



TOPSOIL  **The Sustainable Choice**
from British Sugar

We're
NHBC Accepted

NHBC
ACCEPTS

British Sugar at a glance



Newark

Details

- Circa.200 permanent and seasonal employees
- 700 growers supply 1.6 million tonnes of sugar beet every year

Wissington

Details

- Circa. 320 permanent and seasonal employees
- 1,000 UK growers supply over three million tonnes of sugar beet every year
- Largest beet sugar factory in the world

Bury St Edmunds

Details

- Circa. 320 permanent and seasonal employees
- Over 700 growers supply over two million tonnes of sugar beet every year
- Bagged sugar packaging facility

Cantley

Details

- Circa.160 permanent and seasonal employees
- Over 700 growers supply over 1.3 million tonnes of sugar beet every year
- Cantley was the first sugar factory built in the UK in 1912



#BackBritishSugar

Creating a level playing field for the British beet sugar industry

- Buy homegrown British Sugar - look out for the Silver Spoon brand



- Show your support for a great British industry on Twitter (@BritishSugar)
- or Instagram (@BackBritishSugar) using #BackBritishSugar



Annually we purchase 7.5MT of Sugar Beet from 3K growers between September to February & recycle 200KT-300KT of prime arable topsoil



*We have 40KT of covered storage:
Ensuring Quality “On time and in Full year round”*



NHBC Accepts: We are the first topsoil to be awarded NHBC Accepts

NHBC Accepts - endorsed by the Government's Modern Methods of Construction (MMC) Champion, enables quicker assessment of a home for warranty and reduces the risk to the builder of delays in their project from sub-standard materials.

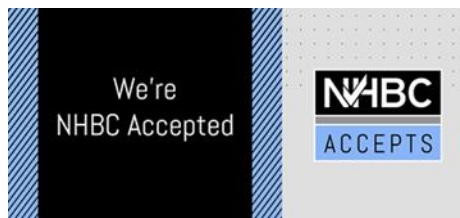
Any product or system with the NHBC Accepts logo will have been rigorously assessed to ensure it can meet NHBC's robust standards, giving confidence to developers, investors, lenders and homeowners.

British Sugar TOPSOIL's Landscape20 General Purpose Topsoil and General Purpose Subsoil products have been officially welcomed to NHBC Accepts.



NHBC Statement

“British Sugar TOPSOIL can help builders meet the requirements of Chapter 10.2 of NHBC standards



The background features a series of overlapping, curved, concentric shapes in shades of yellow and green, creating a dynamic, organic pattern. The colors transition from a bright yellow on the left to a deep green on the right.

British Sugar TOPSOIL: Sampling / Analysis / Certificates

Sampling & Analysis:

British Sugar TOPSOIL analyse for 70 different parameters

- Samples are taken in accordance, at least, to BS3882:2015 every 5,000m³ (8KT)
- 25 sub samples are taken to ensure the bulk sample is representative
- We analyse our products over 30 times each year and hold historical data
- Laboratory analysis is undertaken at a UKAS and MCERT accredited laboratory
- Tim O'Hare Associates report includes
 - Declaration of compliance BS3882:2015 / BS8601:2013
 - Analytical schedule
 - Results of analysis
 - Conclusion
 - Recommendations
 - Certificate of Analysis



We ensure a representative sample is taken

Declaration of compliance BS3882:2015



Declaration of Compliance BS3882:2015

Soil source: British Sugar TOPSOIL

This declaration confirms that the topsoil represented by the attached Topsoil Analysis Report conforms to the requirements of the British Standard for Topsoil (BS3882:2015).

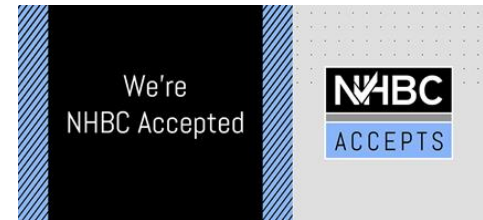
The sample was sampled and tested in accordance with the requirements of BS3882:2015

- Samples are taken for analysis every 8000 tonnes (5000 m³) of product
- Samples are taken from all TOPSOIL products ready for despatch
- All products are sampled after screening
- Analysis certificates are retained for a period of 5 years
- Laboratory analysis is undertaken at a UKAS and MCERTS accredited laboratory
- All laboratory methods are in accordance with BS3882:2015
- All British Sugar TOPSOIL products are produced to a Quality Management System approved by Lloyd's Register Quality Assurance to ISO 9001:2008 standard

Signed

A handwritten signature in black ink, appearing to read "Andy Spetch".

