



# **Appendix P    Import Material Chemical Analysis and Regulator Correspondence**



## Aggregate Results

Hanson Aggregates UK  
 Machen Quarry  
 Caerphilly  
 Mid Glamorgan  
 CF83 8YP

**celtest**

independent materials testing — diamond core drilling & sawing

Celtest Limited  
 Trefelin  
 Llandegai  
 Bangor  
 Gwynedd  
 LL57 4LH

Tel. 01248 355269  
 Fax. 01248 351563

e-mail: postmaster@celtest.com  
 Web: www.celtest.com



Unit : Machen Quarry  
 Address : Caerphilly  
 Mid Glamorgan  
 CF83 8YP  
 Telephone :

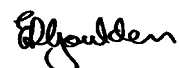
**Rock Type**  
**Particle Shape**

**Limestone**  
**Irregular-Angular**

**AGGREGATE PROPERTIES SUMMARY DATA SHEET**

Test Description	Specification Reference	.6/14	STR No.	Date	0/4	STR No.	Date	.4/10	STR No.	Date
Particle Density (Mg/m <sup>3</sup> )	EN 1097-6 : 2000	2.78	131153	Feb-08	2.76	131154	Feb-08	2.77	131155	Feb-08
Apparent		2.80	131153	Feb-08	2.78	131154	Feb-08	2.79	131155	Feb-08
S.S.D		2.83	131153	Feb-08	2.81	131154	Feb-08	2.83	131155	Feb-08
Oven Dry		0.8	131153	Feb-08	0.9	131154	Feb-08	0.9	131155	Feb-08
Water Absorption (%)										
Aggregate Abrasion Value (AAV)	EN 1097-8 : 2000 Annex A									
Los Angeles Abrasion (LA)	EN 1097-2 : 1998									
Polished Stone Value (PSV)	EN 1097-8 : 2000									
Magnesium Sulfate Soundness Value	EN 1367-2 : 1998									
Drying Shrinkage (%)	EN 1367-4 : 1998									
Micro Deval (MD)	EN 1097-1 : 1996									
10% Fines - Dry (kN)	BS 812 : Part 111 : 1990									
10% Fines - Soaked (kN)	BS 812 : Part 111 : 1990									
Wet Attrition - Rail Ballast	BS 812 : 1951									
Micro Deval (MD) - Rail Ballast	EN 1097-1 : 1996 modified by EN 13450:2002 Annex E									
Chloride Ion Content (%)	BS 812 : Part 117 : 1988				0.01	129525	Feb-08			
Total Acid Soluble Sulfate (%)	EN 1744-1 : 1998				0.01	129517	Feb-08			
Total Sulfur Content (%)	EN 1744-1 : 1998				0.01	129519	Feb-08			
Flakiness Index	EN 933-3 : 1997									
Bulk Density Loose (Mg/m <sup>3</sup> )	EN 1097-3 : 1998	1.41	100315	Jul-07	1.51	129528	Feb-08	1.33	129514	Feb-08
Bulk Density Compacted (Mg/m <sup>3</sup> )	EN 1097-3 : 1998 Annex D.1	1.47	100315	Jul-07	1.79	129528	Feb-08	1.47	129514	Feb-08
Shell Content (%)	EN 933-7 : 1998									
Calcium Carbonate Equivalent (%)	EN 196-21 : 1992									
Chemical Analysis - XRF*	XRF Method	45.41	129516	Feb-08						
pH Value	BS 1377 : Part 3 : 1990				7.8	129530	Feb-08	7.9	79587	Jan-07
Alkali Silica Reaction (ASR)	SHW CI 1704.6, CSTR No. 30 & BRE Digest 330									
Resistivity (Ohms/Cm)*	BS 1377 : Part 3 : 1990									
Lightweight Contaminators (%)	EN 1744-1 : 1998									
Angle of Internal Friction (°)	SHW HMSO May 2001 CI 636									
Frost Heave (mm)	SHW HMSO May 2001 CI 801									
OMC/MDD (%/Mg/m <sup>3</sup> )	EN 13286-4 : 2003									
Petrographic Analysis*	EN 923-3 : 1997	Low	79592	Jan-07						
Water Soluble Sulfate (%)	BS EN 1744-1 : 1998									
Plastic Limit (%)	BS 1377 : Part 2 : 1990									

All tests carried out are UKAS accredited unless otherwise denoted by \*  
 Comments:



## AGGREGATE PROPERTIES SUMMARY DATA SHEET

Test Description	Specification Reference	.10/20	STR No.	Date	Type1	STR No.	Date	Scalps	STR No.	Date
Particle Density (Mg/m <sup>3</sup> )	EN 1097-6 : 2000									
Apparent										
S.S.D										
Oven Dry										
Water Absorption (%)										
Aggregate Abrasion Value (AAV)	EN 1097-8 : 2000 Annex A									
Los Angeles Abrasion (LA)	EN 1097-2 : 1998	<b>23</b>	<b>129521</b>	<b>Feb-08</b>						
Polished Stone Value (PSV)	EN 1097-8 : 2000									
Magnesium Sulfate Soundness Value	EN 1367-2 : 1998	<b>6</b>	<b>79554</b>	<b>Jan-07</b>						
Drying Shrinkage (%)	EN 1367-4 : 1998									
Micro Deval (MD)	EN 1097-1 : 1996	<b>14</b>	<b>129526</b>	<b>Feb-08</b>						
10% Fines - Dry (kN)	BS 812 : Part 111 : 1990	<b>320</b>	<b>45392</b>	<b>Jan-06</b>						
10% Fines - Soaked (kN)	BS 812 : Part 111 : 1990	<b>290</b>	<b>45394</b>	<b>Jan-06</b>						
Wet Attrition - Rail Ballast	BS 812 : 1951									
Micro Deval (MD) - Rail Ballast	EN 13450:2002 Annex E									
Chloride Ion Content (%)	BS 812 : Part 117 : 1988									
Total Acid Soluble Sulfate (%)	EN 1744-1 : 1998									
Total Sulfur Content (%)	EN 1744-1 : 1998									
Flakiness Index	EN 933-3 : 1997									
Bulk Density Loose (Mg/m <sup>3</sup> )	EN 1097-3 : 1998	<b>1.33</b>	<b>129522</b>	<b>Feb-08</b>	<b>1.54</b>	<b>129513</b>	<b>Feb-08</b>	<b>1.47</b>	<b>129512</b>	<b>Feb-08</b>
Bulk Density Compacted (Mg/m <sup>3</sup> )	EN 1097-3 : 1998 Annex D.1	<b>1.45</b>	<b>129522</b>	<b>Feb-08</b>	<b>1.72</b>	<b>129513</b>	<b>Feb-08</b>	<b>1.69</b>	<b>129512</b>	<b>Feb-08</b>
Shell Content (%)	EN 933-7 : 1998									
Calcium Carbonate Equivalent (%)	EN 196-21 : 1992									
Chemical Analysis - XRF*	XRF Method									
pH Value	BS 1377 : Part 3 : 1990									
Alkali Silica Reaction (ASR)	& BRE Digest 330									
Resistivity (Ohms/Cm)*	BS 1377 : Part 3 : 1990									
Lightweight Contaminators (%)	EN 1744-1 : 1998									
Angle of Internal Friction (°)	SHW HMSO May 2001 CI 636									
Frost Heave (mm)	SHW HMSO May 2001 CI 801				<b>8</b>	<b>129509</b>	<b>Feb-08</b>			
OMC/MDD (%/Mg/m <sup>3</sup> )	EN 13286-4 : 2003									
Petrographic Analysis*	EN 923-3 : 1997									
Water Soluble Sulfate (%)	BS EN 1744-1 : 1998									
Plastic Limit (%)	BS 1377 : Part 2 : 1990				<b>Non</b>	<b>129508</b>	<b>Feb-08</b>			

All tests carried out are UKAS accredited unless otherwise denoted by \*  
Comments:




E.R.Goulden - Technical Director

Test Description	Specification Reference	2/6.3	STR No.	Date	.4/10	STR No.	Date	20/32	STR No.	Date
Particle Density (Mg/m <sup>3</sup> )	EN 1097-6 : 2000									
Apparent										
S.S.D										
Oven Dry										
Water Absorption (%)										
Aggregate Abrasion Value (AAV)	EN 1097-8 : 2000 Annex A									
Los Angeles Abrasion (LA)	EN 1097-2 : 1998									
Polished Stone Value (PSV)	EN 1097-8 : 2000									
Magnesium Sulfate Soundness Value	EN 1367-2 : 1998									
Drying Shrinkage (%)	EN 1367-4 : 1998									
Micro Deval (MD)	EN 1097-1 : 1996									
10% Fines - Dry (kN)	BS 812 : Part 111 : 1990									
10% Fines - Soaked (kN)	BS 812 : Part 111 : 1990									
Wet Attrition - Rail Ballast	BS 812 : 1951									
Micro Deval (MD) - Rail Ballast	EN 13450:2002 Annex E									
Chloride Ion Content (%)	BS 812 : Part 117 : 1988									
Total Acid Soluble Sulfate (%)	EN 1744-1 : 1998									
Total Sulfur Content (%)	EN 1744-1 : 1998									
Flakiness Index	EN 933-3 : 1997									
Bulk Density Loose (Mg/m <sup>3</sup> )	EN 1097-3 : 1998	1.34	129527	Feb-08	1.47	129532	Feb-08	1.36	129531	Feb-08
Bulk Density Compacted (Mg/m <sup>3</sup> )	EN 1097-3 : 1998 Annex D.1	1.56	129527	Feb-08	1.57	129532	Feb-08	1.56	129531	Feb-08
Shell Content (%)	EN 933-7 : 1998									
Calcium Carbonate Equivalent (%)	EN 196-21 : 1992									
Chemical Analysis - XRF*	XRF Method									
pH Value	BS 1377 : Part 3 : 1990									
Alkali Silica Reaction (ASR)	& BRE Digest 330									
Resistivity (Ohms/Cm)*	BS 1377 : Part 3 : 1990									
Lightweight Contaminators (%)	EN 1744-1 : 1998									
Angle of Internal Friction (°)	SHW HMSO May 2001 CI 636									
Frost Heave (mm)	SHW HMSO May 2001 CI 801									
OMC/MDD (%/Mg/m <sup>3</sup> )	EN 13286-4 : 2003									
Petrographic Analysis*	EN 923-3 : 1997									
Water Soluble Sulfate (%)	BS EN 1744-1 : 1998									
Plastic Limit (%)	BS 1377 : Part 2 : 1990									

All tests carried out are UKAS accredited unless otherwise denoted by \*

Comments:



E.R.Goulden - Technical Director

AGGREGATE PROPERTIES SUMMARY DATA SHEET

Test Description	Specification Reference	Ballast	STR No.	Date	20/40	STR No.	Date	28/40	STR No.	Date
Particle Density (Mg/m <sup>3</sup> )	EN 1097-6 : 2000									
Apparent										
S.S.D										
Oven Dry										
Water Absorption (%)										
Aggregate Abrasion Value (AAV)	EN 1097-8 : 2000 Annex A									
Los Angeles Abrasion (LA)	EN 1097-2 : 1998	12	129506	Feb-08						
Polished Stone Value (PSV)	EN 1097-8 : 2000									
Magnesium Sulfate Soundness Value	EN 1367-2 : 1998									
Drying Shrinkage (%)	EN 1367-4 : 1998									
Micro Deval (MD)	EN 1097-1 : 1996									
10% Fines - Dry (kN)	BS 812 : Part 111 : 1990									
10% Fines - Soaked (kN)	BS 812 : Part 111 : 1990									
Wet Attrition - Rail Ballast	BS 812 : 1951	3.6	141303	May-08						
Micro Deval (MD) - Rail Ballast	EN 13450:2002 Annex E	9	141304	May-08						
Chloride Ion Content (%)	BS 812 : Part 117 : 1988									
Total Acid Soluble Sulfate (%)	EN 1744-1 : 1998									
Total Sulfur Content (%)	EN 1744-1 : 1998									
Flakiness Index	EN 933-3 : 1997									
Bulk Density Loose (Mg/m <sup>3</sup> )	EN 1097-3 : 1998	1.41	129505	Feb-08	1.35	129507	Feb-08			
Bulk Density Compacted (Mg/m <sup>3</sup> )	EN 1097-3 : 1998 Annex D.1	1.54	129505	Feb-08	1.55	129507	Feb-08			
Shell Content (%)	EN 933-7 : 1998									
Calcium Carbonate Equivalent (%)	EN 196-21 : 1992									
Chemical Analysis - XRF*	XRF Method									
pH Value	BS 1377 : Part 3 : 1990									
Alkali Silica Reaction (ASR)	& BRE Digest 330									
Resistivity (Ohms/Cm)*	BS 1377 : Part 3 : 1990									
Lightweight Contaminators (%)	EN 1744-1 : 1998									
Angle of Internal Friction (°)	SHW HMSO May 2001 CI 636									
Frost Heave (mm)	SHW HMSO May 2001 CI 801									
OMC/MDD (%/Mg/m <sup>3</sup> )	EN 13286-4 : 2003									
Petrographic Analysis*	EN 923-3 : 1997									
Water Soluble Sulfate (%)	BS EN 1744-1 : 1998									
Plastic Limit (%)	BS 1377 : Part 2 : 1990									

All tests carried out are UKAS accredited unless otherwise denoted by \*

Comments:



E.R.Goulden - Technical Director

Hanson Construction Projects,  
Machen Quarry,  
Machen,  
Newport,  
Gwent,  
NP1 8YP



Date: 28<sup>th</sup> April 2005  
Test Report No: 276803

Page of 3

Your Order No.:

## LABORATORY TEST REPORT

**TEST REQUIREMENTS:** To determine the Chemical Analysis of a soil sample (I.C.F.C.L. Suite)

### SAMPLE DETAILS:

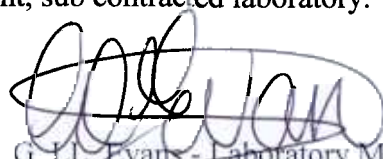
Certificate of sampling received:	Yes
Certificate Enclosed:	No
Laboratory Ref. No.:	S11253
Client Ref. No.:	N/A
Date and Time of Sampling:	04/04/2005
Date of Receipt at Lab.:	06/04/2005
Date of Start of Test.:	14/04/2005
Sampling Location:	Stock
Delivery Ticket No.:	N/A
Name of Source:	Machen
Method of Sampling.	BS EN 932-1: 1997
Sampled By.	Client
Soil Description.	100mm Crusher Run Limestone

### RESULTS:

See Attached

### COMMENTS/ DEPARTURE FROM SPECIFIED PROCEDURE

The work was carried out by our accredited, competent, sub contracted laboratory.

  
G. L. Evans - Laboratory Manager

**Results:**                    TOTAL CONTAMINANT ANALYSIS  
SOIL RESULTS

<u>Parameter</u>	<u>Sample Ref.</u> (mg/kg unless stated) <b>29043</b>
Cadmium	15
Chromium	<1
Copper	15
Nickel	<1
Lead	365
Zinc	1220
Water soluble boron	<0.5
Arsenic	9.4
Mercury	<0.1
Selenium	<0.1
Sulphate	<0.02
Sulphide	152
Cyanide (total)	<10
Phenols Index	<1
Tol.Equ.Ex.mat	400
pH	9.4
Percentage <2m	12.4

**Results:** TOTAL CONTAMINANT ANALYSIS  
SOIL LEACHATE RESULTS

<u>Parameter</u>	<u>Sample Ref.</u> (mg/L unless stated) <b>29043</b>
Cadmium	<0.005
Chromium	<0.01
Copper	<0.001
Nickel	<0.01
Lead	<0.004
Zinc	<0.008
Water soluble boron	<0.01
Arsenic	<0.001
Mercury	<0.001
Selenium	<0.0001
Sulphate	5
Sulphide	<0.1
Cyanide (total)	<0.05
Phenols Index	<0.03
pH	9.6

# Hanson Aggregates

Neil Lawrence  
 Hanson Aggregates  
 National Laboratory  
 Chipping Sodbury  
 Bristol  
 BS37 6AY  
 01454 332346

## GRADATION ANALYSIS TEST REPORT for Product: 115B223/ Class 6F4 (6F1) Limestone Supplier/ source: 115 Machen Quarry

Material type: SHW Series 600 Table 6/5 Test method: Wash grading to BS 812: part 103: 1985: 3.1

**SAMPLE INFORMATION**

**Sample number** SWA10783AGG

sampled/ tested  
 Wed 02 July 2008/ 08-07-08  
 at 2020 hrs

Sample Origin	FRESH STOCKPILE	Ticket No.	-
Sampler	ROBERT DAVIES	Site/Client Address	-
Your Sample Ref.	170196	Aggregate type	Dolomitic Limestone
Oven No.(Lab only)	8	Tag No.(Lab only)	801 / 504

**SAMPLE ANALYSIS**

Sieve size	Percent passing	Specification limits	Complies ?
125mm	100	100 - 100	yes
90mm	100	-	-
75mm	100	-	-
40mm	100	-	-
31.5mm	91	75 - 99	yes
20mm	67	-	-
16mm	59	50 - 90	yes
10mm	47	-	-
8mm	40	30 - 75	yes
5mm	32	-	-
4mm	26	15 - 60	yes
2mm	20	-	-
1mm	17	0 - 35	yes
0.500mm	15	-	-
0.063mm	10	0 - 15	yes
Moisture content %	5.5	not specified	-

Parameters are evaluated to the accuracy of spec. limits

**REMARKS**

Compliance status ok  
 Category A of A-C includes secondary parameters

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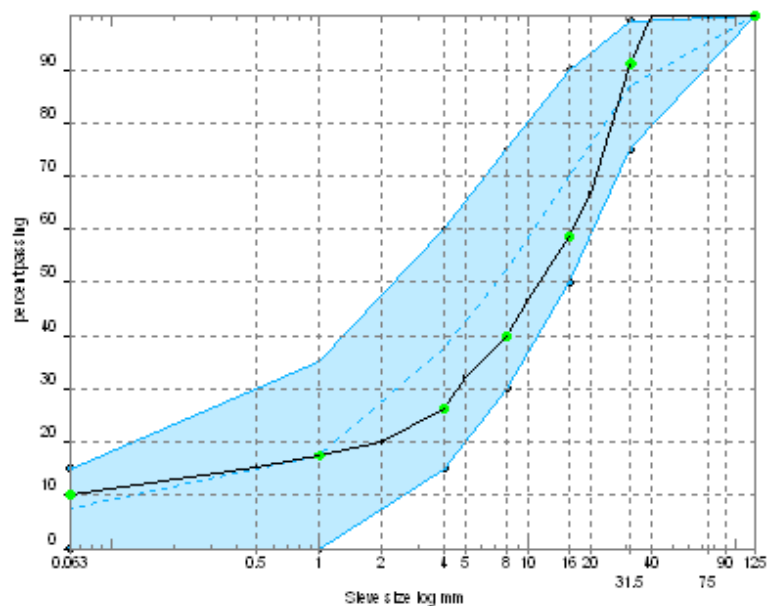
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Signed \_\_\_\_\_ Technical Sales Advisor      Print date 04 Aug 2008



## Health and Safety

# Natural Aggregates

### 1. Identification of substance

Natural aggregates.  
Typically:- Crushed rock including granite, dolerite, limestone and basalt.  
All types of sand, washed/unwashed, Stone/crushed stone. Marine dredged and land won gravels.

#### Company

Hanson Quarry Products Europe  
The Ridge  
Chipping Sodbury  
Bristol  
BS37 6AY

Tel 01454 316000  
Fax 01454 325161

### 2. Composition

Natural aggregates are produced from naturally occurring rock and sand and gravel deposits and consist of combinations of various minerals including silica.

### 3. Hazards identification

Respirable dust inhaled over a prolonged period can be hazardous to health. When the respirable dust contains silica, the risks are increased. Advice on the silica content of the dust produced from individual aggregates is available via the supplying unit on request.

### 4. First aid measures

**Inhalation:** Remove the affected person to fresh air.

**Skin contact:** Wash with water

**Eye contact:** Immediately irrigate with copious amounts of water and seek medical attention.

**Ingestion:** Remove from exposure to fresh air.

### 5. Fire fighting measures

None needed

### 6. Accidental release measures

#### Personal protection:

In the event of a spillage or leakage avoid breathing in the dust.

Wear dust mask/respirator and goggles as specified in section eight - **Exposure controls/ personal protection**

#### Environmental measures

The release of dust into the environment does not constitute a significant hazard.

Aggregates should be disposed of in accordance with local authority requirements.

#### Method of cleaning

Vacuum system. Water spraying to prevent airborne dust where possible. Avoid dry sweeping which creates dust, damp down surfaces.

### 7. Handling and storage

The product should be handled and stored in minimise the creation of airborne dust. Engineering control measures such as containment, enclosed silos, local exhaust ventilation, should be applied when airborne dust exposure levels are approached. Bagged aggregates should be palletised and kept dry.

### 8. Exposure controls/ personal protection (see overleaf)

#### Engineering control

**measures:** as per section seven, - **Handling and storage.**

#### Personal protection:

Respiratory protection to HSE approved standard

**Hand protection:** – abrasive resistant gloves

**Eye protection:** to HSE approved standard for dust goggles

**Skin protection:** overalls.

### 9. Physical & chemical properties

Odourless solid particles of crushed stone, gravel or sand with various colours.

Other Chemicals properties not applicable.

### 10. Stability and reactivity

Not applicable.

## 8. Exposure controls/personal protection

Occupational exposure limits:-

	8HR TWA	WEL (8HR TWA)	Source
Respirable dust	4mg/m <sup>3</sup>	–	EH40/2005
Respirable silica	–	0.1mg/m <sup>3</sup>	EH40/2005

Please refer to the latest issue of EH40 for current limits from the link provided below.

<http://www.hse.gov.uk/coshh/table1.pdf>

## 11. Toxicological information

### Health effects

**On eyes:** may cause transient irritation.

**On skin:** unlikely to cause harm on brief or occasional contact.

**By inhalation:** inhalation of large quantities of respirable silica may lead to progressive lung damage. This may cause permanent disability and, in extreme cases, may be fatal.

**By ingestion:** unlikely to cause harm.

**Chronic** exposure to high levels of silica may cause progressive silicosis.

None known

**Others:** none known.

## 12. Ecological information

### Environmental assessment:

When used and disposed of as intended, no adverse environmental effects are foreseen.

## 13. Disposal considerations

Is not classified as hazardous. Subject to local authority disposal requirements.

## 14. Transport information

Classification for conveyance not required.

## 15. Regulatory information

### Hazard label data:

This product is NOT classified as dangerous for supply in the UK.

### Statutory instruments:

Health & Safety at Work, etc Act 1974

Consumer Protection Act 1987  
COSHH 2002

Environmental Protection Act 1990

### Guidance notes:

Occupational Exposure Limits

(EH40) – (Current issue)

Local Exhaust Ventilation

(HS(G)37)

Crystalline Silica (EH59) Dust,

General Principles of Protection

(EH44)

Control of Respirable Crystalline

Silica in Quarries (HS(G)73)

Waste Management – The Duty of Care

The above publications are available from HMSO or HSE.

## 16. Other information

The data and advice given above apply when the substance is used as intended. Use of the substance for other applications may give rise to risks not mentioned. The information contained within this safety data sheet does not constitute the user's own assessment of risk as required by other health and safety legislation, i.e. COSHH 2002, MHSWR 1999.

If you have purchased the product for supply to a third party for use at work, it is your duty to take all necessary steps to secure that any person handling or using the product is provided with the information in this sheet.

If you are an employer, it is your duty to tell your employees and others who may be affected of any hazards described in this sheet and of any precautions, which should be taken. Further copies of this safety data sheet may be obtained from your local sales office or the address (right).

### Hanson Quarry Products Europe

The Ridge  
Chipping Sodbury  
Bristol BS37 6AY

Tel 01454 316000

Fax 01454 325161

HQP/FJ/58/04/01

Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SXFAO Christian Wilkinson  
24 September 2008

Dear Christian Wilkinson

**Test Report Number** 101167  
**Your Project Reference** Durham Rd, Newport

Please find enclosed the results of analysis for the samples received 10 September 2008.

All soil samples will be retained for a period of one month and all water samples will be retained for 7 days following the date of the test report. Should you require an extended retention period then please detail your requirements in an email to [customerservices@chemtest.co.uk](mailto:customerservices@chemtest.co.uk). Please be aware that charges may be applicable for extended sample storage.

If you require any further assistance, please do not hesitate to contact the Customer Services team.

