

BA4

analysis report



TS0710/10

Test Date 26/07/2010
Sample received 09/07/2010



Client:	Sample taken from:
Bailkeys of Norfolk Ltd	NL10 stockpile
Brick Kiln Road	Production Yard
Hevingham	Hevingham
Norfolk	Norfolk
NR10 5NL	NR10 5NL

concentration mg l ⁻¹		
Phosphorus	Potassium	Magnesium
P	K	Mg
55	232	63

Index		
Phosphorus	Potassium	Magnesium
P	K	Mg
4	2	2

Total Nitrogen
N %w/w
0.15

pH
7.7

Determinand	Method
pH	potentiometrically as per BS1377- 3 section 9
Phosphorous (P) [‡]	Extracted with Sodium bicarbonate then determined colourimetrically
Potassium (K) [‡]	Extracted in ammonium nitrate then flame AAS
Magnesium (Mg) [‡]	Extracted in ammonium nitrate then flame AAS
Total Nitrogen (N) [‡]	Combustion technique

Comments

Report authorised by:
Nigel Fahey.
Laboratory manager

These results refer specifically to the sample submitted for analysis and not the original site as a whole. No part of this report may be reproduced unless in full and with the permission of Baileys of Norfolk Ltd. [‡]Samples were subcontracted to a UKAS accredited laboratory. Baileys of Norfolk Ltd. Brick Kiln Road, Hevingham, Norwich, Norfolk. NR10 5NL. T: 01603 754607 F: 01603 754147 e-mail: lab@baileysofnorfolk.co.uk

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4366

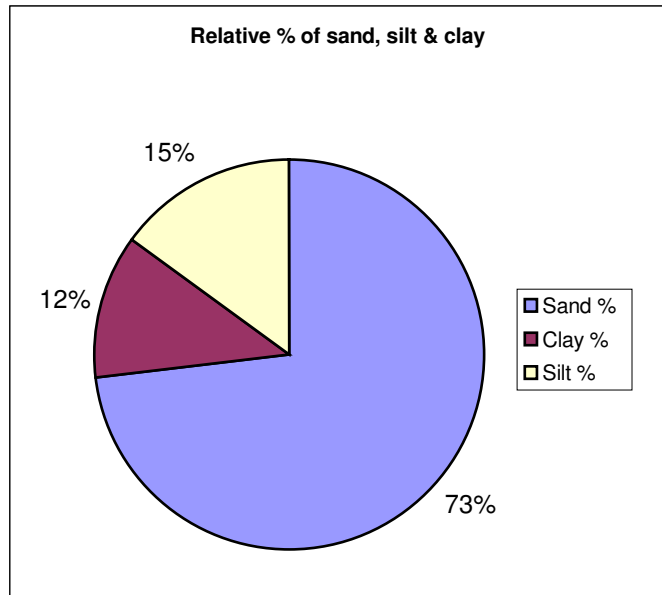
Organic matter % w/w	2.16
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Sand %	73
Clay %	12
Silt %	15

particle size ranges	
Sand (µm)	2000 - 50
Clay (µm)	53 - 2
silt (µm)	< 2

Textural classification	Sandy Loam
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Coarse fragment content %	
> 2 mm	6
> 20 mm	0
> 50 mm	0



Method O.M.	L.O.I. clause 4 of BS1377-3:1990
Method Text'l classification	Baileys in-house sedimentation method BIH03