Andy Spetch
British Sugar TOPSOIL, National TOPSOIL Manager
Sugar Way, Peterborough, PE2 9AY
Telephone 0870 2402314



Analytical Schedule:

Ensures are product contains no concentrations of chemical contaminants that would cause significant harm to human health and the environment

ANALYTICAL SCHEDULE

The sample was submitted to a UKAS and MCERTS accredited laboratory for a range of physical and chemical tests to confirm the composition and fertility of the soil, and the concentration of selected potential contaminants. The following parameters were determined:

- detailed particle size analysis (% 5 sands, silt, clay)
- stone content;
- pH and electrical conductivity values;
- exchangeable sodium percentage;
- major plant nutrients (N, P, K, Mg);
- organic matter content;
- C:N ratio;
- heavy metals (As, B, Ba, Be, Cd, Cr, Cu, Pb, Hg, Ni, Se, V, Zn);
- total cyanide and total (mono) phenols;
- aromatic and aliphatic TPH (C5-C35 banding);
- speciated PAHs (US EPA18 suite);
- benzene, toluene, ethylbenzene, xylene;
- asbestos screen.

The results are presented on the attached Certificate of Analysis and an interpretation of the results is given below. The interpretation considers the use of the LANDSCAPE 20 TOPSOIL for general landscape purposes and its compliance/non-compliance with our general landscape specification.



Report should also include:

- Results
- Feedback on Potential Contaminants
- Recommendation

We watermark all certificates to prevent fraud

Certificate of Analysis

We're
NHBC Accepted



If older than 6 months ask questions?