Yours sincerely



Authorised Signatory

<input type="checkbox"/> Darrell Hall	Laboratory Manager
<input type="checkbox"/> Phil Hellier	Operations Director
<input checked="" type="checkbox"/> Keith Jones	Technical Development Chemist
<input type="checkbox"/> John Crawford	Quality Manager
<input type="checkbox"/> Malcolm Avis	Technical Director



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*Notes to accompany report:*

- The sign < means 'less than'
- Tests marked 'U' hold UKAS accreditation
- Tests marked 'M' hold MCertS (and UKAS) accreditation
- Tests marked 'N' do not currently hold UKAS accreditation
- Tests marked 'S' were subcontracted to an approved laboratory
- n/e means 'not evaluated'
- i/s means 'insufficient sample'
- u/s means 'unsuitable sample'
- Comments or interpretations are beyond the scope of UKAS accreditation
- The results relate only to the items tested

Test Report 101167 Cover Sheet

Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SX

# LABORATORY TEST REPORT



Report Date  
24 September 2008

Results of analysis of 5 samples  
received 10 September 2008

FAO Christian Wilkinson

Durham Rd, Newport

**Login Batch No**

Chemtest LIMS ID

Sample ID

Sample No

Depth

Matrix

SOP↓

Determinand↓

CAS No↓

Units↓

\*

**101167**

AD45197

AD45198

AD45199

AD45200

AD45201

CS06

CS07

CS08

CS09

CS10

0

0

0

0

0

SOIL

SOIL

SOIL

SOIL

SOIL

1015	Acid Neutralisation Capacity	ANC	mol kg <sup>-1</sup>	N	0.047	0.086	0.068	0.141	0.025
2625	Total Organic Carbon		%	M	7.7	6.7	8.6	10	16
2670	TPH Total WAC		mg kg <sup>-1</sup>	N	< 10	< 10	< 10	< 10	< 10
2700	Naphthalene	91203	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	<0.1	<0.1
	Acenaphthylene	208968	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	0.1	<0.1
	Acenaphthene	83329	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	<0.1	<0.1
	Fluorene	86737	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	0.2	<0.1
	Phenanthrene	85018	mg kg <sup>-1</sup>	M	0.1	<0.1	<0.1	4	<0.1
	Anthracene	120127	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	1.4	<0.1
	Fluoranthene	206440	mg kg <sup>-1</sup>	M	0.2	<0.1	<0.1	6	3.7
	Pyrene	129000	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	4.9	2.9
	Benzo[a]anthracene	56553	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	2.8	2.1
	Chrysene	218019	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	3	2.4
	Benzo[b]fluoranthene	205992	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	2.8	2.2
	Benzo[k]fluoranthene	207089	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	2.7	2
	Benzo[a]pyrene	50328	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	3.3	2.9
	Dibenzo[a,h]anthracene	53703	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	2.1	1.5
	Indeno[1,2,3-cd]pyrene	193395	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo[g,h,i]perylene	191242	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	1.7	1.3
	Coronene	191071	mg kg <sup>-1</sup>	N	<0.1	<0.1	<0.1	<0.1	<0.1
	Total (of 17) PAHs		mg kg <sup>-1</sup>	N	<2	<2	<2	35	21
2760	Benzene	71432	µg kg <sup>-1</sup>	M	<1	<1	<1	<1	<1
	Toluene	108883	µg kg <sup>-1</sup>	M	<1	<1	<1	<1	<1
	Ethyl benzene	100414	µg kg <sup>-1</sup>	M	<1	<1	<1	<1	<1
	m- & p-Xylene	1330207	µg kg <sup>-1</sup>	M	<1	<1	<1	<1	<1
	o-Xylene	95476	µg kg <sup>-1</sup>	M	<1	<1	<1	<1	<1
2761	Total BTEX		mg kg <sup>-1</sup>	M	<0.005	<0.005	<0.005	<0.005	<0.005
2810	PCB 28	7012375	mg kg <sup>-1</sup>	N	<0.1	<0.1	<0.1	<0.1	<0.1
	PCB 52	35693993	mg kg <sup>-1</sup>	N	<0.1	<0.1	<0.1	<0.1	<0.1

All tests undertaken between 12-Sep-2008 and 24-Sep-2008

\* Accreditation status

*This report should be interpreted in conjunction with the notes on the accompanying cover page*

Column page 1

Report page 1 of 4

Report sample ID range AD45197 to AD45206

Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SX

# LABORATORY TEST REPORT



Report Date  
24 September 2008

Results of analysis of 5 samples  
received 10 September 2008

FAO Christian Wilkinson

Durham Rd, Newport

					101167				
					AD45197	AD45198	AD45199	AD45200	AD45201
					CS06	CS07	CS08	CS09	CS10
					0	0	0	0	0
					SOIL	SOIL	SOIL	SOIL	SOIL
2810	PCB 101	37680732	mg kg <sup>-1</sup>	N	<0.1	<0.1	<0.1	<0.1	<0.1
	PCB 118	31508006	mg kg <sup>-1</sup>	N	<0.1	<0.1	<0.1	<0.1	<0.1
	PCB 138	35065282	mg kg <sup>-1</sup>	N	<0.1	<0.1	<0.1	<0.1	<0.1
	PCB 153	35065271	mg kg <sup>-1</sup>	N	<0.1	<0.1	<0.1	<0.1	<0.1
	PCB 180	35065293	mg kg <sup>-1</sup>	N	<0.1	<0.1	<0.1	<0.1	<0.1
2811	Total PCBs (7 congeners)		mg kg <sup>-1</sup>	N	<1	<1	<1	<1	<1
2010	pH		-	M	8.9	8.9	9.2	10.8	8.6
2610	Loss on ignition		%	N	2.61	1.33	0.79	8.76	21.8

All tests undertaken between 12-Sep-2008 and 24-Sep-2008

\* Accreditation status

*This report should be interpreted in conjunction with the notes on the accompanying cover page*

Column page 1

Report page 2 of 4

Report sample ID range AD45197 to AD45206

Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SX

FAO Christian Wilkinson

**LABORATORY TEST REPORT**  
Waste Acceptance Criteria BS EN 12457 Part 3 2 Stage  
Results of analysis of 5 samples  
received 10 September 2008



Report Date  
24 September 2008

Durham Rd, Newport

**Login Batch No**

Chemtest LIMS ID

Sample ID

Sample No

Depth

Matrix

Determinand↓

SOP↓

\*

CAS No↓

Units↓

**101167**

AD45202	AD45203	AD45204	AD45205	AD45206					
CS06	CS07	CS08	CS09	CS10					
0	0	0	0	0					
LEACHATE	LEACHATE	LEACHATE	LEACHATE	LEACHATE					
As (arsenic) L/S=2	1450	N	7440382	mg kg <sup>-1</sup>	<0.05	<0.05	<0.05	<0.05	<0.05
As (arsenic) L/S=10	1450	N	7440382	mg kg <sup>-1</sup>	<0.05	<0.05	<0.05	<0.05	<0.05
Ba (barium) L/S=2	1450	N	7440393	mg kg <sup>-1</sup>	0.67	<0.5	<0.5	0.7	<0.5
Ba (barium) L/S=10	1450	N	7440393	mg kg <sup>-1</sup>	8.54	6.79	3.82	7.08	2.56
Cd (cadmium) L/S=2	1450	N	7440439	mg kg <sup>-1</sup>	<0.01	<0.01	<0.01	<0.01	<0.01
Cd (cadmium) L/S=10	1450	N	7440439	mg kg <sup>-1</sup>	<0.01	<0.01	<0.01	<0.01	<0.01
Cr (chromium) L/S=2	1450	N	7440473	mg kg <sup>-1</sup>	<0.05	<0.05	<0.05	<0.05	<0.05
Cr (chromium) L/S=10	1450	N	7440473	mg kg <sup>-1</sup>	0.1	0.07	0.08	0.08	0.09
Cu (copper) L/S=2	1450	N	7440508	mg kg <sup>-1</sup>	<0.05	<0.05	<0.05	<0.05	<0.05
Cu (copper) L/S=10	1450	N	7440508	mg kg <sup>-1</sup>	0.13	0.14	0.18	0.17	0.17
Hg (mercury) L/S=2	1450	N	7439976	mg kg <sup>-1</sup>	<0.005	<0.005	<0.005	<0.005	<0.005
Hg (mercury) L/S=10	1450	N	7439976	mg kg <sup>-1</sup>	<0.005	<0.005	<0.005	<0.005	<0.005
Mo (molybdenum) L/S=2	1450	N	7439987	mg kg <sup>-1</sup>	<0.05	<0.05	<0.05	<0.05	<0.05
Mo (molybdenum) L/S=10	1450	N	7439987	mg kg <sup>-1</sup>	<0.05	<0.05	<0.05	<0.05	<0.05
Ni (nickel) L/S=2	1450	N	7440020	mg kg <sup>-1</sup>	<0.05	<0.05	<0.05	<0.05	<0.05
Ni (nickel) L/S=10	1450	N	7440020	mg kg <sup>-1</sup>	<0.05	<0.05	<0.05	<0.05	<0.05
Pb (lead) L/S=2	1450	N	7439921	mg kg <sup>-1</sup>	<0.05	<0.05	<0.05	<0.05	<0.05
Pb (lead) L/S=10	1450	N	7439921	mg kg <sup>-1</sup>	0.19	0.06	<0.05	<0.05	<0.05
Sb (antimony) L/S=2	1450	N	7440360	mg kg <sup>-1</sup>	<0.01	<0.01	<0.01	<0.01	<0.01
Sb (antimony) L/S=10	1450	N	7440360	mg kg <sup>-1</sup>	0.01	0.01	<0.01	<0.01	<0.01
Se (selenium) L/S=2	1450	N	7782492	mg kg <sup>-1</sup>	<0.01	<0.01	<0.01	<0.01	<0.01
Se (selenium) L/S=10	1450	N	7782492	mg kg <sup>-1</sup>	<0.01	<0.01	<0.01	<0.01	<0.01
Zn (zinc) L/S=2	1450	N	7440666	mg kg <sup>-1</sup>	<0.5	<0.5	<0.5	<0.5	<0.5
Zn (zinc) L/S=10	1450	N	7440666	mg kg <sup>-1</sup>	<0.5	<0.5	<0.5	<0.5	<0.5
Cl (chloride) L/S=2	1220	U	16887006	mg kg <sup>-1</sup>	89.8	140	156	114	19.4
Cl (chloride) L/S=10	1220	U	16887006	mg kg <sup>-1</sup>	183	262	193	190	43.2
F (fluoride) L/S=2	1220	U	16984488	mg kg <sup>-1</sup>	<1	<1	<1	<1	<1
F (fluoride) L/S=10	1220	U	16984488	mg kg <sup>-1</sup>	1.45	1.33	2.49	1.68	3.38
SO4 (sulfate) L/S=2	1220	U	14808798	mg kg <sup>-1</sup>	49.2	55.2	87.1	47.4	56.8

All tests undertaken between 12-Sep-2008 and 24-Sep-2008

\* Accreditation status

*This report should be interpreted in conjunction with the notes on the accompanying cover page*

Column page 1

Report page 3 of 4

Report sample ID range AD45197 to AD45206

Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SX

FAO Christian Wilkinson

**LABORATORY TEST REPORT**  
Waste Acceptance Criteria BS EN 12457 Part 3 2 Stage  
Results of analysis of 5 samples  
received 10 September 2008

Durham Rd, Newport



Report Date  
24 September 2008

					101167				
					AD45202	AD45203	AD45204	AD45205	AD45206
					CS06	CS07	CS08	CS09	CS10
					0	0	0	0	0
					LEACHATE	LEACHATE	LEACHATE	LEACHATE	LEACHATE
SO4 (sulfate) L/S=10	1220	U	14808798	mg kg <sup>-1</sup>	145	147	145	128	147
Total Dissolved Solids L/S=2	1610	N	TDS	mg kg <sup>-1</sup>	420	500	579	460	280
Total Dissolved Solids L/S=10	1610	N	TDS	mg kg <sup>-1</sup>	1170	1300	1270	1160	898
Phenol index L/S=2	1920	N	108952	mg kg <sup>-1</sup>	<0.5	<0.5	<0.5	<0.5	<0.5
Phenol index L/S=10	1920	N	108952	mg kg <sup>-1</sup>	<0.5	<0.5	<0.5	<0.5	<0.5
Dissolved Organic Carbon L/S=2	1610	N	DOC	mg kg <sup>-1</sup>	52	54	59.9	60	60
Dissolved Organic Carbon L/S=10	1610	N	DOC	mg kg <sup>-1</sup>	268	287	300	317	300

All tests undertaken between 12-Sep-2008 and 24-Sep-2008

\* Accreditation status

*This report should be interpreted in conjunction with the notes on the accompanying cover page*

Column page 1

Report page 4 of 4

Report sample ID range AD45197 to AD45206

Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SX

FAO Christian Wilkinson  
03 September 2008

Dear Christian Wilkinson

**Test Report Number**                    **91851**  
**Your Project Reference**            **Durham Rd, Newport - F15285**

Please find enclosed the results of analysis for the samples received 26 August 2008.

All soil samples will be retained for a period of one month and all water samples will be retained for 7 days following the date of the test report. Should you require an extended retention period then please detail your requirements in an email to customerservices@chemtest.co.uk. Please be aware that charges may be applicable for extended sample storage.

If you require any further assistance, please do not hesitate to contact the Customer Services team.

Yours sincerely

<input type="checkbox"/> Darrell Hall	Laboratory Manager
<input type="checkbox"/> Phil Hellier	Operations Director
<input type="checkbox"/> Keith Jones	Technical Development Chemist
<input type="checkbox"/> John Crawford	Quality Manager
<input type="checkbox"/> Malcolm Avis	Technical Director

#### Authorised Signatory



2183

#### Notes to accompany report:

- The sign < means 'less than'
- Tests marked 'U' hold UKAS accreditation
- Tests marked 'M' hold MCertS (and UKAS) accreditation
- Tests marked 'N' do not currently hold UKAS accreditation
- Tests marked 'S' were subcontracted to an approved laboratory
- n/e means 'not evaluated'
- i/s means 'insufficient sample'
- u/s means 'unsuitable sample'
- Comments or interpretations are beyond the scope of UKAS accreditation
- The results relate only to the items tested

Test Report    91851    Cover Sheet

Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SX

# LABORATORY TEST REPORT



Report Date  
03 September 2008

Results of analysis of 5 samples  
received 26 August 2008

Durham Rd, Newport - F15285

FAO Christian Wilkinson

**Login Batch No**

Chemtest LIMS ID

Sample ID

Sample No

Depth

Matrix

SOP↓ Determinand↓

CAS No↓

Units↓

\*

					91851				
					AD39522	AD39523	AD39524	AD39525	AD39526
					CS01	CS02	CS03	CS04	CS05
					SOIL	SOIL	SOIL	SOIL	SOIL
2450	Arsenic	7440382	mg kg <sup>-1</sup>	M	50	39	74	73	77
	Cadmium	7440439	mg kg <sup>-1</sup>	M	1.6	39	88	2.3	47
	Chromium	7440473	mg kg <sup>-1</sup>	M	23	24	25	27	31
	Lead	7439921	mg kg <sup>-1</sup>	M	142	1327	3654	102	3038
	Mercury	7439976	mg kg <sup>-1</sup>	M	0.2	0.4	0.7	0.1	0.8
	Nickel	7440020	mg kg <sup>-1</sup>	M	12	25	35	14	34
	Selenium	7782492	mg kg <sup>-1</sup>	M	0.9	0.4	0.4	0.6	<0.2
2670	Total Petroleum Hydrocarbons		mg kg <sup>-1</sup>	M	< 10	< 10	< 10	< 10	< 10
2701	PAH (total EPA 16)		mg kg <sup>-1</sup>	M	<2	<2	<2	<2	<2
2760	Benzene	71432	µg kg <sup>-1</sup>	M	<1	<1	<1	<1	<1
	Toluene	108883	µg kg <sup>-1</sup>	M	<1	<1	<1	<1	<1
	Ethyl benzene	100414	µg kg <sup>-1</sup>	M	<1	<1	<1	<1	<1
	m- & p-Xylene	1330207	µg kg <sup>-1</sup>	M	<1	<1	<1	<1	<1
	o-Xylene	95476	µg kg <sup>-1</sup>	M	<1	<1	<1	<1	<1
2810	2,4,4'-Trichlorobiphenyl	7012375	mg kg <sup>-1</sup>	N	<0.1	<0.1	<0.1	<0.1	<0.1
	2,2',5,5'-Tetrachlorobiphenyl	35693993	mg kg <sup>-1</sup>	N	<0.1	<0.1	<0.1	<0.1	<0.1
	2,2',4,5,5'-Pentachlorobiphenyl	37680732	mg kg <sup>-1</sup>	N	<0.1	<0.1	<0.1	<0.1	<0.1
	2,3,4,4',5-Pentachlorobiphenyl	31508006	mg kg <sup>-1</sup>	N	<0.1	<0.1	<0.1	<0.1	<0.1
	2,2',3,4,4',5-Hexachlorobiphenyl	35065282	mg kg <sup>-1</sup>	N	<0.1	<0.1	<0.1	<0.1	<0.1
	2,2',4,4',5,5'-Hexachlorobiphenyl	35065271	mg kg <sup>-1</sup>	N	<0.1	<0.1	<0.1	<0.1	<0.1
	2,2',3,4,4',5,5'-Heptachlorobiphenyl	35065293	mg kg <sup>-1</sup>	N	<0.1	<0.1	<0.1	<0.1	<0.1
2920	Phenols (total)		mg kg <sup>-1</sup>	M	<0.3	<0.3	<0.3	<0.3	<0.3

All tests undertaken between 28-Aug-2008 and 2-Sep-2008

\* Accreditation status

*This report should be interpreted in conjunction with the notes on the accompanying cover page*

Column page 1

Report page 1 of 1

Report sample ID range AD39522 to AD39526

Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SXFAO Christiaan Wilkinson  
03 October 2008

Dear Christiaan Wilkinson

**Test Report Number**      **56001**  
**Your Project Reference**      **Durham Rd, Newport**

Please find enclosed the results of analysis for the samples received 1 October 2008.

All soil samples will be retained for a period of one month and all water samples will be retained for 7 days following the date of the test report. Should you require an extended retention period then please detail your requirements in an email to [customerservices@chemtest.co.uk](mailto:customerservices@chemtest.co.uk). Please be aware that charges may be applicable for extended sample storage.

If you require any further assistance, please do not hesitate to contact the Customer Services team.

Yours sincerely



Authorised Signatory

<input type="checkbox"/>	Darrell Hall	Laboratory Manager
<input type="checkbox"/>	Phil Hellier	Operations Director
<input checked="" type="checkbox"/>	Keith Jones	Technical Development Chemist
<input type="checkbox"/>	John Crawford	Quality Manager
<input type="checkbox"/>	Malcolm Avis	Technical Director

*Notes to accompany report:*

- The sign < means 'less than'
- Tests marked 'U' hold UKAS accreditation
- Tests marked 'M' hold MCertS (and UKAS) accreditation
- Tests marked 'N' do not currently hold UKAS accreditation
- Tests marked 'S' were subcontracted to an approved laboratory
- n/e means 'not evaluated'
- i/s means 'insufficient sample'
- u/s means 'unsuitable sample'
- Comments or interpretations are beyond the scope of UKAS accreditation
- The results relate only to the items tested

Test Report 56001 Cover Sheet

Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SX

# LABORATORY TEST REPORT



Report Date  
03 October 2008

Results of analysis of 10 samples  
received 01 October 2008

FAO Christiaan Wilkinson

Durham Rd, Newport

**Login Batch No**

Chemtest LIMS ID

Sample ID

Sample No

Depth

Matrix

SOP↓ Determinand↓

CAS No↓

Units↓

\*

					56001				
					AD51209	AD51210	AD51211	AD51212	AD51213
					CS06	CS07	CS08	CS09	CS10
					LEACHATE	LEACHATE	LEACHATE	LEACHATE	LEACHATE
1450	Arsenic	7440382	µg l <sup>-1</sup>	U	<1	<1	<1	<1	<1
	Cadmium	7440439	µg l <sup>-1</sup>	U	<0.5	<0.5	<0.5	<0.5	<0.5
	Chromium (total)	7440473	µg l <sup>-1</sup>	U	<1	<1	<1	<1	<1
	Mercury	7439976	µg l <sup>-1</sup>	U	<0.5	<0.5	<0.5	<0.5	<0.5
	Nickel	7440020	µg l <sup>-1</sup>	U	<1	<1	<1	<1	<1
	Lead	7439921	µg l <sup>-1</sup>	U	1.3	9.3	<1	1.2	<1
	Selenium	7782492	µg l <sup>-1</sup>	U	<1	<1	<1	<1	<1
1670	TPH (Aqueous Phase)		µg l <sup>-1</sup>	U	<10	<10	<10	<10	<10
1760	Benzene	71432	µg l <sup>-1</sup>	U	<1	<1	<1	<1	<1
	Toluene	108883	µg l <sup>-1</sup>	U	<1	<1	<1	<1	<1
	Ethyl benzene	100414	µg l <sup>-1</sup>	U	<1	<1	<1	<1	<1
	m- & p-Xylene	1330207	µg l <sup>-1</sup>	U	<1	<1	<1	<1	<1
	o-Xylene	95476	µg l <sup>-1</sup>	U	<1	<1	<1	<1	<1
1810	PCBs as Aroclor 1242	53469219	µg l <sup>-1</sup>	N	<1	<1	<1	<1	<1
1920	Phenols (total)		mg l <sup>-1</sup>	N	<0.03	<0.03	<0.03	<0.03	<0.03

All tests undertaken between 02-Oct-2008 and 3-Oct-2008

\* Accreditation status

***This report should be interpreted in conjunction with the notes on the accompanying cover page***

Column page 1

Report page 1 of 2

Report sample ID range AD51204 to AD51213

Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SX

# LABORATORY TEST REPORT



Report Date  
03 October 2008

Results of analysis of 10 samples  
received 01 October 2008

Durham Rd, Newport

FAO Christiaan Wilkinson

**Login Batch No**

Chemtest LIMS ID

Sample ID

Sample No

Depth

Matrix

SOP↓ Determinand↓

CAS No↓

Units↓

\*

					56001				
					AD51204	AD51205	AD51206	AD51207	AD51208
					CS06	CS07	CS08	CS09	CS10
					SOIL	SOIL	SOIL	SOIL	SOIL
2450	Arsenic	7440382	mg kg <sup>-1</sup>	M	21	42	25	18	14
	Cadmium	7440439	mg kg <sup>-1</sup>	M	28	42	5.9	10	<0.1
	Chromium	7440473	mg kg <sup>-1</sup>	M	8.7	11	7.2	5.9	5.1
	Mercury	7439976	mg kg <sup>-1</sup>	M	0.2	0.3	<0.1	<0.1	<0.1
	Nickel	7440020	mg kg <sup>-1</sup>	M	<5	<5	<5	<5	<5
	Lead	7439921	mg kg <sup>-1</sup>	M	872	547	299	306	10
	Selenium	7782492	mg kg <sup>-1</sup>	M	<0.2	<0.2	<0.2	<0.2	0.2
2920	Phenols (total)		mg kg <sup>-1</sup>	M	<0.3	<0.3	<0.3	<0.3	<0.3

All tests undertaken between 02-Oct-2008 and 3-Oct-2008

\* Accreditation status

***This report should be interpreted in conjunction with the notes on the accompanying cover page***

Column page 1

Report page 2 of 2

Report sample ID range AD51204 to AD51213

# LABORATORY TEST REPORT

Report Date  
14 October 2008

Results of analysis of 8 samples  
received 10 October 2008

FAO Elizabeth Stanmore

Durham Rd, Newport

**Login Batch No**

Chemtest LIMS ID

Sample ID

Sample No

Depth

Matrix

SOP ↓ Determinand ↓

CAS No ↓

Units ↓

\*

					74478							
					AD53742	AD53743	AD53744	AD53745	AD53746	AD53747	AD53748	AD53749
					S1	S2	S3	CS11	CS12	CS13	CS14	CS15
					Topsoil	Topsoil	Topsoil					
					0.05			0.05	0.05	0.05	0.05	0.05
					SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
2450	Arsenic	7440382	mg kg <sup>-1</sup>	M	22	7.1	12	19	18	15	18	24
	Cadmium	7440439	mg kg <sup>-1</sup>	M	1.4	0.6	0.7	20	12	7	3.8	11
	Chromium	7440473	mg kg <sup>-1</sup>	M	39	22	43	8	7.8	7	12	9.5
	Mercury	7439976	mg kg <sup>-1</sup>	M	0.6	0.2	0.2	<0.1	<0.1	<0.1	<0.1	<0.1
	Nickel	7440020	mg kg <sup>-1</sup>	M	39	18	26	<5	5.5	<5	6.8	<5
	Lead	7439921	mg kg <sup>-1</sup>	M	119	71	120	390	324	216	75	102
	Selenium	7782492	mg kg <sup>-1</sup>	M	0.4	0.3	0.1	<0.2	<0.2	<0.2	<0.2	<0.2
2670	Total Petroleum Hydrocarbons		mg kg <sup>-1</sup>	M	43	< 10	100	< 10	< 10	< 10	< 10	< 10
2700	Naphthalene	91203	mg kg <sup>-1</sup>	M	2	1.1	0.8	<0.1	<0.1	<0.1	<0.1	0.1
	Acenaphthylene	208968	mg kg <sup>-1</sup>	M	0.3	0.2	0.3	<0.1	<0.1	<0.1	<0.1	<0.1
	Acenaphthene	83329	mg kg <sup>-1</sup>	M	0.3	0.2	0.6	0.3	<0.1	<0.1	<0.1	<0.1
	Fluorene	86737	mg kg <sup>-1</sup>	M	0.4	0.2	0.2	<0.1	<0.1	<0.1	<0.1	<0.1
	Phenanthrene	85018	mg kg <sup>-1</sup>	M	0.8	0.4	2.3	<0.1	<0.1	<0.1	<0.1	<0.1
	Anthracene	120127	mg kg <sup>-1</sup>	M	0.1	<0.1	0.6	<0.1	<0.1	<0.1	<0.1	<0.1
	Fluoranthene	206440	mg kg <sup>-1</sup>	M	0.9	1	4.2	<0.1	0.2	0.2	0.2	<0.1
	Pyrene	129000	mg kg <sup>-1</sup>	M	0.6	0.5	3.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo[a]anthracene	56553	mg kg <sup>-1</sup>	M	0.4	0.4	2.2	<0.1	<0.1	<0.1	<0.1	<0.1
	Chrysene	218019	mg kg <sup>-1</sup>	M	0.7	0.6	2.7	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo[b]fluoranthene	205992	mg kg <sup>-1</sup>	M	0.4	0.7	3.4	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo[k]fluoranthene	207089	mg kg <sup>-1</sup>	M	0.7	0.5	2	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo[a]pyrene	50328	mg kg <sup>-1</sup>	M	0.2	0.6	3	<0.1	<0.1	<0.1	<0.1	<0.1
	Dibenzo[a,h]anthracene	53703	mg kg <sup>-1</sup>	M	0.3	0.2	1.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Indeno[1,2,3-cd]pyrene	193395	mg kg <sup>-1</sup>	M	0.3	0.2	2.3	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo[g,h,i]perylene	191242	mg kg <sup>-1</sup>	M	<0.1	0.2	1.6	<0.1	<0.1	<0.1	<0.1	<0.1
	Total (of 16) PAHs		mg kg <sup>-1</sup>	M	8.3	6.9	30	<2	<2	<2	<2	<2
2760	Benzene	71432	µg kg <sup>-1</sup>	M	<1	<1	<1	<1	<1	<1	<1	<1
	Toluene	108883	µg kg <sup>-1</sup>	M	5.4	2.2	1.1	<1	<1	<1	<1	<1
	Ethyl benzene	100414	µg kg <sup>-1</sup>	M	<1	<1	<1	<1	<1	<1	<1	<1
	m- & p-Xylene	1330207	µg kg <sup>-1</sup>	M	<1	<1	<1	<1	<1	<1	<1	<1
	o-Xylene	95476	µg kg <sup>-1</sup>	M	<1	<1	<1	<1	<1	<1	<1	<1

All tests undertaken between 10-Oct-2008 and 14-Oct-2008

\* Accreditation status

This report should be interpreted in conjunction with the notes on the accompanying cover page

Column page 1

Report page 1 of 2

Report sample ID range AD53742 to AD53749

Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SX

# LABORATORY TEST REPORT



Report Date  
14 October 2008

Results of analysis of 8 samples  
received 10 October 2008

FAO Elizabeth Stanmore

Durham Rd, Newport

					74478							
					AD53742	AD53743	AD53744	AD53745	AD53746	AD53747	AD53748	AD53749
					S1	S2	S3	CS11	CS12	CS13	CS14	CS15
					Topsoil	Topsoil	Topsoil					
					0.05			0.05	0.05	0.05	0.05	0.05
					SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
2810	PCBs as Aroclor 1254	53469219	mg kg <sup>-1</sup>	N	<1	<1	<1	<1	<1	<1	<1	<1
2920	Phenols (total)		mg kg <sup>-1</sup>	M	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
2030	Moisture		%	n/a	33.3	23.1	17.8	2.91	2.16	11.2	23.9	4.25
	Stone content (as received)		%	n/a	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
2140	Soil colour			n/a	black	brown	brown	brown	brown	brown	brown	brown
	Soil texture			n/a	clay	clay	clay	sand	sand	sand	sand	sand
	Other material			n/a	grass	none	none	stones	stones	stones	stones	stones

All tests undertaken between 10-Oct-2008 and 14-Oct-2008

\* Accreditation status

*This report should be interpreted in conjunction with the notes on the accompanying cover page*

Column page 1

Report page 2 of 2

Report sample ID range AD53742 to AD53749

Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SX

# LABORATORY TEST REPORT



Report Date  
17 October 2008

Results of analysis of 5 samples  
received 15 October 2008

FAO Christiaan Wilkinson

Durham Rd, Newport

**Login Batch No**

Chemtest LIMS ID

Sample ID

Sample No

Depth

Matrix

SOP↓ Determinand↓

CAS No↓

Units↓

\*

					74543				
					AD54976	AD54977	AD54978	AD54979	AD54980
					Stockpile	Stockpile	Stockpile	Stockpile	Stockpile
					CS16	CS17	CS18	CS19	CS20
					SOIL	SOIL	SOIL	SOIL	SOIL
2450	Arsenic	7440382	mg kg <sup>-1</sup>	M	35	24	41	32	27
	Cadmium	7440439	mg kg <sup>-1</sup>	M	13	18	4.6	7.4	5.2
	Chromium	7440473	mg kg <sup>-1</sup>	M	20	11	21	15	13
	Mercury	7439976	mg kg <sup>-1</sup>	M	0.9	0.1	<0.1	<0.1	<0.1
	Nickel	7440020	mg kg <sup>-1</sup>	M	15	7.8	9.8	10	8.3
	Lead	7439921	mg kg <sup>-1</sup>	M	571	369	168	256	136
	Selenium	7782492	mg kg <sup>-1</sup>	M	<0.2	<0.2	<0.2	<0.2	<0.2
2670	Total Petroleum Hydrocarbons		mg kg <sup>-1</sup>	M	1000	< 10	< 10	< 10	< 10
2700	Naphthalene	91203	mg kg <sup>-1</sup>	M	0.7	0.2	<0.1	<0.1	<0.1
	Acenaphthylene	208968	mg kg <sup>-1</sup>	M	0.5	<0.1	<0.1	<0.1	<0.1
	Acenaphthene	83329	mg kg <sup>-1</sup>	M	0.2	<0.1	<0.1	<0.1	<0.1
	Fluorene	86737	mg kg <sup>-1</sup>	M	0.3	<0.1	<0.1	<0.1	<0.1
	Phenanthrene	85018	mg kg <sup>-1</sup>	M	1.7	0.2	<0.1	<0.1	<0.1
	Anthracene	120127	mg kg <sup>-1</sup>	M	1.4	<0.1	<0.1	<0.1	<0.1
	Fluoranthene	206440	mg kg <sup>-1</sup>	M	2.4	0.2	<0.1	<0.1	<0.1
	Pyrene	129000	mg kg <sup>-1</sup>	M	2.5	<0.1	<0.1	<0.1	<0.1
	Benzo[a]anthracene	56553	mg kg <sup>-1</sup>	M	0.6	<0.1	<0.1	<0.1	<0.1
	Chrysene	218019	mg kg <sup>-1</sup>	M	0.9	<0.1	<0.1	<0.1	<0.1
	Benzo[b]fluoranthene	205992	mg kg <sup>-1</sup>	M	1.2	<0.1	<0.1	<0.1	<0.1
	Benzo[k]fluoranthene	207089	mg kg <sup>-1</sup>	M	0.4	<0.1	<0.1	<0.1	<0.1
	Benzo[a]pyrene	50328	mg kg <sup>-1</sup>	M	0.7	<0.1	<0.1	<0.1	<0.1
	Dibenzo[a,h]anthracene	53703	mg kg <sup>-1</sup>	M	0.2	<0.1	<0.1	<0.1	<0.1
	Indeno[1,2,3-cd]pyrene	193395	mg kg <sup>-1</sup>	M	0.6	<0.1	<0.1	<0.1	<0.1
	Benzo[g,h,i]perylene	191242	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	<0.1	<0.1
	Total (of 16) PAHs		mg kg <sup>-1</sup>	M	14	<2	<2	<2	<2
2760	Benzene	71432	µg kg <sup>-1</sup>	M	<1	<1	<1	<1	<1
	Toluene	108883	µg kg <sup>-1</sup>	M	<1	<1	<1	<1	<1
	Ethyl benzene	100414	µg kg <sup>-1</sup>	M	<1	<1	<1	<1	<1
	m- & p-Xylene	1330207	µg kg <sup>-1</sup>	M	<1	<1	<1	<1	<1
	o-Xylene	95476	µg kg <sup>-1</sup>	M	<1	<1	<1	<1	<1

All tests undertaken between 16-Oct-2008 and 17-Oct-2008

\* Accreditation status

*This report should be interpreted in conjunction with the notes on the accompanying cover page*

Column page 1

Report page 1 of 2

Report sample ID range AD54976 to AD54980

Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SX

# LABORATORY TEST REPORT



Report Date  
17 October 2008

Results of analysis of 5 samples  
received 15 October 2008

FAO Christiaan Wilkinson

Durham Rd, Newport

					74543				
					AD54976	AD54977	AD54978	AD54979	AD54980
					Stockpile	Stockpile	Stockpile	Stockpile	Stockpile
					CS16	CS17	CS18	CS19	CS20
					SOIL	SOIL	SOIL	SOIL	SOIL
2810	PCBs as Aroclor 1254	53469219	mg kg <sup>-1</sup>	N	<1	<1	<1	<1	<1
2920	Phenols (total)		mg kg <sup>-1</sup>	M	<0.3	<0.3	<0.3	<0.3	<0.3
2030	Moisture		%	n/a	2.71	2.51	1.29	1.28	0.63
	Stone content (as received)		%	n/a	<0.02	<0.02	<0.02	<0.02	<0.02
2140	Soil colour			n/a	brown	brown	brown	brown	brown
	Soil texture			n/a	sand	sand	sand	sand	sand
	Other material			n/a	none	none	none	none	none

All tests undertaken between 16-Oct-2008 and 17-Oct-2008

\* Accreditation status

*This report should be interpreted in conjunction with the notes on the accompanying cover page*

Column page 1

Report page 2 of 2

Report sample ID range AD54976 to AD54980

Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SXFAO C Wilkinson  
11 November 2008

Dear C Wilkinson

**Test Report Number** 74796  
**Your Project Reference** Durham Rd, Newport - F15285

Please find enclosed the results of analysis for the samples received 7 November 2008.