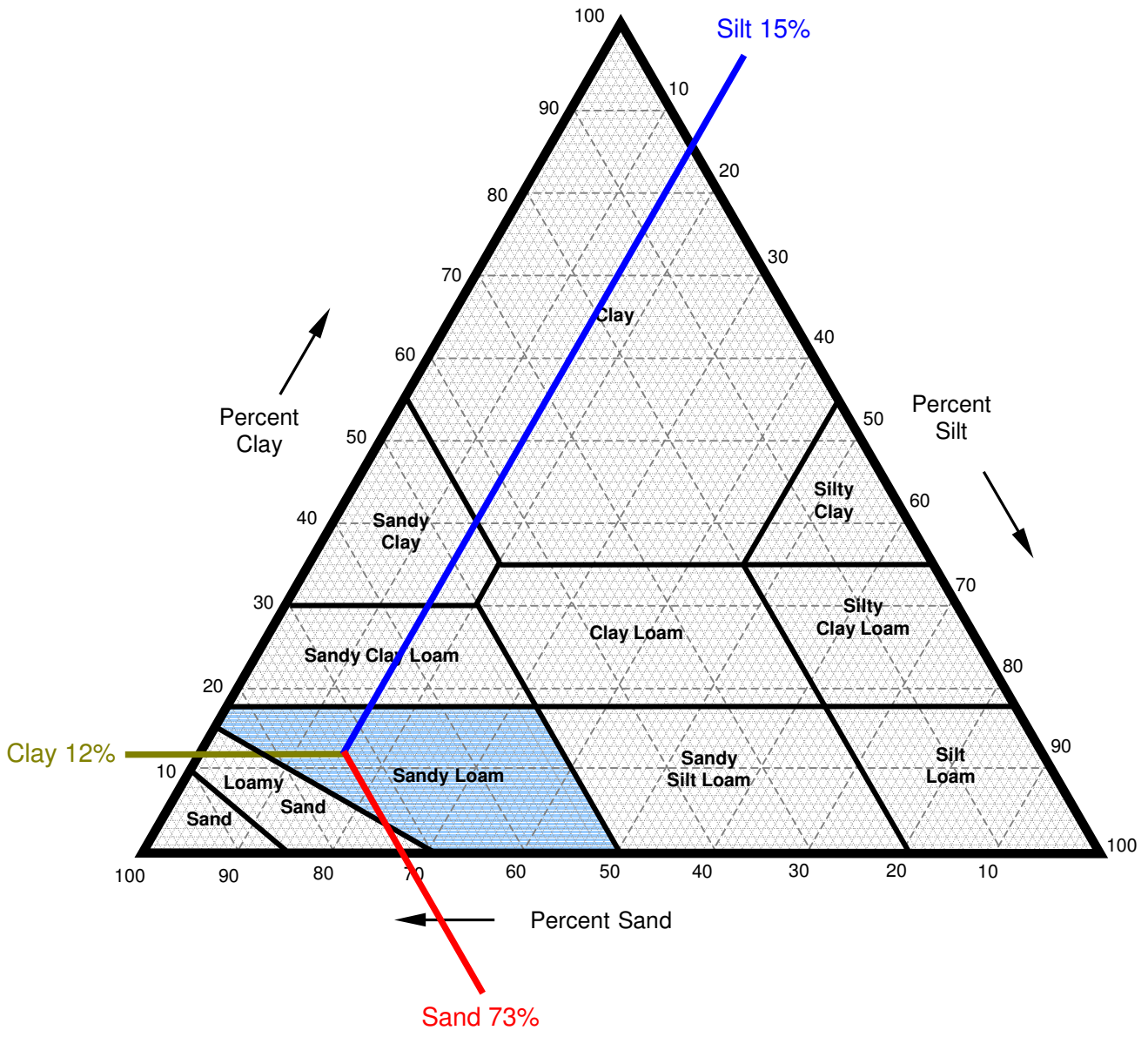
Determinand	Units	value	method
(available) Phosphorous	mg l ⁻¹	55.00	Extracted with Sodium Bicarbonate then determined colourimetrically
(available) Potassium	mg l ⁻¹	232.00	Extracted in Ammonium nitrate then determined by AAS
(available) Magnesium	mg l ⁻¹	63.00	Extracted in Ammonium nitrate then determined by AAS
Total Nitrogen	% w/w	0.15	determined by combustion technique
Conductivity	µS cm ⁻¹	530.00	1:2.5 soil suspension determined using conductivity meter
Copper	mg kg ⁻¹	12.70	ICP - OES on acid digest
Zinc	mg kg ⁻¹	54.10	ICP - OES on acid digest
Lead	mg kg ⁻¹	35.40	ICP - OES on acid digest
Arsenic	mg kg ⁻¹	10.10	ICP - OES on acid digest
Cadmium	mg kg ⁻¹	0.23	ICP - OES on acid digest
Nickel	mg kg ⁻¹	31.20	ICP - OES on acid digest
Chromium	mg kg ⁻¹	119.00	ICP - OES on acid digest
Mercury	mg kg ⁻¹	0.07	hydride generation AFS on an acid digest of the sample
Selenium	mg kg ⁻¹	2.00	hydride generation AFS on an acid digest of the sample
Hot water soluble Boron	mg kg ⁻¹	1.80	extraction by soil boiled with water (1:2.5) then ICP - OES
Water soluble sulphate	g l ⁻¹	0.17	extraction at 1:2.5 wt/ v then ICP - OES
Acid volatile sulphide	mg kg ⁻¹	2.00	H ₂ S released to solution acid on marble chips then colourimetrically at 263 nm
Elemental Sulphur	mg kg ⁻¹	<20	extracted into solvent then HPLC at 263 nm
Total Phenols index	mg kg ⁻¹	<1	Steam distillation then colourimetrically
Total Cyanide	mg kg ⁻¹	<1	Steam distillation then automated colourimetrically
Benzene	mg kg ⁻¹	<0.1	banded GRO [C5 - C10] methanol extraction then headspace GC - MS
