there is an unacceptable risk to identified receptors from the presence of contamination, a development site cannot be considered as being suitable for use without some form of remedial action being undertaken.

9.1.3 The Environmental Protection Act Part IIA identifies contaminated land as 'any land which appears to the local authority in whose area it is situated to be in such a condition, by reason of substances in, or under the land that: a) significant harm is being caused or there is a significant possibility of such harm being caused; or b) pollution of controlled water is being or is likely to be caused'.

9.1.4 Taking cognisance of the foregoing, soil sampling and gas monitoring were undertaken on the site in order that the low risks identified in the Conceptual Site Model could be more accurately quantified and assessment made of whether the site was suitable for use. In this case suitable for use refers to the redevelopment of the site for residential use with private garden areas.

9.1.5 The analytical data obtained from laboratory analysis and on site monitoring was assessed, in conjunction with available information on existing ground conditions and development proposals.

9.2 Soil Contamination

9.2.1 A tiered approach to risk assessment has been undertaken in respect of the soil contamination data obtained. The first step of our assessment therefore involves the comparison of laboratory data against conservative generic criteria published by a variety of organisations.

9.2.2 In 2002 DEFRA published toxicology reports and derived guidance concentrations for some inorganic and organic contaminants in soils, CLR7-10.

9.2.3 Where available these guidance concentrations were used in the current investigation to provide a reference point against which soil contaminant levels could be compared in the first instance.

9.2.4 In order to assess the potential phytotoxic risks associated with soil contaminants, MAFF documentation relating to the use of sewage sludge on agricultural land has been used in the absence of suitable phytotoxic criteria.

9.2.5 Risks to buried concrete structures presented by sulphates in soils were assessed using data published by the Building Research Establishment (BRE), 2001.

9.2.6 At the LEVEL 1 assessment stage where contaminant levels are lower than the generic criteria or the laboratory limits of detection no further assessment and/or remediation is deemed to be necessary and identified receptors are not considered to be at risk from the levels of soil contamination identified. For this approach to be appropriate the laboratory limits of detection need to be set at a suitable level.

9.2.7 The proposed end use for the site is residential development with private garden areas therefore DEFRA criteria relating to this end use have been employed in the risk assessment process. The results of the general suite analysis on all of the samples are summarised in the table below.

Contaminant	Contaminant Type	Contaminant Range in Samples	Soil Guideline Value	Source	Number of samples Tested	Number of exceedances
Arsenic	Health Related	8-52mg/kg	20mg/kg	CLEA	13	7
Cadmium	Health Related	<1mg/kg	2mg/kg	CLEA	13	0
Chromium	Health Related	17-45mg/kg	130mg/kg	CLEA	13	0
Lead	Health Related	8-410mg/kg	450mg/kg	CLEA	13	0
Mercury	Health Related	<1mg/kg	8mg/kg	CLEA	13	0
Nickel	Health Related	19-60mg/kg	50mg/kg	CLEA	13	3
Selenium	Health Related	<2mg/kg	35mg/kg	CLEA	13	0
Boron	Phytotoxic	<1mg/kg	3mg/kg	MAFF	13	0
Copper	Phytotoxic	6-44mg/kg	135mg/kg*	MAFF	13	0
Zinc	Phytotoxic	18-400mg/kg	300mg/kg*	MAFF	13	1
Phenols	Health Related	<1mg/kg	5mg/kg	WRAS	13	0
Cyanide	Health Related	<1-2mg/kg	16.4mg/kg	WRAS	13	0
Sulphide	Health Related	<10mg/kg	10mg/kg	LOD	13	0
Sulphate	-	<0.01-0.095g/l	0.5g/l	BRE	13	0

9.2.8 Depending upon the concentrations measured, where synthetic organic substances (such as TPH) are identified in soils more detailed assessment is considered to be necessary and LEVEL 2 risk assessment methodologies are utilised. Where contaminants are lower than the limit of detection no further assessment is considered to be necessary.

9.3 LEVEL 1 Soils Assessment

9.3.1 Review of the laboratory data, SKF report, Appendix D, as summarised in the table above, would therefore confirm that of the 13 samples tested for a general suite of contaminants a number contained contaminant concentrations in excess of their respective assessment levels.

9.3.2 The soil samples BH1 0.50m (21mg/kg), BH2 0.50m (25mg/kg), BH2 1.00m (27mg/kg), BH3 0.50m (23mg/kg), BH3 1.00m (52mg/kg), BH4 0.50m (30mg/kg) and HP7 0.20m (21mg/kg) therefore contained concentrations of arsenic in excess of the 20mg/kg guideline level.

9.3.3 Nickel was present at concentrations in excess of the 50mg/kg guideline concentration in the soil samples BH2 1.00m (60mg/kg), BH3 1.00m (54mg/kg) and HP6 0.40m (51mg/kg).

9.3.4 The soil sample HP4 0.20m (400mg/kg) contained zinc above its guideline concentration of 300mg/kg.

9.3.5 Elevated concentrations of health related contaminants were therefore confined to approximately 50% of the soil samples analysed a number of which consisted of natural soils. It is possible therefore that the most ubiquitous of the contaminants arsenic is naturally slightly elevated in background levels in this area.

9.3.6 Many of the remaining soil samples analysed contained concentrations of general suite contaminants that were much lower than their assessment levels. In most cases actual concentrations were at least 20% lower than their respective assessment levels and are not considered to be significant.

9.3.7 Given the presence of elevated contaminant concentrations of some heavy metal contaminants in made ground, a LEVEL 2 risk assessment is necessary in order to more fully assess the significance of the contaminant concentrations measured and whether or not remediation measures are likely to be necessary.

9.3.8 The results of total organic carbon (TOC) analysis which was undertaken on samples of made ground and natural soils showed that the percentage of natural organic matter in the samples tested ranged between 0.3% (BH5 0.50m) and 3.4% (S1 0.60m)

9.3.9 Concentrations of phenols and sulphide in the samples analysed were all very low and did not exceed the individual limits of detection of analytical method employed, Appendix D.

9.3.10 The concentrations of total cyanide detected were all below the CLEA derived site specific assessment criteria calculated, Appendix G, and are not considered to be significant.

9.3.11 The results of asbestos analysis confirmed that this material was not present in any of the three samples analysed, Appendix D. The existing buildings on the site should be inspected for the presence of asbestos and any materials identified removed prior to their refurbishment.

9.3.12 Banded hydrocarbon analysis, Appendix D, confirmed that hydrocarbon concentrations were very low with total values all less then 12mg/kg. Concentrations in the lighter hydrocarbon bandings were often <1mg/kg and did not exceed single figures for the mid to heavier range. The banded TPH concentrations detected and are in keeping with the field observations in respect of the absence of hydrocarbons and are not considered to be significant in terms of the development proposed.

9.3.13 The results of pesticide analysis on the samples analysed showed that the concentrations of these contaminants in these samples were all below their 0.01mg/kg limit of detection and as such are not considered to represent any significant risk at this site.

9.3.14 The significance of the localised presence of locally elevated inorganic contaminant concentrations is discussed as part of the LEVEL 2 risk assessment

9.4 LEVEL 2 Soils Assessment and Remediation Proposals

9.4.1 Concentrations of the organic contaminants analysed for were not present in excess of their LEVEL 1 assessment concentrations and further detailed risk assessment is therefore considered to be unnecessary.

9.4.2 Some inorganic contaminant concentrations were present at concentrations in excess of their LEVEL 1 assessment concentrations and further risk assessment is therefore necessary in order to assess the significance of these slightly elevated levels in respect of the development proposed.

9.4.3 The assessment undertaken therefore explores in more detail the potential pollutant linkages identified in the Conceptual Site Model and where viable linkages are confirmed to be present recommendations to break the linkages are made.

9.4.4 The guidance document published by DEFRA (CLR 7) advises the use of statistical analysis to assess how representative the soil data is in terms of the overall site area. DEFRA's recommended approach is to identify the 95% confidence limits of the measured mean and to compare this 95th percentile (95th %ile) with the soil guideline values for each of the soil contaminant parameters. The statistical analysis also identifies the presence of statistical outliers (the maximum value test).

9.4.5 In order to ascertain how representative the concentrations of some inorganic contaminants were of soils on the site as a whole, the results of analysis on the soil samples were subjected to a statistical analysis. There is considered to be the potential that identified receptors, construction personnel during development and residents following development, could come into contact with any soils present at shallow depth. The majority of soil samples were collected from within 1.0m of existing ground levels.

9.4.6 The soil sample S1 0.60m was collected from outwith the area currently proposed for development and was therefore omitted from the statistical analysis, future residents would be unlikely to come into physical contact with these soils. The results of analysis on this sample did however confirm that contaminant concentrations were all below assessment levels. The results of analysis on the remaining 12 soil samples collected were subjected to a statistical analysis, Appendix II.

9.4.7 The formula for calculating the 95th %ile is as follows

$$US_{95} = x + \frac{ts}{\sqrt{n}}$$

Where:
- x is the arithmetic sample mean
- n is the number of samples
- s is the standard deviation
- t is a variable for the 95th percentile confidence and is dependent on the number of samples analysed.

9.4.8 The calculations for all of the parameters are provided in Appendix II, and confirm that bulk contaminant levels associated with soils at shallow depth exceed the published soil guideline values for sites intended for residential use with plant uptake for the parameter arsenic. Remediation in order to address the levels present will therefore be necessary.

9.4.9 The results of statistical analysis on those parameters identified to be elevated following the Level 1 assessment are summarised below:

Parameter	95th % ile (mg/kg)	Maximum Value Test	Reference Concentration (mg/kg)
Arsenic	28.86	PASS	20mg/kg
Nickel	43.29	PASS	50mg/kg
Zinc	207.33	PASS	300mg/kg

9.4.10 The maximum value test has not therefore identified statistical outliers (hotspots) within the sample population of the contaminants.

9.4.11 It is noted that elevated arsenic concentrations are associated with samples of both made ground and natural soils and may therefore be indicative of this contaminant being present at elevated concentrations in background levels. However remediation, in the form of a capping layer, should considered in order to break the potential source pathway receptor linkage between identified receptors and the bulk soil contaminant concentrations as a whole.

9.4.12 In order to calculate a suitable capping layer thickness the BRE document "Cover systems for land regeneration - thickness of cover systems for contaminated land", was utilised.

9.4.13 The BRE documentation takes account of contaminant concentrations in the capping materials (topsoil and/or subsoil) and the underlying soils when calculating a suitable capping layer thickness. The BRE documentation assumes a mixing zone of 600mm between capping layers and underlying soils which equates to two spade depths. Therefore contaminant concentrations in the imported soil cover are crucial to the calculation of capping layer (topsoil and/or topsoil and subsoil) thickness

9.4.14 Conservatively assuming that contaminant levels in the imported capping materials are 25% lower than the relevant assessment levels (i.e. 15mg/kg for arsenic) a capping layer thickness of 400mm for all areas of soft landscaping and private gardens is considered to be appropriate, Appendix I. Should it be possible to source capping materials with lower arsenic concentrations the thickness of the capping layer could be reduced. For instance arsenic concentrations in the cover at 10mg/kg would result in a 300mm thick capping layer, whilst arsenic concentrations of 7mg/kg would result in a capping layer thickness of 250mm.

9.4.15 Given the absence of soil cover across much of the site at the present time, soil would require to be imported onto the site in any event.

9.4.16 Any soil samples imported onto the site should be analysed at source in order to confirm that they are clean and inert. The thickness of capping materials would need to be confirmed by undertaking test digs post placement.

9.4.17 Following emplacement of soil capping layers on areas of soft landscaping and private garden areas the potential source/pathway/receptor linkages would be broken.

9.5 Assessment of Leachate and Groundwater Analysis

9.5.1 Leachate analysis was carried out on six of the site samples, some of which contained elevated contaminant levels, Appendix D, in order to provide an indication as to the leachability and, hence, potential bioavailablility of the concentrations of inorganic and organic contaminants analysed.

9.5.2 As previously confirmed, the groundwater samples collected from the site were analysed for a similar general suite to that scheduled for soils as well as more detailed organic analysis for VOC's and SVOC's.

9.5.3 A detailed organic analysis suite was therefore carried out on water samples collected from the boreholes BH1 and BH4 in order to assess whether soils on the site and adjacent sites were having any adverse impact upon groundwater and surface water receptors in the area. It was anticipated that if significant and leachable organic and inorganic contamination was locally present in soils, then it would be apparent in the groundwater samples collected from the site. It was not possible to retrieve a water sample from the borehole BH5 due to low water levels.

9.5.4 The results of analysis for the main inorganic contaminants tested for in the leachate and groundwater samples are summarised in the table overleaf where they have been compared in the first instance against UK Environmental Quality Standards (EQS's) for freshwater produced by the Environment Agency where these were available.

9.5.5 The results of leachate analysis indicated that the concentrations of the inorganic contaminants analysed were generally not capable of being extracted from the soil matrix at concentrations in excess of their individual limits of detection, although slightly elevated concentrations of chromium and zinc were present in two of the samples (BH1 0.50m and BH2 1.00m) in excess of their EQS levels.

9.5.6 The results of analysis on groundwater samples collected from the standpipes on the site indicate however that chromium and zinc are not present at concentrations in excess of their respective EQS concentrations.

9.5.7 It is therefore apparent that although concentrations of chromium and zinc are capable of being leached from the soil matrix at elevated concentrations under laboratory conditions, they are not having any significant adverse impact upon groundwater quality in the area.

Contaminant	Contaminant Concentrations in Leachate samples (mg/l)	Contaminant Concentrations in groundwater samples (mg/l)	EQS Reference Concentration (mg/l)
Arsenic	<0.005-0.008	0.008-0.016	0.05
Cadmium	<0.005	<0.005	0.005
Chromium (Total)	<0.01-0.027	<0.01-0.12	0.03
Lead	<0.025	<0.025	0.02
Mercury	<0.001	<0.001	0.001
Selenium	<0.005	<0.005	0.01
Nickel	<0.01-0.015	<0.014-0.064	0.04
Copper	<0.02	<0.02	0.028
Zinc	<0.01-0.098	0.026-0.034	0.05

9.5.8 With the exception of nickel in the water sample collected from BH4, none of the remaining inorganic contaminants tested for were present at concentrations in excess of the individual limits of detection or their EQS ranges in the groundwater samples collected and analysed.

9.5.9 Therefore nickel in BH4 (0.064mg/l) was present at concentrations slightly in excess of its EQS level (0.040mg/l). Based upon the concentrations measured we would consider that these concentrations would have no significant measurable impact on groundwater and surface water bodies in the area

9.5.10 Much less than a one fold dilution of water from BH4 would bring the concentrations well within EQS levels. Such a dilution and dispersal would be expected to occur very quickly within groundwater at the site and the wider area.

9.5.11 The results of more detailed VOC and SVOC analysis on groundwater samples collected from the boreholes confirmed that none of these contaminants were detected at concentrations in excess of their respective limits of detection, Appendix D, and as such are not considered to be significant.

9.5.12 Overall the potential risk to groundwater and off-site receptors presented by the levels of inorganic and organic contaminants present in groundwater on the site are not considered to be significant.

9.5.13 On the basis of the data obtained the site is not considered to be having any measurable impact upon the groundwater in the area or upon identified surface water bodies (principally the Kidlaw Burn).

9.6 Gas Risk Assessment

9.6.1 The results of gas monitoring carried out on the site shows that methane gas was intermittently detected in all three boreholes, although only very low concentrations between 0.1% and 0.2% by volume in air v/v were detected in BH4 and BH5 on one occasion each over the course of the monitoring period, Appendix J.

9.6.2 Due to the presence of standing water only four gas readings were possible in BH1, however methane gas readings in this installation fluctuated between 0.1% and 1.6%v/v. The source of the gas in this location is not immediately obvious given the lack of made ground, however, BH1 is located a short distance to the north of the silage mound and groundwater levels within this installation were very shallow. This borehole was submerged during the first two groundwater monitoring visits.

9.6.3 It is therefore considered to be possible that organic leachate emanating from the silage mound may be locally impacting upon groundwater in this area and generating methane gas within BH1.

9.6.4 Carbon dioxide concentrations in the monitor BH4 on the northern portion of the site exceeded the 1.5% v/v DoE (1991) recommended trigger level on four occasions when measurements were taken. Concentrations of carbon dioxide in the remaining two monitors did not exceed 1.0% v/v during the course of the monitoring programme

9.6.5 As a further reference guide to the significance of the gas levels measured reference was made to Building Research Establishment (BRE) documentation. The BRE formerly recommended the installation of gas protection measures on sites where soil carbon dioxide levels consistently exceed 5.0% v/v. Carbon dioxide concentrations in BH4 did not exceed 2.5% v/v over the course of the monitoring period.

9.6.6 Gas concentrations are summarised below.

Borehole	CH_4 Range Detected (%v/v)	CO_2 Range Detected (%v/v)	GSV Max value x flow rate
BH1	0.1-1.6	0.2-1.0	0.0
BH4	0.0-0.2	0.3-2.5	0.0
BH5	0.0-0.1	0.0-0.9	0.0

9.6.7 Positive gas flow rates were not detected in any of the monitors over the course of the monitoring programme which would tend to indicate that gas pressures and, hence, the rate of gas generation are low, whilst fluctuating results can be indicative of highly localised low volume sources of gas.

9.6.8 Hydrogen sulphide and carbon monoxide gas were not detected in any of the monitors at concentrations in excess of the 1ppm limit of detection of the gas analyser and are not considered to be significant.

9.6.9 As confirmed above methane concentrations in BH1 were elevated above 1.0% v/v BH1 on one occasion, although positive flow rates were not detected.

9.6.10 Recent guidance published by CIRIA (C665, 2007) and the NHBC (2007) confirms the importance of flow rates in establishing the potential risk posed by soil gases. Without a positive flow rate gases would not be expected to enter buildings as there would be no driving force to facilitate such migration.

9.6.11 The approach adopted is to multiply the maximum gas concentration and flow rate to produce a Gas Screening Value (GSV). Given that there were no positive flow rates detected, the GSV for each of the boreholes would be 0, as shown in the table above. This therefore falls into the CIRIA category 'Characteristic Situation 1' and on the NHBC's traffic light assessment would be classified as green. Both these categories do not require the installation of gas protection measures.

9.6.12 Guidance from CIRIA and NHBC does however indicate that concentrations of methane in excess of 1.0% v/v would not normally be associated with Characteristic Situation 1 and Green sites. Although it is noted that methane concentrations in this installation exceeded 1.0% v/v on only one occasion.

9.6.13 Under these circumstances consideration should be given to increasing the characterisation to Characteristic Situation 2 (CIRIA) and Amber 1 (NHBC). Using this guidance, gas protection in the form of a gas proof membrane with sub floor ventilation would need to be considered for structures erected in the vicinity of BH1.

9.6.14 We would however consider that the source of the intermittently elevated methane in BH1 is the silage mound located a short distance to the south of this installation. These materials would be removed as part of the development proposals and hence the potential source of the gassing activity would be removed. On this basis and given the absence of positive flow rates, gas protection measures are not considered to be necessary.

9.7 Water Pipe Risk Assessment

9.7.1 Based upon the results of analysis on soil samples analysed and on the assessment of these results, Appendix K, no special precautions in respect of the selection of materials for service pipe work are considered to be necessary.

9.7.2 Elevated arsenic concentrations were contaminant concentrations are present locally within both natural soils and made ground. These will necessitate the use of soil capping layers on landscaped and garden areas on the finished development.

9.7.3 Concentrations of arsenic in soils exceed WRAS guidelines which are more conservative than CLEA health risk guidelines. The results of leachate analysis confirm that arsenic is not capable of being leached from the soil matrix at concentrations in excess of either EQS assessment levels (50ug/l) or guidelines for drinking water standards (10ug/l).

9.7.4 Based upon the foregoing and as long as water pipes are placed in trenches backfilled with imported granular materials we would consider that standard HDPE and MDPE pipework would be suitable for water supply pipes.

10.0 REVISED CONCEPTUAL SITE MODEL

10.01 The intrusive investigation has confirmed that natural soils on the site are essentially uncontaminated with respect criteria for residential development sites incorporating private garden areas.

10.02 Concentrations of organic contaminants are very low and are not considered to be significant. Made ground and natural soils do however contain concentrations of some heavy metal contaminants in excess of published soil assessment guidelines for residential sites incorporating private garden areas

10.03 Given that these were associated with soils at shallow depth there is considered to be a potential intact pollutant linkage between the contaminant identified, arsenic, and the identified receptors The main routes of exposure are considered to be ingestion and/or inhalation during and following development as well as dermal contact.

10.04 In order to break the identified source/pathway/receptor linkage and reduce the low risks, a 400mm capping layer of clean and inert materials should be placed on all landscaped and garden areas on the finished development

10.05 Given the absence of suitable soil cover on the site at the present time soils will require to be imported onto the site in any event in order to create a suitable growing medium Soils imported onto the site should be tested at source in order to confirm that they are clean and inert. The thickness of capping materials (to be determined utilising the BRE methodology) would need to be confirmed by undertaking test digs post placement.

10.06 Contractors and utility personnel working on the site should observe health and safety measures normally applied on development sites and should wear suitable protective clothing (gloves, boots and overalls etc.). Construction personnel should also observe good standards of personal hygiene and should ensure that dust generation during development is kept to a minimum

10.07 The investigation has confirmed that gas levels and flow rates associated with these gas levels are not significant in terms of the development proposed and gas protection measures will not therefore be necessary.

10.08 The results of analysis on leachate and groundwater samples has confirmed that inorganic contaminant concentrations are essentially low although some contaminants are capable of being leached from the soil matrix at detectable concentrations Although elevated levels of these contaminants were not detected in groundwater samples

10.09 The results of analysis on groundwater samples has therefore confirmed that inorganic and organic contaminant concentrations are low and, with the exception of a slightly elevated nickel concentration in one sample, do not exceed EQS levels. Based upon review of the contaminant concentrations in this sample and the results of groundwater analysis across the wider site area, the site is not considered to be having any measurable impact upon the groundwater in the area or upon surface water bodies in the area.

10.10 Pre remediation and health and safety requirements, the identified human at risk receptors are, construction personnel during development and future site residents and utility and service personnel following development.

10.11 The Conceptual Site model has been amended below and now highlights potential risks associated with the site both pre remedial measures and post remedial measures. The source-pathway-receptor linkages are considered to have been adequately addressed by the remediation measures recommended.

10.12 The Conceptual Site model has been amended below and now highlights potential risks associated with the site both pre remedial measures and post remedial measures. The source-pathway-receptor linkages would be adequately addressed by the remediation measures recommended.

10.13 Validation of the remediation measures in the form of testing of capping materials, verification of capping layer thickness will be necessary.

10.14 Following the remediation measures no viable pathway would exist between the identified source(s) of contamination, locally elevated levels of some health related and phytotoxic contaminants, and the identified receptors.

Identified Contaminants	Pathways	Receptor	Perceived Risk	Post Remediation Risk
Arsenic is elevated in soils in some locations.	1 Dermal contact and ingestion. 2 Dermal contact 3 Inhalation of dust (indoors and outdoors) 7 Ingestion of site grown vegetables	Site contractors during development	1,2,3 (low)	1,2,3 (none)
		Future site Residents.	1,2,3,7 (low)	1,2,3,7 (none)
		Adjacent land users.	3 (low)	3 (none)
		Flora and fauna on the site and surrounding area.	1,2,3 (low)	1,2,3 (none)

11.0 CONCLUSIONS

11.01 Gap Developments propose to refurbish existing steading buildings on this site for residential usage and establish areas of private gardens associated with this end use. The main conclusions that can be drawn from the investigations are presented below. More detailed recommendations on foundation design and construction, environmental risks etc. are provided in the body of the report and these conclusions should be read in conjunction with the foregoing sections.

11.02 The site is considered to be mineraIly stable.

11.03 Intrusive investigations confirmed that some made ground is present across the site area.

11.04 The existing buildings on the site should be inspected for the presence of asbestos and suspect materials removed prior to their demolition or refurbishment. Any demolition material generated as a result of this exercise should be retained on site and crushed, along with any existing hardstandings, to a suitable specification for later re-use. The oil filled drum (and any other containers which may be present) located in one of the buildings should be disposed of in line with current best practice and legislation. A number of local authorities have recycling facilities where waste oils are accepted for disposal/reuse.

11.05 The existing steading buildings appear for the most part to be founded within natural soils and we would anticipate that, given their age any belated settlement would have long since occurred. We would however recommend that a structural survey of the buildings be undertaken prior to any refurbishment activities.

11.06 Should any new development or extensions to the existing buildings be proposed in the future we would consider that it should be possible to found on the natural deposits at shallow depth on traditional reinforced concrete strip foundations at depths of up to 1.20m below existing ground levels.

11.07 Allowance should be made for hard dig and breaking out of rock in some drainage excavations.

11.08 A 400mm thick capping layer of clean and inert materials should be allowed for in soft landscaped and garden areas on the finished development in order to protect future site residents from the locally slightly elevated levels of arsenic identified. Depending upon arsenic concentrations in any capping layer materials brought onto the site it should be possible to reduce this thickness utilising the BRE methodology.

11.09 Validation of the remediation measures in the form of testing of capping materials prior to importation and verification of capping layer thickness will be necessary.

11.10 Site workers should adopt standard health and safety measures normally utilised on development sites. Such measures should protect these receptors from coming into physical and dermal contact with contaminated soils.

11.11 Measures to protect buildings against soil gas ingress are not considered to be necessary.

11.12 Special precautions for the selection of water pipe materials are not considered to be necessary.

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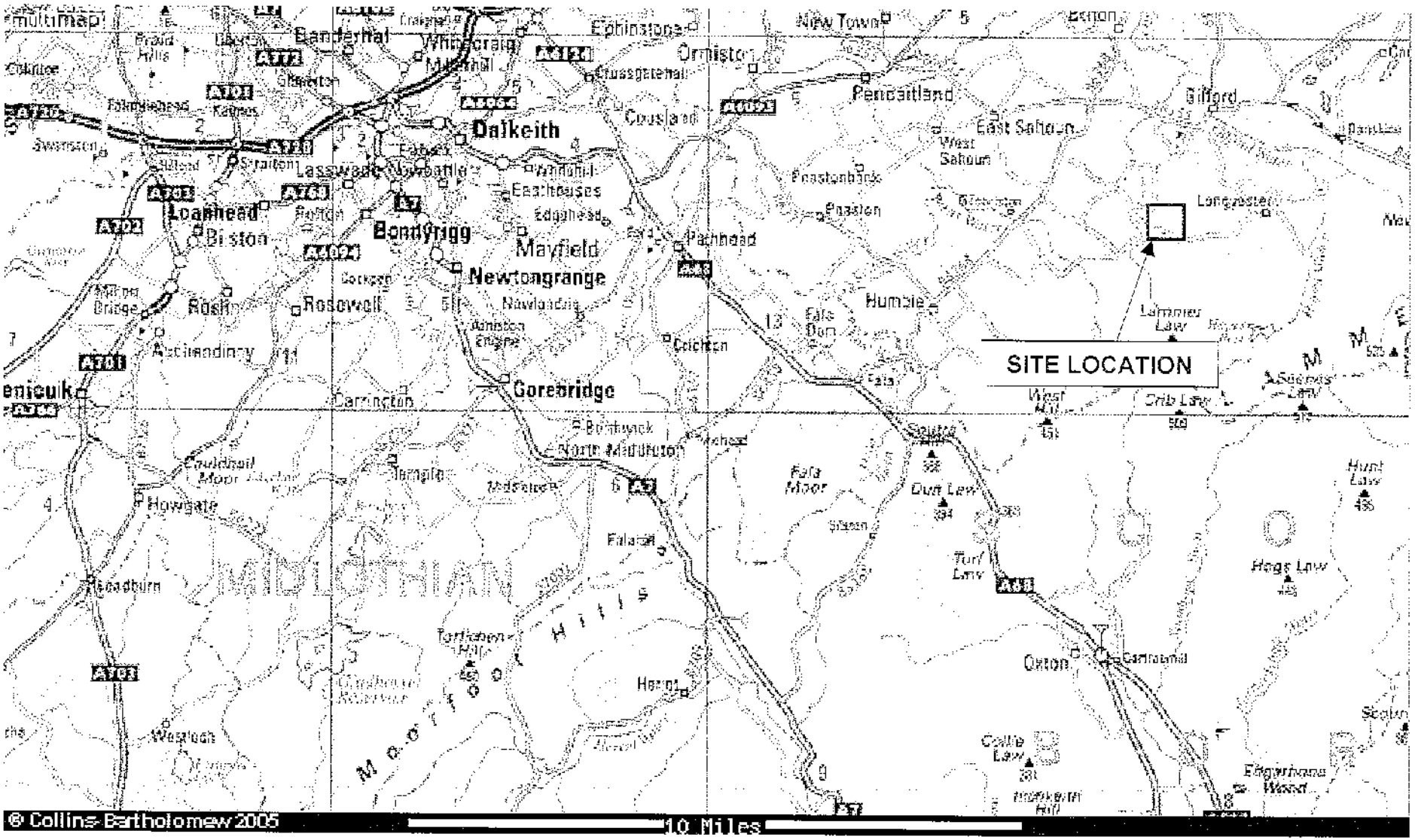
EDINBURGH
EH12 8AY

E8538/KC/NJH

APRIL 2008

APPENDIX A

SITE LOCATION PLAN



SITE LOCATION PLAN

LONGNEWTON, GIFFORD

CONTRACT E8538

DAVID R MURRAY & ASSOCIATES
CONSULTING ENGINEERS

APPENDIX B

ENVIROCHECK REPORT

Envirocheck®

Envirocheck® Report:

Datasheet

Order Details:

Order Number:
23871877_1_1

Customer Reference:
E8538

National Grid Reference:
351530, 664780

Slice:
A

Site Area (Ha):
0.81

Search Buffer (m):
1000

Site Details:

Longnewton Farmhouse
Haddington
EH41 4JW

Client Details:

Mr N Henderson
David R Murray & Associates
150 St John's Road
Edinburgh
EH12 8AY

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A Landmark Service

Contents

Introduction

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination. For this reason, Landmark's Site Sensitivity maps and Datasheet(s) place great emphasis on statutory data provided by the Environment Agency and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The dataset is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client.

In the attached datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

Report Version v31.0

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Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 1		3		7
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control					
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls					
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 3		Yes		
Pollution Incidents to Controlled Waters					
Prosecutions Relating to Authorised Processes					
Prosecutions Relating to Controlled Waters					
Registered Radioactive Substances					
River Quality					
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register					
Water Abstractions	pg 3				1 (*4)
Water Industry Act Referrals					
Groundwater Vulnerability	pg 4	Yes	n/a	n/a	n/a
Source Protection Zones					
River Flood Data (Scotland)				n/a	n/a
Waste					
BGS Recorded Landfill Sites					
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)					
Local Authority Recorded Landfill Sites					
Registered Landfill Sites					
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites					
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents					
Planning Hazardous Substance Enforcements					

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Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS Recorded Mineral Sites					
BGS 1:625,000 Solid Geology	pg 6	Yes	n/a	n/a	n/a
Brine Compensation Areas			n/a	n/a	n/a
Coal Mining Affected Areas			n/a	n/a	n/a
Mining Instability			n/a	n/a	n/a
Natural and Mining Cavities					
Potential for Collapsible Ground Stability Hazards				n/a	n/a
Potential for Compressible Ground Stability Hazards			Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 6	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards		Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 6	Yes		n/a	n/a
Radon Potential - Radon Affected Areas			n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Shallow Mining Hazards	pg 7	Yes		n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries					
Fuel Station Entries					
Sensitive Land Use					
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves					
Marine Nature Reserves					
National Nature Reserves					
National Parks					
National Scenic Areas					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones	pg 8	1			
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					

Map ID	Details		Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Discharge Consents					
1	Operator:	Whiteford, W H	A1SNE (NE)	79	1	351620 664820
	Property Type:	Not Supplied				
	Location:	East Of Longnewton House Gifford				
	Authority:	Scottish Environment Protection Agency, East Region				
	Catchment Area:	Not Supplied				
	Reference:	Wpo/E/5695				
	Permit Version:	1				
	Effective Date:	Not Supplied				
	Issued Date:	08th January 1990				
	Revocation Date:	Not Supplied				
	Discharge Type:	Septic tank				
	Discharge Environment:	Not Supplied				
	Receiving Water:	Not Supplied				
	Status:	**Not Supplied**				
	Positional Accuracy:	Located by supplier to within 100m				
	Discharge Consents					
2	Operator:	Whiteford, William J	A1SW (W)	193	1	351339 664700
	Property Type:	Not Supplied				
	Location:	Longnewton Gifford East Lothian				
	Authority:	Scottish Environment Protection Agency, East Region				
	Catchment Area:	Not Supplied				
	Reference:	Wpo/E/529				
	Permit Version:	1				
	Effective Date:	Not Supplied				
	Issued Date:	14th July 1967				
	Revocation Date:	Not Supplied				
	Discharge Type:	Septic tank				
	Discharge Environment:	Not Supplied				
	Receiving Water:	Not Supplied				
	Status:	**Not Supplied**				
	Positional Accuracy:	Located by supplier to within 100m				
	Discharge Consents					
3	Operator:	Whiteford, William J	A1SNW (NW)	206	1	351401 665001
	Property Type:	Not Supplied				
	Location:	Longnewton Gifford East Lothian				
	Authority:	Scottish Environment Protection Agency, East Region				
	Catchment Area:	Not Supplied				
	Reference:	Wpo/E/528				
	Permit Version:	1				
	Effective Date:	Not Supplied				
	Issued Date:	14th July 1967				
	Revocation Date:	Not Supplied				
	Discharge Type:	Septic tank				
	Discharge Environment:	Not Supplied				
	Receiving Water:	Not Supplied				
	Status:	**Not Supplied**				
	Positional Accuracy:	Located by supplier to within 100m				
	Discharge Consents					
4	Operator:	British Rail	A1SE (W)	512	1	351000 664600
	Property Type:	Not Supplied				
	Location:	Newpark Station Midlothian				
	Authority:	Scottish Environment Protection Agency, East Region				
	Catchment Area:	Not Supplied				
	Reference:	Wpo/E/340				
	Permit Version:	1				
	Effective Date:	Not Supplied				
	Issued Date:	14th July 1967				
	Revocation Date:	Not Supplied				
	Discharge Type:	Septic tank				
	Discharge Environment:	Not Supplied				
	Receiving Water:	Not Supplied				
	Status:	**Not Supplied**				
	Positional Accuracy:	Located by supplier to within 100m				

Map ID	Details		Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Discharge Consents					
5	Operator:	Traquair, William A	A/NE (SW)	594	1	351100 664300
	Property Type:	Not Supplied				
	Location:	Kidlaw Gifford East Lothian				
	Authority:	Scottish Environment Protection Agency, East Region				
	Catchment Area:	Not Supplied				
	Reference:	Wpc/E/573				
	Permit Version:	1				
	Effective Date:	Not Supplied				
	Issued Date:	14th July 1967				
	Revocation Date:	Not Supplied				
	Discharge Type:	Septic tank				
	Discharge Environment:	Not Supplied				
	Receiving Water:	Not Supplied				
	Status:	**Not Supplied**				
	Positional Accuracy:	Located by supplier to within 100m				
	Discharge Consents					
6	Operator:	Rogan, Rev Dr R H	A14SE (E)	718	1	352300 664700
	Property Type:	Not Supplied				
	Location:	Mid Latch Gifford East Lothian				
	Authority:	Scottish Environment Protection Agency, East Region				
	Catchment Area:	Not Supplied				
	Reference:	Wpc/E/3380				
	Permit Version:	1				
	Effective Date:	Not Supplied				
	Issued Date:	21st February 1978				
	Revocation Date:	Not Supplied				
	Discharge Type:	Septic tank				
	Discharge Environment:	Not Supplied				
	Receiving Water:	Not Supplied				
	Status:	**Not Supplied**				
	Positional Accuracy:	Located by supplier to within 100m				
	Discharge Consents					
6	Operator:	Rogan, William H	A14SE (E)	719	1	352300 664685
	Property Type:	Not Supplied				
	Location:	West Latch				
	Authority:	Scottish Environment Protection Agency, East Region				
	Catchment Area:	Not Supplied				
	Reference:	Wpc/E/1466				
	Permit Version:	1				
	Effective Date:	Not Supplied				
	Issued Date:	28th October 1974				
	Revocation Date:	Not Supplied				
	Discharge Type:	Septic tank				
	Discharge Environment:	Not Supplied				
	Receiving Water:	Not Supplied				
	Status:	**Not Supplied**				
	Positional Accuracy:	Located by supplier to within 100m				
	Discharge Consents					
7	Operator:	McIntosh Reid, A K	A19NW (NE)	753	1	351900 665500
	Property Type:	Not Supplied				
	Location:	Newtonhall Farm Gifford				
	Authority:	Scottish Environment Protection Agency, East Region				
	Catchment Area:	Not Supplied				
	Reference:	Wpc/E/1080				
	Permit Version:	1				
	Effective Date:	Not Supplied				
	Issued Date:	27th July 1970				
	Revocation Date:	Not Supplied				
	Discharge Type:	Septic tank				
	Discharge Environment:	Not Supplied				
	Receiving Water:	Not Supplied				
	Status:	**Not Supplied**				
	Positional Accuracy:	Located by supplier to within 100m				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Discharge Consents				
8	Operator: Scot., P R Property Type: Not Supplied Location: West Cate Farm Near Gifford East Lothian Authority: Scottish Environment Protection Agency, East Region Catchment Area: Not Supplied Reference: Wpc/E/4076 Permit Version: 1 Effective Date: Not Supplied Issued Date: 15th February 1993 Revocation Date: Not Supplied Discharge Type: Septic tank Discharge Environment: Not Supplied Receiving Water: Not Supplied **Status: Not Supplied** Positional Accuracy: Located by supplier to within 100m	A14SE (E)	818	1	352100 664700
	Discharge Consents				
9	Operator: Robertson Brothers Property Type: Not Supplied Location: St Martins Gate Workshop Haddington Authority: Scottish Environment Protection Agency, East Region Catchment Area: Tyne (Scotland) Reference: Wpc/E/6647 Permit Version: 1 Effective Date: Not Supplied Issued Date: 22nd March 1994 Revocation Date: Not Supplied Discharge Type: Discharge Of Other Matter-Surface Water Discharge Environment: Not Supplied Receiving Water: Not Supplied **Status: Not Supplied** Positional Accuracy: Located by supplier to within 100m	A8SE (S)	878	1	351850 663900
	Nearest Surface Water Feature	A1SNW (NW)	146	-	351345 664872
	Water Abstractions				
10	Operator: East Scotland Water Authority Licence Number: 2005 Permit Version: Not Supplied Location: Kidlaw Intake Authority: Scottish Executive, Agriculture, Environment and Fisheries Department Abstraction: Public Water Supply Abstraction Type: Not Supplied Source: Feeder Daily Rate (m3): 230 Yearly Rate (m3): 73000 Details: Not Supplied Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A7SE (SW)	747	2	351100 664100
	Water Abstractions				
	Operator: East Scotland Water Authority Licence Number: 2011 Permit Version: Not Supplied Location: Witches Knowe, Lothian Authority: Scottish Executive, Agriculture, Environment and Fisheries Department Abstraction: Public Water Supply Abstraction Type: Not Supplied Source: Compensation Reservoir Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A8NE (S)	1113	2	351600 663600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions				
	Operator: Unknown Operator Licence Number: Unknown Licence Number Permit Version: Not Supplied Location: Lammermoor Reservoir, Lothian Authority: Scottish Executive, Agriculture, Environment and Fisheries Department Abstraction: Public Water Supply Abstraction Type: Not Supplied Source: Unknown Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A3NW (S)	1221	2	351400 663500
	Water Abstractions				
	Operator: East Scotland Water Authority Licence Number: 2007 Permit Version: Not Supplied Location: Lammermoor Reservoir Authority: Scottish Executive, Agriculture, Environment and Fisheries Department Abstraction: Public Water Supply Abstraction Type: Not Supplied Source: Reservoir/Pond Daily Rate (m3): 200 Yearly Rate (m3): 73000 Details: Not Supplied Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A3SW (S)	1315	2	351500 663400
	Water Abstractions				
	Operator: Unknown Operator Licence Number: Unknown Licence Number Permit Version: Not Supplied Location: Kidlaw Intake, Lothian Authority: Scottish Executive, Agriculture, Environment and Fisheries Department Abstraction: Public Water Supply Abstraction Type: Not Supplied Source: Unknown Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(S)	1724	2	351700 663000
	Groundwater Vulnerability				
	Geological Classification: Major or Highly Permeable Aquifer - Highly permeable strata usually with a known or probable presence of significant fracturing Soil Classification: Soils of Low Leaching Potential - Soils in which pollutants are unlikely to penetrate the soil layer because water movement is largely horizontal or they have large ability to attenuate diffuse pollutants Map Sheet: Map of Scotland Scale: 1:625,000	A13SE (E)	0	3	351572 664765
	Groundwater Vulnerability				
	Geological Classification: Major or Highly Permeable Aquifer - Highly permeable strata usually with a known or probable presence of significant fracturing Soil Classification: Soils of High Leaching Potential - Soils with little ability to attenuate diffuse source pollutants and in which non-absorbed diffuse source pollutants and liquid discharges will percolate rapidly Map Sheet: Map of Scotland Scale: 1:625,000	A13SE (E)	0	3	351572 664765
	Drift Deposits				
	Drift Deposit: Low permeability drift deposits which include till, head, peat, lacustrine deposits, clay-with-flints and brick earths Map Sheet: Map of Scotland Scale: 1:625,000	A13NE (E)	0	3	351536 664782
	River Flood Data (Scotland)				
	None				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Local Authority Landfill Coverage Name: East Lothian Council - Has supplied landfill data		0	6	351400 661500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology				
	Description: Ashgill and Caradoc	A13NW (NW)	0	4	351497 664831
	Coal Mining Affected Areas				
	In an area which may not be affected by coal mining				
	Potential for Collapsible Ground Stability Hazards				
	No Hazard				
	Potential for Compressible Ground Stability Hazards				
	Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (W)	0	1	351425 664800
	Potential for Compressible Ground Stability Hazards				
	Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NW (W)	46	4	351425 664800
	Potential for Compressible Ground Stability Hazards				
	Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	216	4	351800 664750
	Potential for Ground Dissolution Stability Hazards				
	No Hazard				
	Potential for Landslide Ground Stability Hazards				
	Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	4	351529 665050
	Potential for Landslide Ground Stability Hazards				
	Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	164	4	351529 665050
	Potential for Landslide Ground Stability Hazards				
	Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	189	4	351375 664600
	Potential for Landslide Ground Stability Hazards				
	Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	244	4	351325 664575
	Potential for Running Sand Ground Stability Hazards				
	Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	0	4	351529 664775
	Potential for Running Sand Ground Stability Hazards				
	Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	0	4	351529 664775
	Potential for Running Sand Ground Stability Hazards				
	Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	10	4	351575 664750
	Potential for Running Sand Ground Stability Hazards				
	Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NW (W)	155	4	351325 664850
	Potential for Running Sand Ground Stability Hazards				
	Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (S)	214	4	351425 664525
	Potential for Running Sand Ground Stability Hazards				
	Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	216	4	351800 664750
	Potential for Shrinking or Swelling Clay Ground Stability Hazards				
	Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	0	4	351529 664775
	Potential for Shrinking or Swelling Clay Ground Stability Hazards				
	Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	0	4	351529 664775
	Potential for Shrinking or Swelling Clay Ground Stability Hazards				
	Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	10	4	351575 664750
	Potential for Shrinking or Swelling Clay Ground Stability Hazards				
	Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (W)	155	4	351325 664850
	Radon Potential - Radon Affected Areas				
	Less than 1% of homes are above the action Level				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Radon Potential - Radon Protection Measures				
	No Data Available				
	Shallow Mining Hazards				
	Risk: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	0	4	351576 664699

Map ID	Details		Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Nitrate Vulnerable Zones					
11	Name:	Lothian / Borders	(S)	0	5	352276 662577
	Description:	Groundwater				
	Source:	Scottish Executive, Geographic Information Service				

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices		
East Lothian Council	August 2007	Annual Rolling Update
Scottish Borders Council	November 2007	Annual Rolling Update
Discharge Consents		
Scottish Environment Protection Agency - East Region	June 2001	Variable
Enforcement and Prohibition Notices		
Scottish Environment Protection Agency - East Region	July 2006	As notified
Integrated Pollution Controls		
Scottish Environment Protection Agency - Head Office	February 1998	Variable
Scottish Environment Protection Agency - East Region	March 2002	Variable
Local Authority Pollution Prevention and Controls		
Scottish Environment Protection Agency - East Region	March 2002	Variable
Nearest Surface Water Feature		
Ordnance Survey	October 2007	Quarterly
Prosecutions Relating to Authorised Processes		
Scottish Environment Protection Agency - East Region	March 2007	As notified
Prosecutions Relating to Controlled Waters		
Scottish Environment Protection Agency - East Region	March 2007	As notified
Registered Radioactive Substances		
Scottish Environment Protection Agency - East Region	April 1996	Variable
Scottish Environment Protection Agency - Head Office	January 1998	Variable
River Quality		
Scottish Environment Protection Agency - Head Office	December 1990	Not Applicable
Water Abstractions		
Scottish Executive - Agriculture, Environment and Fisheries Department	December 1997	Not Applicable
Water Industry Act Referrals		
Scottish Environment Protection Agency - East Region	April 1998	Variable
Groundwater Vulnerability		
Scottish Environment Protection Agency - Head Office	December 1995	Not Applicable
Drift Deposits		
Scottish Environment Protection Agency - Head Office	December 1995	Not Applicable

Waste	Version	Update Cycle
BGS Recorded Landfill Sites		
British Geological Survey - National Geoscience Information Service	June 1998	Not Applicable
Integrated Pollution Control Registered Waste Sites		
Scottish Environment Protection Agency - Head Office	January 1998	Variable
Scottish Environment Protection Agency - East Region	March 2002	Variable
Local Authority Landfill Coverage		
East Lothian Council	May 2000	Not Applicable
Scottish Borders Council	May 2000	Not Applicable
Local Authority Recorded Landfill Sites		
East Lothian Council	May 2000	Not Applicable
Scottish Borders Council	May 2000	Not Applicable
Registered Landfill Sites		
Scottish Environment Protection Agency - East Region	December 2005	Not Applicable
Scottish Environment Protection Agency - East Region - Perth Office	December 2005	Not Applicable
Registered Waste Transfer Sites		
Scottish Environment Protection Agency - East Region	December 2005	Not Applicable
Scottish Environment Protection Agency - East Region - Perth Office	December 2005	Not Applicable
Registered Waste Treatment or Disposal Sites		
Scottish Environment Protection Agency - East Region	December 2005	Not Applicable
Scottish Environment Protection Agency - East Region - Perth Office	December 2005	Not Applicable

Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH)		
Health and Safety Executive	October 2007	Bi-Annually
Explosive Sites		
Health and Safety Executive	August 2007	Bi Annually
Notification of Installations Handling Hazardous Substances (NIHHS)		
Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements		
East Lothian Council - Planning Department	February 2007	Annual Rolling Update
Scottish Borders Council - Planning Department	September 2007	Annual Rolling Update
Planning Hazardous Substance Consents		
East Lothian Council - Planning Department	February 2007	Annual Rolling Update
Scottish Borders Council - Planning Department	September 2007	Annual Rolling Update

Data Currency

Geological	Version	Update Cycle
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	October 2007	Bi-Annually
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	August 1996	Not Applicable
Coal Mining Affected Areas The Coal Authority - Mining Report Service	January 2006	As notified
Mining Instability Ove Arup & Partners	October 2000	Not Applicable
Natural and Mining Cavities Peter Brett Associates	December 2005	Variable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	November 2006	Annually
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	November 2006	Annually
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	November 2006	Annually
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	April 2007	Annually
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	November 2006	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	November 2006	Annually
Shallow Mining Hazards British Geological Survey - National Geoscience Information Service	August 2002	Not Applicable

Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	August 2007	Quarterly
Fuel Station Entries Catalist Ltd - (Fuel Station Data)	October 2007	Quarterly

Sensitive Land Use	Version	Update Cycle
Environmentally Sensitive Areas Scottish Executive - Geographic Information Service	November 2007	Annually
Forest Parks Forestry Commission	April 1997	Not Applicable
Local Nature Reserves East Lothian Council	November 2007	Bi Annually
Marine Nature Reserves Scottish Natural Heritage	November 2007	Bi-Annually
National Nature Reserves Scottish Natural Heritage	November 2007	Bi-Annually
National Parks Scottish Natural Heritage	November 2007	Bi-Annually
National Scenic Areas Scottish Natural Heritage	November 2007	Bi-Annually
Nitrate Vulnerable Zones Scottish Executive - Geographic Information Service	May 2007	Annually
Ramsar Sites Scottish Natural Heritage	November 2007	Bi Annually
Sites of Special Scientific Interest Scottish Natural Heritage	November 2007	Bi-Annually
Special Areas of Conservation Scottish Natural Heritage	November 2007	Bi-Annually
Special Protection Areas Scottish Natural Heritage	November 2007	Bi-Annually

Data Suppliers

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	Ordnance Survey Licensed Partner
Environment Agency	Environment Agency
Scottish Environment Protection Agency	SEPA Scottish Environment Protection Agency
The Coal Authority	THE COAL AUTHORITY
British Geological Survey	BGS British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL
Centre for Ecology and Hydrology	CEH Centre for Ecology & Hydrology NATURAL ENVIRONMENT RESEARCH COUNCIL
Countryside Council for Wales	CYNGOR CEFN GWLAD CYMRU COUNTRYSIDE COUNCIL FOR WALES
Scottish Natural Heritage	SCOTTISH NATURAL HERITAGE
Natural England	NATURAL ENGLAND
Health Protection Agency	Health Protection Agency
Ove Arup	ARUP
Peter Brett Associates	pba

Useful Contacts

Contact	Name and Address	Contact Details
1	**Scottish Environment Protection Agency - East Region** Clearwater House, Heriot Watt Research Park, Avenue North, Riccarton, Edinburgh, Midlothian, EH14 4AP	Telephone: 0131 449 7296 Fax: 0131 449 7277
2	**Scottish Executive - Agriculture, Environment and Fisheries Department** Pentland House, 47 Robb's Loan, EDINBURGH, Midlothian, EH14 1TY	Telephone: 0131 2446255 Fax: 0131 2446256
3	**Scottish Environment Protection Agency - Head Office** Erskine Court, The Castle Business Park, Stirling, Stirlingshire, FK9 4TR	Telephone: 01786 457700 Fax: 01786 446885
4	**British Geological Survey - Enquiry Service** British Geological Survey, Kingsley Dunham Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
5	**Scottish Executive - Geographic Information Service** Area 1J88, Victoria Quay, Edinburgh, EH6 6QQ	Telephone: 0131 5568400 Fax: 0131 2448240 Email: geu@scotland.gov.uk Website: www.scotland.gov.uk
6	**East Lothian Council** Council Buildings, Court Street, Haddington, East Lothian, EH41 3HD	Telephone: 0162 082 7827 Fax: 0162 082 7888 Website: www.eastlothian.gov.uk
-	**Health Protection Agency** Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 831600 Fax: 01235 833891 Website: www.hpa.org.uk
-	**Landmark Information Group Limited** The Smith Centre, Henley On Thames, Oxfordshire, RG9 6AB	Telephone: 0870 850 6670 Fax: 0870 850 6671 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

Please note that the Environment Agency / SEPA have a charging policy in place for enquiries

Envirocheck®

Envirocheck® Report:

BGS Boreholes Datasheet

Order Details:

Order Number:
23871877_1_1

Customer Reference:
E8538

National Grid Reference:
351530, 664780

Slice:
A

Site Area (Ha):
0.81

Borehole Search Buffer (m):
1000

Site Details:

Longnewton Farmhouse
Haddington
EH41 4JW

Client Details:

Mr N Henderson
David R Murray & Associates
150 St John's Road
Edinburgh
EH12 8AY

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BGS Boreholes Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m
BGS Boreholes	pg.1	None	1	1	2

Introduction

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination.
For this reason, Landmark's Site Sensitivity maps and Database(s) place great emphasis on statutory data provided by the Environment Agency and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client.

In the attached datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

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A copy of the BGS Borehole Ordering Form is available to download from the Support section of www.envirocheck.co.uk.