Client: British Sugar plc Co-Products		
Client Ref: Bury St Edmunds		
Job: Topsoil Analysis		
Date: 28/10/18		
Job Ref No: TOSAV18047/02		
Sample Reference		
Clay (<630µm)	% U	22 ✓
Silt (630-2063µm)	% U	22 ✓
Sand (2063-2000µm)	% U	56 ✓
Texture Class (UK Classification)		205 ✓
Stones (<20mm)	% DW G	1 ✓
Stones (20-50mm)	% DW G	0 ✓
Stones (>50mm)	% DW G	0 ✓
Soil Moisture (1:2.5 water extract)	wt% G	7.2 ✓
Electrical Conductivity (1:2.5 water extract)	µS/cm U	1413 ✓
Electrical Conductivity (1:2 CaSO ₄ extract)	µS/cm U	3010 ✓
Exchangeable Sodium Percentage	% U	1.1 ✓
Moisture Content	% U	18 ✓
Organic Matter (LOI)	% U	5.5 ✓
Total Nitrogen (Dumas)	% U	0.35 ✓
C, N Ratio	- U	8 ✓
Extractable Phosphorus	mg/L U	65 ✓
Extractable Potassium	mg/L U	261 ✓
Extractable Magnesium	mg/L U	115 ✓
Total Arsenic (As)	mg/kg M	10 ✓
Total Barium (Ba)	mg/kg M	45 ✓
Total Beryllium (Be)	mg/kg M	0.65 ✓
Total Cadmium (Cd)	mg/kg M	0.4 ✓
Total Chromium (Cr)	mg/kg M	23 ✓
Hexavalent Chromium (Cr-VI)	mg/kg M	< 4.0 ✓
Total Copper (Cu)	mg/kg M	29 ✓
Total Lead (Pb)	mg/kg M	21 ✓
Total Manganese (Mn)	mg/kg M	< 5.3 ✓
Total Nickel (Ni)	mg/kg M	15 ✓
Total Selenium (Se)	mg/kg M	1.4 ✓
Total Vanadium (V)	mg/kg M	32 ✓
Total Zinc (Zn)	mg/kg M	80 ✓
Water Soluble Boron (B)	mg/kg M	2 ✓
Total Cyanide (CN)	mg/kg M	< 1 ✓
Total (gross) Phenols	mg/kg M	< 1.2 ✓
Acetophenone	mg/kg M	< 0.05 ✓
Acetylphenone	mg/kg M	< 0.05 ✓
Phenol	mg/kg M	< 0.05 ✓
Chlorophenol	mg/kg M	< 0.05 ✓
Aminophenol	mg/kg M	< 0.05 ✓
Fluorophenol	mg/kg M	< 0.05 ✓
Dyrene	mg/kg M	< 0.05 ✓
Benzonitrile/nitrile	mg/kg M	< 0.05 ✓
Cyanide	mg/kg M	< 0.05 ✓
Benzonitrobenzene	mg/kg M	< 0.05 ✓
Benzonitrophenol	mg/kg M	< 0.05 ✓
Benzonitrobenzene	mg/kg M	< 0.05 ✓
Indeno(1,2,3-cd)pyrene	mg/kg M	< 0.05 ✓
Chlorodibenzodioxene	mg/kg M	< 0.05 ✓
Benzodibenzodioxene	mg/kg M	< 0.05 ✓
Total PAHs (sum USEPA16)	mg/kg M	< 0.80 ✓
Aliphatic TPH (C5-C8)	mg/kg M	< 0.001 ✓
Aliphatic TPH (C9-C10)	mg/kg M	< 0.001 ✓
Aliphatic TPH (C11-C12)	mg/kg M	< 0.001 ✓
Aliphatic TPH (C13-C14)	mg/kg M	< 1.0 ✓
Aliphatic TPH (C15-C16)	mg/kg M	< 2.0 ✓
Aliphatic TPH (C17-C18)	mg/kg M	< 4.0 ✓
Aliphatic TPH (C19-C20)	mg/kg M	< 8.0 ✓
Aliphatic TPH (C21-C22)	mg/kg M	< 1.0 ✓
Aliphatic TPH (C23-C24)	mg/kg M	< 0.001 ✓
Aliphatic TPH (C25-C27)	mg/kg M	< 0.001 ✓
Aliphatic TPH (C27-C28)	mg/kg M	< 0.001 ✓
Aliphatic TPH (C28-C30)	mg/kg M	< 0.001 ✓
Aliphatic TPH (C30-C32)	mg/kg M	< 1.0 ✓
Aliphatic TPH (C32-C34)	mg/kg M	< 2.0 ✓
Aliphatic TPH (C34-C36)	mg/kg M	< 4.0 ✓
Aliphatic TPH (C36-C38)	mg/kg M	< 8.0 ✓
Aliphatic TPH (C38-C40)	mg/kg M	< 14 ✓
Benzene	mg/kg M	< 0.001 ✓
Toluene	mg/kg M	< 0.001 ✓
o-Xylene	mg/kg M	< 0.001 ✓
m-Xylene	mg/kg M	< 0.001 ✓
p-Xylene	mg/kg M	< 0.001 ✓
Asbestos	ND/ND 1	Not detected ✓

Visual Examination
The sample was described as a very dark greyish brown (Munsell Colour 10YR 3/2), slightly moist, blocky, calcareous, SANDY CLAY LOAM with a weakly developed, fine granular structure. The sample was virtually stone-free and no unusual odours, deleterious materials, roots or rhizomes of pernicious weeds were observed.

✓	Meets General Landscape Specification
X	Fails General Landscape Specification
SC1	SANDY CLAY LOAM Texture Class
M	UKR115 accredited method (UKAS accredited method)
I	ISO 17025 accredited method
U	UKAS accredited method
G	GLP accredited method

This report presents the results of analysis for the sample submitted to our office, and it should be considered 'indicative' of the topsoil source. The report and results should therefore not be used by third parties as a means of verification or validation testing.

Results of analysis should be read in conjunction with the report they were issued with.

The contents of this certificate shall not be reproduced without the express written permission of Tim O'Hare Associates LLP.

Civil Engineer
BSc MSc MSc(Ed)
Senior Associate

We analysis for 70 Parameters



British Sugar TOPSOIL Product Range

Available in bulk loads or bulk bags

Landscape²⁰

Landscape20 is a fully-analysed and compliant to BS3882:2015, sandy loam, TOPSOIL. It is ideal for general landscaping projects such as seeding and turfing that meets NHBC Accepts .