Toluene	mg kg ⁻¹	<0.2	banded GRO [C5 - C10] methanol extraction then headspace GC - MS
Ethylbenzene	mg kg ⁻¹	<0.1	banded GRO [C5 - C10] methanol extraction then headspace GC - MS
Xylene	mg kg ⁻¹	<0.3	banded GRO [C5 - C10] methanol extraction then headspace GC - MS
TPH [C10 - C40]	mg kg ⁻¹	90.00	petroleum hydrocarbons [C10 - C40] extracted with iso-hexane then GC-FID
TEM	%	0.08	gravimetric determination after extraction
Total PAH [EPA - 16]	mg kg ⁻¹	<2	extracted into solvent then GC-MS
Naphthalene	mg kg ⁻¹	<0.4	extracted into solvent then GC-MS
Acenaphylene	mg kg ⁻¹	<0.1	extracted into solvent then GC-MS
Acenaphthene	mg kg ⁻¹	<0.1	extracted into solvent then GC-MS
Fluorene	mg kg ⁻¹	<0.1	extracted into solvent then GC-MS
Phenanthrene	mg kg ⁻¹	<0.2	extracted into solvent then GC-MS
Anthracene	mg kg ⁻¹	<0.1	extracted into solvent then GC-MS
Fluoranthene	mg kg ⁻¹	0.30	extracted into solvent then GC-MS
Pyrene	mg kg ⁻¹	0.30	extracted into solvent then GC-MS
Benz[a]anthracene	mg kg ⁻¹	0.20	extracted into solvent then GC-MS
Chrysene	mg kg ⁻¹	0.20	extracted into solvent then GC-MS
Benzo[b]fluoranthene	mg kg ⁻¹	0.20	extracted into solvent then GC-MS
Benzo[k]fluoranthene	mg kg ⁻¹	0.20	extracted into solvent then GC-MS
Benzo[a]pyrene	mg kg ⁻¹	0.20	extracted into solvent then GC-MS
Indeno[1,2,3-cd]pyrene	mg kg ⁻¹	0.10	extracted into solvent then GC-MS
Dibenz[a,h]anthracene	mg kg ⁻¹	<0.1	extracted into solvent then GC-MS
Benzo[g,h,i]perylene	mg kg ⁻¹	0.20	extracted into solvent then GC-MS

Textural classification of TS0710/10

Test method: BIH 03



The textural classification of this soil is Sandy Clay Loam



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