Report Version v31.0

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BGS Boreholes Detail

Map ID	Details		Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Boreholes					
12	BGS Reference: Drilled Length (m): Borehole Name:	NI56sw8 3 Long Newton Pb	A13NE (NE)	101	4	351670 664650
	BGS Boreholes					
13	BGS Reference: Drilled Length (m): Borehole Name:	NI56nw1 11 Kirklaw Burn, Yester E	A18SW (N)	156	1	351480 665290
	BGS Boreholes					
14	BGS Reference: Drilled Length (m): Borehole Name:	NI56nw3 3.0 Shodebush, Yester B	A17NE (NW)	986	4	350810 665610
	BGS Boreholes					
15	BGS Reference: Drilled Length (m): Borehole Name:	NI56nw17 6.5 A68 Soutra South Oxton Improvement 9	A12NW (W)	993	4	350524 665093

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Data Currency and Contact Details

BGS Boreholes	Version	Update Cycle
BGS Boreholes British Geological Survey - National Geoscience Information Service	October 2007	Quarterly

Contact Details	Contact Logo
4 **British Geological Survey - Enquiry Service** British Geological Survey, Kingsley Dunham Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk	BGS 1835 British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL
- **Landmark Information Group Limited** The Smith Centre, Henley On Thames, Oxfordshire, RG9 6AB Telephone: 0870 850 6670 Fax: 0870 850 6671 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk	LANDMARK® Information Group

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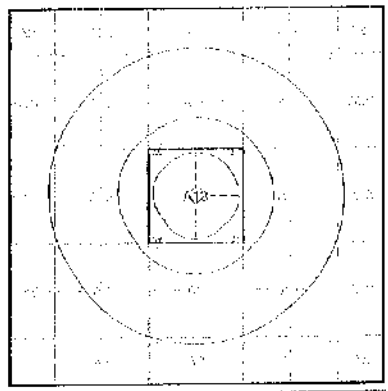
Agency and Hydrological

Groundwater Vulnerability - Slice A

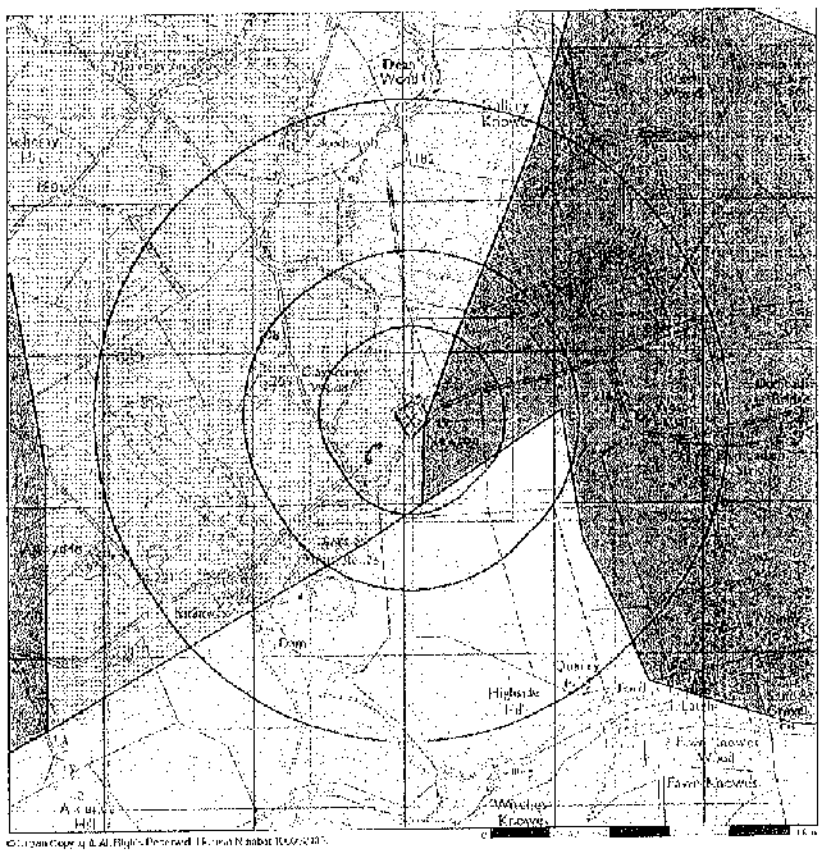


Order Details

Order Number:	2387/1877_1_1
Customer Ref:	F8538
National Grid Reference:	351530, 664780
Slice:	A
Site Area (Ha):	0.81
Search Buffer (m):	1000

Site Details

Longnewton Farmhouse, Haddington, EH41 4JW



Background

- Footpath
- Bridleway
- Byway open to all traffic
- Road Used as a Public Path
- Other routes with Public Access
- National Trail or Long Distance Route
- Contour
- Fishing
- Nature Reserve

General

- Specified Site
- Specified Buffer(s)
- Reading Reference Point

Agency & Hydrological

Geological Classes

Highly Permeable
Moderately Permeable
Mostly Impermeable
Water or Sea
Drift Deposit

Soil Classes

- High
- Intermediate
- Low

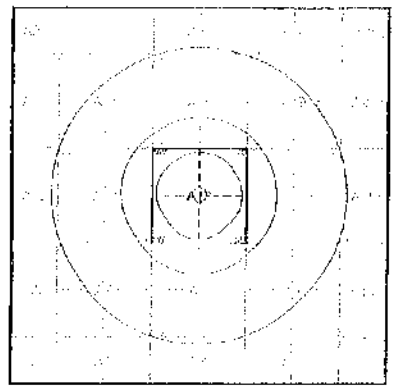
Order Details

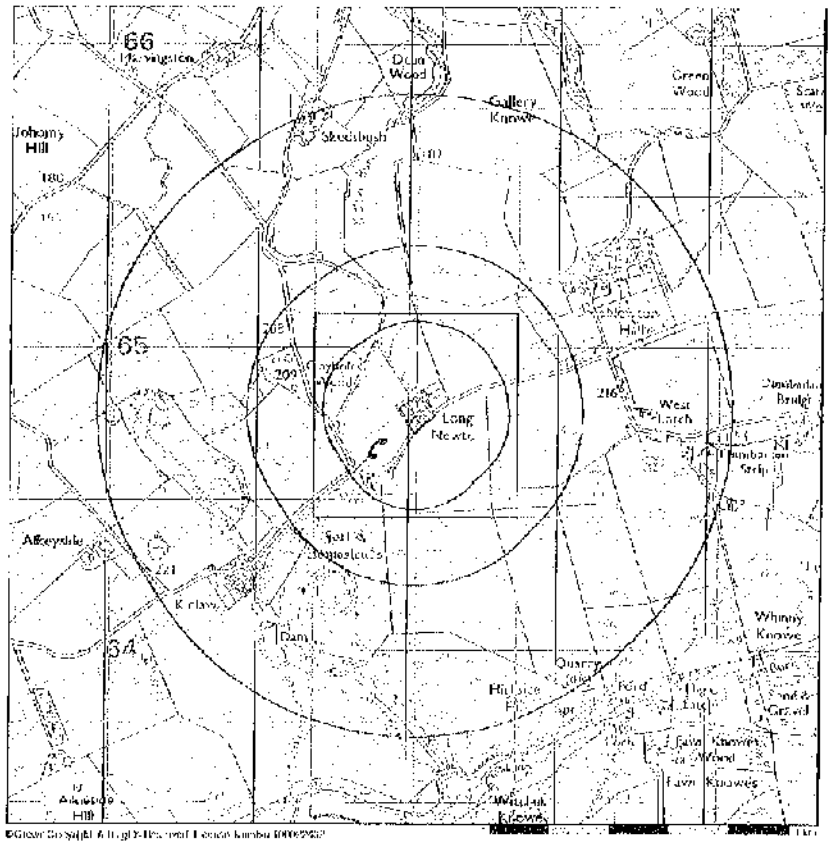
Order Number:	23871877_1_1
Customer Ref:	E8538
National Grid Reference:	351530, 664780
Slice:	A
Site Area (Ha):	0.81
Search Buffer (m):	1000

Site Details

Longnewton Farmhouse, Haddington, EH41 4JW

Source Protection Zones - Slice A





Background

- Footpath
- Bridleway
- Byway open to all traffic
- Road Used as a Public Path
- Other routes with Public Access
- National Trail or Long Distance Route
- Contour
- Fishing
- Nature Reserve

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID

Agency and Hydrological

- Source Protection Zone I
- Source Protection Zone II
- Source Protection Zone III
- Zone of Special Interest
- Source Protection Zone Boundary

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Sensitive Land Uses

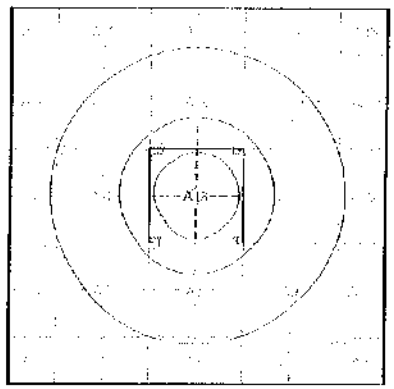
Order Details

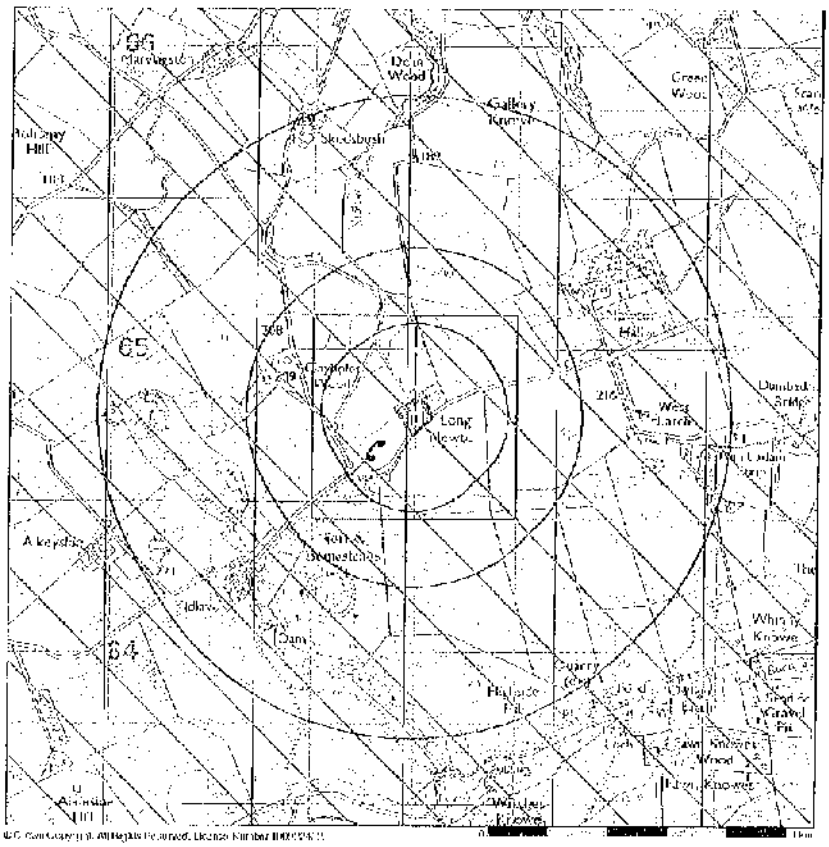
Order Number:	23871877_1_1
Customer Ref:	E8538
National Grid Reference:	351530, 664780
Slice:	A
Site Area (Ha):	0.81
Search Buffer (m):	1000

Site Details

Longnewton Farmhouse, Haddington, EH41 4JW

Sensitive Land Uses - Slice A





Background

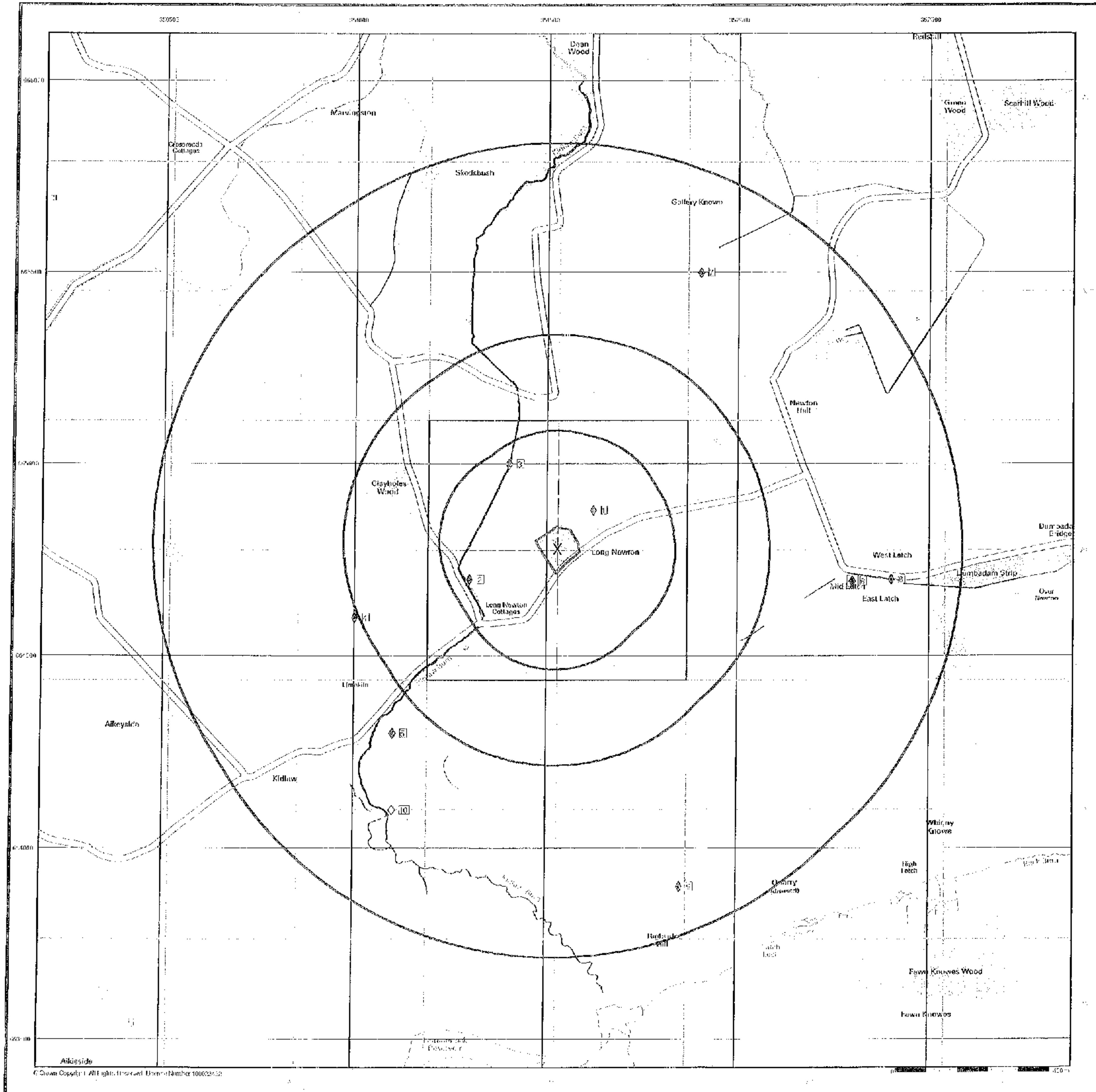
- Footpath
- Bridleway
- Byeway open to all traffic
- Road Used as a Public Path
- Other route with Public Access
- National Trail or Long Distance Route
- Boundary
- Track
- Nature Reserve

General

- Specified Site
- Specified Buffer(s)
- Figuring Reference Point
- Map ID

Sensitive Land Uses

- Area of Adopted Green Belt
- Area of Unadopted Green Belt
- Environmentally Sensitive Area
- Forest Park
- Local Nature Reserve
- Marine Nature Reserve
- National Nature Reserve
- National Park
- National Scenic Area
- Nitrate Sensitive Area
- Nitrate Vulnerable Zone
- Ramsar Site
- Site of Special Scientific Interest
- Special Area of Conservation
- Special Protection Area



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General

Specified Site
Specified Buffer(s)
Bearing Reference Point
Map ID
Several of Type at Location

Agency and Hydrological

Contaminated Land Register Entry or Notice (Location)
Contaminated Land Register Entry or Notice
Discharge Consent
Enforcement or Prohibition Notice
Integrated Pollution Control
Integrated Pollution Prevention Control
Local Authority Integrated Pollution Prevention and Control
Local Authority Pollution Prevention and Control
Local Authority Pollution Prevention and Control Enforcement
Pollution Incident to Controlled Waters
Prosecution Relating to Authorised Processes
Prosecution Relating to Controlled Waters
Registered Radioactive Substances
River Network or Water Feature
Substantiated Pollution Incident Register
Water Abstraction
Water Industry Act Referral

Geological

BGS Recorded Mineral Site

Industrial Land Use

Contemporary Trade Directory Entry
Fuel Station Entry

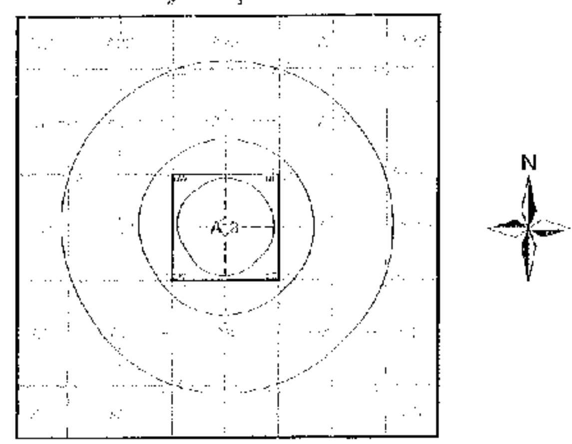
Waste

BGS Recorded Landfill Site (Location)
BGS Recorded Landfill Site
Integrated Pollution Control Registered Waste Site
Local Authority Recorded Landfill Site (Location)
Local Authority Recorded Landfill Site
Registered Landfill Site
Registered Landfill Site (Location)
Registered Landfill Site (Point Buffered to 100m)
Registered Landfill Site (Point Buffered to 250m)
Registered Waste Transfer Site (Location)
Registered Waste Transfer Site
Registered Waste Treatment or Disposal Site (Location)
Registered Waste Treatment or Disposal Site

Hazardous Substances

COMAH Site
Explosive Site
NIHHS Site
Planning Hazardous Substance Consent
Planning Hazardous Substance Enforcement

Site Sensitivity Map - Slice A



Order Details

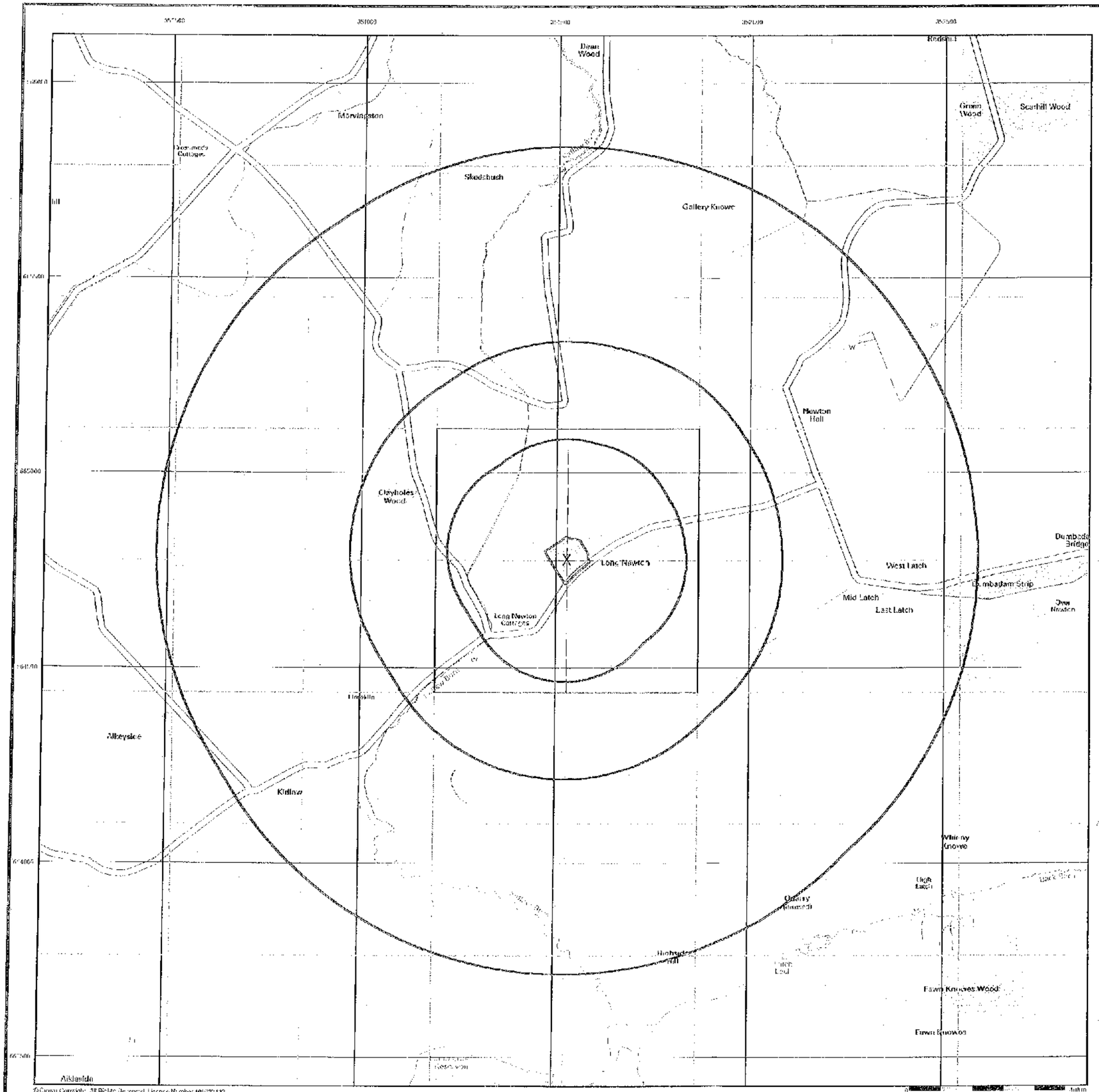
Order Number: 23871877_1_1
Customer Ref: E8538
National Grid Reference: 351530, 664780
Slice: A
Site Area (Ha): 0.81
Search Buffer (m): 1000

Site Details

Longnewton Farmhouse, Haddington, EH41 4JW

LANDMARK® Information Group

Tel: 0870 850 6670
Fax: 0870 850 6671
Web: www.envirocheck.co.uk



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General

Specified Site

Specified Buffer(s)

Planning Reference Point

Agency and Hydrological (Flood)

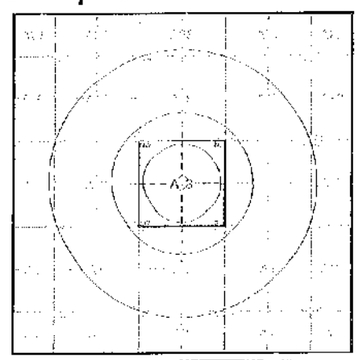
1m estimated 100yr flood depth

1 - 2m estimated 100yr flood depth

Over 2m estimated 100yr flood depth

The flood areas have been produced using generalised techniques and should not, by themselves, be used to infer that specific properties are at risk of flooding. Flood risk at any specific location may be influenced by local factors not taken flood defences that have not been taken into account.

Flood Map - Slice A



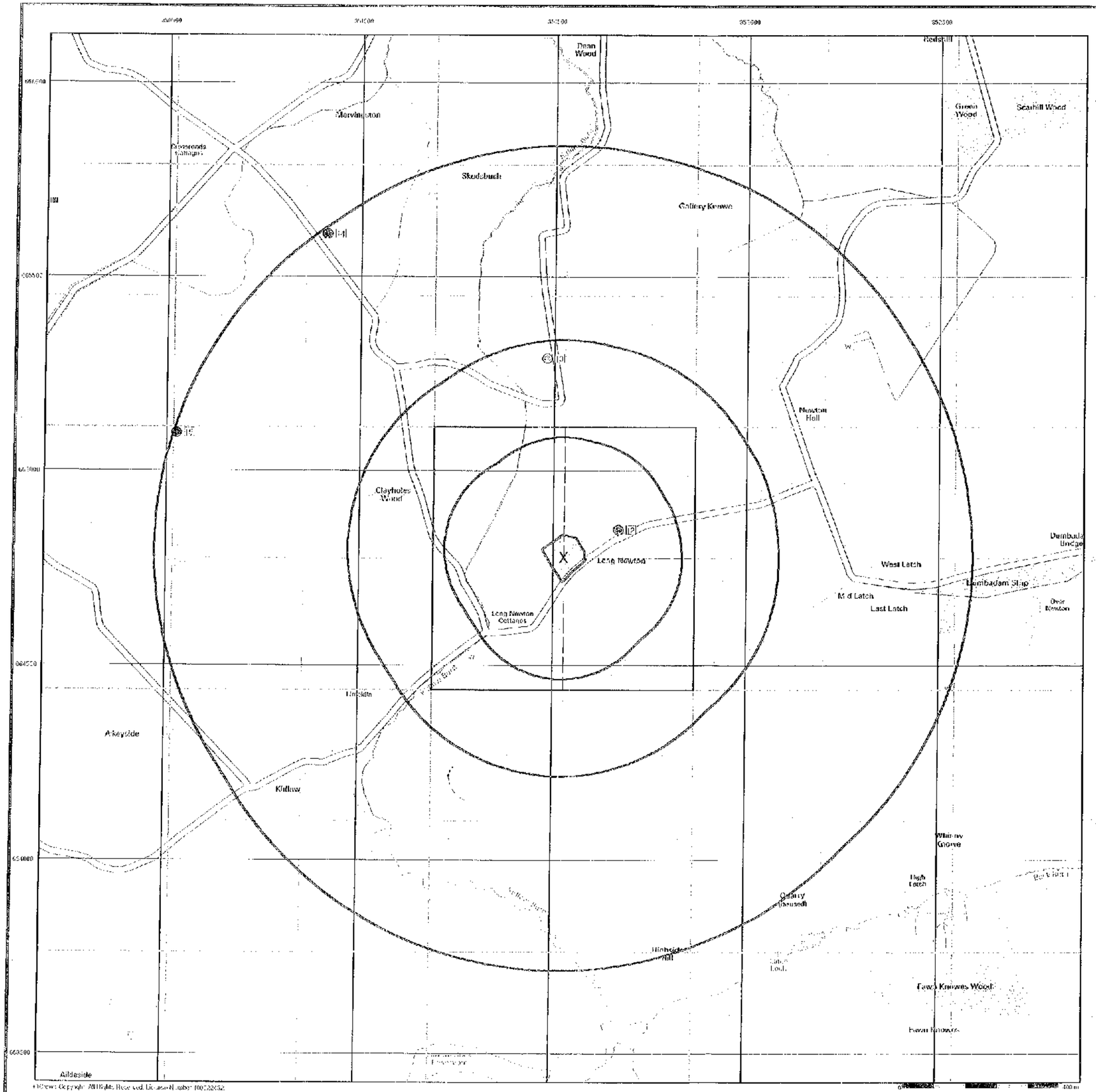
Order Details

Order Number:	23871877_1_1
Customer Ref:	E8538
National Grid Reference:	351530, 664780
Slice:	A
Site Area (Ha):	0.81
Search Buffer (m):	1000

Site Details

Longnewton Farmhouse, Haddington, EH41 4JW

LANDMARK Information Group
Tel. 0870 850 6670
Fax 0870 850 6671
Web www.envirocheck.co.uk



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General

- Specified Site
- Specified Buffer(s)
- Beamish Reference Point
- Map ID
- Scanned at Typical Location

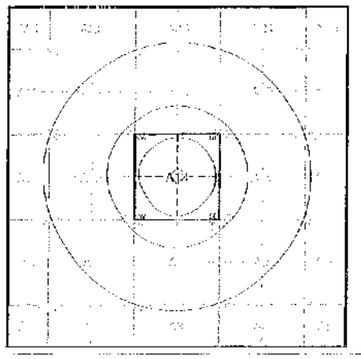
Agency and Hydrological (Boreholes)

- BGS Borehole Depth 0 - 10m
- BGS Borehole Depth 10 - 30m
- BGS Borehole Depth 30m +
- Groundwater
- Other

For Borehole information please refer to the Borehole datasheet which accompanied this slice

A copy of the BGS Borehole Ordering Form is available to download from the Support section of www.envirocheck.co.uk.

Borehole Map - Slice A



Order Details

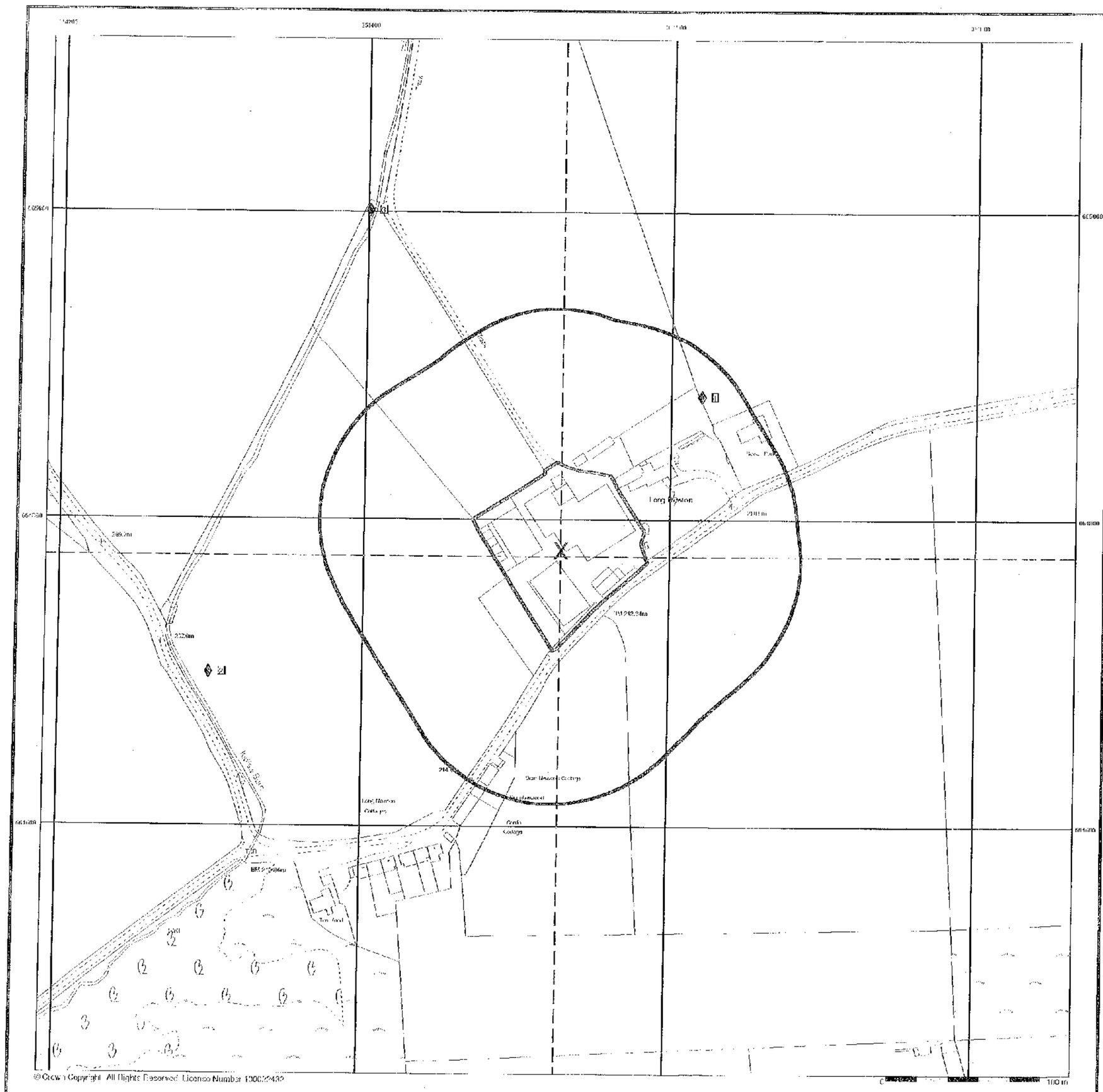
Order Number:	23871877_1_1
Customer Ref:	E8538
National Grid Reference:	351530, 664780
Slice:	A
Site Area (Ha):	0.81
Search Buffer (m):	1000

Site Details

Longnewton Farmhouse, Haddington, EH41 4JW

LANDMARK Information Group

Tel: 0870 850 6670
Fax: 0870 850 6671
Web: www.envirocheck.co.uk



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General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Map ID
Several of Type of Location | Pylon | Overhead Transmission Line

Agency and Hydrological

- Contaminated Land Register Entry or Notice (location)
- Contaminated Land Register Entry or Notice
- Discharge Consent
- Enforcement or Prohibition Notice
- Integrated Pollution Control
- Integrated Pollution Prevention Control
- Local Authority Integrated Pollution Prevention and Control
- Local Authority Pollution Prevention and Control
- Local Authority Pollution Prevention and Control Enforcement
- Pollution Incident to Controlled Waters
- Prosecution Relating to Authorised Processes
- Prosecution Relating to Controlled Waters
- Registered Radioactive Substances
- River Network or Water Feature
- Substantiated Pollution Incident Register
- Water Abstraction
- Water Industry Act Referral

Geological

- BGS Recorded Mineral Site

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry

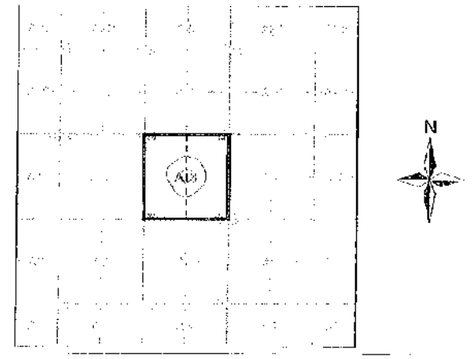
Waste

- BGS Recorded Landfill Site (location)
- BGS Recorded Landfill Site
- Integrated Pollution Control Registered Waste Site
- Local Authority Recorded Landfill Site (location)
- Local Authority Recorded Landfill Site
- Registered Landfill Site
- Registered Landfill Site (location)
- Registered Landfill Site (Part Buffered to 150m)
- Registered Landfill Site (Fully Buffered to 250m)
- Registered Waste Transfer Site (location)
- Registered Waste Transfer Site
- Registered Waste Treatment or Disposal Site (location)
- Registered Waste Treatment or Disposal Site

Hazardous Substances

- COMAH Site
- Explosive Site
- NIHHS Site
- Planning Hazardous Substance Consent
- Planning Hazardous Substance Enforcement

Site Sensitivity Map - Segment A13



Order Details

Order Number:	23871877_1_1
Customer Ref:	E8538
National Grid Reference:	351530, 664780
Slice:	A
Site Area (Ha):	0.81
Plot Buffer (m):	100

Site Details

Longnewton Farmhouse, Haddington, EH41 4JW

LANDMARK Information Group
Tel: 0870 850 6670
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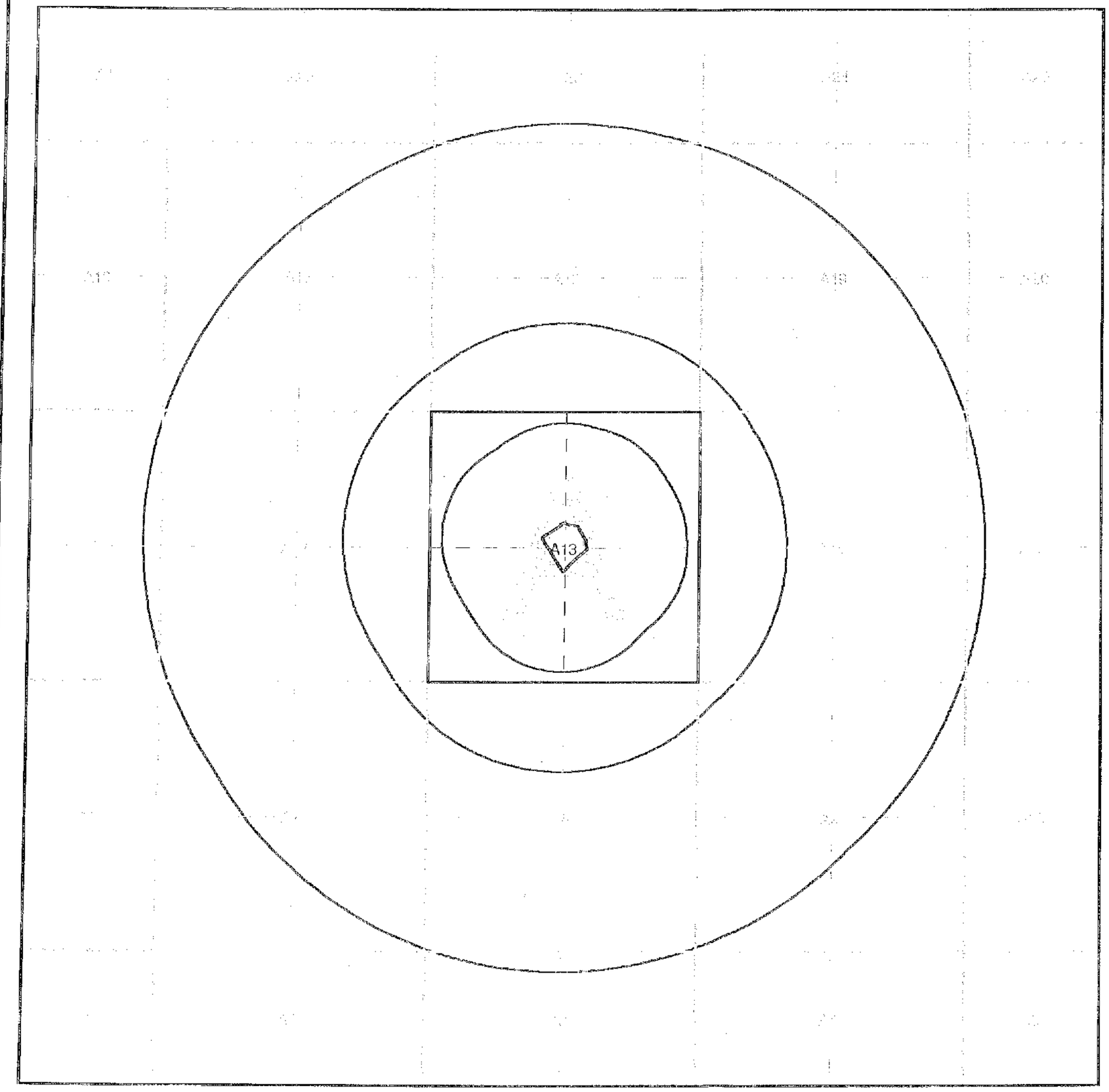

Envirocheck®

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Index Map

For ease of identification, your site and buffer have been split into Slices, Segments and Quadrants. These are illustrated on the Index Map opposite and explained further below

Slice
Each slice represents a 1:10,000 plot area (2.7km x 2.7km) for your site and buffer. A large site and buffer may be made up of several slices (represented by a red outline), that are referenced by letters of the alphabet, starting from the bottom left corner of the slice "grid". This grid does not relate to National Grid lines but is designed to give best fit over the site and buffer

Segment
A segment represents a 1:2,500 plot area. Segments that have plot files associated with them are shown in dark green, others in light blue. These are numbered from the bottom left hand corner within each slice

Quadrant
A quadrant is a quarter of a segment. These are labelled as NW, NE, SW, SE and are referenced in the datasheet to allow features to be quickly located on plots. Therefore a feature that has a quadrant reference of A7NW will be in Slice A, Segment 7 and the NW Quadrant

A selection of organisations who provide data within this report.

Ordnance Survey® Licensed Partner

British Geological Survey

SEPA Scottish Environment Protection Agency

Scottish Natural Heritage

Envirocheck reports are compiled from 135 different sources of data.

Client Details
Mr N Henderson, David R Murray & Associates, 150 St John's Road, Edinburgh, EH12 8AY

Order Details
Order Number:	23871877_1_1
Customer Ref:	E8538
National Grid Reference:	351530, 664780
Site Area (Ha):	0.81
Search Buffer (m):	1000

Site Details
Longnewton Farmhouse, Haddington, EH41 4JW

LANDMARK Information Group
Tel 0870 850 6670
Fax 0870 850 6671
Web www.environcheck.co.uk

LANDMARK TERMS AND CONDITIONS

Definitions

"Authorised Reseller" means an agent or reseller of Landmark whom Landmark has duly appointed to resell its Reports and Services.

"Content" means any data, computing and information services and software, and other content and documentation or support materials and updates included in and/or supplied by or through the Websites, in Reports or Services or in any other way by Landmark and shall include Landmark developed and third Party Content.

"First Purchaser" means the first person, or legal entity to purchase the Property Site following provision of a Report.

"First Purchaser's Lender" means the funding provider for the First Purchaser.

"Information Pack" means a pack compiled by or on behalf of the owner or prospective buyer of the Property Site, designed to aid the marketing or purchase of the Property Site and containing information provided by or on behalf of the owner or prospective buyer of the Property Site.

"Intellectual Property Rights" means copyright, patent, design right (registered or unregistered), service or trade mark (registered or unregistered), database right or other data right, moral right or know how or any other intellectual property right.

"Order" means the request for Services from Landmark by You.

"Property Site" means a land site on which Landmark provides a Service.

References to **"We"**, "Us" and **"Our"** are references to Landmark Information Group Limited ("Landmark"), whose registered office is 7 Abbey Court, Eagle Way, Exeter, EX2 7HY. Where You are not ordering the Services directly from Landmark, but from an Authorised Reseller, references to "Landmark" or "We", "Us" and "Our" shall be construed so as to mean either Landmark and/or the Authorised Reseller as the context shall indicate.

References to **"You/Your/Yourself"** refer to the contracting party who accesses the Website or places an Order with Landmark.

"Report" includes any information that Landmark supplies to You, including all reports, drawings, datasets, software or information contained in them.

"Services" means the provision of any service by Landmark pursuant to these Terms, including without limitation, any Report.

"Landmark Fees" means any charges levied by Landmark for Services provided to You.

"Suppliers" means any organisation who provides data or information of any form to Landmark.

"Terms" means these Terms & Conditions.

"Third Party Content" means the services, software, information and other content or functionality provided by third parties and linked to or contained in the Services.

"Websites" means websites hosted by Landmark and includes the Content and any report, service, document, data-set, software or information contained therein, derived there from or thereby.

1. **Terms & Conditions**

a. These Terms govern the relationship between You and Landmark whether You are an unregistered visitor to the Website or are purchasing Services. Where these Terms are not expressly accepted by You they will be deemed to have been accepted by You and You agree to be bound by these Terms when You place any Order, or pay for any Services provided.

b. If the person communicating with Landmark is an Authorised Reseller, they must ensure that You agree to these Terms.

c. The headings in these Terms are for convenience only and shall not affect the meaning or interpretation of any part of these Terms.

d. Landmark may modify these Terms, and may discontinue or revise any or all other aspects of the Services at our sole discretion, with immediate effect and without prior notice, including without limitation changing the Services available at any given time. Any amendment or variation to these Terms shall be posted on our Websites. Continued use of the Services by You shall be deemed an acceptance by You to be bound by any such amendments to the Terms.

e. These Terms, together with the prices and delivery details set out on our Websites, Landmark's Privacy Policy and Your Order comprise the whole agreement relating to the supply of Services to You by Landmark. No prior stipulation, agreement, promotional material or statement whether written or oral made by any sales or other person or representative on our behalf should be understood as a variation of these Terms. Save for fraud or misrepresentation, Landmark shall have no liability for any such representation being untrue or misleading.

f. These Terms shall prevail at all times to the exclusion of all other terms and conditions including any terms and conditions which You may purport to apply even if such other provisions are submitted in a later document or purport to exclude or override these Terms and neither the course of conduct between parties nor trade practice shall act to modify these Terms.

2. **Services**

a. Landmark will use reasonable care and skill in providing the Services to You, however, the Services are provided on the express basis that the information and data supplied in the Services are derived from third party sources and Landmark does not warrant the accuracy or completeness of such information or data. Such information is derived solely from those sources specifically cited in the Services and Landmark does not claim that these sources represent an exhaustive or comprehensive list of all sources that might be consulted.

3. **Intellectual Property**

a. You acknowledge that all Intellectual Property Rights in the Services are and shall remain owned by either Landmark or our Suppliers and nothing in these Terms purports to transfer, assign or grant any rights to You in respect of the Intellectual Property Rights.

b. Subject always to these Terms You may, without further charge, make the Services available to:
   i. the owner of the Property at the date of the Report,
   ii. any person who purchases the whole of the Property Site
   iii. any person who provides funding secured on the whole of the Property Site
   iv. any person for whom You act in a professional or commercial capacity
   v. any person who acts for You in a professional or commercial capacity, and
   vi. prospective buyers of the Property Site as part of an Information Pack but for the avoidance of doubt, Landmark shall have no liability to such prospective buyer unless the prospective buyer subsequently purchases the Property Site, and the prospective (or actual) buyer shall not be entitled to make the Service available to any other third party.

   Accordingly Landmark shall have the same duties and obligations to those persons in respect of the Services as it has to You.

c. Each of those persons referred to in clause 3 b. shall have the benefit and the burden of Your rights and obligations under these Terms. The limitations of Landmark's liability as set out in clause 6 shall apply to all users of the Service in question in aggregate and Landmark shall not be liable to any other person.

d. All parties given access to the Services agree that they will treat as strictly private and confidential the Services and all information which they obtain from the Services and shall restrict any disclosure to employees or professional advisors to enable the relevant party to conduct its internal business. The requirement in this clause to treat the Services as confidential shall include a requirement to maintain adequate security measures to safeguard the Services from unauthorised access, use or copying.

e. Each recipient of the Services agrees (and agrees it will ensure its employees, agents or contractors who may from time to time have access to the Services to agree) it will not, except as permitted herein or by separate agreement with Landmark:-
   i. effect or attempt to effect any modification, merger or change to the Service, nor permit any other person to do so; or
   ii. copy, use, market, re-sell, distribute, merge, alter, add to or carry on any redistribution, reproduction, translation, publication, reduction to any electronic medium or machine readable form or commercially exploit or in any other way deal with or utilise or (except as expressly permitted by applicable law) reverse engineer, decompile or disassemble the Services, Content or Websites; or
   iii. remove, alter or in any way change any trademark or proprietary marking in any element of the Services and You shall acknowledge the ownership of the Content, where such Content is incorporated or used into Your own documents, reports, systems or services whether or not these are supplied to any third party
   iv. create any product which is derived directly or indirectly from the data contained in the Services

f. The mapping contained in any Services is protected by Crown Copyright and must not be used for any purpose outside the context of the Services or as specifically provided by these Terms.

g. You are permitted to make five copies of any Report, but are not authorised to re-sell the Report, any part thereof or any copy thereof unless you are an Authorised Reseller. Further copies may not be made in whole or in part without the prior written permission of Landmark who shall be entitled to make a charge for each additional copy.

4. **Charges**

a. VAT at the prevailing rate shall be payable in addition to the Landmark Fees. You shall pay any other applicable indirect taxes related to Your use of the Services.

b. An individual or a monthly invoice showing all Orders created by You will be generated subject to these Terms. You will pay the Landmark Fees at the rates set out in Landmark's or its Authorised Reseller's invoice. The Landmark Fees are payable in full within 30 days without deduction, counterclaim or set off. You acknowledge that time is of the essence with respect to the payment of such invoices. Landmark reserve the right to amend the Landmark Fees from time to time and the Services will be charged at the Landmark Fee applicable at the date on which the Service is ordered.

c. We may charge interest on late payment at a rate equal to 3% per annum above the base lending rate of National Westminster Bank plc.

d. Landmark or its Authorised Reseller shall not be obliged to invoice any party other than You for the provision of Services, but where Landmark or its Authorised Reseller does so invoice any third party at Your request, and such invoice is not accepted or remains unpaid, Landmark or its Authorised Reseller shall have the option at any time to cancel such invoice and invoice You direct for such Services. Where Your order comprises a number of Services or severable elements within any one or more Services, any failure by Landmark or its Authorised Reseller to provide an element or elements of the Services shall not prejudice Landmark's or its Authorised Reseller's ability to require payment in respect of the Services delivered to You.

5. **Termination**

a. Landmark may suspend or terminate Your rights under these Terms without any liability to You with immediate effect if at any time:-
   i. You fail to make any payment due in accordance with clause 4;
   ii. You repeatedly breach or commit or cause to be committed any material breach of these Terms; or
   iii. You commit a breach and You fail to remedy the breach within 7 days of receipt of a written notice to do so; additionally, without prejudice to the foregoing, Landmark may remedy the breach and recover the costs thereof from You.

b. If Your rights are terminated under this clause and You have made an advance payment We will refund You a reasonable proportion of the balance as determined by Us in relation to the value of Services previously purchased.

c. Landmark reserves the right to refuse to supply any or all Services to You without notice or reason.

6. **Liability**

a. We provide warranties and accept liability only to the extent stated in this clause 6 and clause 7.

b. Nothing in these Terms excludes either party's liability for death or personal injury caused by that party's negligence or willful default, and the remainder of this clause 6 is subject to this provision and Your statutory rights.

c. As most of the information contained in the Services is provided to Landmark by others, Landmark cannot control its accuracy or completeness, nor is it within the scope of Landmark's Services to check the information on the ground. Accordingly, Landmark will only be liable to You for any loss or damage caused by its negligence or willful default and subject to clause 6.e below neither Landmark nor any person providing information contained in any Services shall in any circumstances be liable for any inaccuracies, faults or omissions in the Services, nor shall Landmark have any liability if the Services are used otherwise than in accordance with these Terms.

d. Save as precluded by law, Landmark shall not be liable for any indirect or consequential loss, damage or expenses (including loss of profits, loss of contracts, business or goodwill) howsoever arising out of any problem, event, action or default by Landmark.

e. In any event and notwithstanding anything contained in these Terms, Landmark's liability in contract, tort (including negligence or breach of statutory duty) or otherwise howsoever arising by reason or in connection with this Contract (except in relation to death or personal injury) shall be limited to an aggregate amount not exceeding £1 million if the complaint is in relation to a Report on residential property and an aggregate amount not exceeding £10 million in respect of any other Report or Service purchased from Landmark.

f. Landmark will not be liable for any defect, failure or omission relating to Services that is not notified to Landmark within six months of the date of the issue becoming apparent and in any event within twelve years of the date of the Service.

g. You acknowledge that:-
   i. Subject to clause 6.e below You shall have no claim or recourse against any Third Party Content supplier nor any of our other Suppliers. You will not in any way hold us responsible for any selection or retention of, or the acts of omissions of Third Party Content suppliers or other Suppliers (including those with whom We have contracted to operate various aspects or parts of the Service) in connection with the Services (for the avoidance of doubt Landmark is not a Third Party Content supplier). Landmark does not promise that the supply of the Services will be uninterrupted or error free or provide any particular facilities or functions, or that the Content will always be complete, accurate, precise, free from defects of any other kind, computer viruses, software locks or other similar code although Landmark will use reasonable efforts to correct any inaccuracies within a reasonable period of them becoming known to us;
   ii. Landmark's only obligation is to exercise reasonable skill and care in providing environmental property risk information to persons acting in a professional or commercial capacity who are skilled in the use of property and environmental information, and You hereby acknowledge that You are such a person;
   iii. no physical inspection of the Property Site reported on is carried out as part of any Services offered by Landmark and Landmark do not warrant that all land uses or features whether past or current will be identified in the Services. The Services do not include any information relating to the actual state or condition of any Property Site nor should they be used or taken to indicate or exclude actual fitness or unfitness of a Property Site for any particular purpose nor should it be relied upon for determining saleability or value or used as a substitute for any physical investigation or inspection. Landmark recommends that You inspect and take other advice in relation to the Property Site and not rely exclusively on the Services.
   iv. Subject to clause 6.e below, Landmark shall not be responsible for error or corruption in the Services resulting from inaccuracy or omission in primary or secondary information and data, inaccurate processing of information and data by third parties computer malfunction or corruption of data whilst in the course of conversion, geo-coding, processing by computer or electronic means, or in the course of transmission by telephone or other communication link, or printing
   v. Landmark will not be held liable in any way if a Report on residential property is used for commercial property or more than the one residential property for which it was ordered
   vi. the Services have not been prepared to meet Your or anyone else's individual requirements; that You assume the entire risk as to the suitability of the Services and waive any claim of detrimental reliance upon the same; and You confirm You are solely responsible for the selection or omission of any specific part of the Content;
   vii. Landmark offer no warranty for the performance of any linked internet service not operated by Landmark.
   viii. You will on using the Services make a reasonable inspection of any results to satisfy Yourself that there are no defects or failures. In the event that there is a material defect You will notify us in writing of such defect within seven days of its discovery:
   ix. Any support or assistance provided to You in connection with these Terms is at Your risk;

h. All liability for any insurance products purchased by You rests solely with the insurer. Landmark does not endorse any particular product or insurer and no information contained within the Services should be deemed to imply otherwise. You acknowledge that if You Order any such insurance Landmark will deem such as Your consent to forward a copy of the Report to the insurers. Where such policy is purchased all liability remains with the insurers and You are entirely responsible for ensuring that the insurance policy offered is suitable for Your needs and should seek independent advice. Landmark does not guarantee that an insurance policy will be available on a Property Site. All decisions with regard to the offer of insurance policies for any premises will be made solely at the discretion of the insurers and Landmark accepts no liability in this regard. The provision of a Report does not constitute any indication by Landmark that insurance will be available on the property.

i. Professional opinions contained in Reports are provided to Landmark by third parties, and such third parties are solely liable for the opinion provided. For the avoidance of doubt, those parties providing assessments or professional opinions on Landmark products include RPS Plc & Wilbourn Associates Limited and any issues with regard to the provision of such opinion should be taken up with the relevant third party.

   If Landmark provides You with any additional service obtained from a third party, including but not limited to any interpretation or conclusion, risk assessment or environmental report or search carried out in relation to a Report on Your Property Site subject to clause 6.e below Landmark will not be liable in any way for any information contained therein or any issues arising out of the provision of those additional services to You. Landmark will be deemed to have acted as an agent in these circumstances and the supply of these additional services will be governed by the terms and conditions of those Third Parties.

j. In any event no person may rely on a Service more than 12 months after its original date.

k. If You wish to vary any limitation of liability as set out in these Terms, You must request such variation prior to ordering the Service. Landmark shall use its reasonable endeavours to agree such variation but shall not be obliged to do so.

l. Time shall not be of the essence with respect to the provision of the Services.

m. Ordnance Survey have undertaken a positional accuracy improvement programme which may result in discrepancies between the positioning of features used in datasets in the Services and the updated Ordnance Survey mapping. Subject to clause 6.e below, Landmark and its Suppliers exclude all and any liability incurred as a result of the implementation of such positional accuracy improvement programme.

n. Where Landmark provides its own risk assessment in connection with any Report, Landmark shall carry out such assessment with all reasonable skill and care but shall have no liability for any such risk assessment conclusion which is provided for information only, save where Landmark conducted the same negligently, in which case the provisions of clause 6 shall apply. Notwithstanding the provision of any such risk assessment conclusion you should carefully examine the remainder of the Report and should not take or refrain from taking any action based solely on the basis of the risk assessment. For the avoidance of doubt, the provisions of this clause 6n apply solely to risk assessments conducted by Landmark, and the provision of any other risk assessment by a third party shall be governed by such third party's terms in accordance with the provisions of clause 6i above.

o. Landmark obtains much of the information contained in its Report from third parties. Landmark will not accept any liability to You for any negligent or incorrect entry, or error or corruption in the Third Party Content supplied to Landmark, but Landmark's Suppliers may be liable for such negligent or incorrect entries, or errors or corruptions, subject to the terms and conditions on which they supply the Third Party Content to Landmark.

7. **Contribution**

a. Save where expressly provided this clause 7 shall apply solely to Envirosearch Residential Reports (regardless of the result of such Report). Nothing in this clause 7 shall operate to override or vary the provisions of clause 6.

b. Landmark are prepared to offer, at their sole discretion and without any admission or inference of liability a contribution towards the costs of any remediation works required under a Notice (as defined below) on the terms of this clause 7 ("the Contribution").

c. In the event that a Remediation Notice is served on the First Purchaser or First Purchaser's Lender of a Property Site under Part II(A) of the Environmental Protection Act 1990 ("the Notice") Landmark will contribute to the cost of such works as either the First Purchaser or First Purchaser's Lender (but not both) are required to carry out under the Notice subject to the provisions of this clause 7 and on the following terms:
   i. the Contribution shall only apply to contamination or a pollution incident arising or having occurred prior to the date of the Report;
   ii. the Contribution shall only apply where the Property Site is a single residential dwelling house or a single residential flat within a block of flats. For the avoidance of doubt, this obligation does not apply to any commercial property, nor to any Property Site being developed or redeveloped whether for residential purposes or otherwise;
   iii. the Contribution is strictly limited to the cost of works at the Property Site and at no other site;
   iv. the Contribution will not be paid in respect of any of the following:

   Radioactive contamination of whatsoever nature directly or indirectly caused by or contributed to or arising from ionising radiations or contamination by radioactivity from any nuclear fuel or from any nuclear waste from the combustion of nuclear fuel or the radioactive toxic explosive or other hazardous properties of any explosive nuclear assembly or nuclear component thereof.

   Asbestos arising out of or related in any way to asbestos or asbestos-containing materials on or in structures or services serving the structures.

   Naturally occurring materials arising from the presence or required removal of naturally occurring materials except in circumstances where such materials are present in concentrations which are in excess of normal natural concentration.