HortLoam

HortLoam is a BS3882:2015 compliant planting topsoil. With optimum reserves of organic matter and nutrients, HortLoam is ideal for planting rootball trees, shrub bed, retained planters and vegetable planting projects.

LawnDressing

Lawn dressing is ideal for the construction and repair of lawns where a free draining but fertile rootzone is needed.

Free Draining subsoil: Suitable where a faster draining subsoil is needed i.e. lawns, sports pitches & tree pits

SubSoil

General Purpose subsoil: Compliant to BS8601:2013 as a multi purpose subsoil and meets NHBC Accepts . Suitable for general landscaping purposes, trees, shrubs and amenity grasses

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British Sugar TOPSOIL: Supporting Information

Soil Carbon: Soil Carbon / Soil Health:

It is important that we understand the health of our soils and remember its function

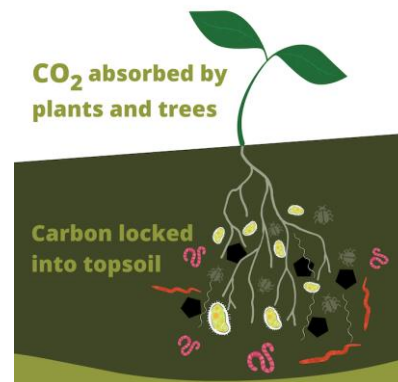
The focus on soil health and climate change has brought attention to the levels of carbon stored in soil.

Through measuring soil carbon stocks we can better understand our product and its carbon sequestration potential

Carbon sequestration is the process of capturing and storing atmospheric carbon dioxide

To do this you need to monitor the soil organic carbon

Working with Tim O'Hare Associates we will analyse, at the point of despatch, the carbon contained in Landscape20 every 6 months



Soil Carbon: Analytical Schedule

- **Organic Carbon Stock (t/ha)**
 - Provides a total organic carbon value in tonnes of carbon per hectare
 - This calculation factors in the measured soil organic carbon %, stone content, topsoil depth (300mm) and bulk density
- **Total Carbon**
 - Measure of all carbon forms, inorganic and organic, within a soil
- **Soil Organic Carbon (SOC)**
 - Is the carbon component of soil organic matter
 - Diverse group of carbon based compounds from the decomposition of plant material, FYM, soil fauna
 - The levels of SOC are influenced by environmental and management practices
 - Adding of composts / FYM / Rainfall / Temperature
- **Soil Inorganic Carbon (SIC)**
 - Comprises carbonates and bicarbonates which are found in alkaline soils
 - In our case the SIC is found in the limestone and chalk particles naturally present in our soils
- **Active Carbon**
 - This is the carbon that readily breaks down and is accessible to soil microbes
 - It is a useful indicator of soil health
 - It is influenced by soil management, cultivation and the addition of organic matter
- **Soil Organic Matter**
 - Is a complex mixture of many forms of organic matter found in soils both living and dead
 - Roots, microorganisms, leaf litter
 - Helps to hold moisture and Nutrients
- **Total Nitrogen (N)**
 - Measure of all forms of N (organic & inorganic)
 - Main nutrient for plant growth
 - OM will influence
- **C:N Ratio**
 - The proportion of OC to N
 - Optimum C:N ratio for N release in soil is between 10-12. Max is 20

Soil Carbon: Results

Cannot conclude if the results are good or bad

Indicates soil health

Typical results

- Organic Carbon 72-98t/ha
 - Based to a placed depth of 300mm
- Total Carbon 3%
- Soil Organic Carbon 2.6%
- Soil Inorganic Carbon 0.5%
- Active carbon 700mg/kg
- Active carbon % of SOC 3% of SOC
- %OM 4%
 - Moderate levels
- Total N .20%
- C:N ratio 9



TIM O'HARE ASSOCIATES
SOIL & LANDSCAPE CONSULTANCY

Client:	British Sugar plc Co-Products
Project:	Landscape 20 Topsoil - Newark
Job:	Soil Carbon Audit
Date:	22/12/2021
Job Ref No:	TOHA/21/7261/SS