All soil samples will be retained for a period of one month and all water samples will be retained for 7 days following the date of the test report. Should you require an extended retention period then please detail your requirements in an email to [customerservices@chemtest.co.uk](mailto:customerservices@chemtest.co.uk). Please be aware that charges may be applicable for extended sample storage.

If you require any further assistance, please do not hesitate to contact the Customer Services team.

Yours sincerely



Authorised Signatory

<input type="checkbox"/>	Darrell Hall	Laboratory Manager
<input type="checkbox"/>	Phil Hellier	Operations Director
<input checked="" type="checkbox"/>	Keith Jones	Technical Development Manager
<input type="checkbox"/>	John Crawford	Quality Manager
<input type="checkbox"/>	Malcolm Avis	Technical Director

*Notes to accompany report:*

- The sign < means 'less than'
- Tests marked 'U' hold UKAS accreditation
- Tests marked 'M' hold MCertS (and UKAS) accreditation
- Tests marked 'N' do not currently hold UKAS accreditation
- Tests marked 'S' were subcontracted to an approved laboratory
- n/e means 'not evaluated'
- i/s means 'insufficient sample'
- u/s means 'unsuitable sample'
- Comments or interpretations are beyond the scope of UKAS accreditation
- The results relate only to the items tested

Test Report 74796 Cover Sheet

Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SX

# LABORATORY TEST REPORT



Report Date  
11 November 2008

Results of analysis of 5 samples  
received 07 November 2008

Durham Rd, Newport - F15285

FAO C Wilkinson

**Login Batch No**

Chemtest LIMS ID

Sample ID

Sample No

Depth

Matrix

SOP↓ Determinand↓

CAS No↓

Units↓

\*

					74796				
					AD61268	AD61269	AD61270	AD61271	AD61272
					Quarry	Quarry	Quarry	Quarry	Quarry
					HG	HM	HL	TA	CE
					SOIL	SOIL	SOIL	SOIL	SOIL
2450	Arsenic	7440382	mg kg <sup>-1</sup>	M	3.2	18	26	23	34
	Cadmium	7440439	mg kg <sup>-1</sup>	M	<0.1	5.5	<0.1	2.3	1.1
	Chromium	7440473	mg kg <sup>-1</sup>	M	20	7.9	11	140	30
	Mercury	7439976	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	0.16	0.91
	Nickel	7440020	mg kg <sup>-1</sup>	M	31	5.9	<5	38	47
	Lead	7439921	mg kg <sup>-1</sup>	M	5.8	190	13	140	560
	Selenium	7782492	mg kg <sup>-1</sup>	M	<0.2	<0.2	<0.2	<0.2	<0.2
2670	Total Petroleum Hydrocarbons		mg kg <sup>-1</sup>	M	< 10	< 10	< 10	< 10	< 10
2700	Naphthalene	91203	mg kg <sup>-1</sup>	M	0.1	<0.1	<0.1	0.3	1
	Acenaphthylene	208968	mg kg <sup>-1</sup>	M	<0.1	0.2	<0.1	<0.1	0.1
	Acenaphthene	83329	mg kg <sup>-1</sup>	M	0.2	0.2	<0.1	0.5	1.1
	Fluorene	86737	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	<0.1	0.6
	Phenanthrene	85018	mg kg <sup>-1</sup>	M	0.1	<0.1	<0.1	0.6	2.3
	Anthracene	120127	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	0.1	0.4
	Fluoranthene	206440	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	0.5	2.7
	Pyrene	129000	mg kg <sup>-1</sup>	M	<0.1	1.8	2.1	4.6	3.9
	Benzo[a]anthracene	56553	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	0.3	1.1
	Chrysene	218019	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	<0.1	1.9
	Benzo[b]fluoranthene	205992	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	<0.1	1.6
	Benzo[k]fluoranthene	207089	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	<0.1	1
	Benzo[a]pyrene	50328	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	<0.1	0.2
	Dibenzo[a,h]anthracene	53703	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	<0.1	<0.1
	Indeno[1,2,3-cd]pyrene	193395	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo[g,h,i]perylene	191242	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	<0.1	<0.1
	Total (of 16) PAHs		mg kg <sup>-1</sup>	M	<2	2.3	2.1	6.7	18
2760	Benzene	71432	µg kg <sup>-1</sup>	M	<1	<1	<1	<1	<1
	Toluene	108883	µg kg <sup>-1</sup>	M	10	<1	<1	<1	<1
	Ethyl benzene	100414	µg kg <sup>-1</sup>	M	<1	<1	<1	<1	<1
	m- & p-Xylene	1330207	µg kg <sup>-1</sup>	M	14	<1	<1	<1	<1
	o-Xylene	95476	µg kg <sup>-1</sup>	M	<1	<1	<1	<1	<1

All tests undertaken between 10-Nov-2008 and 11-Nov-2008

\* Accreditation status

**This report should be interpreted in conjunction with the notes on the accompanying cover page**

Column page 1

Report page 1 of 2

Report sample ID range AD61268 to AD61272

Norwest Holst  
 Parkside Lane  
 Dewsbury Road  
 Leeds  
 LS11 5SX  
 FAO C Wilkinson

# LABORATORY TEST REPORT



Report Date  
 11 November 2008

Results of analysis of 5 samples  
 received 07 November 2008  
 Durham Rd, Newport - F15285

					74796				
					AD61268	AD61269	AD61270	AD61271	AD61272
					Quarry	Quarry	Quarry	Quarry	Quarry
					HG	HM	HL	TA	CE
					SOIL	SOIL	SOIL	SOIL	SOIL
2810	PCBs as Aroclor 1254	53469219	mg kg <sup>-1</sup>	N	<1	<1	<1	<1	<1
2920	Phenols (total)		mg kg <sup>-1</sup>	M	<0.3	<0.3	<0.3	<0.3	<0.3

All tests undertaken between 10-Nov-2008 and 11-Nov-2008

\* Accreditation status

*This report should be interpreted in conjunction with the notes on the accompanying cover page*

Column page 1

Report page 2 of 2

Report sample ID range AD61268 to AD61272

Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SX

FAO Christian Wilkinson  
18 November 2008

Dear Christian Wilkinson

**Test Report Number**            **101894**  
**Your Project Reference**       **Durham Rd, Newport - F15285**

Please find enclosed the results of analysis for the samples received 14 November 2008.

All soil samples will be retained for a period of one month and all water samples will be retained for 7 days following the date of the test report. Should you require an extended retention period then please detail your requirements in an email to [customerservices@chemtest.co.uk](mailto:customerservices@chemtest.co.uk). Please be aware that charges may be applicable for extended sample storage.

If you require any further assistance, please do not hesitate to contact the Customer Services team.

Yours sincerely



<input type="checkbox"/> Darrell Hall	Laboratory Manager
<input type="checkbox"/> Phil Hellier	Operations Director
<input checked="" type="checkbox"/> Keith Jones	Technical Development Manager
<input type="checkbox"/> John Crawford	Quality Manager
<input type="checkbox"/> Malcolm Avis	Technical Director

Authorised Signatory



2183

*Notes to accompany report:*

- The sign < means 'less than'
- Tests marked 'U' hold UKAS accreditation
- Tests marked 'M' hold MCertS (and UKAS) accreditation
- Tests marked 'N' do not currently hold UKAS accreditation
- Tests marked 'S' were subcontracted to an approved laboratory
- n/e means 'not evaluated'
- i/s means 'insufficient sample'
- u/s means 'unsuitable sample'
- Comments or interpretations are beyond the scope of UKAS accreditation
- The results relate only to the items tested

Test Report 101894 Cover Sheet

Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SX

# LABORATORY TEST REPORT



Report Date  
18 November 2008

Results of analysis of 1 sample  
received 14 November 2008

FAO Christian Wilkinson

Durham Rd, Newport - F15285

**Login Batch No**

Chemtest LIMS ID

Sample ID

Sample No

Depth

Matrix

SOP↓	Determinand↓	CAS No↓	Units↓	*	
					<b>101894</b>
					AD63567
					Quarry
					L.A
					SOIL
2450	Arsenic	7440382	mg kg <sup>-1</sup>	M	4.5
	Cadmium	7440439	mg kg <sup>-1</sup>	M	<0.1
	Chromium	7440473	mg kg <sup>-1</sup>	M	29
	Mercury	7439976	mg kg <sup>-1</sup>	M	<0.1
	Nickel	7440020	mg kg <sup>-1</sup>	M	38
	Lead	7439921	mg kg <sup>-1</sup>	M	20
	Selenium	7782492	mg kg <sup>-1</sup>	M	<0.2
2670	Total Petroleum Hydrocarbons		mg kg <sup>-1</sup>	M	60
2700	Naphthalene	91203	mg kg <sup>-1</sup>	M	0.2
	Acenaphthylene	208968	mg kg <sup>-1</sup>	M	0.1
	Acenaphthene	83329	mg kg <sup>-1</sup>	M	0.3
	Fluorene	86737	mg kg <sup>-1</sup>	M	<0.1
	Phenanthrene	85018	mg kg <sup>-1</sup>	M	0.3
	Anthracene	120127	mg kg <sup>-1</sup>	M	<0.1
	Fluoranthene	206440	mg kg <sup>-1</sup>	M	0.5
	Pyrene	129000	mg kg <sup>-1</sup>	M	0.4
	Benzo[a]anthracene	56553	mg kg <sup>-1</sup>	M	0.1
	Chrysene	218019	mg kg <sup>-1</sup>	M	0.1
	Benzo[b]fluoranthene	205992	mg kg <sup>-1</sup>	M	0.1
	Benzo[k]fluoranthene	207089	mg kg <sup>-1</sup>	M	0.2
	Benzo[a]pyrene	50328	mg kg <sup>-1</sup>	M	<0.1
	Dibenzo[a,h]anthracene	53703	mg kg <sup>-1</sup>	M	0.1
	Indeno[1,2,3-cd]pyrene	193395	mg kg <sup>-1</sup>	M	<0.1
	Benzo[g,h,i]perylene	191242	mg kg <sup>-1</sup>	M	<0.1
	Total (of 16) PAHs		mg kg <sup>-1</sup>	M	2.4
2760	Benzene	71432	µg kg <sup>-1</sup>	M	<1
	Toluene	108883	µg kg <sup>-1</sup>	M	1.9
	Ethyl benzene	100414	µg kg <sup>-1</sup>	M	1.5
	m- & p-Xylene	1330207	µg kg <sup>-1</sup>	M	4.6
	o-Xylene	95476	µg kg <sup>-1</sup>	M	2.6

All tests undertaken between 17-Nov-2008 and 18-Nov-2008

\* Accreditation status

**This report should be interpreted in conjunction with the notes on the accompanying cover page**

Column page 1

Report page 1 of 2

Report sample ID range AD63567 to AD63567

Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SX

FAO Christian Wilkinson

# LABORATORY TEST REPORT

Results of analysis of 1 sample  
received 14 November 2008

Durham Rd, Newport - F15285



Report Date  
18 November 2008

101894
AD63567
Quarry
L.A
SOIL

2810	PCBs as Aroclor 1242	53469219	mg kg <sup>-1</sup>	M	<1
2920	Phenols (total)		mg kg <sup>-1</sup>	M	<0.3

All tests undertaken between 17-Nov-2008 and 18-Nov-2008

\* Accreditation status

***This report should be interpreted in conjunction with the notes on the accompanying cover page***

Column page 1

Report page 2 of 2

Report sample ID range AD63567 to AD63567

Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SXFAO Christiaan Wilkinson  
04 December 2008

Dear Christiaan Wilkinson

**Test Report Number**      **48777**  
**Your Project Reference**    **Durham Road**

Please find enclosed the results of analysis for the samples received 1 December 2008.

All soil samples will be retained for a period of one month and all water samples will be retained for 7 days following the date of the test report. Should you require an extended retention period then please detail your requirements in an email to [customerservices@chemtest.co.uk](mailto:customerservices@chemtest.co.uk). Please be aware that charges may be applicable for extended sample storage.

If you require any further assistance, please do not hesitate to contact the Customer Services team.

Yours sincerely



Authorised Signatory

<input type="checkbox"/>	Darrell Hall	Laboratory Manager
<input type="checkbox"/>	Phil Hellier	Operations Director
<input checked="" type="checkbox"/>	Keith Jones	Technical Development Manager
<input type="checkbox"/>	John Crawford	Quality Manager
<input type="checkbox"/>	Malcolm Avis	Technical Director



2183

*Notes to accompany report:*

- The sign < means 'less than'
- Tests marked 'U' hold UKAS accreditation
- Tests marked 'M' hold MCertS (and UKAS) accreditation
- Tests marked 'N' do not currently hold UKAS accreditation
- Tests marked 'S' were subcontracted to an approved laboratory
- n/e means 'not evaluated'
- i/s means 'insufficient sample'
- u/s means 'unsuitable sample'
- Comments or interpretations are beyond the scope of UKAS accreditation
- The results relate only to the items tested

Test Report 48777 Cover Sheet

Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SX

# LABORATORY TEST REPORT



Report Date  
04 December 2008

Results of analysis of 7 samples  
received 01 December 2008

FAO Christiaan Wilkinson

Durham Road

**Login Batch No**

Chemtest LIMS ID

Sample ID

Sample No

Depth

Matrix

					48777						
					AD67776	AD67777	AD67778	AD67779	AD67780	AD67781	AD67782
					MP1	MP2	MP3	MP4	MP5	MP6	MP7
					SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
SOP↓	Determinand↓	CAS No↓	Units↓	*							
2450	Arsenic	7440382	mg kg <sup>-1</sup>	M	12	11	8.2	9.4	19	10	6.1
	Cadmium	7440439	mg kg <sup>-1</sup>	M	0.26	0.20	0.20	0.16	0.40	0.24	0.24
	Chromium	7440473	mg kg <sup>-1</sup>	M	28	27	25	30	23	23	33
	Mercury	7439976	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	<0.1	0.13	<0.1	<0.1
	Nickel	7440020	mg kg <sup>-1</sup>	M	51	50	46	49	62	49	51
	Lead	7439921	mg kg <sup>-1</sup>	M	16	17	13	9.1	16	15	9.2
	Selenium	7782492	mg kg <sup>-1</sup>	M	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
2670	Total Petroleum Hydrocarbons		mg kg <sup>-1</sup>	M	< 10	< 10	< 10	< 10	< 10	< 10	< 10
2700	Naphthalene	91203	mg kg <sup>-1</sup>	M	0.3	0.2	0.2	0.1	0.4	0.4	<0.1
	Acenaphthylene	208968	mg kg <sup>-1</sup>	M	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	0.1
	Acenaphthene	83329	mg kg <sup>-1</sup>	M	0.5	0.4	0.3	0.2	0.6	1.1	<0.1
	Fluorene	86737	mg kg <sup>-1</sup>	M	0.3	0.2	0.3	0.2	0.4	<0.1	0.1
	Phenanthrene	85018	mg kg <sup>-1</sup>	M	0.5	0.5	0.4	0.2	0.6	1	0.3
	Anthracene	120127	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Fluoranthene	206440	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Pyrene	129000	mg kg <sup>-1</sup>	M	0.5	0.2	0.5	0.3	0.5	0.7	0.4
	Benzo[a]anthracene	56553	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Chrysene	218019	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo[b]fluoranthene	205992	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo[k]fluoranthene	207089	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo[a]pyrene	50328	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Dibenzo[a,h]anthracene	53703	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Indeno[1,2,3-cd]pyrene	193395	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo[g,h,i]perylene	191242	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Total (of 16) PAHs		mg kg <sup>-1</sup>	M	2.1	<2	<2	<2	2.4	3.1	<2
2760	Benzene	71432	µg kg <sup>-1</sup>	M	<1	<1	<1	<1	<1	<1	<1
	Toluene	108883	µg kg <sup>-1</sup>	M	<1	<1	<1	<1	<1	<1	<1
	Ethyl benzene	100414	µg kg <sup>-1</sup>	M	<1	<1	<1	<1	<1	<1	<1
	m- & p-Xylene	1330207	µg kg <sup>-1</sup>	M	<1	<1	<1	<1	<1	<1	<1
	o-Xylene	95476	µg kg <sup>-1</sup>	M	<1	<1	<1	<1	<1	<1	<1
2810	PCBs as Aroclor 1242	53469219	mg kg <sup>-1</sup>	M	<1	<1	<1	<1	<1	<1	<1

All tests undertaken between 02-Dec-2008 and 4-Dec-2008

\* Accreditation status

This report should be interpreted in conjunction with the notes on the accompanying cover page

Column page 1

Report page 1 of 2

Report sample ID range AD67776 to AD67782

Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SX

# LABORATORY TEST REPORT



Report Date  
04 December 2008

Results of analysis of 7 samples  
received 01 December 2008

FAO Christiaan Wilkinson

Durham Road

				48777							
				AD67776	AD67777	AD67778	AD67779	AD67780	AD67781	AD67782	
				MP1	MP2	MP3	MP4	MP5	MP6	MP7	
				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	
2920	Phenols (total)		mg kg <sup>-1</sup>	N	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3

Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SX

FAO C Wilkinson  
16 December 2008

Dear C Wilkinson

**Test Report Number**            **75083**  
**Your Project Reference**       **Durham Rd, Newport - F15285**

Please find enclosed the results of analysis for the samples received 12 December 2008.

All soil samples will be retained for a period of one month and all water samples will be retained for 7 days following the date of the test report. Should you require an extended retention period then please detail your requirements in an email to [customerservices@chemtest.co.uk](mailto:customerservices@chemtest.co.uk). Please be aware that charges may be applicable for extended sample storage.

If you require any further assistance, please do not hesitate to contact the Customer Services team.

Yours sincerely



Authorised Signatory

<input type="checkbox"/>	Darrell Hall	Laboratory Manager
<input checked="" type="checkbox"/>	Phil Hellier	Operations Director
<input type="checkbox"/>	Keith Jones	Technical Development Manager
<input type="checkbox"/>	John Crawford	Quality Manager
<input type="checkbox"/>	Malcolm Avis	Technical Director



2183

*Notes to accompany report:*

- *The sign < means 'less than'*
- *Tests marked 'U' hold UKAS accreditation*
- *Tests marked 'M' hold MCertS (and UKAS) accreditation*
- *Tests marked 'N' do not currently hold UKAS accreditation*
- *Tests marked 'S' were subcontracted to an approved laboratory*
- *n/e means 'not evaluated'*
- *i/s means 'insufficient sample'*
- *u/s means 'unsuitable sample'*
- *Comments or interpretations are beyond the scope of UKAS accreditation*
- *The results relate only to the items tested*

Test Report 75083 Cover Sheet

Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SX  
FAO C Wilkinson

# LABORATORY TEST REPORT



Report Date  
16 December 2008

Results of analysis of 8 samples  
received 12 December 2008

Durham Rd, Newport - F15285

**Login Batch No**

Chemtest LIMS ID

Sample ID

Sample No

Depth

Matrix

					75083							
					AD70565	AD70566	AD70567	AD70568	AD70569	AD70570	AD70571	AD70572
					MP 08	MP 09	MP 10	MP 11	MP 12	MP 13	MP 14	MP 15
					SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
SOP↓	Determinand↓	CAS No↓	Units↓	*								
2450	Arsenic	7440382	mg kg <sup>-1</sup>	M	14	6.9	10	11	7.4	11	7.5	8.4
	Cadmium	7440439	mg kg <sup>-1</sup>	M	0.23	<0.1	0.25	0.21	0.24	0.28	0.17	0.27
	Chromium	7440473	mg kg <sup>-1</sup>	M	43	26	30	27	25	27	24	32
	Mercury	7439976	mg kg <sup>-1</sup>	M	0.20	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Nickel	7440020	mg kg <sup>-1</sup>	M	59	46	57	55	46	55	45	56
	Lead	7439921	mg kg <sup>-1</sup>	M	140	16	19	18	14	16	11	18
	Selenium	7782492	mg kg <sup>-1</sup>	M	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
2670	Total Petroleum Hydrocarbons		mg kg <sup>-1</sup>	M	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
2700	Naphthalene	91203	mg kg <sup>-1</sup>	M	0.2	0.2	0.5	<0.1	0.2	0.3	0.2	0.3
	Acenaphthylene	208968	mg kg <sup>-1</sup>	M	0.5	0.2	0.2	<0.1	0.1	0.2	0.2	<0.1
	Acenaphthene	83329	mg kg <sup>-1</sup>	M	0.7	0.5	0.4	<0.1	0.2	0.9	0.1	<0.1
	Fluorene	86737	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Phenanthrene	85018	mg kg <sup>-1</sup>	M	3.5	0.3	0.4	<0.1	0.5	0.4	0.4	0.2
	Anthracene	120127	mg kg <sup>-1</sup>	M	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Fluoranthene	206440	mg kg <sup>-1</sup>	M	4.4	1	2.5	<0.1	1.6	0.7	1.3	2.5
	Pyrene	129000	mg kg <sup>-1</sup>	M	3.4	0.2	<0.1	<0.1	<0.1	0.2	0.3	0.3
	Benzo[a]anthracene	56553	mg kg <sup>-1</sup>	M	1.9	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.6
	Chrysene	218019	mg kg <sup>-1</sup>	M	1.8	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo[b]fluoranthene	205992	mg kg <sup>-1</sup>	M	1.9	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo[k]fluoranthene	207089	mg kg <sup>-1</sup>	M	0.8	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo[a]pyrene	50328	mg kg <sup>-1</sup>	M	0.9	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Dibenzo[a,h]anthracene	53703	mg kg <sup>-1</sup>	M	0.8	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Indeno[1,2,3-cd]pyrene	193395	mg kg <sup>-1</sup>	M	1.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo[g,h,i]perylene	191242	mg kg <sup>-1</sup>	M	1.4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Total (of 16) PAHs		mg kg <sup>-1</sup>	M	25	2.5	3.9	<2	2.6	2.7	2.4	4
2760	Benzene	71432	µg kg <sup>-1</sup>	M	<1	<1	<1	<1	<1	<1	<1	<1
	Toluene	108883	µg kg <sup>-1</sup>	M	9.2	10	4.4	3.0	7.5	4.1	26	18
	Ethyl benzene	100414	µg kg <sup>-1</sup>	M	1.8	1.4	<1	<1	1.1	<1	5.2	3.6
	m- & p-Xylene	1330207	µg kg <sup>-1</sup>	M	7.2	6.1	2.2	3.2	4.7	2.8	24	15
	o-Xylene	95476	µg kg <sup>-1</sup>	M	2.3	2.2	<1	1.3	1.7	1.2	11	7.3
2810	PCBs as Aroclor 1242	53469219	mg kg <sup>-1</sup>	M	<1	<1	<1	<1	<1	<1	<1	<1

All tests undertaken between 15-Dec-2008 and 16-Dec-2008

\* Accreditation status

This report should be interpreted in conjunction with the notes on the accompanying cover page

Column page 1

Report page 1 of 2

Report sample ID range AD70565 to AD70572

Norwest Holst  
 Parkside Lane  
 Dewsbury Road  
 Leeds  
 LS11 5SX  
 FAO C Wilkinson

# LABORATORY TEST REPORT



Report Date  
 16 December 2008

Results of analysis of 8 samples  
 received 12 December 2008  
 Durham Rd, Newport - F15285

				75083							
				AD70565	AD70566	AD70567	AD70568	AD70569	AD70570	AD70571	AD70572
				MP 08	MP 09	MP 10	MP 11	MP 12	MP 13	MP 14	MP 15
				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
2920	Phenols (total)		mg kg <sup>-1</sup>	N	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3

All tests undertaken between 15-Dec-2008 and 16-Dec-2008

\* Accreditation status

*This report should be interpreted in conjunction with the notes on the accompanying cover page*

Column page 1

Report page 2 of 2

Report sample ID range AD70565 to AD70572

Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SX

# LABORATORY TEST REPORT



Report Date  
13 January 2009

Results of analysis of 2 sample  
received 09 January 2009

FAO Christian Wilkinson

F15285 - Durham Rd, Newport

**Login Batch No**

Chemtest LIMS ID

Sample ID

Sample No

Depth

Matrix

SOP↓	Determinand↓	CAS No↓	Units↓	*	
					<b>48964</b>
					AD74249
					BULK
					B001
					SOIL
2450	Arsenic	7440382	mg kg <sup>-1</sup>	M	8.4
	Cadmium	7440439	mg kg <sup>-1</sup>	M	0.21
	Chromium	7440473	mg kg <sup>-1</sup>	M	30
	Mercury	7439976	mg kg <sup>-1</sup>	M	<0.1
	Nickel	7440020	mg kg <sup>-1</sup>	M	55
	Lead	7439921	mg kg <sup>-1</sup>	M	10
	Selenium	7782492	mg kg <sup>-1</sup>	M	<0.2
2670	Total Petroleum Hydrocarbons		mg kg <sup>-1</sup>	M	< 10
2700	Naphthalene	91203	mg kg <sup>-1</sup>	M	0.1
	Acenaphthylene	208968	mg kg <sup>-1</sup>	M	<0.1
	Acenaphthene	83329	mg kg <sup>-1</sup>	M	0.2
	Fluorene	86737	mg kg <sup>-1</sup>	M	0.2
	Phenanthrene	85018	mg kg <sup>-1</sup>	M	0.3
	Anthracene	120127	mg kg <sup>-1</sup>	M	<0.1
	Fluoranthene	206440	mg kg <sup>-1</sup>	M	0.7
	Pyrene	129000	mg kg <sup>-1</sup>	M	0.3
	Benzo[a]anthracene	56553	mg kg <sup>-1</sup>	M	0.3
	Chrysene	218019	mg kg <sup>-1</sup>	M	0.2
	Benzo[b]fluoranthene	205992	mg kg <sup>-1</sup>	M	<0.1
	Benzo[k]fluoranthene	207089	mg kg <sup>-1</sup>	M	<0.1
	Benzo[a]pyrene	50328	mg kg <sup>-1</sup>	M	<0.1
	Dibenzo[a,h]anthracene	53703	mg kg <sup>-1</sup>	M	<0.1
	Indeno[1,2,3-cd]pyrene	193395	mg kg <sup>-1</sup>	M	<0.1
	Benzo[g,h,i]perylene	191242	mg kg <sup>-1</sup>	M	<0.1
	Total (of 16) PAHs		mg kg <sup>-1</sup>	M	2.3
2760	Benzene	71432	µg kg <sup>-1</sup>	M	0.42
	Toluene	108883	µg kg <sup>-1</sup>	M	1.2
	Ethyl benzene	100414	µg kg <sup>-1</sup>	M	<1
	m- & p-Xylene	1330207	µg kg <sup>-1</sup>	M	2.0
	o-Xylene	95476	µg kg <sup>-1</sup>	M	<1
2810	PCBs as Aroclor 1242	53469219	mg kg <sup>-1</sup>	M	<1