   Intentional non-compliance arising from the intentional disregard of or knowing wilful or deliberate non-compliance by any owner or occupier of the Property Site with any statute, regulation, administrative complaint, notice of violation or notice letter of any Regulatory Authority.

   Any condition which is known or ought reasonably to have been known to the First Purchaser or the First Purchaser's Lender prior to the purchase of the Report.

   Any condition which is caused by acts of War or an Act of Terrorism.

   Any property belonging to or in the custody or control of the First Purchaser which does not form a fixed part of the Property Site or the structure.

   Any fines liquidated damages punitive or exemplary damages.

   Any bodily injury including without limitation, death, illness or disease, mental injury, anguish or nervous shock.

   Any financial loss in respect of any loss of any rental, profit, revenue, savings or business or any non-economical indirect or economic loss damage or expense including the cost of rent of temporary premises or business interruption.

   Any losses incurred following a material change in use of, alteration or development of the Property Site.

d. The maximum sum that shall be contributed by Landmark in respect of any Contribution shall be limited to £60,000. In the event that more than one Report is purchased on the Property Site the Contribution will only be payable under the first Report purchased by or on behalf of any First Purchaser or First Purchaser's Lender and no Contribution will be made in respect of subsequent Reports purchased by or on behalf of such First Purchaser, First Purchaser's Lender or any person connected to them.

e. Landmark shall only pay a Contribution where the Notice is served within 36 months of the date of the Report.

f. Any rights to a Contribution under this Clause 7 are not assignable in the event of a sale of the Property Site and Landmark will not make any Contribution after the date of completion of such sale.

g. In the event the First Purchaser or First Purchaser's Lender wishes to claim any Contribution, it shall notify Landmark in writing within 3 months of the date of the Notice. The First Purchaser or First Purchaser's Lender (as applicable) shall comply with all reasonable requirements of Landmark with regard to the commission and conduct of the remediation works to be carried out under the Notice and in the event the First Purchaser or First Purchaser's Lender (as applicable) does not do so, including without limitation, obtaining Landmark's prior written consent to any estimates for such works or complying with any other reasonable request by Landmark, Landmark shall not be required to pay any Contribution. Notwithstanding the payment of the Contribution by Landmark the First Purchaser or First Purchaser's Lender as applicable shall take all reasonable steps to mitigate any costs incurred in connection with the conduct of works required under the terms of any Notice.

h. In the event that the First Purchaser or First Purchaser's Lender receives any communication from a statutory authority to the effect that there is an intent to serve a notice received under Part II(A) of the Environmental Protection Act 1990 they will advise Landmark within a maximum period of two months from receipt of such communication. This clause 7h and the service of any notice under it shall not affect the provisions of clauses 7e and g, and any such communications, even if advised to Landmark will not operate as notice under clause 7g.

i. Landmark reserve the right at any time prior to [illegible] Contribution being made in accordance with clause [illegible] above, to withdraw the offer of payment of Contribution without further notice.

8. **Events Beyond Our Control**

a. You acknowledge that Landmark shall not be liable for any delay, interruption or failure in the provision of the Services which are caused or contributed to by any circumstance which is outside our reasonable control including but not limited to: lack of power, telecommunications failure or overload, computer malfunction, inaccurate processing of data, or delays in receiving, loading or checking data, corruption of data whilst in the course of conversion, geo-coding, processing by computer in the course of electronic communication, or printing.

9. **Severability**

a. If any provision of these Terms are found by either a court or other competent authority to be void, invalid, illegal or unenforceable, that provision shall be deemed to be deleted from these Terms and never to have formed part of these Terms and the remaining provisions shall continue in full force and effect.

10. **Governing Law**

a. These terms shall be governed by and construed in accordance with English law and each party agrees irrevocably submit to the exclusive jurisdiction of the English courts. If any dispute arises out of or in connection with this agreement (a "Dispute") the parties undertake that, prior to the commencement of Court proceedings they will seek to have the Dispute resolved amicably by use of an alternative dispute resolution procedure acceptable to both parties with the assistance of the Centre for Dispute Resolution (CEDR) if required by written notice initiating that procedure. If the Dispute has not been resolved to the satisfaction of either party within 60 days of initiation of the procedure or if either party fails or refuses to participate in or withdraws from participating in the procedure then either party may refer the Dispute to the Court.

11. **General; Complaints**

a. Landmark may assign its rights and obligations under these Terms without prior notice or any limitation.

b. Landmark may authorise or allow our contractors and other third parties to provide to Landmark and/or to You services necessary or related to the Services and to perform Landmark's obligations and exercise Landmark's rights under these Terms, which may include collecting payment on Landmark's behalf.

c. No waiver or Landmark's prior to exercise, and no delay in exercising, any right, power or provision hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any right, power or provision hereunder preclude the exercise of that or any other right, power or provision.

d. Unless otherwise stated in these Terms, all notices from You to Landmark must be in writing and sent to the Landmark registered office (or in the case of an Authorised Reseller, to its registered office address) and subject to paragraph g below all notices from Landmark to You will be displayed on our Websites from time to time.

e. Any complaints in relation to the Services should, in the first instance, be in writing addressed to the Customer Service Support Manager at the Landmark registered office. Landmark or its agents will respond to any such complaints in writing as soon as practicably possible.

f. A person who is not a party to any contract made pursuant to these Terms shall have no right under the Contract (Rights of Third Parties) Act 1999 to enforce any terms of such contract and Landmark shall not be liable to any such third party in respect of any Services supplied.

g. Landmark's Privacy Policy as displayed on the Website governs the use made of any information You supply to Landmark.

Historical Mapping Legends

Ordnance Survey County Series and Ordnance Survey Plan 1:10,560

Gravel Pit
Sand Pit
Other Pits
Quarry
Shingle
Orchard
Osiers
Reeds
Marsh
Mixed Wood
Deciduous
Brushwood
Fir
Furze
Rough Pasture
Arrow denotes flow of water
Trigonometrical Station
Site of Antiquities
Bench Mark
Pump, Guide Post, Signal Post
Well, Spring, Boundary Post
285 Surface Level
Sketched Contour
Instrumental Contour
Main Roads
Fenced
Unfenced
Minor Roads
Fenced
Unfenced
Sunken Road
Raised Road
Road over Railway
Railway over River
Railway over Road
Level Crossing
Road over River or Canal
Road over Stream
Road over Stream
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
Co. Boro. Bdy — County Borough Boundary (England)
Co. Burgh Bdy — County Burgh Boundary (Scotland)
R.D. Bdy — Rural District Boundary
Civil Parish Boundary

Ordnance Survey Plan 1:10,000

Chalk Pit, Clay Pit or Quarry
Gravel Pit
Sand Pit
Disused Pit or Quarry
Refuse or Slag Heap
Lake, Loch or Pond
Dunes
Boulders
Coniferous Trees
Non-Coniferous Trees
Orchard
Scrub
Coppice
Bracken
Heath
Rough Grassland
Marsh
Reeds
Saltings
Building
Direction of Flow of Water
Shingle
Sand
Glasshouse
Pylon
Electricity Transmission Line
Pole
Sloping Masonry
Cutting
Embankment
Standard Gauge Multiple Track
Standard Gauge Single Track
Road Under
Road Over
Level Crossing
Foot Bridge
Siding, Tramway or Mineral Line
Narrow Gauge
Geographical County
Administrative County, County Borough or County of City
Municipal Borough, Urban or Rural District, Burgh or District Council
Borough, Burgh or County Constituency
Shown only when not coincident with other boundaries
Civil Parish
Shown alternately when coincidence of boundaries occurs

BP, BS	Boundary Post or Stone	Pol Sta	Police Station
Ch	Church	PO	Post Office
CH	Club House	PC	Public Convenience
F E Sta	Fire Engine Station	PH	Public House
FB	Foot Bridge	SB	Signal Box
Fn	Fountain	Spr	Spring
GP	Guide Post	TCB	Telephone Call Box
MP	Mile Post	TCP	Telephone Call Post
MS	Mile Stone	W	Well

1:10,000 Raster Mapping

Gravel Pit
Refuse tip or slag heap
Rock
Rock (scattered)
Boulders
Boulders (scattered)
Shingle
Mud
Sand
Sand Pit
Slopes
Top of cliff
General detail
Underground detail
Overhead detail
Narrow gauge railway
Multi-track railway
Single track railway
County boundary (England only)
Civil, parish or community boundary
District, Unitary, Metropolitan, London Borough boundary
Constituency boundary
Area of wooded vegetation
Non coniferous trees
Non coniferous trees (scattered)
Coniferous trees
Coniferous trees (scattered)
Positioned tree
Orchard
Coppice or Osiers
Rough Grassland
Heath
Scrub
Marsh, Salt Marsh or Reeds
Water feature
Flow arrows
MHW(S) Mean high water (springs)
MLW(S) Mean low water (springs)
Telephone line (where shown)
Electricity transmission line (with poles)
Bench mark (where shown)
Triangulation station
Point feature (e.g. Guide Post or Mile Stone)
Pylon, flare stack or lighting tower
Site of (antiquity)
Glasshouse
General Building
Important Building

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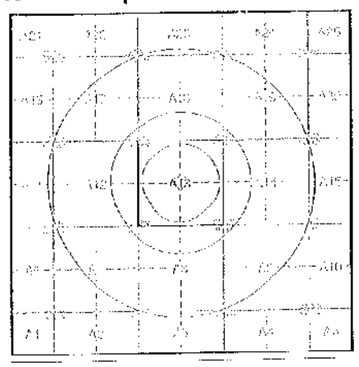
Ordnance Survey mapping included:

Mapping Type	Scale	Date	Pg
Haddingtonshire	1:10,560	1854 - 1855	2
Haddingtonshire	1:10,560	1908	3
Ordnance Survey Plan	1:10,560	1957	4
Ordnance Survey Plan	1:10,560	1970	5
Ordnance Survey Plan	1:10,000	1970 - 1982	6
10K Raster Mapping	1:10,000	1999	7
10K Raster Mapping	1:10,000	2007	8

Historical Map - Slice A



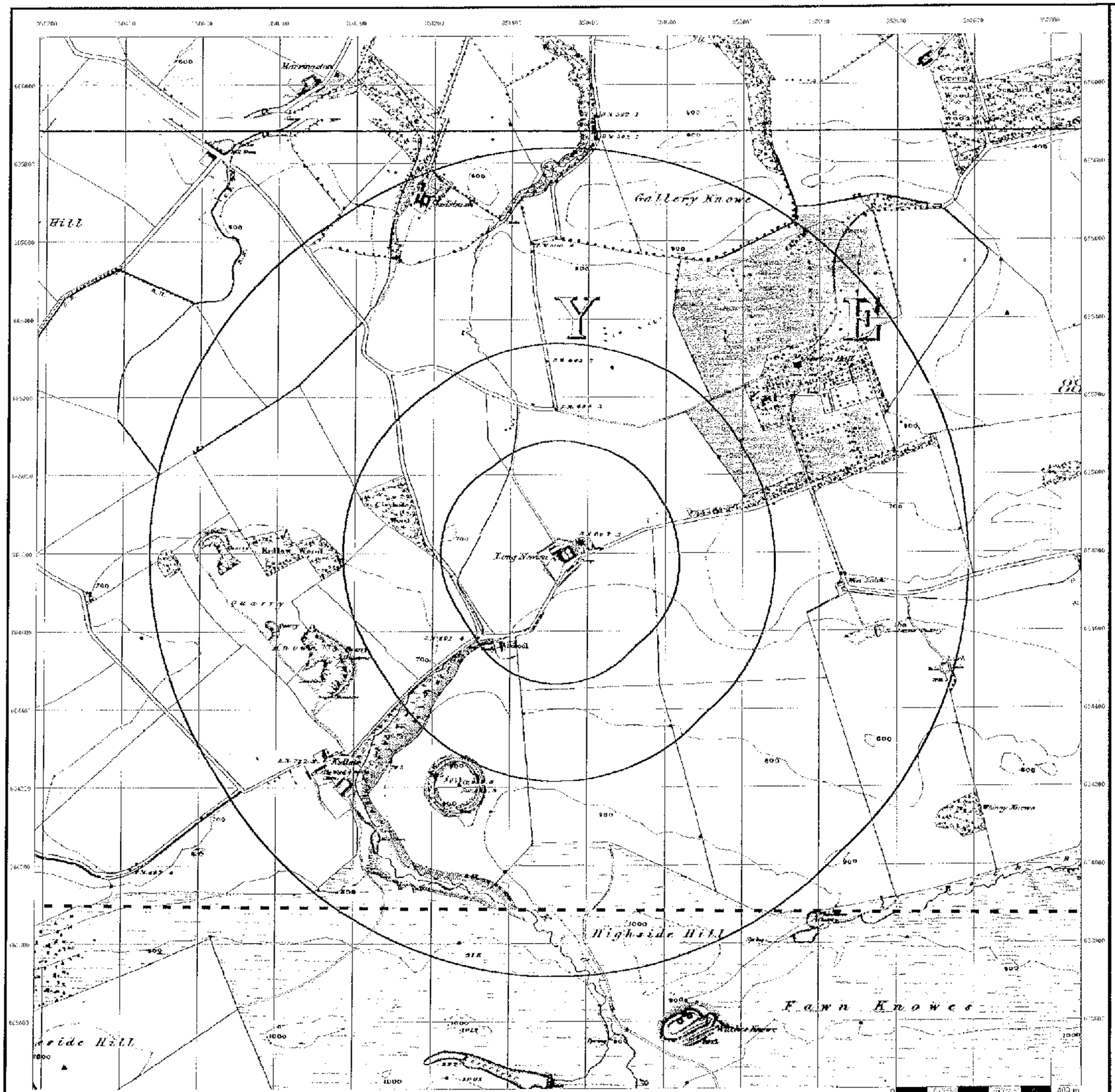
Order Details

Order Number: 23871877_1_1
Customer Ref: F8538
National Grid Reference: 351530, 664780
Slice: A
Site Area (Ha): 0.81
Search Buffer (m): 1000

Site Details

Longnewton Farmhouse, Haddington, EH41 4JW

LANDMARK Information Group
Tel: 0870 850 6670
Fax: 0870 850 6671
Web: www.envirocheck.co.uk



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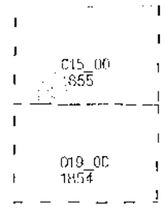
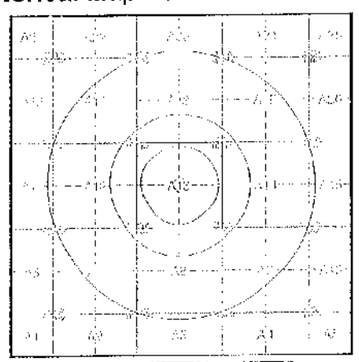
Haddingtonshire
Published 1854 - 1855
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1988, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished, with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



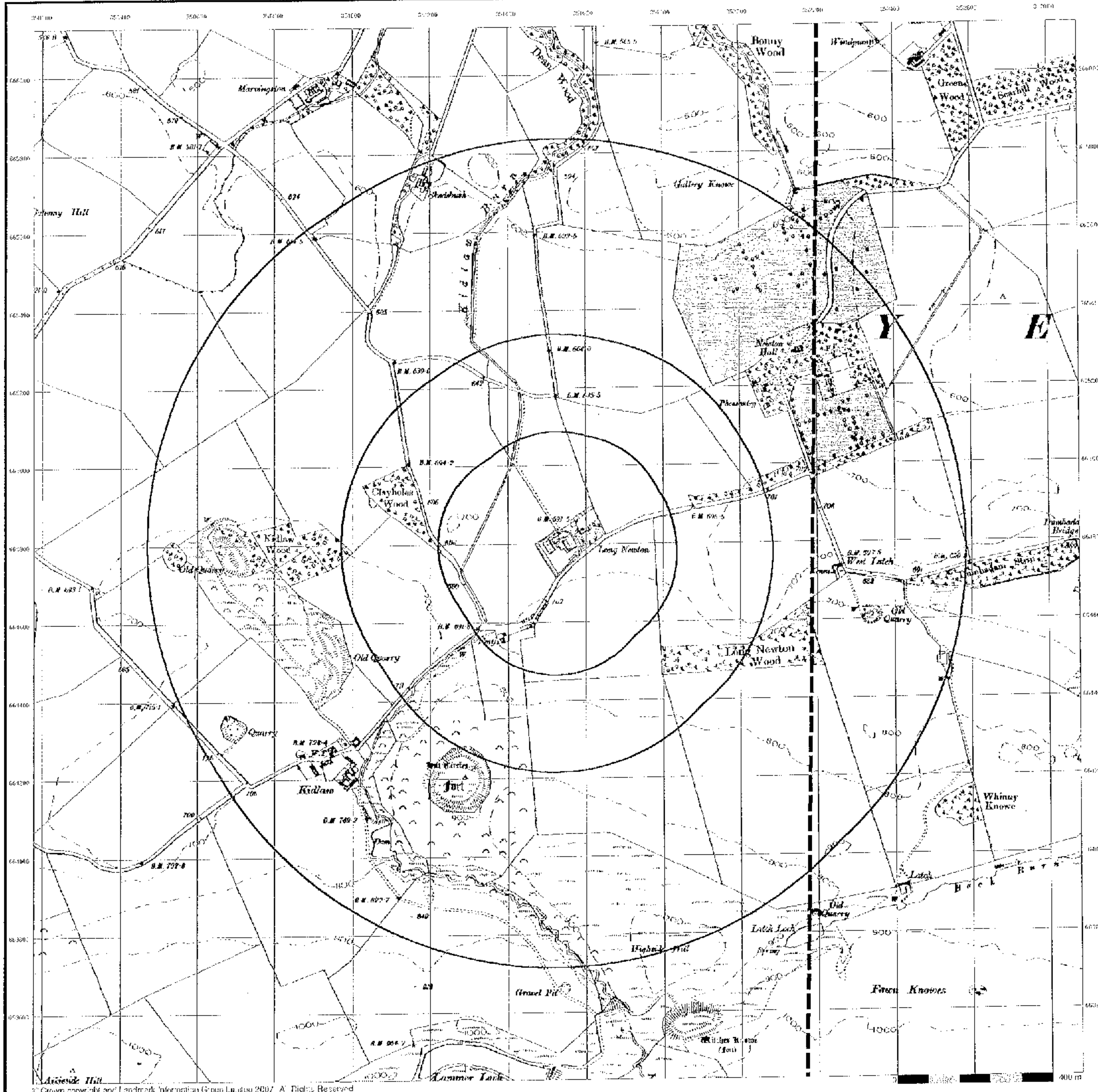
Order Details

Order Number:	23871877_1_1
Customer Ref:	E8538
National Grid Reference:	351530, 664780
Slice:	A
Site Area (Ha):	0.81
Search Buffer (m):	1000

Site Details

Longnewton Farmhouse, Haddington, EH41 4JW

LANDMARK Information Group
Tel: 0870 850 6570
Fax: 0870 850 6571
Web: www.envirocheck.co.uk



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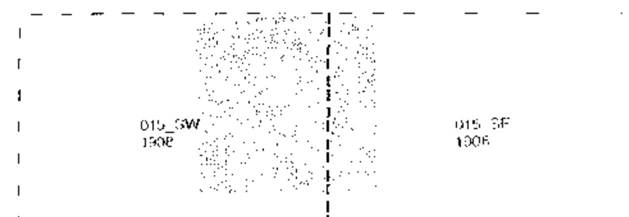
Haddingtonshire

Published 1908

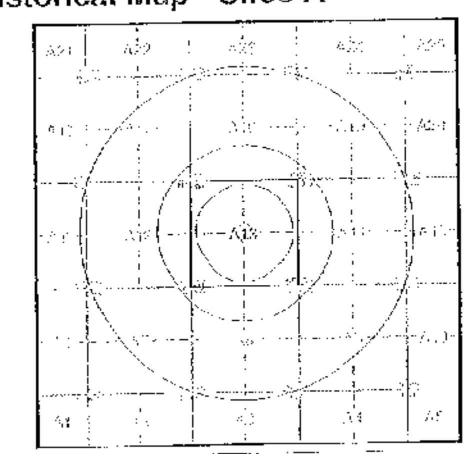
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1840's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

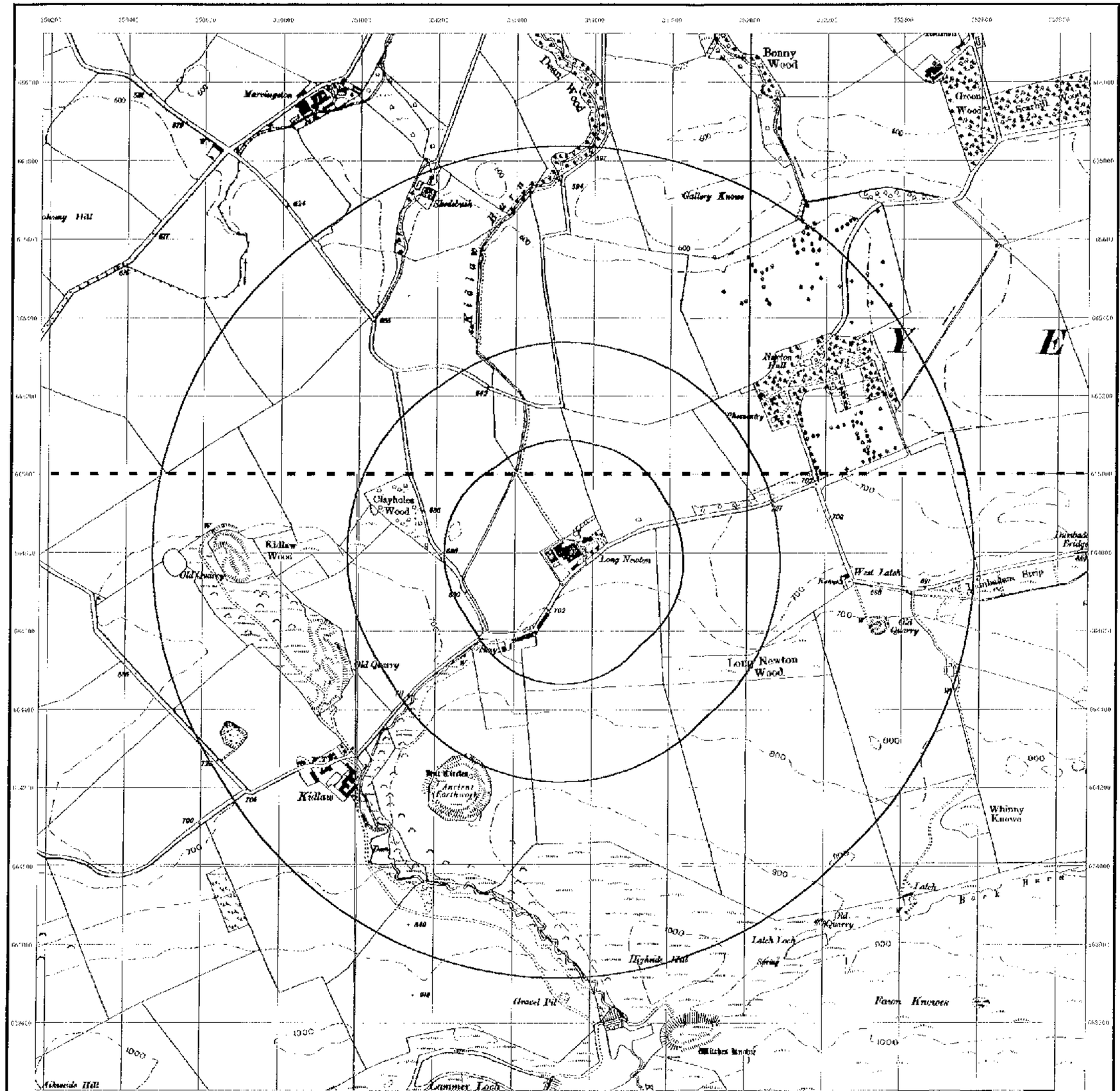
Order Number:	23871877_1_1
Customer Ref:	E8538
National Grid Reference:	351530, 664780
Slice:	A
Site Area (Ha):	0.81
Search Buffer (m):	1000

Site Details

Longnewton Farmhouse, Haddington, EH41 4JW

LANDMARK Information Group

Tel: 0870 850 6670
Fax: 0870 850 6671
Web: www.envirocheck.co.uk



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Ordnance Survey Plan
Published 1957
Source map scale - 1:10,560

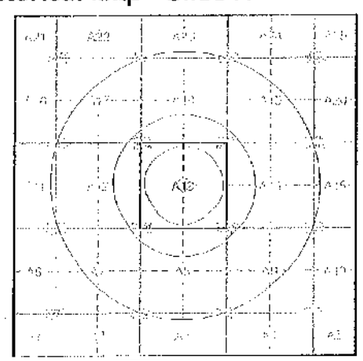
The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The publishing date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

NT56NW
1957

NT55SW
1957

Historical Map - Slice A



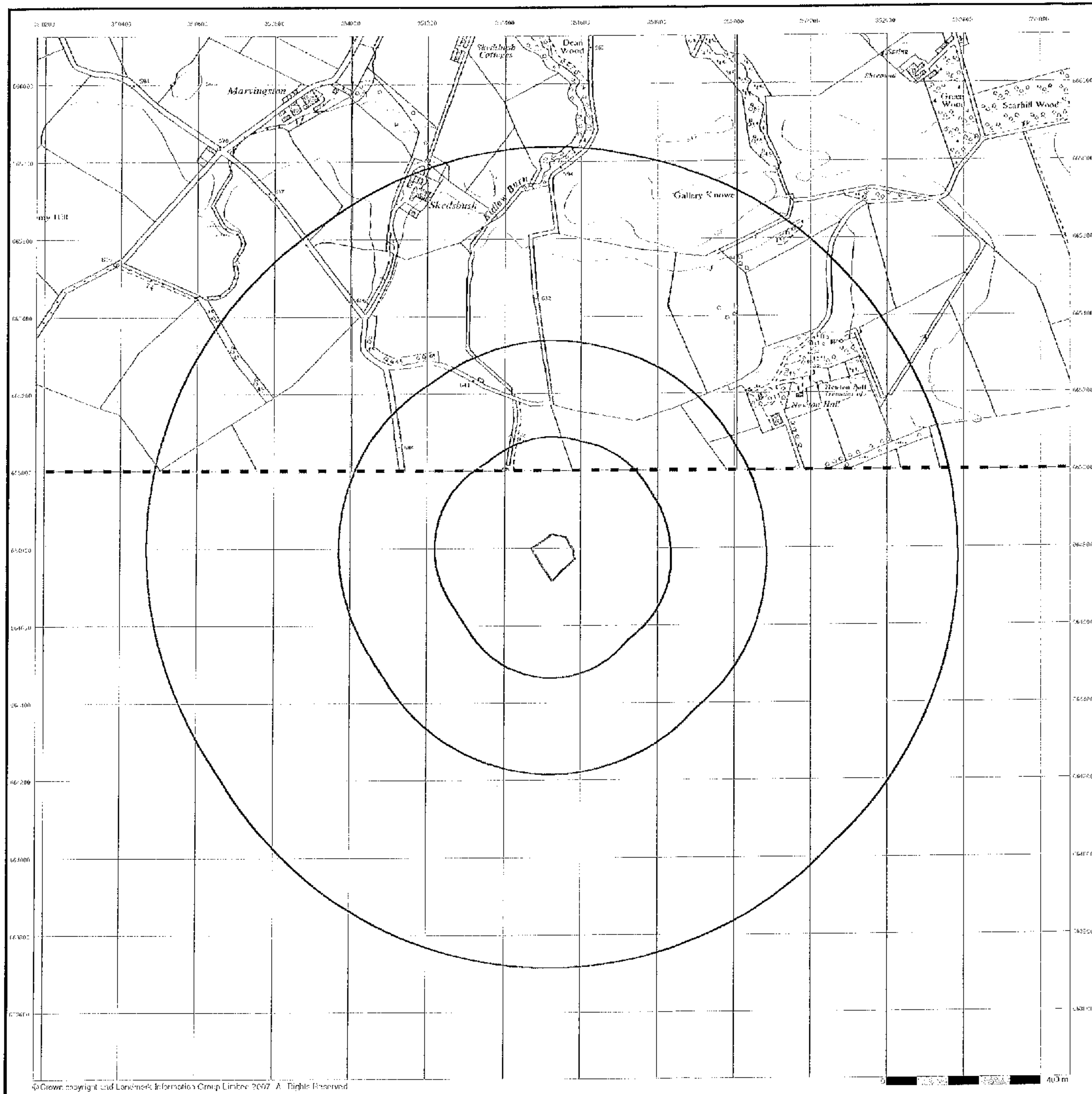
Order Details

Order Number:	2367187_1_1
Customer Ref:	18538
National Grid Reference:	351530, 664780
Slice:	A
Site Area (Ha):	0.81
Search Buffer (m):	1000

Site Details

Longnewton Farmhouse, Haddington, EH41 4JW

LANDMARK Information Group
Tel: 0870 850 6570
Fax: 0870 850 6571
Web: www.envirocheck.co.uk



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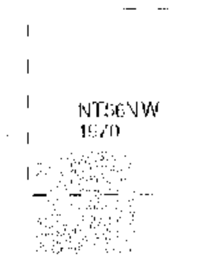
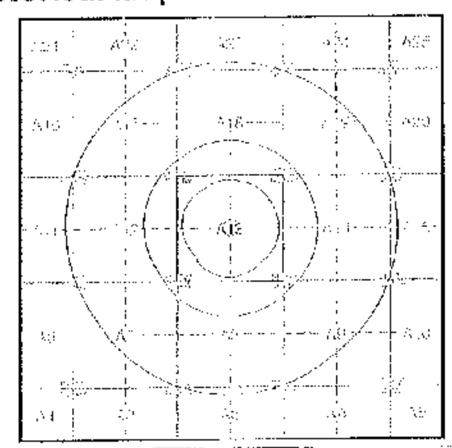
Ordnance Survey Plan
Published 1970
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



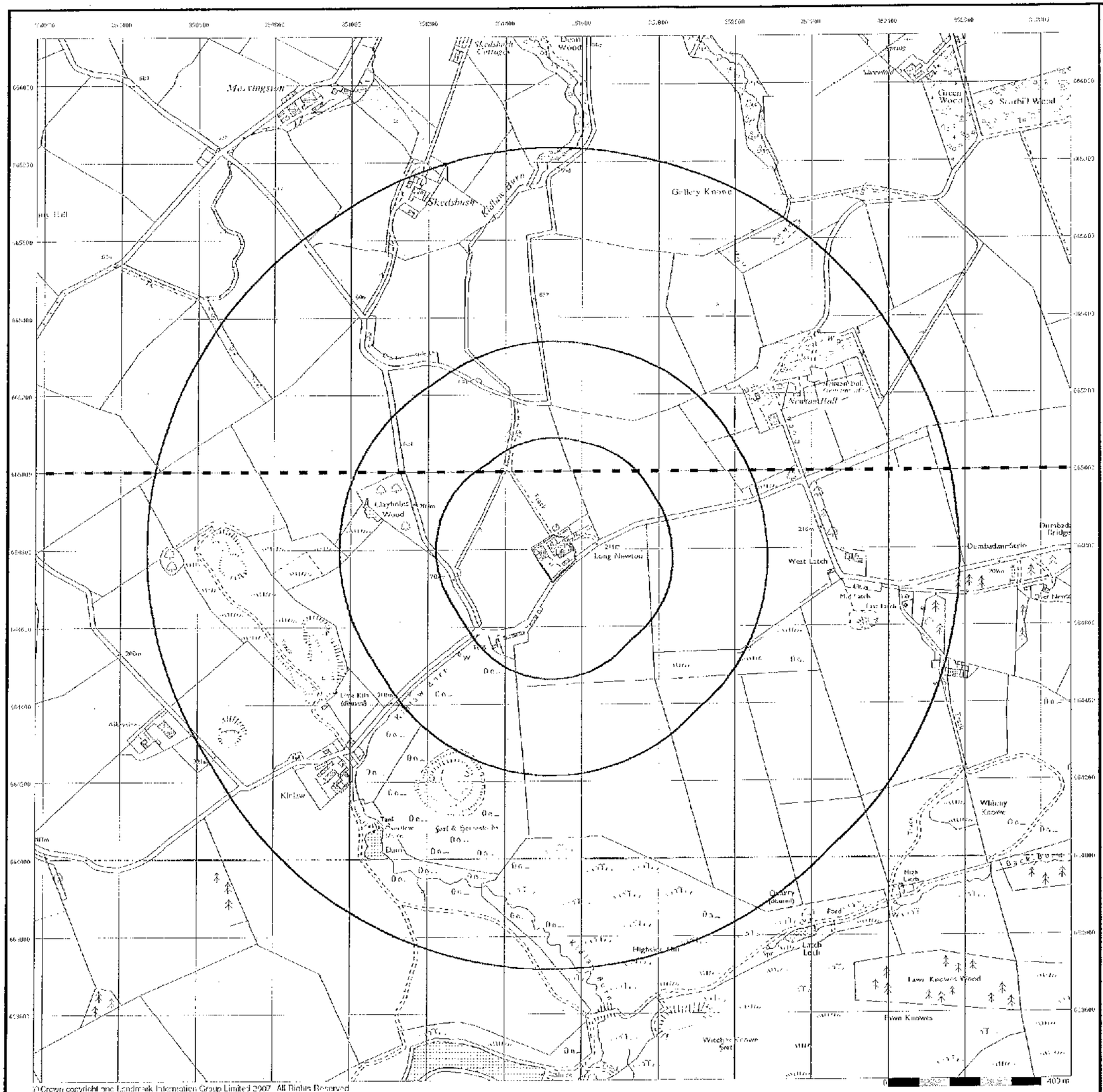
Order Details

Order Number: 23871877_1_1
Customer Ref: L8538
National Grid Reference: 351530, 664780
Slice: A
Site Area (Ha): 0.81
Search Buffer (m): 1000

Site Details

Longnewton Farmhouse, Haddington, EH41 4JW

LANDMARK Information Group
Tel: 0870 850 6670
Fax: 0870 850 6671
Web: www.envirocheck.co.uk



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Ordnance Survey Plan
Published 1970 - 1982
Source map scale - 1:10,000

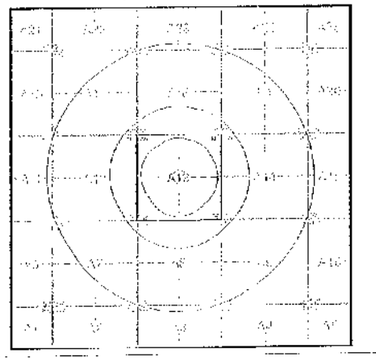
The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas, these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1939, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unclassified - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

NT56NW 1970

NT56SW 1932

Historical Map - Slice A

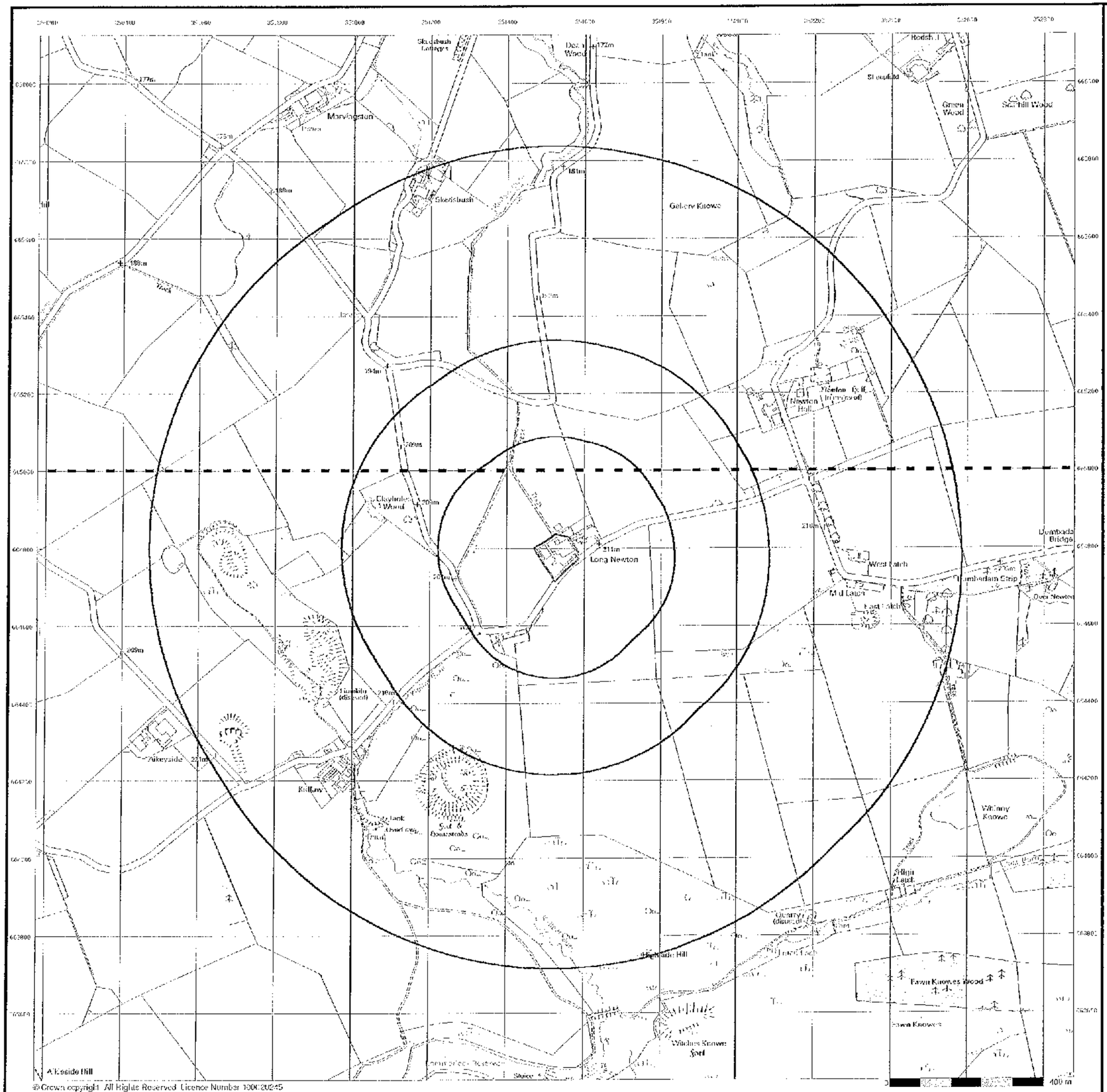


Order Details

Order Number:	23871877_1_1
Customer Ref:	18538
National Grid Reference:	351530, 664780
Slice:	A
Site Area (Ha):	0.81
Search Buffer (m):	1000

Site Details

Longnewton Farmhouse, Haddington, EH41 4JW



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10K Raster Mapping
Published 1999
Source map scale - 1:10,000

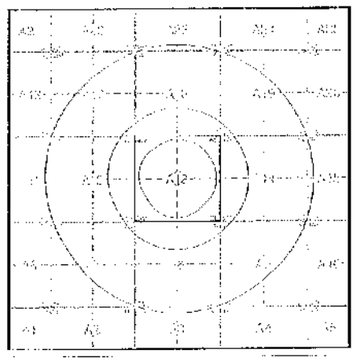
The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)

NT56NW 1999

NT56SW 1999

Historical Map - Slice A



Order Details

Order Number:	23871877_1_1
Customer Ref:	E8538
National Grid Reference:	351530, 664780
Slice:	A
Site Area (Ha):	0.81
Search Buffer (m):	1000

Site Details

Longnewton Farmhouse, Haddington, EH41 4JW

LANDMARK Information Group
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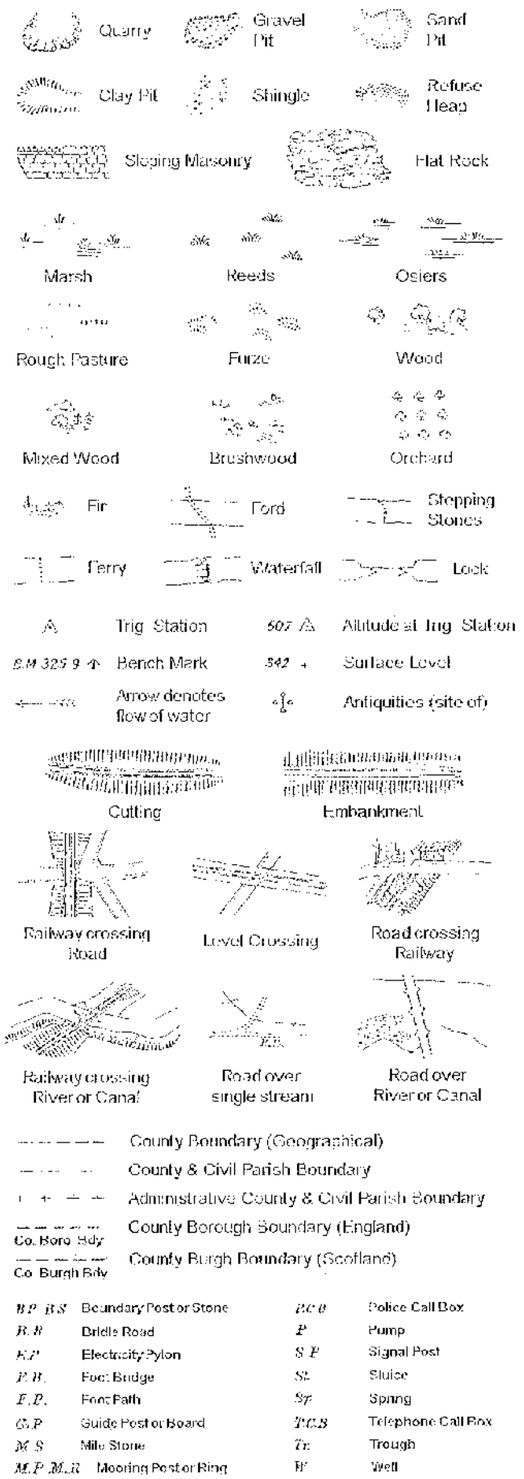
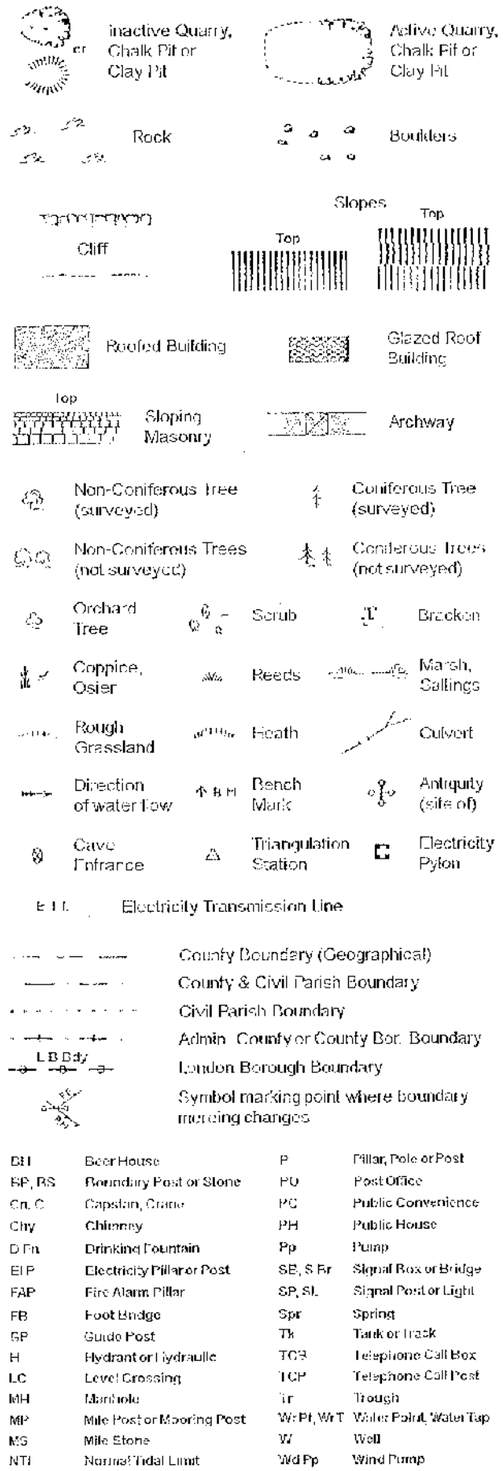
Fax: 0870 850 3671
Web: www.envirocheck.co.uk

Historical Mapping Legends

Ordnance Survey County Series and Ordnance Survey Plan 1:2,500

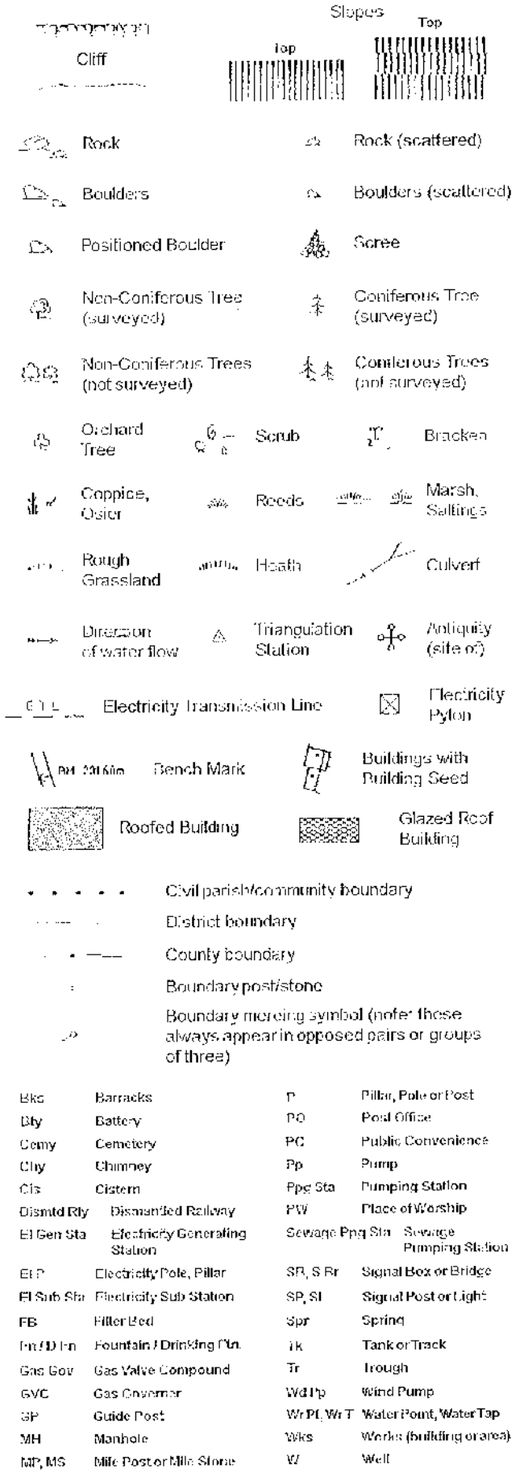


Ordnance Survey Plan, Additional SIMs and Supply of Unpublished Survey Information 1:2,500 and 1:1,250



BH	Beer House	P	Pillar, Pole or Post
BP, BS	Boundary Post or Stone	PO	Post Office
Cn. C	Capstan, Crane	PC	Public Convenience
Chy	Chimney	PH	Public House
D Fn	Drinking Fountain	Pp	Pump
El P	Electricity Pillar or Post	SB, S Br	Signal Box or Bridge
FAP	Fire Alarm Pillar	SP, SL	Signal Post or Light
FB	Foot Bridge	Spr	Spring
GP	Guide Post	Tk	Tank or Track
H	Hydrant or Hydraulic	TCB	Telephone Call Box
LC	Level Crossing	TCP	Telephone Call Post
MH	Manhole	Tr	Trough
MP	Mile Post or Mooring Post	Wr Pt, Wr T	Water Point, Water Tap
MS	Mile Stone	W	Well
NTL	Normal Tidal Limit	Wd Pp	Wind Pump

Large-Scale National Grid Data 1:2,500 and 1:1,250



Bks	Barracks	P	Pillar, Pole or Post
Bty	Battery	PO	Post Office
Cemy	Cemetery	PC	Public Convenience
Chy	Chimney	Pp	Pump
Cis	Cistern	Pps Sta	Pumping Station
Dismtd Rly	Dismantled Railway	PW	Place of Worship
El Gen Sta	Electricity Generating Station	Sewage Ppg Sta	Sewage Pumping Station
El P	Electricity Pole, Pillar	SB, S Br	Signal Box or Bridge
El Sub Sta	Electricity Sub Station	SP, SI	Signal Post or Light
FB	Filter Bed	Spr	Spring
Fnt/D Fn	Fountain / Drinking Ftn.	Tk	Tank or Track
Gas Gov	Gas Valve Compound	Tr	Trough
GVC	Gas Governor	Wd Pp	Wind Pump
GP	Guide Post	Wr Pt, Wr T	Water Point, Water Tap
MH	Manhole	Wks	Works (building or area)
MP, MS	Mile Post or Mile Stone	W	Well

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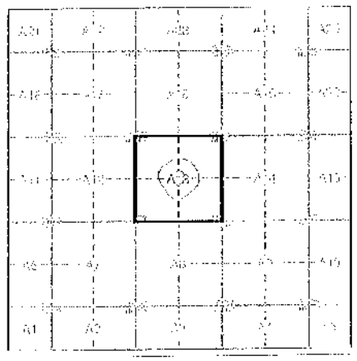
Ordnance Survey mapping included:

Mapping Type	Scale	Date	Pg
Haddingtonshire	1:2,500	1894	2
Haddingtonshire	1:2,500	1907	3
Ordnance Survey Plan	1:2,500	1967	4
Large-Scale National Grid Data	1:2,500	1994	5

Historical Map - Segment A13



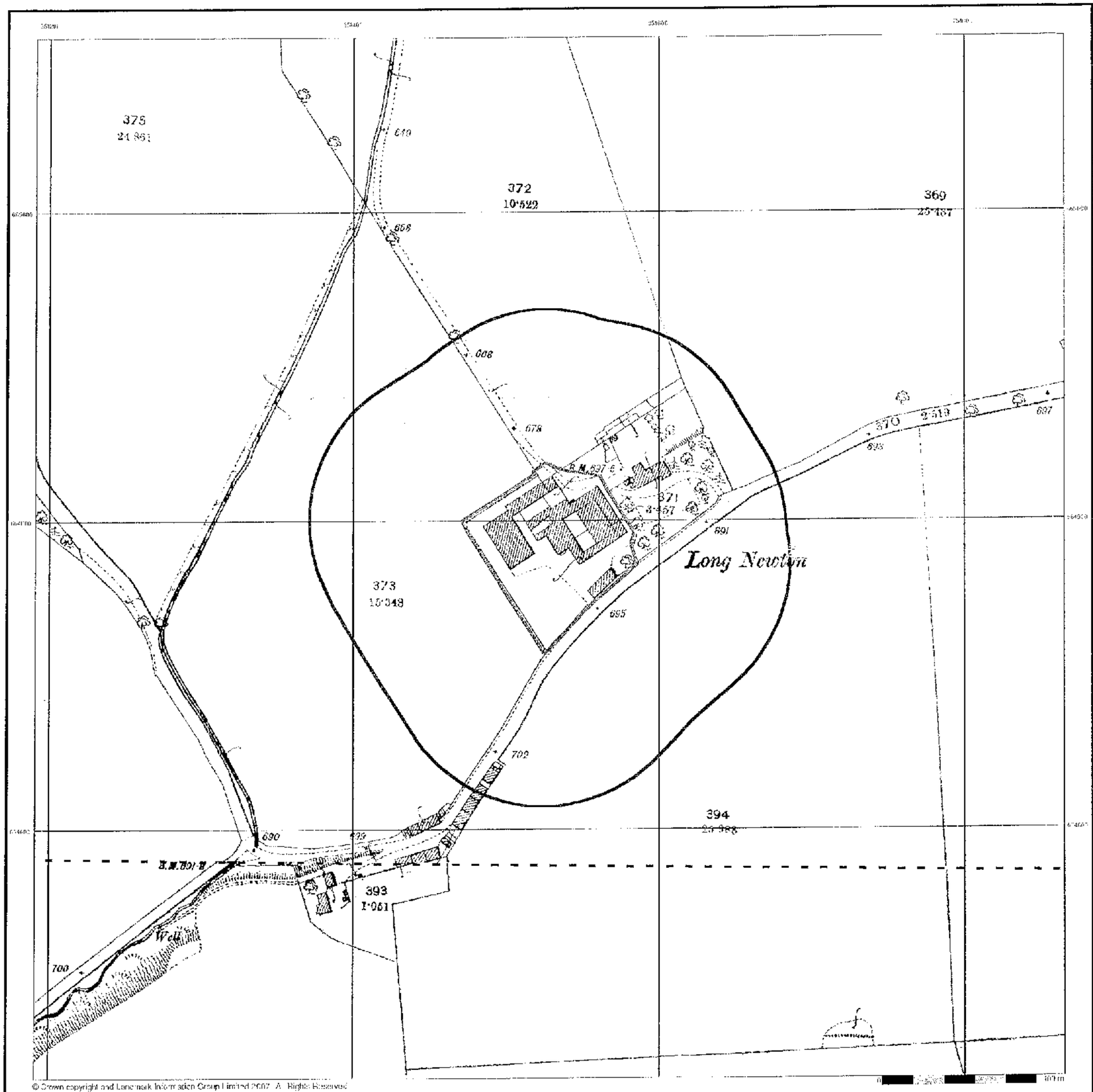
Order Details

Order Number: 23871877_1_1
Customer Ref: E8538
National Grid Reference: 351530, 664780
Slice: A
Site Area (Ha): 0.81
Search Buffer (m): 100

Site Details

Longnewton Farmhouse, Haddington, EH41 4JW

LANDMARK Information Group
Tel. 0870 850 0870
Fax: 0870 850 5671
Web: www.environcheck.co.uk



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Haddingtonshire
Published 1894
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