Sample Reference		Accreditation
Organic Carbon Stock	tonnes / ha	UKAS
Bulk Density	kg/l	UKAS
Total Carbon	%	UKAS
Soil Organic Carbon (SOC)	%	UKAS
Soil Inorganic Carbon (SIC)	%	UKAS
Active Carbon	mg/kg	UKAS
Active Carbon % of SOC	% of SOC	UKAS
Organic Matter	%	UKAS
Total Nitrogen	%	UKAS
C : N Ratio	ratio	UKAS

Nwk-L20-Nov 21

94 #
1.08
3.4
2.9
0.5
855
2.9
5.0
0.34
9

based on a topsoil depth of 300mm

Visual Examination

The sample was described as a dark greyish brown (Munsell Colour 10YR 4/2), slightly moist, friable, slightly calcareous SANDY LOAM with a weakly developed, very fine to fine granular and sub-angular blocky structure. The sample was slightly stony and no unusual odours, observable deleterious materials, roots or rhizomes of pernicious weeds were recorded.

Tim O'Hare
BSc MSc FSoilSci MBIAC CSci
Principal Consultant

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Soil Health

Working with Hampshire based, SoilBioLab, we submitted samples of our products and a local arable soil to establish and compare the amount of:

- Active Bacteria
- Total Bacteria
- Active Fungi
- Total Fungi
- Hyphal Diameter. This is a physical measure of the branching filamentous structure of a fungus. In simple terms the wider the more mature the fungus is.

Temperature & moisture influence the results



T: 00 44 1264 749761
E: info@soilbiolab.co.uk
W: www.soilbiolab.co.uk
A: 213, The Commercial Centre
Picket Piece, Andover
Hampshire, SP11 6RU, England
Company Reg. No.: 9122781
VAT No. 194 9672 47

Client: British Sugar

Date: 09/07/2021
Sample ID: SBL3312 - Landscape 20
Crop: Not Specified

Contact: Andy Spetch

Soil Microbiology Report

Organism Biomass						
Analysis	Units	Result	Guideline	Low	Optimal	High
Moisture content	%	17	15 - 55			
Active Bacteria	µg/g	18.1	50 - 100			
Total Bacteria	µg/g	187	250 - 500			
Active Fungi	µg/g	2.3	50 - 100			
Total Fungi	µg/g	49	250 - 500			
Hyphal Diameter	µm	2.30	>2.5			

Organism Ratios						
Analysis	Result	Guideline	Low	Optimal	High	
Active/Total Bacteria	0.10	0.20 - 1.00				
Active/Total Fungi	0.05	0.20 - 1.00				
Active Fungi/Active Bacteria	0.13	1.00 - 2.00				
Total Fungi/Total Bacteria	0.26	1.00 - 2.00				

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Site Managers Guide & Aftercare Guide



A Site Manager's Guide

ASSESS the site:

- What is the history of the site? Has a soil survey been carried out? Has the existing site soil been analysed for contamination?
- Is the soil heavily compacted/waterlogged or contaminated with construction waste?
- Is de-compaction/clean-up work needed?
- What imported soil is required – Subsoil? Topsoil? How much?
- If the onsite soil is suitable for re-use:
 - First remove any vegetation
 - Strip the topsoil and store
 - Strip the subsoil and store
- Is there a suitable area for storing and weatherproofing the onsite/imported soil?

PREPARE the site:

- Install any drainage systems required.
- **Only in dry conditions**, de-compact heavily trafficked/waterlogged areas using a ripper tine attachment on an excavator to rip the soil to depths of between 30cm and 60cm to loosen and break up the compacted layers.
- Prepare a clean, segregated and fenced off area to store onsite/imported soil, preferably on higher ground to prevent water running into it. Sheet the stockpiles if the soil is to be stored for several weeks.

ORDER your soil:

- Talk to your supplier – use the checklist below to make sure you order the right soil in the correct quantities, delivered without incident.

PLACE your soil:

- Avoid handling soils in wet conditions and minimise all traffic (machinery and pedestrian) on the areas to be landscaped.
- Place your soil to the correct depth, lightly consolidating with the back of an excavator bucket between different soil levels:
 - **Subsoil:** Tree pits – 500-700mm; Planting areas – 300mm.
 - **Topsoil:** Turf and grass areas – 150mm-200mm; Planting areas – 300mm max.
- Rake, then plant or turf, before cordoning off freshly landscaped areas.