All tests undertaken between 09-Jan-2009 and 13-Jan-2009

\* Accreditation status

**This report should be interpreted in conjunction with the notes on the accompanying cover page**

Column page 1

Report page 1 of 5

Report sample ID range AD74248 to AD74249

Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SX

# LABORATORY TEST REPORT



Report Date  
13 January 2009

Results of analysis of 2 sample  
received 09 January 2009

F15285 - Durham Rd, Newport

FAO Christian Wilkinson

48964
AD74249
BULK
B001
SOIL

2920	Phenols (total)		mg kg <sup>-1</sup>	N	<0.3
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Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SX

# LABORATORY TEST REPORT



Report Date  
20 January 2009

Results of analysis of 3 samples  
received 16 January 2009

Durham Road, Newport

FAO C Wilkinson

**Login Batch No**

Chemtest LIMS ID

Sample ID

Sample No

Depth

Matrix

					75232		
					AD75566	AD75567	AD75568
					B02	B03	B04
					SOIL	SOIL	SOIL
SOP↓	Determinand↓	CAS No↓	Units↓	*			
2450	Arsenic	7440382	mg kg <sup>-1</sup>	M	19	13	7.9
	Cadmium	7440439	mg kg <sup>-1</sup>	M	0.42	0.25	0.26
	Chromium	7440473	mg kg <sup>-1</sup>	M	19	23	20
	Mercury	7439976	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1
	Nickel	7440020	mg kg <sup>-1</sup>	M	52	54	47
	Lead	7439921	mg kg <sup>-1</sup>	M	14	9.5	6.9
	Selenium	7782492	mg kg <sup>-1</sup>	M	<0.2	<0.2	<0.2
2670	Total Petroleum Hydrocarbons		mg kg <sup>-1</sup>	M	< 10	< 10	< 10
2700	Naphthalene	91203	mg kg <sup>-1</sup>	M	0.2	0.3	0.1
	Acenaphthylene	208968	mg kg <sup>-1</sup>	M	<0.1	0.1	<0.1
	Acenaphthene	83329	mg kg <sup>-1</sup>	M	0.3	0.6	0.6
	Fluorene	86737	mg kg <sup>-1</sup>	M	<0.1	1.3	0.7
	Phenanthrene	85018	mg kg <sup>-1</sup>	M	0.3	0.5	0.4
	Anthracene	120127	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1
	Fluoranthene	206440	mg kg <sup>-1</sup>	M	0.3	0.3	0.5
	Pyrene	129000	mg kg <sup>-1</sup>	M	0.3	0.2	0.1
	Benzo[a]anthracene	56553	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1
	Chrysene	218019	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1
	Benzo[b]fluoranthene	205992	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1
	Benzo[k]fluoranthene	207089	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1
	Benzo[a]pyrene	50328	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1
	Dibenzo[a,h]anthracene	53703	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1
	Indeno[1,2,3-cd]pyrene	193395	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1
	Benzo[g,h,i]perylene	191242	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1
	Total (of 16) PAHs		mg kg <sup>-1</sup>	M	<2	3.3	2.4
2760	Benzene	71432	µg kg <sup>-1</sup>	M	0.47	0.45	0.35
	Toluene	108883	µg kg <sup>-1</sup>	M	5.8	8.1	9.4
	Ethyl benzene	100414	µg kg <sup>-1</sup>	M	3.6	3.4	6.4
	m- & p-Xylene	1330207	µg kg <sup>-1</sup>	M	15	13	25
	o-Xylene	95476	µg kg <sup>-1</sup>	M	9.3	6.7	12
2810	PCBs as Aroclor 1242	53469219	mg kg <sup>-1</sup>	M	<1	<1	<1

All tests undertaken between 19-Jan-2009 and 20-Jan-2009

\* Accreditation status

This report should be interpreted in conjunction with the notes on the accompanying cover page

Column page 1

Report page 1 of 2

Report sample ID range AD75566 to AD75568

Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SX  
FAO C Wilkinson

# LABORATORY TEST REPORT



Report Date  
20 January 2009

Results of analysis of 3 samples  
received 16 January 2009

Durham Road, Newport

					75232		
					AD75566	AD75567	AD75568
					B02	B03	B04
					SOIL	SOIL	SOIL
2920	Phenols (total)		mg kg <sup>-1</sup>	N	<0.3	<0.3	<0.3

All tests undertaken between 19-Jan-2009 and 20-Jan-2009

\* Accreditation status

*This report should be interpreted in conjunction with the notes on the accompanying cover page*

Column page 1

Report page 2 of 2

Report sample ID range AD75566 to AD75568

Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SX

FAO Christiaan Wilkinson  
27 January 2009

Dear Christiaan Wilkinson

**Test Report Number**        **75285**  
**Your Project Reference**    **Durham Rd, Newport**

Please find enclosed the results of analysis for the samples received 23 January 2009.

All soil samples will be retained for a period of one month and all water samples will be retained for 7 days following the date of the test report. Should you require an extended retention period then please detail your requirements in an email to [customerservices@chemtest.co.uk](mailto:customerservices@chemtest.co.uk). Please be aware that charges may be applicable for extended sample storage.

If you require any further assistance, please do not hesitate to contact the Customer Services team.

Yours sincerely



Authorised Signatory

<input type="checkbox"/>	Darrell Hall	Laboratory Manager
<input type="checkbox"/>	Phil Hellier	Operations Director
<input checked="" type="checkbox"/>	Keith Jones	Technical Development Manager
<input type="checkbox"/>	John Crawford	Quality Manager
<input type="checkbox"/>	Malcolm Avis	Technical Director



*Notes to accompany report:*

- *The sign < means 'less than'*
- *Tests marked 'U' hold UKAS accreditation*
- *Tests marked 'M' hold MCertS (and UKAS) accreditation*
- *Tests marked 'N' do not currently hold UKAS accreditation*
- *Tests marked 'S' were subcontracted to an approved laboratory*
- *n/e means 'not evaluated'*
- *i/s means 'insufficient sample'*
- *u/s means 'unsuitable sample'*
- *Comments or interpretations are beyond the scope of UKAS accreditation*
- *The results relate only to the items tested*

Test Report 75285 Cover Sheet

Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SX

# LABORATORY TEST REPORT



Report Date  
27 January 2009

Results of analysis of 2 samples  
received 23 January 2009

FAO Christiaan Wilkinson

Durham Rd, Newport

**Login Batch No**

Chemtest LIMS ID

Sample ID

Sample No

Depth

Matrix

					75285	
					AD77009	AD77010
					B05	B06
					SOIL	SOIL
SOP↓	Determinand↓	CAS No↓	Units↓	*		
2450	Arsenic	7440382	mg kg <sup>-1</sup>	M	9.8	15
	Cadmium	7440439	mg kg <sup>-1</sup>	M	<0.1	<0.1
	Chromium	7440473	mg kg <sup>-1</sup>	M	25	36
	Mercury	7439976	mg kg <sup>-1</sup>	M	<0.1	<0.1
	Nickel	7440020	mg kg <sup>-1</sup>	M	43	55
	Lead	7439921	mg kg <sup>-1</sup>	M	10	11
	Selenium	7782492	mg kg <sup>-1</sup>	M	<0.2	<0.2
2670	Total Petroleum Hydrocarbons		mg kg <sup>-1</sup>	M	< 10	< 10
2700	Naphthalene	91203	mg kg <sup>-1</sup>	M	<0.1	0.4
	Acenaphthylene	208968	mg kg <sup>-1</sup>	M	0.4	0.3
	Acenaphthene	83329	mg kg <sup>-1</sup>	M	0.4	0.4
	Fluorene	86737	mg kg <sup>-1</sup>	M	0.9	0.4
	Phenanthrene	85018	mg kg <sup>-1</sup>	M	0.4	0.5
	Anthracene	120127	mg kg <sup>-1</sup>	M	<0.1	<0.1
	Fluoranthene	206440	mg kg <sup>-1</sup>	M	<0.1	0.2
	Pyrene	129000	mg kg <sup>-1</sup>	M	0.4	0.5
	Benzo[a]anthracene	56553	mg kg <sup>-1</sup>	M	<0.1	<0.1
	Chrysene	218019	mg kg <sup>-1</sup>	M	<0.1	<0.1
	Benzo[b]fluoranthene	205992	mg kg <sup>-1</sup>	M	<0.1	<0.1
	Benzo[k]fluoranthene	207089	mg kg <sup>-1</sup>	M	<0.1	<0.1
	Benzo[a]pyrene	50328	mg kg <sup>-1</sup>	M	<0.1	<0.1
	Dibenzo[a,h]anthracene	53703	mg kg <sup>-1</sup>	M	<0.1	<0.1
	Indeno[1,2,3-cd]pyrene	193395	mg kg <sup>-1</sup>	M	<0.1	<0.1
	Benzo[g,h,i]perylene	191242	mg kg <sup>-1</sup>	M	<0.1	<0.1
	Total (of 16) PAHs		mg kg <sup>-1</sup>	M	2.5	2.6
2760	Benzene	71432	µg kg <sup>-1</sup>	M	<1	<1
	Toluene	108883	µg kg <sup>-1</sup>	M	1.8	4.3
	Ethyl benzene	100414	µg kg <sup>-1</sup>	M	4.1	3.0
	m- & p-Xylene	1330207	µg kg <sup>-1</sup>	M	19	12
	o-Xylene	95476	µg kg <sup>-1</sup>	M	9.6	4.7
2810	PCBs as Aroclor 1242	53469219	mg kg <sup>-1</sup>	M	<1	<1

All tests undertaken between 26-Jan-2009 and 27-Jan-2009

\* Accreditation status

*This report should be interpreted in conjunction with the notes on the accompanying cover page*

Column page 1

Report page 1 of 2

Report sample ID range AD77009 to AD77010

Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SX

# LABORATORY TEST REPORT



Report Date  
27 January 2009

Results of analysis of 2 samples  
received 23 January 2009

FAO Christiaan Wilkinson

Durham Rd, Newport

					75285	
					AD77009	AD77010
					B05	B06
					SOIL	SOIL
2920	Phenols (total)		mg kg <sup>-1</sup>	N	<0.3	<0.3

All tests undertaken between 26-Jan-2009 and 27-Jan-2009

\* Accreditation status

*This report should be interpreted in conjunction with the notes on the accompanying cover page*

Column page 1

Report page 2 of 2

Report sample ID range AD77009 to AD77010

Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SX

FAO Christian Wilkinson  
03 February 2009

Dear Christian Wilkinson

**Test Report Number**        **75347**  
**Your Project Reference**    **Durham Rd, Newport**

Please find enclosed the results of analysis for the samples received 30 January 2009.

All soil samples will be retained for a period of one month and all water samples will be retained for 7 days following the date of the test report. Should you require an extended retention period then please detail your requirements in an email to [customerservices@chemtest.co.uk](mailto:customerservices@chemtest.co.uk). Please be aware that charges may be applicable for extended sample storage.

If you require any further assistance, please do not hesitate to contact the Customer Services team.

Yours sincerely



Authorised Signatory

Darrell Hall            Laboratory Manager  
 Phil Hellier            Operations Director  
 Keith Jones            Technical Development Manager  
 John Crawford        Quality Manager  
 Malcolm Avis            Technical Director



*Notes to accompany report:*

- The sign < means 'less than'
- Tests marked 'U' hold UKAS accreditation
- Tests marked 'M' hold MCertS (and UKAS) accreditation
- Tests marked 'N' do not currently hold UKAS accreditation
- Tests marked 'S' were subcontracted to an approved laboratory
- n/e means 'not evaluated'
- i/s means 'insufficient sample'
- u/s means 'unsuitable sample'
- Comments or interpretations are beyond the scope of UKAS accreditation
- The results relate only to the items tested

Test Report 75347 Cover Sheet

Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SX

# LABORATORY TEST REPORT



Report Date  
03 February 2009

Results of analysis of 2 samples  
received 30 January 2009

FAO Christian Wilkinson

Durham Rd, Newport

**Login Batch No**

Chemtest LIMS ID

Sample ID

Sample No

Depth

Matrix

					75347	
					AD78586	AD78587
					B07	B08
					SOIL	SOIL
SOP↓	Determinand↓	CAS No↓	Units↓	*		
2450	Arsenic	7440382	mg kg <sup>-1</sup>	M	7.6	11
	Cadmium	7440439	mg kg <sup>-1</sup>	M	0.18	0.32
	Chromium	7440473	mg kg <sup>-1</sup>	M	21	36
	Mercury	7439976	mg kg <sup>-1</sup>	M	<0.1	<0.1
	Nickel	7440020	mg kg <sup>-1</sup>	M	34	50
	Lead	7439921	mg kg <sup>-1</sup>	M	5.2	6.4
	Selenium	7782492	mg kg <sup>-1</sup>	M	<0.2	<0.2
2670	Total Petroleum Hydrocarbons		mg kg <sup>-1</sup>	M	< 10	< 10
2700	Naphthalene	91203	mg kg <sup>-1</sup>	M	<0.1	0.4
	Acenaphthylene	208968	mg kg <sup>-1</sup>	M	<0.1	0.2
	Acenaphthene	83329	mg kg <sup>-1</sup>	M	0.3	0.5
	Fluorene	86737	mg kg <sup>-1</sup>	M	<0.1	<0.1
	Phenanthrene	85018	mg kg <sup>-1</sup>	M	0.3	0.5
	Anthracene	120127	mg kg <sup>-1</sup>	M	<0.1	<0.1
	Fluoranthene	206440	mg kg <sup>-1</sup>	M	0.1	0.1
	Pyrene	129000	mg kg <sup>-1</sup>	M	0.3	0.4
	Benzo[a]anthracene	56553	mg kg <sup>-1</sup>	M	<0.1	<0.1
	Chrysene	218019	mg kg <sup>-1</sup>	M	0.2	0.2
	Benzo[b]fluoranthene	205992	mg kg <sup>-1</sup>	M	<0.1	<0.1
	Benzo[k]fluoranthene	207089	mg kg <sup>-1</sup>	M	<0.1	<0.1
	Benzo[a]pyrene	50328	mg kg <sup>-1</sup>	M	<0.1	<0.1
	Dibenzo[a,h]anthracene	53703	mg kg <sup>-1</sup>	M	0.3	<0.1
	Indeno[1,2,3-cd]pyrene	193395	mg kg <sup>-1</sup>	M	0.4	0.1
	Benzo[g,h,i]perylene	191242	mg kg <sup>-1</sup>	M	0.2	<0.1
	Total (of 16) PAHs		mg kg <sup>-1</sup>	M	2.1	2.4
2760	Benzene	71432	µg kg <sup>-1</sup>	M	<0.1	<0.1
	Toluene	108883	µg kg <sup>-1</sup>	M	4.2	7.5
	Ethyl benzene	100414	µg kg <sup>-1</sup>	M	1.2	2.6
	m- & p-Xylene	1330207	µg kg <sup>-1</sup>	M	4.0	7.5
	o-Xylene	95476	µg kg <sup>-1</sup>	M	2.6	3.6
2810	PCBs as Aroclor 1242	53469219	mg kg <sup>-1</sup>	M	<1	<1

All tests undertaken between 02-Feb-2009 and 3-Feb-2009

\* Accreditation status

*This report should be interpreted in conjunction with the notes on the accompanying cover page*

Column page 1

Report page 1 of 2

Report sample ID range AD78586 to AD78587

Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SX

FAO Christian Wilkinson

# LABORATORY TEST REPORT

Results of analysis of 2 samples  
received 30 January 2009

Durham Rd, Newport



Report Date  
03 February 2009

75347	
AD78586	AD78587
B07	B08
SOIL	SOIL

2920	Phenols (total)		mg kg <sup>-1</sup>	N	<0.3	<0.3
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Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SX

# LABORATORY TEST REPORT



Report Date  
02 March 2009

Results of analysis of 3 samples  
received 20 February 2009

Durham Rd, Newport - F15285

FAO C Wilkinson

**Login Batch No**

Chemtest LIMS ID

Sample ID

Sample No

Depth

Matrix

					93606		
					AD82883	AD82884	AD82885
					B10	B11	B12
					SOIL	SOIL	SOIL
SOP↓	Determinand↓	CAS No↓	Units↓	*			
2450	Arsenic	7440382	mg kg <sup>-1</sup>	M	17	6.8	6.5
	Cadmium	7440439	mg kg <sup>-1</sup>	M	0.21	0.25	0.26
	Chromium	7440473	mg kg <sup>-1</sup>	M	32	29	36
	Mercury	7439976	mg kg <sup>-1</sup>	M	0.12	<0.1	<0.1
	Nickel	7440020	mg kg <sup>-1</sup>	M	51	44	56
	Lead	7439921	mg kg <sup>-1</sup>	M	10	9.0	13
	Selenium	7782492	mg kg <sup>-1</sup>	M	<0.2	<0.2	<0.2
2670	Total Petroleum Hydrocarbons		mg kg <sup>-1</sup>	M	< 10	< 10	< 10
2700	Naphthalene	91203	mg kg <sup>-1</sup>	M	0.2	0.2	0.3
	Acenaphthylene	208968	mg kg <sup>-1</sup>	M	0.2	0.2	0.2
	Acenaphthene	83329	mg kg <sup>-1</sup>	M	0.3	0.2	0.1
	Fluorene	86737	mg kg <sup>-1</sup>	M	<0.1	<0.1	0.1
	Phenanthrene	85018	mg kg <sup>-1</sup>	M	0.4	0.4	0.4
	Anthracene	120127	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1
	Fluoranthene	206440	mg kg <sup>-1</sup>	M	0.1	0.1	0.1
	Pyrene	129000	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1
	Benzo[a]anthracene	56553	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1
	Chrysene	218019	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1
	Benzo[b]fluoranthene	205992	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1
	Benzo[k]fluoranthene	207089	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1
	Benzo[a]pyrene	50328	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1
	Dibenzo[a,h]anthracene	53703	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1
	Indeno[1,2,3-cd]pyrene	193395	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1
	Benzo[g,h,i]perylene	191242	mg kg <sup>-1</sup>	M	<0.1	<0.1	<0.1
	Total (of 16) PAHs		mg kg <sup>-1</sup>	M	<2	<2	<2
2760	Benzene	71432	µg kg <sup>-1</sup>	M	<1	<1	<1
	Toluene	108883	µg kg <sup>-1</sup>	M	2.8	<1	1.9
	Ethyl benzene	100414	µg kg <sup>-1</sup>	M	<1	<1	<1
	m- & p-Xylene	1330207	µg kg <sup>-1</sup>	M	3.6	<1	2.2
	o-Xylene	95476	µg kg <sup>-1</sup>	M	1.8	<1	1.2
2810	PCBs as Aroclor 1242	53469219	mg kg <sup>-1</sup>	M	<1	<1	<1

All tests undertaken between 23-Feb-2009 and 25-Feb-2009

\* Accreditation status

This report should be interpreted in conjunction with the notes on the accompanying cover page

Column page 1

Report page 1 of 2

Report sample ID range AD82883 to AD82885

Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SX  
FAO C Wilkinson

# LABORATORY TEST REPORT



Report Date  
02 March 2009

Results of analysis of 3 samples  
received 20 February 2009

Durham Rd, Newport - F15285

				93606			
				AD82883	AD82884	AD82885	
				B10	B11	B12	
				SOIL	SOIL	SOIL	
2920	Phenols (total)		mg kg <sup>-1</sup>	N	<0.3	<0.3	<0.3

All tests undertaken between 23-Feb-2009 and 25-Feb-2009

\* Accreditation status

*This report should be interpreted in conjunction with the notes on the accompanying cover page*

Column page 1

Report page 2 of 2

Report sample ID range AD82883 to AD82885

Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SX

# LABORATORY TEST REPORT



Report Date  
03 March 2009

Results of analysis of 1 sample  
received 27 February 2009

Durham Rd, Newport - F15285

FAO Christiaan Wilkinson

**Login Batch No**

Chemtest LIMS ID

Sample ID

Sample No

Depth

Matrix

SOP↓	Determinand↓	CAS No↓	Units↓	*	
					<b>93716</b>
					AD84927
					STONE
					B13
					SOIL
2450	Arsenic	7440382	mg kg <sup>-1</sup>	M	8.7
	Cadmium	7440439	mg kg <sup>-1</sup>	M	0.91
	Chromium	7440473	mg kg <sup>-1</sup>	M	32
	Mercury	7439976	mg kg <sup>-1</sup>	M	<0.1
	Nickel	7440020	mg kg <sup>-1</sup>	M	46
	Lead	7439921	mg kg <sup>-1</sup>	M	12
	Selenium	7782492	mg kg <sup>-1</sup>	M	<0.2
2670	Total Petroleum Hydrocarbons		mg kg <sup>-1</sup>	M	< 10
2700	Naphthalene	91203	mg kg <sup>-1</sup>	M	0.3
	Acenaphthylene	208968	mg kg <sup>-1</sup>	M	<0.1
	Acenaphthene	83329	mg kg <sup>-1</sup>	M	<0.1
	Fluorene	86737	mg kg <sup>-1</sup>	M	<0.1
	Phenanthrene	85018	mg kg <sup>-1</sup>	M	0.5
	Anthracene	120127	mg kg <sup>-1</sup>	M	<0.1
	Fluoranthene	206440	mg kg <sup>-1</sup>	M	<0.1
	Pyrene	129000	mg kg <sup>-1</sup>	M	<0.1
	Benzo[a]anthracene	56553	mg kg <sup>-1</sup>	M	<0.1
	Chrysene	218019	mg kg <sup>-1</sup>	M	<0.1
	Benzo[b]fluoranthene	205992	mg kg <sup>-1</sup>	M	<0.1
	Benzo[k]fluoranthene	207089	mg kg <sup>-1</sup>	M	<0.1
	Benzo[a]pyrene	50328	mg kg <sup>-1</sup>	M	<0.1
	Dibenzo[a,h]anthracene	53703	mg kg <sup>-1</sup>	M	<0.1
	Indeno[1,2,3-cd]pyrene	193395	mg kg <sup>-1</sup>	M	<0.1
	Benzo[g,h,i]perylene	191242	mg kg <sup>-1</sup>	M	<0.1
	Total (of 16) PAHs		mg kg <sup>-1</sup>	M	<2
2760	Benzene	71432	µg kg <sup>-1</sup>	M	<1
	Toluene	108883	µg kg <sup>-1</sup>	M	<1
	Ethyl benzene	100414	µg kg <sup>-1</sup>	M	<1
	m- & p-Xylene	1330207	µg kg <sup>-1</sup>	M	<1
	o-Xylene	95476	µg kg <sup>-1</sup>	M	<1
2810	PCBs as Aroclor 1242	53469219	mg kg <sup>-1</sup>	M	<1

All tests undertaken between 02-Mar-2009 and 3-Mar-2009

\* Accreditation status

**This report should be interpreted in conjunction with the notes on the accompanying cover page**

Column page 1

Report page 1 of 2

Report sample ID range AD84927 to AD84927

Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SX

# LABORATORY TEST REPORT



Report Date  
03 March 2009

Results of analysis of 1 sample  
received 27 February 2009

Durham Rd, Newport - F15285

FAO Christiaan Wilkinson

93716
AD84927
STONE
B13
SOIL

2920	Phenols (total)		mg kg <sup>-1</sup>	N	<0.3
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Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SX

# AMENDED LABORATORY TEST REPORT



Report Date  
06 March 2009

Results of analysis of 1 sample  
received 13 February 2009

FAO Christiaan Wilkinson

Durran Hill

Login Batch No					93720
Chemtest LIMS ID					AD84963
Sample ID					B09
Sample No					
Depth					7
Matrix					SOIL
SOP↓	Determinand↓	CAS No↓	Units↓	*	
2450	Arsenic	7440382	mg kg <sup>-1</sup>	M	7.1
	Cadmium	7440439	mg kg <sup>-1</sup>	M	<0.1
	Chromium	7440473	mg kg <sup>-1</sup>	M	35
	Mercury	7439976	mg kg <sup>-1</sup>	M	<0.1
	Nickel	7440020	mg kg <sup>-1</sup>	M	28
	Lead	7439921	mg kg <sup>-1</sup>	M	13
	Selenium	7782492	mg kg <sup>-1</sup>	M	<0.2
2670	Total Petroleum Hydrocarbons		mg kg <sup>-1</sup>	M	< 10
2700	Naphthalene	91203	mg kg <sup>-1</sup>	M	<0.1
	Acenaphthylene	208968	mg kg <sup>-1</sup>	M	<0.1
	Acenaphthene	83329	mg kg <sup>-1</sup>	M	<0.1
	Fluorene	86737	mg kg <sup>-1</sup>	M	<0.1
	Phenanthrene	85018	mg kg <sup>-1</sup>	M	0.3
	Anthracene	120127	mg kg <sup>-1</sup>	M	<0.1
	Fluoranthene	206440	mg kg <sup>-1</sup>	M	0.2
	Pyrene	129000	mg kg <sup>-1</sup>	M	0.2
	Benzo[a]anthracene	56553	mg kg <sup>-1</sup>	M	0.2
	Chrysene	218019	mg kg <sup>-1</sup>	M	0.1
	Benzo[b]fluoranthene	205992	mg kg <sup>-1</sup>	M	0.1
	Benzo[k]fluoranthene	207089	mg kg <sup>-1</sup>	M	0.1
	Benzo[a]pyrene	50328	mg kg <sup>-1</sup>	M	0.1
	Dibenzo[a,h]anthracene	53703	mg kg <sup>-1</sup>	M	<0.1
	Indeno[1,2,3-cd]pyrene	193395	mg kg <sup>-1</sup>	M	<0.1
	Benzo[g,h,i]perylene	191242	mg kg <sup>-1</sup>	M	<0.1
	Total (of 16) PAHs		mg kg <sup>-1</sup>	M	<2
2760	Benzene	71432	µg kg <sup>-1</sup>	M	<1
	Toluene	108883	µg kg <sup>-1</sup>	M	<1
	Ethyl benzene	100414	µg kg <sup>-1</sup>	M	<1
	m- & p-Xylene	1330207	µg kg <sup>-1</sup>	M	<1
	o-Xylene	95476	µg kg <sup>-1</sup>	M	<1

All tests undertaken between 02-Mar-2009 and 3-Mar-2009

\* Accreditation status

**This report should be interpreted in conjunction with the notes on the accompanying cover page**

Column page 1

Report page 1 of 2

Report sample ID range AD84963 to AD84963

Norwest Holst  
Parkside Lane  
Dewsbury Road  
Leeds  
LS11 5SX

# AMENDED LABORATORY TEST REPORT



Report Date  
06 March 2009

Results of analysis of 1 sample  
received 13 February 2009

FAO Christiaan Wilkinson

Durran Hill

93720
AD84963
B09
7
SOIL

2810	PCBs as Aroclor 1242	53469219	mg kg <sup>-1</sup>	M	<1
2920	Phenols (total)		mg kg <sup>-1</sup>	N	<0.3

All tests undertaken between 02-Mar-2009 and 3-Mar-2009

\* Accreditation status

*This report should be interpreted in conjunction with the notes on the accompanying cover page*

Column page 1

Report page 2 of 2

Report sample ID range AD84963 to AD84963



## Topsoil Results





2139

## Certificate of Analysis

Date: 18/12/2008

Certificate Number: 08-24437

Client: Geo Laboratory Testing Services Ltd  
Unit 1  
Bynea Business Park  
Bynea  
SA14 9SU

Our Reference: 08-24437

Client Reference: GEO/7215/08

Contract Title: General Purpose Topsoil

Description: 1 soil sample

Date Received: 12/12/2008

Date Started: 12/12/2008

Date Completed: 18/12/2008

Test Procedures: Identified by prefix DETSn, details available upon request.