Historical Map - Segment A13

Order Details

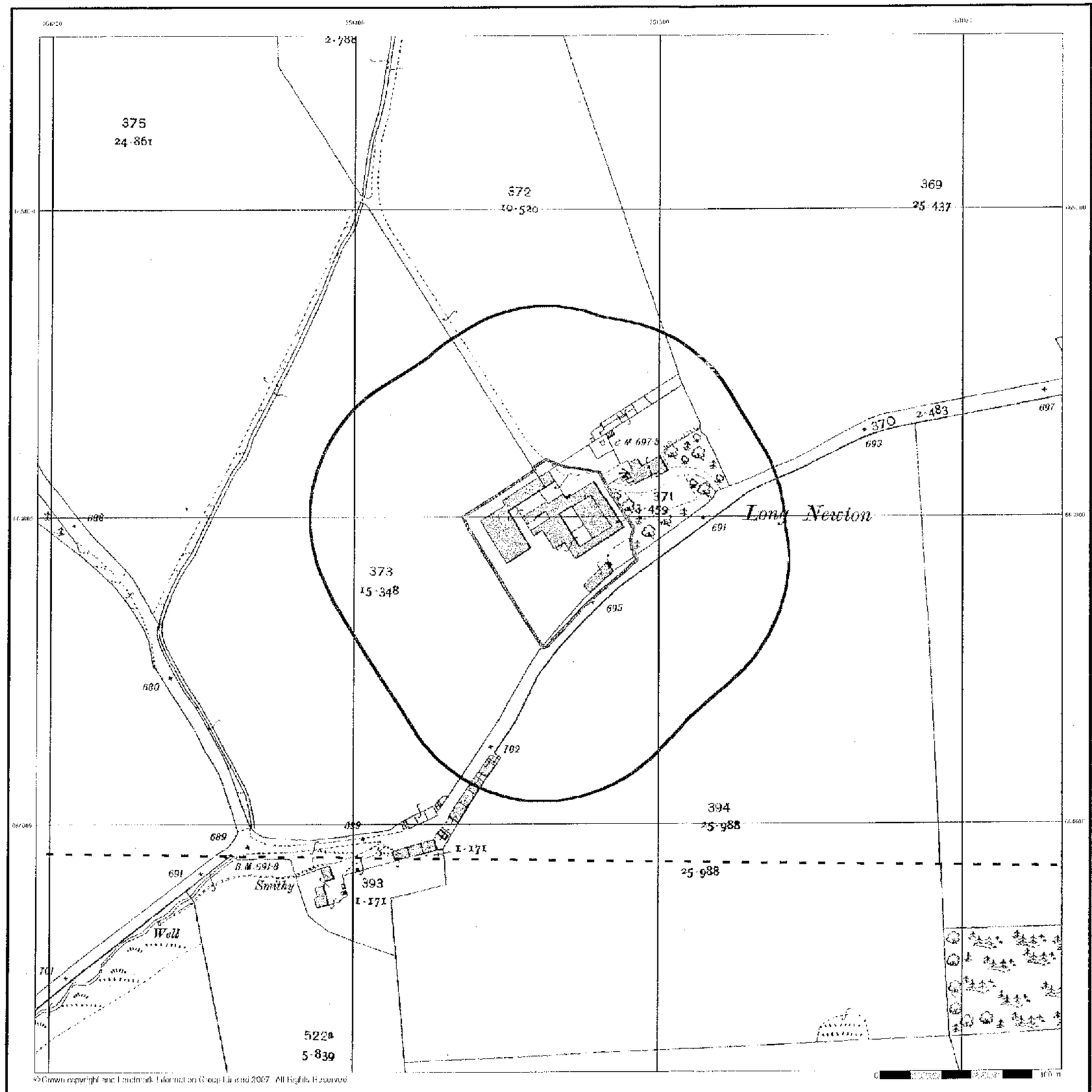
Order Number:	23871877_1_1
Customer Ref:	E8538
National Grid Reference:	351530, 664780
Slice:	A
Site Area (Ha):	0.81
Search Buffer (m):	100

Site Details

Longnewton Farmhouse, Haddington, EH41 4JW

LANDMARK®
Information Group

Tel: 0870 850 6670
Fax: 0870 850 6671
Web: www.envirocheck.co.uk



Envirocheck®
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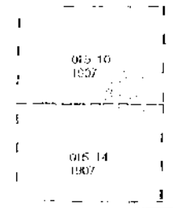
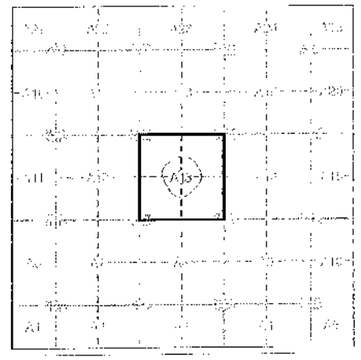
Haddingtonshire
Published 1907
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1886 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



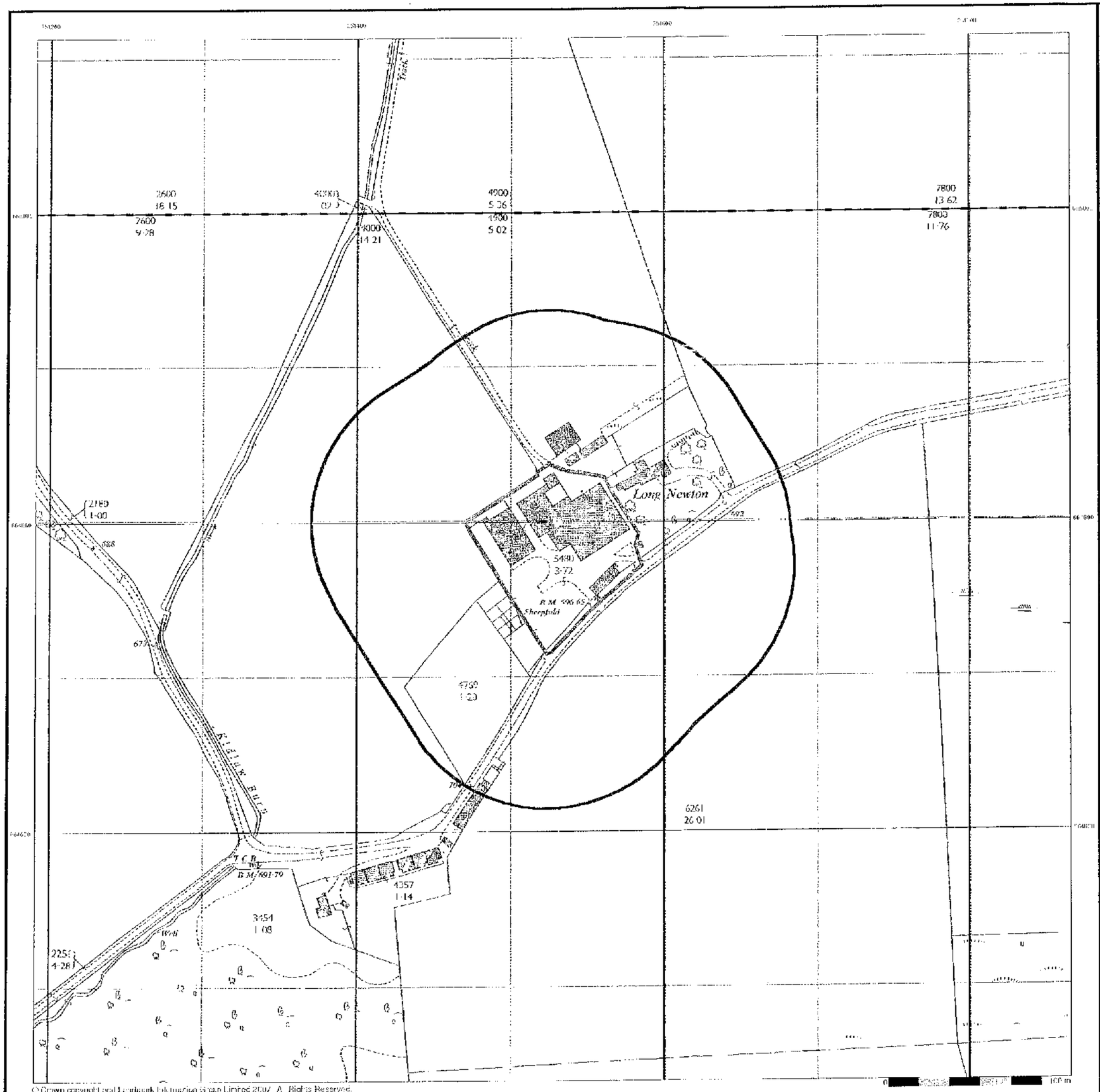
Order Details

Order Number:	23871877_1_1
Customer Ref:	I 8538
National Grid Reference:	351530, 664780
Slice:	A
Site Area (Ha):	0.81
Search Buffer (m):	100

Site Details

Longnewton Farmhouse, Haddington, EH41 4JW

LANDMARK Information Group
Tel: 0870 850 6670
Fax: 0870 850 6671
Web: www.environmentark.co.uk

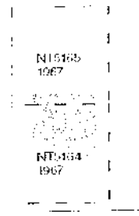


Envirocheck®
A Landmark service

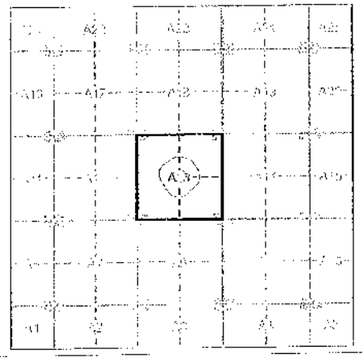
Ordnance Survey Plan
Published 1967
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1866 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



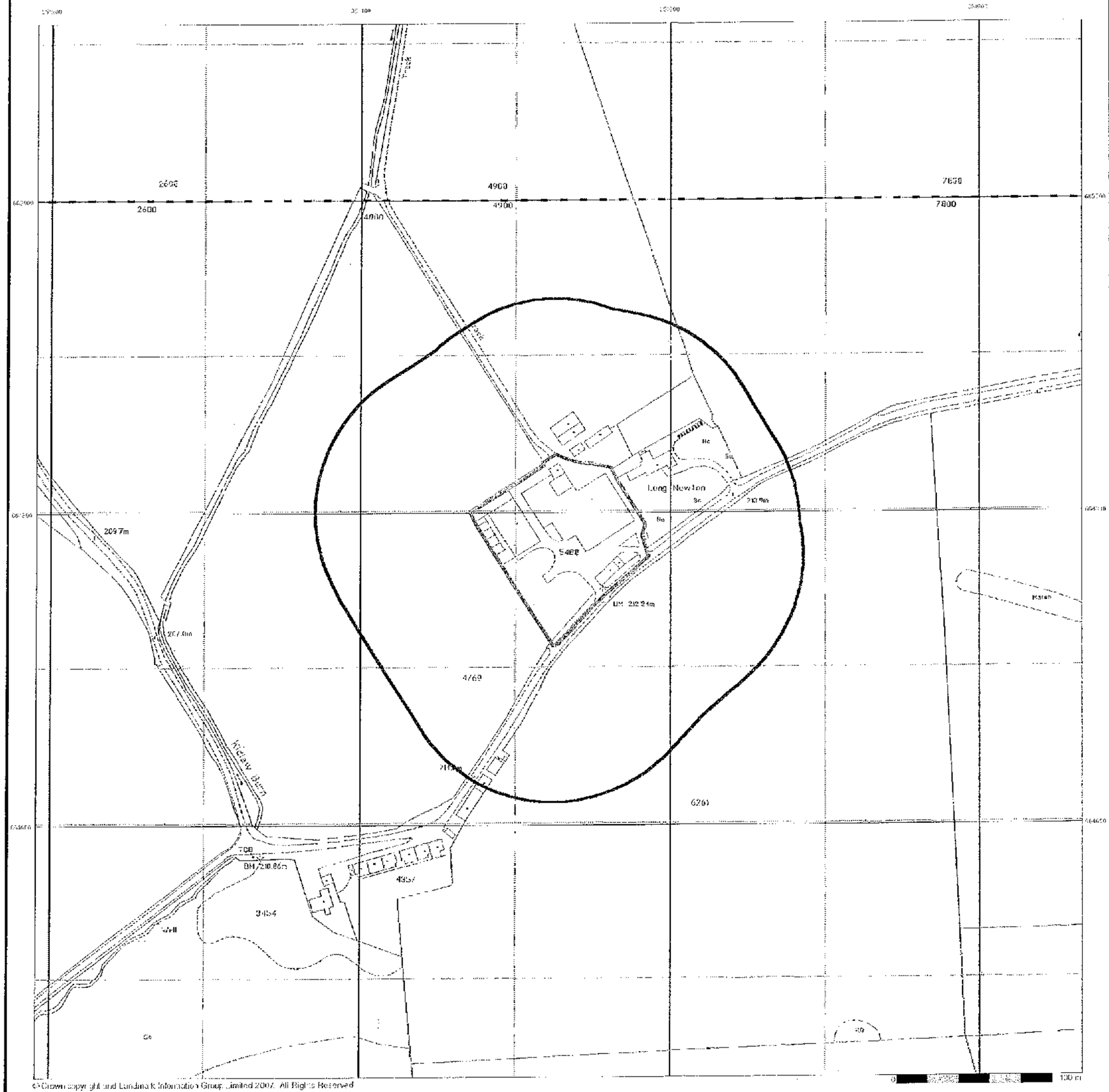
Order Details

Order Number:	23871877_1_1
Customer Ref:	E8538
National Grid Reference:	351530, 664780
Slice:	A
Site Area (Ha):	0.81
Search Buffer (m):	100

Site Details

Longnewton Farmhouse, Haddington, EH41 4JW

LANDMARK Information Group
Tel 0870 850 6670
Fax 0870 850 6671
Web www.envirocheck.co.uk

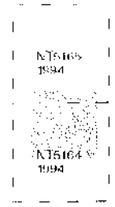


Envirocheck®
A Landmark service

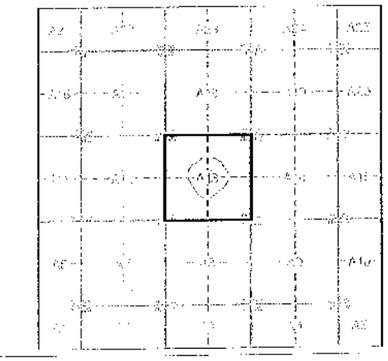
Large-Scale National Grid Data
Published 1994
Source map scale - 1:2,500

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads. It tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



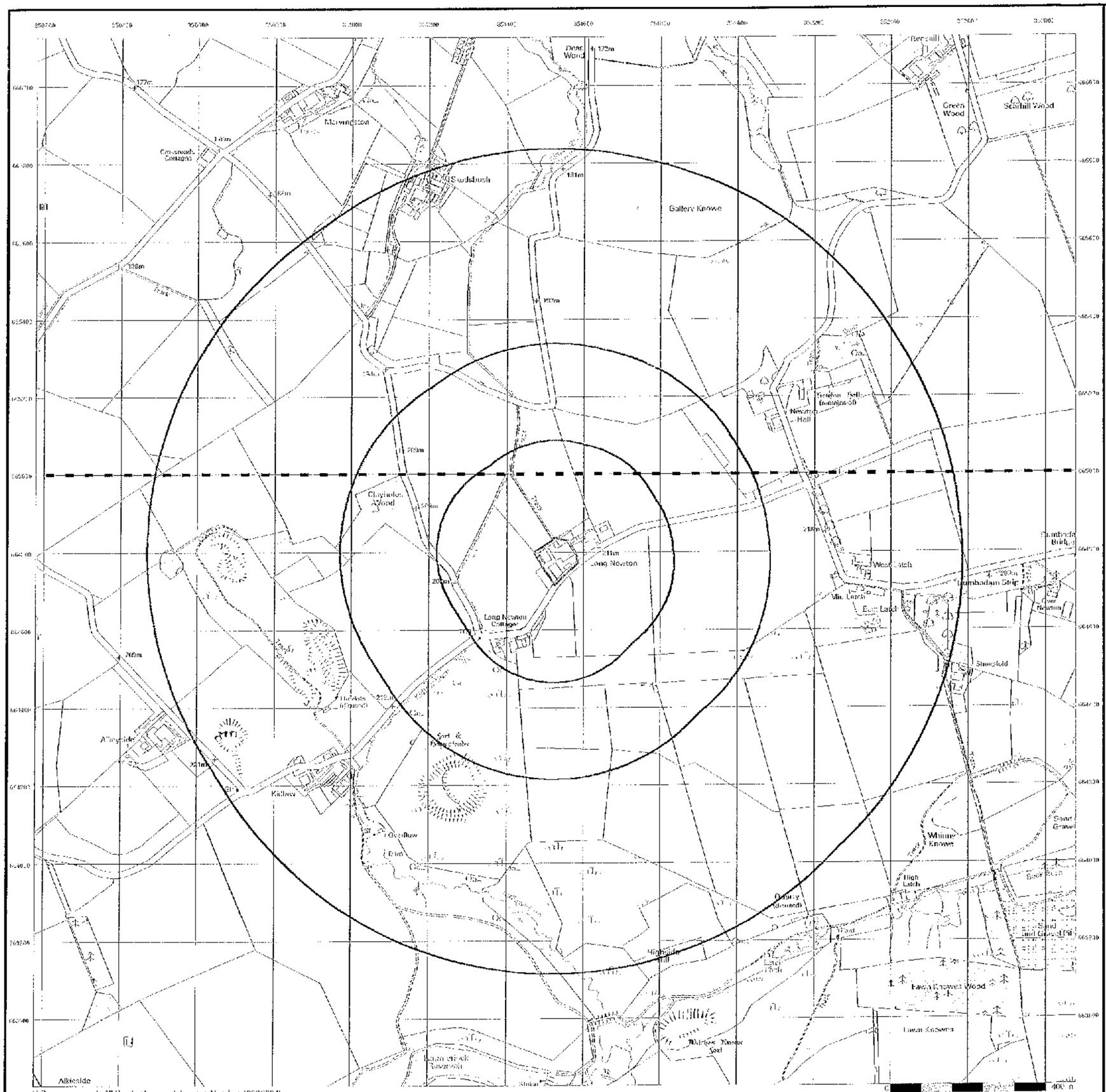
Order Details

Order Number:	23871877_1_1
Customer Ref:	E8536
National Grid Reference:	351530, 664760
Slice:	A
Site Area (Ha):	0.81
Search Buffer (m):	100

Site Details

Longnewton Farmhouse, Haddington, EH41 4JW

LANDMARK Information Group
Tel: 0870 850 7870
Fax: 0870 850 5671
Web: www.envirocheck.co.uk



Envirocheck®
A Landmark service

10K Raster Mapping
Published 2007
Source map scale - 1:10,000

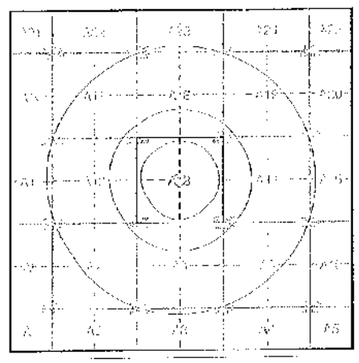
The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)

NT56NW 2007

NT56SW 2007

Historical Map - Slice A



N

Order Details

Order Number:	238718/7_1_1
Customer Ref:	L8538
National Grid Reference:	351530, 664780
Slice:	A
Site Area (Ha):	0.81
Search Buffer (m):	1000

Site Details

Longnewton Farmhouse, Haddington, EH41 4JW

LANDMARK Information Group
Tel. 0870 850 0670
Fax 0870 850 0671
Web www.envirocheck.co.uk

APPENDIX C

BASIC GEOLOGICAL ASSESSMENT REPORT
BY BRITISH GEOLOGICAL SURVEY

GeoReports

Geological Assessment - Basic

British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

RECEIVED

- 8 JAN 2008

David R Murray & Associates
150 St John's Road
EDINBURGH
EH12 8AY

E8538

Job No:	
TCS	SRM
WS	AD
NH	✓ AMcG
RSW	DM
SS	DMcK
MW	JMcG
CMcB	AB
IF	MDJ
LB	JMcI

KCC

Geological Assessment - Basic

This report is designed for users carrying out preliminary site assessments or at people who have a general interest in the geology around their property.

The report, prepared by BGS geologists, is based on analysis of records and maps held in the National Geoscience Data Centre (NGDC), and describes the rock types that might be encountered at the surface or at 'rockhead' beneath a site (meaning the rocks lying directly beneath the soil layer). It also briefly considers mining and quarrying hazard, and contains a listing of the key geoscience data sets held in the NGDC for the area around the site.

The report does not, however, consider *natural* geological hazards (in particular natural subsidence and radon), or hydrogeology at the site (these are described in the Standard or Detailed Geological Assessment reports, available separately).

Note that for some sites, the latest available records may be quite historical in nature, and while every effort is made to place the analysis in a modern geological context, it is possible in some cases that the detailed geology at a site may differ from that described.

Client's Reference: **E8538/SMcG/ACM**

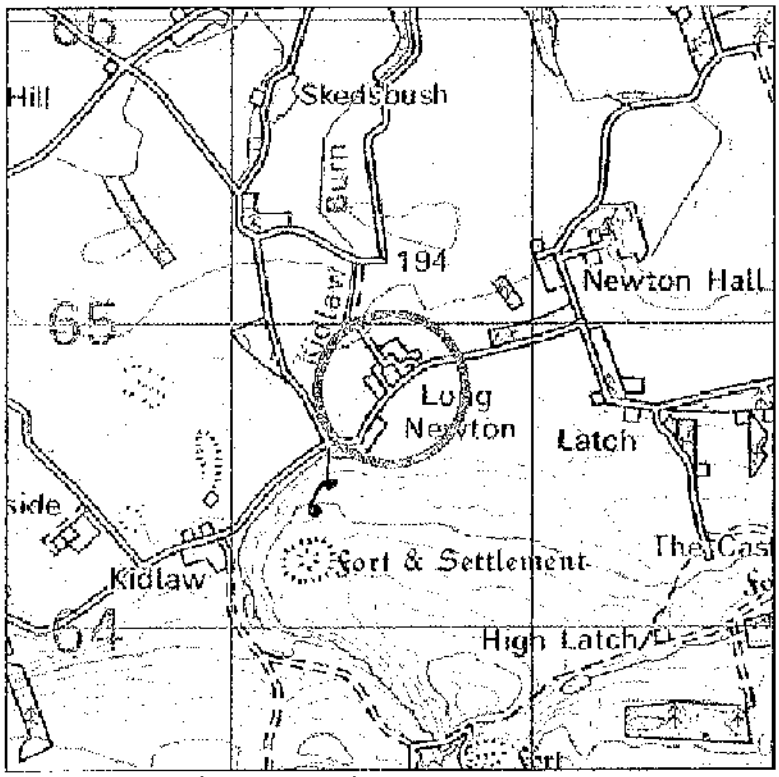
MH Reference: **EE07_0876**

Site address: **LONG NEWTON FARMHOUSE**
HADDINGTON

Section 1: Location details

Area centred at: *351537,664781*
Radius of site area: *250 metres*

This report is based on the above location details. However, where the client has submitted a site plan, it is used for the assessment in Section 2.



Scale: 1:25000 (1cm = 250m)

SITE LOCATION

Section 2: Description of the Geology for the site

Artificial Deposits

We have no records of any significant (thick or extensive) deposits of man made ground at the site. However, some made ground associated with former development may be present at the surface.

Superficial Deposits

The natural superficial (drift) deposits are expected to consist of poorly consolidated, glaciofluvial sands and gravels at the surface over most of the site with underlying glacial till. The glacial till is typically a firm to very stiff, silty or sandy clay containing rock clasts of pebble to boulder size and irregular bands and lenses of sand and gravel.

Rockhead Depth

The depth to rockhead (bedrock) is not known but it may not in general exceed 5 metres.

Bedrock

A large SW to NE trending fault, known as the Lammermuir Fault, is expected to outcrop (intersect rockhead) beneath the northern edge of the site. The solid rocks on the south side of the fault, and underlying most of the site, belong to the Ordovician and are expected to consist mainly of greywackes and shales. The greywackes are usually medium- to thick bedded, hard sandstones and the shales are generally thin to medium bedded, laminated siltstones and mudstones. The strata are likely to be highly inclined, with steep dips of up to 70 or more degrees, mostly towards the northwest.

The solid rocks on the north side of the fault are expected to belong to the Lower Carboniferous and to consist mainly of interbedded sandstones, siltstones and mudstones. These strata are thought to dip generally towards the north or northeast. The Lammermuir Fault may be represented at rockhead by a zone of fractured and disturbed strata.

Mining and Quarrying History

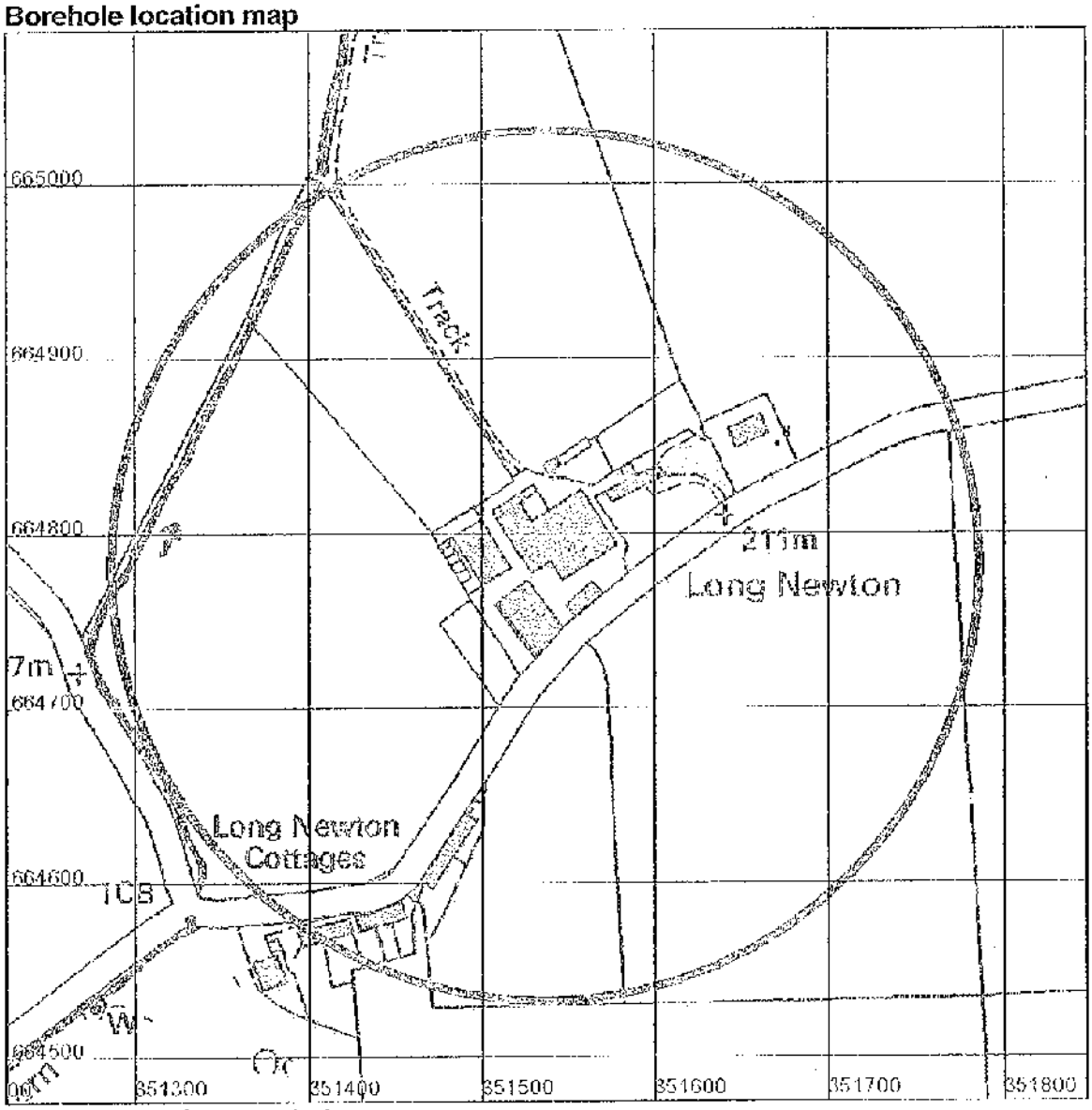
A search of our mine plan catalogues and data revealed no records of any former mining beneath or adjacent to the site. The presence of undocumented mine workings at this location is unlikely. We have no records of any former mine shafts or entrances (adits) on or adjacent to the site.

We have no record of any former quarrying on or close to the site.

Section 3: List of geological data available in search area

This section lists the principal data sets held in the National Geoscience Data Centre that are relevant to the search area. Descriptions of the data sets and how to obtain copies of records from them are given in Sections 4 and 5. Users with access to computing facilities can make their own index searches using the BGS Internet Geoscience Data Index, accessible through the BGS website at www.bgs.ac.uk

Borehole location map



Scale: 1:4000 (1cm = 40m)

Borehole records
(A blank Length field indicates the borehole is confidential or no depth has been recorded digitally.)
Total number of records: 1

The 'Office' column shows the office at which the records are held and from where copies can be obtained (see contact details later in the report). KW=Keyworth, MH & MW=Murchison House, WL=Wallingford, EX=Exeter

Regno	Grid_reference	Name	Length	Office	SIR
NT56SW8	NT 51670 64850	LONG NEWTON PB	3.00	MH	

There are no Water Well Records in the selected area

National Grid geological maps (1:10,000 and 1:10,560 scale)
Total number of records: 1

Map	Type	Survey	Published
NT56SW	Solid and Drift	1969	

County Series geological maps (1:10,560 scale)
Total number of records: 2

Map	Type	Published
Haddingtonshire15FS	C	
Haddingtonshire15SW	CS	

New Series medium scale geological maps (1:50,000 and 1:63360 scale)
Total number of records: 2

Sheet	Title	Type	Survey	Published	Revision
33W	Haddington	D		1978	
33W	Haddington	S		1983	

Geological Memoirs
Total number of records: 1

Title	Date
Haddington district	1985

There are no records for Technical reports in the selected area

Section 4: Descriptions of BGS databases

Note that this report is not a definitive listing of all data held in BGS.

Borehole Records and Water Wells

Records of boreholes, shafts and wells from all forms of drilling and site investigation work. Some 900,000 records dating back over 200 years and ranging from one to several thousand metres deep. Currently some 50,000 new records are being added to the collection each year.

A small percentage of the borehole records are held commercial-in-confidence for various reasons and cannot be released without the written permission of the originator. If any of the records you need are listed as confidential apply in the normal way. BGS Enquiry Service staff will release the data where this is possible or provide you with the information needed to contact the originator.

Where records are held in more than one office, the contents may differ. Enquiries principally requiring water related information should contact the Wallingford or Edinburgh office.

Geological maps

- **National Grid maps (1:10,000 and 1:10560 scale)** - Since the 1960s the standard large-scale map for recording geological information has been the Ordnance Survey (OS) quarter sheet covering a 5km square area. The maps are supplied in different formats depending on their age and the method of reproduction used. Only the latest most up-to-date version is listed.

- **County Series map sheets (1:10,560 scale)** - Maps produced on OS County Series sheets between approximately 1860 and 1960. The list indicates distinct examples of maps from separate surveys or revisions. It is advisable to discuss your requirements before ordering or travelling to view these maps.

- **New Series medium scale maps (1:50,000 and 1:63360 scale)** - Maps at either scale covering the OS New Series one-inch map sheet areas used by BGS. Please note that the sheet numbering is not the same as used for current OS 1:50,000 topographic maps.

While there may be information relevant to your enquiry on older maps, you will generally want the latest edition, and National Grid maps will be preferred to County Series maps, and New Series to Old Series.

Memoirs

Explanatory sheet memoirs describing the geology of the areas covered by either the medium scale (1:50,000 and 1:63,360) map series.

Technical reports

The open file reports listed are mainly from the Onshore Geology Series. These include descriptions of the geology for the National Grid series geological sheets. Please note that the location details in the database are not yet complete so it is possible that not all the relevant reports available will be listed.

Section 5: How to obtain data and how much it will cost

Borehole Records -- ***contact BGS Enquiry Service (see end of section)***

Copies of borehole records can be supplied (order form enclosed) at the flat rate of £13 (+VAT) per log with a minimum charge £26 (+VAT). Normal first class postage within the UK is included. Next day recorded delivery or express parcel dispatch is available on request and charged at cost. Copies of documents can be forwarded by facsimile transmission at an additional charge of £0.50 (+VAT) per A4 sheet. Records with additional detailed geological information derived from BGS examination of borehole material may be charged at the current 'value-added' rate. If you have a need for data with particular geological characteristics, then please contact the enquiries office to discuss your requirements (additional charges may apply).

Alternatively you can make an appointment to visit the relevant enquiry office and examine the records

yourself. The Commercial User Ticket (see below) covers inspection of the borehole logs and includes access to a set of relevant documents for one unit area (typically a 5 km x 5 km area). A further charge of £19 (+ VAT) is due for each additional set examined. Data can be freely extracted from the records but any copies requested will be charged as above.

Water wells – *contact BGS Enquiry Service*

Copies of records can be supplied (order form enclosed) at the flat rate of £13 (+VAT) per log with a minimum charge £26 (+VAT). Normal first class postage within the UK is included. Next day recorded delivery or express parcel dispatch is available on request and charged at cost. Copies of documents can be forwarded by facsimile transmission at an additional charge of £0.50 (+VAT) per A4 sheet.
If you have a need for data with particular hydrogeological characteristics, then please contact the relevant enquiries office (England and Wales =Wallingford, Scotland=Edinburgh) to discuss your requirements (additional charges may apply). Alternatively you can make an appointment to visit the relevant enquiry office and examine the records yourself.
Records for Scotland are held with the borehole records at our Edinburgh office the above Borehole Record charges cover them and apply.

BGS Memoirs, maps and open file reports – *contact BGS Sales (details below)*

BGS Memoirs, maps and open file reports relevant to your area can be examined in the appropriate BGS Library. Copies can be ordered from our main Sales Desk: Sales Desk, British Geological Survey, Keyworth, Nottingham NG12 5GG Tel: 0115 936 3241, Fax: 0115 936 3488, E-mail: sales@bgs.ac.uk.

Sales Desks are also located in Edinburgh; Tel: 0131 650 0358, Fax: 0131 667 2785, E-mail: scotsales@bgs.ac.uk, and London; Tel: 020 7589 4090, Fax: 020 7584 8270, E-mail: bgslondon@bgs.ac.uk. BGS London also maintains a reference collection of all BGS publications.

Commercial User Ticket – *contact BGS Enquiry Service*

A combined day ticket for commercial visitors to the National Geological Data Centre and the Library is £55 (+VAT) and there is a £33 (+VAT) day ticket for visitors who only wish to use the Library. Frequent visitors can purchase an annual subscription at £275 (+VAT) for access to the NGDC and the Library or £155 (+VAT) for use of the Library only. Further details can be provided on request.

BGS ENQUIRY SERVICE Contact Details:

Keyworth (KW) Office
For Borehole and other records (excluding water well records & hydrogeological data) in England & Wales (excluding Northern England, and Devon & Cornwall):
Records & Data Enquiries
Kingsley Dunham Centre
Keyworth
Nottingham
NG12 5GG
Tel: 0115 9363143
Fax: 01159 363276

Murchison House (MH or MW) Office:
For water well records and hydrogeological data for Scotland, and all other records in Scotland & Northern England:
Records & Data Enquiries
Murchison House
West Mains Road
Edinburgh
EH9 3LA
Tel: 0131 650 0282
Fax: 0131 650 0252
Email: boreholesnorth@bgs.ac.uk

Section 6: More detailed geological reports available from BGS

This report forms part of the GeoReports range offered by the BGS Enquiry Service, including reports describing site geology, hydrogeology and geological hazards. For details on these please contact:

BGS Central Enquiries Desk
British Geological Survey
Kingsley Dunham Centre
Keyworth
Nottingham NG12 5GG
Tel: 0115 936 3143
Fax: 0115 936 3276
Email: enquiries@bgs.ac.uk

Or visit the GeoReports online shop at www.bgs.ac.uk/georeports

Section 7: Terms and Conditions

General Terms & Conditions

This report is supplied in accordance with the GeoReports Terms & Conditions available on the BGS website at www.bgs.ac.uk/georeports and also available from the BGS Central Enquiries Desk at the above address.

Important notes about this report

- The data, information and related records supplied in this report by BGS can only be indicative and should not be taken as a substitute for specialist interpretations, professional advice and/or detailed site investigations. You must seek professional advice before making technical interpretations on the basis of the materials provided.
- Geological observations and interpretations are made according to the prevailing understanding of the subject at the time. The quality of such observations and interpretations may be affected by the availability of new data, by subsequent advances in knowledge, improved methods of interpretation, and better access to sampling locations.
- Raw data may have been transcribed from analogue to digital format, or may have been acquired by means of automated measuring techniques. Although such processes are subjected to quality control to ensure reliability where possible, some raw data may have been processed without human intervention and may in consequence contain undetected errors.
- Detail, which is clearly defined and accurately depicted on large-scale maps may be lost when small-scale maps are derived from them.
- Although samples and records are maintained with all reasonable care, there may be some deterioration in the long term.
- The most appropriate techniques for copying original records are used, but there may be some loss of detail and dimensional distortion when such records are copied.
- Data may be compiled from the disparate sources of information at BGS's disposal, including material donated to BGS by third parties, and may not originally have been subject to any verification or other quality control process.
- Data, information and related records, which have been donated to BGS, have been produced for a specific purpose, and that may affect the type and completeness of the data recorded and any interpretation. The nature and purpose of data collection, and the age of the resultant material may render it unsuitable for certain applications/uses. You must verify the suitability of the material for your intended usage.
- If a report or other output is produced for you on the basis of data you have provided to BGS, or your own data input into a BGS system, please do not rely on it as a source of information about other areas or geological features, as the report may omit important details.
- The topography shown on any map extracts is based on the latest OS mapping and is not necessarily the same as that used in the original compilation of the BGS geological map, and to which the geological linework available at that time was fitted.

Report issued by:

BGS Enquiry Service

APPENDIX D

REPORT ON GROUND INVESTIGATION BY SKF LIMITED

GROUND INVESTIGATION REPORT

SKF Ltd
Ground Investigation & Site Surveys

SITE: LONGNEWTON, HADDINGTON

DATE: 05/04/2008

CLIENT: GAP Developments Ltd
3 Walker Street
Edinburgh
EH3 7JY

ENGINEER: David R Murray & Associates
150 St Johns Road
Edinburgh
EH12 8AY

CONTENTS

1.0 INTRODUCTION

The contents of this report relate to a ground investigation carried out at Longnewton, Haddington

The purpose of the investigation was to determine the contamination status of the site as well as providing a general overview of the sequence of strata and soil conditions beneath the site of the proposed development.

The report was commissioned by the Engineer, David R Murray Associates, 150 St Johns Road, Edinburgh, EH12 8AY on behalf of the Client, GAP Developments Ltd, 3 Walker Street, Edinburgh, EH3 7JY

A brief factual report was requested by the Engineer

2.0 DESCRIPTION OF THE SITE

The site is located both within and surrounding the existing Longnewton Farm steading near Haddington. The farm which is currently operational is bounded by agricultural land to the north and west while a rural access road bound the south of the site. Longnewton House lies to the east of the site. The majority of the site is currently occupied by farm outbuildings in various states of repair. Several disused stone outbuildings and large corrugated metal clad sheds occupy the site which is predominantly covered by hardcore. A section of tarmac access road runs along the eastern boundary of the site and provides access to Longnewton House.

3.0 FIELDWORK

3.1 Areas of Investigation

All exploratory holes were positioned by SKF Ltd in conjunction with the Engineer in order to provide a uniform spread across the site whilst at the same time targeting areas likely to be renovated and developed

The positions of all exploratory holes are displayed on the location plan provided by the Engineer and contained in Appendix 1.0 of this report

SKF Ltd. Unit 10 Hayle Neuk Largs, Ayrshire. KA30 8JD – 01475672409 / 07795 493892

3.2 Continuous Percussion Boring By Competitor 130

Five number boreholes, BH01 to BH05 were sunk by a two man crew using a Competitor 130 continuous percussion soils boring rig. Regular disturbed soil samples were recovered from each stratum encountered. In apparently cohesive strata, open-drive "undisturbed" soil samples were attempted. Standard Penetration Tests (S.P.T.) were carried out in predominantly granular strata. Samples were also recovered in appropriate containers for chemical testing.

3.3 Trial Pitting

Seven number trial pits, HP01 to HP07, were excavated to expose the foundations of existing farm outbuildings. These pits were excavated by hand and logged by SKF's Engineer. Two number shallow pits were also excavated close to a silage store to recover samples for chemical analysis.

3.4 Standpipe Installations

On the instruction of the Engineer, 50mm diameter standpipes were installed in three number boreholes, BH01, BH04 and BH05, to allow monitoring of gas and groundwater levels.

Details of the installations are displayed on the appropriate borehole logs in Appendix 2.0 of this report.

All other boreholes were backfilled with arisings on completion.

3.5 Exploratory Hole Logs / Photographs

All exploratory hole logs are contained in Appendix 2.0 of this report. All strata encountered were described on site by SKF's Engineer using guidelines detailed in BS 5930 : 1999.

All hand excavated trial pits were photographed using a digital camera. These photographs are presented on CD and are contained in Appendix 2.0 of this report.

3.6 Insitu and Field Testing

3.6.1 Standard Penetration Tests

SKF Ltd, Unit 10, Haylie Neuk, Largs, Ayrshire, KA30 8JD – 01475672409 / 07795 493892

Standard Penetration Tests (S P T), using a split barrel sampler or cone as appropriate, were performed at regular depths in predominantly granular soils. The results of these tests have been used to assess the relative density of cohesionless soils in accordance with BS 5930: 1999 "Site investigations" Clause 41.3.2:-

RELATIVE DENSITY	S P T (N) VALUE
Very Loose	0 - 4
Loose	4 - 10
Medium Dense	10 - 30
Dense	30 - 50
Very Dense	> 50

Where granular soils were encountered and no SPT data is available the soil density has been estimated by SKF's Engineer. The results of the standard penetration tests are displayed on the borehole logs contained in Appendix 2.0 of this report

3.7 Groundwater Observations

In the course of drilling each borehole, the incidence of groundwater was noted by the driller. Any ingress of water during trial pitting operations was recorded by SKF's Engineer. All groundwater observations are detailed in the exploratory logs in Appendix 2.0 of this report

3.8 Fieldwork Period

Fieldwork was carried out on the 17th January 2008 and 30th January 2008 generally in accordance with BS 5930 : 1999 "Site investigations"

4.0 LABORATORY WORK

4.1 Soil

All soil samples were described during the fieldwork by SKF's Engineer using guidelines detailed in BS 5930 : 1999

A programme of laboratory testing proposed by the Engineer was carried out on selected soil samples. All testing was undertaken in accordance with BS 1377 : 1990 "Methods of test for soils for civil engineering purposes" and other current, relevant standards as appropriate. References and methods for each test are detailed on the appropriate results sheets

The final descriptions appearing on the borehole logs are based on visual examination in conjunction with the available laboratory and in-situ test data.

4.1.1 Soil Classification Tests

The following soil classification tests were carried out

- Three number Moisture Content Determination.
- Five number Particle Size Distribution tests including five number Sedimentation tests
- Two number Atterberg Limits test.

4.1.2 Soil Strength Tests

The following soil strength tests were carried out.

- One number Immediate Undrained Triaxial Compression Strength test, performed using multi-stage testing techniques on an 86mm diameter undisturbed sample

4.1.3 Soil Compressibility Tests

The following soil compressibility tests were carried out

- One number Oedometer One Dimensional Consolidation test

4.1.4 Soil Compaction-Related Tests

The following soil compaction-related tests were carried out.

- One number California Bearing Ratio (CBR) test.

4.1.5 Soil Chemical / Contamination Tests

The following chemical tests were carried out:

- Thirteen number chemical analysis for: As, Total Cr, Hg, Ni, Zn, Pb, B, Cu, Se, Cd, pH, Water soluble SO4, Phenols, Total Cyanides and Sulphide

SKF Ltd, Unit 10, Hayfie Neuk, Largs, Ayrshire, KA30 8JD 01475672400 / 07795 493892

- Four number TOC
- Two number OCP.
- Three number speciated TPH.
- Three number Asbestos screen.
- Six number Leachates (As, Cd, Cr, Hg, Pb, Sc, Ni, Cu, Zn & Water hardness)

4.1.6 Water Chemical / Contamination Tests

The following chemical tests were carried out:

- Two number chemical analysis for: As, Total Cr, Hg, Ni, Zn, Pb, B, Cu, Se, Cd, pH, Water soluble SO4, Phenols, Total Cyanides and Sulphide
- Two number tests for Water hardness
- Two number VOC (USEPA).
- Two number VOC.

5.0 REFERENCES

1 BS.5930:1999 *Code of practice for site investigations;* British Standards Institution, London

2. BS 1377:1990 Methods of test for Soils for civil engineering purposes (Parts 1-9); British Standards Institution, London

APPENDIX 1.0

LOCATION PLAN

SKF Ltd, Unit 10, Haylie Neuk Largs Ayrshire, KA30 8JD – 01475672409 / 07795 493892

APPENDIX 2.0
EXPLORATORY HOLE LOGS

SKF Ltd, Unit 10, Hayhe Neuk, Largs, Ayrshire, KA30 8JD – 01475672409 / 07795 403892

SKF Ltd
Ground Investigation & Site Surveys

SKF Ltd, Unit 10, Haylie Neuk, Largs, Ayrshire, KA30 8JD
TEL: 01475 672409 or 07795 493892 FAX: 01475 672409

BOREHOLE NO. BH01

Contract: LONGNEWTON, HADDINGTON
Contract No: 0535
Status: FINAL

Client: DAVID R MURRAY & ASSOCIATES
Boring Diameter: 115mm
Co-ordinates E

Date: 17/01/2008
Equipment: COMPETITOR 130
N

Description of Strata	Legend	Depth	Level	Sampling	SPT Blows / U Blows / Hand Vane	Pipe
Ground Surface						
MADE GROUND: Loose' brown sandy fine to coarse angular gravel with occasional cobbles		0.30				
Soft to firm brown sandy slightly gravelly CLAY with occasional cobbles. Gravel fine to coarse and angular to sub rounded		0.70		J 0.50		
Loose becoming medium dense light greyish brown and brown silty fine to coarse SAND. From 1.80m becoming medium dense with traces of gravel and occasional pockets of stiff sandy gravelly clay		2.50		J 1.00 SPT 1.00-1.45 U66 2.00-2.00 J 2.30 SPT 2.30-2.45 U66 3.00-3.00	1,2,2,2 / 2 1/2 5,6,6,8 / 6 1/4	
Recovered as reddish brown sandy angular gravel of SILTSTONE. Slightly clayey at top. Presumed weathered bedrock		3.80		J 3.00 SPT 3.00-3.45 SPT 3.50-3.80	12,9,10,10 / 9 12,15,14,41	

Water Strikes
Strike: 0.30 Flow: Slow

Details
Casing: 2.00 Final Depth: 3.80

Inspection Pit: 0.50 x 0.50 x 1.00
Breaking Out / Coring:
Installation: Standpipe 50mm diameter installed to 2.80m
Notes:

Logged by: SKF Checked by: SKF

SYMBOLS KEY

B - BULK
U - UNDISTURBED
D - SMALL DISTURBED
J - JAR
V - VIAL
W - WATER
NR - NO RECOVERY
' - ESTIMATED DENSITY

ALL DIMENSIONS ARE IN METRES

SKF Ltd
Ground Investigation & Site Surveys

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TEL: 01475 672409 or 07795 493892 FAX: 01475 672409

BOREHOLE NO. BH02

Contract: **LONGNEWTON, HADDINGTON** Contract No: **0535** Status: **FINAL**

Client: **DAVID R MURRAY & ASSOCIATES** Boring Diameter: **115mm** Co-ordinates E

Date: **17/01/2008** Equipment: **COMPETITOR 130** N

Description of Strata	Legend	Depth	Level	Sampling	SPT Blows / U Blows / Hand Vane	Pipe
Ground Surface						
MADE GROUND: Loose* brown sandy fine to coarse angular gravel with occasional cobbles. Occasional roots and rough grass at top.		0.20				
POSSIBLE MADE GROUND: Loose* brown and orange brown sandy fine to coarse angular to sub rounded gravel with occasional cobbles.		0.60		0.50		
Firm to stiff and stiff reddish brown sandy gravelly CLAY with occasional bands of very clayey sand and gravel				1.00 SPT 1.00-1.45 U86 1.00-2.00	3,5,5 (12) 130	
		1.80				
Recovered as reddish brown and red sandy angular gravel of SANDSTONE. Slightly clayey at top. Presumed weathered bedrock				2.00 SPT 2.00-2.40	14,22,26,16 (21) 16	
		2.65		SPT 2.50-2.65	29/40	

Water Strikes
Strike: 0.00 Flow: Slow

Details
Casing: 2.00 Final Depth: 2.65

Inspection Pit: 0.50 x 0.50 x 1.00
Breaking Out / Coring:
Installation:
Notes: Borehole backfilled on completion.

Logged by: SKF Checked by: SKF

SYMBOLS KEY

B - BULK
U - UNDISTURBED
D - SMALL DISTURBED
J - JAR
V - VIAL
W - WATER
NR - NO RECOVERY
* - ESTIMATED DENSITY

ALL DIMENSIONS ARE IN METRES

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BOREHOLE NO. BH03

Contract: LONGNEWTON, HADDINGTON
Contract No: 0535
Status: FINAL

Client: DAVID R MURRAY & ASSOCIATES
Boring Diameter: 115mm
Co ordinates E

Date: 17/01/2008
Equipment: COMPETITOR 130
N

Description of Strata	Legend	Depth	Level	Sampling	SPT Blows / U Blows / Hand Vane	Pipe
Ground Surface						
MADE GROUND: Dense* brown slightly silty sandy angular and sub angular gravel with occasional cobbles. Occasional fragments of clay pile, brick and concrete				J 0.50		
		0.50				
MADE GROUND: Dense* brown and reddish brown clayey sandy gravel. Occasional dark brown pockets with occasional fragments of brick. Traces of roots. Gravel fine to coarse and angular to sub rounded				J 1.00 SPT 1.00-1.45 U66 1.00-2.00	22 9,8,5,5,3 122	
		1.20				
Medium dense reddish brown silty SAND and GRAVEL. Locally light grey. Gravel fine to coarse and angular and sub angular. Occasional pockets of stiff sandy gravelly clay at depth. At 2.80 hard obstruction, possible sandstone bedrock				J 2.00 SPT 2.00-2.45 U66(R) 2.00-2.60	6,7,2,3,4,3 6,3	
				SPT 2.80-2.82	50/20mm	
		2.82				

Water Strikes
Strike: Dry Flow:

Details
Casing: 2.00 Final Depth: 2.82

Inspection Pit: 0.50 x 0.50 x 1.00
Breaking Out / Coring:
Installation:
Notes: Borehole backfilled on completion

Logged by: SKF Checked by: SKF

SYMBOLS KEY

B - BULK
U - UNDISTURBED
D - SMALL DISTURBED
J - JAR
V - VIAL
W - WATER
NR - NO RECOVERY
* - ESTIMATED DENSITY

ALL DIMENSIONS ARE IN METRES

SKF Ltd
Ground Investigation & Site Surveys

SKF Ltd, Unit 10, Haylie Neuk, Largs, Ayrshire, KA30 8JD
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BOREHOLE NO. BH04

Contract: **LONGNEWTON, HADDINGTON** Contract No: **0535** Status: **FINAL**

Client: **DAVID R MURRAY & ASSOCIATES** Boring Diameter: **115mm** Co-ordinates E

Date: **17/01/2008** Equipment: **COMPETITOR 130** N

Description of Strata	Legend	Depth	Level	Sampling	SPT Blows / U Blows / Hand Vane	Pipe
Ground Surface						
MADE GROUND: Topsoil / turf and roots with occasional fragments of clay tile.		0.30				
Loose brown silty slightly gravelly fine to coarse SAND. Gravel fine to coarse and angular to sub rounded. Slightly clayey at depth				J 0.50 J 1.00 SPT 1.00-1.45 U06 1.00-2.00	1,2,2,3,3,2 104	
		1.60				
Loose* becoming medium dense reddish brown slightly clayey gravelly fine to coarse SAND. Gravel fine to coarse and angular and sub angular				J 2.00 SPT 2.00-2.45 U06 2.00-3.00	3,3,2,5,10,9 129	
		2.30				
Recovered as reddish brown sandy angular gravel of SANDSTONE. Slightly clayey at top. Crumbles into sand. Presumed weathered bedrock				J 3.00 SPT 3.00-3.15	28/31	
		3.15				

Water Strikes
Strike: 0.80 Flow: Slow

Details
Casing: 2.00 Final Depth: 3.15

Inspection Pit: 0.50 x 0.50 x 1.00
Breaking Out / Coring:
Installation: Standpipe 50mm diameter installed to 2.80m
Notes:

Logged by: SKF Checked by: SKF

SYMBOLS KEY

B - BULK NR - NO RECOVERY
U - UNDISTURBED * - ESTIMATED DENSITY
D - SMALL DISTURBED
J - JAR
V - VIAL
W - WATER

ALL DIMENSIONS ARE IN METRES

SKF Ltd
Ground Investigation & Site Surveys

SKF Ltd, Unit 10, Haylie Neuk, Largs, Ayrshire, KA30 8JD
TEL: 01475 672409 or 07795 493892 FAX: 01475 672409

BOREHOLE NO. BH05

Contract: **LONGNEWTON, HADDINGTON** | Contract No: **0535** | Status: **FINAL**

Client: **DAVID R MURRAY & ASSOCIATES** | Boring Diameter: **115mm** | Co-ordinates E

Date: **17/01/2008** | Equipment: **COMPETITOR 130** | N

Description of Strata	Legend	Depth	Level	Sampling	SPT Blows U Blows Hand Vane	Pipe
Ground Surface						
MADE GROUND: Topsoil / turf and roots with occasional fragments of clay tile		0.30				
Loose becoming medium dense reddish brown silty gravelly fine to coarse SAND. Gravel fine to coarse and angular to sub rounded. Occasional sandstone cobbles. More clayey at depth. From 1.80m locally stiff sandy gravelly clay		2.10		J 0.50 J 1.00 SPT 1.00-1.45 U86 1.00-2.00 J 2.00 SPT 2.00-2.45	8,5,0 4 3,3 132 10 / 10,10 14 18	
Recovered as reddish brown and red sandy angular gravel of SANDSTONE. Slightly clayey at top. Crumbles into sand. Presumed weathered bedrock		2.65		SPT 2.50-2.65	27 36	

Water Strikes		Details	
Strike: 0.80	Flow: Slow	Casing: 2.00	Final Depth: 2.65

Inspection Pit: 0.50 x 0.50 x 1.00

Breaking Out / Coring:

Installation: Standpipe 50mm diameter installed to 2.00m

Notes:

Logged by: SKF | Checked by: SKF

SYMBOLS KEY

B - BULK
U - UNDISTURBED
D - SMALL DISTURBED
J - JAR
V - VIAL
W - WATER
NR - NO RECOVERY
* - ESTIMATED DENSITY

ALL DIMENSIONS ARE IN METRES

SKF Ltd
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SKF Ltd, Unit 10, Haylie Neuk, Largs, Ayrshire, KA30 8JD
TEL: 01475 672409 or 07795 493892 FAX: 01475 672409

TRIAL PIT NO. HP01

Contract: LONGNEWTON, HADDINGTON
Contract No: 0535
Status: FINAL

Client: DAVID R MURRAY & ASSOCIATES
Pit Dimensions: 0.40 X 0.40
Co-ordinates E

Date: 30/01/2008
Equipment: HAND DUG
N

Description of Strata	Legend	Depth	Level	Sampling	SPT Blows U Blows Hand Vane	Pipe
Ground Surface						
MADE GROUND: Loose* brown very gravelly fine to coarse sand with occasional cobbles. Gravel fine to coarse and angular to sub rounded		0.45		D 0.30		

Water Strikes
Strike: Dry Flow:

Details
Casing: Final Depth: 0.45

Stability: Stable
Shoring: None
Backfilling: Backfilled with arisings
Notes: Foundation exposed.