SUPPLIER CHECKLIST

Make sure you ask your soil supplier the following questions before ordering:

1. What is the source of your soil? Greenfield/Brownfield/Skip/Manufactured
2. Do your products comply with the relevant British Standard for Subsoil and Topsoil?
3. How is it stored? Undercover/Outdoors
4. Do you have enough for the duration of this project?
5. Who does your sampling and analysis?
6. Can I have a copy of the Declaration of Analysis?
7. Are you a member of a reputable industry organisation?

INFORMATION YOUR SUPPLIER WILL NEED WHEN YOU PLACE AN ORDER

To ensure you order the right soil in the correct quantities, delivered without incident, have the following information ready when you call your soil supplier:

1. Type of project – housebuilding, amenity/commercial landscaping, tree planting, turfing etc.
2. Type of soil (subsoil/topsoil) and quantity required – calculate the area to be covered and the depth of product required to enable your supplier to calculate the correct tonnage.
3. Site access – most suppliers will deliver their soil in loose loads by 20 tonne rigid vehicles or 29 tonne articulated trucks. It is crucial you give them the following information for an incident-free delivery:
 - Width of access
 - Width of approach road/driveway
 - Any weight restrictions on the approach/site
 - Any height restrictions on site/overhead services
 - Site access times and any restrictions
 - Any local knowledge regarding adjacent properties/schools/neighbours etc.
 - Onsite contact name and mobile number
 - Order information (e.g. PO number etc.)

To order call 0870 240 2314
topsoil@britishsugar.com www.bsttopsoil.co.uk
 All products are available in bulk, or in bulk bags (minimum order required)



Caring for your garden

How successful your lawns and planting borders will be year after year is largely dependent on keeping the soil in your garden healthy. This means making sure that it contains enough air and nutrients and that water (rainfall and irrigation) can move freely through it.



Common issues with newly imported and placed soil

Compaction. This is where the spaces between the soil particles become compacted, resulting in a lack of air in the soil, slow drainage, potential waterlogging, and plant deaths.

- Causes:**
- Heavy trafficking by site machinery, vehicles and people
 - Heavy rainfall
 - The over-application of surface mulch (such as bark, woodchip, slate etc.)

Remedy—*Break up and shatter the compacted layer* manually with a garden fork, or aerate with a spike or plug aerator. *To find the depth of a compacted layer simply push a probe or garden fork into the soil/turf until resistance is encountered.*



Compacted soil



Manually aerating the soil with a garden fork



De-compacting soil under turf

Natural settlement. It is common for soil to experience a degree of settlement after it has been placed and cultivated.

- Causes:**
- The soil has been insufficiently consolidated or 'firmed down' after placing
 - Where drainage has been installed, these areas can dry out more quickly, causing the soil to shrink and slump
 - Heavy rainfall

Remedy—*Break up and loosen the soil before firming it down, and apply topsoil or topdressing to level up slumped areas. To raise topsoil levels in planting beds, simply add more topsoil and well-rotted organic matter between the plants, as required.*



Removing turf to raise soil level



Raising soil level beneath turf with topsoil or topdressing



Top dressing a lawn after aeration

Delivery Options

Typical Articulated Truck

Gross weight	44 tonne
Net weight	29 tonne
Width	3.2 metres
Length	12.8 metres
Height	4.0 metres



Typical Rigid Truck

Gross weight	32 tonne
Net weight	20 tonne
Width	3.2 metres
Length	11.5 metres
Height	3.7 metres



Typical Grab Lorry

Gross weight	32 tonne
Net weight	15 tonne
Width	3.0 metres
Length	11.3 metres
Height	3.7 metres



Bulk Bag

Minimum order: 10 bulk bags for delivery

Considerations:

Do you have an on site means of unloading the bags?

Do you need a self unloading vehicle?

We can deliver by grab or moffet

To find out more about British Sugar TOPSOIL

To arrange a visit or for more information on TOPSOIL products call 0870 240 2314
or visit our web site www.bstopsoil.co.uk



@Topsoil_BS

NHBC

ACCEPTS

Accepted product



LIFE BEYOND THE MILITARY –
OUTDOORS



TIM O'HARE ASSOCIATES
SOIL & LANDSCAPE CONSULTANCY

“British Sugar TOPSOIL can help builders meet the requirements of Chapter 10.2 of NHBC standards”