Notes: Observations and interpretations are outside the scope of UKAS accreditation  
\* denotes test not included in laboratory scope of accreditation  
# denotes test that holds MCERT accreditation, however, MCERTS accreditation is only implied if the report carries the MCERTS logo  
\$ denotes tests completed by an approved subcontractor  
I/S denotes insufficient sample to carry out test  
U/S denotes that the sample is not suitable for testing  
DETSM denotes tests carried out by DETS Midlands laboratory  
Solid samples will be disposed 1 month and liquids 2 weeks after the date of issue of this test certificate  
Asbestos subsamples will be kept for 6 months

Approved By:

A handwritten signature in black ink, appearing to read 'Rob Brown'.

Authorised Signatories:

Rob Brown  
Business Manager

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# Summary of Chemical Analysis Soil Samples

Our Ref: 08-24437

Client Ref: GEO/7215/08

Contract Title: General Purpose Topsoil

Test	Units	Lab No.	169037
		Sample Ref	Sample 1
		Depth	
		Other Ref	
		Sample Type	
		DETSxx	
Arsenic	mg/kg	DETS 042#	10
Cadmium	mg/kg	DETS 042#	0.8
Chromium	mg/kg	DETS 042#	22
Copper	mg/kg	DETS 042#	35
Lead	mg/kg	DETS 042#	49
Mercury	mg/kg	DETS 081#	0.09
Nickel	mg/kg	DETS 042#	20
Selenium	mg/kg	DETS 042#	< 0.5
Zinc	mg/kg	DETS 042#	110
Boron (water soluble)	mg/kg	DETS 020#	3.0
Available Phosphorus	mg/kg	DETS 042*	48
Available Magnesium	mg/kg	DETS 042*	230
Available Potassium	mg/kg	DETS 042*	1100
Calcium Carbonate	%		1.6
Thiocyanate	mg/kg	DETS 067#	2.7
Cyanide total	mg/kg	DETS 067#	0.2
Cyanide free	mg/kg	DETS 067#	< 0.1
Conductivity	uS/cm	DETS 009	1400
Loss on ignition	%	DETS 003#	9.2
Organic matter	%	DETS 002#	8.5
Sulphur (free)	mg/kg	DETS 049#	< 0.8
Sulphide	mg/kg	DETS 024#	24
Total Sulphate as SO4	%	DETS 075#	0.07
pH		DETS 008#	8.3
PAH	mg/kg	DETS 050	< 5.0
EPH (C10-C40)	mg/kg	DETS 051#	240
Phenol - Monohydric	mg/kg	DETS 067#	0.8

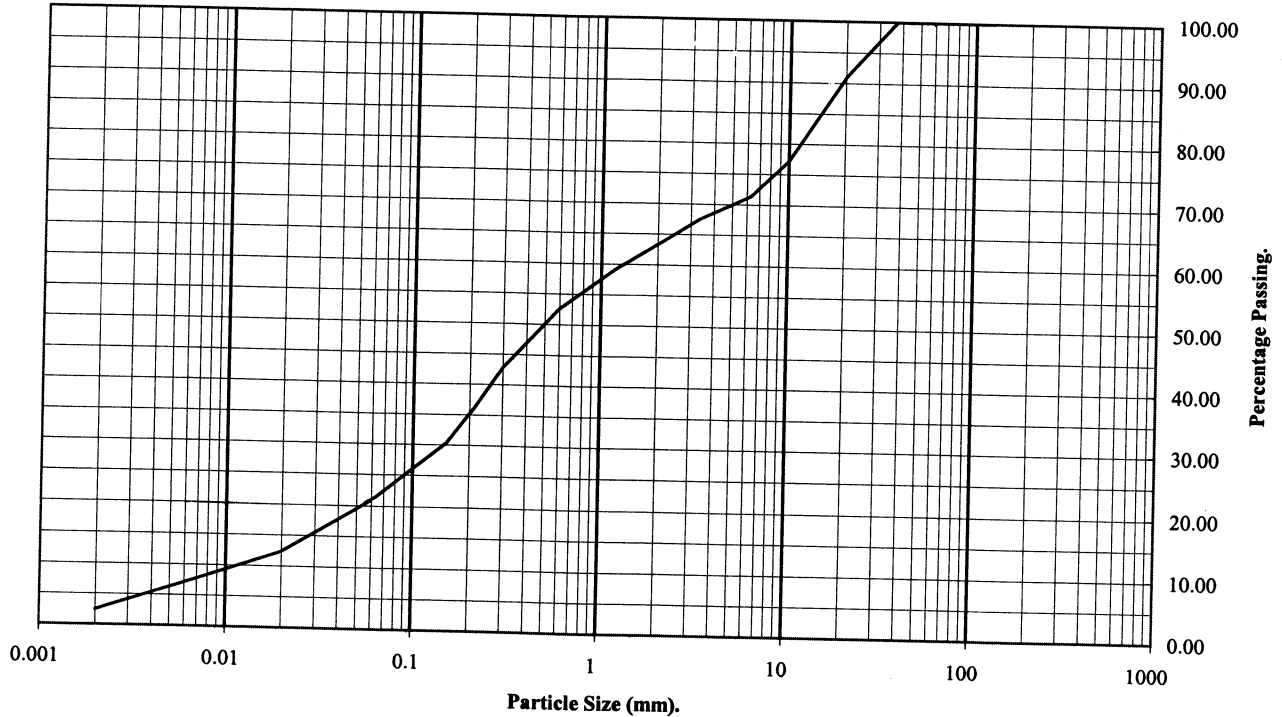
# PARTICLE SIZE DISTRIBUTION TEST

BS 1377 Part 2:1990.

Wet sieve Pipette analysis Clause 9.2 9.4

Hole Number      General

Depth (m):      0.00



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	100
20	91
10	77
6.3	71
3.35	68
2	63
1.18	59
0.6	53
0.3	43
0.212	36
0.15	30
0.063	21

Particle Diameter	Percentage Passing
0.02	12
0.006	7
0.002	2

Soil Fraction	Total Percentage
Cobbles	0
Gravel	37
Sand	42
Silt	19
Clay	2

**Remarks:**

Cl 9.4.8 - Sample has not been pretreated

*M. Watts* 19/12/08  
Checked by      Date

*M. Watts* 19/12/08  
Approved by      Date



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## Certificate of Analysis

Date: 18/12/2008

Certificate Number: 08-24436

Client: Geo Laboratory Testing Services Ltd  
Unit 1  
Bynea Business Park  
Bynea  
SA14 9SU

Our Reference: 08-24436

Client Reference: GEO/7215/08

Contract Title: Virgin Topsoil

Description: 1 soil sample

Date Received: 12/12/2008

Date Started: 12/12/2008

Date Completed: 18/12/2008

Test Procedures: Identified by prefix DETSn, details available upon request.

Notes: Observations and interpretations are outside the scope of UKAS accreditation  
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I/S denotes insufficient sample to carry out test  
U/S denotes that the sample is not suitable for testing  
DETSM denotes tests carried out by DETS Midlands laboratory  
Solid samples will be disposed 1 month and liquids 2 weeks after the date of issue of this test certificate  
Asbestos subsamples will be kept for 6 months

Approved By:

Authorised Signatories:

Rob Brown  
Business Manager

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# Summary of Chemical Analysis Soil Samples

Our Ref: 08-24436  
 Client Ref: GEO/7215/08  
 Contract Title: Virgin Topsoil

Lab No. 169036  
 Sample Ref Sample 1  
 Depth  
 Other Ref  
 Sample Type

Test	Units	DETSxx	
Arsenic	mg/kg	DETS 042#	21
Cadmium	mg/kg	DETS 042#	1.0
Chromium	mg/kg	DETS 042#	24
Copper	mg/kg	DETS 042#	70
Lead	mg/kg	DETS 042#	53
Mercury	mg/kg	DETS 081#	0.06
Nickel	mg/kg	DETS 042#	21
Selenium	mg/kg	DETS 042#	0.9
Zinc	mg/kg	DETS 042#	130
Boron (water soluble)	mg/kg	DETS 020#	2.3
Available Phosphorus	mg/kg	DETS 042*	73
Available Magnesium	mg/kg	DETS 042*	580
Available Potassium	mg/kg	DETS 042*	780
Calcium Carbonate	%		1.8
Thiocyanate	mg/kg	DETS 067#	3.9
Cyanide total	mg/kg	DETS 067#	0.2
Cyanide free	mg/kg	DETS 067#	< 0.1
Conductivity	uS/cm	DETS 009	350
Loss on ignition	%	DETS 003#	12
Organic matter	%	DETS 002#	9.5
Sulphur (free)	mg/kg	DETS 049#	< 0.8
Sulphide	mg/kg	DETS 024#	< 10
Total Sulphate as SO4	%	DETS 075#	0.1
pH		DETS 008#	7.9
PAH	mg/kg	DETS 050	< 5.0
EPH (C10-C40)	mg/kg	DETS 051#	61
Phenol - Monohydric	mg/kg	DETS 067#	1.4

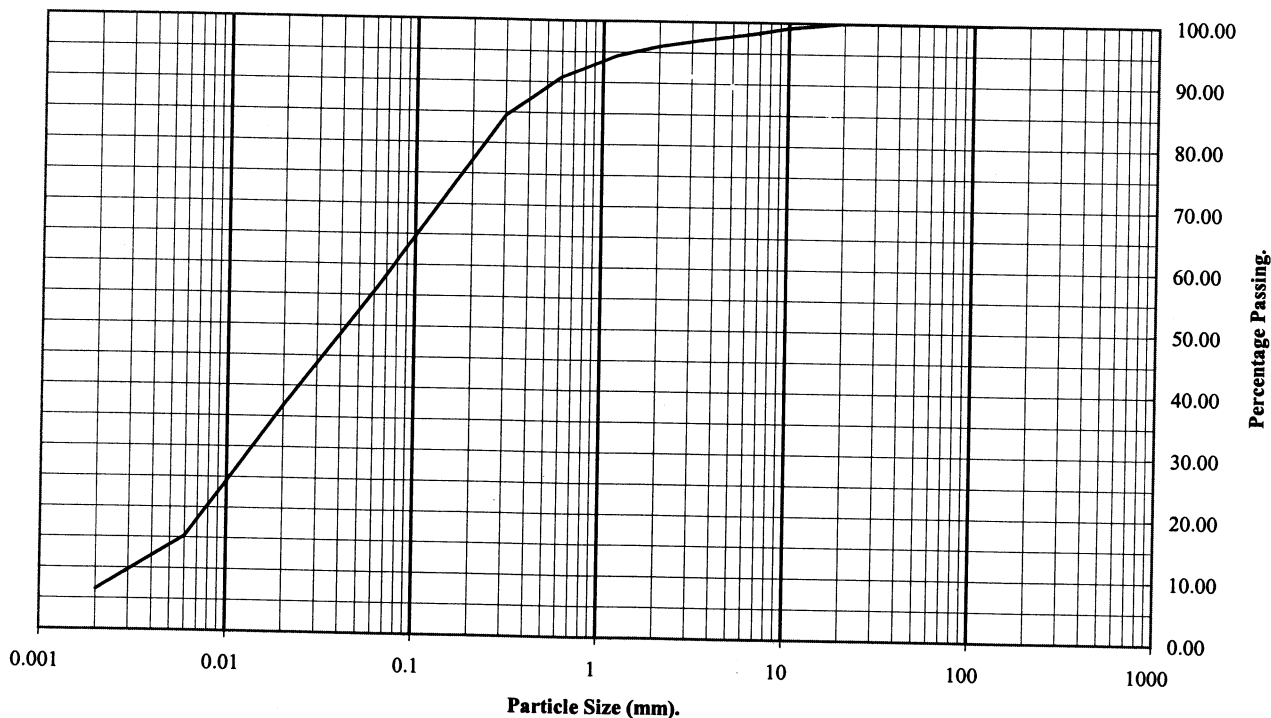
# PARTICLE SIZE DISTRIBUTION TEST

BS 1377 Part 2:1990.

Wet sieve Pipette analysis Clause 9.2 9.4

Hole Number **Virgin**

Depth (m): **0.00**



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	99
6.3	98
3.35	97
2	96
1.18	94
0.6	91
0.3	84
0.212	78
0.15	72
0.063	56

Particle Diameter	Percentage Passing
0.02	37
0.006	15
0.002	6

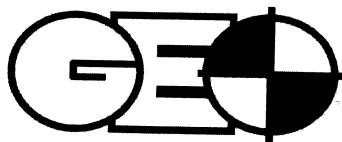
Soil Fraction	Total Percentage
Cobbles	0
Gravel	4
Sand	40
Silt	50
Clay	6

**Remarks:**

Cl 9.4.8 - Sample has not been pretreated

*A. Walto* 19/12/08  
Checked by Date

*A. Walto* 19/12/08  
Approved by Date



LABORATORY TESTING SERVICES LIMITED

GEO/104-2

Oct 06

Topsoil Suite

Issue No 1.3

Contract No.:  
GEO/7125/06  
Client Ref No:





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## Certificate of Analysis

Date: 11/07/2008

Certificate Number: 08-20454

Client: Geo Laboratory Testing Services Ltd  
Unit 1  
Bynea Business Park  
Bynea  
SA14 9SU

Our Reference: 08-20454

Client Reference: GEO/6401/08

Contract Title: General Purpose

Description: 1 soil sample

Date Received: 30/06/2008

Date Started: 30/06/2008

Date Completed: 11/07/2008

Test Procedures: Identified by prefix DETSn, details available upon request.

Notes: Observations and interpretations are outside the scope of UKAS accreditation  
 \* denotes test not included in laboratory scope of accreditation  
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 \$ denotes tests completed by approved subcontractors  
 I/S denotes insufficient sample to carry out test  
 N/S denotes that the sample is not suitable for testing  
 DETSM denotes tests carried out by DETS Midlands laboratory  
 Solid samples will be disposed 1 month and liquids 2 weeks  
 after the date of issue of this test certificate  
 Asbestos subsamples will be kept for 6 months

Approved By:

Authorised Signatories: Rob Brown  
Business Manager

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## Summary of Chemical Analysis Soil Samples

Our Ref:

GEO:6401:08

Contract Title: General Purpose

Sample 1

Test	Units	Lab No. Sample Ref	General Purpose
		Depth	
		Other Ref	
		Sample Type	
		DETSxx	
Arsenic	mg/kg	DETS 042#	9
Cadmium	mg/kg	DETS 042#	0.9
Chromium	mg/kg	DETS 042#	33
Copper	mg/kg	DETS 042#	30
Lead	mg/kg	DETS 042#	49
Mercury	mg/kg	DETS 081*	0.1
Nickel	mg/kg	DETS 042#	13
Selenium	mg/kg	DETS 042#	< 0.5
Zinc	mg/kg	DETS 042#	110
Boron (water soluble)	mg/kg	DETS 020#	1.7
Thiocyanate	mg/kg	DETS 067#	2.3
Cyanide total	mg/kg	DETS 067#	< 0.1
Cyanide free	mg/kg	DETS 067#	< 0.1
Sulphur (free)	mg/kg	DETS 049#	5.0
Sulphide	mg/kg	DETS 024#	65
Total Sulphate as SO <sub>4</sub>	%	DETS 075#	0.13
pH		DETS 008#	7.7
PAH	mg/kg	DETS 050	< 5.0
Phenol - Monohydric	mg/kg	DETS 067#	< 0.3



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## Certificate of Analysis

Date: 26/01/2009

Certificate Number: 08-24436-1

Client: Geo Laboratory Testing Services Ltd  
Unit 1  
Bynea Business Park  
Bynea  
SA14 9SU

Our Reference: 08-24436-1

Client Reference: GEO/7215/08

Contract Title: Virgin Topsoil

Description: 1 soil sample

Date Received: 12/12/2008

Date Started: 12/12/2008

Date Completed: 26/01/2009

Test Procedures: Identified by prefix DETSn, details available upon request.

Notes: Observations and interpretations are outside the scope of UKAS accreditation  
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U/S denotes that the sample is not suitable for testing  
DETSM denotes tests carried out by DETS Midlands laboratory  
Solid samples will be disposed 1 month and liquids 2 weeks after the date of issue of this test certificate  
Asbestos subsamples will be kept for 6 months

Approved By:



Authorised Signatories: Rob Brown  
Business Manager

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# Summary of Chemical Analysis

## Soil Samples

Our Ref: 08-24436-1  
Client Ref: GEO/7215/08  
Contract Title: Virgin Topsoil

Lab No. 169036  
Sample Ref Sample 1  
Depth  
Other Ref  
Sample Type

Test	Units	DETSxx	
Arsenic	mg/kg	DETS 042#	21
Cadmium	mg/kg	DETS 042#	1.0
Chromium	mg/kg	DETS 042#	24
Copper	mg/kg	DETS 042#	70
Lead	mg/kg	DETS 042#	53
Mercury	mg/kg	DETS 081#	0.06
Nickel	mg/kg	DETS 042#	21
Available Magnesium	mg/kg	DETS 042*	580
Available Phosphorus	mg/kg	DETS 042*	73
Available Potassium	mg/kg	DETS 042*	780
Selenium	mg/kg	DETS 042#	0.9
Zinc	mg/kg	DETS 042#	130
Boron (water soluble)	mg/kg	DETS 020#	2.3
Calcium Carbonate (as CaCO3)	%		1.8
Thiocyanate	mg/kg	DETS 067#	3.9
Cyanide total	mg/kg	DETS 067#	0.2
Cyanide free	mg/kg	DETS 067#	< 0.1
Conductivity	uS/cm	DETS 009	350
Loss on ignition	%	DETS 003#	12
Organic matter	%	DETS 002#	9.5
Sulphur (free)	mg/kg	DETS 049#	< 0.8
Sulphide	mg/kg	DETS 024#	< 10
Total Sulphate as SO4	%	DETS 075#	0.1
pH		DETS 008#	7.9
Aliphatic C5-C6	mg/kg	DETS 072*	< 0.01
Aliphatic C6-C8	mg/kg	DETS 072*	< 0.01
Aliphatic C8-C10	mg/kg	DETS 072*	< 0.01
Aliphatic C10-C12	mg/kg	DETS 072*	0.2
Aliphatic C12-C16	mg/kg	DETS 072*	0.5
Aliphatic C16-C21	mg/kg	DETS 072*	1.1
Aliphatic C21-C35	mg/kg	DETS 072*	5.2
Aromatic C5-C7	mg/kg	DETS 072*	< 0.01
Aromatic C7-C8	mg/kg	DETS 072*	< 0.01
Aromatic C8-C10	mg/kg	DETS 072*	< 0.01
Aromatic C10-C12	mg/kg	DETS 072*	< 0.1
Aromatic C12-C16	mg/kg	DETS 072*	< 0.1
Aromatic C16-C21	mg/kg	DETS 072*	< 0.1
Aromatic C21-C35	mg/kg	DETS 072*	2.9
Aliphatic C5-C35	mg/kg	DETS 072*	7
Aromatic C5-C35	mg/kg	DETS 072*	3
TPH Ali/Aro	mg/kg	DETS 072*	10
PAH	mg/kg	DETS 050	< 5.0
EPH (C10-C40)	mg/kg	DETS 051#	61
Phenol - Monohydric	mg/kg	DETS 067#	1.4



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## Certificate of Analysis

Date: 26/01/2009

Certificate Number: 08-24437-1

Client: Geo Laboratory Testing Services Ltd  
Unit 1  
Bynea Business Park  
Bynea  
SA14 9SU

Our Reference: 08-24437-1

Client Reference: GEO/7215/08

Contract Title: General Purpose Topsoil

Description: 1 soil sample

Date Received: 12/12/2008

Date Started: 12/12/2008

Date Completed: 26/01/2009

Test Procedures: Identified by prefix DETSn, details available upon request.

Notes: Observations and interpretations are outside the scope of UKAS accreditation  
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Asbestos subsamples will be kept for 6 months

Approved By:



Authorised Signatories: Rob Brown  
Business Manager

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# Summary of Chemical Analysis

## Soil Samples

Our Ref: 08-24437-1

Client Ref: GEO/7215/08

Contract Title: General Purpose Topsoil

Lab No. 169037  
Sample Ref Sample 1  
Depth  
Other Ref  
Sample Type

Test	Units	DETSxx	
Arsenic	mg/kg	DETS 042#	10
Cadmium	mg/kg	DETS 042#	0.8
Chromium	mg/kg	DETS 042#	22
Copper	mg/kg	DETS 042#	35
Lead	mg/kg	DETS 042#	49
Mercury	mg/kg	DETS 081#	0.09
Nickel	mg/kg	DETS 042#	20
Available Magnesium	mg/kg	DETS 042*	230
Available Phosphorus	mg/kg	DETS 042*	48
Available Potassium	mg/kg	DETS 042*	1100
Selenium	mg/kg	DETS 042#	< 0.5
Zinc	mg/kg	DETS 042#	110
Boron (water soluble)	mg/kg	DETS 020#	3.0
Calcium Carbonate (as CaCO3)	%		1.6
Thiocyanate	mg/kg	DETS 067#	2.7
Cyanide total	mg/kg	DETS 067#	0.2
Cyanide free	mg/kg	DETS 067#	< 0.1
Conductivity	uS/cm	DETS 009	1400
Loss on ignition	%	DETS 003#	9.2
Organic matter	%	DETS 002#	8.5
Sulphur (free)	mg/kg	DETS 049#	< 0.8
Sulphide	mg/kg	DETS 024#	24
Total Sulphate as SO4	%	DETS 075#	0.07
pH		DETS 008#	8.3
Aliphatic C5-C6	mg/kg	DETS 072*	< 0.01
Aliphatic C6-C8	mg/kg	DETS 072*	< 0.01
Aliphatic C8-C10	mg/kg	DETS 072*	< 0.01
Aliphatic C10-C12	mg/kg	DETS 072*	0.2
Aliphatic C12-C16	mg/kg	DETS 072*	0.4
Aliphatic C16-C21	mg/kg	DETS 072*	2.1
Aliphatic C21-C35	mg/kg	DETS 072*	16
Aromatic C5-C7	mg/kg	DETS 072*	< 0.01
Aromatic C7-C8	mg/kg	DETS 072*	< 0.01
Aromatic C8-C10	mg/kg	DETS 072*	< 0.01
Aromatic C10-C12	mg/kg	DETS 072*	< 0.1
Aromatic C12-C16	mg/kg	DETS 072*	< 0.1
Aromatic C16-C21	mg/kg	DETS 072*	1.8
Aromatic C21-C35	mg/kg	DETS 072*	32
Aliphatic C5-C35	mg/kg	DETS 072*	19
Aromatic C5-C35	mg/kg	DETS 072*	34
TPH Ali/Aro	mg/kg	DETS 072*	52
PAH	mg/kg	DETS 050	< 5.0
EPH (C10-C40)	mg/kg	DETS 051#	240
Phenol - Monohydric	mg/kg	DETS 067#	0.8



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## Certificate of Analysis

Date: 10/03/2009

Certificate Number: 09-25938

Client: Geo Laboratory Testing Services Ltd  
Unit 1  
Bynea Business Park  
Bynea  
SA14 9SU

Our Reference: 09-25938

Client Reference: GEO/7480/07

Contract Title: Thomas Brothers Nash Limited

Description: 2 soil samples

Date Received: 27/02/2009

Date Started: 27/02/2009

Date Completed: 10/03/2009

Test Procedures: Identified by prefix DETSn, details available upon request.

Notes: Observations and interpretations are outside the scope of UKAS accreditation  
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I/S denotes insufficient sample to carry out test  
U/S denotes that the sample is not suitable for testing  
DETSM denotes tests carried out by DETS Midlands laboratory  
Solid samples will be disposed 1 month and liquids 2 weeks after the date of issue of this test certificate  
Asbestos subsamples will be kept for 6 months

Approved By:



Authorised Signatories: Rob Brown  
Business Manager

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# Summary of Chemical Analysis

## Soil Samples

Our Ref: 09-25938

Client Ref: GEO/7480/07

Contract Title: Thomas Brothers Nash Limited

Test	Units	Lab No. Sample Ref Depth Other Ref Sample Type	179287	179288
			Sample 1	Sample 2
		DETSxx		
Arsenic	mg/kg	DETS 042#	20	14
Cadmium	mg/kg	DETS 042#	0.9	0.8
Chromium	mg/kg	DETS 042#	21	22
Copper	mg/kg	DETS 042#	50	79
Lead	mg/kg	DETS 042#	31	27
Mercury	mg/kg	DETS 081#	< 0.05	< 0.05
Nickel	mg/kg	DETS 042#	17	20
Selenium	mg/kg	DETS 042#	< 0.5	< 0.5
Zinc	mg/kg	DETS 042#	110	98
Boron (water soluble)	mg/kg	DETS 020#	0.6	0.4
Carbonate (as CO2)	%	DETS 005*	< 1.0	< 1.0
Thiocyanate	mg/kg	DETS 067#	2.3	1.8
Cyanide total	mg/kg	DETS 067#	< 0.1	< 0.1
Cyanide free	mg/kg	DETS 067#	< 0.1	< 0.1
Conductivity	uS/cm	DETS 009	210	170
Loss on ignition	%	DETS 003#	5.0	4.7
Organic matter	%	DETS 002#	2.5	1.9
Sulphur (free)	mg/kg	DETS 049#	< 0.8	< 0.8
Sulphide	mg/kg	DETS 024#	28	24
Total Sulphate as SO4	%	DETS 075#	0.05	0.04
pH		DETS 008#	8.3	8.3

# Summary of Chemical Analysis

## Soil Samples

Our Ref: 09-25938

Client Ref: GEO/7480/07

Contract Title: Thomas Brothers Nash Limited

Test	Units	Lab No.	179287	179288
			Sample Ref	Sample 1
		Depth		
		Other Ref		
		Sample Type		
		DETSxx		
Aliphatic C5-C6	mg/kg	DETS 072*	< 0.01	< 0.01
Aliphatic C6-C8	mg/kg	DETS 072*	< 0.01	< 0.01
Aliphatic C8-C10	mg/kg	DETS 072*	< 0.01	< 0.01
Aliphatic C10-C12	mg/kg	DETS 072*	< 0.1	< 0.1
Aliphatic C12-C16	mg/kg	DETS 072*	< 0.1	< 0.1
Aliphatic C16-C21	mg/kg	DETS 072*	< 0.1	< 0.1
Aliphatic C21-C35	mg/kg	DETS 072*	1.4	1.1
Aromatic C5-C7	mg/kg	DETS 072*	< 0.01	< 0.01
Aromatic C7-C8	mg/kg	DETS 072*	< 0.01	< 0.01
Aromatic C8-C10	mg/kg	DETS 072*	< 0.01	< 0.01
Aromatic C10-C12	mg/kg	DETS 072*	< 0.1	< 0.1
Aromatic C12-C16	mg/kg	DETS 072*	0.4	< 0.1
Aromatic C16-C21	mg/kg	DETS 072*	0.5	< 0.1
Aromatic C21-C35	mg/kg	DETS 072*	3.9	< 0.1
Aliphatic C5-C35	mg/kg	DETS 072*	1	1
Aromatic C5-C35	mg/kg	DETS 072*	5	< 1
TPH Ali/Aro	mg/kg	DETS 072*	6	1
PAH	mg/kg	DETS 050	< 1.6	< 1.6
EPH (C10-C40)	mg/kg	DETS 051#	48	50
Phenol - Monohydric	mg/kg	DETS 067#	< 0.3	< 0.3