Logged by: SKF Checked by: SKF

SYMBOLS KEY

B - BULK NR - NO RECOVERY
U - UNDISTURBED * - ESTIMATED DENSITY
D - SMALL DISTURBED
J - JAR
V - VIAL
W - WATER

ALL DIMENSIONS ARE IN METRES

SKF Ltd
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SKF Ltd, Unit 10, Haylie Neuk, Largs, Ayrshire, KA30 8JD
TEL: 01475 672409 or 07795 493892 FAX: 01475 672409

TRIAL PIT NO. HP02

Contract: LONGNEWTON, HADDINGTON
Contract No: 0535
Status: FINAL

Client: DAVID R MURRAY & ASSOCIATES
Pit Dimensions: 0.50 X 0.40
Co-ordinates E

Date: 30/01/2008
Equipment: HAND DUG
N

Description of Strata	Legend	Depth	Level	Sampling	SPT Blows U Blows Hand Vane	Pipe
Ground Surface						
MADE GROUND: Topsoil/roots.		0.10				
MADE GROUND: Loose' brown gravelly slightly clayey fine to coarse sand with fragments of clay pipe, brick, roots and occasional cobbles Gravel fine to coarse and angular to sub rounded Becoming more gravelly and clayey at depth		0.50		D 0.30 D 0.50		
Soft to firm light brown mottled orange brown sandy gravelly CLAY with occasional cobbles Gravel fine to coarse and angular to sub rounded.		0.80				

Water Strikes
Strike: 0.60 Flow: Moderate

Details
Casing: Final Depth: 0.80

Stability: Stable
Shoring: None
Backfilling: Backfilled with arisings
Notes: Unable to expose foundation due to water ingress.

Logged by: SKF Checked by: SKF

SYMBOLS KEY

B - BULK
U - UNDISTURBED
D - SMALL DISTURBED
J - JAR
V - VIAL
W - WATER
NR - NO RECOVERY
* - ESTIMATE DENSITY

ALL DIMENSIONS ARE IN METRES

SKF Ltd
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SKF Ltd, Unit 10, Haylie Neuk, Largs. Ayrshire, KA30 8JD
TEL: 01475 672409 or 07795 493892 FAX: 01475 672409

TRIAL PIT NO. HP03

Contract: LONGNEWTON, HADDINGTON
Contract No: 0535
Status: FINAL

Client: DAVID R MURRAY & ASSOCIATES
Pit Dimensions: 0.40 X 0.50
Co-ordinates E

Date: 30/01/2008
Equipment: HAND DUG
N

Description of Strata	Legend	Depth	Level	Sampling	SPT Blows U Blows Hand Vane	Pipe
Ground Surface						
MADE GROUND. Topsoil/roots with brick fragments				D 0.20		
		0.34		D 0.35		
Loose* reddish brown sandy GRAVEL with occasional cobbles Gravel fine to coarse and angular to sub rounded.		0.40				

Water Strikes
Strike: Dry
Flow:

Casing:

Details
Final Depth: 0.40

Stability: Stable
Shoring: None
Backfilling: Backfilled with arisings
Notes: Foundation exposed.

Logged by: SKF
Checked by: SKF

SYMBOLS KEY

B - BULK
U - UNDISTURBED
D - SMALL DISTURBED
J - JAR
V - VIAL
W - WATER
NR - NO RECOVERY
* - ESTIMATED DENSITY

ALL DIMENSIONS ARE IN METRES

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SKF Ltd, Unit 10, Haylie Neuk, Largs, Ayrshire, KA30 8JD
TEL: 01475 672409 or 07795 493892 FAX: 01475 672409

TRIAL PIT NO. HP04

Contract: **LONGNEWTON, HADDINGTON** Contract No: **0535** Status: **FINAL**

Client: **DAVID R MURRAY & ASSOCIATES** Pit Dimensions: **0.70 X 0.50** Co-ordinates E

Date: **30/01/2008** Equipment: **HAND DUG** N

Description of Strata	Legend	Depth	Level	Sampling	SPT Blows U Blows Hand Vane	Pipe
Ground Surface						
MADE GROUND: Loose* brown clayey slightly gravelly fine to coarse sand intermixed with fragments of clay pipe, roots/rootlets Occasional cobbles. More clayey at depth.				D 0.20		
		0.58		D 0.60		
Soft to firm reddish brown sandy slightly gravelly CLAY with occasional cobbles and fine roots. Gravel fine to coarse and angular to sub rounded		0.80				

Water Strikes
Strike: Dry How:

Details
Casing: Final Depth: 0.80

Stability: Stable
Shoring: None
Backfilling: Backfilled with arisings
Notes: Foundation exposed

Logged by: SKF Checked by: SKF

SYMBOLS KEY

B - BULK NR - NO RECOVERY
U - UNDISTURBED * - ESTIMATED DENSITY
D - SMALL DISTURBED
J - JAR
V - VIAL
W - WATER

ALL DIMENSIONS ARE IN MILLIMETRES

SKF Ltd
Ground Investigation & Site Surveys

SKF Ltd, Unit 10, Haylie Neuk, Largs, Ayrshire, KA30 8JD
TEL: 01475 672409 or 07795 493892 FAX: 01475 672409

TRIAL PIT NO. HP05

Contract: **LONGNEWTON, HADDINGTON** Contract No: **0535** Status: **FINAL**

Client: **DAVID R MURRAY & ASSOCIATES** Pit Dimensions: **0.50 X 0.40** Co-ordinates E

Date: **30/01/2008** Equipment: **HAND DUG** N

Description of Strata	Legend	Depth	Level	Sampling	SPT Blows U Blows Hand Vane	Pipe
Ground Surface						
MADE GROUND: Topsoil/roots		0.10				
MADE GROUND. Loose * brown gravelly slightly clayey fine to coarse sand with fragments of clay pipe, roots and occasional cobbles. Gravel fine to coarse and angular to sub rounded. Becoming more gravelly at depth				D 0.20 D 0.50		
		0.70				

Water Strikes
Strike: Dry Flow:

Details
Casing: Final Depth: 0.70

Stability: Stable
Shoring: None
Backfilling. Backfilled with arisings
Notes: Foundation exposed

Logged by: SKF Checked by: SKF

SYMBOLS KEY

B - BULK
U - UNDISTURBED
D - SMALL DISTURBED
J - JAR
V - VIAL
W - WATER
NR - NO RECOVERY
* - ESTIMATED DENSITY

ALL DIMENSIONS ARE IN METRES

SKF Ltd
Ground Investigation & Site Surveys

SKF Ltd, Unit 10, Haylie Neuk, Largs, Ayrshire, KA30 8JD
TEL: 01475 672409 or 07795 493892 FAX: 01475 672409

TRIAL PIT NO. HP06

Contract: LONGNEWTON, HADDINGTON
Contract No: 0535
Status: FINAL

Client: DAVID R MURRAY & ASSOCIATES
Pit Dimensions: 0.50 X 0.50
Co-ordinates E

Date: 30/01/2008
Equipment: HAND DUG
N

Description of Strata	Legend	Depth	Level	Sampling	SPT Blows / U Blows / Hand Vane	Pipe
Ground Surface						
MADE GROUND: Topsoil/roots with occasional fragment of clay tile		0.10				
MADE GROUND: Weak concrete (0.10-0.15).						
MADE GROUND: Loose * light brown very sandy slightly clayey fine to coarse angular to sub rounded gravel.		0.25		D 0.20		
MADE GROUND: Soft to firm brown slightly sandy gravelly clay with occasional cobbles. Gravel fine to coarse angular to sub rounded				D 0.40		
		0.50		D 0.50		
Firm to stiff reddish brown slightly sandy gravelly CLAY with occasional cobbles. Gravel fine to coarse angular to sub rounded.		0.55				

Water Strikes
Strike: Dry Flow:

Details
Casing: Final Depth: 0.55

Stability: Stable
Shoring: None
Backfilling: Backfilled with arisings
Notes: Foundation exposed

Logged by: SKF Checked by: SKF

SYMBOLS KEY

B - BULK NR - NO RECOVERY
U - UNDISTURBED * - ESTIMATED DENSITY
D - SMALL DISTURBED
J - JAR
V - VIAL
W - WATER

ALL DIMENSIONS ARE IN METRES

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TEL: 01475 672409 or 07795 493892 FAX: 01475 672409

TRIAL PIT NO. HP07

Contract: **LONGNEWTON, HADDINGTON** Contract No: **0535** Status: **FINAL**

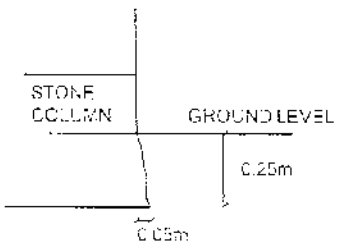
Client: **DAVID R MURRAY & ASSOCIATES** Pit Dimensions: **0.50 X 0.50** Co-ordinates E

Date: **30/01/2008** Equipment: **HAND DUG** N

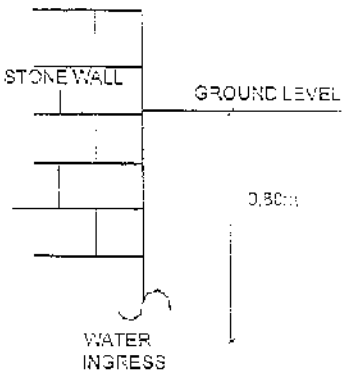
Description of Strata	Legend	Depth	Level	Sampling	SPT Blows U Blows Hand Vane	Pipe
Ground Surface						
MADE GROUND: Tarmac (GL - 0.05). MADE GROUND. Soft to firm brown sandy gravelly clay intermixed with fragments of tarmac at top. Gravel fine to coarse and angular to sub rounded. At 0.40 thin band of soft light brown sandy gravelly clay		0.55		D 0.20		
Soft to firm reddish brown sandy very gravelly CLAY with occasional cobbles. Gravel fine to coarse and angular to sub rounded		0.85		D 0.60		

Water Strikes	Details	SYMBOLS KEY
Strike: Dry Flow:	Casing: Final Depth: 0.85	B - BULK NR - NO RECOVERY U - UNDISTURBED * - ESTIMATED DENSITY D - SMALL DISTURBED J - JAR V - VIAL W - WATER
Stability: Stable Shoring: None Backfilling: Backfilled with arisings Notes: Foundation exposed.		ALL DIMENSIONS ARE IN METRES
Logged by: SKT	Checked by: SKT	

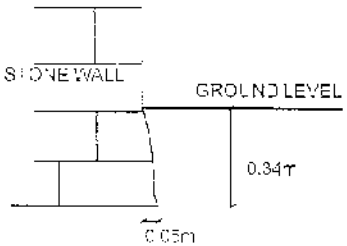
HP01



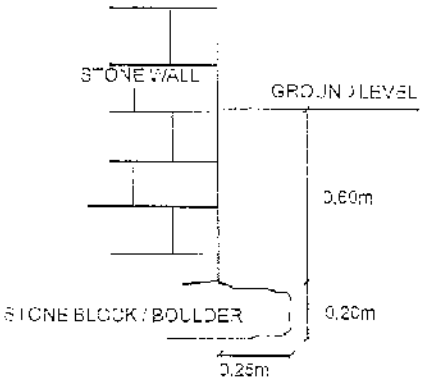
HP02



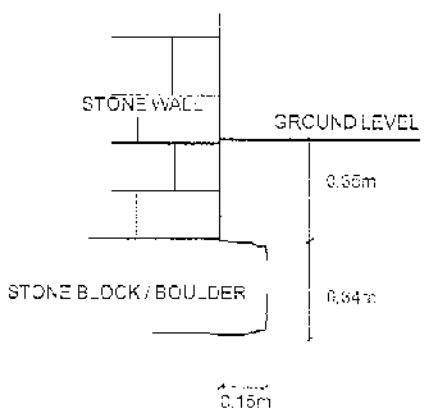
HP03



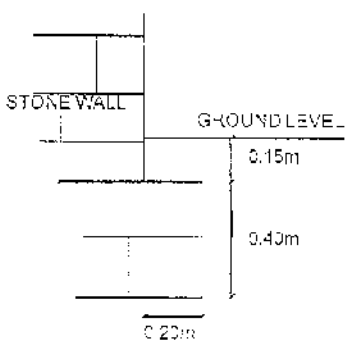
HP04



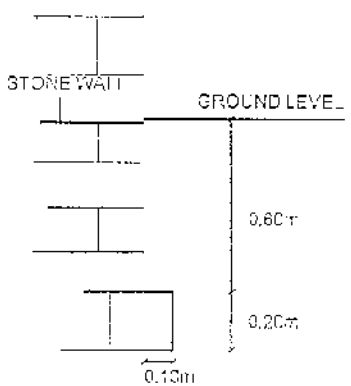
HP05



HP06



HP07



SKF Ltd
Ground Investigation & Site Surveys

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Tel: 07795 493892 or 01475 672409
Fax: 01475 672409
VAT REG NO. 839 1081 30

LONGNEWTON STEADING		CLIENT: DAVID R MURRAY & ASSOCIATES
DRAWN BY: SKF	DATE: 29/02/2008	FOUNDATION SKETCHES
JOB NO: 0535	DRAWING NO: 0535/1	

APPENDIX 3.0
LABORATORY TEST RESULTS

SKF Ltd, Unit 10, Haylie Neuk, Largs. Ayrshire. KA30 8JD – 014/56/2409 / 07795 493892

ritchies

NATURAL MOISTURE CONTENT

Longnewton

Client:

Job No: 3165

Consultant: SKF Limited

Test Method - BS 1377:1990:Part 2:Method 3.2

Sample Identification			Moisture Content (%)
1	132161	1.00 m	22
2	132156	1.00 m	13
3	132157	1.00 m	15

PLASTICITY CHART
Summary of Liquid & Plastic Limits

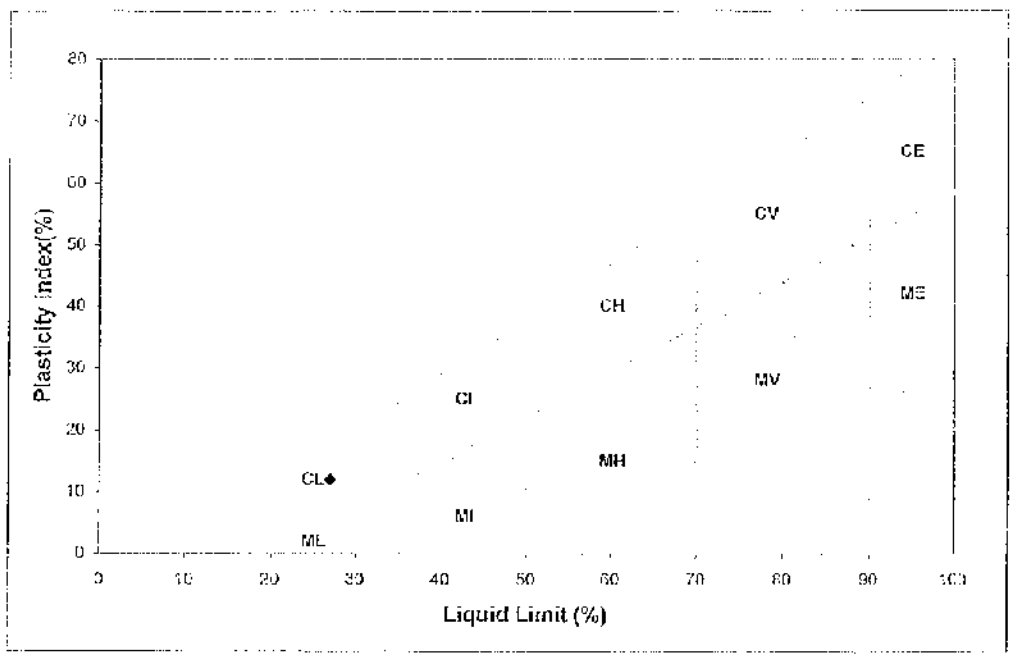
BS1377:Part 2:1990, clauses 3.2, 4 & 5
Chart in accordance with BS5930:1999, fig 18

Longnewton

Client:

Job No 3165

Consultant: SKE Limited



BH/TP	Sample	Depth (m)	MC%	LL%	PL%	PI%	%<425µm	Remarks
1	132161	1.00	22.0	NP	NP	-	67.0	
2	132156	1.00	13.0	27	15	12	13.0	

NP denotes specimen is non-plastic.

ritchies

PARTICLE SIZE DISTRIBUTION

Borehole No **1** Test Results

Longnewton

Client:

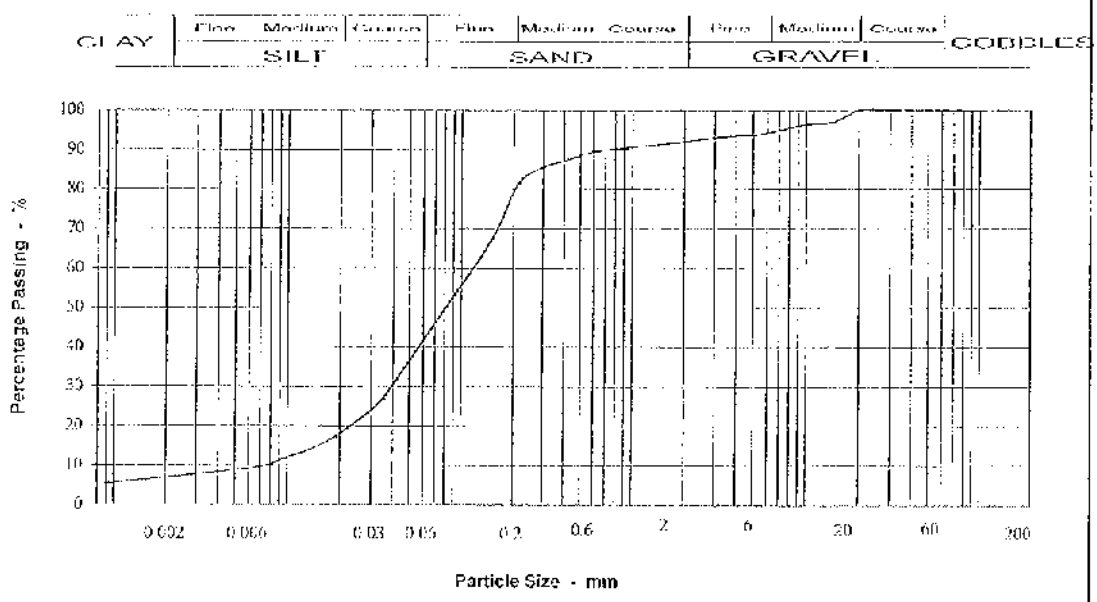
Job No: 3165

Consultant: SKF Limited

Test Method - BS 1377:1990 Part 2 Clause 9.2 & 9.5

Sample Number 132161
Depth (m) : 1 00

Initial Total Dry Weight: 1567 00 g



SIEVING	
BS Sieve Size mm	Cumulative Percentage Passing
75.0	100
63 0	100
50 0	100
37 5	100
28.0	100
20 0	100
14 0	97
10 0	96
6 30	94
5 00	94
3 35	93
2 00	92
1 18	91
0 600	89
0 425	87
0 300	85
0 212	81
0 150	67
0.063	43

SEDIMENTATION	
Particle Size mm	Corrected Percentage Passing
0 035	27
0 025	21
0.019	17
0 013	14
0 010	12
0 007	10
0.001	5

Sample passing BS 0 063mm sieve washed and/or collected in pan
No Pretreatment
Uniformity Coefficient = 16.7

% CLAY	%SILT	%SAND	%GRAVEL
6	35	51	3

D10	D30	D60	D100
0.0074	0 040	0 12	20 00

Ritchies

PARTICLE SIZE DISTRIBUTION

Borehole No **2** Test Results

Longnewton

Client:

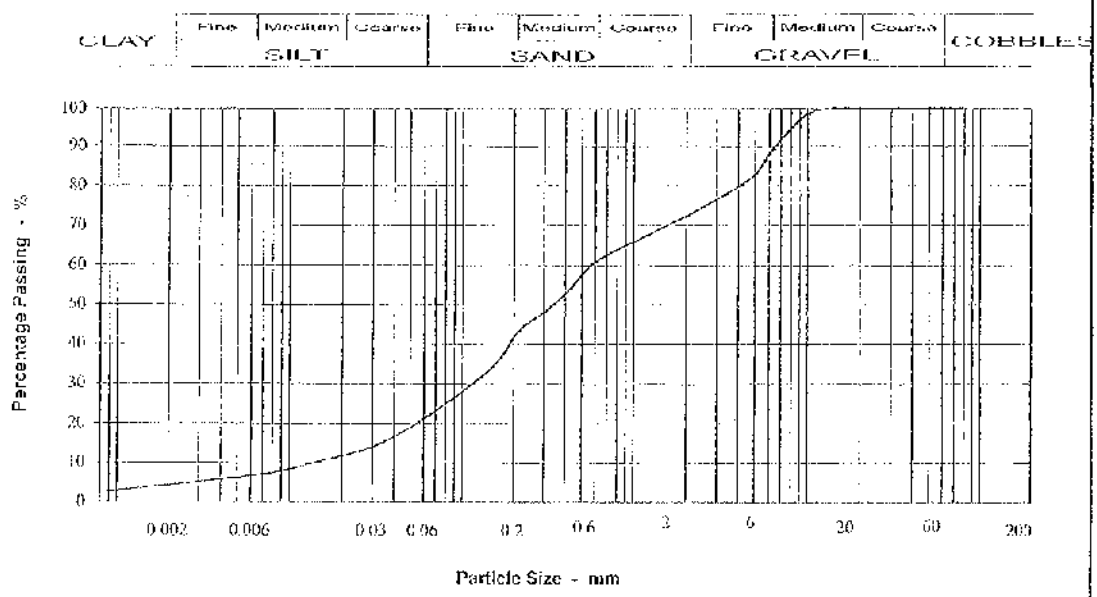
Job No: 3165

Consultant: SKF Limited

Test Method - BS 1377:1990 Part 2 Clause 9.2 & 9.5

Samole Number 132162
Depth (m) : 2 00

Initial Total Dry Weight: 520 00 g



SIEVING		SEDIMENTATION	
BS Sieve Size mm	Cumulative Percentage Passing	Particle Size mm	Corrected Percentage Passing
75.0	100	0.054	15
63 0	100	0 025	13
50 0	100	0 018	11
37.5	100	0 013	10
28 0	100	0 009	8
20 0	100	0 007	7
14 0	100	0 004	5
10 0	98		
6.30	89		
5.00	83		
3 35	78	Sample passing BS 0 063mm sieve washed and/or collected in pan	
2 00	72	No Pretreatment	
1.18	67	Uniformity Coefficient = 41.4	
0 300	61		
0 425	54	% CLAY	%SILT
0 300	48	3	18
0.212	43		
0 150	34		
0.063	22		

%SAND	%GRAVEL
51	28

D10	D30	D60	D100
0 0140	0 121	0 58	14.00

Fitchies

PARTICLE SIZE DISTRIBUTION

Borehole No
3
Test Results

Longnewton

Client:

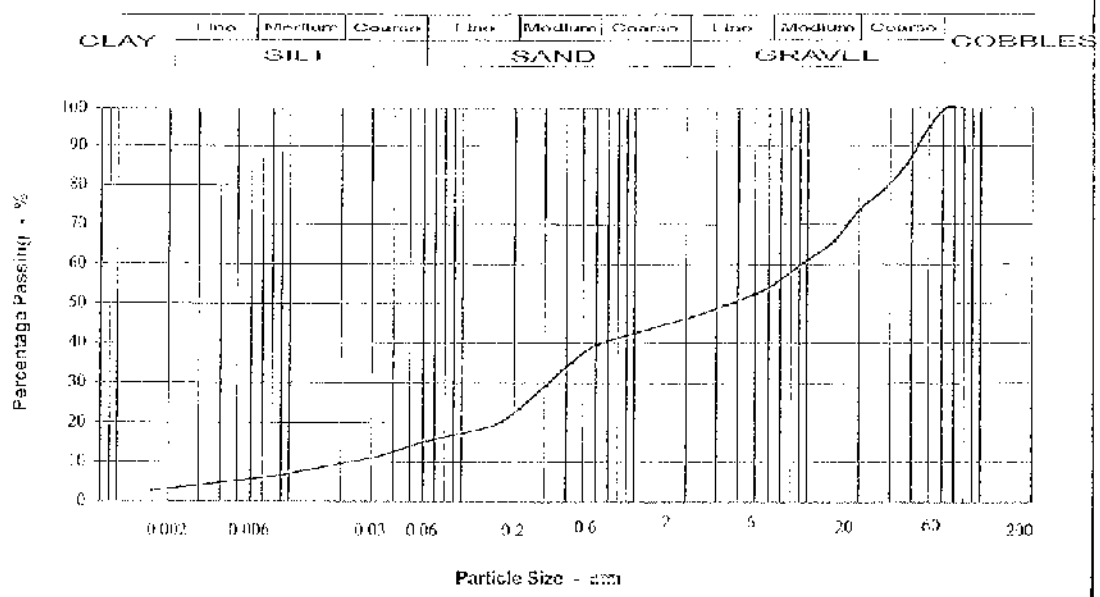
Job No: 3165

Consultant: SKF Limited

Test Method - BS 1377:1990 Part 2 Clause 9.2 & 9.5

Sample Number 132157
Depth (m) : 1.00

Initial Total Dry Weight: 7240.00 g



SIEVING		SEDIMENTATION	
BS Sieve Size mm	Cumulative Percentage Passing	Particle Size mm	Corrected Percentage Passing
75.0	100	0.034	12
63.0	100	0.024	10
50.0	96	0.018	9
37.5	86	0.013	8
28.0	79	0.009	7
20.0	74	0.007	6
14.0	65	0.002	3
10.0	61		
6.30	55		
5.00	52		
3.35	50	Sample passing BS 0.063mm sieve washed and/or collected in pan	
2.00	46	No Pretreatment	
1.18	43	Uniformity Coefficient = 419.5	
0.600	40		
0.425	35		
0.300	29		
0.212	25		
0.150	19		
0.063	15		

% CLAY	%SILT	%SAND	%GRAVEL
3	12	31	53

D10	D30	D60	D100
0.0226	0.317	9.37	63.00

ritchies

PARTICLE SIZE DISTRIBUTION

Borehole No **4** Test Results

Longnewton

Client:

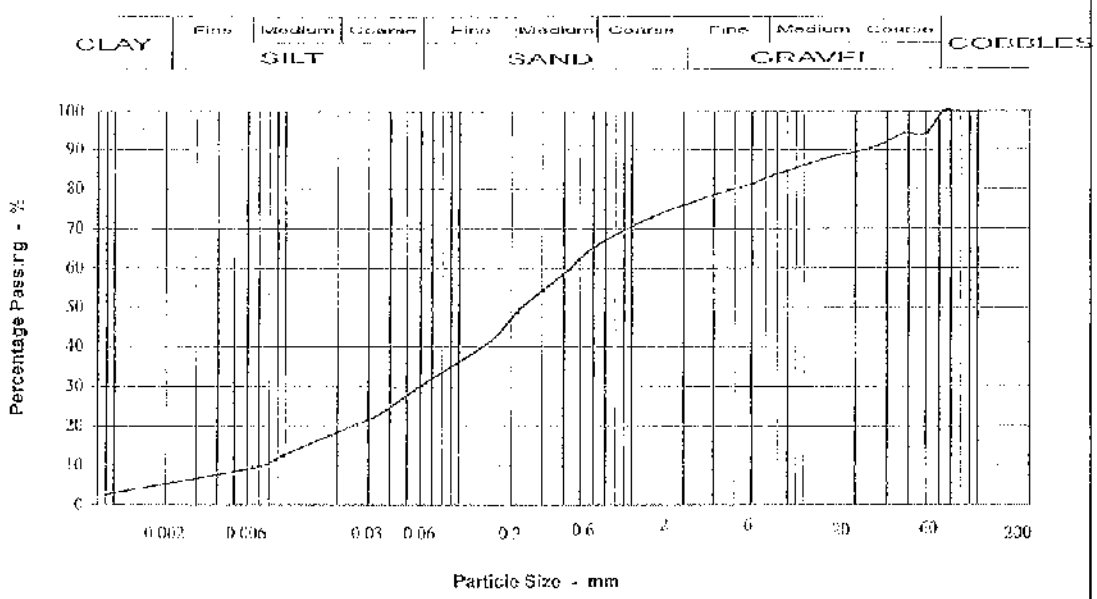
Job No: 3165

Consultant: SKF Limited

Test Method - BS 1377:1990 Part 2 Clause 9.2 & 9.5

Sample Number 132158
Depth (m) : 1.00

Initial Total Dry Weight 2690.00 g



SIEVING	
BS Sieve Size mm	Cumulative Percentage Passing
75.0	100
63.0	100
50.0	94
37.5	94
28.0	91
20.0	89
14.0	88
10.0	86
6.30	83
5.00	81
3.35	79
2.00	76
1.18	72
0.600	65
0.425	60
0.300	54
0.212	49
0.150	41
0.063	31

SEDIMENTATION	
Particle Size mm	Corrected Percentage Passing
0.035	28
0.025	20
0.018	18
0.013	15
0.009	12
0.007	10
0.001	3

Sample oven dried BS 0.063mm Sieve washed and/or collected in pan
No Pretreatment
Uniformity Coefficient 60.2

% CLAY	%SILT	%SAND	%GRAVEL
4	26	46	23

D10	D30	D60	D100
0.0073	0.060	0.44	63.00

ritchies

PARTICLE SIZE DISTRIBUTION

Borehole No 5 Test Results

Longnewton

Client:

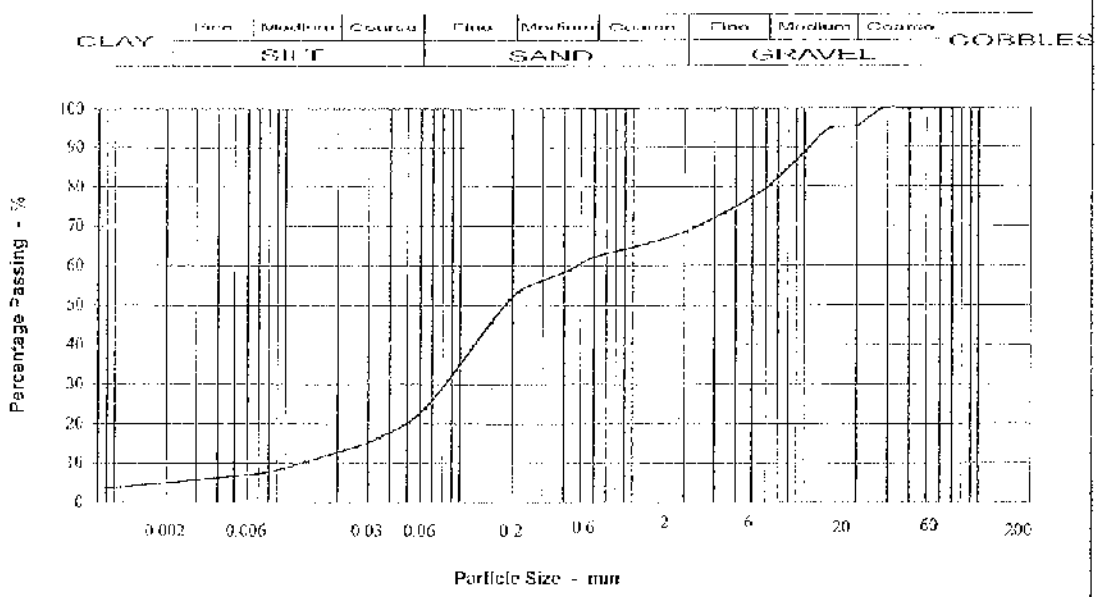
Job No: 3165

Consultant: SKF Limited

Test Method - BS 1377:1990 Part 2 Clause 9.2 & 9.5

Sample Number 132159a
Depth (m) : 1.00

Initial Total Dry Weight 3455.00 g



SIEVING		SEDIMENTATION	
BS Sieve Size mm	Cumulative Percentage Passing	Particle Size mm	Corrected Percentage Passing
75.0	100	0.034	16
63.0	100	0.025	14
50.0	100	0.018	12
37.5	100	0.013	10
28.0	100	0.009	8
20.0	95	0.007	7
14.0	95	0.001	4
10.0	89		
6.30	80		
5.00	77		
3.35	73	Sample passing BS 0.063mm sieve washed and/or collected in pan	
2.00	68	No Pretreatment	
1.18	65	Uniformity Coefficient = 39.0	
0.600	62		
0.425	59	% CLAY / %SILT / %SAND / %GRAVEL	
0.300	56	4 / 19 / 45 / 32	
0.212	53		
0.150	45		
0.063	24	D10 / D30 / D60 / D100	
		0.0124 / 0.088 / 0.49 / 28.00	

ritchies

CALIFORNIA BEARING RATIO

Longnewton

Client:

Job No: 3165

Consultant: SKF Limited

Test Method - BS 1377:1990:Part 4:Method 7

Sample Identification				Moisture Content (%)	Density Mg/m^3		CBR %		
					Bulk	Dry	Top	Base	Mean
3	132157	1.00	m	15	2.2	1.91	7	12.8	10

ritchies

CALIFORNIA BEARING RATIO

Borehole No 3 Test Results

Longnewton

Client:

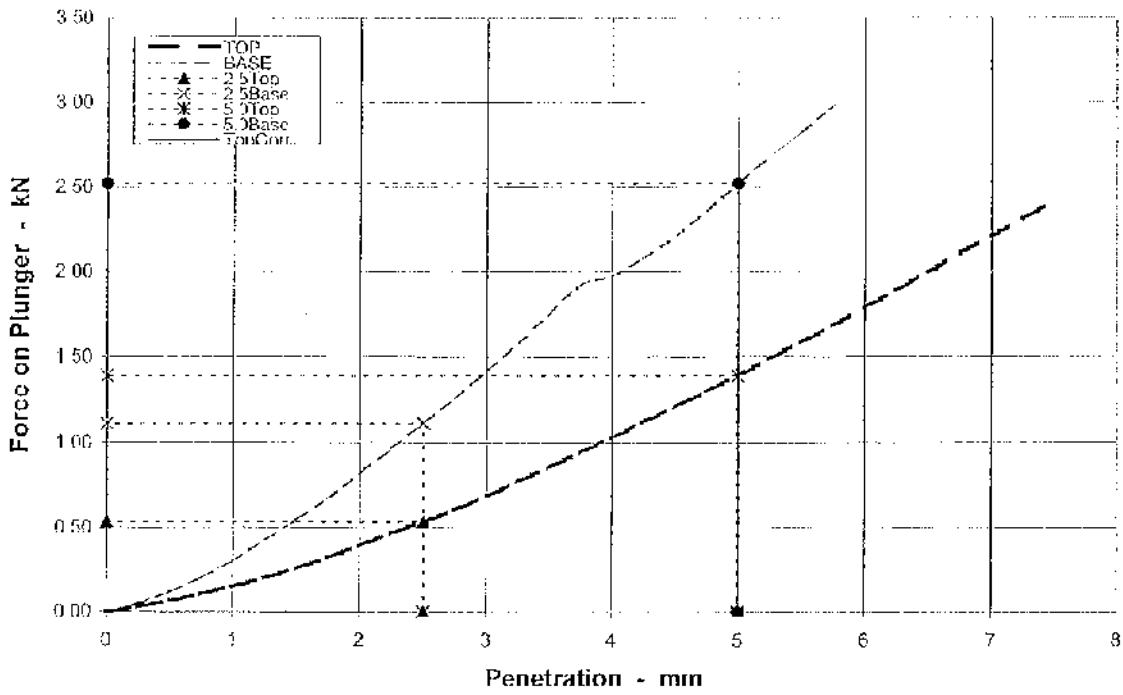
Consultant: SKF Limited

Job No: 3165

Test Method - BS 1377 : Part 4 : 1990 : Clause 7.4

Sample No:	132157
Depth (m):	1 00

Notes



Preparation	Method of Compaction	
	Rammer compaction with specified effort	
	Compaction Rammer	2.5 kg hammer

Sample Conditions		
Natural Moisture Content	%	15
Moisture Content - TOP	%	15
Moisture Content - BASE	%	15
Bulk Density	Mg/m³	2.20
Dry Density	Mg/m³	1.91

Test Conditions		
Sample Retained on 20 mm sieve	%	25.0
Sample Retained on 37.5 mm sieve	%	0.0
Seating Load - TOP	N	50
Seating Load - BASE	N	50
Surcharge	kg	6

Penetration mm	CBR Values %	
	TOP	BASE
2.5	4.1	8.4
5.0	7.0	12.6
Accepted CBR	**7.0**	**12.6**

ONE DIMENSIONAL CONSOLIDATION TEST

Borehole No **2**

Longnewton

Client:

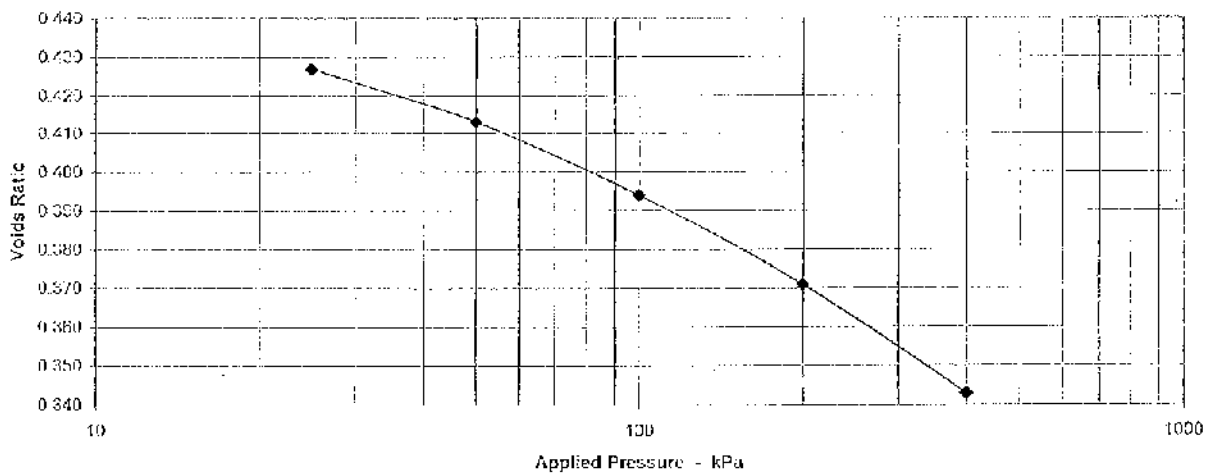
Job No: 3165

Consultant: SKE Limited

Test Method - BS 1377 : 1990 : Part 5

Sample No: 132156

Depth 1.00 m

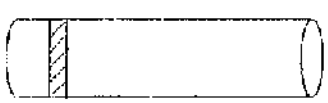


Initial Sample Conditions		
Diameter	mm	75.00
Height	mm	19.00
Moisture Content	%	13.30
Bulk Density	Mg/m³	2.09
Dry Density	Mg/m³	1.84
Voids Ratio		0.455
Assumed		
Particle Density	Mg/m³	2.68
Swelling Pressure	kPa	
Final Sample Conditions		
Moisture Content	%	12.40
Bulk Density	Mg/m³	2.24
Dry Density	Mg/m³	1.99
Voids Ratio		0.343

Seating Pressure	kPa	0
Laboratory Temperature	°C	20.0
Sample Condition		Undisturbed

Pressure Range kPa		Laboratory Coefficients of Compressibility m²/MN	Consolidation m²/year	Method of Curve Fitting
0 -	25.0	0.770	9.40	root time
25.0 -	50.0	0.400	4.37	root time
50.0 -	100.0	0.260	5.95	root time
100.0 -	200.0	0.170	5.65	root time
200.0 -	400.0	0.100	3.16	root time

Location of Test Specimen within Undisturbed Sample



mitchies

UNDRAINED MULTISTAGE TRIAXIAL COMPRESSION

Borehole No **2** Test Results

Longnewton

Client:
Consultant: SKT Limited

Job No: 3165

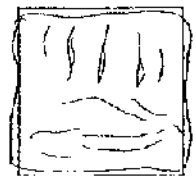
Test Method - BS 1377:1990:Part 7 Clause 9

Sample Number 132156
Depth (m) : 1.00

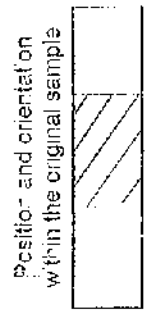
Notes :

Sample Details

Sample Condition		Undisturbed
Height	mm	174.0
Diameter	mm	86.0
Moisture Content	%	13
Bulk Density	Mg/m³	2.04
Dry Density	Mg/m³	1.80



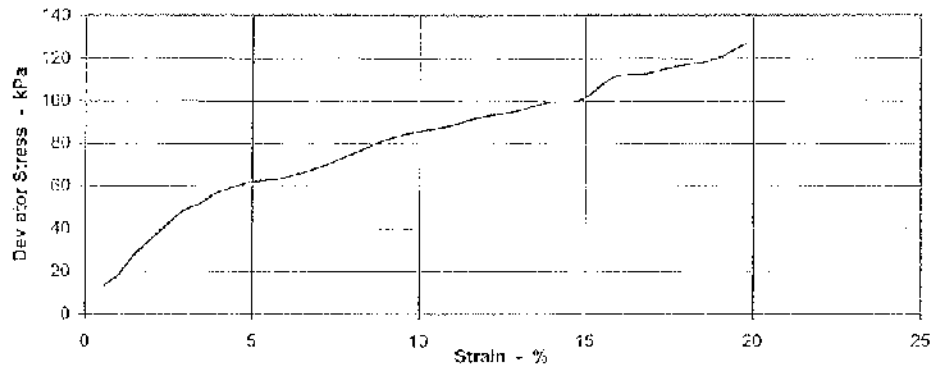
Sketch of Failure

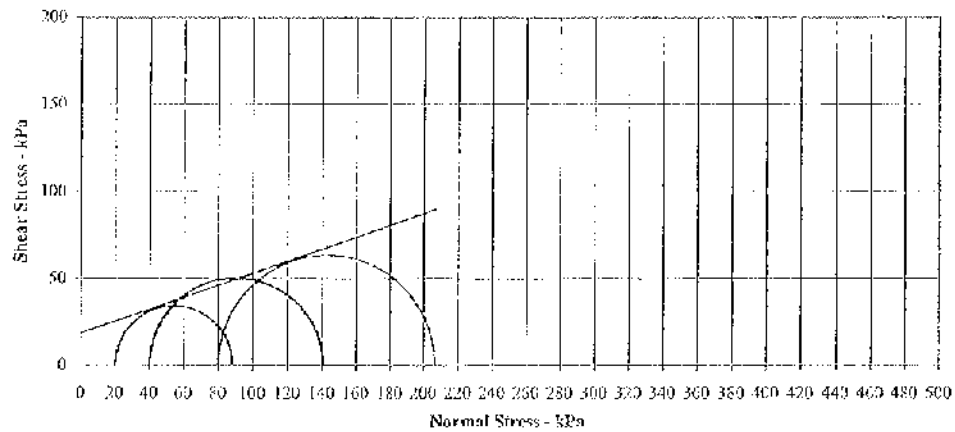


Test Details	Stage	1	2	3
Membrane Thickness	mm	0.30	0.30	0.30
Membrane Correction	kPa	0.59	1.07	1.32
Rate of Axial Displacement	%/min	1.98	1.98	1.98
Cell Pressure	kPa	20	40	60
Strain at Failure	%	6.9	14.9	19.8
Maximum Deviator Stress	kPa	68	101	127
Shear Strength	kPa	34	50	63
Mode of Failure				Intermediate

Shear Strength Parameters

C	18 kPa
Phi	19.0 °





Scientific Analysis Laboratories

Certificate of Analysis

Report Number:	125897-1
Date of Report:	11-Mar-2008
Client:	SKF, Unit 10 Haylie Neuk, Largs. Ayrshire, Scotland. KA30 8JD
Client Contact:	Mr Scott Farquhar
Client Job Reference:	
Client Site Reference:	Longnewton
Date Job Received at SAL:	29-Feb-2008
Date Analysis Started:	03-Mar-2008
Date Analysis Completed:	11-Mar-2008

The results reported relate to samples received at the laboratory
Opinions and interpretations expressed herein are outside the scope of UKAS or MCERTS accreditation
This report should not be reproduced except in full without the written approval of the laboratory
Tests covered by this certificate were conducted in accordance with SAL SOPs

Key to symbols used in this report:
W: Analysis was sub-contracted and performed at another SAL Laboratory
S: Analysis was sub-contracted
N: Analysis is not UKAS accredited
U: Analysis is UKAS accredited
M: Analysis is MCERTS accredited

Report checked and authorised by: Ms Kimberley Puschman, Senior Project Manager

UKAS TESTING 1977

Index to caveats used in this report

Value	Description
AR	As Received
A40	Assisted dried < 40C

SAL Reference: 125897
Project Site: Longniewton

Soil Analysed as Soil
As Received

SAL Reference	**125897 001**
Customer Sample Reference	**S1 0.60M**
Test Sample	**AR**

Determinand	Technique	LOD	Units	Symbol	
Cyanide (Total)	Dist-ISE	1	mg/kg	U	2
Phenols (Total-Mono)	Colorimetry	1	mg/kg	U	<1
Sulphide	Colorimetry	10	mg/kg	N	<10

SAL Reference: 125897
Project Site: Longnewton

Soil Analysed as Soil
Miscellaneous

	SAL Reference	125897 001
	Customer Sample Reference	S1 0.60M
	Test Sample	A40

Determinand	Technique	LOD	Units	Symbol	
Arsenic	ICP/OES (Sim)	2	mg/kg	U	19
Boron (water-soluble)	ICP/OES (Sim)	1	mg/kg	U	<1
Cadmium	ICP/OES (Sim)	1	mg/kg	U	<1
Chromium	ICP/OES (Sim)	1	mg/kg	U	37
Copper	ICP/OES (Sim)	1	mg/kg	U	31
Lead	ICP/OES (Sim)	3	mg/kg	U	35
Mercury	ICP/OES (Sim)	1	mg/kg	U	<1
Nickel	ICP/OES (Sim)	1	mg/kg	U	37
Selenium	ICP/OES (Sim)	2	mg/kg	U	<2
Sulphate(2:1)	ICP/OES (Sim)(Water Extract)	10	mg/l	U	<10
Zinc	ICP/OES (Sim)	1	mg/kg	U	110
pH	Probe			U	6.4
Total Organic Carbon	OX/IR	0.1	%	N	3.4

Scientific Analysis Laboratories

Certificate of Analysis

Report Number:	124241-1
Date of Report:	21-Feb-2008
Client:	SKF, Unit 10 Haylie Neuk, Largs, Ayrshire, Scotland. KA30 8JD
Client Contact:	Mr Scott Farquhar
Client Job Reference:	E8538
Client Site Reference:	Longnewton
Date Job Received at SAL:	11-Feb-2008
Date Analysis Started:	13-Feb-2008
Date Analysis Completed:	21-Feb-2008

The results reported relate to samples received at the laboratory
Opinions and interpretations expressed herein are outside the scope of UKAS or MCERTS accreditation
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M: Analysis is MCERTS accredited

Report checked [redacted]s Kimberley Puschman
and authorised b[redacted]nior Project Manager

UKAS TESTING
1977

Index to caveats used in this report

Value	Description
ND	Not Detected
AR	As Received
10:1	Leachate
A40	Assisted dried < 40C

Notes:
Leachable Cadmium, Chromium, Copper and Zinc results are Non-UKAS accredited.

SAL Reference: 124241
Project Site: Longnewton
Customer Reference: F8538

Soil Analysed as Soil
As received

	SAL Reference	124241 001	124241 002	124241 003	124241 004	124241 005
	Customer Sample Reference	BH1 J 0.50M	BH2 J 0.50M	BH2 J 1.00M	BH3 J 0.50M	BH3 J 1.00M
	Test Sample	AR	AR	AR	AR	AR
Leachate Preparation	Grav	N	Extracted	-	-	Extracted	-
Asbestos (Screen Only)	Visual	N	-	ND	-	ND	-
Cyanide (Total)	Dist-ISE	1 mg/kg U	<1	<1	<1	<1	<1
Phenols (Total-Mono)	Colorimetry	1 mg/kg U	<1	<1	<1	<1	<1
Sulphide	Colorimetry	10 mg/kg N	<10	<10	<10	<10	<10

SAL Reference: 124241
Project Site: Longnewton
Customer Reference: F8538

Soil Analysed as Soil
As received

	SAL Reference	124241 006	124241 007	124241 008	124241 009	124241 010
	Customer Sample Reference	BH4 J 0.50M	BH5 J 0.50M	HP2 D 0.30M	HP4 D 0.20M	HP5 D 0.20M
	Test Sample	AR	AR	AR	AR	AR
Leachate Preparation	Grav	N	-	-	-	-	-
Asbestos (Screen Only)	Visual	N	-	-	-	-	-
Cyanide (Total)	Dist-ISE	1 mg/kg U	<1	<1	<1	<1	<1
Phenols (Total-Mono)	Colorimetry	1 mg/kg U	<1	<1	<1	<1	<1
Sulphide	Colorimetry	10 mg/kg N	<10	<10	<10	<10	<10

SAL Reference: 124241
Project Site: Longnewton
Customer Reference: E8538

Soil Analysed as Soil
As received

				SAL Reference	124241 011	124241 012
				Customer Sample Reference	HP6 D 0.40M	HP7 D 0.20M
				Test Sample	AR	AR
Determinant	**Technique**	**LOD**	**Units**	**Symbol**		
Leachate Preparation	Grav			N	Extracted	-
Asbestos (Screen Only)	Visual			N	ND	-
Cyanide (Total)	Dist-ISE	1	mg/kg	U	<1	<1
Phenols (Total-Mono)	Colorimetry	1	mg/kg	U	<1	<1
Sulphide	Colorimetry	10	mg/kg	N	<10	<10

SAL Reference: 124241
Project Site: Longnewton
Customer Reference: E8538

Soil Miscellaneous Analysed as Soil

					SAL Reference	124241 001	124241 002	124241 003	124241 004	124241 005
					Customer Sample Reference	BH1 J 0.50M	BH2 J 0.50M	BH2 J 1.00M	BH3 J 0.50M	BH3 J 1.00M
					Test Sample	A40	A40	A40	A40	A40
Determinant	**Technique**	**LOD**	**Units**	**Symbol**						
Arsenic	ICP/OES (Sim)	2	mg/kg	U		21	25	27	23	52
Boron (water soluble)	ICP/OES (Sim)	1	mg/kg	U		<1	<1	<1	<1	<1
Cadmium	ICP/OES (Sim)	1	mg/kg	U		<1	<1	<1	<1	<1
Chromium	ICP/OES (Sim)	1	mg/kg	U		23	29	32	37	37
Copper	ICP/OES (Sim)	1	mg/kg	U		18	29	33	32	44
Lead	ICP/OES (Sim)	3	mg/kg	U		21	34	20	270	28
Mercury	ICP/OES (Sim)	1	mg/kg	U		<1	<1	<1	<1	<1
Nickel	ICP/OES (Sim)	1	mg/kg	U		21	35	60	46	54
Selenium	ICP/OES (Sim)	2	mg/kg	U		<2	<2	<2	<2	<2
Sulphate(2:1)	ICP/OES (SIM)(Water Extract)	10	mg/l	U		58	12	<10	57	10
Zinc	ICP/OES (Sim)	1	mg/kg	U		58	100	83	120	110
pH	Probe			U		7.2	8.0	7.4	7.9	7.8
Total Organic Carbon	OX/IR	0.1	%	N		1.1	-	0.4	-	-

SAL Reference: 124241
Project Site: Longnewton
Customer Reference: E8538

Soil Analysed as Soil
Miscellaneous

				SAL Reference	124241 006	124241 007	124241 008	124241 009	124241 010
				Customer Sample Reference	BH4 J 0.50M	BH5 J 0.50M	HP2 D 0.30M	HP4 D 0.20M	HP5 D 0.20M
				Test Sample	A40	A40	A40	A40	A40
Determinant	**Technique**	**LOD**	**Units**	**Symbol**					
Arsenic	ICP/OES (Sim)	2	mg/kg	U	30	8	20	18	15
Boron (water-soluble)	ICP/OES (Sim)	1	mg/kg	U	<1	<1	<1	<1	<1
Cadmium	ICP/OES (Sim)	1	mg/kg	U	<1	<1	<1	<1	<1
Chromium	ICP/OES (Sim)	1	mg/kg	U	26	17	28	32	24
Copper	ICP/OES (Sim)	1	mg/kg	U	21	6	28	32	26
Lead	ICP/OES (Sim)	3	mg/kg	U	31	8	130	410	240
Mercury	ICP/OES (Sim)	1	mg/kg	U	<1	<1	<1	<1	<1
Nickel	ICP/OES (Sim)	1	mg/kg	U	38	19	29	32	25
Selenium	ICP/OES (Sim)	2	mg/kg	U	<2	<2	<2	<2	<2
Sulphate(2:1)	ICP/OES (SIM)(Water Extract)	10	mg/l	U	<10	<10	11	<10	95
Zinc	ICP/OES (Sim)	1	mg/kg	U	76	18	280	400	260
pH	Probe			U	7.8	7.5	7.3	6.6	6.9
Total Organic Carbon	OX/IR	0.1	%	N	-	0.3	-	-	-

SAL Reference: 124241
Project Site: Longnewton
Customer Reference: E8538

Soil Analysed as Soil
Miscellaneous

				SAL Reference	124241 011	124241 012
				Customer Sample Reference	HP6 D 0.40M	HP7 D 0.20M
				Test Sample	A40	A40
Determinant	**Technique**	**LOD**	**Units**	**Symbol**		
Arsenic	ICP/OES (Sim)	2	mg/kg	U	20	21
Boron (water-soluble)	ICP/OES (Sim)	1	mg/kg	U	<1	<1
Cadmium	ICP/OES (Sim)	1	mg/kg	U	<1	<1
Chromium	ICP/OES (Sim)	1	mg/kg	U	45	23
Copper	ICP/OES (Sim)	1	mg/kg	U	36	20
Lead	ICP/OES (Sim)	3	mg/kg	U	260	47
Mercury	ICP/OES (Sim)	1	mg/kg	U	<1	<1
Nickel	ICP/OES (Sim)	1	mg/kg	U	51	24
Selenium	ICP/OES (Sim)	2	mg/kg	U	<2	<2
Sulphate(2:1)	ICP/OES (SIM)(Water Extract)	10	mg/l	U	<10	18
Zinc	ICP/OES (Sim)	1	mg/kg	U	210	62
pH	Probe			U	6.4	7.8
Total Organic Carbon	OX/IR	0.1	%	N	-	-

SAL Reference: 124241
Project Site: Longnewton
Customer Reference: E8538

Soil Analysed as Soil
Organochlorine insecticides

					SAL Reference	124241 001	124241 006
					Customer Sample Reference	BH1 J 0.50M	BH4 J 0.50M
					Test Sample	A40	A40
Determinant	**Technique**	**LOD**	**Units**	**Symbol**			
Aldrin	GC/MS	0.01	mg/kg	WU		<0.01	<0.01
Chlordane (sum of cis and trans isomers)	GC/MS	0.01	mg/kg	WU		<0.01	<0.01
DDD	GC/MS	0.01	mg/kg	WU		<0.01	<0.01
DDE	GC/MS	0.01	mg/kg	WU		<0.01	<0.01
DDT	GC/MS	0.01	mg/kg	WU		<0.01	<0.01
Dieldrin	GC/MS	0.01	mg/kg	WU		<0.01	<0.01
Endosulphan	GC/MS	0.01	mg/kg	WU		<0.01	<0.01
Endrin	GC/MS	0.01	mg/kg	WU		<0.01	<0.01
Heptachlor	GC/MS	0.01	mg/kg	WU		<0.01	<0.01
Heptachlor epoxide	GC/MS	0.01	mg/kg	WU		<0.01	<0.01
Hexachlorobenzene	GC/MS (HR)	0.01	mg/kg	WU		<0.01	<0.01
Hexachlorocyclohexane (sum of alpha, beta and gamma)	GC/MS	0.01	mg/kg	WU		<0.01	<0.01

SAL Reference: 124241
Project Site: Longnewton
Customer Reference: E8538

Soil Analysed as Soil

Total Petroleum Hydrocarbons C8-C35 Aliphatic/Aromatic

					SAL Reference	124241 004	124241 006	124241 008
					Customer Sample Reference	BH3 J 0.50M	BH4 J 0.50M	HP2 D 0.30M
					Test Sample	AR	AR	AR
Determinant	**Technique**	**LOD**	**Units**	**Symbol**				
Total Petroleum Hydrocarbons (C8-C10 aliphatic)	GC/FID	1	mg/kg	N		<1	<1	<1
Total Petroleum Hydrocarbons (C10-C12 aliphatic)	GC/FID	1	mg/kg	N		<1	<1	<1
Total Petroleum Hydrocarbons (C12-C16 aliphatic)	GC/FID	1	mg/kg	N		2	2	3
Total Petroleum Hydrocarbons (C16-C21 aliphatic)	GC/FID	1	mg/kg	N		6	5	<1
Total Petroleum Hydrocarbons (C21-C35 aliphatic)	GC/FID	1	mg/kg	N		2	1	2
Total Petroleum Hydrocarbons (C8-C10 aromatic)	GC/FID	1	mg/kg	N		<1	<1	<1
Total Petroleum Hydrocarbons (C10-C12 aromatic)	GC/FID	1	mg/kg	N		<1	<1	<1
Total Petroleum Hydrocarbons (C12-C16 aromatic)	GC/FID	1	mg/kg	N		<1	<1	<1
Total Petroleum Hydrocarbons (C16-C21 aromatic)	GC/FID	1	mg/kg	N		1	1	2
Total Petroleum Hydrocarbons (C21-C35 aromatic)	GC/FID	1	mg/kg	N		<1	<1	<1

SAL Reference: 124241
Project Site: Longnewton
Customer Reference: E8538

Leachate Analysed as Water

Miscellaneous

				SAL Reference	124241 001	124241 004	124241 011
				Customer Sample Reference	BH1 J 0.50M	BH3 J 0.50M	HP6 D 0.40M
				Test Sample	10:1	10:1	10:1
Determinant	**Technique**	**LOD**	**Units**	**Symbol**			
Arsenic	ICP/OES (Hyd/Sim)	5	µg/l	U	6	<5	7
Cadmium	ICP/OES (Sim)	5	µg/l	U	<5	<5	<5
Chromium	ICP/OES (Sim)	10	µg/l	U	27	19	24
Copper	ICP/OES (Sim)	20	µg/l	U	<20	<20	<20
Lead	ICP/OES (Sim)(Preconc.)	25	µg/l	N	<25	<25	<25
Mercury	ICP/OES (Sim/CV)	1	µg/l	U	<1	<1	<1
Nickel	ICP/OES (Sim)	10	µg/l	U	15	<10	<10
Selenium	ICP/OES (Hyd/Sim)	5	µg/l	U	<5	<5	<5
Zinc	ICP/OES (Sim)	10	µg/l	U	49	<10	<10
Total Hardness expressed as Calcium Carbonate	ICP/OES (Sim)	10	mg/l	N	10	43	26

Scientific Analysis Laboratories

Certificate of Analysis

Report Number:	124425-1
Date of Report:	25-Feb-2008
Client:	SKF, Unit 10 Haylie Neuk, Largs, Ayrshire, Scotland KA30 8JD
Client Contact:	Mr Scott Farquhar
Client Job Reference:	0535
Client Site Reference:	Longnewton
Date Job Received at SAL:	13-Feb-2008
Date Analysis Started:	14-Feb-2008
Date Analysis Completed:	25-Feb-2008

The results reported relate to samples received at the laboratory
Opinions and interpretations expressed herein are outside the scope of UKAS or MCERTS accreditation
This report should not be reproduced except in full without the written approval of the laboratory
Tests covered by this certificate were conducted in accordance with SAL SOPs

Key to symbols used in this report:
W: Analysis was performed at another SAL Laboratory
S: Analysis was sub-contracted
N: Analysis is not UKAS accredited
U: Analysis is UKAS accredited
M: Analysis is MCERTS accredited

Report checked and authorised by: Ms Kimberley Puschman, Senior Project Manager

UKAS TESTING
1977

Index to caveats used in this report

Value	Description
AR	As Received
13	Results have been blank corrected.