# BS 3882:2007 Topsoil ANALYTICAL REPORT

**Job Title:**  
**Client Reference:**  
**Sample ID:**

Thomas Brothers Nash Limited  
GEO/7480/07  
Sample 1

**Job Number:** 09-25938  
**Sample Number:** 179287  
**Date Analysed:** 09/03/2009

### Analytical Results:

Parameter	Multipurpose range			Result	Compliant with multipurpose range?  (Y/N)	Compliant with specific purpose range?		
						(Y/N)		
	Low F.	Acid.	Calc					
§Texture								
Clay content %	5 - 35			13	Y	Y	Y	Y
Silt content %	0-65			39	Y	Y	Y	Y
Sand content %	30-85			48	Y	Y	Y	Y
Soil texture – (see figure 1)				Sandy silty loam				
Soil organic matter content % (varying with clay content)								
Clay 5-20%	3.0-20			2.5	N	Y	N	N
Clay 20-35%	5.0-20							
§Maximum coarse fragment - Content % m/m								
>2 mm	0-30			15	Y	Y	Y	Y
>20 mm	0-10			7	Y	Y	Y	Y
>50 mm	0			0	Y	Y	Y	Y
#Soil pH value	5.5-8.5			8.3	Y	Y	N	Y
*Carbonate (Calcareous only) %	>1			<1				N
Available plant nutrient content								
*Nitrogen ≥ 0.15%				0.14	N		N	N
*Nitrogen <0.1%				0.14		N		
*Extractable phosphorous <15mgP/l				57	Y		Y	Y
*Extractable potassium <120mgP/l				115	N		N	N
*Extractable magnesium mg/l	51-600			200	Y	Y	Y	Y
Carbon: Nitrogen ratio	<20:1			10	Y	Y	Y	Y
*Exchangeable sodium percentage % (only measure if soil electrical conductivity >2,800 µS cm <sup>-1</sup> )	<15							
Phytotoxic contaminants (by soil pH) mg/kgDS)	≤6.0	6.0-7.0	>7.0					
*Zinc (Nitric acid extract)	<200	<200	<300	100				
*Copper (Nitric acid extract)	<100	<135	<200	52				
*Nickel (Nitric acid extract)	<60	<75	<110	18				
*Visible contaminants % m/m								
>2 mm	<0.5			0	Y	Y	Y	Y
...of which plastics	<0.25			0	Y	Y	Y	Y
...man made sharps	Zero in 1kg air-dried soil			0	Y	Y	Y	Y

Additional analytical certificate(s) for contaminants are appended. Y

**DECLARATION:** I certify that this sample of soil has been analysed in accordance with BS3882:2007

Signature:

*M A. Hopper*

# BS 3882:2007 Topsoil ANALYTICAL REPORT

**Job Title:**  
**Client Reference:**  
**Sample ID:**

Thomas Brothers Nash Limited  
GEO/7480/07  
Sample 2

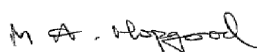
**Job Number:** 09-25938  
**Sample Number:** 179288  
**Date Analysed:** 09/03/2009

### Analytical Results:

Parameter	Multipurpose range			Result	Compliant with multipurpose range?  (Y/N)	Compliant with specific purpose range?		
						(Y/N)		
	Low F.	Acid.	Calc					
§Texture								
Clay content %	5 - 35			12	Y	Y	Y	Y
Silt content %	0-65			46	Y	Y	Y	Y
Sand content %	30-85			42	Y	Y	Y	Y
Soil texture – (see figure 1)				Sandy silty loam				
Soil organic matter content % (varying with clay content)								
Clay 5-20%	3.0-20			1.9	N	Y	N	N
Clay 20-35%	5.0-20							
§Maximum coarse fragment - Content % m/m								
>2 mm	0-30			12	Y	Y	Y	Y
>20 mm	0-10			6	Y	Y	Y	Y
>50 mm	0			0	Y	Y	Y	Y
#Soil pH value	5.5-8.5			8.3	Y	Y	N	Y
*Carbonate (Calcareous only) %	>1			<1				N
Available plant nutrient content								
*Nitrogen ≥ 0.15%				0.11	N		N	N
*Nitrogen <0.1%				0.11		N		
*Extractable phosphorous <15mgP/l				24	Y		Y	Y
*Extractable potassium <120mgP/l				140	Y		Y	Y
*Extractable magnesium mg/l	51-600			260	Y	Y	Y	Y
Carbon: Nitrogen ratio	<20:1			10	Y	Y	Y	Y
*Exchangeable sodium percentage % (only measure if soil electrical conductivity >2,800 µS cm <sup>-1</sup> )	<15							
Phytotoxic contaminants (by soil pH) mg/kgDS)	≤6.0	6.0-7.0	>7.0					
*Zinc (Nitric acid extract)	<200	<200	<300	94	Y	Y	Y	Y
*Copper (Nitric acid extract)	<100	<135	<200	85	Y	Y	Y	Y
*Nickel (Nitric acid extract)	<60	<75	<110	20	Y	Y	Y	Y
*Visible contaminants % m/m								
>2 mm	<0.5			0	Y	Y	Y	Y
...of which plastics	<0.25			0	Y	Y	Y	Y
...man made sharps	Zero in 1kg air-dried soil			0	Y	Y	Y	Y

Additional analytical certificate(s) for contaminants are appended. Y

**DECLARATION:** I certify that this sample of soil has been analysed in accordance with BS3882:2007

Signature: 



2139

## Certificate of Analysis

Date: 30/04/2009

Certificate Number: 09-26725-1

Client: Geo Laboratory Testing Services Ltd  
Unit 1  
Bynea Business Park  
Bynea  
SA14 9SU

Our Reference: 09-26725-1

Client Reference: 7718

Contract Title: Thomas Brothers

Description: 1 soil sample

Date Received: 07/04/2009

Date Started: 07/04/2009

Date Completed: 30/04/2009

Test Procedures: Identified by prefix DETSn, details available upon request.

Notes:

**This report supersedes 09-26725. Extra testing**

Observations and interpretations are outside the scope of UKAS accreditation  
\* denotes test not included in laboratory scope of accreditation  
# denotes test that holds MCERT accreditation, however, MCERTS accreditation is only implied if the report carries the MCERTS logo  
\$ denotes tests completed by an approved subcontractor  
I/S denotes insufficient sample to carry out test  
U/S denotes that the sample is not suitable for testing  
DETSM denotes tests carried out by DETS Midlands laboratory  
Solid samples will be disposed 1 month and liquids 2 weeks after the date of issue of this test certificate  
Asbestos subsamples will be kept for 6 months

Approved By:



Authorised Signatories: Rob Brown  
Business Manager

This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

# Summary of Chemical Analysis

## Soil Samples

Our Ref: 09-26725-1

Client Ref: 7718

Contract Title: Thomas Brothers

Lab No. 185564  
Sample Ref Sample 1  
Depth  
Other Ref  
Sample Type

Test	Units	DETSxx	
Arsenic	mg/kg	DETS 042#	9
Cadmium	mg/kg	DETS 042#	0.7
Chromium	mg/kg	DETS 042#	13
Copper	mg/kg	DETS 042#	11
Lead	mg/kg	DETS 042#	26
Mercury	mg/kg	DETS 081#	< 0.05
Nickel	mg/kg	DETS 042#	14
Selenium	mg/kg	DETS 042#	< 0.5
Sodium	mg/kg	DETS 042*	210
Zinc	mg/kg	DETS 042#	71
Boron (water soluble)	mg/kg	DETS 020#	0.3
Thiocyanate	mg/kg	DETS 067#	2.5
Cyanide total	mg/kg	DETS 067#	0.6
Cyanide free	mg/kg	DETS 067#	0.1
Conductivity	uS/cm	DETS 009	220
Loss on ignition	%	DETS 003#	3.5
Sulphur (free)	mg/kg	DETS 049#	< 0.8
Sulphide	mg/kg	DETS 024#	< 10
Total Sulphate as SO4	%	DETS 075#	0.04
pH		DETS 008#	7.8
Aliphatic C5-C6	mg/kg	DETS 072*	0.21
Aliphatic C6-C8	mg/kg	DETS 072*	0.19
Aliphatic C8-C10	mg/kg	DETS 072*	2.2
Aliphatic C10-C12	mg/kg	DETS 072*	< 0.1
Aliphatic C12-C16	mg/kg	DETS 072*	0.4
Aliphatic C16-C21	mg/kg	DETS 072*	1.9
Aliphatic C21-C35	mg/kg	DETS 072*	61
Aromatic C5-C7	mg/kg	DETS 072*	0.01
Aromatic C7-C8	mg/kg	DETS 072*	< 0.01
Aromatic C8-C10	mg/kg	DETS 072*	0.01
Aromatic C10-C12	mg/kg	DETS 072*	2.3
Aromatic C12-C16	mg/kg	DETS 072*	2.6
Aromatic C16-C21	mg/kg	DETS 072*	5.7
Aromatic C21-C35	mg/kg	DETS 072*	45
Aliphatic C5-C35	mg/kg	DETS 072*	66
Aromatic C5-C35	mg/kg	DETS 072*	55
TPH Ali/Aro	mg/kg	DETS 072*	120
PAH	mg/kg	DETS 050	< 1.6
Phenol - Monohydric	mg/kg	DETS 067#	< 0.3

# BS 3882:2007 Topsoil ANALYTICAL REPORT

**Job Title:** Thomas Brothers  
**Client Reference:** 7718  
**Sample ID:** Sample 1

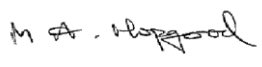
**Job Number:** 09-26725  
**Sample Number:** 185564  
**Date Analysed:** 29/04/2009

### Analytical Results:

Parameter	Multipurpose range			Result	Compliant with multipurpose range?  (Y/N)	Compliant with specific purpose range?		
						(Y/N)		
						Low F.	Acid.	Calc
\$Texture								
Clay content %	5 - 35			19	Y	Y	Y	Y
Silt content %	0-65			34	Y	Y	Y	Y
Sand content %	30-85			47	Y	Y	Y	Y
Soil texture – (see figure 1)				Clay Loam				
Soil organic matter content % (varying with clay content)								
Clay 5-20%	3.0-20			1.6	N	Y	N	N
Clay 20-35%	5.0-20							
\$Maximum coarse fragment - Content % m/m								
>2 mm	0-30			36	N	N	N	N
>20 mm	0-10			21	N	N	N	N
>50 mm	0			0	Y	Y	Y	Y
#Soil pH value	5.5-8.5			7.8	Y	Y	N	Y
*Carbonate (Calcareous only) %	>1							
Available plant nutrient content								
*Nitrogen ≥ 0.15%				0.09	N		N	N
*Nitrogen <0.1%				0.09		Y		
*Extractable phosphorous <15mgP/l				5	N	Y	N	N
*Extractable potassium <120mgP/l				60	N		N	N
*Extractable magnesium mg/l	51-600			33	N	N	N	N
Carbon: Nitrogen ratio	<20:1			10	Y	Y	Y	Y
*Exchangeable sodium percentage % (only measure if soil electrical conductivity >2,800 µS cm <sup>-1</sup> )	<15							
Phytotoxic contaminants (by soil pH) mg/kgDS)	≤6.0	6.0-7.0	>7.0					
*Zinc (Nitric acid extract)	<200	<200	<300	71	Y	Y	Y	Y
*Copper (Nitric acid extract)	<100	<135	<200	11	Y	Y	Y	Y
*Nickel (Nitric acid extract)	<60	<75	<110	14	Y	Y	Y	Y
*Visible contaminants % m/m								
>2 mm	<0.5			0	Y	Y	Y	Y
...of which plastics	<0.25			0	Y	Y	Y	Y
...man made sharps	Zero in 1kg air-dried soil			0	Y	Y	Y	Y

Additional analytical certificate(s) for contaminants are appended. Y

**DECLARATION:** I certify that this sample of soil has been analysed in accordance with BS3882:2007

Signature: 



**Report No:** GLC0023430/2

**Date:** 08 October 2009

**ANALYTICAL CHEMISTRY TEST REPORT**

**Client:** VINCI CONSTRUCTION UK LTD

**Address:** Glan Usk  
Norwest Holst Site Office  
Herbert Road  
Via Turner Street  
Newport, NP19 7HF

**Contact:** Mr M. Tregelles

**Site:** Glan Usk School

**Test Method:** In house methods

**Sample Details:** 2 No. Soil samples submitted by Client

Sampled by Client

<b>Date sampled</b>	-	Not given
<b>Date received</b>	-	07 October 2009
<b>Date prepared</b>	-	07 October 2009
<b>Date tested</b>	-	07 October 2009 - 08 October 2009
<b>Contract no</b>	-	50145346

**Results:** see attached results summary sheet

SIGNED  
for and on behalf of Bureau Veritas Laboratories

John Watt  
**Laboratory Manager - Analytical Chemistry**

**Report No:** GLC0023430/2

**Date:** 8 October 2009

**Client:** VINCI CONSTRUCTION UK LTD

**Site:** Glan Usk School

Bureau Veritas Laboratories Ref (Glasgow)		161174	161175
Client Reference		M.T. REEN 636455	M.T. REEN 636733
PCB 28	mg/kg	<0.1	<0.1
PCB 52	mg/kg	<0.1	<0.1
PCB 101	mg/kg	<0.1	<0.1
PCB 118	mg/kg	<0.1	<0.1
PCB 138	mg/kg	<0.1	<0.1
PCB 153	mg/kg	<0.1	<0.1
PCB 180	mg/kg	<0.1	<0.1

Signed:



Date: 08/10/09

**Report No:** GLC0023430/2

**Date:** 8 October 2009

**Client:** VINCI CONSTRUCTION UK LTD

**Site:** Glan Usk School

Bureau Veritas Laboratories Ref (Glasgow)	161174	161175
Client Reference	M.T. REEN 636455	M.T. REEN 636733
Benzene mg/kg	<0.01	<0.01
Toluene mg/kg	<0.01	<0.01
Ethylbenzene mg/kg	<0.01	<0.01
Xylene mg/kg	<0.01	<0.01

Signed:  Date: 08/10/09

**Report No:** GLC0023430/2

**Date:** 8 October 2009

**Client:** VINCI CONSTRUCTION UK LTD

**Site:** Glan Usk School

Bureau Veritas Laboratories Ref (Glasgow)	161174	161175
Client Reference	M.T. REEN 636455	M.T. REEN 636733
Arsenic mg/kg	9.3	6.6
Cadmium mg/kg	< 0.5	< 0.5
Chromium mg/kg	46	28
Copper mg/kg	9.8	7.1
Mercury mg/kg	< 0.1	< 0.1
Nickel mg/kg	36	28
Lead mg/kg	13	1.2
Selenium mg/kg	< 0.5	< 0.5

Signed:



Date: 08/10/09

Report No: GLC0023430/2

Date: 8 October 2009

Client: VINCI CONSTRUCTION UK LTD

Site: Glan Usk School

**Speciated PAH**

Bureau Veritas Laboratories Ref (Glasgow)	161174	161175
Client Reference	M.T. REEN 636455	M.T. REEN 636733
Naphthalene mg/kg	<0.1	<0.1
Acenaphthylene mg/kg	<0.1	<0.1
Acenaphthene mg/kg	<0.1	<0.1
Fluorene mg/kg	<0.1	<0.1
Phenanthrene mg/kg	<0.1	<0.1
Anthracene mg/kg	<0.1	<0.1
Fluoranthene mg/kg	<0.1	<0.1
Pyrene mg/kg	<0.1	<0.1
Benzo(a)anthracene mg/kg	<0.1	<0.1
Benzo(b)fluoranthene mg/kg	<0.1	<0.1
Chrysene mg/kg	<0.1	<0.1
Benzo(k)fluoranthene mg/kg	<0.1	<0.1
Benzo(a)pyrene mg/kg	<0.1	<0.1
Dibenzo(a,h)anthracene mg/kg	<0.1	<0.1
Indeno(1,2,3-c,d)pyrene mg/kg	<0.1	<0.1
Benzo(g,h,i)perylene mg/kg	<0.1	<0.1

Signed:



Date: 08/10/09

**Report No:** GLC0023430/2

**Date:** 8 October 2009

**Client:** VINCI CONSTRUCTION UK LTD

**Site:** Glan Usk School

Bureau Veritas Laboratories Ref (Glasgow)	161174	161175
Client Reference	M.T. REEN 636455	M.T. REEN 636733
Phenol mg/kg	< 1.0	< 1.0
TPH mg/kg	< 10	< 10
PCB mg/kg	< 1	< 1

Signed: 

Date: 08/10/09



2139

## Certificate of Analysis

Date: 02/10/2009

Certificate Number: 09-30236

Client: Geo Laboratory Testing Services Ltd  
Unit 23,25,26  
The Avenue  
Delta Lakes  
Llanelli  
Carmarthenshire  
SA15 2DS

Our Reference: 09-30236

Client Reference: 8704

Contract Title: Thomas Brothers

Description: 4 soil samples

Date Received: 21/09/2009

Date Started: 21/09/2009

Date Completed: 01/10/2009

Test Procedures: Identified by prefix DETSn, details available upon request.

Notes: Observations and interpretations are outside the scope of UKAS accreditation  
\* denotes test not included in laboratory scope of accreditation  
# denotes test that holds MCERT accreditation, however, MCERTS accreditation is only implied if the report carries the MCERTS logo  
\$ denotes tests completed by an approved subcontractor  
I/S denotes insufficient sample to carry out test  
U/S denotes that the sample is not suitable for testing  
DETSM denotes tests carried out by DETS Midlands laboratory  
Solid samples will be disposed 1 month and liquids 2 weeks after the date of issue of this test certificate  
Asbestos subsamples will be kept for 6 months

Approved By:

A handwritten signature in black ink, appearing to read 'Rob Brown'.

Authorised Signatories: Rob Brown  
Business Manager

This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

# Summary of Chemical Analysis

## Soil Samples

Our Ref: 09-29729  
 Client Ref: 8704  
 Contract Title: Thomas Brothers

		Lab No.	20122	20123	20124	20125
		Sample Ref	Paul 1	Paul 2	Paul 3	Paul 4
		Depth				
		Other Ref				
		Sample Type				
Test	Units	DETSxx				
Arsenic	mg/kg	DETS 042#	4.2	1.8	5.2	1.6
Cadmium	mg/kg	DETS 042#	0.5	0.7	0.5	0.2
Chromium	mg/kg	DETS 042#	<10	12	<10	<10
Copper	mg/kg	DETS 042#	42	45	42	90
Lead	mg/kg	DETS 042#	15	37	12	12
Mercury	mg/kg	DETS 081#	< 0.05	< 0.05	<0.5	< 0.05
Nickel	mg/kg	DETS 042#	30	10	30	30
Selenium	mg/kg	DETS 042#	0.5	0.5		0.5
Zinc	mg/kg	DETS 042#	22	40	22	55
Boron (water soluble)	mg/kg	DETS 020#	0.6	0.8	0.7	0.7
Thiocyanate	mg/kg	DETS 067#	1.0	1.0	1.0	1.0
Cyanide total	mg/kg	DETS 067#	< 0.1	< 0.1	< 0.1	< 0.1
Cyanide free	mg/kg	DETS 067#	< 0.1	< 0.1	< 0.1	< 0.1
EC Calcium Sulphate Extractable	uS/cm	DETS 009	1000	1900	1000	1000
Organic matter	%	DETS 002#	6.2	5.7	5.6	1.8
Sulphur (free)	mg/kg	DETS 049#	< 0.8	< 0.8	< 0.9	< 0.8
Sulphide	mg/kg	DETS 024#	10	25	10	10
Total Sulphate as SO4	%	DETS 075#	0.01	0.05	0.05	0.01
pH		DETS 008#	7.6	7.6	7.6	7.6
Aliphatic C5-C6	mg/kg	DETS 072*	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C6-C8	mg/kg	DETS 072*	<0.01	0.01	<0.01	<0.01
Aliphatic C8-C10	mg/kg	DETS 072*	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C10-C12	mg/kg	DETS 072*	< 0.1	< 0.1	< 0.1	< 0.1
Aliphatic C12-C16	mg/kg	DETS 072*	< 0.1	< 0.1	< 0.1	< 0.1
Aliphatic C16-C21	mg/kg	DETS 072*	< 0.1	1.2	< 0.1	< 0.1
Aliphatic C21-C35	mg/kg	DETS 072*	<0.1	<0.1	<0.1	<0.1
Aromatic C5-C7	mg/kg	DETS 072*	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C7-C8	mg/kg	DETS 072*	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C8-C10	mg/kg	DETS 072*	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C10-C12	mg/kg	DETS 072*	< 0.1	< 0.1	< 0.1	< 0.1
Aromatic C12-C16	mg/kg	DETS 072*	< 0.1	< 0.1	< 0.1	< 0.1
Aromatic C16-C21	mg/kg	DETS 072*	< 0.1	< 0.1	< 0.1	< 0.1
Aromatic C21-C35	mg/kg	DETS 072*	< 0.1	< 0.1	< 0.1	< 0.1
Aliphatic C5-C35	mg/kg	DETS 072*	< 0.1	< 0.1	< 0.1	< 0.1
Aromatic C5-C35	mg/kg	DETS 072*	< 0.1	< 0.1	< 0.1	< 0.1
TPH Ali/Aro	mg/kg	DETS 072*	< 0.1	< 0.1	< 0.1	< 0.1
PAH	mg/kg	DETS 050	< 1.6	< 1.6	< 1.6	< 1.6
Phenol - Monohydric	mg/kg	DETS 067#	0.5	0.5	0.5	0.5

## BS 3882:2007 Topsoil ANALYTICAL REPORT

**Job Title:** Thomas Brothers  
**Client Reference:** 8704  
**Sample ID:** Paul 1

**Job Number:** 09-30236  
**Sample Number:** 20125  
**Date Analysed:** 29/09/2009

### Analytical Results:

Parameter	Multipurpose range			Result	Compliant with multipurpose range?  (Y/N)	Compliant with specific purpose range?		
						Low F.	Acid.	Calc
\$Texture								
Clay content %	5 - 35			31	Y	Y	Y	Y
Silt content %	0-65			20	Y	Y	Y	Y
Sand content %	30-85			51	Y	Y	Y	Y
Soil texture – (see figure 1)				Clay Loam				
Soil organic matter content % (varying with clay content)								
Clay 5-20%	3.0-20							
Clay 20-35%	5.0-20			6	Y	Y	Y	Y
\$Maximum coarse fragment - Content % m/m								
>2 mm	0-30			11	Y	Y	Y	Y
>20 mm	0-10			0	Y	Y	Y	Y
>50 mm	0			0	Y	Y	Y	Y
#Soil pH value	5.5-8.5			7.6	Y	Y	N	Y
*Carbonate (Calcareous only)	>1			<1				N
Available plant nutrient content								
*Nitrogen ≥ 0.15%				0.15	Y		N	N
*Nitrogen <0.1%				0.17		Y		
*Extractable phosphorous <15mgP/l				42	Y	Y	Y	Y
*Extractable potassium <120mgP/l				211	Y	Y	Y	Y
*Extractable magnesium mg/l	51-600			122	Y	Y	Y	Y
Carbon: Nitrogen ratio	<20:1			12	Y	Y	Y	Y
*Exchangeable sodium percentage % (only measure if soil electrical conductivity >2,800 µS cm <sup>-1</sup> )	<15							
Phytotoxic contaminants (by soil pH) mg/kgDS)	≤6.0	6.0-7.0	>7.0					
*Zinc (Nitric acid extract)	<200	<200	<300	22	Y	Y	Y	Y
*Copper (Nitric acid extract)	<100	<135	<200	42	Y	Y	Y	Y
*Nickel (Nitric acid extract)	<60	<75	<110	30	Y	Y	Y	Y
*Visible contaminants % m/m								
>2 mm	<0.5			0	Y	Y	Y	Y
...of which plastics	<0.25			0	Y	Y	Y	Y
...man made sharps	Zero in 1kg air-dried soil			0	Y	Y	Y	Y

Additional analytical certificate(s) for contaminants are appended. Y

**DECLARATION:** I certify that this sample of soil has been analysed in accordance with BS3882:2007

Signature:

*M A. Hoggood*

# BS 3882:2007 Topsoil ANALYTICAL REPORT

**Job Title:** Thomas Brothers  
**Client Reference:** 8704  
**Sample ID:** Paul 2

**Job Number:** 09-30236  
**Sample Number:** 20124  
**Date Analysed:** 29/09/2009

### Analytical Results:

Parameter	Multipurpose range			Result	Compliant with multipurpose range?  (Y/N)	Compliant with specific purpose range?		
						Low F.	Acid.	Calc
\$Texture								
Clay content %	5 - 35			16	Y	Y	Y	Y
Silt content %	0-65			21	Y	Y	Y	Y
Sand content %	30-85			95	Y	Y	Y	Y
Soil texture – (see figure 1)				Sandy Clay Loam				
Soil organic matter content % (varying with clay content)								
Clay 5-20%	3.0-20							
Clay 20-35%	5.0-20			6	Y	Y	Y	Y
\$Maximum coarse fragment - Content % m/m								
>2 mm	0-30			13	Y	Y	Y	Y
>20 mm	0-10			0	Y	Y	Y	Y
>50 mm	0			0	Y	Y	Y	Y
#Soil pH value	5.5-8.5			7.6	Y	Y	N	Y
*Carbonate (Calcareous only)	>1			<1				N
Available plant nutrient content								
*Nitrogen ≥ 0.15%				0.15	Y		N	N
*Nitrogen <0.1%				0.18		Y		
*Extractable phosphorous <15mgP/l				22	Y	Y	Y	Y
*Extractable potassium <120mgP/l				155	Y	Y	Y	Y
*Extractable magnesium mg/l	51-600			240	Y	Y	Y	Y
Carbon: Nitrogen ratio	<20:1			17	Y	Y	Y	Y
*Exchangeable sodium percentage % (only measure if soil electrical conductivity >2,800 µS cm <sup>-1</sup> )	<15							
Phytotoxic contaminants (by soil pH) mg/kgDS	≤6.0	6.0-7.0	>7.0					
*Zinc (Nitric acid extract)	<200	<200	<300	40	Y	Y	Y	Y
*Copper (Nitric acid extract)	<100	<135	<200	45	Y	Y	Y	Y
*Nickel (Nitric acid extract)	<60	<75	<110	10	Y	Y	Y	Y
*Visible contaminants % m/m								
>2 mm	<0.5			0	Y	Y	Y	Y
...of which plastics	<0.25			0	Y	Y	Y	Y
...man made sharps	Zero in 1kg air-dried soil			0	Y	Y	Y	Y

Additional analytical certificate(s) for contaminants are appended. Y

**DECLARATION:** I certify that this sample of soil has been analysed in accordance with BS3882:2007

Signature:

*M A. Hoggood*

## BS 3882:2007 Topsoil ANALYTICAL REPORT

**Job Title:** Thomas Brothers  
**Client Reference:** 8704  
**Sample ID:** Paul 3

**Job Number:** 09-30236  
**Sample Number:** 20122  
**Date Analysed:** 29/09/2009

### Analytical Results:

Parameter	Multipurpose range			Result	Compliant with multipurpose range?  (Y/N)	Compliant with specific purpose range?		
						Low F.	Acid.	Calc
\$Texture								
Clay content %	5 - 35			<3	Y	Y	Y	Y
Silt content %	0-65			<3	Y	Y	Y	Y
Sand content %	30-85			95	Y	Y	Y	Y
Soil texture – (see figure 1)				Sandy Loam				
Soil organic matter content % (varying with clay content)								
Clay 5-20%	3.0-20			3.2	Y	Y	Y	Y
Clay 20-35%	5.0-20							
\$Maximum coarse fragment - Content % m/m								
>2 mm	0-30			3	Y	Y	Y	Y
>20 mm	0-10			0	Y	Y	Y	Y
>50 mm	0			0	Y	Y	Y	Y
#Soil pH value	5.5-8.5			7.6	Y	Y	N	Y
*Carbonate (Calcareous only)	>1			<1				N
Available plant nutrient content								
*Nitrogen ≥ 0.15%				0.16	Y		N	N
*Nitrogen <0.1%				0.12		Y		
*Extractable phosphorous <15mgP/l				20	Y	Y	Y	Y
*Extractable potassium <120mgP/l				160	Y	Y	Y	Y
*Extractable magnesium mg/l	51-600			250	Y	Y	Y	Y
Carbon: Nitrogen ratio	<20:1			14	Y	Y	Y	Y
*Exchangeable sodium percentage % (only measure if soil electrical conductivity >2,800 µS cm <sup>-1</sup> )	<15							
Phytotoxic contaminants (by soil pH) mg/kgDS)	≤6.0	6.0-7.0	>7.0					
*Zinc (Nitric acid extract)	<200	<200	<300	50	Y	Y	Y	Y
*Copper (Nitric acid extract)	<100	<135	<200	35	Y	Y	Y	Y
*Nickel (Nitric acid extract)	<60	<75	<110	12	Y	Y	Y	Y
*Visible contaminants % m/m								
>2 mm	<0.5			0	Y	Y	Y	Y
...of which plastics	<0.25			0	Y	Y	Y	Y
...man made sharps	Zero in 1kg air-dried soil			0	Y	Y	Y	Y

Additional analytical certificate(s) for contaminants are appended. Y

**DECLARATION:** I certify that this sample of soil has been analysed in accordance with BS3882:2007

Signature:

*M A. Hoggood*

# BS 3882:2007 Topsoil ANALYTICAL REPORT

**Job Title:** Thomas Brothers  
**Client Reference:** 8704  
**Sample ID:** Paul 4

**Job Number:** 09-30236  
**Sample Number:** 20126  
**Date Analysed:** 29/09/2009

### Analytical Results:

Parameter	Multipurpose range			Result	Compliant with multipurpose range?  (Y/N)	Compliant with specific purpose range?		
						Low F.	Acid.	Calc
\$Texture								
Clay content %	5 - 35			6	Y	Y	Y	Y
Silt content %	0-65			20	Y	Y	Y	Y
Sand content %	30-85			74	Y	Y	Y	Y
Soil texture – (see figure 1)				Sandy Clay Loam				
Soil organic matter content % (varying with clay content)								
Clay 5-20%	3.0-20			<2	Y	Y	Y	Y
Clay 20-35%	5.0-20							
\$Maximum coarse fragment - Content % m/m								
>2 mm	0-30			0	Y	Y	Y	Y
>20 mm	0-10			0	Y	Y	Y	Y
>50 mm	0			0	Y	Y	Y	Y
#Soil pH value	5.5-8.5			7.6	Y	Y	N	Y
*Carbonate (Calcareous only)	>1			<1				N
Available plant nutrient content								
*Nitrogen ≥ 0.15%				0.16	Y		N	N
*Nitrogen <0.1%				0.12		Y		
*Extractable phosphorous <15mgP/l				30	Y	Y	Y	Y
*Extractable potassium <120mgP/l				170	Y	Y	Y	Y
*Extractable magnesium mg/l	51-600			260	Y	Y	Y	Y
Carbon: Nitrogen ratio	<20:1			12	Y	Y	Y	Y
*Exchangeable sodium percentage % (only measure if soil electrical conductivity >2,800 µS cm <sup>-1</sup> )	<15							
Phytotoxic contaminants (by soil pH) mg/kgDS)	≤6.0	6.0-7.0	>7.0					
*Zinc (Nitric acid extract)	<200	<200	<300	55	Y	Y	Y	Y
*Copper (Nitric acid extract)	<100	<135	<200	90	Y	Y	Y	Y
*Nickel (Nitric acid extract)	<60	<75	<110	30	Y	Y	Y	Y
*Visible contaminants % m/m								
>2 mm	<0.5			0	Y	Y	Y	Y
...of which plastics	<0.25			0	Y	Y	Y	Y
...man made sharps	Zero in 1kg air-dried soil			0	Y	Y	Y	Y

Additional analytical certificate(s) for contaminants are appended. Y

**DECLARATION:** I certify that this sample of soil has been analysed in accordance with BS3882:2007

Signature:

*M A. Hoggood*

**sarah.roberts**

---

**From:** Tregelles, Mark [Mark.Tregelles@norwest.co.uk]  
**Sent:** 02 November 2009 14:32  
**To:** sarah.roberts  
**Cc:** chris.pugh; Mulrooney, Kieran  
**Subject:** RE: Glan Usk School - Topsoil Testing [Filed 02 Nov 2009 14:40]  
**Attachments:** Imported Topsoil Location.doc; Area of topsoil removed 1.JPG; Area of topsoil removed 2.JPG

Sarah,

I have looked into the topsoil exceeding the import material criteria and can comment as follows:

All three tests were conducted to obtain future sources of topsoil should they be required. Lynsey 1 & 2 have not been imported onto site and following these chemical tests, they will not come onto site. Mark 1 however, was also tested as a possible future source, but due to a hydraulic failure on the excavator loading our usual topsoil supply, a small section of Mark 1 had been imported onto site (3 loads). This topsoil was recycled and was clearly evident when it was delivered to site due to the poor quality and darker colour of soil. Due to its distinguishable characteristics, it was very easily locatable and removed immediately. I have attached some photos showing the extent of where the topsoil was removed. There was a total of 7 loads of topsoil removed from the site to ensure there was no cross contamination with the previously installed topsoil. I will track down the transfer notes for these loads and forward for your attention.

I also made time to visit the location of our previously supplied topsoil to ensure there was enough to continue with. I have attached a document showing photos of this location and brief description of current and future activities.

I am confident that all topsoil imported under source "Mark 1" has been completely removed from site. If you would like any further information please do not hesitate to contact me.

Regards,

**Mark Tregelles**

**Assistant Site Manager**

VINCI CONSTRUCTION UK LTD  
Glan Usk School  
Herbert Road  
Newport  
NP19 7BH  
Office: 01633 235920  
Fax: 01633 264764  
Mob: 07768 057466



---

**From:** sarah.roberts [mailto:sarah.roberts@wyg.com]  
**Sent:** 21 October 2009 11:03  
**To:** Tregelles, Mark  
**Cc:** chris.pugh; Mulrooney, Kieran  
**Subject:** RE: Glan Usk School - Topsoil Testing

Mark,

06/11/2009

I've had a look at the latest set of analytical results for the topsoil imported to site (lab reference 09-31036). When the determinands are screened against the chemical criteria for import materials it is shown that there are a number of exceedances, namely

- Sample Ref Lynsey 2/1 shows an exceedance of cadmium
- Sample Ref Mark 1 shows exceedances in four species from the PAH suite.

Based on these results, this material does not meet the import criteria for use on the site and therefore should not be used as part of the capping system. Could you please let us know how and when the material is removed from site.

Regards

**Sarah Roberts**  
Geo Environmental Engineer

**Tel:** +44 (0)29 2082 9227

.....  
WYG Environment Planning Transport Ltd. Registered in England number: 3050297. Registered Office: Arndale Court, Otley Road, Headingley, Leeds, West Yorkshire LS6 2UJ VAT No: 431-0326-08

---

**From:** Tregelles, Mark [mailto:Mark.Tregelles@norwest.co.uk]  
**Sent:** 20 October 2009 15:45  
**To:** sarah.roberts  
**Cc:** chris.pugh; Mulrooney, Kieran  
**Subject:** Glan Usk School - Topsoil Testing

Sarah,

Please find attached some more topsoil test results for your comment and inclusion into the report.

Regards,

Mark Tregelles  
**Assistant Site Manager**

VINCI CONSTRUCTION UK LTD  
Glan Usk School  
Herbert Road  
Newport  
NP19 7BH  
Office: 01633 235920  
Fax: 01633 264764  
Mob: 07768 057466



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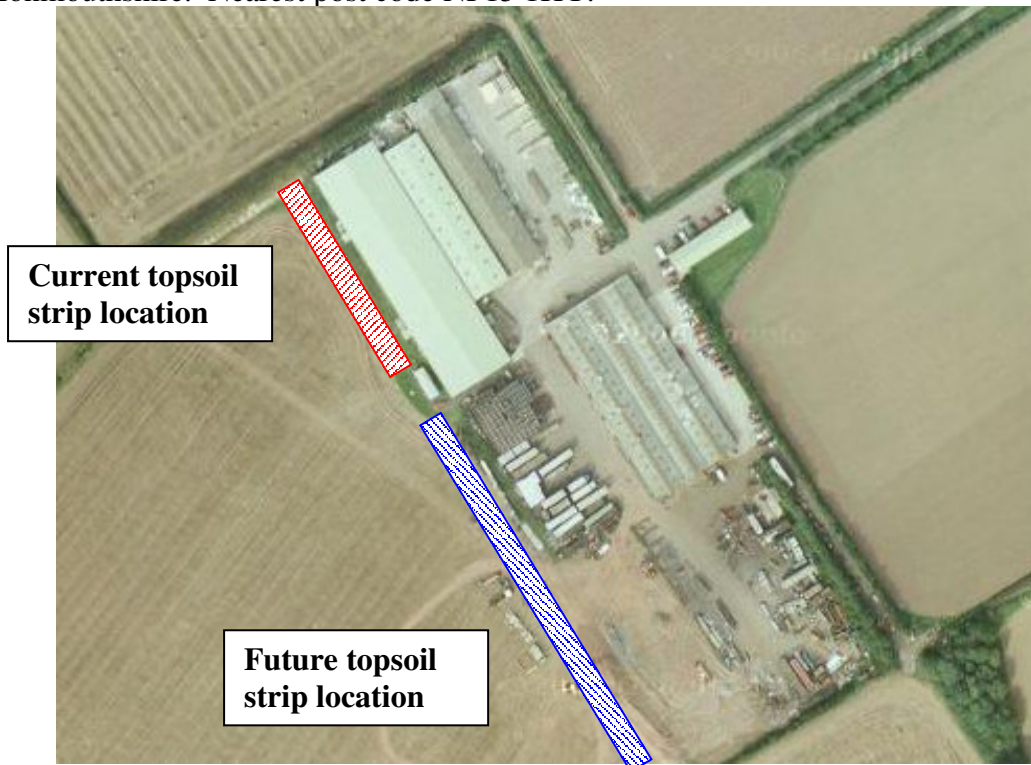
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\*\*\*\*\*

## Imported Topsoil Location

Usk, Monmouthshire. Nearest post code NP15 1HY.



The site is currently being used to grow potatoes for supermarket chain Asda. The topsoil is being reduced in the area shown in the aerial photo below to allow potential extension to neighbouring warehouses.



**Photo 1**

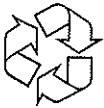


Photo showing the current amount of topsoil imported to our site from this location.

**Photo 2**



Photo showing the extent of available topsoil in the future.



# G.F. WATERS PLANT

8 WHEEL TIPPERS • 360° MACHINES • DOZERS  
DEMOLITION & REMOVAL

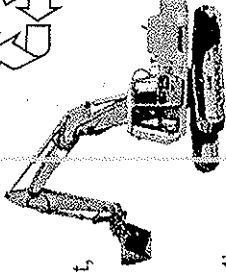
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South Wales NP18 2AX.

Tel: 01633 272732

Mob: 07703 499546

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## CONVEYANCE NOTE

00855

Customer Order No.

Customer

Site Address

Sub-Contractor

Driver's Name

Tip

Vehicle Reg

Date: 14/11/09

Tipper Size (tick appropriate box)

4 Wheel  6 Wheel

8 Wheel  Grab Lorry

### DAYWORK

Hours Worked

Waiting Time

Travel Time

TOTAL HOURS

### COLLECT

Builders' Waste 17 09 03

Top Soil 17 05 04

Sub-Soil 17 05 04

Wet

Tarmac 17 03 03

Concrete 17 01 01

Brick 17 01 02

Reinforced Concrete 17 01 01

### DELIVER

Crushed Material

Dust

Sand

Planning

Top Soil-As Dug

Screened Soil

Other

Customer's Signature

Print Name

THE PERSON SIGNING THIS TICKET HAS READ AND ACCEPTED THE TERMS & CONDITIONS SHOWN OVERLEAF. OVERLOADING BY THE CUSTOMER CAUSES HEAVY FINES, YOU COULD BE LIABLE. ORDERING THE VEHICLE OFF THE PUBLIC HIGHWAY, CUSTOMERS DO SO AT THEIR OWN RISK.

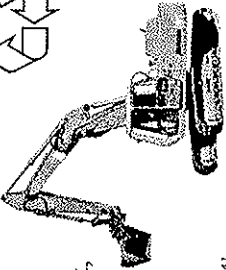
### WASTE TRANSFER NOTE



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**CONVEYANCE NOTE**

00417

Customer ..... *WPA 8107* ..... Customer Order No. ....

Site Address ..... *WPA 8107* .....

Date: *10/10/09*

Tipper Size (tick appropriate box)  
4 Wheel  6 Wheel   
8 Wheel  Grab Lorry

Sub-Contractor ..... *Tip* .....

Driver's Name ..... *WPA 8107* ..... Vehicle Reg. ....

### DAYWORK

Hours Worked

Waiting Time

Travel Time

### TOTAL HOURS

Customer's Signature

Print Name

### COLLECT

Builders' Waste 17 09 03

Top Soil 17 05 04

Sub-Soil 17 05 04

Wet

Tarmac 17 03 03

Concrete 17 01 01

Brick 17 01 02

Reinforced Concrete 17 01 01

### DELIVER

Crushed Material

Dust

Sand

Planning

Top Soil-As Dug

Screened Soil

Other

THE PERSON SIGNING THIS TICKET HAS READ AND ACCEPTED THE TERMS & CONDITIONS SHOWN OVERLEAF. OVERLOADING BY THE CUSTOMER CAUSES HEAVY FINES, YOU COULD BE LIABLE. ORDERING THE VEHICLE OFF THE PUBLIC HIGHWAY, CUSTOMERS DO SO AT THEIR OWN RISK.

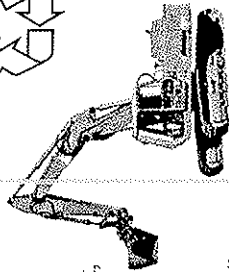
WASTE TRANSFER NOTE



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**CONVEYANCE NOTE**

00363

Customer ..... *Thomas (S)* ..... Customer Order No. ....

Site Address ..... *Edelmeier* .....

Date: *14/10/09*

Tipper Size (tick appropriate box)  
4 Wheel  6 Wheel   
8 Wheel  Grab Lorry

Sub-Contractor ..... *Mr. Business Mark* .....

Driver's Name ..... *A. L. S.* ..... Vehicle Reg. ....

### DAYWORK

Hours Worked

Waiting Time

Travel Time

### TOTAL HOURS

Customer's Signature

Print Name

### DAYWORK

Hours Worked

Waiting Time

Travel Time

### TOTAL HOURS

### COLLECT

Builders' Waste 17 09 03

Top Soil 17 05 04

Sub-Soil 17 05 04

Wet

Tarmac 17 03 03

Concrete 17 01 01

Brick 17 01 02

Reinforced Concrete 17 01 01

### DELIVER

Crushed Material

Dust

Sand

Planning

Top Soil-As Dug

Screened Soil

Other

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WASTE TRANSFER NOTE



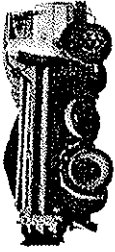
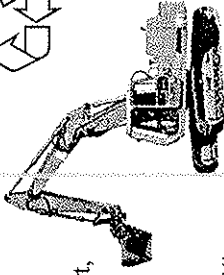
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## CONVEYANCE NOTE

00858

Customer ..... *Thomas Bros* ..... Customer Order No. ....

Site Address ..... *Glebe Lena School* ..... Date *26/10/09*

Sub-Contractor ..... *FARMER ST MALLANS* ..... Tipper Size (tick appropriate box)  
 4 Wheel  6 Wheel

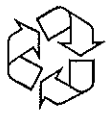
Driver's Name ..... *PAUL* ..... Vehicle Reg. No. *GN0990* ..... 8 Wheel  Grab Lorry

DAYWORK	COLLECT	DELIVER
Hours Worked	<i>To/Soil?</i>	
Waiting Time	Builders' Waste 17 09 03 <input type="checkbox"/>	Crushed Material <input type="checkbox"/>
Travel Time	Top Soil 17 05 04 <input checked="" type="checkbox"/>	Dust <input type="checkbox"/>
<b>TOTAL HOURS</b>	Sub-Soil 17 05 04 <input type="checkbox"/>	Sand <input type="checkbox"/>
	Wet <input type="checkbox"/>	Planning <input type="checkbox"/>
	Tarmac 17 03 03 <input type="checkbox"/>	Top Soil-As Dug <input type="checkbox"/>
	Concrete 17 01 01 <input type="checkbox"/>	Screened Soil <input type="checkbox"/>
	Brick 17 01 02 <input type="checkbox"/>	Other <input type="checkbox"/>
	Reinforced Concrete 17 01 01 <input type="checkbox"/>	

Customer's Signature *[Signature]* Print Name .....

THE PERSON SIGNING THIS TICKET HAS READ AND ACCEPTED THE TERMS & CONDITIONS SHOWN OVERLEAF. OVERLOADING BY THE CUSTOMER CAUSES HEAVY FINES, YOU COULD BE LIABLE. ORDERING THE VEHICLE OFF THE PUBLIC HIGHWAY, CUSTOMERS DO SO AT THEIR OWN RISK.

## WASTE TRANSFER NOTE



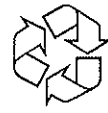
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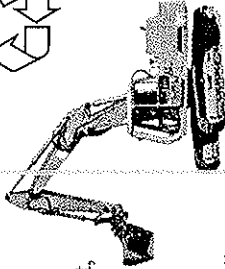
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## CONVEYANCE NOTE 00857

Customer *Thomas Bros* Customer Order No. \_\_\_\_\_  
 Site Address *Glebelong Schot*  
 Date: *26/10/09*  
 Sub-Contractor *St. Mellons* Tipper Size (tick appropriate box)  
 Driver's Name *Paul* 4 Wheel  6 Wheel   
 8 Wheel  Grab Lorry

DAYWORK	COLLECT	DELIVER
Hours Worked	<i>TOPSOIL</i>	
Waiting Time	Builders' Waste 17 09 03 <input type="checkbox"/>	Crushed Material <input type="checkbox"/>
Travel Time	Top Soil 17 05 04 <input type="checkbox"/>	Dust <input type="checkbox"/>
<b>TOTAL HOURS</b>	Sub-Soil 17 05 04 <input checked="" type="checkbox"/>	Sand <input type="checkbox"/>
	Wet <input type="checkbox"/>	Planning <input type="checkbox"/>
	Tarmac 17 03 03 <input type="checkbox"/>	Top Soil-As Dug <input type="checkbox"/>
	Concrete 17 01 01 <input type="checkbox"/>	Screened Soil <input type="checkbox"/>
	Brick 17 01 02 <input type="checkbox"/>	Other <input type="checkbox"/>
	Reinforced Concrete 17 01 01 <input type="checkbox"/>	

Customer's Signature *[Signature]* Print Name \_\_\_\_\_

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### WASTE TRANSFER NOTE

## CONVEYANCE NOTE 00856

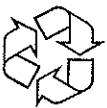
Customer *Glebelong Schot* Customer Order No. \_\_\_\_\_  
 Site Address *Thomas Bros*  
 Date: *26/10/09*  
 Sub-Contractor *St. Mellons* Tipper Size (tick appropriate box)  
 Driver's Name *Paul* 4 Wheel  6 Wheel   
 8 Wheel  Grab Lorry

DAYWORK	COLLECT	DELIVER
Hours Worked	<i>TOPSOIL</i>	
Waiting Time	Builders' Waste 17 09 03 <input type="checkbox"/>	Crushed Material <input type="checkbox"/>
Travel Time	Top Soil 17 05 04 <input checked="" type="checkbox"/>	Dust <input type="checkbox"/>
<b>TOTAL HOURS</b>	Sub-Soil 17 05 04 <input type="checkbox"/>	Sand <input type="checkbox"/>
	Wet <input type="checkbox"/>	Planning <input type="checkbox"/>
	Tarmac 17 03 03 <input type="checkbox"/>	Top Soil-As Dug <input type="checkbox"/>
	Concrete 17 01 01 <input type="checkbox"/>	Screened Soil <input type="checkbox"/>
	Brick 17 01 02 <input type="checkbox"/>	Other <input type="checkbox"/>
	Reinforced Concrete 17 01 01 <input type="checkbox"/>	

Customer's Signature *[Signature]* Print Name \_\_\_\_\_

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### WASTE TRANSFER NOTE

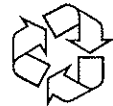


# G.F. WATERS PLANT

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DEMOLITION & REMOVAL

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South Wales NP18 2AX.

Tel: 01633 272732  
Mob: 07703 499546

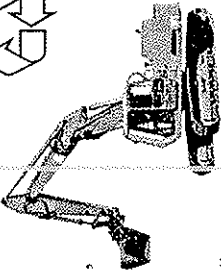
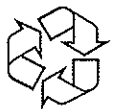


# G.F. WATERS PLANT

8 WHEEL TIPPERS • 360° MACHINES • DOZERS  
DEMOLITION & REMOVAL

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South Wales NP18 2AX.

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## CONVEYANCE NOTE 00492

Customer Thomas Bros Customer Order No. \_\_\_\_\_  
 Site Address Glebe Lands  
 Date 26/10/07  
 Sub-Contractor St. Mellons Tipper Size (tick appropriate box)  
 Driver's Name U.A. - Velfete Neg. - Velfete Neg. 4 Wheel  6 Wheel   
 8 Wheel  Grab Lorry

DAYWORK		COLLECT		DELIVER	
Hours Worked		Builders' Waste	17 09 03 <input type="checkbox"/>	Crushed Material	<input type="checkbox"/>
Waiting Time		Top Soil	17 05 04 <input type="checkbox"/>	Dust	<input type="checkbox"/>
Travel Time		Sub-Soil	17 05 04 <input checked="" type="checkbox"/>	Sand	<input type="checkbox"/>
<b>TOTAL HOURS</b>		Wet	<input type="checkbox"/>	Planning	<input type="checkbox"/>
		Tarmac	17 03 03 <input type="checkbox"/>	Top Soil-As Dug	<input checked="" type="checkbox"/>
		Concrete	17 01 01 <input type="checkbox"/>	Screened Soil	<input type="checkbox"/>
		Brick	17 01 02 <input type="checkbox"/>	Other	<input type="checkbox"/>
		Reinforced Concrete	17 01 01 <input type="checkbox"/>		

Customer's Signature [Signature] Print Name \_\_\_\_\_

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WASTE TRANSFER NOTE

## CONVEYANCE NOTE 00491

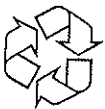
Customer Thomas Bros Customer Order No. \_\_\_\_\_  
 Site Address Glebe Lands  
 Date 26/10/09  
 Sub-Contractor St. Mellons Tipper Size (tick appropriate box)  
 Driver's Name U.A. - Velfete Neg. - Velfete Neg. 4 Wheel  6 Wheel   
 8 Wheel  Grab Lorry

DAYWORK		COLLECT		DELIVER	
Hours Worked		Builders' Waste	17 09 03 <input type="checkbox"/>	Crushed Material	<input type="checkbox"/>
Waiting Time		Top Soil	17 05 04 <input checked="" type="checkbox"/>	Dust	<input type="checkbox"/>
Travel Time		Sub-Soil	17 05 04 <input type="checkbox"/>	Sand	<input type="checkbox"/>
<b>TOTAL HOURS</b>		Wet	<input type="checkbox"/>	Planning	<input type="checkbox"/>
		Tarmac	17 03 03 <input type="checkbox"/>	Top Soil-As Dug	<input checked="" type="checkbox"/>
		Concrete	17 01 01 <input type="checkbox"/>	Screened Soil	<input type="checkbox"/>
		Brick	17 01 02 <input type="checkbox"/>	Other	<input type="checkbox"/>
		Reinforced Concrete	17 01 01 <input type="checkbox"/>		

Customer's Signature [Signature] Print Name \_\_\_\_\_

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WASTE TRANSFER NOTE

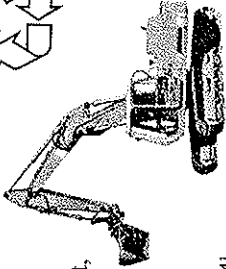
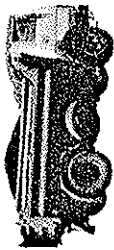


# G.F. WATERS PLANT

8 WHEEL TIPPERS • 360° MACHINES • DOZERS  
DEMOLITION & REMOVAL

Grove Farm, Goldcliff Nr. Newport,  
South Wales NP18 2AX.  
Tel: 01633 272732  
Mob: 07703 499546

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## CONVEYANCE NOTE 00490

Customer *Thomas Bess* Customer Order No. ....

Site Address *GLIBELANDS* .....

Date: *26/10/09*

Sub-Contractor *ST MULLONS* Tipper Size (tick appropriate box)

Driver's Name *U.A.* Vehicle Reg. *WY 061247* 4 Wheel  6 Wheel   
8 Wheel  Grab Lorry

### DAYWORK

Hours Worked

Waiting Time

Travel Time

TOTAL HOURS

### COLLECT

Builders' Waste 17 09 03

Top Soil 17 05 04

Sub-Soil 17 05 04

Wet

Tarmac 17 03 03

Concrete 17 01 01

Brick 17 01 02

Reinforced Concrete 17 01 01

### DELIVER

Crushed Material

Dust

Sand

Planning

Top Soil-As Dug

Screened Soil

Other

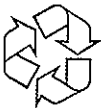
Customer's Signature

*A. Brown*

Print Name

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WASTE TRANSFER NOTE

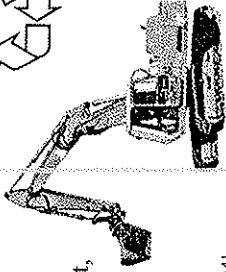
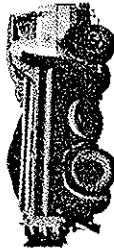


# G.F. WATERS PLANT

8 WHEEL TIPPERS • 360° MACHINES • DOZERS  
DEMOLITION & REMOVAL

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South Wales NP18 2AX.  
Tel: 01633 272732  
Mob: 07703 499546

Registered Waste Carrier.  
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## CONVEYANCE NOTE 00489

Customer *Thomas Bess* Customer Order No. ....

Site Address *GLIBELANDS* .....

Date: *26/10/09*

Sub-Contractor *ST MULLONS* Tipper Size (tick appropriate box)

Driver's Name *U.A.* Vehicle Reg. *WY 061247* 4 Wheel  6 Wheel   
8 Wheel  Grab Lorry

### DAYWORK

Hours Worked

Waiting Time

Travel Time

TOTAL HOURS

### COLLECT

Builders' Waste 17 09 03

Top Soil 17 05 04

Sub-Soil 17 05 04

Wet

Tarmac 17 03 03

Concrete 17 01 01

Brick 17 01 02

Reinforced Concrete 17 01 01

### DELIVER

Crushed Material

Dust

Sand

Planning

Top Soil-As Dug

Screened Soil

Other

Customer's Signature

*A. Brown*

Print Name

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WASTE TRANSFER NOTE



# Regulator Correspondence

**Mark Hand**  
MH/SAD/03/1531/05

01633 656656  
**01633 232506**  
01633 232334  
33238 Newport (South Wales)(1)  
[mark.hand@newport.gov.uk](mailto:mark.hand@newport.gov.uk)

Richard Hogg (Site Manager)  
Norwest Holst Limited  
Glebelands PFI Newport  
Site Office  
Bank Street  
Glebelands  
Newport  
NP19 7HF

18 November 2008

For the attention of Mr. R Hogg

Dear Sirs

**Development at Glebelands, Newport**  
**Planning Permissions 00/0768/O and 03/1531/RM**

Dear Mr Hogg,

Thank you for attending the meeting at the Civic Centre with your colleagues last Friday at such short notice. However, you will appreciate the need to resolve this matter swiftly.

As discussed at our meeting, the Council's stance is that the material imported onto the site is in breach of conditions 06 and 12 of planning permission 00/0768. Specifically, the granular material is contaminated by raised levels of Lead, Arsenic and Cadmium (albeit that this derives from its naturally excavated state), the levels of contamination are not marginally above Tier 1 levels, and the submission of results of testing at 500 cubic metres has not taken place.

As agreed at our meeting, I have discussed the issues concerning the imported granular material with my colleagues in Environmental Health, and would advise that the following actions are required in order to remedy this issue.

The use of imported natural granular material to prepare ground surfaces under hard cover areas and building footprints for construction purposes is acceptable. Section 7.4.2 of the remediation strategy approved in relation to Condition 06 of planning permission 00/0768 clearly refers to the granular layer being applied to gardens, soft landscaping and playing fields. Where used beneath the building footprints and hard surface areas (access road, playground and MUGA) this material does not form part of the granular layer referred to by the remediation strategy but is instead a construction material used as a sub-base. Neither condition 06 nor condition 12 relate to the construction materials (bricks, cement etc.)

**Continued.../**

**.../Continued 2**

themselves, but instead relate to imported fill and capping material. The retention of this material beneath the footprint of the building and under hard surface layers is not in breach of planning conditions 06 or 12. The Council accepts that the construction of the building itself and impermeable hard surfaces on top of this material will act as a cap and that there would be no resultant risk to human health or protected waters. This is an acceptable construction technique.

The use of the imported granular material in all other areas (soft landscape, gardens and playing fields) is in breach of planning conditions 06 and 12. The granular capping material in these areas must meet the Tier 1 Screening levels stated within the approved remediation strategy. As discussed in our meeting, it may be possible to achieve this through technical solutions, for example sieving the material to remove the fine particles which are believed to be a greater contaminant. Testing will be required to demonstrate that the approved Tier 1 levels have been achieved. If this cannot be achieved, all imported granular material must be removed from the soft landscaping areas, gardens and playing fields and removed from site.

New material should then be brought onto site having first been tested to ensure it meets the Tier 1 levels.

Further validation testing will be required to demonstrate that the approved Tier 1 levels have been achieved. As you will be aware, Condition 07 of the planning permission requires certification upon completion to confirm that the approved remediation strategy has been complied with in full. This condition must be discharged before the school can be used (or, in the next phase, before any house is occupied).

I trust this clarifies the Council's position.