Notes:
Leachable Cadmium, Chromium, Copper and Zinc results are Non-UKAS accredited.

SAL Reference: 124425
Project Site: Longnewton
Customer Reference: 0535

Water Analysed as Water
Metals

					SAL Reference	124425 001	124425 002
					Customer Sample Reference	BH1 W	BH4 W
					Test Sample	AR	AR
Determinant	**Technique**	**LOD**	**Units**	**Symbol**			
Arsenic	ICP/OES (Hyd/Sim)	5	µg/l	U		8	16
Boron	ICP/OES (Sim)	100	µg/l	N		140	100
Cadmium	ICP/OES (Sim)	5	µg/l	U		<5	<5
Chromium	ICP/OES (Sim)	10	µg/l	U		12	<10
Copper	ICP/OES (Sim)	20	µg/l	U		<20	<20
Lead	ICP/OES (Sim)(Preconc.)	25	µg/l	N		<25	<25
Mercury	ICP/OES (Sim/CV)	1	µg/l	U		<1	<1
Nickel	ICP/OES (Sim)	10	µg/l	U		14	64
Selenium	ICP/OES (Hyd/Sim)	5	µg/l	U		<5	<5
Sulphate (Total)	ICP/OES (Sim)	10	mg/l	U		27	11
Zinc	ICP/OES (Sim)	10	µg/l	U		34	26
pH	Probe			U		6.8	7.1
Total Hardness expressed as Calcium Carbonate	ICP/OES (Sim)	10	mg/l	N		480	300

SAL Reference: 124425
Project Site: Longnewton
Customer Reference: 0535

Water Analysed as Water
Miscellaneous

	SAL Reference	124425 001	124425 002
	Customer Sample Reference	BH1 W	BH4 W
	Test Sample	AR	AR

Determinant	Technique	LOD	Units	Symbol		
Cyanide (Total)	Dist-ISE	0.05	mg/l	U	<0.05	<0.05
Sulphide	Dist-VAS	0.1	mg/l	N	<0.1	<0.1

SAL Reference: 124425
Project Site: Longnewton
Customer Reference: 0535

Water Analysed as Water
Phenols (Speciated)

	SAL Reference	124425 001	124425 002
	Customer Sample Reference	BH1 W	BH4 W
	Test Sample	AR	AR

Determinant	Technique	LOD	Units	Symbol		
Cresols	GC/MS	0.5	µg/l	WU	<0.5	<0.5
Phenol	GC/MS (HR)	0.5	µg/l	WU	<0.5	<0.5
Xylenols	GC/MS	0.5	µg/l	WU	<0.5	<0.5

SAL Reference: 124425
Project Site: Longnewton
Customer Reference: 0535

Water Analysed as Water
Semi-Volatile Organic Compounds (USEPA 625)

	SAL Reference	124425 001	124425 002	124425 003
	Customer Sample Reference	BH1 W	BH4 W	lab Blank
	Test Sample	AR	AR	AR

Determinant	Technique	LOD	Units	Symbol			
1,2,4-Trichlorobenzene	GC/MS	10	µg/l	WU	<10	<10	<10
1,2-Dichlorobenzene	GC/MS	10	µg/l	WU	<10	<10	<10
1,3-Dichlorobenzene	GC/MS	10	µg/l	WU	<10	<10	<10
1,4-Dichlorobenzene	GC/MS	10	µg/l	WU	<10	<10	<10
2,4,5-Trichlorophenol	GC/MS	10	µg/l	WU	<10	<10	<10
2,4,6-Trichlorophenol	GC/MS	10	µg/l	WU	<10	<10	<10
2,4-Dichlorophenol	GC/MS	10	µg/l	WU	<10	<10	<10
2,4-Dimethylphenol	GC/MS	10	µg/l	WU	<10	<10	<10
2,4-Dinitrophenol	GC/MS	10	µg/l	WU	<10	<10	<10
2,4-Dinitrotoluene	GC/MS	10	µg/l	WU	<10	<10	<10
2,6-Dinitrotoluene	GC/MS	10	µg/l	WU	<10	<10	<10
2-Chloronaphthalene	GC/MS	10	µg/l	WU	<10	<10	<10
2-Chlorophenol	GC/MS	10	µg/l	WU	<10	<10	<10
2-methyl phenol	GC/MS	10	µg/l	WU	<10	<10	<10
2-Methylnaphthalene	GC/MS	10	µg/l	WU	<10	<10	<10
2-Nitroaniline	GC/MS	10	µg/l	WU	<10	<10	<10
2 Nitrophenol	GC/MS	10	µg/l	WU	<10	<10	<10
3-Nitroaniline	GC/MS	10	µg/l	WU	<10	<10	<10
3/4-Methylphenol	GC/MS	10	µg/l	WU	<10	<10	<10
4-Bromophenyl phenylether	GC/MS	10	µg/l	WU	<10	<10	<10
4-Chloro-3-methylphenol	GC/MS	10	µg/l	WU	<10	<10	<10
4-Chloroaniline	GC/MS	10	µg/l	WU	<10	<10	<10
4-Chlorophenyl phenylether	GC/MS	10	µg/l	WU	<10	<10	<10
4-Nitroaniline	GC/MS	10	µg/l	WU	<10	<10	<10
4-Nitrophenol	GC/MS	10	µg/l	WU	<10	<10	<10
Acenaphthene	GC/MS	10	µg/l	WU	<10	<10	<10
Acenaphthylene	GC/MS	10	µg/l	WU	<10	<10	<10
Anthracene	GC/MS	10	µg/l	WU	<10	<10	<10
Azobenzene	GC/MS	10	µg/l	WU	<10	<10	<10
Benzo(a)Anthracene	GC/MS	10	µg/l	WU	<10	<10	<10
Benzo(a)Pyrene	GC/MS	10	µg/l	WU	<10	<10	<10
Benzo(b/k)Fluoranthene	GC/MS	10	µg/l	WU	<10	<10	<10
Benzo(ghi)Perylene	GC/MS	10	µg/l	WU	<10	<10	<10
Bis (2-chloroethoxy) methane	GC/MS	10	µg/l	WU	<10	<10	<10
Bis (2-chloroethyl) ether	GC/MS	10	µg/l	WU	<10	<10	<10
Bis (2-chloroisopropyl) ether	GC/MS	10	µg/l	WU	<10	<10	<10
Bis (2-ethylhexyl)phthalate	GC/MS	10	µg/l	WU	<10	<10	<10
Butyl benzylphthalate	GC/MS	10	µg/l	WU	<10	<10	<10
Carbazole	GC/MS	10	µg/l	WU	<10	<10	<10
Chrysene	GC/MS	10	µg/l	WU	<10	<10	<10
Di-n butylphthalate	GC/MS	10	µg/l	WU	<10	<10	<10
Di-n-octylphthalate	GC/MS	10	µg/l	WU	<10	<10	<10
Dibenzo(ah)Anthracene	GC/MS	10	µg/l	WU	<10	<10	<10
Dibenzofuran	GC/MS	10	µg/l	WU	<10	<10	<10

SAL Reference: 124425
Project Site: Longnewton
Customer Reference: 0535

Water Analysed as Water
Semi-Volatile Organic Compounds (USEPA 625)

				SAL Reference	124425 001	124425 002	124425 003
				Customer Sample Reference	BH1 W	BH4 W	lab Blank
				Test Sample	AR	AR	AR
Determinant	**Technique**	**LOD**	**Units**	**Symbol**			
Diethyl phthalate	GC/MS	10	µg/l	WU	<10	<10	<10
Dimethyl phthalate	GC/MS	10	µg/l	WU	<10	<10	<10
Fluoranthene	GC/MS	10	µg/l	WU	<10	<10	<10
Fluorene	GC/MS	10	µg/l	WU	<10	<10	<10
Hexachlorobenzene	GC/MS	10	µg/l	WU	<10	<10	<10
Hexachlorobutadiene	GC/MS	10	µg/l	WU	<10	<10	<10
Hexachlorocyclopentadiene	GC/MS	10	µg/l	WU	<10	<10	<10
Hexachloroethane	GC/MS	10	µg/l	WU	<10	<10	<10
Indeno(123-cd)Pyrene	GC/MS	10	µg/l	WU	<10	<10	<10
Isophorone	GC/MS	10	µg/l	WU	<10	<10	<10
Naphthalene	GC/MS	10	µg/l	WU	<10	<10	<10
Nitrobenzene	GC/MS	10	µg/l	WU	<10	<10	<10
Pentachlorophenol	GC/MS	10	µg/l	WU	<10	<10	<10
Phenanthrene	GC/MS	10	µg/l	WU	<10	<10	<10
Phenol	GC/MS	10	µg/l	WU	<10	<10	<10
Pyrene	GC/MS	10	µg/l	WU	<10	<10	<10

SAL Reference: 124425
Project Site: Longnewton
Customer Reference: 0535

Water Analysed as Water
Volatile Organic Compounds (USEPA 624)

	SAL Reference	124425 001	124425 002
	Customer Sample Reference	BH1 W	BH4 W
	Test Sample	AR	AR

Determinant	Technique	LOD	Units	Symbol		
1,1,1,2-Tetrachloroethane	GC/MS (Headspace)	1	µg/l	U	<1	<1
1,1,1-Trichloroethane	GC/MS (Headspace)	1	µg/l	U	<1	<1
1,1,2,2-Tetrachloroethane	GC/MS (Headspace)	1	µg/l	U	<1	<1
1,1,2-Trichloroethane	GC/MS (Headspace)	1	µg/l	U	<1	<1
1,1,2-Trichloroethylene	GC/MS (Headspace)	1	µg/l	U	<1	<1
1,1-Dichloroethane	GC/MS (Headspace)	1	µg/l	U	<1	<1
1,1-Dichloroethylene	GC/MS (Headspace)	1	µg/l	U	<1	<1
1,1-Dichloropropene	GC/MS (Headspace)	1	µg/l	U	<1	<1
1,2,3-Trichloropropane	GC/MS (Headspace)	1	µg/l	U	<1	<1
1,2,4-Trimethylbenzene	GC/MS (Headspace)	1	µg/l	U	<1	<1
1,2-dibromoethane	GC/MS (Headspace)	1	µg/l	U	<1	<1
1,2-Dichlorobenzene	GC/MS (Headspace)	1	µg/l	U	<1	<1
1,2-Dichloroethane	GC/MS (Headspace)	1	µg/l	U	<1	<1
1,2-Dichloropropane	GC/MS (Headspace)	1	µg/l	U	<1	<1
1,3,5-Trimethylbenzene	GC/MS (Headspace)	1	µg/l	U	<1	<1
1,3-Dichlorobenzene	GC/MS (Headspace)	1	µg/l	U	<1	<1
1,3-Dichloropropane	GC/MS (Headspace)	1	µg/l	U	<1	<1
1,4-Dichlorobenzene	GC/MS (Headspace)	1	µg/l	U	<1	<1
2,2-Dichloropropane	GC/MS (Headspace)	1	µg/l	U	<1	<1
2-Chlorotoluene	GC/MS (Headspace)	1	µg/l	U	<1	<1
4-Chlorotoluene	GC/MS (Headspace)	1	µg/l	U	<1	<1
Benzene	GC/MS (Headspace)	1	µg/l	U	(13)<1	(13)<1
Bromobenzene	GC/MS (Headspace)	1	µg/l	U	<1	<1
Bromochloromethane	GC/MS (Headspace)	1	µg/l	U	<1	<1
Bromodichloromethane	GC/MS (Headspace)	1	µg/l	U	<1	<1
Bromoform	GC/MS (Headspace)	1	µg/l	U	<1	<1
Bromomethane	GC/MS (Headspace)	1	µg/l	U	<1	<1
Carbon tetrachloride	GC/MS (Headspace)	1	µg/l	U	<1	<1
Chlorobenzene	GC/MS (Headspace)	1	µg/l	U	<1	<1
Chlorodibromomethane	GC/MS (Headspace)	1	µg/l	U	<1	<1
Chloroethane	GC/MS (Headspace)	1	µg/l	U	<1	<1
Chloroform	GC/MS (Headspace)	1	µg/l	U	<1	<1
Chloromethane	GC/MS (Headspace)	1	µg/l	U	<1	<1
cis-1,2-Dichloroethylene	GC/MS (Headspace)	1	µg/l	U	<1	<1
cis-1,3-Dichloropropene	GC/MS (Headspace)	1	µg/l	U	<1	<1
Dibromomethane	GC/MS (Headspace)	1	µg/l	U	<1	<1
EthylBenzene	GC/MS (Headspace)	1	µg/l	U	<1	<1
Meta/Para-Xylene	GC/MS (Headspace)	1	µg/l	U	<1	<1
Ortho-Xylene	GC/MS (Headspace)	1	µg/l	U	<1	<1
Styrene	GC/MS (Headspace)	1	µg/l	U	<1	<1
Tetrachloroethylene	GC/MS (Headspace)	1	µg/l	U	<1	<1
Toluene	GC/MS (Headspace)	1	µg/l	U	<1	<1
trans-1,2-Dichloroethylene	GC/MS (Headspace)	1	µg/l	U	<1	<1

SAL Reference: 124425
Project Site: Longnewton
Customer Reference: 0535

Water Analysed as Water
Volatile Organic Compounds (USEPA 624)

				SAL Reference	124425 001	124425 002
				Customer Sample Reference	BH1 W	BH4 W
				Test Sample	AR	AR
Determinant	**Technique**	**LOD**	**Units**	**Symbol**		
Trichlorofluoromethane	GC/MS (Headspace)	1	µg/l	U	<1	<1
Vinyl chloride monomer	GC/MS (Headspace)	1	µg/l	U	<1	<1

Scientific Analysis Laboratories

Certificate of Analysis

Report Number:	125902-1
Date of Report:	11-Mar-2008
Client:	SKF, Unit 10 Haylie Neuk, Largs, Ayrshire, Scotland. KA30 8JD
Client Contact:	Mr Scott Farquhar
Client Job Reference:	
Client Site Reference:	Longnewton
Date Job Received at SAL:	29-Feb-2008
Date Analysis Started:	03-Mar-2008
Date Analysis Completed:	11-Mar-2008

The results reported relate to samples received at the laboratory
Opinions and interpretations expressed herein are outside the scope of UKAS or MCERTS accreditation
This report should not be reproduced except in full without the written approval of the laboratory
Tests covered by this certificate were conducted in accordance with SAL SOPs

Key to symbols used in this report:
W: Analysis was sub-contracted and performed at another SAL Laboratory
S: Analysis was sub-contracted
N: Analysis is not UKAS accredited
U: Analysis is UKAS accredited
M: Analysis is MCERTS accredited

Report checked and authorised by: Ms Kimberley Puschman, Senior Project Manager

UKAS TESTING 1977

Index to caveats used in this report

Value	Description
AR	As Received
10:1	Leachate

SAL Reference: 125902
Project Site: Longnewton

Soil Analysed as Soil
Miscellaneous

	SAL Reference	125902 001	125902 002	125902 003
	Customer Sample Reference	BH03 1.00M	BH02 1.00M	BH04 0.50M
	Test Sample	AR	AR	AR
Determinand	**Technique**	**LOD**	**Units Symbol**	
Leachate Preparation	Grav		N	Extracted	Extracted	Extracted

SAL Reference: 125902
Project Site: Longnewton

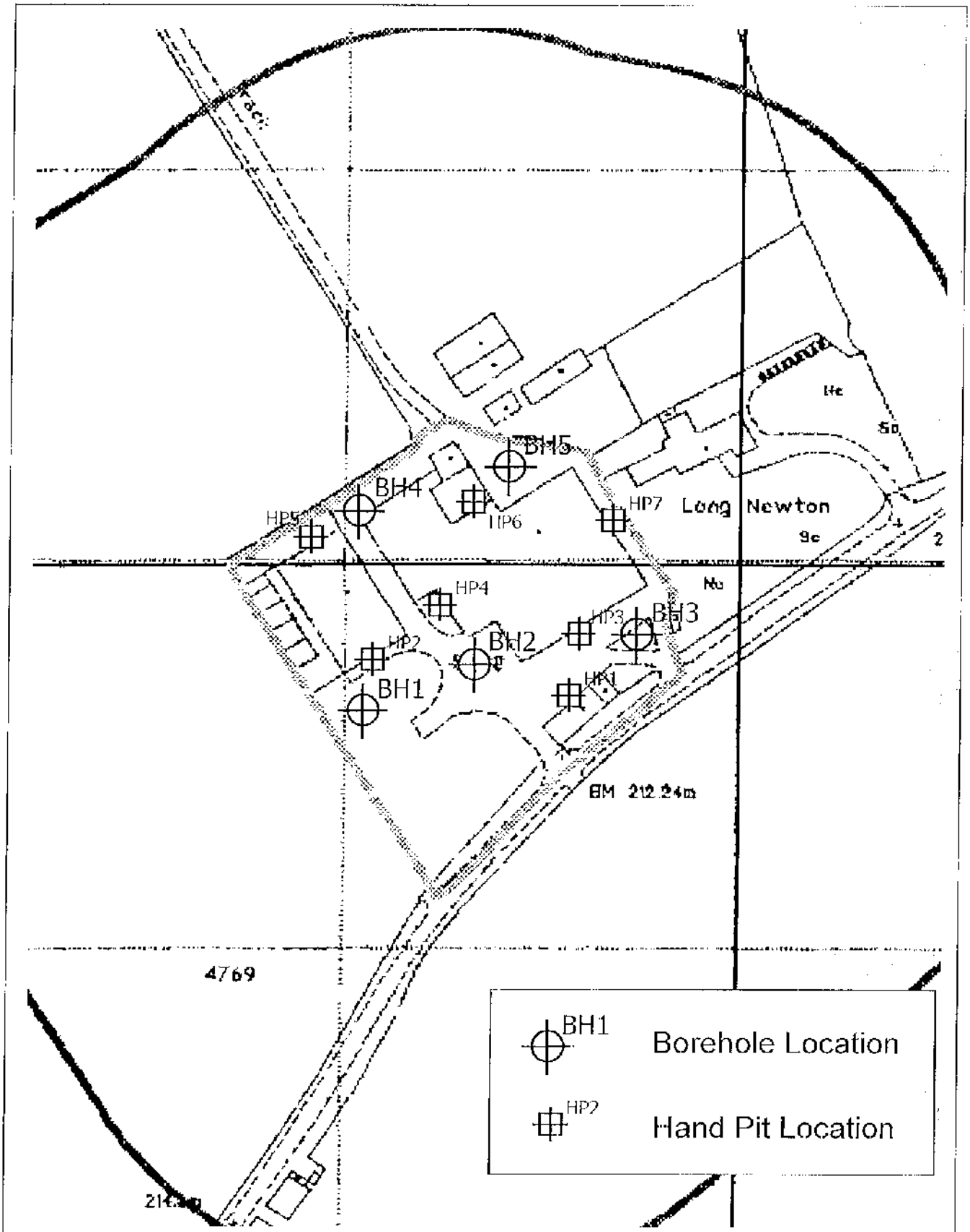
Leachate Analysed as Water

Miscellaneous

					SAL Reference	125902 001	125902 002	125902 003
					Customer Sample Reference	BH03 1.00M	BH02 1.00M	BH04 0.50M
					Test Sample	10:1	10:1	10:1
Determinand	**Technique**	**LOD**	**Units**	**Symbol**				
Arsenic	ICP/OES (Hyd/Sim)	5	µg/l	U	<5	8	8
Cadmium	ICP/OES (Sim)	5	µg/l	U	<5	<5	<5
Chromium	ICP/OES (Sim)	10	µg/l	U	<10	11	<10
Copper	ICP/OES (Sim)	20	µg/l	U	<20	<20	<20
Lead	ICP/OES (Sim)(Preconc.)	25	µg/l	N	<25	<25	<25
Mercury	ICP/OES (Sim/CV)	1	µg/l	U	<1	<1	<1
Nickel	ICP/OES (Sim)	10	µg/l	U	<10	10	<10
Selenium	ICP/OES (Hyd/Sim)	5	µg/l	U	<5	<5	<5
Zinc	ICP/OES (Sim)	10	µg/l	U	<10	98	<10
Total Hardness expressed as Calcium Carbonate	ICP/OES (Sim)	10	mg/l	N	13	10	24

APPENDIX E

DRAWING NO. E8538/002
INVESTIGATION LOCATION PLAN



SITE INVESTIGATION
LOCATION PLAN

LONG NEWTON,
HADDINGTON

CONTRACT E8538

Drawing No E8358/002

DAVID R MURRAY & ASSOCIATES
CONSULTING ENGINEERS

APPENDIX F

EXISTING SERVICES INFORMATION

Samantha Lepine

From: Elizabeth Baird [redacted]
Sent: 09 January 2008 09:01
To: Samantha Lepine
Subject: RE: 4276 088SL - Site Longnewton Farmhouse Haddington - SEWER RESPONSE

Hi there

As you can see from the plans there is no Waste Water in the area. The property possibly has a private septic tank, which is the owners own responsibility. The nearest main sewer looks like it could well over 10 miles away from the property. Hope this information helps you.

Regards

Liz

Property Searches Analyst

-----Original Message-----
From: Samantha Lepine [mailto:s epine@groundwise.com]
Sent: 08 January 2008 17:42
To: Elizabeth Baird
Subject: FW: 4276.088SL - Site Longnewton Farmhouse Haddington
Importance: High

Hello,

Can you please advise if you are the providers of the waste water for this area, if it is the case that you are but have no apparatus in the area, can you please advise how far away from the site apparatus is.

Kind regards,

Sam Lepine

-----Original Message-----
From: Elizabeth Baird [mailto:Liz.Baird@scottishwater.co.uk]
Sent: 03 January 2008 14:46
To: Samantha Lepine
Subject: Ref: 4276.088SL - Site Longnewton Farmhouse Haddington

Dear Sirs

Reference:- SWPP/07/13943
Location of Services at:- Longnewton Farmhouse Haddington

Further to your enquiry regarding location of Scottish Water infrastructure at the above property, I attach copy coloured plans which indicate the approximate position of Scottish Water's existing services. A VAT receipt for payment will follow shortly by post.

Please note that water mains are normally laid at a depth of 750mm to 1 metre cover from existing carriageway or footpath levels. Other plant such as water service / supply pipes and sewer lat s to properties may also be present, but no official records of these are kept.

Should you have any further technical queries on new connections, Strategic Asset Capacity etc. p ease contact
Planning and Development Services Help-line: 0141 355 5511.
Email: connections@scottishwater.co.uk
General reference can also be made under the "Connections" ti le at www.scottishwater.co.uk

Yours faithfully

Lisa Baird

Property Searches Analyst
searches@scottishwater.co.uk

RECEIVED

15 JAN 200

Job No:	ES538		
TCS		SRM	
WS	✓	AD	
NH	✓	MCC	
RSW		LM	
SS		HMcK	
MW		JMcG	
CMcB		AB	
IF		MDJ	
LB		JMcI	

Mr Nick Henderson
David R Murray & Associates
150 St John's Road
Edinburgh
EH12 6AY

Your ref: 485/061067
Our ref: 4276 088SL

Purchase Order: 23872393 1
14 January, 2008

Dear Mr Henderson

Site : Longnewton Farmhouse, Haddington, EH41 4JN
Grid reference : 351528,664775

Please find enclosed information for the Infrastructure Report on the above site

Enquiry	Type	Data Supplier	Date Received	Sent to client	Map(s) attached
1	Electricity	SP Power Systems	9/1	14/1	X
2	Electricity	National Grid (electricity distribution)	None in area	-	
3	Gas	Scotland Gas networks (Transco)	10/1	14/1	
4	Gas	Gas Transportation Co.	Awaiting		
5	Gas	ES Pipelines Ltd	31/12	8/1	
6	Gas	Energy Asset Management Ltd (behalf of Independent Pipelines and Independent Power Networks Ltd.)	7/1	8/1	X
7	Gas/Telecoms	SSE Pipelines Ltd / Neos Networks	None in area	-	
8	Water Mains	Scottish Water	3/1	8/1	X
9	Water Sewers	Scottish Water	None in area See attached email	-	
10	Oil/Fuel	Fisher German - Linesearch org/ BT GEO Network/Esso Petroleum Co Ltd /Mainline Pipelines Ltd /Government Pipelines and Storage System /Manchester Jetline Ltd /BPA /ConocoPhillips /Total Uk /BP TSEP /Shell UK Ltd /Huntsman Petrochemicals (UK) Ltd	24/12	8/1	
11	Ethylene Pipeline	Inovyn (BP Group)	None in area	-	
12	Oil/Fuel	BP Forties Pipeline	None in area	-	
13	Telecoms	BT (for clarity we can email these maps to you - contact us)	2/1	8/1	X
14	Telecoms	Infolines Public Networks Ltd	3/1	8/1	
15	Telecoms	Cable & Wireless DataCo (for energis)	Awaiting		
16	Telecoms	Easynet (formally Ipsaris)	27/12	8/1	
17	Telecoms	Colt	None in area	-	
18	Telecoms	VSNL	None in area	-	
19	Telecoms	KPN	None in area	-	
20	Telecoms	Virgin Media (former NTL: Telewest)	4/1	8/1	
21	Telecoms	Thus (for your communications)	Awaiting		
22	Telecoms	Fujitsu (for Orange PCS, Global Crossing (UK) Ltd, Hutchinson Network Services and Global Crossing PEC)	31/12	8/1	
23	Telecoms	Gamma Telecom	24/12	8/1	
24	Telecoms	Fibernet	Awaiting		
25	Telecoms	Trafficmaster	None in area	-	
26	Telecoms	O2/COM register of Mobile Base	None in area	-	
27	Telecoms	Verizon Business (formerly MCI Worldcom, MNS)	27/12	8/1	
28	Telecoms	Viatel Dark Fibre Network	3/1	8/1	
29	Telecoms	Telia Network	24/12	8/1	
30	Telecoms	Fibrespeed Network	7/1	8/1	

We will continue to chase the utilities concerned and forward any relevant information on receipt. If you have any queries regarding this report do not hesitate to give me a call

Yours sincerely

Samantha Iopine
Groundwise Searches Ltd
Email: s.iopine@groundwise.com

ScottishPower
EnergyNetworks

Groundwise Searches Limited
Unit 8, Chichester House,
45, Chichester Road,
Southend-on-Sea.
Essex,
SS1 2JU

Your Ref
4276.088SL
Our Ref
DM/ 46271
Date
08 January 2008

Contact
Lisa Kilcullen

For the attention of: Samantha Lepine

Dear Sir/Madam

NEW ROADS AND STREET WORKS ACT 1991

Re: Location of ScottishPower Equipment at Longnewton Farmhouse, Haddington, EH41 4JN

Thank you for your enquiry of 24 December 2007 regarding your proposed works at the above location. Please find enclosed a copy of our relevant records showing approximate position of all known ScottishPower apparatus in the area specified.

As much information as possible has been given, however, it must be understood that locations of cables and pipes shown on the plans are indicative only as original depths and lines may have been changed by persons unknown.

I would draw your attention to the advice given in the Health and Safety Executive booklet HS (G) 47 - "Avoiding Danger from Underground Services", and their guidance note GS6 - "Avoidance of Danger from Overhead Lines". Please ensure all site operators have this information and if you discover or cause any damage to ScottishPower cables, then please call our Power Emergencies Line - 0845 2727 999 - immediately - giving all relevant information.

Should you require any further information, please do not hesitate to contact me at the address below.

Yours faithfully,

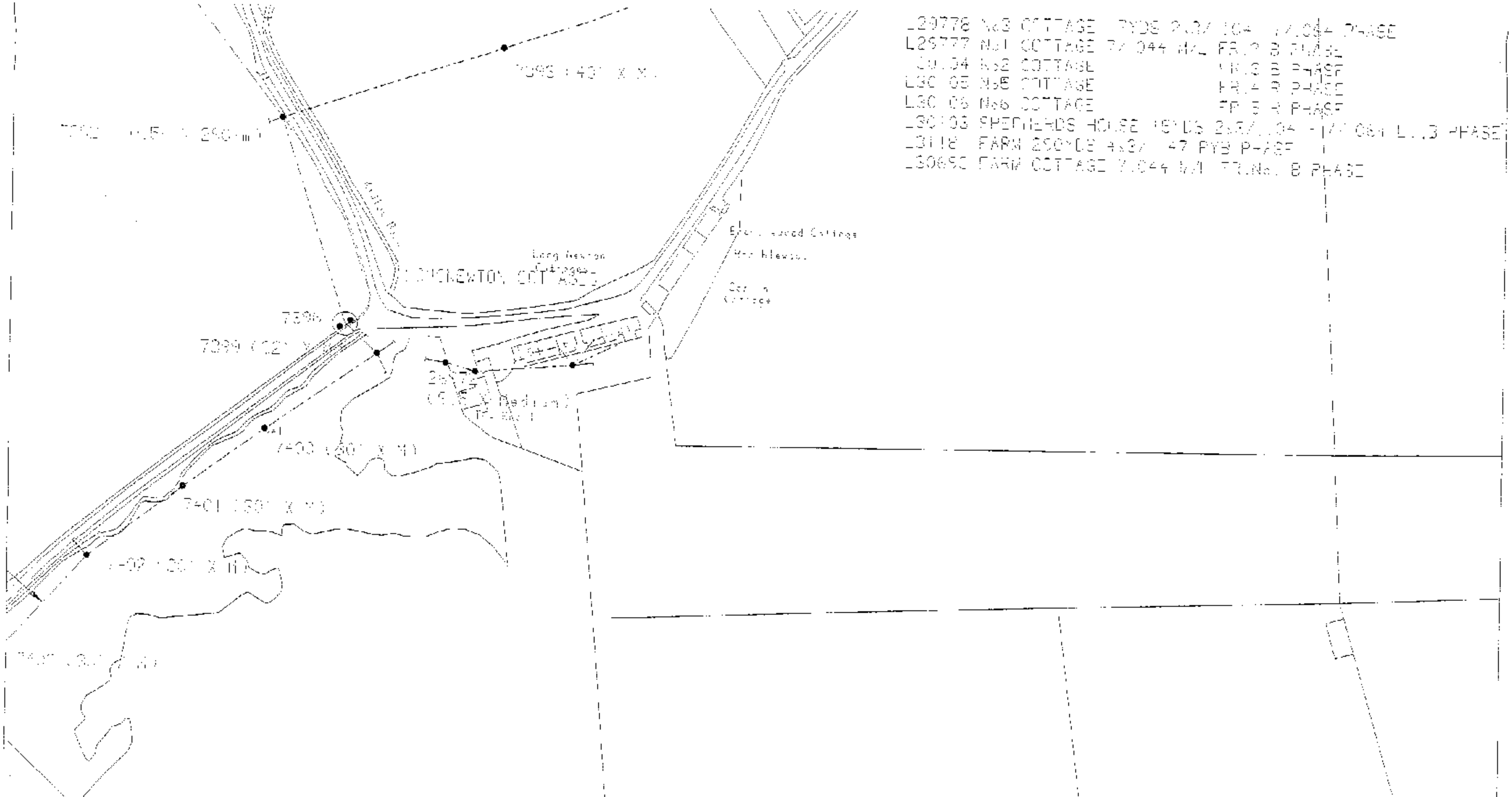
[redacted]

For Elaine Stewart
Data Management

Enc Underground 1:500 [✓]   Overhead 1:2,500 [✓]

On behalf of SP Distribution plc and SP Transmission plc

St Vincent Crescent, Glasgow G3 8
Telephone 0141 567 4155 Fax 0141 567 4262



ScottishPower

Telephone: 0.4. 567 -155

D.3 W.1.4.3
APPENDIX 7

Information about ScottishPower apparatus given on this drawing is indicative only as the original depths and lines of cables may have been changed by persons unknown. Normally electricity cables are laid in trenches between 450mm and 1m deep, but ceilings or structures such as bridges may prevent cables being laid at these standard depths. Also, the depth may be above or below the standard due to regrading of the surface after the cables are laid. Where known, non-standard depths are indicated. Any interference with or damage to ScottishPower apparatus may result in a serious accident. Health & Safety Executive booklet HS(G)47 provides information on the avoidance of danger from underground services. Authorities and Contractors will be held liable both for the full cost of repairs to ScottishPower apparatus and all claims made against ScottishPower by Third Parties as a result of any interference or damage. In the event of an emergency or for further assistance contact 0845 2727 999 (ScottishPower area) or 0845 272 2424 (SP Manweb area).

Reproduced from Ordnance Survey map by kind permission

Map Reference: 351509664743

SCALE 1/2500	
Date: 07Jan2008	
Produced by:	Lisa K. Cullen
Produced for:	Berwickshire

RECEIVED

11 JAN 2008

Job No:	E8538		
TCS		SRM	
WS		AD	
NH	✓	AMcG	
RSW		DM	
SS		RMcK	
MW		JMcG	
CMcB		AB	
IF		MDJ	
LR		JMcI	✓

Mr Nick Henderson
David R Murray & Associates
150 St Johns Road
Edinburgh
EH12 8AY

Your ref: 465101067
Our ref: 4276.033SL

Purchase Order: 238/2393_1
8 January, 2008

Dear Mr Henderson

Site : Longnewton Farmhouse, Haddington, EH41 4JN
Grid reference : 351528,664775

Please find enclosed information for the Infrastructure Report on the above site

Enquiry	Type	Data Supplier	Date Received	Sent to client	Map(s) attached
1	Electricity	SP Power Systems	Awaiting		
2	Electricity	National Grid (electricity distribution)	None in area	-	
3	Gas	Scotland Gas networks (Transco)	Awaiting		
4	Gas	Gas Transportation Co.	Awaiting		
5	Gas	ES Pipelines Ltd	31/12	8/1	
6	Gas	Envoy Asset Management Ltd (on behalf of Independent Pipelines and Independent Power Networks Ltd.)	7/1	8/1	X
7	Gas/Telecoms	SSE Pipelines Ltd / Neos Networks	None in area	-	
8	Water Mains	Scottish Water	3/1	8/1	X
9	Water Sewers	Scottish Water	Awaiting		
10	Oil/Fuel	Fisher German – Linesearch org BT GEO Network/Esso Petroleum Co Ltd /Mainline Pipelines Ltd /Government Pipelines and Storage System /Manchester Jetline Ltd /BPA /ConocoPhillips /Total Uk /BP TSEP /Shell UK Ltd /Huntsman Petrochemicals (UK) Ltd	24/12	8/1	
11	Ethylene Pipeline	Innovene (BP Group)	None in area	-	
12	Oil/Fuel	BP Forties Pipeline	None in area	-	
13	Telecoms	BT (to clarify we can email these maps to you – contact us)	2/1	8/1	X
14	Telecoms	Inioliines Public Networks Ltd	3/1	8/1	
15	Telecoms	Cable & Wireless DataCo (for energis)	Awaiting		
16	Telecoms	Easynet (formally Ipsaris)	27/12	8/1	
17	Telecoms	Colt	None in area	-	
18	Telecoms	VSNL	None in area	-	
19	Telecoms	KPN	None in area	-	
20	Telecoms	Virgin Media (former NTL: Telewest)	4/1	8/1	
21	Telecoms	Thus (for your communications)	Awaiting		
22	Telecoms	Fujitsu (for Orange PCS, Global Crossing (UK) Ltd, Hutchinson Network Services and Global Crossing PLC)	31/12	8/1	
23	Telecoms	Gamma Telecom	24/12	8/1	
24	Telecoms	Fibernet	Awaiting		
25	Telecoms	Trafficmaster	None in area	-	
26	Telecoms	OFCOM register of Mobile Base	None in area	-	
27	Telecoms	Verizon Business (formerly MCI Worldcom, MFS)	27/12	8/1	
28	Telecoms	Vtesse Dark Fibre Network	3/1	8/1	
29	Telecoms	Telia Network	24/12	8/1	
30	Telecoms	Fibrespan Network	7/1	8/1	

We will continue to chase the utilities concerned and forward any relevant information on receipt. If you have any queries regarding this report do not hesitate to give me a call

Yours sincerely

[redacted]

Groundwise Searches Ltd
Email: slopine@groundwise.com

Samantha Lepine

From: Jonathan Kiddle [redacted] on behalf of Plant Enquiries

Sent: [redacted] 31 December 2007 09:02

To: Samantha Lepine

Subject: RE: 4276 088SL

Importance: High

Attachments: DOC.PDF

DOC.PDF (454 KB)

Dear Sir/Madam,

Plant Unaffected Notice

With regard to your plant enquiry, I can confirm that TS Pipelines Ltd have no gas apparatus in the vicinity of site/area of interest.

Reference Number: 4276.088SL

If you wish to discuss this matter further please contact me on my direct line 01372 227567.

Yours faithfully,

Alan Slee

Operations Manager

-----Original Message-----
From: Samantha Lepine [mailto:slepine@groundwise.com] Posted At: 24 December 2007 09:24 Posted To: Plant Enquiries
Conversation: Ref: 4276.088SL
Subject: Ref: 4276.088SL
Importance: High

<<DOC.PDF>> Ref: 4276.088SL
Site: Longnewton Farmhouse, Haddington, EH4 /JN Grid reference: 351528,664775
Requests: Please reply 8th January

We are doing research on the above site for a client and would be grateful if you could confirm whether the above operators have any cabling or apparatus in the immediate vicinity. Should there be anything detected in the vicinity I would appreciate a plan showing the location. The reason we need the information is our client can avoid digging through your cables or can investigate the potential for connecting with your network.

I enclose location plans of the site for your convenience and look forward to hearing from you. We shall of course be providing a copy of your response to our client as part of a wider report on the site including reports from other utility companies or providers.

Should you have any problems in identifying the location of the sites or should you require further clarification of the details requested, please do not hesitate to contact me.

I look forward to receiving details from you and thank you in advance for your assistance in this matter.

Many thanks,

Samantha Lepine
Production Researcher
Groundwise Searches Limited
Suite 8 Chichester House
45 Chichester Road
Southend-On-Sea
Essex
SS1 2JU

Hazeldean,
Station Road,
Leatherhead
KT22 7AA

Office: 01372 377560
Fax: 01372 377996
http://www.espipelines.com

envoy

Ocean Park House, East Tyndall Street, Cardiff CF24 5GT
T 08712 250123 F 08712 255 3862
www.envoyonline.co.uk

Samantha Lepine

Groundwise Searches Ltd
Suite 8, Chichester House
45 Chichester Road
Southend On Sea
SS1 2JU

Our Ref: 118892
Your Ref: 4276.088SL

03 January 2008

Dear Samantha Lepine,

APPARATUS UNAFFECTED

RE: Site Location: Longnewton Farmhouse, Haddington EH41 4JN

Grid Reference: 351528,664775

With regard to your enquiry, I can confirm that Independent Pipelines Ltd, Quadrant Pipelines Ltd or Independent Power Networks Ltd **DO NOT** have any apparatus within the immediate proximity of your proposed works.

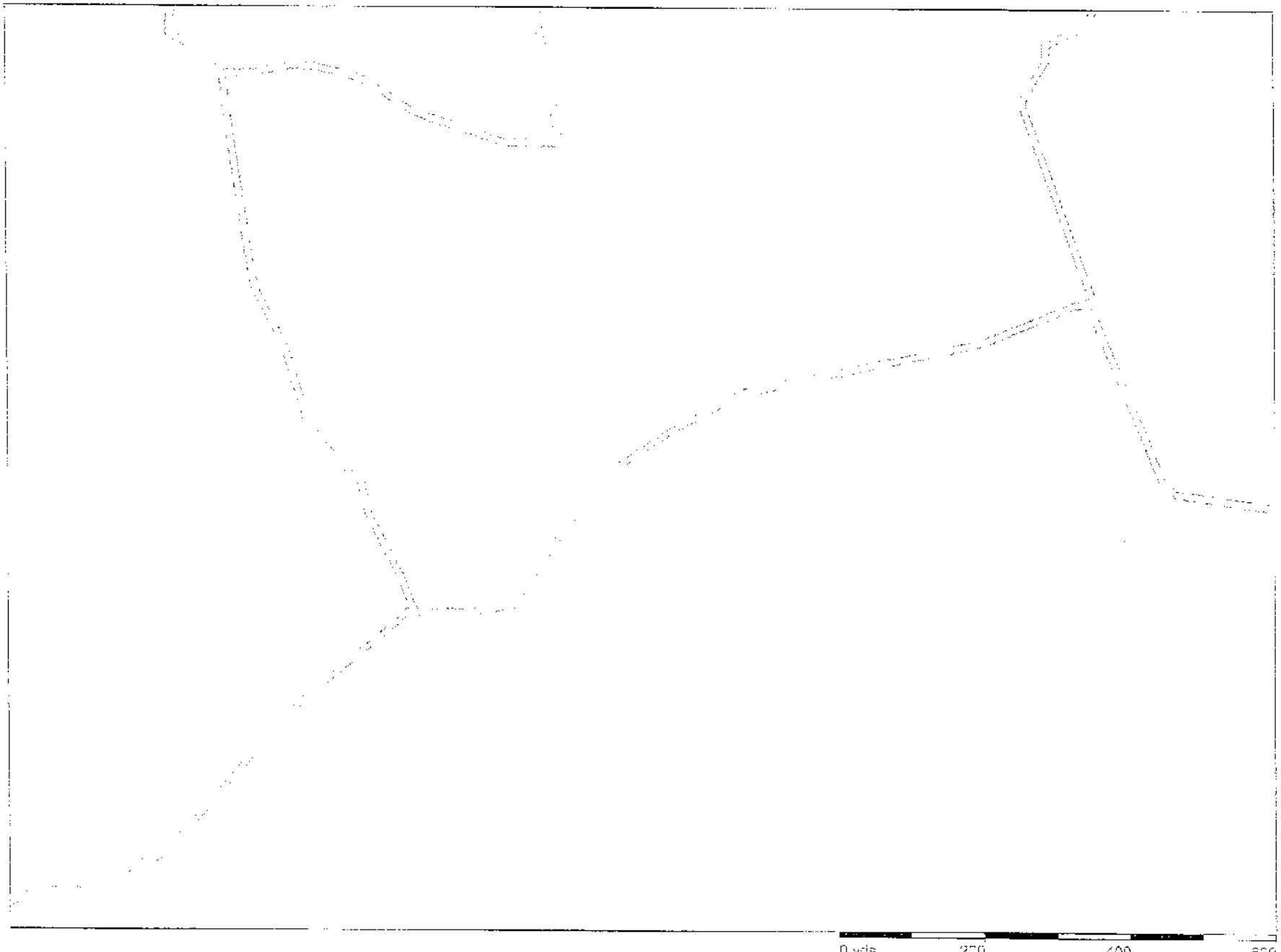
If you require any further assistance, please do not hesitate to contact me on 08712 250 123 ext. no. 2046.

Yours sincerely

[redacted]

David Farmer
Asset Operations and Maintenance
Tel: 08712 250 123

Gassites



Samantha Lepine

From: Elizabeth Baird [redacted]
Sent: 03 January 2008 14:46
To: Samantha Lepine
Subject: Ref: 4276 088SI - Site Longnewton Farmhouse Haddington

Attachments: GIS_Wastewater_Legen pdf; GIS_Water_Legends_15.pdf; p223406720_1.pdf


GIS_Wastewater_L egen pdf (21 K...


GIS_Water_Legend s_15.pdf (37 K...


p223406720_1.pdf (361 KB)

Dear Sirs

Reference:- SWSP/07/13943
Location of Services at:- Longnewton Farmhouse Haddington

Further to your enquiry regarding location of Scottish Water infrastructure at the above property, I attach copy coloured plans which indicate the approximate position of Scottish Water's existing services.
A VAT receipt for payment will follow shortly by post.

Please note that water mains are normally laid at a depth of 750mm to 1 metre cover from existing carriageway or footpath levels. Other plant such as water service / supply pipes and sewer tails to properties may also be present, but no official records of these are kept.

Should you have any further technical queries on new connections, Strategic Asset Capacity etc. please contact Planning and Development Services Helpline: 0141 355 5511.
Email: connections@scottishwater.co.uk
General reference can also be made under the "Connections" title at www.scottishwater.co.uk

Yours faithfully

Liz Baird

Property Searches Analyst
searches@scottishwater.co.uk

Privileged/Confidential information may be contained in this Email and any files transmitted with it. If you are not the intended recipient you should not retain, copy or use this Email for any purpose or disclose all or part of its contents to any person. If you have received this Email in error please notify the postmaster and sender immediately and delete this Email from your system.

Opinions, conclusions and other information in this message that do not relate to the official business of Scottish Water ("SW") and / or Scottish Water Solutions Ltd ("SWS") shall be understood as neither given nor endorsed by them. The contents of Emails sent and received by SW and SWS are monitored.

WARNING: Although SW and SWS have taken reasonable precautions to ensure no viruses or other malicious software are present, SW and SWS cannot accept responsibility for any loss or damage arising from the use of this Email or attachments however caused. The recipient should therefore check this Email and any attachments for the presence of viruses or other malicious software.

Scottish Water
www.scottishwater.co.uk
www.scottishwatersolutions.co.uk

bosUmaster@scottishwater.co.uk

SMALLWORLD GIS – WASTEWATER LEGEND

SCOTTISH WATER

Pipework

- Combined (red)
- Foul (brown)
- Surface Water (blue)
- Natural Water (light blue)
- CSO (dark blue)
- Trade Effluent (brown)
- Treated Effluent (black)
- Abandoned (grey)
- Water Course (green)
- Rising Main (red)
- Syphon
- Chamber (same colour as pipework)
- Dual Chamber (same colour as pipework)
- Surface Water Chamber
- Capped End (same colour as pipework)
- Bifurcation Chamber

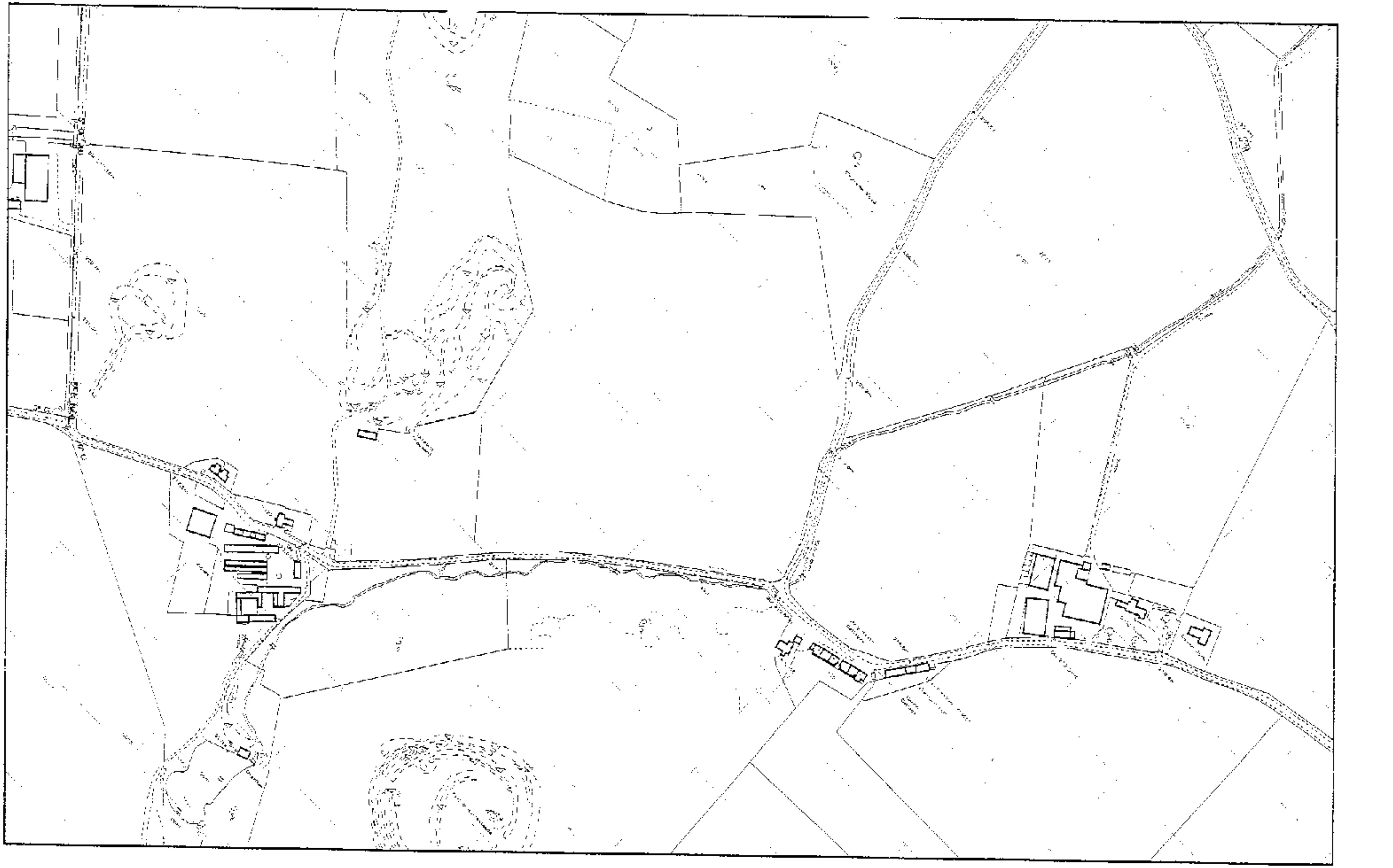
- Collapse/Choke (not visible by default)
- Combined Storm Overflow
- Connection (not visible)
- Duct
- Ghost Node (not visible by default)
- Hatchbox (HB)
- Hydraulic Control Chamber (H)
- Lamphole
- Change of Attributes
- Outfall
- Inlet
- Pumping Station
- Wash Out

- Balancing Pond
- Rodding Eye
- Septic Tank
- Sewer Junction
- Sewer Structure
- Sewerage Air Valve
- Sewerage Pipe Bridge
- Sluice Valve
- Storm Tank
- Unknown End (?)
- Treatment Plant (WWTW)
- Vent Column
- Buchan Trap

SMALLWORLD GIS – WATER LEGEND

SCOTTISH WATER

- Trunk Main (in use)
- Distribution Main
- Raw Water Main
- Mains (abandoned)
- Mains (proposed)
- Mains (isolated)
- Communication Pipe
- Supply Pipe
- Tunnel
- Open Course
- Aqueduct
- Logical Service Link
- Duct
- Air Valve Double
- Air Valve Single
- Anode
- Hydrant : Terminal
- Hydrant : Fire
- Dialysis Patient
- Tapping
- Field trough
- Other fitting
- Orifice Plate
- Meter Point
- Cleansing Cock
- Coupling
- Flow Restrictor
- Taper
- Change Collar
- End Cap
- Stopcock
- Sample Point
- Service Point
- Hatchbox
- Chemical Dosing Point
- Break Pressure Tank
- Bulk Meter
- Revenue Meter
- Meter Cable
- Meter Display Unit
- Pumping Station
- Booster Station
- Pump Symbol
- River Intake
- Spring Intake
- Borehole Intake
- Other Company Intake
- Clear Water Tank
- Service Reservoir
- Impounding Reservoir
- Pumped Storage Reservoir
- Storage Tank
- Storage - Other
- Balancing Tank - Current
- Water Treatment Works
- Pressure Reducing Valve
- Pressure Sustaining Valve
- Reflux (Non-Return) Valve
- Washout (Scour) Valve
- Control Valve
- Pressure Relief Valve
- Altitude Valve
- Level Control Valve
- Valve - Other
- BC WSZ Valve
- BC DMA Valve
- BC WOA Valve
- BC PRA Valve
- BC PCC Valve
- BC PSA Valve
- Pipebridge



N

The representation of physical assets and the boundaries of areas in which Scottish Water and others have an interest does not necessarily imply their true positions. For further details contact the appropriate District Office.

Date Plotted: 03/11/2006

Longnewton Farmhouse Haddington

Water Only, No Waste Water

0 — 200 metres

SCALE: 1:3700

Plotted by: RAEDU

SCOTTISH WATER

Search Results

Thank you for your enquiry: LS-1897777-736

This enquiry result is valid for 28 days only from the date of enquiry and is based on the confirmed information you entered. If the location of the work changes then a further enquiry must be made. Should the work not be undertaken within 28 days of the enquiry then a further enquiry must be made.

Enquirer details

Name:	Miss wiggett
Company:	Groundwise
Email:	nwiggett@groundwise.com

Enquiry details

Your Reference:	4276.088
Confirmed location:	OS grid reference (351528, 664775)
Estimated start date:	31-01-2008
Type of work:	Excavations non utility - Private services
Distance covered:	200 metres

This enquiry is not in the zone of interest for any of the following Operators:

Esso Petroleum Company Limited	NOT IN ZONE OF INTEREST
Mainline Pipelines Limited	NOT IN ZONE OF INTEREST
BPA	NOT IN ZONE OF INTEREST
Government Pipelines & Storage System	NOT IN ZONE OF INTEREST
Total Pipeline Operations	NOT IN ZONE OF INTEREST
ConocoPhillips (UK) Ltd	NOT IN ZONE OF INTEREST
Manchester Jetline Limited	NOT IN ZONE OF INTEREST
Shell UK Ltd	NOT IN ZONE OF INTEREST
Sabic UK Petrochemicals (formerly Huntsman)	NOT IN ZONE OF INTEREST
BP TSEP	NOT IN ZONE OF INTEREST
BT GEO Network	NOT IN ZONE OF INTEREST
E-on UK Plc (Gas Pipelines Only)	NOT IN ZONE OF INTEREST
BP Exploration Purbeck Southampton Pipeline	NOT IN ZONE OF INTEREST
ConocoPhillips Ltd Humber Refinery	NOT IN ZONE OF INTEREST
Scottish Power Generation Ltd	NOT IN ZONE OF INTEREST
NPower CHP Pipelines	NOT IN ZONE OF INTEREST
Centrica Energy	NOT IN ZONE OF INTEREST

Thank you for your enquiry, there is no further action necessary

*Please quote the Linesearch enquiry reference number in *all* correspondence*

BT

4276.0389L

EDINBURGH Office
PP 3WTL
Telephone House
357 Gorgie Road
EDINBURGH
EH11 2RP

TEL:0800 389 8364
FAX:0800 389 8322

Dear Sir/Madam,

Thank you for your request to: www.bt.com/btplant

Enclosed are copies of our drawings marked up to show the approximate location of BT apparatus, which is present in the immediate vicinity of your works. It is intended for general guidance only. No guarantee is given of its accuracy. It should not be relied upon in the event of excavations or other works made near to British Telecommunications plc apparatus, which may, exist at various depths and may deviate, from the marked route. To avoid damage it is recommended that mechanical excavators or borers are not used within 600mm of British Telecommunications plc plant. Please ensure that our equipment is not enclosed, blocked, covered or otherwise obstructed by your plant. In the event of clearance not being adequate we anticipate that your plant is either resited, or an order is placed with British Telecommunications plc for rearrangements of its plant. If there are any difficulties with the Map please ring 0800 616356.

Please contact our Network Protection Service if required by dialling 0800 917 3993 or by Email on DBYD@BT.COM giving seven days notice of your commencement date. This will provide you with on-site advice and a check of location for any BT apparatus.

Further to this, I hope the following points will assist you at the new development: -

BT has a licence obligation to provide service to any customer requiring a connection. A Developer would not normally be charged for provision of service, our standard connection charges would apply to the end user when orders are placed with our Sales Office. However, should a Developer insist on an underground service in an area where BT's plant is provided overhead, charges may be incurred.

When the Developer has obtained contract and planning permission BT would request a 'Clean', scaled Site Layout, Location Map and a covering letter be sent to the relevant newSite Office. We would particularly request that you give details of your programmed site start date and likely first occupancy date where possible.
To obtain contact details of the newSite office covering the development area click on the URL below.

http://www.btwholesale.com/btnewsite/contactslist

Where a development affects existing BT apparatus in the public highway, the cost of any necessary protection or diversionary works must be borne by the Developer. In this case where a budget estimate is required a Site Plan, Location Map and a covering letter should be forwarded to the Repayments Project Office. To obtain contact details of the Repayments Office covering the development area click on the URL above and go to the Networks Protection and Alterations Page.

Yours faithfully,

Maps by email Plant Information Reply

IMPORTANT WARNING

Information regarding the location of BT apparatus is given for your assistance and is intended for general guidance only. No guarantee is given of its accuracy. It should not be relied upon in the event of excavations or other works being made near to BT apparatus which may exist at various depths and may deviate from the marked route.

Dial Before You Dig - 0800 917 3993
Professional on-site assistance
prior to commencement of excavation works

KEY TO BT SYMBOLS

UNDERGROUND PLANT	POLE
OVERHEAD PLANT	CABINET
JOINT BOX	BURIED JOINT
DISTRIBUTION POINT	JOINTING POST
MANHOLE	PROPOSED U/G
DP BOUNDARY	PROPOSED O/H
OTHER BT BOUNDARY	PROPOSED BOX

Other proposed plant is shown using dashed lines. BT symbols not listed above may be disregarded. Existing BT plant may not be recorded. Information valid at the time of preparation

openreach
A BT Group business

BT ref: HKZ11379E

Map reference (centre): NT5152884775

Issued: 31/12/07 11:39:38

Samantha Lepine

From: Admin [redacted]
Sent: 03 January 2008 10:01
To: Samantha Lepine
Subject: Re: 4276.088SL

Infolines has no plant at this site
-- Original Message -----
From: "Samantha Lepine" <slepine@groundwise.com>
To: <streetworks@ngridwireless.com>; <osm.enquiries@atkinsglobal.com>; <nrswa@uk.easynet.net>; <david.farmer@envoyonline.co.uk>; <plant@espipelines.com>; <statrequest@fibernet.co.uk>; <plantenq@mailman.flel.co.uk>; <cnewman@fibrespan.co.uk>; <streetworks@gammatelecom.com>; <nrswa@gastrans.co.uk>; <admin@interpipenetworks.co.uk>; <Plantenquiries@optilan.com>; <osp-team@uk.verizonbusiness.com>; <plant.enquiries.team@.eclwest.co.uk>; <nrswa@vtesse.com>
Sent: Monday, December 24, 2007 9:23 AM
Subject: Ref: 4276.088SL

<<DOC.PDF>> Ref: 4276.088SL
Site: Longnewton Farmhouse, Haddington, EH41 4JN Grid reference: 361528,664775
Requests: Please reply 8th January

We are doing research on the above site for a client and would be grateful if you could confirm whether the above operators have any cabling or apparatus in the immediate vicinity. Should there be anything detected in the vicinity I would appreciate a plan showing the location. The reason we need the information is our client can avoid digging through your cables or can investigate the potential for connecting with your network.

I enclose location plans of the site for your convenience and look forward to hearing from you. We shall of course be providing a copy of your response to our client as part of a wider report on the site including reports from other utility companies or providers.

Should you have any problems in identifying the location of the sites or should you require further clarification of the details requested, please do not hesitate to contact me.

I look forward to receiving details from you and thank you in advance for your assistance in this matter.

Many thanks,

Samantha Lepine
Production Researcher
Groundwise Searches Limited
Suite 8 Chichester House
45 Chichester Road
Southend-On-Sea
Essex
SS1 2JU

Samantha Lepine
Groundwise

Easynet Telecom
70 Buckingham Avenue
Slough SL1 4PN

Tel: 0207 0323 234/250/251
Fax: 0207 032 3160
Email: nrswa@uk.easynet.net

Date:	Our Ref:	Your Ref:
8 January, 2008	PE07-12-1997	4276.088SL

Dear Sir/Madam,

RE: Longnewton Farmhouse, Haddington.

Thank you for your enquiry.

Pleased be advised that Easynet Telecom will not be affected by these works.

Best endeavours have been made to ensure accuracy, however if you require further information, please contact us.

If you would like to submit your plant enquiries electronically to Easynet, please send them to nrswa@uk.easynet.net

Please be advised that our fax number has changed to 0207 032 3160.

Kind regards

NRSWA Department
Network Maintenance & Planning Department

Samantha Lepine

Groundwise
Unit 7, Chichester House 45
Chichester Road
Southend-on-Sea
Essex

SS1 2JU

Virgin Media
National Plant Enquiries
Cablephone House
Small Heath Business Park
Talbot Way
Birmingham
B10 0HJ

Tel: 0870 888 3116 Opt 2
Fax: 0121 694 2345

Drawing Ref: 6641 04-01-2008
Plant Enquiry VM/PLE/06641
Your Letter Date 18-12-2007
Your Ref: 4276.086St.
Date: 04 01 2008

Dear Sir / Madam,

Enquiry Location: **Longnewton Farmhouse, Haddington**
EH41

Thank you for your enquiry regarding work at the above location

Virgin Media and Viatel plant should not be affected by your proposed work and no strategic additions to our existing network are envisaged in the immediate future.

Should your request be in relation to a New Development and you require an estimate to be prepared for Virgin Media to service your proposed development, please submit this request for costs along with site drawings (scale 1:500) to:

Access Network WIP, New Developments
Unit 7, Bothwell Park Ind Est.
Uddingston
G71 6NZ

This information is only valid on the date of issue. If your start date is 3 months or more from the date of this letter, please re-apply for updated information

Yours faithfully,

National Plant Enquiries Team
email: plant.enquiries.team@virginmedia.co.uk

Please note: National Plant Enquiries Team (Birmingham) cover and respond to plant enquiries for all ex ntl:Telewest franchise areas

CC

Samantha Lepine

From: planteng[redacted]
Sent: 31 Dece[redacted]
To: Samantha Lepine
Cc: planteng@mailman.ftel.co.uk
Subject: Plant Protection Search Result. Ref :- 4276 088SL

Your Ref 4276.088SL
Our Ref 47657\2
GROUNDWISE
UNIT 8 CHICHESTER HOUSE
45 CHICHESTER ROAD
SOUTHEND ON SEA
ESSEX
SS1 2JU

For the attention of SAMANTHA LEPINE

Location LONGNEWTON FARMHOUSE, HADDINGTON

Dated 31-DEC-07

With reference to your enquiry regarding the above noted location, we are unaware of any GLOBAL CROSSING (UK) LTD, GLOBAL CROSSING PEC, ORANGE PCS, plant or services supported by Fujitsu in the area indicated in your enquiry.
We bring your attention to the fact that whilst we try to ensure the information we provide is accurate, the information is provided Without Prejudice and Fujitsu accepts no liability for claims arising from any inaccuracy, omissions or errors contained herein.

Fujitsu responds to plant enquiries for Global Crossing UK, Global Crossing
PEC and Orange PCS simultaneously and therefore you only need send one
copy of a plant enquiry to cover all of these companies. As we are moving
towards a fully electronic database we urge our customers to request
plant enquiries by email which will result in a higher level of service
and cost saving. Please note that Fujitsu does not deal with plant enquiries
for Hutchinson Network Services (GSC) and have no forwarding details.
If you require any further information, please do not hesitate to contact me.

Plant Protection Administrator

Fujitsu Telecommunications Europe Ltd
Solihull Parkway, Birmingham Business Park, Birmingham, B37 7YU, UK
E Mail:- planteng@mailman.ftel.co.uk
Phone :- +44(0) 121 717 6065
Fax : +44(0) 845 8500115

www.uk.fujitsu.com

<IMG src="http://apperv-dev-1.ftel.co.uk:7779/images/415x641.gif" alt="Fujitsu logo">

Samantha Lepine

From: Streetworks [redacted]
Sent: 24 December 2007 11:01
To: Samantha Lepine
Subject: RE: 4276.088SL

Hi Samantha,

Having examined my records, I can confirm that Gamma Telecom has no apparatus within the area of your enquiry.

Regards

Ray

-----Original Message-----
From: Samantha Lepine [mailto:slepine@groundwise.com]
Sent: 24 December 2007 09:24
To: streetworks@ngridwireless.com; osm.enquiries@atkinsglobal.com; nrswa@uk.easynet.net; david.farmer@ervoyonline.co.uk; plant@ospipelines.com; statrequest@fibernet.co.uk; plantenc@mailman.ftel.co.uk; cnowman@fibrespan.co.uk; Streetworks; nrswa@gastrans.co.uk; admin@interphonenetworks.co.uk; Plantenquiries@optilan.com; osp-team@uk.verizonbusiness.com; plant.enquiries.team@telewest.co.uk; nrswa@Vtesse.com
Subject: Ref: 4276.088SL
Importance: High

<<DOC.PDF>> Ref: 4276.088SL
Site: Longnewton Farmhouse, Haddington, EH41 4LN Grid reference: 351528,664775
Requests: Please reply 8th January

We are doing research on the above site for a client and would be grateful if you could confirm whether the above operators have any cabling or apparatus in the immediate vicinity. Should there be anything detected in the vicinity I would appreciate a plan showing the location. The reason we need the information is our client can avoid digging through your cables or can investigate the potential for connecting with your network.

I enclose location plans of the site for your convenience and look forward to hearing from you. We shall of course be providing a copy of your response to our client as part of a wider report on the site including reports from other utility companies or providers.

Should you have any problems in identifying the location of the sites or should you require further clarification of the details requested, please do not hesitate to contact me.

I look forward to receiving details from you and thank you in advance for your assistance in this matter.

Many thanks,

Samantha Lepine
Production Researcher
Groundwise Searches Limited
Suite 8 Chichester House
45 Chichester Road
Southend-On-Sea
Essex

SS1 2JC

Groundwise Searches Ltd
Before printing, think about the environment

Business Address and Registered Office - Suite 8 Chichester House, 45 Chichester Road, Southend-on-Sea, Essex SS1 2JJ Company Registration Number 4130795 VAT number 769 3642 02

Tel: 01702615566 Fax:01702460239 Visit our website at: www.groundwise.com

Samantha Lepine

From: UK OSP-Team [redacted]
Sent: 27 December 2007 09:15
To: Samantha Lepine
Subject: RE: 4276.088SI

Dear Sirs

Verizon Business is a licensed Statutory Undertaker.

We have reviewed your plans and have determined that Verizon business (Formally known as MCI WorldCom, MFS) has no apparatus in the areas concerned.

If you have any further queries please do not hesitate to call.

Yours faithfully

Chris Pile
Plant Protection Officer E.mail osp team@uk.verizonbusiness.com

-----Original Message-----
From: Samantha Lepine [mailto:slepine@groundwise.com]
Sent: 24 December 2007 09:24
To: streetworks@ngridwireless.com; osm.enquiries@atkinsglobal.com; nrswa@uk.easynet.net; david.farmer@envoyonline.co.uk; plant@essopipelines.com; starrequest@fibernet.co.uk; plantenq@mailman.ftei.co.uk; cnewman@fibrespan.co.uk; streetworks@gammatelecom.com; nrswa@gastrans.co.uk; admin@incoherentnetworks.co.uk; Plantenquiries@optilan.com; UK OSP Team; plant.enquiries.team@telewest.co.uk; nrswa@vtesse.com
Subject: Ref: 4276.088SL
Importance: High

<<DOC.PDF>> Ref: 4276.088SL
Site: Longnewton Farmhouse, Haddington, EH41 4JN Grid reference: 351528,664775
Requests: Please reply 8th January

We are doing research on the above site for a client and would be grateful if you could confirm whether the above operators have any cabling or apparatus in the immediate vicinity. Should there be anything detected in the vicinity I would appreciate a plan showing the location. The reason we need the information is our client can avoid digging through your cables or can investigate the potential for connecting with your network.

I enclose location plans of the site for your convenience and look forward to hearing from you. We shall of course be providing a copy of your response to our client as part of a wider report on the site including reports from other utility companies or providers.

Should you have any problems in identifying the location of the sites or should you require further clarification of the details requested, please do not hesitate to contact me.

I look forward to receiving details from you and thank you in advance for your assistance in this matter.

Many thanks,

Samantha Lepine
Production Researcher
Groundwise Searches Limited
Suite 8 Chichester House
45 Chichester Road
Southend-On-Sea

Essex
SS1 2JU

Groundwise Searches Ltd
Before printing, think about the environment

Business Address and Registered Office Suite 8 Chichester House, 45 Chichester Road, Southend-on-Sea, Essex SS1 2JU Company Registration Number 4130795 VAT number 769 0642 02

Tel: 01702615566 Fax:01702460239 Visit our website at:
www.groundwise.com

Samantha Lepine

From: Sarah Smith [redacted]
Sent: 03 January 2008 10:16
To: Samantha Lepine
Subject: Plant enquiry response

Your Ref: 4276.088SL

Our Ref: 1207/657

I confirm that Vtesse Networks do not have any plant in the area of your enquiry.

Regards,

Sarah Smith

Vtesse Networks
Tel 01992 532 115

Samantha Lepine

From: Rav Takhar [redacted]
[plantenquiries@optilan.com]
Sent: 24 December 2007 11:47
To: Samantha Lepine
Subject: RE: 4276.088SL

Hi this is non affecting

Regards,

Rav Takhar
Optilan Communication Systems

T: +44(0) 1926 864999
F: +44(0) 1926 851818
W: www.optilan.com

-----Original Message-----
From: Samantha Lepine [mailto:slepine@groundwise.com]
Sent: 24 December 2007 09:24
To: streetworks@ngridwireless.com; ocm.enquiries@atkinsglobal.com; nrswa@uk.easynet.net; david.farmer@envoyonline.co.uk; plant@espipelines.com; statrequest@fibernet.co.uk; plantenq@mailbox.ftel.co.uk; cnewman@fibrespan.co.uk; streetworks@gammatelecom.com; nrswa@gastrans.co.uk; admin@interphonenetworks.co.uk; Plant Enquiries; osp-team@uk.verizonbusiness.com; plant.enquiries.team@telewest.co.uk; nrswa@vtesse.com
Subject: Ref: 4276.088SL
Importance: High

<<DOC.PDF>> Ref: 4276.088SL
Site: Longnewton Farmhouse, Haddington, EH41 4JN Grid reference: 351528,664775
Request: Please reply 8th January

We are doing research on the above site for a client and would be grateful if you could confirm whether the above operators have any cabling or apparatus in the immediate vicinity. Should there be anything detected in the vicinity I would appreciate a plan showing the location. The reason we need the information is our client can avoid digging through your cables or can investigate the potential for connecting with your network.

I enclose location plans of the site for your convenience and look forward to hearing from you. We shall of course be providing a copy of your response to our client as part of a wider report on the site including reports from other utility companies or providers.

Should you have any problems in identifying the location of the sites or should you require further clarification of the details requested, please do not hesitate to contact me.

I look forward to receiving details from you and thank you in advance for your assistance in this matter.

Many thanks,

Samantha Lepine
Production Researcher
Groundwise Searches Limited
Suite 8 Chichester House
45 Chichester Road
Southend On Sea
Essex
SS1 2JJ

Groundwise Searches Ltd
Before printing, think about the environment

Business Address and Registered Office - Suite 8 Chichester House, 45 Chichester Road, Southend-on-Sea, Essex SS1 2JU Company Registration Number 4780750 VAT number 769 0642 02

Tel: 01702615066 Fax:01702460239 Visit our website at: www.groundwise.com

Samantha Lepine

From: Coraline Newman [redacted]
Sent: 07 January 2008 12:02
To: Samantha Lepine
Subject: RE: 4276.088SL

With regard to your enquiry below, I can confirm that FibreSpan Ltd. does NOT have any plant affected by your proposed works.
If you have any further enquiries, please contact me direct at this email address.

Kind regards

Coraline Newman

-----Original Message-----
From: Samantha Lepine [mailto:slepine@groundwise.com]
Sent: 24 December 2007 09:24
To: streetworks@ngridwireless.com; osm.enquiries@atkinsglobal.com; nrswa@uk.easynet.net; david.farmer@envoyonline.co.uk; plant@espipelines.com; sitarequest@fibernet.co.uk; planorg@mailman.3tel.co.uk; Coraline Newman; streetworks@gammatelecom.com; nrswa@gastrans.co.uk; admin@irtc-phonenetworks.co.uk; Plan.enquiries@optilan.com; osp-team@uk.verizonbusiness.com; plant.enquiries.team@telewest.co.uk; nrswa@vtesse.com
Subject: Ref: 4276.088SL
Importance: High

<<.DOC.PDF>> Ref: 4276.088SL
Site: Longnewton Farmhouse, Haddington, EH41 4JN Grid reference: 351428,664775
Requests: Please reply 8th January

We are doing research on the above site for a client and would be grateful if you could confirm whether the above operators have any cabling or apparatus in the immediate vicinity. Should there be anything detected in the vicinity I would appreciate a plan showing the location. The reason we need the information is our client can avoid digging through your cables or can investigate the potential for connecting with your network.

I enclose location plans of the site for your convenience and look forward to hearing from you. We shall of course be providing a copy of your response to our client as part of a wider report on the site including reports from other utility companies or providers.

Should you have any problems in identifying the location of the sites or should you require further clarification of the details requested, please do not hesitate to contact me.

I look forward to receiving details from you and thank you in advance for your assistance in this matter.

Many thanks,

Samantha Lepine
Production Researcher
Groundwise Searches Limited
Suite 8 Chichester House
45 Chichester Road
Southend-On-Sea
Essex
SS1 2JU

Groundwise Searches Ltd
Before printing, think about the environment

Business Address and Registered Office - Suite 8 Chichester House, 45 Chichester Road, Southend-on-Sea, Essex SS1 2JU Company Registration Number 4130795 VAT number 769 0642 02

Tel: 01702615566 Fax:01702460239 Visit our website at:
www.groundwise.com

Coraline Newman
PA - Administration

FibreSpan Limited
Enterprise House
Ocean Village
Southampton SO14 3XB
United Kingdom

Tel: + 44 (0) 23 8057 4590
Fax: + 44 (0) 23 8057 4591
www.fibrespan.co.uk

Job No:	E5538		
TCS		SRM	
WS		AD	
NH	✓	AMcG	
NSW		DM	
SS		MMcK	
MW		JMcG	
CMcB		AB	
IF		MDJ	
LB		JMcI	

Mr Nick Henderson
David R Murray & Associates
150 St Johns Road
Edinburgh
EH12 8AY

Your ref: 465101067
Our ref: 427/6.088SL

Purchase Order: 23872393_1
15 February, 2008

Dear Mr Henderson

Site : Longnewton Farmhouse, Haddington, EH41 4JN
Grid reference : 351528,664775

Please find enclosed information for the Infrastructure Report on the above site

Enquiry	Type	Data Supplier	Date Received	Sent to client	Map(s) attached
1	Electricity	SP Power Systems	9/1	14/1	X
2	Electricity	National Grid (electricity distribution)	None in area	-	
3	Gas	Scotland Gas networks (Transco)	10/1	14/1	
4	Gas	Gas Transportation Co.	7/2	15/2	
5	Gas	ES Pipelines Ltd	31/12	8/1	
6	Gas	Envoy Asset Management Ltd (behalf of Independent Pipelines and Independent Power Networks Ltd.)	7/1	8/1	X
7	Gas/Telecoms	SSE Pipelines Ltd / Neos Networks	None in area	-	
8	Water Mains	Scottish Water	3/1	8/1	X
9	Water Sewers	Scottish Water	None in area See attached email		
10	Oil/Fuel	Fisher German – Linesearch.org BT GEO Network/Esso Petroleum Co Ltd /Mainline Pipelines Ltd /Government Pipelines and Storage System /Manchester Jetline Ltd /BPA /ConocoPhillips /Total Uk /BP TSEP /Shell UK Ltd /Huntsman Petrochemicals (UK) Ltd	24/12	8/1	
11	Ethylene Pipeline	Innovene (BP Group)	None in area	-	
12	Oil/Fuel	BP Forties Pipeline	None in area	-	
13	Telecoms	BT (for clarity we can email these maps to you – contact us)	2/1	8/1	X
14	Telecoms	Infolines Public Networks Ltd	3/1	8/1	
15	Telecoms	Cable & Wireless DataCo (for energis)	Awaiting		
16	Telecoms	Easynet (formally Ipsaris)	27/12	8/1	
17	Telecoms	Colt	None in area	-	
18	Telecoms	VSNL	None in area	-	
19	Telecoms	KPN	None in area	-	
20	Telecoms	Virgin Media (former NTL : Telewest)	4/1	8/1	
21	Telecoms	Thus (for your communications)	Awaiting		
22	Telecoms	Fujitsu (for Orange PCS, Global Crossing (UK) Ltd, Hutchinson Network Services and Global Crossing PLC)	31/12	8/1	
23	Telecoms	Gamma Telecom	24/12	8/1	
24	Telecoms	Fibernet	4/2	15/2	
25	Telecoms	Trafficmaster	None in area	-	
26	Telecoms	OFCOM register of Mobile Base	None in area	-	
27	Telecoms	Verizon Business (formerly MCI Worldcom, MFS)	27/12	8/1	
28	Telecoms	Viesse Dark Fibre Network	3/1	8/1	
29	Telecoms	Telia Network	24/12	8/1	
30	Telecoms	Fibrespan Network.	7/1	8/1	

We will continue to chase the utilities concerned and forward any relevent information on receipt. If you have any queries regarding this report do not hesitate to give me a call

Yours sincerely

[redacted]

Samantha Iepinc
Groundwise Searches Ltd
Email: slepinc@groundwise.com

Samantha Lepine

From: Hannah Creane [redacted]
Sent: 07 February 2008 16:47
To: Samantha Lepine
Subject: Plant Enquiry Response Email

NRSWA Plan

In response to your communication with the following reference numbers:

Your ref:

4276.088SL
URO 1537.1SL

Site Location:

Longnewton Farmhouse, Haddington
site near Waterloo Road, London

GTC have no apparatus in the vicinity of your proposed work.

Please note other Gas Transporters may have apparatus in this area and you should ensure that all transporters have been consulted.

All future plant enquiries must contain accurate Easting and Northing references to enable us to process your enquiry ASAP.

Yours faithfully,

Hannah Creane
Planning Assistant
GTC
Energy House
Woolpit Business Park
Woolpit
Bury St. Edmunds
Suffolk
IP30 9UP
Tel: 01359 243326
Fax: 01359 244046
Email: Hannah.Creane@gtc-uk.co.uk
Web: www.gtc-uk.co.uk
Please Send Plant Enquiries to: nrswa@gtc-uk.co.uk

Samantha Lepine

From: Plant Protection [plant protection@cat-surveys.com]
Sent: 04 February 2008 14:17
To: Samantha Lepine
Subject: RE: 4276.088SL

Dear Sirs,

Fibernet plant installations are unaffected by your proposed works at the location(s) referred to in this document.

If you have not already done so you should contact Fujitsu to obtain details of Global Crossing plant which may be affected by your proposed works.

They can be contacted at; Fujitsu Telecom Europe Ltd, Plant Enquiries, Post Point 5, Solihull Parkway, Birmingham Business Park, Birmingham, B37 7YU

Plant Protection Team

-----Original Message-----
From: Samantha Lepine [mailto:slepine@groundwise.com]
Sent: 24 December 2007 09:27
To: s.reeeworks@gridwireless.com; osm.enquiries@atkinsglobal.com; nrswa@uk.easynet.net; david.farmer@envoyonline.co.uk; plant@espipelines.com; stratzequest@fibernet.co.uk; plantenq@mailman.tiel.co.uk; cnowman@fibrespan.co.uk; streetworks@gammatelecom.com; nrswa@gastrans.co.uk; admin@interphonenetworks.co.uk; Plantenquiries@optilan.com; osp-team@uk.verizonbusiness.com; plant.enquiries.team@telewest.co.uk; nrswa@vlesse.com
Subject: Ref: 4276.088SL
Importance: High

<<DOC.PDI>> Ref: 4276.088SL
Site: Longnewton Farmhouse, Haddington, EH41 4JN Grid reference: 351588,664775
Requests: Please reply 8th January

We are doing research on the above site for a client and would be grateful if you could confirm whether the above operators have any cabling or apparatus in the immediate vicinity. Should there be anything detected in the vicinity I would appreciate a plan showing the location. The reason we need the information is our client can avoid digging through your cables or can investigate the potential for connecting with your network.

I enclose location plans of the site for your convenience and look forward to hearing from you. We shall of course be providing a copy of your response to our client as part of a wider report on the site including reports from other utility companies or providers.

Should you have any problems in identifying the location of the sites or should you require further clarification of the details requested, please do not hesitate to contact me.

I look forward to receiving details from you and thank you in advance for your assistance in this matter.

Many thanks,

Samantha Lepine
Production Researcher

Groundwise Searches Limited
Suite 8 Chichester House
45 Chichester Road
Southend-On-Sea
Essex
SS1 2JD

Groundwise Searches Ltd
Before printing, think about the environment

Business Address and Registered Office - Suite 8 Chichester House, 45 Chichester Road, Southend-on-Sea, Essex SS1 2JD Company Registration Number 4130735 VAT number 769 0642 02

Tel: 01702615566 Fax:01702460230 Visit our website at:
www.groundwise.com

Asset Protection Team
PO Box 3484
Warwick
CV34 6TG

Attention: NIKITA WIGGETT
GROUNDWISE SEARCHES LIMITED
SUITE 8 CHICHESTER HOUSE
45 CHICHESTER ROAD
SOUTHEND ON SEA
ESSEX
SS1 2JU

Direct tel +44 (0)800 7312961
Direct fax +44 (0)1926 656574

24-hour Electrical Emergency No
0800 40 40 90*
*Calls may be recorded and monitored
24-hour Gas Escape No
0800 111 999*
*Calls may be recorded and monitored

www.nationalgrid.com

Date	09 January 2008
Our Reference	IN09795/0033795
Your Reference	4276.088SL

Dear Sir/Madam

Re: LONGNEWTON FARM HOUSE,HADDINGTON. EH41 4JN

Thank you for your enquiry, which we have assessed with respect to our operational electricity transmission network and our operational national gas transmission network.

Based on the information you have provided and the proximity and sensitivity of these networks to your proposals we have concluded, using the enclosed tables, that the risk is NEGLIGIBLE.

Further details of organisations responsible for the operation of gas distribution networks, including National Grid's gas distribution organisation, and those responsible for electricity distribution networks can be found at www.nationalgrid.com and www.energynetworks.org and on the enclosed map.

Please ensure that you have a response from both ourselves and the relevant gas distribution organisation, in addition to other utility network operators, before you proceed with your proposals.

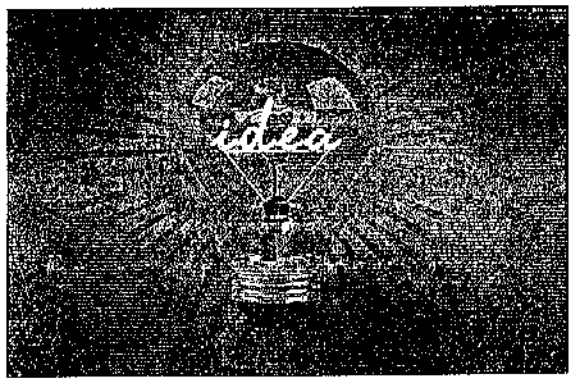
Yours faithfully

Pooja Maheshwari
Asset Protection Team

ENCLOSURES

Risk Assessment Tables
Map
For our national transmission networks see :
http://www.nationalgrid.com/uk/LandandDevelopment/DDC/gastransmission/gaspipes/
http://www.nationalgrid.com/uk/LandandDevelopment/DDC/electricitytransmission/overheadlines/

We have sent you a negligible risk response which means you may be nowhere near us so:



you may be able to help yourself

Visit:

http://www.nationalgrid.com/uk/LandandDevelopment/DDC/gastransmission

http://www.nationalgrid.com/uk/LandandDevelopment/DDC/eletricitytransmission

If you are a utility or council etc you should already have our records on CD
(For further information contact Dawn McCarroll 01926 656325)

Searching online at www.linesearch.org as from February 2008

RECEIVED

03 APR 2008

GROUNDWISE

Groundwise Searches Limited,
Suite 8 Chichester House, 45 Chichester Road,
Southend on Sea, Essex SS1 2JU
Telephone 01702 615566
Fax 01702 460239
Email mail@groundwise.com
Web www.groundwise.com

Job No:	E85358		
TGS		SRM	
WS		AD	
[illegible]	✓	JMcG	
RSW		DM	
SS		MWK	
MW		JMcS	
CMcB		AB	
IF		MDJ	
[illegible]		[illegible]	

Mr Nick Henderson
David R Murray & Associates
150 St Johns Road
Edinburgh
EH12 6AY

Your ref: 465101087
Our ref: 4276 068SI

Purchase Order: 23072393_1
2 April, 2008

Dear Mr Henderson

Site : Longnewton Farmhouse, Haddington, EH41 4JN
Grid reference : 351528,664775

Please find enclosed information for the Infrastructure Report on the above site

Enquiry	Type	Data Supplier	Date Received	Sent to client	Map(s) attached
1	Electricity	SP Power Systems	9/1	14/1	X
2	Electricity	National Grid (electricity distribution)	None in area	-	
3	Gas	Scotland Gas networks (Transco)	10/1	14/1	
4	Gas	Gas Transportation Co.	//2	15/2	
5	Gas	ES Pipelines Ltd	31/12	8/1	
6	Gas	Envoy Asset Management Ltd (behalf of Independent Pipelines and Independent Power Networks Ltd.)	7/1	8/1	X
7	Gas/Telecoms	SSE Pipelines Ltd / Neos Networks	None in area	-	
8	Water Mains	Scottish Water	3/1	8/1	X
9	Water Sewers	Scottish Water	None in area	-	
10	Oil/Fuel	Fisher German - Linesearch org BT GEO Network/Esso Petroleum Co Ltd /Mainline Pipelines Ltd /Government Pipelines and Storage System /Manchester Jetline Ltd /BPA /ConocoPhillips /Total Uk /BP TSEP /Shell UK Ltd /Huntsman Petrochemicals (UK) Ltd	24/12	8/1	
11	Ethylene Pipeline	Innovene (BP Group)	None in area	-	
12	Oil/Fuel	BP Forties Pipeline	None in area	-	
13	Telecoms	BT (for clarity we can email these maps to you - contact us)	2/1	8/1	X
14	Telecoms	Infolines Public Networks Ltd	3/1	8/1	
15	Telecoms	Cable & Wireless DataCo (for energis)	18/2	6/3	
16	Telecoms	Easynet (formally Ipsaris)	27/12	8/1	
17	Telecoms	Colt	None in area	-	
18	Telecoms	VSNL	None in area	-	
19	Telecoms	KPN	None in area	-	
20	Telecoms	Virgin Media (former NTL: Telewest)	4/1	8/1	
21	**Telecoms**	**Thus (for your communications)**	**2/4**	**2/4**	
22	Telecoms	Fujitsu (for Orange PCS, Global Crossing (UK) Ltd, Hutchinson Network Services and Global Crossing PEC)	31/12	8/1	
23	Telecoms	Gamma Telecom	24/12	8/1	
24	Telecoms	Fibernet	4/2	15/2	
25	Telecoms	Trafficmaster	None in area	-	
26	Telecoms	OFCOM register of Mobile Base	None in area	-	
27	Telecoms	Verizon Business (formerly MCI Worldcom, MFS)	27/12	8/1	
28	Telecoms	Vtesse Dark Fibre Network	3/1	8/1	
29	Telecoms	Telia Network	24/12	8/1	
30	Telecoms	Fibrespan Network	7/1	8/1	

We will continue to chase the utilities concerned and forward any relevant information on receipt. If you have any queries regarding this report do not hesitate to give me a call

Yours sincerely

Samantha Iepinc
Groundwise Searches Ltd
Email: slepine@groundwise.com

THUS plc
1 2 Berkeley Square
99 Berkeley Street
Glasgow G3 7HR

T 0141 567 1234
F 0141 566 3010
www.thus.net

thus

Your Ref: 4276.088SI

24 March 2008

Our Ref: UCI (N)86429

Groundwise Searches Ltd
Suite 8 Chichester House
45 Chichester Road
Southend-on-Sea
Essex
SS1 2JE

For the attention of: Samantha Lepine,

Dear Madam,

NEW ROADS AND STREET WORKS ACT 1991

Project: LONGNEWTON FARMHOUSE, HADDINGTON,

Thank you for your enquiry dated 6th March, 2008, requesting plant information for the above mentioned project.

On consulting our records, I am unaware of any Thus plant which would be affected by your proposed works. I trust this information is sufficient, if however you have any further enquiries please do not hesitate to contact us.

Please note that Thus and Your Communications plant are now fully integrated and all plant enquiries should now be directed to our Glasgow Office only.

Yours faithfully

[redacted]

Gerry Campbell
Utilities Centre
Direct Line : 0141 566 3955

ScottishPower

Telephone:
0141 567 4155

D.U.W.1.4.3
APPENDIX 2

Information about ScottishPower apparatus given on this drawing is indicative only as the original depths and lines of cables may have been changed by persons unknown. Normally electricity cables are laid in trenches between 450mm and 1m deep, but collars or structures such as bridges may prevent cables being laid at these standard depths. Also, the depth may be above or below the standard due to regrading of the surface or other work after the cables are laid. Where known, nonstandard depths are indicated. Any interference with or damage to ScottishPower apparatus may result in a serious accident. Health & Safety Executive booklet HSG47 provides information on the avoidance of danger from underground services. Authorities and Contractors will be held liable both for the full cost of repairs to ScottishPower apparatus and all claims made against ScottishPower by Third Parties as a result of any interference or damage. In the event of an emergency or for further assistance contact 0845 2727 999 (ScottishPower area) or 0845 272 2424 (SP Manweb area).

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Map Reference:35157564778

SCALE : 1/500

Date: 07Jan2008

Produced by:
Lisa Kilcallen

Produced for:
Groundwise

APPENDIX G

ASSESSMENT LEVELS CALCULATED USING THE CLEA MODEL

CLEA UK MODEL 2005 VERSION Version 1.0

Simulation Date:	08/04/2008
Type of simulation:	Site Specific Assessment Criteria

Company Name:	
Person running Simulation:	
Contact Number:	
Site Name:	e8538
Site Address:	Long Newton Haddington

Chemical	HCV_{oral} compared with which exposure route/s?			HCV_{inhal} compared with which exposure route/s?			Assessment Criteria ($mg.kg^{-1}$)					Site Specific Soil Concentration ($mg.kg^{-1}$ dry weight soil)	ADE/HCV (dimensionless)	
	oral	dermal	inhal	oral	dermal	inhal	oral & dermal (using HCV_{oral})	20% rule applied?	inhalation (using $HCV_{inhalation}$)	20% rule applied?	Integrated		oral & dermal	inhalation
Cyanide	Yes	Yes	No	No	No	Yes	2.38E-01	Yes	1.42E-05	Yes	2.38E+01		1.00E+00	1.00E+00

Land-use selected:	residential with plant uptake

Land-use Parameters	Age Class																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Exposure Frequency (day yr-1) – direct soil and dust ingestion	1.80E+02	3.65E+02	3.65E+02	3.65E+02	3.65E+02	3.65E+02												
Exposure Frequency (day yr-1) – consumption of home grown produce	2.50E+02	3.65E+02	3.65E+02	3.65E+02	3.65E+02	3.65E+02												
Exposure Frequency (day yr-1) – consumption of soil attached to home grown produce	3.65E+02	3.65E+02	3.65E+02	3.65E+02	3.65E+02	3.65E+02												
Exposure Frequency (day yr-1) – skin contact indoors	1.80E+02	3.65E+02	3.65E+02	3.65E+02	3.65E+02	3.65E+02												
Exposure Frequency (day yr-1) – skin contact outdoors	6.50E+01	1.30E+02	1.30E+02	1.30E+02	1.30E+02	1.30E+02												
Exposure Frequency (day yr-1) – inhalation of dust and vapours indoors	3.65E+02	3.65E+02	3.65E+02	3.65E+02	3.65E+02	3.65E+02												
Exposure Frequency (day yr-1) – inhalation of dust and vapours outdoors	3.65E+02	3.65E+02	3.65E+02	3.65E+02	3.65E+02	3.65E+02												
Respirability (fraction) – active indoors	3.00E-00	3.00E-00	3.00E-00	3.00E-00	3.00E+00	3.00E+00												
Respirability (fraction) – active outdoors	1.00E-00	2.00E-00	2.00E+00	3.00E-00	3.00E+00	3.00E+00												
Respirability (fraction) – passive indoors	2.00E-01	1.80E-01	1.80E+01	1.80E-01	1.80E+01	1.80E+01												
Respirability (fraction) – passive outdoors	1.00E-00	1.00E-00	1.00E+00	3.00E-00	3.00E-00	3.00E-00												
Soil Ingestion Rate (mg day-1) – soil ingestion rate	Calculated	Calculated	Calculated	Calculated	Calculated	Calculated												
Soil-skin adherence factor (mg cm-2) – indoor	6.00E-02	6.00E-02	6.00E-02	6.00E-02	6.00E-02	6.00E-02												
Soil-skin adherence factor (mg cm-2) – outdoor	1.00E+00	1.00E-00	1.00E-00	1.00E+00	1.00E-00	1.00E-00												
Exposed skin surface area (cm2 cm-2 day-1) – indoor maximum exposed skin fraction	2.20E-01	2.30E-01	2.20E-01	2.50E-01	2.50E-01	2.30E-01												
Exposed skin surface area (cm2 cm-2 day-1) – outdoor maximum exposed skin fraction	2.60E-01	2.60E-01	2.50E-01	2.60E-01	2.30E-01	2.60E-01												

Receptor selected:	female (CX)

Start Age Class:	End Age Class:	Exposure duration (years):	Averaging Time (years):
1	6	6	6

BUILDING PARAMETERS

Building type selected:	Residential - typical house	
Building Parameters	Units	Input Value
height of living/working space above ground	cm	4.80E+02
height of cellar space below ground	cm	0.00E+00
enclosed space floor length	cm	6.49E+02
enclosed space floor width	cm	6.49E+02
foundation or slab thickness	cm	1.50E+01
living/working space air exchange	h^{-1}	5.00E-01
pressure differential between soil and enclosed space	g cm^{-2}	3.00E-01
floor-wall seam crack width	cm	2.00E-01
floor crack to total area ratio	unitless	[illegible].25E-03
volumetric flow rate of soil gas entering the building	cm^3 s^{-1}	3.05E+01
volumetric building ventilation rate from ingoing outdoor air	cm3 s-1	2.73E+04

SOIL CHARACTERISTICS

Soil type selected:	sandy - UK	
Soil parameter	Units	Input value
grain size	cm	5.00E-02
total porosity	cm^3 cm^{-3}	4.60E-01
air-filled porosity	cm^3 cm^{-3}	3.[illegible]E-01
water-filled porosity	cm^3 cm^{-3}	1.50E-01
dry bulk density	g cm^{-3}	1.60E+00
enrichment factor	dimensionless	6.00E+00
soil pH	dimensionless	6.00E+00
fraction of organic carbon	dimensionless	3.40E-02
van Genuchten shape parameter	dimensionless	3.47E-01
residual water content	cm^3 cm^{-3}	5.00E-02
saturated hydraulic conductivity	cm s^{-1}	5.47E-03
ambient soil-water temperature	K	2.85E+02
intrinsic soil permeability	cm^2	8.63E-08

SITE PARAMETERS

Site Parameter	Units	Input Value
Area of source-zone	cm^2	[illegible].25E+06
Depth below ground to source zone	cm	1.15E+02
Equivalent threshold wind speed (7m)	m s^{-1}	1.13E+01
Fraction of soil in building dust	dimensionless	7.40E-01
Fraction of the site with hard or vegetative cover	dimensionless	5.00E-01
Mean annual windspeed (10m)	m s^{-1}	4.69E+00
Normalised annual average concentration of dust particles	kg m^{-3} per g m^{-2} s^{-1}	1.10E-03
Tracked back soil adjustment factor	dimensionless	[illegible].00E+00
Width of contaminated zone in direction of prevailing wind	cm	[illegible].50E+03
Wind speed distribution function	dimensionless	1.94E-01
Wind speed in mixing zone (1-2m)	m s^{-1}	3.00E+00

Exposure Pathways

	Oral						Dermal				Inhalation														
	direct soil and soil derived indoor dust ingestion		consumption of site-grown vegetables		consumption of soil attached to site grown vegetables		skin contact with soil derived indoor dust		skin contact with soil		inhalation of soil derived indoor dust		inhalation of soil dust		inhalation of vapours indoors		inhalation of vapours outdoors		vapour model calculated values		dispersion factor for outdoor air			background exposure (oral)	background exposure (inhalation)
Chemical	ADE % Contribution	ADE Mean [ug kg-1 bw day-1]	ADE % Contribution	ADE Mean [ug kg-1 bw day-1]	ADE % Contribution	ADE Mean [ug kg-1 bw day-1]	ADE % Contribution	ADE Mean [ug kg-1 bw day-1]	ADE % Contribution	ADE Mean [ug kg-1 bw day-1]	ADE % Contribution	ADE Mean [ug kg-1 bw day-1]	ADE % Contribution	ADE Mean [ug kg-1 bw day-1]	ADE % Contribution	ADE Mean [ug kg-1 bw day-1]	ADE % Contribution	ADE Mean [ug kg-1 bw day-1]	soil air diffusion coefficient (cm2 s-1)	soil vapour to indoor air attenuation coefficient (dimensionless)	young child (cm s-1)	older child (cm s-1)	adult (cm s-1)	ADE Mean [ug kg-1 bw day-1]	ADE Mean [ug kg-1 bw day-1]
Cyanide	1.07E+0[illegible]	1.60E-01	5.51E+01	1.32E+00	9.07E-01	1.35E-02	3.16E-02	4.71E-04	1.99E-01	2.98E-03	1.55E-03	2.33E-05	5.12E-04	7.65E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.10E+00	N/A	N/A	0.00E+00	0.00E+00

HEALTH CRITERIA VALUES

Chemical	TDI (ug.kg-1 bw.day-1)		ID (ug.kg-1 bw.day-1)		MDI (µg day-1)	
	oral	inhalation	oral	inhalation	oral	inhalation
Cyanide	2.40E+00	1.80E-01	none	none	0.00E+00	0.00E+00

PHYSICO-CHEMICAL PROPERTIES

Chemical	Henry's Law Constant (dimensionless)	Reference Temperature (K)	Henry's Law Constant (atm-m³ mol⁻¹)	Reference Temperature (K)	Henry's Law Constant at ambient temperature (dimensionless)	Enthalpy of vaporisation at boiling point (cal mol⁻¹)	Boiling Point (K)	Critical Temperature (K)	Air diffusion coefficient (m2 s⁻¹)	Water diffusion coefficient (m2 s⁻¹)	Relative atomic (molecular) mass (g mol⁻¹)	Vapour pressure at 10°C (Pa)	Aqueous solubility at 10°C (mg L⁻¹)	organic carbon - water distribution coefficient, log K_{oc} (log(cm³ water g⁻¹ oc))	octanol-water distribution coefficient log, log K_{ow} (dimensionless)	soil-water distribution coefficient, K_d (cm³ water g⁻¹ soil)	Total soil concentration to pore water concentration ratio (cm³ water g⁻¹ soil)	dermal absorption fraction (dimensionless)	Type of soil-to-plant concentration factor, dry or fresh weight? (leafy) (dimensionless)	Type of soil-to-plant concentration factor, dry or fresh weight? (root) (dimensionless)	soil-to-plant concentration factor (leafy) (ug g⁻¹ FW plant over ug cm⁻³ soil solution)	soil-to plant concentration factor (root) (ug g⁻¹ FW plant over ug cm⁻³ soil solution)	dust Enrichment Factors used?
Cyanide	N/A	N/A	N/A	N/A	0.00E+00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.50E+05	N/A	N/A	9.96E-01	9.96E-01	1.00E-02	dw	dw	1.00E-01	3.00E-01	Yes

MEDIA CONCENTRATIONS

Chemical	Distribution of chemical in soil							Distribution in Non-soil Media														Boundary Limits					
	mg.g⁻¹				%			mg.m⁻³ air						mg.g⁻¹ FW plant matter							mg.l⁻¹	mg.l⁻¹		mg.m⁻³	mg.m⁻³	
	total soil concentration	sorbed concentration	dissolved concentration	vapour concentration	sorbed concentration	dissolved concentration	vapour concentration	indoor vapour air concentration	outdoor vapour air concentration for Young Child	outdoor vapour air concentration for Older Child	outdoor vapour air concentration for Adults	outdoor dust air concentration	indoor dust air concentration	concentration in Brassica species	concentration in cabbage	concentration in carrot	concentration in leafy salad	concentration in onion, leek, shallots	concentration in potatoes	pore water concentration	maximum aqueous solubility	% max	ambient source vapour concentration	saturated source vapour concentration	% max
Cyanide	[illegible]	[illegible]	[illegible]	0.00E+00	[illegible]	9.42E+00	0.00E+00	0.00E+00	0.00E+00	N/A	N/A	1.51E-08	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2.39E+01	[illegible]	[illegible]	0.00E+00	0.00E+00	N/A

APPENDIX H

STATISTICAL ANALYSIS OF LABORATORY DATA

Contract Name: Long Newton, Haddington
Contract No.: E8538
Data Input By: PL
Data Checked By: NJH

Location	BH1	BH2	BH2	BH3	BH3	BH4	BH5	HP2	HP4	HP5	HP6
Depth (m)	0.5	0.5	1.0	0.5	1.0	0.5	0.5	0.3	0.2	0.2	0.4

Analyte	Units											
Arsenic	mg/kg	21	25	27	23	52	30	8	20	18	15	20
Cadmium	mg/kg	0.99	1	1	1	1	1	1	1	1	1	1
Chromium (Total)	mg/kg	23	29	32	37	37	26	17	28	32	24	45
Lead	mg/kg	21	34	20	270	28	31	8	130	410	240	260
Mercury	mg/kg	0.99	1	1	1	1	1	1	1	1	1	1
Selenium	mg/kg	1.99	2	2	2	2	2	2	2	2	2	2
Nickel	mg/kg	21	35	60	46	54	38	19	29	32	25	51
Boron (Water Soluble)*	mg/kg	0.99	1	1	1	1	1	1	1	1	1	1
Copper*	mg/kg	18	29	33	32	44	21	6	28	32	26	36
Zinc*	mg/kg	58	100	93	120	110	76	18	280	400	260	210
Monohydric Phenols (Total)	mg/kg	0.99	1	1	1	1	1	1	1	1	1	1
Cyanide (Total)	mg/kg	0.99	1	1	1	1	1	1	1	1	1	1
Water Soluble Sulphate (as SO_4)	g/L	0.058	0.012	0.01	0.057	0.01	0.01	0.01	0.011	0.01	0.095	0.01
Sulphide**	mg/kg	9.99	10	10	10	10	10	10	10	10	10	10
pH (Unitless)	Unitless	7.2	8.0	7.4	7.9	7.8	7.8	7.5	7.3	6.6	6.9	6.4

What is the proposed end use? 1
Residential With Plant Uptake = 1
Residential Without Plant Uptake = 2
Allotments = 3
Commercial = 4

Contract Name:	Long Newton
Contract No.:	E8538
Data Input By:	PL
Data Checked By:	NJH

Location	HP7
Depth (m)	0.2

Analyte	Units	
Arsenic	mg/kg	21
Cadmium	mg/kg	1
Chromium (Total)	mg/kg	23
Lead	mg/kg	47
Mercury	mg/kg	1
Selenium	mg/kg	2
Nickel	mg/kg	24
Boron (Water Soluble)*	mg/kg	1
Copper*	mg/kg	20
Zinc*	mg/kg	62
Monohydric Phenols (Total)	mg/kg	1
Cyanide (Total)	mg/kg	1
Water Soluble Sulphate (as SO_4)	g/l	0.018
Sulphide**	mg/kg	10
pH (Unitless)	Unitless	7.8

What is the proposed end use? 1

Residential With Plant Uptake = 1
Residential Without Plant Uptake = 2
Allotments = 3
Commercial = 4

Contract Name: Long Newton, Haddington
Contract No.: E8538
Data Input By: PL
Data Checked By: NJH

		Residential With Plant Uptake	Residential Without Plant Uptake	Allotments	Commercial
Arsenic	mg/kg	20	20	20	500
Cadmium	mg/kg	2	30	2	1400
Chromium (Total)	mg/kg	130	200	130	5000
Lead	mg/kg	450	450	450	750
Mercury	mg/kg	8	15	8	480
Selenium	mg/kg	35	260	35	6000
Nickel	mg/kg	50	75	80	5000
Boron (Water Soluble)	mg/kg	3	3	3	3
Copper	mg/kg	135	135	135	135
Zinc	mg/kg	300	300	300	300
Monohydric Phenols (Total)	mg/kg	283	283	283	283
Cyanide (Total)	mg/kg	23.8	23.8	23.8	23.8
Water Soluble Sulphate (as SO_4)	g/L	0.5	0.5	0.5	0.5
Sulphide	mg/kg	*	*	*	*
pH (Unitless)	Unitless	<5.5	<5.5	<5.5	<5.5

Contract Name:	**Long Newton, Haddington**
Contract No.:	**E8538**
Data Input By:	**PL**
Data Checked By:	**NJH**

n	t
2	6.314
3	2.920
4	2.353
5	2.132
6	2.015
7	1.943
8	1.895
9	1.860
10	1.833
11	1.812
12	1.796
13	1.782
14	1.771
15	1.761
16	1.753
17	1.746
18	1.740
19	1.734
20	1.729
21	1.725
22	1.721
23	1.717
24	1.714
25	1.711
26	1.708
27	1.706
28	1.703
29	1.701
30	1.699

Contract Name: Long Newton, Haddington
Contract No.: E8538
Data Input By: PL
Data Checked By: NJH

Location	BH1	BH2	BH2	BH3	BH3	BH4	BH5	HP2	HP4	HP5
Depth (m)	0.5	0.5	1.0	0.5	1.0	0.5	0.5	0.3	0.2	0.2

Analyte	Units										
Arsenic	mg/kg	1.322	1.398	1.431	1.362	1.716	1.477	0.903	1.301	1.255	1.176
Cadmium	mg/kg	-0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Chromium (Total)	mg/kg	1.382	1.462	1.505	1.568	1.568	1.415	1.230	1.447	1.505	1.380
Lead	mg/kg	1.322	1.531	1.301	2.431	1.447	1.491	0.903	2.114	2.613	2.380
Mercury	mg/kg	-0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Selenium	mg/kg	0.299	0.301	0.301	0.301	0.301	0.301	0.301	0.301	0.301	0.301
Nickel	mg/kg	1.322	1.544	1.778	1.683	1.732	1.580	1.279	1.462	1.505	1.398
Boron (Water Soluble)	mg/kg	-0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Copper	mg/kg	1.255	1.462	1.519	1.505	1.643	1.322	0.778	1.447	1.505	1.415
Zinc	mg/kg	1.763	2.000	1.919	2.079	2.041	1.861	1.255	2.447	2.602	2.415
Monohydric Phenols (Total)	mg/kg	-0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Cyanide (total)	mg/kg	-0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Water Soluble Sulphate (as SO_4)	g/L	-1.237	-1.921	-2.000	-1.244	-2.000	-2.000	-2.000	-1.959	-2.000	-1.022
Sulphide	mg/kg	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
pH (Unitless)	Unitless	0.857	0.903	0.869	0.898	0.892	0.892	0.875	0.863	0.820	0.839

HP6	HP7
0.4	0.2

1.301	1.322
0.000	0.000
1.653	1.362
2.415	1.672
0.000	0.000
0.301	0.301
1.708	1.380
0.000	0.000
1.556	1.301
2.322	1.792
0.000	0.000
0.000	0.000
-2.000	-1.745
1.000	1.000
0.806	0.892

Logs of Lab Results

Contract Name: Long Newton, Haddington
Contract No.: E8538
Data Input By: PL
Data Checked By: NJH

n	T crit (10%)
4	1.42
5	1.60
6	1.73
7	1.83
8	1.91
9	1.98
10	2.04
12	2.13
14	2.21
16	2.28
18	2.33
20	2.38

Contract Name: Long Newton, Haddington
Contract No.: E8538
Data Input By: PL
Data Checked By: NJH

		SGV	x mean	Sx	n	t	US95	y max	y mean	Sy	T	T crit	Max Value Test	Above or Below SGV
Arsenic	mg/kg	20	23.33	10.65	12	1.796	28.86	1.716	1.330	0.1907	2.02	2.13	No Outliers	Above
Cadmium	mg/kg	2	1.00	0.00	12	1.796	1.00	0.000	0.000	0.0013	0.29	2.13	No Outliers	Below
Chromium (Total)	mg/kg	150	29.42	7.69	12	1.796	33.40	1.653	1.455	0.1148	1.73	2.13	No Outliers	Below
Lead	mg/kg	450	124.92	135.47	12	1.796	195.15	2.613	1.902	0.5610	1.45	2.13	No Outliers	Below
Mercury	mg/kg	8	1.00	0.00	12	1.796	1.00	0.000	0.000	0.0013	0.29	2.13	No Outliers	Below
Selenium	mg/kg	35	2.00	0.00	12	1.796	2.00	0.301	0.301	0.0006	0.29	2.13	No Outliers	Below
Nickel	mg/kg	50	36.17	13.73	12	1.796	43.29	1.778	1.529	0.1667	1.49	2.13	No Outliers	Below
Boron (Water Soluble)*	mg/kg	3	1.00	0.00	12	1.796	1.00	0.000	0.000	0.0013	0.29	2.13	No Outliers	Below
Copper*	mg/kg	135	27.08	9.66	12	1.796	32.19	1.643	1.392	0.2234	1.12	2.13	No Outliers	Below
Zinc*	mg/kg	300	148.08	114.28	12	1.796	297.33	2.602	2.043	0.3691	1.51	2.13	No Outliers	Below
Monohydric Phenols (Total)	mg/kg	283	1.00	0.00	12	1.796	1.00	0.000	0.000	0.0013	0.29	2.13	No Outliers	Below
Cyanide (total)	mg/kg	24	1.00	0.00	12	1.796	1.00	0.000	0.000	0.0013	0.29	2.13	No Outliers	Below
Water Soluble Sulphate (as SO4)	g/L	0.5	0.03	0.03	12	1.796	0.04	-1.522	-1.761	0.3667	2.00	2.13	No Outliers	Below
Sulphide**	mg/kg	10	10.00	0.00	12	1.796	10.00	1.000	1.000	0.0001	0.29	2.13	No Outliers	Below
pH (Unitless)	Unitless	<5.5	7.38	0.53	12	1.796	7.56	0.903	0.867	0.0317	1.13	2.13	No Outliers	Below

Abbreviations:

*	Sewage Sludge Guidelines
**	Limit of Detection
SGV	Soil guideline value
x mean	The arithmetic mean of measured concentrations for a determinant
Sx	The unbiased sample standard deviation
n	The number of samples
t	Variable for a 95th percentile confidence limit dependant on the number of samples
US95	The upper 95th percentile bound of the samples
y max	The log of the maximum measured concentration for a determinant
y mean	The log of the arithmetic mean of measured concentrations for a determinant
Sy	The unbiased standard deviation of log values
T	The outlier test statistic
T crit	The critical T value dependent on the number of samples

APPENDIX I

JBRI CAPPING LAYER CALCULATION SHEET

Long Newton, Haddington
Assuming Cover Contamination of 75% of Assessment Levels

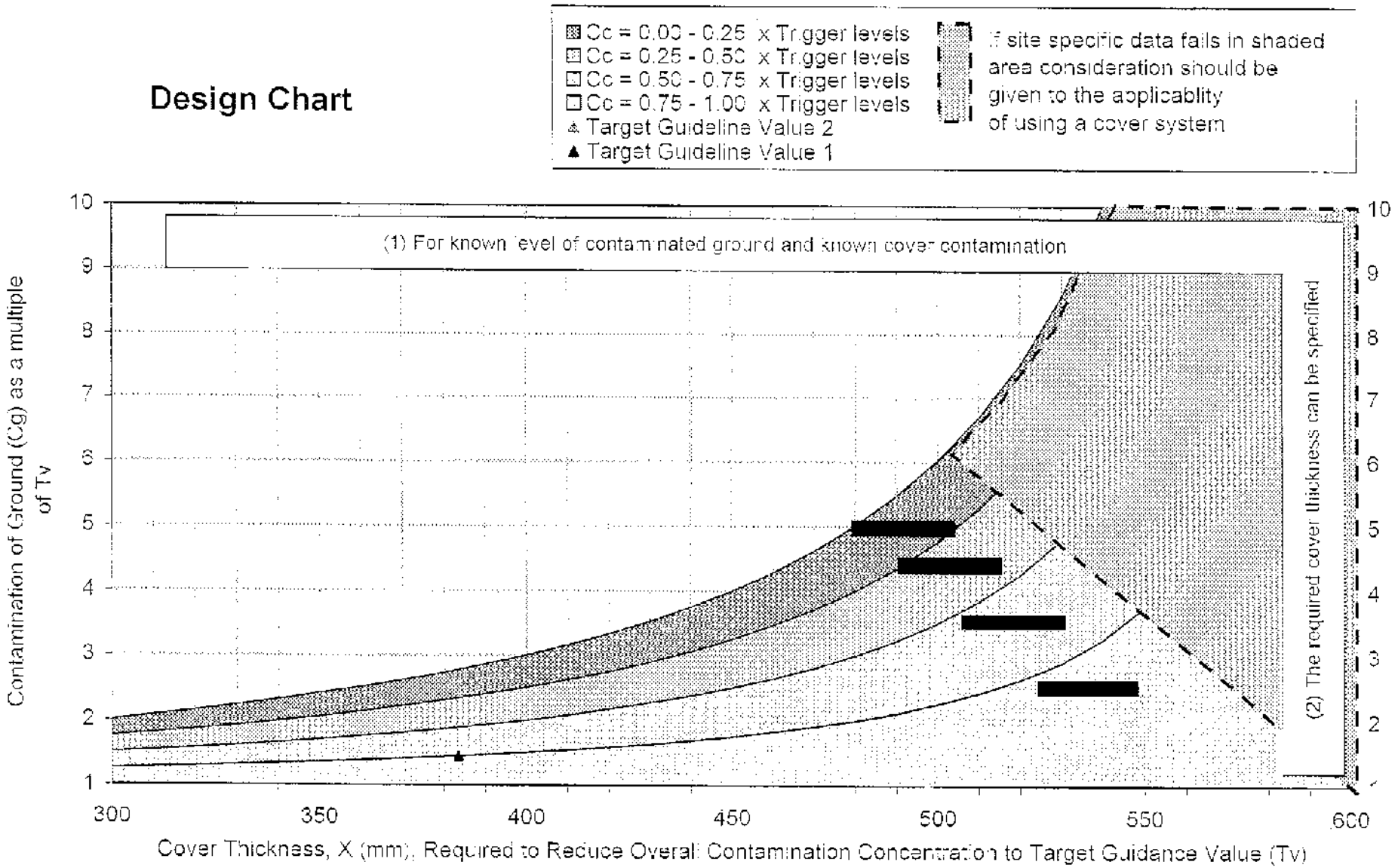
Calculations based on mixed zone (M)	600	mm

Contaminant	Site Data				Expressed as a Factor of Target Guideline Value				Cover Thickness Required for Compliance to Specified Target Guideline Value	
	Contamination of Ground (CG)	Contamination of Cover (CC)	Target Guideline Value 1	Target Guideline Value 2	Target Guideline Value Soil / 1	Target Guideline Value Cover / 1	Target Guideline Value Soil / 2	Target Guideline Value Cover / 2	Target Guideline Value 1	Target Guideline Value 2
	Units		Units		Fraction				(mm)	
Arsenic	28.86	15	20	20	1.4	0.8	1.4	0.8	504	384
Cadmium	1	1.5	2	30	0.5	0.8	0.0	0.1	None	None
Chromium	33.4	97.5	130	200	0.3	0.8	0.2	0.5	None	None
Mercury	1	6	8	15	0.1	0.8	0.1	0.4	None	None
Selenium	2	26.25	35	260	0.1	0.8	0.0	0.1	None	None
Copper	32.19	101.25	135	135	0.2	0.8	0.2	0.8	None	None
Nickel	43.29	37.5	50	75	0.9	0.8	0.8	0.8	None	None
Zinc	207.3	225	300	300	0.7	0.8	0.7	0.8	None	None
Lead	195.2	337.5	450	450	0.4	0.8	0.4	0.8	None	None
Cyanide	1	17.85	23.8	23.8	0.0	0.8	0.0	0.8	None	None
Sulphate (wat	0.04	0.375	0.5	0.5	0.1	0.8	0.1	0.8	None	None
Phenols	1	3.75	5	5	0.2	0.8	0.2	0.8	None	None
pH	7.66	7	9	9	0.9	0.8	0.9	0.8	None	None

Summary	Target Guideline Value 1	Target Guideline Value 2
Number of contaminants	12	12
Number of contaminants with no thickness calculation	0	0
Breakdown - Number for which no TV specified	0	0
Breakdown - Number for which no soil specified	0	0
Breakdown - Number for which no cover specified	0	0
Breakdown - Number for which cover > TV	0	0
Number of contaminants with thickness calculation	12	12
Breakdown - Number for which no cover required	11	11
Breakdown - Number for which cover required	1	1

Overall thickness of cover required	**384**	**384**

Design Chart



APPENDIX J

RESULTS OF GAS MONITORING

Gas Monitoring Field Record

Site:	Longnewton, Haddington	Date:	28/01/2008	Weather:	Windy & sunny
Proj. No.:	E8538	Name(s):	KC	Serial No.:	GA08860106 (GA2000) + Flow Pod

BH	Ba. Pr. (mbar)	CH_4 (% v/v)	CO_2 (% v/v)	O_2 (% v/v)	H_2S (ppm)	CO (ppm)	Flow (l/hr)	GW Level (m)	BH Base (m)	Datum	Comments
BH1								0.00	2.67	GL	Standpipe waterlogged
BH4	1001	0.0	0.3	20.1	<1	<1	0.0	0.69	2.47	GL	
BH5	1001	0.0	0.1	20.3	<1	<1	0.0	0.63	2.07	GL	

Additional Comments:

Gas Monitoring Field Record

Sheet 1 of 1

Site:	Longnewton, Haddington	Date:	09/02/2008	Weather:	Overcast
Proj. No.:	E8538	Name(s):	KC	Serial No.:	GA08660106 (GA2000) + Flow Pod

BH	Ba. Pr. (mbar)	CH_4 (% v/v)	CO_2 (% v/v)	C_2 (% v/v)	H_2S (ppm)	CO (ppm)	Flow (l/hr)	GW Level (m)	BH Base (m)	Datum	Comments
BH1								0.00	2.65	GL	Standpipe waterlogged
BH4	1000	0.2	2.5	10.5	<1	<1	0.0	0.90	2.40	GL	
BH5	1000	0.0	0.0	20.5	<1	<1	0.0	0.83	2.05	GL	

Additional Comments:

Gas Monitoring Field Record

Site:	Longniewton, Haddington	Date:	14/02/2008	Weather:	
Proj. No.:	E8538	Name(s):	KC	Serial No.:	GA08660103 (GA2000) + Flow Pod

BH	Ba. Pr (mbar)	CH_4 (% v/v)	CO_2 (% v/v)	O_2 (% v/v)	H_2S (ppm)	CO (ppm)	Flow (l/hr)	GW Level (m)	BH Base (m)	Datum	Comments
BH1	1020	0.7	1.3	19.2	<1	<1	0.0	0.44	2.48	GL	
BH4	1020	0.0	2.5	14.2	<1	<1	0.0	1.02	2.47	GL	
BH5	1020	0.0	0.9	19.2	<1	<1	0.0	1.11	2.05	GL	

Additional Comments:

Gas Monitoring Field Record

Site:	Longnewton, Haddington	Date:	19/02/2008	Weather:	
Proj. No.:	E8538	Name(s):	KC	Serial No.:	GA08680106 (GA2000) + Flow Pod

Bh	Ba. Pr. (mbar)	CH_4 (% v/v)	CO_2 (% v/v)	O_2 (% v/v)	H_2S (ppm)	CO (ppm)	Flow (l/hr)	GW Level (m)	BH Base (m)	Datum	Comments
BH1	1000	0.1	0.2	20	<1	<1	0.0	0.58	2.50	GL	
BH4	1000	0.0	2.4	14.1	<1	<1	-0.1	1.09	2.45	GL	
BH5	1000	0.0	0.9	18.8	<1	<1	0.0	1.15	2.06	GL	

Additional Comments:

Gas Monitoring Field Record

Site:	Longnewton, Haddington	Date:	03/03/2008	Weather:	Sunny/cold
Proj. No.:	E8538	Name(s):	GT	Serial No.:	GA08660106 (GA2000) + Flow Pac

BH	Ba. Pr. (mbar)	CH_4 (% v/v)	CO_2 (% v/v)	O_2 (% v/v)	H_2S (ppm)	CO (ppm)	Flow (l/hr)	GW Level (m)	BH Base (m)	Datum	Comments
BH3	980	1.6	0.8	18.6	<1	<1	-0.1	0.64	2.40	GL	
BH4	980	0.0	1.4	19.2	<1	<1	-0.2	1.50	2.38	GL	
BH5	981	0.1	0.4	20.5	<1	<1	-0.2	1.63	1.95	GL	

Additional Comments:

Gas Monitoring Field Record

Sheet 1 of 1

Site:	Longrewton, Haddington	Date:	10/03/2008	Weather:	Cold & Raining
Proj. No.:	E8538	Name(s):	KC & DP	Serial No.:	GA08660106 (GA2000) + Flow Pod

BH	Ba. Pr. (mbar)	CH_4 (% v/v)	CO_2 (% v/v)	O_2 (% v/v)	H_2S (ppm)	CO (ppm)	Flow (l/hr)	GW Level (m)	BH Base (m)	Datum	Comments
BH1	940	0.2	0.6	19.6	<1	<1	-0.2	0.69	2.50	GL	
BH4	940	0.0	0.5	19.6	<1	<1	0.0	1.23	2.50	GL	
BH5	940	0.0	0.3	19.7	<1	<1	0.0	0.40	2.07	GL	

Additional Comments:

APPENDIX K

WATER PIPE SPECIFICATION

DAVID R. MURRAY AND ASSOCIATES
CONSULTING ENGINEERS

WATER PIPE SPECIFICATION
LONGNEWTON, HADDINGTON

To:	Gap Developments	**From:**	N. Henderson
Report Ref. No:	E8395	**Date:**	April, 2008
Site:	Longnewton, Nr. Haddington		

SITE INVESTIGATION REPORT:

- Site Investigation Report, Longnewton, Nr. Haddington. David R. Murray & Associates Report No: E8538, April 2008.

SUITABILITY OF MATERIALS:

The potential environmental risk associated with the above site is not considered to be significant based on review of an intrusive investigation report relating to the site.

Water Mains:

Based on the site investigation information and with reference to WRAS guidance the use of MDPE is recommended for mains pipe laid on the site. Trenches should be bedded and backfilled with imported granular materials.

Service Pipe-Work:

The use of MDPE is also recommended for service pipe-work laid on the site based upon site investigation information and with reference to WRAS guidance. Trenches should be bedded and backfilled with imported granular materials.

POTENTIAL HAZARDS TO CONTRACTORS LAYING MAINS/SERVICES:

Based on the information available, the site has only ever been used as a farm steading. Elevated arsenic concentrations were contaminant concentrations are however present locally within both natural soils and made ground and must be indicative of background levels. These will, however, necessitate the use of soil capping layers on landscaped and garden areas on the finished development.

Concentrations of arsenic in soils exceed WRAS guidelines which are more conservative than CLEA health risk guidelines. The results of leachate analysis confirm however that arsenic is not capable of being leached from the soil matrix at concentrations in excess of either EQS assessment levels (50ug/l) or guidelines for drinking water standards (10ug/l)

Based upon the foregoing and as long as water pipes are placed in trenches backfilled with imported granular materials we would consider that standard HDPE and MDPE pipework would be suitable for water supply pipes.

Contractors and utility personnel working on the site should observe health and safety measures normally applied for working on building sites and should wear suitable protective clothing (gloves, boots and overalls etc).

Where any doubts exist over the selection of suitable PPE or its use, advice should be sought from relevant H&S and technical advisors. Contractors should be vigilant and aware and report any unusual illness, odours, appearance or event.

SUITABILITY OF GROUND CONDITIONS:

Historical evidence relating to the site indicated that it has remained in constant agricultural use, although some localised made ground is present. Site investigation works have revealed the presence of locally elevated arsenic concentrations in both made ground and natural soil horizons.

Water services pipework should be laid in trenches backfilled with imported granular materials.

Written & Reviewed By:

Nick Henderson
Associate [redacted]

Date: 2/4/08

DAVID R MURRAY & ASSOCIATES
CONSULTING ENGINEERS
150 ST JOHN'S ROAD
EDINBURGH
EH12 8AY

E8538/NTH/LB
2 April 2008

OFFICER REPORT

3rd October 2019

App No. **18/00421/P**

Application registered on **5th June 2018**
Target Date **4th August 2018**

Proposal **Conversion of agricultural buildings to form 3 houses and carport, erection of 6 houses and associated works**

SDELL	Y
CDEL	N
Bad Neighbour Development	N

Location **Longnewton Farm**
Longnewton
Haddington
EH41 4JW

APPLICANT: **Mr & Mrs Bill Whiteford**

Is this application to be approved as a departure from structure/local plan? N

c/o Ferguson Planning
Shiel House
54 Island Street
Galashiels
TD1 1NU

DECISION TYPE: **Application Refused**

PLANNING ASSESSMENT

This application relates to a group of redundant steading buildings known as Longnewton Steading, which is in a countryside location at Longnewton, south of Gifford. The steading buildings are situated alongside Longnewton Farmhouse on the north side of the classified C92 public road. They are otherwise bounded by agricultural land and farm access tracks. There are several other houses nearby including Longnewton Farmhouse (in separate ownership) immediately to the east of the steading buildings. The steading buildings are not listed as being of special architectural or historic interest and are not within a conservation area. The site is in the countryside as defined by Policy DC1 of the adopted East Lothian Local Development Plan 2018 and is also within the 'Lammer Law, Hopes to Yester: Special Landscape Area 3' as identified within supplementary planning guidance to the Local Development Plan on Special Landscape Areas.

In 2007 planning permission (reference: 07/00288/FUL) was sought for the conversion of the whole group of original steading buildings on the site to a total of 14 houses, for the erection of a car port building, which would contain within it 26 car parking spaces, for the formation of another 9 car parking spaces, and for the erection of new boundary enclosures and bin stores and the formation of hard standing areas. In December 2008 it was decided through the Council's Scheme of Delegation that planning permission would be granted for the

development proposed in planning application 07/00288/FUL subject to conditions and the satisfactory conclusion of a Section 75 Agreement designed to (i) secure from the applicant a financial contribution to the Council of £22,330 towards the provision of additional secondary school accommodation at Knox Academy, Haddington and (ii) secure from the applicant an affordable housing commuted sum payment of a value equivalent to the cost of providing a percentage affordable housing requirement for the development of 25% of 14 houses in lieu of an on or off-site affordable housing provision. That Section 75 agreement has not been concluded by the applicant and/or any other relevant party and therefore, to date, planning application 07/00288/FUL has not been granted.

Planning permission is now sought for an alternative scheme involving the conversion of some of the existing steading buildings to form 3 houses and a carport, for the erection of 6 new build houses on the site and for associated works.

The existing buildings on the site generally consist of 5 main groups of buildings which can be described as: (i) Block A - a detached, stone constructed 1 ½ storey traditional building (formerly a grain store) with arched cartshed openings with a more modern steel framed lean to structure attached to its north elevation. This building is situated on the southern part of the site close of the roadside edge of the site; (ii) Block B - a large, detached, modern steel portal shed, This building is situated near the southwestern corner of the site close to the roadside edge of the site; (iii) Block C - a detached, traditional, stone constructed single storey building currently used for the stabling of horses with a larger, part stone and part steel portal shed attached to its west elevation. This building is situated close to the northwestern corner of the site; (iv) Block D - a roughly U shaped, altered and extended group of traditional stone built, single to storey and a half, steading buildings consisting of north, east and west ranges with an internal courtyard which has been altered and infilled with cattle courts structures. This group of buildings takes up much of the centre and eastern ends of the site, and (v) Block E - a group of buildings including a stone built former byre, cattle courts and additions. This grouping of buildings attaches to the northwest corner of the central U shaped steading and extends northwards to the norther part of the site. All of the buildings, with the exception of the more modern steel portal additions, are of stone construction. Roofs are pitched and clad in natural slate, pantiles or more modern profiled roofing materials.

It is intended to demolish the majority of the buildings from the site including the modern steel portal shed (Block B), the steel framed lean to attached to Block A, the whole of Block C, all of the courtyard buildings and structures in the centre of Block D and the northwest corner of the ranges of Block D and all of the buildings comprising Block E. The demolition of these buildings and structures does not require planning permission.

Following demolition of the aforementioned buildings and structures it is proposed to redevelop the site to include the following works:

- The conversion and external alteration of the building referred to as Block A into a single house;
- The conversion, external alteration and extension of what would remain of the U shaped steading buildings of Block D into 3 houses (2 through conversion and 1 through an extension of the building which would reinstate an existing part of the building);
- The erection of 2 semi-detached, two storey houses on the site of the existing modern steel portal shed;

- The erection of 3 detached, two storey houses on the site of the existing buildings of Block C and E which are intended for demolition.

As such the proposal would involve the creation of three dwellings primarily through conversion and six as new build (1 of which would be a reinstatement of part of the existing steading group).

The site of the steading buildings is currently served by two vehicular accesses from the C92 public road which lies to the south of the site. It is proposed that the westernmost of these accesses would be altered and improved to serve as the principle vehicular access for the proposed residential units to be formed on the site. The easternmost access would be retained to continue to service the neighbouring residential property of Longnewton Farmhouse which lies immediately to the east of the steading site and also to provide pedestrian access to the proposed residential units of the steading site and beyond to the agricultural fields. Car parking provision and other hardstanding areas would be formed throughout the site and new boundary enclosures, including dry stone walls, would be erected throughout the site.

Additional information submitted in support of the application includes:

- A Design and Access Statement;
- A Steading Structural Condition Report;
- A Planning Statement;
- An Extended Phase 1 Habitat Survey & Physical Bat Survey;
- Site Investigation Reports.

Section 25 of the Town and Country Planning (Scotland) Act 1997 requires that the application be determined in accordance with the development plan, unless material considerations indicate otherwise.

The development plan is the approved South East Scotland Strategic Development Plan (SESplan) and the adopted East Lothian Local Development Plan 2018 (ELLDP) together with its adopted supplementary guidance.

The purpose of the approved South East Scotland Strategic Development Plan (SESplan) is to set out the strategic planning framework to assist preparation of local development plans. Its policies are generally not relevant for assessing individual planning applications.

Relevant to the determination of the application are Policies DC1 (Rural Diversification), DC2 (Conversion of Rural Buildings to Housing), DC4 (New Build Housing in the Countryside), DC5 (Housing as Enabling Development), DC9 (Special Landscape Areas), DP1 (Landscape Character), DP2 (Design), DP5 (Extensions and Alterations to Existing Buildings), HOU2 (Maintaining an Adequate 5 year Effective Housing Land Supply), HOU3 (Affordable Housing Quota), HOU4 (Affordable Housing Tenure Mix), NH5 (Biodiversity and Geodiversity Interests, including Nationally Protected Species), CH4 (Scheduled Monuments and Archaeological Sites), T1 (Development Location and Accessibility), T2 (General Transport Impact) and DEL1 (Infrastructure and Facilities Provision) and Proposal PROP ED5 (Haddington Cluster Education Proposals) of the adopted ELLDP.

Material to the determination of the application is the Council's Supplementary Planning Guidance (SPG) on Special Landscape Areas and the Council's SPG on Farm Steading Design Guidance.

Nineteen areas within East Lothian are designated as Special Landscape Areas and the supplementary planning guidance on Special Landscape Areas identifies the boundaries of these areas, describes each Special Landscape Area and includes a Statement of Importance for each. Development should accord with this supplementary planning guidance. The SPG describes the character of the 'Lammer Law, Hopes to Yester: Special Landscape Area 3' as being a contrasting, complex and diverse landscape of high scenic and sensory value also providing a coherent area of important prehistoric settlement. It states that the area has sparse built development. Settlement is confined to the lower slopes of the hillfoots set along the narrow lanes with high hedges typical of the area. There are a number of large farmsteads with old farmhouses including Newlands and Castlemains. These often have small terraces of cottages set at along the roadsides originally as farm workers cottages. These can be particularly attractive such as the row at Longnewton where colour has been used to contrast with the surrounding natural green and gold colours of the fields.

The overarching aim of the Farm Steading Design Guidance SPG is to encourage new uses for redundant rural buildings in the East Lothian countryside and to ensure that the conversion and restoration retains the architectural and historic characteristics of the existing building and ensures that the building continues to look like a vernacular building that belongs in the East Lothian countryside.

Material to the determination of this application is Scottish Planning Policy: June 2014.

A further material consideration is Planning Advice Note 67: Housing Quality. It states that the planning process has an essential role to play in ensuring that the design of new housing reflects a full understanding of its context in terms of its physical location and market conditions, reinforces local and Scottish identity, and is integrated into the movement and settlement patterns of the wider area. The creation of good places requires careful attention to detailed aspects of layout and movement. Developers should think about the qualities and the characteristics of places and not consider sites in isolation. New housing should take account of the wider context and be integrated into its wider neighbourhood. The quality of development can be spoilt by poor attention to detail. The development of a quality place requires careful consideration, not only to layout and its setting, but also to detailed design, including finishes and materials. The development should reflect its setting, reflecting local forms of building and materials. The aim should be to have houses looking different without detracting from any sense of unity and coherence for the development or the wider neighbourhood.

Also material to the determination of the application are the written representations received to it. One written objection has been received to the application. The grounds of objection are that:

* The proposal will have a harmful impact on the private water supply serving the area which at present suffers from overuse and poor water pressure;

* The single track roads in the area can't cope with the volume of traffic that uses them at present – any additional traffic will only result in even poorer road conditions, damaged verges and potential accidents;

* Additional properties in this quiet rural farming location will completely spoil the area, with increased volume of vehicles, insufficient amenities to cope with additional houses and encroachment on the rural farming way of life.

Connecting to a private water supply is a matter for the developer to take responsibility over and is not a matter which is controlled through planning legislation.

Gifford Community Council have been consulted on the application but have not provided a consultation response.

The planning history of the site is also a material consideration.

The appropriate conversion of rural buildings to housing is supported in principle by Policy DC2 of the ELLDP. Policy DC2 supports in principle conversion of appropriate buildings in the countryside to residential use where (i) the existing building is worthy of retention by virtue of its architectural or historic character; (ii) the building is physically suitable for the proposed use and any extensions or alterations are compatible with and do not harm any significant architectural or historic features of the building and are in keeping with its size, form, scale, proportion, massing and architectural character; and (iii) the building stands substantially intact (normally to at least wallhead height) and requires no significant demolition. To be satisfied that the existing structure is suitable for the conversion without significant demolition the Council must be provided with credible evidence of the building's structural stability at the time of the planning application. In the case of a farm steading conversion, Policy DC2 makes allowance for a limited amount of new building where it reinstates a part of the original steading group demolished or altered by later development alien to its character and appearance, where there is clear physical and/or historic evidence of the original form; or b) it is a logical extension to an existing part of the steading that would provide a completeness to the steading's overall composition that is in keeping with its scale, form and character.

Through the assessment of planning application 07/00288/FUL it has been established that the stone steading buildings of Longnewton Steading have some architectural merit, make a positive contribution to the rural landscape and built heritage of the area and lend themselves to a sensitive residential conversion. Through that application it was satisfactorily demonstrated to the Council as Planning Authority that the development proposed was consistent with the presumption in favour of the conversion of agricultural buildings in the countryside to houses contained in the then applicable development plan and with national planning policy on housing development in the countryside. The assessment of that application was that the proposed conversion would not harm the character and appearance of the existing buildings or the landscape of the area, or harm the amenity of neighbouring residential properties. The Council as Planning Authority remain minded to grant planning application 07/00288/FUL subject to conditions and the satisfactory conclusion of a Section 75 Agreement designed to secure from the applicant education and affordable housing contributions however the applicant has not, to date, pursued the conclusion of a Section 75 Agreement.

Although some parts of the group of existing buildings have continued to be used for limited agricultural purposes or for the keeping of horses they are, by their historic architectural form no longer reasonably capable of modern agricultural use. The steading buildings are highly visible in their landscape setting and are part of the historic form and character of this part of

the East Lothian countryside. Other than the more modern, utilitarian additions to the group, the buildings have some architectural merit and make a positive contribution to the rural landscape and built heritage of the area. Although in the main they are substantially intact, some of the steading buildings are suffering from disrepair, giving an appearance that is somewhat detracting from the amenity of the area. If left unused, or only put to limited use, they would be likely to fall into a further state of disrepair with a greater harmful affect on the appearance and amenity of the area.

The applicant has submitted a Structural Engineer's report which sets out the condition of the existing buildings and their suitability for conversion, or otherwise, from a structural perspective. The report identifies the parts of the steading considered to be worthy of retention and capable of conversion without substantial demolition. These are Block A, the stable block of Block C (excluding the part stone and part steel portal shed attached to it), and parts of Block D. The applicant's consultant Structural Engineer does not consider the stone buildings of Block E to be suitable for conversion. Whilst the Structural Engineer deems the building of Block C to be physically capable of conversion, the applicant's Planning Consultant considers it would likely be affected by the removal of the attached elements to the west. Furthermore he considers in order to establish a viable development, and prevent loss (through further deterioration) of the attractive traditional buildings with heritage value, it is essential to integrate three sensitively designed new build dwellings into the proposal, located within the area where the building of Block C currently lies.

The Council's consultant Structural Engineer has been consulted and advises that he considers that the buildings proposed for conversion should be capable of conversion without significant demolition and rebuilding of them. He considers the stable building of Block C to be structurally sound and capable of conversion and does not consider that such work would necessarily be onerous or complex. He considers the stone buildings of Block E to be in a poorer state structurally but although he advises the condition of the roof structure and its finishes is not good, he advises that a development strategy that retains at least the existing walls would be feasible from a structural point of view. However he does point out that the extent of repairs and the complexity of those repairs for those buildings of Block E in terms of execution is likely to be onerous and costly.

On the basis of the assessments of both the applicant's and the Council's Structural Engineers it can be concluded that at the least, the building of Block A, part of Block C and parts of Block D are suitable for restoration and conversion.

The stone steading buildings lend themselves to a sensitive residential conversion and the detailed proposals of planning application 07/00288/FUL demonstrate that this could be achieved. The proposals in this latest application for the conversion of the building described earlier in this report as Block A and the conversion along with the partial rebuilding of the buildings of Block D to create a total of 4 residential units are, subject to controls being exercised over details of the conversion and rebuilding including architectural detailing and the materials to be used, also consistent with the presumption in favour of the conversion of agricultural buildings in the countryside to houses contained in the current adopted ELLDP and the conversion and part rebuilding of those parts of the steading group would not harm the character and appearance of the existing buildings or the landscape of the area. The proposals overall would not harm the amenity of neighbouring residential properties and the occupants of the new residential properties to be created through this proposal would also enjoy sufficient residential amenity.

However, as well as the conversion and partial rebuilding of some of the existing buildings as described above to create 4 houses, what is additionally proposed in this latest application is demolition of the majority of the steading buildings and the erection of 5 new houses in a very different form to that which currently exists on the site. It is proposed that 3 of those houses would take the form of two storey, detached houses and 2 would take the form of two storey, semi-detached houses.

The applicants have submitted a Planning Statement to support the proposals. It states that despite significant marketing efforts, no significant interest has been intimated in the site, based upon the scheme the subject of planning application 07/00288/FUL. The applicants Planning Consultant considers this to be principally due to the costs involved in a conversion-only project and lack of demand for the type and layout of properties which are proposed through that previous planning application. The Planning Statement advises that the rural market seeks larger dwellings with ample private garden area. It is stated that this new proposal aims to secure a long-term viable future use for key buildings which retain the most historic and architectural value, and which are located towards the front of the site so that the proposed scheme retains its 'steading feel' as experienced from the key receptor (the public road).

The Planning Statement submitted with this application was written prior to the ELLDP being adopted and in the Statement the applicants Planning Consultant draws attention to the previous local plan policies being out of date and there being a shortfall in the five year supply of effective housing land as being material considerations in the determination of this planning application. As well as setting out property market considerations, the Planning Statement also considers the economics of the development and states that the development, without the new build units, is not a viable proposition. It states that if the viability of the overall development cannot be secured through the inclusion of proposed 'enabling' housing units then the steading site will remain vacant and disused. An indicative viability assessment has been prepared and provided by the applicant's Planning Consultant and he has requested that this be treated as a confidential document.

In assessing the new build elements of this proposal it is relevant to consider that the application site is in a countryside location within East Lothian. It is not identified in the ELLDP as being within a settlement and the ELLDP does not allocate the land of the site for housing development. Consequently, the principle of a housing development on the application site must be assessed against national, strategic and local planning policy relating to the control of new housing development in the countryside.

In Paragraph 76 of Scottish Planning Policy: June 2014 it is stated that Local Development Plans should make provision for most new urban development to take place within or in planned extensions to existing settlements. Paragraph 81 states that in accessible or pressured rural areas, where there is a danger of unsustainable growth in long distance car based commuting or suburbanisation of the countryside, a more restrictive approach to new housing development is appropriate.

By being within the countryside the application site is covered by Policy DC1 of the ELLDP. Policy DC4 of the ELLDP deals specifically with new build housing in the countryside. Policy DC1 states that development in the countryside, including changes of use or conversion of existing buildings, will be supported in principle where it is for: a) agriculture,

horticulture, forestry, infrastructure or countryside recreation; or b) other businesses that have an operational requirement for a countryside location, including tourism and leisure uses. Policy DC4 sets out specific criteria for new build housing development in the countryside. In relation to small scale housing proposals is states that outwith the constrained coast these will only be supported where there is no existing building suitable for conversion and it is for affordable housing and evidence of need is provided, and the registered affordable housing provider will ensure that the dwellings will remain affordable for the longer term. Proposals should be very small scale and form a logical addition to an existing small-scale rural settlement identified by the ELLDP.

The building of the three detached houses and two semi-detached houses on the application site would constitute sporadic development in the countryside. There is no agricultural or other employment use presently in operation to justify the need for any new houses on the application site. The applicant has not advanced any such case of justification of need for the principle of the proposed housing development. The applicant has not advanced a case that the proposed development would be an affordable housing scheme brought forward along with a Registered affordable housing provider or provided evidence of need for an affordable housing scheme. In the absence of any such direct operational requirement or justified supporting case for the erection of houses within the application site, the principle of such proposed development on the site is inconsistent with national, strategic and local planning policy and guidance concerning the control of development of new build houses in the countryside. Specifically, the proposal to erect these houses on the site is in principle contrary to Policies DC1 and DC4 of the ELLDP and Scottish Government policy guidance regarding the control of new housing development in the countryside given in Scottish Planning Policy: June 2014.

If approved the proposed development would set an undesirable precedent for the development of new houses anywhere in the East Lothian countryside the cumulative effects of which would result in a detrimental impact on the rural character and amenity of the countryside of East Lothian.

It is however necessary to assess whether or not there are material considerations that outweigh the proposal's conflict with the development plan.

In respect of the applicant's Planning Statement, the Council's 2018 Housing Land Audit has been agreed with Homes for Scotland. Based on that up to date 2018 Housing Land Audit, the Council is able to demonstrate an adequate 5 years supply of effective housing land.

Turning to the viability of the development the applicant's agent has submitted an 'Indicative Viability Appraisal' which he describes as being "high level and indicative". It sets out the anticipated sales revenue of the 9 units to be created on the site and the anticipated development costs of new build, conversion, demolition, utilities and landscaping costs, professional fees and local authority fees, sales and marketing costs, finance and developer contribution costs. Based on this high level and indicative appraisal the applicant's agent concludes that new build development is crucial in securing a (marginally) viable site and to ensure retention of former steading buildings. He therefore suggests that the new building housing should be considered as enabling development.

Policy DC5 of the ELLDP allows, only in exceptional circumstances, for new build housing in the countryside to be supported as enabling development where the benefits of the

proposed development outweigh the normal presumption against new build housing in the countryside. Enabling housing development may be supported if it funds the restoration of a building with recognised heritage value, the retention of which is desirable. Any justifiable new build must be located on the same site as and be part of the main proposal and must also protect or enhance the setting of the buildings of value. The feature to be retained must be either a listed building or a significant designated feature of the built or natural environment, or a building with recognised heritage value. The policy states that enabling development will only be acceptable where it can be clearly demonstrated to be the only means of preventing loss of the asset and securing its long-term future.

The historic stone built steading buildings the subject of this application are not listed buildings nor designated in themselves in another way, though they do lie within a Special Landscape Area. They are however buildings of a historic architectural form which make a positive contribution to the rural landscape and built heritage of the area and as such their retention is desirable. The proposed new build development is on the same site as and is part of the main proposals and in this respect accords with Policy DC5. However it is important to note that Policy DC5 only allows, in exceptional circumstances, for new building housing in the countryside to be supported as enabling development where the benefits of the proposed development outweighs the normal presumption against new build housing in the countryside and only where it can be clearly demonstrated to be the only means of preventing loss of the asset and securing its long term future.

In its indicative form the applicant's Indicative Viability Appraisal does not clearly demonstrate how the proposals would fund the restoration of the steading buildings as opposed to conversion and/or extension of all, or at least more of, the steading group. It does not set out costs for alternative schemes, such as the retention of more or all of the group of historic steading buildings or demonstrate that this proposal is the only means of preventing loss of the steading buildings. It does not set out proposals for securing the long term future of the historic steading buildings. The applicant considers the new building housing to be essential to enable the restoration of the historic buildings but as the majority of the historic buildings, including some which have been considered by both the applicant's and the Council's consultant Structural Engineers to be structurally sound, are proposed to be demolished to make way for the new build houses the applicant's argument that the proposed new build development is the only means of preventing the loss of the historic buildings proposal fails to be demonstrated through this application. On the contrary this proposal would result in the loss and not the retention of the majority of the buildings of heritage value and as such the proposed new build houses do not constitute an acceptable enabling development. In conclusion it has not been demonstrated that the new build housing proposed in this application is the only means of preventing the loss of historic buildings making a positive contribution to the rural landscape and built heritage of the area and indeed, on the contrary, the new build housing proposed in this application would, by its proposed siting, result in the loss of historic buildings which would lend themselves to a positive conversion to housing. The erection of the proposed three detached and two semi-detached houses within the application site is also contrary to Policy DC5 of the ELLDP.

Turning to the design of the new build houses it should be noted that the applicant has submitted a design and access statement to support the proposals. In relation to the new build development it states that the proposals aim to retain the valuable historic core of the steadings whilst removing the lesser quality structures to allow high quality contemporary

new build structures aimed to retain the farm steading massing as well as complement the retained structures.

Other than the extension to what would remain of the U shaped steading buildings of Block D to create a new house to reinstate an existing part of the building, the new build housing development would take the form of three, two storey detached houses (units 4, 5 and 6 as described in the application drawings) and two semi-detached houses (units 2 and 3 as described in the application drawings). These new build units would have a modern style of architecture which would incorporate large areas of glazing, flat roofed elements to the detached houses and a wide variety of finishes which would include timber cladding, off white render, stone, slate and zinc finishes.

The Council's Landscape Projects Officer advises that the conversion proposals for Block A and the U shaped buildings of Block D would fit with the existing arrangement of buildings and generally maintain the historic buildings format and character of the area. However he considers the remainder of the proposals (the new buildings of units 2, 3, 4, 5 and 6) to be inconsistent with the steading arrangement and historic character. He considers the extent of fenestration is extensive and not in character with the historical styling of the existing, simpler fenestration of the historic buildings on the site. He advises that the new detached houses will dominate east bound views from the west and would modernise and significantly change the built and landscape character of this area.

The proposed detached and semi-detached houses of this proposal would not, by virtue of their form, architectural detailing, fenestration or materials be well integrated into their surroundings and would not be in keeping with the original buildings on the site. They would significantly alter the contribution the steading makes to the character of this part of the East Lothian countryside and would be harmful to the character and appearance of the area including the special character of the Special Landscape Area. On these counts the proposed detached and semi-detached houses would be contrary to Policies DC9, DP1 and DP2 of the ELLDP, to the Council's Supplementary Planning Guidance on Special Landscape Areas and on Farm Steading Design Guidance and with Government advice on the design of new housing development in the countryside given in Planning Advice Note 72..

In relation to soft landscaping the Council's Landscape Projects Officer advises that landscape treatment in the form of tree planting to the site boundaries is supported but should not be seen as screening/hiding the site. Any planting should be designed along with the building architecture to enhance the site as a whole and to integrate the site sensitively with its wider surroundings. If planning permission were to be granted for the proposed development a condition could be imposed to secure a scheme of landscaping for the site.

The hard landscaping works proposed and the proposed new boundary treatments would not appear intrusive, incongruous or exposed in their landscape setting.

The Council's Planning Policy and Strategy Manager recommends that planning permission be refused if the proposals are found to not comply with Policies DC1, DC2, DC5 or any other relevant design policies of the ELLDP as appropriate and subject to the outcome of any independent assessment of the viability of the proposals that justify any enabling development.

In his consultation response to planning application 07/00288/FUL which relates to the same buildings as this latest application does, the Council's Heritage Officer informed that Longnewton Steading is a historic steading dating back to the 18th century. Because of the age and importance of the buildings he advised that some level of recording of them prior to their conversion is important. Therefore, the Heritage Officer considered it essential that a programme of archaeological works (historic building survey) should be carried out at the site by a professional archaeologist. Such a programme of archaeological works has not yet been carried out and therefore it would be prudent to again secure this through a condition if planning permission were to be granted for the proposed development. This approach is consistent with Government guidance given in Scottish Planning Policy, with Planning Advice Note 42: Archaeology and Policy CH4 of the ELLDP.

An Ecological Report has been submitted with the application which sets out the findings of an extended Phase 1 Habitat Survey and a physical bat survey which was undertaken on behalf of the applicant in February 2018. The Council's Biodiversity Officer having considered the proposals and the submitted 'Extended Phase 1 Habitat Survey & Physical Bat Survey' Report raises no objection to this application, satisfied the proposal would not have a harmful impact on existing wildlife or on the biodiversity of the area. The proposals are therefore compliant with Policy NH5 of the ELLDP which generally presumes against new development that would have an unacceptable impact on the biodiversity of an area.

The Council's Environmental Health Service Manager, in relation to considerations of contaminated land issues, advises that he has reviewed the Site Investigation Report as prepared by DRM Associates on behalf of the applicant and can confirm that the investigation and assessment has been carried out according to the required guidance and standards. He is satisfied with the risk assessments carried out for soil, gas and groundwater contamination and concurs with the findings that certain remedial measures will be required including:

- A suitable cover layer to be placed in any private garden areas – to mitigate the elevated concentrations of arsenic and lead found within the made ground;
- Asbestos roofing materials to be removed by a licensed contractor;
- Radon protection measures may be required, however, a site specific radon report will be required to confirm this.

The Council's Environmental Health Service Manager advises, that taking account of the historic uses of the site and the possibility of associated contamination issues, a condition should be attached if planning permission is to be granted requiring that a Remedial Strategy be submitted, detailing the exact nature of the works to be carried out. Upon completion of these remedial measures, a Validation Report will be required to be submitted showing that the remedial works have been suitably carried out. This requirement could be secured through a condition if planning permission were to be granted for the proposed development.

The Council's Environmental Health Service Manager has no other comments to make on the application. Although not commented on by the Council's Environmental Health Service Manager, it would be prudent, if planning permission were to be granted, to ensure that a condition be imposed requiring the agricultural buildings on the site which are not proposed for conversion to be removed prior to occupation of any of the proposed houses to ensure there would be no conflict between the agricultural use and the residential use which would be harmful to the occupants of the houses to be created.

The Council's Road Services raise no objections to the detail of layout of the proposed development, of the site accesses from the main public road, of parking provision as detailed in the site layout plans or of the likely impacts of additional traffic generation on the existing road network. Road Services recommend that the access and services guidance given in the Farm Steading Design Guidance SPG be followed and that the following requirements be met through conditions if planning permission is to be granted for the proposed development:

1. The western access junction shall have 7.5 metre corner radii on either side of the access junction from the public road;
2. The western access road shall have a minimum visibility splay of at least 2.5 metres by 160 metres in both directions so that no obstruction lies within it above a height of 1.05 metres measured from the adjacent carriageway surface.
3. The standard of access road construction shall allow for a pothole and water-free route and allow passage of refuse collection and emergency vehicles.
4. Full residential parking provision standards shall be applied.
5. All services shall be provided underground or otherwise concealed where practicable.

These requirements could be secured through a condition if planning permission were to be granted for the proposed development. Subject to such controls the proposal would not conflict with Policies T1 and T2 of the ELLDP

The Council's Waste Services advise that Longnewton refuse/recycling containers are currently serviced from the main road. Waste Services raise no objections to the proposals but they advise that if the applicant proposes that refuse/recycling containers be collected from within the site they would have to provide Waste Services with a swept path layout of the site to determine if it's suitable for turning a 26t RCV otherwise Waste Services would continue to service the site from the main road.

Scottish Water have been consulted on this application. They confirm that they have no objections to the proposals and have provided an advisory note for the applicant's information.

Policy DEL1 of the ELLDP stipulates that new housing will only be permitted where appropriate provision for infrastructure and community facilities, required as a consequence of the development, is made. Policy T32 of the ELLDP specifically relates to the package of transportation interventions to mitigate the cumulative impact of development on the transport network which have been identified by the Council in consultation with Transport Scotland. PROP CF1 of the ELLDP specifically relates to the provision of new sports pitches and changing accommodation. In line with Policy DEL1, relevant developments are required to contribute to the delivery of these transportation interventions and community facilities., on a proportionate, cumulative pro-rata basis, as set out in Developer Contributions Framework Supplementary Guidance.

The Council's Planning Obligations Officer advises that as this proposal relates to land not allocated for development through the ELLDP its impacts and contributions have not been identified through the LDP and Developer Contributions Framework Supplementary Guidance transport appraisal process. He advises that given the small scale of the development, it's distance from other allocated and assessed LDP sites and from existing sporting facilities, the lack of a cumulative transport assessment and that the likely value of the contributions are likely to be so small as to not be operationally cost effective to establish

and monitor them in a Section 75 agreement, it is considered that it is not justified to seek cumulative transport or community facility contributions in this instance.

The Council's Depute Chief Executive (Resources and People Services) informs that the application site is located within the school catchment areas of Yester Primary School, Gifford and Knox Academy, Haddington.

He advises that Yester Primary School will have sufficient capacity to accommodate children that could arise from the proposed development, however he also advises that Knox Academy would not have sufficient capacity to accommodate children that could arise from the proposed development. Therefore he objects to the application on the grounds of lack of permanent capacity at Knox Academy. However, he would withdraw that objection provided the applicant makes a financial contribution to the Council of £52,335 towards the provision of additional school accommodation at Knox Academy.

The required payment of a financial contribution of a total of £52,335 towards the provision of additional accommodation at Knox Academy can be secured through an Agreement under Section 75 of the Town and Country Planning (Scotland) Act 1997 or by some other appropriate agreement. The basis of this is consistent with the tests of a planning agreement set in Planning Circular 3/2012: Planning Obligations and Good Neighbour Agreements. Subject to the payment of the required contribution towards educational accommodation the proposal is consistent with Policy DEL1 of the ELLDP which stipulates that new housing will only be permitted where appropriate provision for infrastructure required as a consequence of the development is made.

Subject to the payment of the required contribution towards education provision the proposal is consistent with Policy DEL1 and Proposal PROP ED5 of the ELLDP.

The Council's Economic Development & Strategic Investment Manager advises that a grant of planning permission would require to be subject to provision of 25% of all housing units to be developed as affordable housing. They should be provided on site or if it can be demonstrated to the Council that this, or the off-site provision of the required affordable units is not practicable, a commuted sum payment should be made to the Council in lieu of such an on or off-site provision. The terms for the provision of this affordable housing requirement could be the subject of an agreement under Section 75 of the Town and Country Planning (Scotland) Act 1997. The basis of this is consistent with the tests of a planning agreement set in Planning Circular 3/2012: Planning Obligations and Good Neighbour Agreements. Subject to the Council securing the affordable housing requirement the proposal would be consistent with Policies HOU3 and HOU4 of the ELLDP.

At its meeting on Tuesday 27th August 2019 the Council approved a motion declaring a Climate Emergency. Thereafter, at its meeting on Tuesday 3rd September 2019 the Council's Planning Committee decided that a condition requiring a developer to submit for the approval of the Planning Authority a report on the actions to be taken to reduce the carbon emissions from the building and from the completed development should be imposed on all applications for planning permission except Section 42 applications, householder applications, design changes, changes of use, non householder alterations and extensions, or where it is not considered reasonable by the Planning Officer. As this application is, in part, for new build development such a condition should be imposed if planning permission were to be granted for this proposed development.

Notwithstanding the above technical considerations, it is concluded that there are no material considerations which outweigh the assessment set out previously in this report that the new build housing development proposed in this application is not required to contribute towards an effective five year housing land supply, would constitute sporadic housing development in the countryside, would not be acceptable enabling development of a type only allowed in exceptional circumstances to fund the restoration of a building with recognised heritage value, or other significant designated feature of the built or natural environment, the retention of which is desirable and would not be acceptable on design terms.. The proposals are therefore contrary to Policies DC1, DC4, DC5, DC9, DP1 and DP2 of the adopted East Lothian Local Development Plan 2018 and it supplementary planning guidance and thus also contrary to Scottish Government policy guidance regarding the control of new housing development in the countryside given in Scottish Planning Policy: June 2014 and Planning Advice Note 72.

REASONS FOR REFUSAL:

1 The three detached and two semi-detached new build houses proposed would be sporadic new build housing development in the countryside of East Lothian for which a need to meet the operational requirements of an agricultural, horticultural, forestry or other employment use has not been demonstrated. The three detached and two semi-detached new building houses proposed are therefore contrary to Policies DC1 and DC4 of the adopted East Lothian Local Development Plan 2018, and Scottish Government policy guidance regarding the control of new housing development in the countryside given in Scottish Planning Policy: June 2014.

2 If approved the proposed development would set an undesirable precedent for the development of new houses elsewhere in the East Lothian countryside. the cumulative effect of which would result in a detrimental impact on the rural character and amenity of the countryside of East Lothian.

3 It is not demonstrated that the new build housing proposed is the only means of preventing the loss of historic buildings making a positive contribution to the rural landscape and built heritage of the area and, on the contrary, the detached and semi-detached housing proposed in this application would, by its proposed siting, result in the loss of historic buildings which would lend themselves to a positive conversion to housing. The erection of the proposed three detached and two semi-detached houses are contrary to Policy DC5 of the adopted East Lothian Local Development Plan 2018.

4 The proposed detached and semi-detached houses would not, by virtue of their form, architectural detailing, fenestration or materials be well integrated into their surroundings and would not be in keeping with the original buildings on the site. They would significantly alter the contribution the steading makes to the character of

this part of the East Lothian countryside and would be harmful to the character and appearance of the area including the special character of the Special Landscape Area all contrary to Policies DC9, DP1 and DP2 of the adopted East Lothian Local Development Plan 2018, to the Council's Supplementary Planning Guidance on Special Landscape Areas and on Farm Steading Design Guidance and with Government advice on the design of new housing development in the countryside given in Planning Advice Note 72. .

LETTERS FROM

[redacted]

3rd October 2019

KD 3/10/19.