Yours faithfully,

**Mark Hand**  
**Development Control Manager**

Tracey Lee  
TL/SLM

01633 656656

99463 Newport (Gwent) 3  
tracey.lee@newport.gov.uk

Civic Centre/Canolfan Ddinesig  
Newport/Casnewydd  
South Wales/De Cymru  
NP20 4UR



Mr Adrian Glenn  
Project Manager  
Vinci Investments Ltd  
Astral House  
Imperial Way  
Watford  
Hertfordshire  
WD24 4WW

8 May 2009

Dear Mr Glenn

#### **LAND AT GLEBELANDS – REMEDIATION STRATEGY**

Thank you for sharing with me the response of Norwest Holt Limited (NHL) dated 21 November 2008. It was useful to be able to review the position at our meeting this morning.

I have two significant concerns in respect of the letter from NHL:-

1. The advice I have received is that a proposal to adopt screening values, which are other than marginally in excess of the Tier 1 Screening Values may constitute a major change to the planning consent.
2. NHL appear to be interpreting the Remediation Strategy in a way which responds to the test results on the cap material rather than ensure compliance with the approved strategy.

Unfortunately, the NHL letter takes no account of the response of Andrew Williams, Scientific Officer to questions raised by WYG in respect of validation testing (e.mail dated 20 November 2008). Therefore, we do not appear to be any closer to resolving this issue. At the same time, the laying of concrete panels across the site of the school building is imminent.

In these circumstances, I would urge you to work towards ensuring that a decision is made by close Friday 28 November 2008.

Yours sincerely

**TRACEY LEE**  
Corporate Director

cc David Finch Director Vinci Investments Ltd

**sarah.roberts**

---

**From:** Andrew Williams [andrew.williams@newport.gov.uk]  
**Sent:** 05 December 2008 16:59  
**To:** Richard Hogg; chris.pugh; rhysm.davies  
**Subject:** Re: Imported Granular Stone Results

**Follow Up Flag:** Follow up  
**Flag Status:** Completed

Dear all

I agree that the majority of the s 7 samples analysed fall within Tier 1 levels for Nickel and the remainder are marginal (with one exception).

However this is a relatively small sample population so additional sampling would need to demonstrate that the material met Tier 1 levels or only marginally exceeded them. Hopefully if further analysis provides similar results statistical analysis of the data would confirm this.

Have a good weekend  
Andy

Andy Williams  
Scientific Officer  
Newport City Council  
01633 232882  
Ext 2882

>>> "Hogg, Richard" <Richard.Hogg@norwest.co.uk> 05/12/2008 08:37 >>>  
File RH/18/9573/K310/1039

Chris / Rhys,

Please see attached granular stone (grit stone) test results for 6F4 material stockpiled at Lafarge's Abercarn quarry. The results appear to comply with the Tier 1 Screening Values apart from Nickel which has an average of 51mg/kg and the Tier 1 screening value is 50mg/kg.

I would class this as "marginally" exceeding the Tier 1 screening values, but in accordance with the remediation strategy we will need consultation with the statutory regulators before we can use it for the granular cap.

Please can you consult with the statutory regulator and confirm if this stone is suitable for use as the granular cap on this site.

I look forward to hearing from you.

Regards

Richard Hogg

Project Manager

Norwest Holst Ltd

Tel : 01633 235 924 (Direct Line)

Fax: 01633 264764

Mobile: 07900 678 236

Total Construction Capability

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Ymwadiad

Arbedwch bapur - meddylwch cyn ichi argraffu!

Mae'r e-bost hon yn cynnwys gwybodaeth y bwriedir i'r sawl y'i cyfeiriwyd ato/atynt yn unig a gall fod yn gyfrinachol, yn amodol ar ragorffaint gyfreithiol neu broffesiynol, neu fel arall wedi'i diogelu rhag cael ei rhyddhau. Os nad chi yw'r sawl y bwriadwyd iddo dderbyn y neges hon, a fyddech cystal â rhoi gwybod i'r anfonwr ar unwaith a pheidio â datgelu, dosbarthu neu gopïo'r e-bost i barti arall. Mae'r e-bost hon ac unrhyw ffeiliau atodedig yn eiddo i Gyngor

Dinas Casnewydd.

Pan anfonwch e-bost at Gyngor Dinas Casnewydd, rydych yn cydsynio i'r Cyngor fonitro a darllen unrhyw e-bost o'r fath at bwrpasau cydymffurfio â diogelwch ac â deddfwriaeth. I weld yr ymwrthodiad llawn ewch i <http://www.newport.gov.uk/ymwadiad>

**sarah.roberts**

---

**From:** Andrew Williams [andrew.williams@newport.gov.uk]  
**Sent:** 21 January 2009 12:33  
**To:** Matthew Phillips; rhysm.davies  
**Subject:** Re: Newport Crushed stone - tests 2-4 (A240/K310/1117)

Hi Matt

Thank you for forwarding the latest test results. The analysis shows that the imported material meets the remediation strategy thresholds with the exception of Nickel which shows only marginal exceedances, and therefore can be considered fit for purpose.

Regards  
Andy

Andy Williams  
Scientific Officer  
Newport City Council  
01633 232882  
Ext 2882

>>> "Phillips, Matthew" <Matthew.Phillips@norwest.co.uk> 21/01/2009  
11:28 >>>  
Mail Ref: 189573/MP/A240/K310/1117

Andy / Rhys,

Please find attached the results of stone tests 2, 3 and 4 carried out for every 500m<sup>3</sup> of imported material.

Regards,

Matthew Phillips

Section Engineer

Norwest Holst Limited

Glebelands PFI Newport

Site Office

Bank Street

Glebelands

Newport

NP19 7HF

Tel: 01633 235920

Direct: 01633 235925

Fax: 01633 264764

Mob: 07778 521464

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Ymwadiad

Arbedwch bapur - meddylwch cyn ichi argraffu!

Mae'r e-bost hon yn cynnwys gwybodaeth y bwriedir i'r sawl y'i cyfeiriwyd ato/atynt yn unig a gall fod yn gyfrinachol, yn amodol ar ragorfraint gyfreithiol neu broffesiynol, neu fel arall wedi'i diogelu rhag cael ei rhyddhau. Os nad chi yw'r sawl y bwriadwyd iddo dderbyn y neges hon, a fyddech cystal â rhoi gwybod i'r anfonwr ar unwaith a pheidio â datgelu, dosbarthu neu gopïo'r e-bost i barti arall. Mae'r e-bost hon ac unrhyw ffeiliau atodedig yn eiddo i Gyngor Dinas Casnewydd.

Pan anfonwch e-bost at Gyngor Dinas Casnewydd, rydych yn cydsynio i'r Cyngor fonitro a darllen unrhyw e-bost o'r fath at bwrpasau cydymffurfio â diogelwch ac â deddfwriaeth. I weld yr ymwrthodiad llawn ewch i <http://www.newport.gov.uk/ymwadiad>

**sarah.roberts**

---

**From:** Andrew Williams [andrew.williams@newport.gov.uk]  
**Sent:** 03 February 2009 15:00  
**To:** rhysm.davies  
**Cc:** Jonathan Keen; John Charles; Richard Hogg; chris.pugh  
**Subject:** Re: Durham Road/Glan Usk school - topsoil samples

**Follow Up Flag:** Follow up  
**Flag Status:** Completed

Hi Rhys

Thank you for forwarding the results of the top soil analysis.

On the basis of the results submitted so far, the threshold exceedance of Arsenic (21mg/kg) can be considered marginal.

The elevated TPH result and the explanation concerning soil chemistry and the presence of naturally occurring organic material is considered reasonable justification for the levels of TPH identified.

Therefore from the information provided to date, the top soil appears to be fit for purpose.

Regards  
Andy

Andy Williams  
Scientific Officer  
Newport City Council  
01633 232882  
Ext 2882

>>> "rhysm.davies" <rhysm.davies@wyg.com> 30/01/2009 14:37 >>>  
Andy,

Please find attached copies of the three topsoil samples submitted from Norwest intended for the 'housing area' at the Durham Road site.

A review of the data in-line with the WYG import criteria indicates one exceedance of arsenic (21 mg/kg) and two exceedances for the Total TPH (C10-C40) (240 mg/kg and 63 mg/kg). WYG consider the arsenic concentration to be marginal exceedances.

Total TPH analysis on topsoil samples can be problematic where the organic content exceeds 5%, the results submitted had between 8.5 and 9.5%. WYG specified additional speciated TPH analysis on the topsoil samples to provide further information on the TPH compounds. None of the speciated TPH results exceed the WYG Tier 1 soil screening values for a 'residential with plant uptake' scenario (most conservative).

Many organic substances can contain naturally occurring hydrocarbons similar to petroleum hydrocarbons in their molecular formula. Natural fibres such as wood, grass, and vegetable matter contain humus material, which comprises polysaccharides, cellulose, amino acids, terpenes, ketones and degraded lignin. These can be falsely accounted in the laboratory. While some natural hydrocarbons will be removed from the material during the testing

process, humic acids and associated derivatives can remain and thereby feasibly be reported as containing elevated concentrations of petroleum hydrocarbons.

However the import criteria only includes Total TPH and not the speciated version. The Total TPH (C10-C40) is a more crude analysis of this group of contaminants with the speciated version allowing a much more detailed analysis of the material which should highlight that the individual TPH concentrations are not a risk to human health.

As indicated in the WYG remediation strategy, one sample per 500 m3 of imported topsoil will be taken as material is imported to site if with your agreement the material is considered to be suitable.

We would welcome your comments on this issue.

Regards

Rhys Meilir Davies  
Senior Geo Environmental Consultant

WYG ENVIRONMENT  
5th Floor, Longcross Court, 47 Newport Road, Cardiff, CF24 0AD  
Tel: +44 (0)29 2082 9226  
Fax: +44 (0)29 2045 5321  
Mob: +44 (0)7788 566787

www.wyg.com <<http://www.wyg.com>>  
\*\*\*\*\*

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#### Ymwadiad

Arbedwch bapur - meddylwch cyn ichi argraffu!

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Pan anfonwch e-bost at Gyngor Dinas Casnewydd, rydych yn cydsynio i'r Cyngor fonitro a darllen unrhyw e-bost o'r fath at bwrpasau cydymffurfio â diogelwch ac â deddfwriaeth. I weld yr ymwrthodiad llawn ewch i <http://www.newport.gov.uk/ymwadiad>

**sarah.roberts**

---

**From:** Andrew Williams [andrew.williams@newport.gov.uk]  
**Sent:** 18 December 2008 16:24  
**To:** Richard Hogg; chris.pugh; rhysm.davies  
**Cc:** Jeremy Dickson; Jonathan Keen; John Charles  
**Subject:** Re: FW: Durham Road Newport, Quarry Stone test results

Hi Richard

Thank you for forwarding the results of the analysis for the proposed imported material.

I've considered the results and like you've mentioned all levels appear to be below Tier 1 criteria with the exception of Nickel, where some results exceed the 50mg threshold.

The average reading for Nickel for the 15 samples analysed is 51.8 mg/kg which we would consider marginal. On this basis that the results of further testing of the material (during validation), are not significantly higher than current test results provided, we would consider it as acceptable capping material.

Regards  
Andy

Andy Williams  
Scientific Officer  
Newport City Council  
01633 232882  
Ext 2882

>>> "Hogg, Richard" <Richard.Hogg@norwest.co.uk> 17/12/2008 13:05 >>>  
All,

Please see attached test results on a further 8 No. samples on the Grit stone form Abercarn quarry.

Please confirm if it is acceptable to import this stone to be used as a cap to the school and development site in areas of soft landscaping, playing fields and gardens.

Regards

Richard Hogg

Project Manager

Norwest Holst Ltd

Tel : 01633 235 924 (Direct Line)

Fax: 01633 264764

Mobile: 07900 678 236

Total Construction Capability

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From: Wilkinson, Christiaan  
Sent: 17 December 2008 12:12  
To: Phillips, Matthew  
Cc: Hogg, Richard; 'bill.baker@conland.fsworld.co.uk'  
Subject: FW: Durham Road Newport, Quarry Stone test results

Matthew,

Please see the attached quarry stone test results for samples received 12th December.

Kind Regards,

Christiaan Wilkinson

Principal Environmental Scientist

Norwest Holst Limited - Soil Engineering Division

Parkside Lane

Dewsbury Road

Leeds

LS11 5SX

Tel: 0113 3859138

Fax: 0113 2760472

Email: [Christiaan.Wilkinson@norwest.co.uk](mailto:Christiaan.Wilkinson@norwest.co.uk)  
<<mailto:Christiaan.Wilkinson@norwest.co.uk>>

Web: [www.soil-engineering.co.uk](http://www.soil-engineering.co.uk) <<http://www.soil-engineering.co.uk/>>

\*\*\*\*\*  
\*\*\*\*\*

Vinci PLC Group of Companies

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Vinci PLC

Registered in England and Wales No. 737204 Registered Office : Astral House, Imperial Way, Watford, Hertfordshire, WD24 4WW

\*\*\*\*\*  
\*\*\*\*\*

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Save paper - think before you print!

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Ymwadiad

Arbedwch bapur - meddylwch cyn ichi argraffu!

Mae'r e-bost hon yn cynnwys gwybodaeth y bwriedir i'r sawl y'i cyfeiriwyd ato/atynt yn unig a gall fod yn gyfrinachol, yn amodol ar ragorfraint gyfreithiol neu broffesiynol, neu fel arall wedi'i diogelu rhag cael ei rhyddhau. Os nad chi yw'r sawl y bwriadwyd iddo dderbyn y neges hon, a fyddech cystal â rhoi gwybod i'r anfonwr ar unwaith a pheidio â datgelu, dosbarthu neu gopïo'r e-bost i barti arall. Mae'r e-bost hon ac unrhyw ffeiliau atodedig yn eiddo i Gyngor Dinas Casnewydd.

Pan anfonwch e-bost at Gyngor Dinas Casnewydd, rydych yn cydsynio i'r Cyngor fonitro a darllen unrhyw e-bost o'r fath at bwrpasau cydymffurfio â diogelwch ac â deddfwriaeth. I weld yr ymwrthodiad llawn ewch i <http://www.newport.gov.uk/ymwadiad>



Ref: Lt\_A042319-1\_RMD\_JC\_15Dec08  
15<sup>th</sup> December 2008

John Charles  
Project Manager  
Norwest Holst Limited  
Glebelands PFI Newport  
Site Office  
Bank Street  
Glebelands  
Newport  
NP19 7HF

Dear John,

**Re: Glan Usk Primary School – Validation of Remedial works**

WYG are continuing to validate the remedial works and we will prepare a validation report upon completion of the works. The letter from Mark Hand, dated 18<sup>th</sup> November, gave clarification to a number of technical discussions with the Newport City Council. Based on the adoption of the matters raised in Mark Hand's letter, we would confirm that the works are continuing to be undertaken in accordance with the agreed remediation strategy.

We understand that it is currently proposed to import a different material for use as the capping layer in all gardens, playing fields and soft landscaping areas. We are currently waiting a second batch of source test results and will be consulting with Andy Williams of Newport City Council on the use of this material prior to it being imported to site.

Yours sincerely  
for **WYG ENVIRONMENT PLANNING TRANSPORT LTD**

Rhys Meilir Davies  
**Senior Geo Environmental Consultant**

Chris Pugh  
**Associate Director**

*cc. Richard Hogg, Norwest Holst*



## **Appendix Q VINCI Drawings**


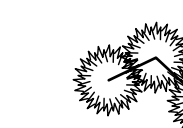
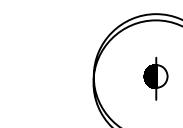
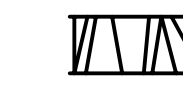
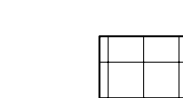
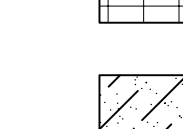



NOTES:

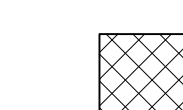
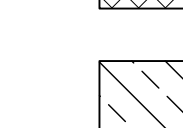
1. This is not an Installation, Coordination or Record drawing.
2. Drawing to be read in conjunction with all other documentation including drawings and specifications.
3. The Works Plan is not a comprehensive set of construction information. The information on this drawing should not be regarded as final and may be subject to further development and change during Detailed Design.
4. The Contractor shall allow appropriate contingencies within the financial proposal to ensure the contract price will be adequate to cover the cost of any future design development in accordance with the ITN requirements.

REFER TO DRAWING 5041855 / LA / 4908 FOR PLANTING SCHEDULE AND DETAILS

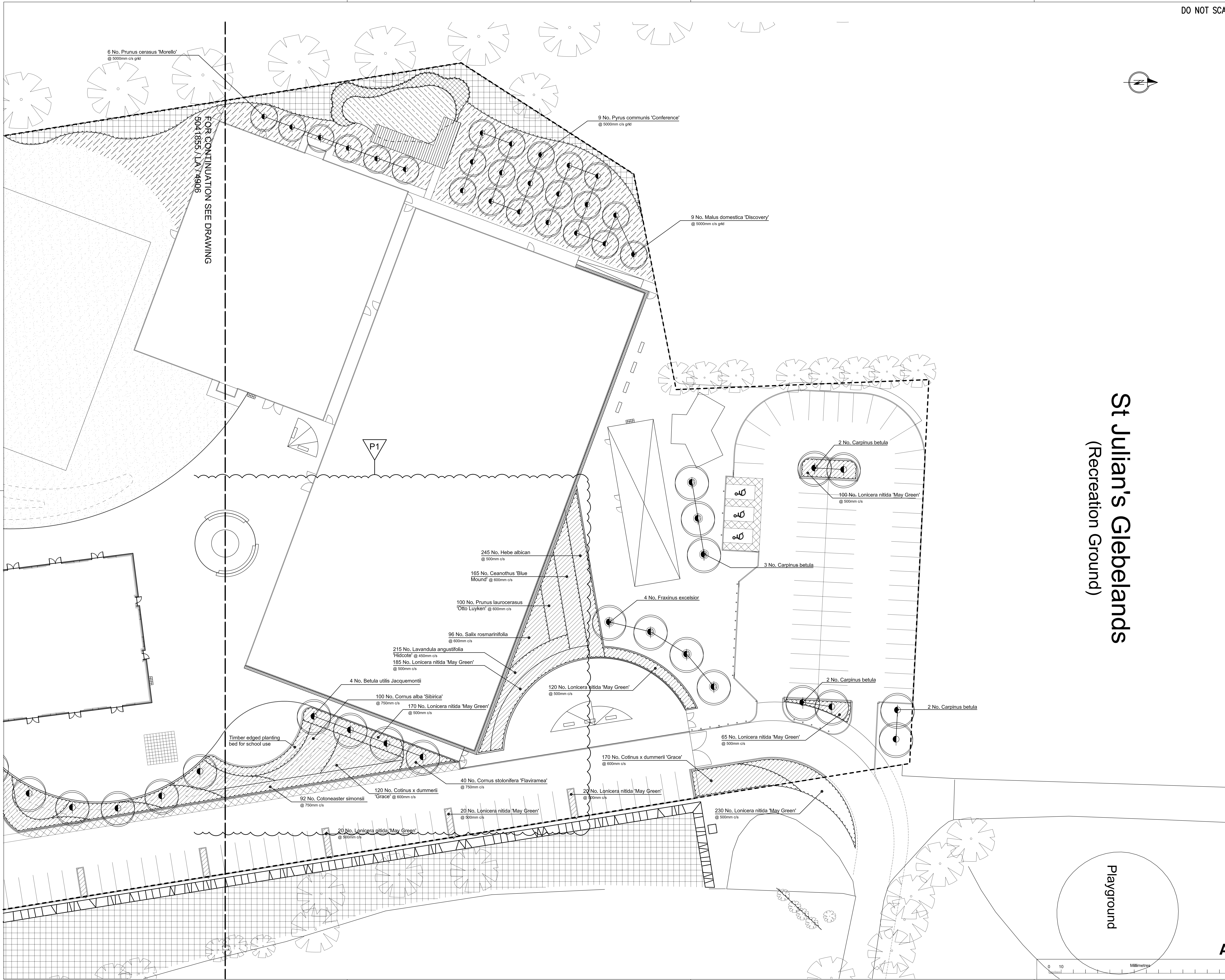
### Planting Key

-  Ornamental Shrubs
-  Specimen Shrubs
-  Specimen Trees
-  Native Hedgerow
-  Native Planting Mix
-  Amenity Grass Areas
-  Informal Soft Play and Sports Pitches

### Aquatic Planting

-  Marginal Planting
-  Oxygenating Planting

## St Julian's Glebelands (Recreation Ground)



FOR CONTINUATION SEE DRAWING 5041855 / LA / 4906

Timber edged planting bed for school use

Rev	Description	By	Date	CHK	Auth
P1	General planting scheme amendments as per revised site layout.	AL	2022/07	NJR	NJR
0	Works Plan				
1	Works Plan 2		02/02/07		NJR
0	Works Plan		30/03/06		NJR

**VINCI**

**NORWEST HOLST**

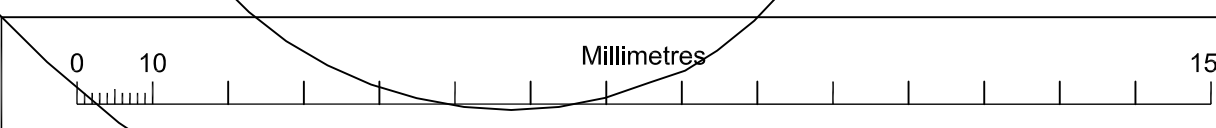
**WS Atkins Consultants Limited**  
 Design, Environment & Engineering  
 160 Aztec West, Almondsbury, Bristol, BS32 4TU,  
 Tel. 01454 201400 / Fax. 01454 201568

Project  
 Glebelands Development  
 St Julians  
 Newport

Title  
 Durham Road School  
 Planting Plan Sheet 2 of 2

Original Scale	Drawn	Checked	Authorised	Rev
1:200	JAK	NJR	NJR	
Date	16/01/06	Date	30/03/06	Date
Drawing Number	5041855 / LA / 4907	Rev	P1	

A0



RH Box for client requirements when required

Complete to show purpose of each issue

Main section  
Sub section  
Detail

Print  
as per  
specifications  
when  
required  
Cip. No. &  
Latest  
Revision



NOTES:

1. This is not an installation. Coordination or Record drawing.
2. Drawing to be read in conjunction with all other documentation including drawings and specifications.
3. The Works Plan is not a comprehensive set of construction information. The information on this drawing should not be regarded as final and may be subject to further development and change during Detailed Design.
4. The Contractor shall allow appropriate contingencies within the financial proposal to ensure the contract price will be adequate to cover the cost of any future design development in accordance with the ITN requirements.

Rev	Description	By	Date	Authorised
P7	Works Plan 3	AL	14/02/08	NR
P6	Works Plan 2	AL	22/02/07	NR
P5	Works Plan 2	AL	14/02/07	NR
P4	Works Plan 2	AL	02/02/07	NR
P3	Works Plan	AL	14/11/06	NR
P2	Works Plan	AL	30/03/06	NR
P1	Discharge Planning Conditions	AL	07/02/06	NR
0	Preliminary Review and Comment	AL	18/01/06	DR/AT

**VINCI**

**NORWEST HOLST**

**WS Atkins Consultants Limited**  
 Design, Environment & Engineering  
 160 Aztec West, Almondsbury, Bristol, BS32 4TU.  
 Tel: 01454 201400 / Fax: 01454 201568

**Project**  
 Glablands Development  
 St Julians  
 Newport

**Title**  
 Durham Road School  
 Works Plan  
 General Handworks Plan

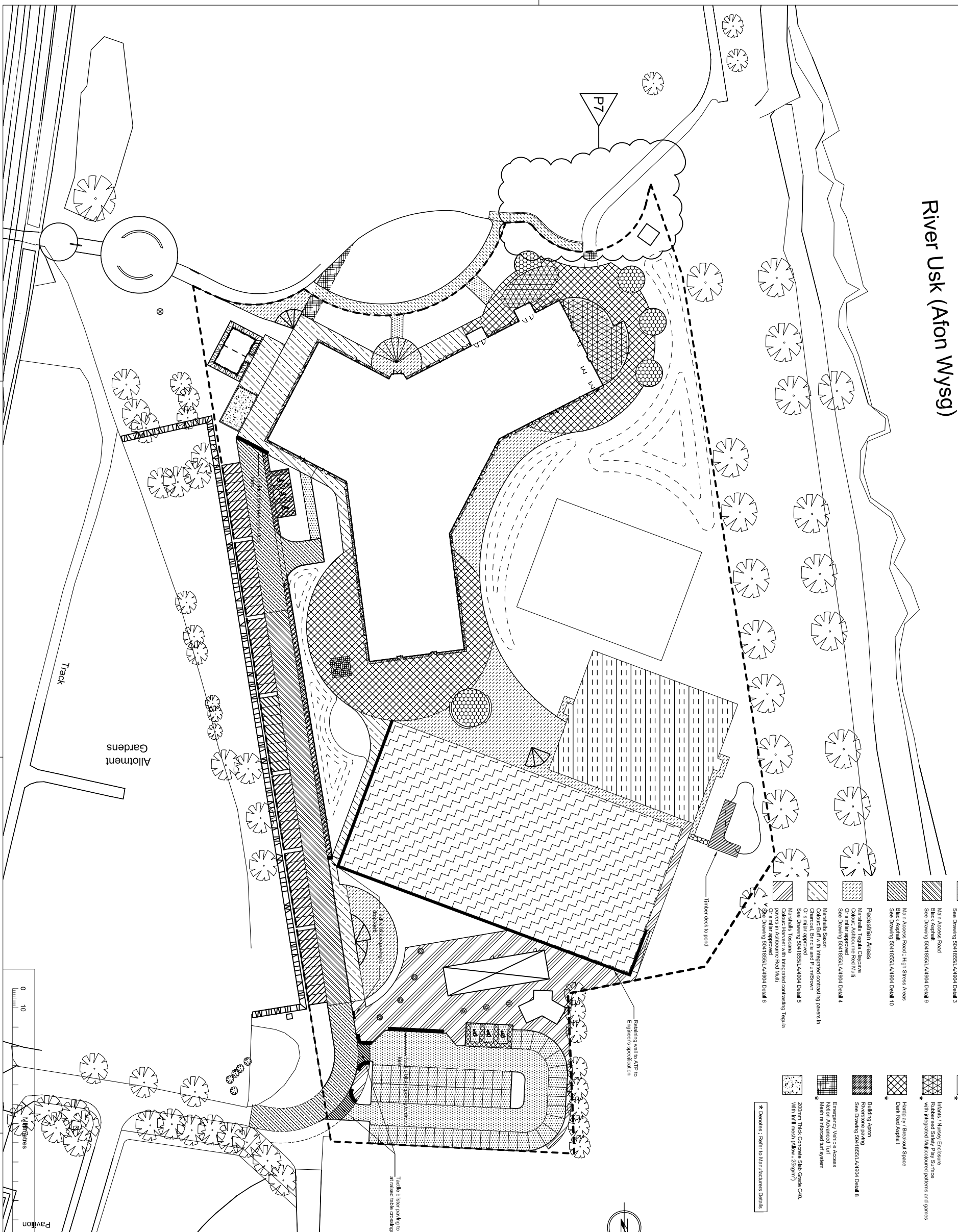
Original Scale	1:500	Drawn	Checked	Authorised
		AHL	NR	NR
Drawing Number	5041855 / LA / 4903	Date	Date	Date
		10/01/08	07/02/08	07/02/08
Rev	P7			

DO NOT SCALE

- Handworks Key**
- Parking Bays  
Materials keylock  
Colour: Birnola, bays delineated by Bull  
See Drawing 5041855/LA/4904 Detail 1
  - Recessed Traffic Coning  
Materials keylock  
Colour: Birnola  
See Drawing 5041855/LA/4904 Detail 2
  - Access Routes, Aisles and Bays  
Thermoplastic white lining  
See Drawing 5041855/LA/4904 Detail 3
  - Main Access Road  
Black Asphalt  
See Drawing 5041855/LA/4904 Detail 9
  - Main Access Road - High Stress Areas  
Black Asphalt  
See Drawing 5041855/LA/4904 Detail 10
  - Pedestrian Areas  
Materials keylock  
Colour: Birnola, Red Wall  
Or similar approved  
See Drawing 5041855/LA/4904 Detail 4
  - Materials Spans  
Colour: Birnola with integrated contrasting jawns in  
Charcoal, Birnola and Plumbeum  
Or similar approved  
See Drawing 5041855/LA/4904 Detail 5
  - Materials Spans  
Colour: Birnola with integrated contrasting jawns in  
Charcoal, Birnola and Plumbeum  
Or similar approved  
See Drawing 5041855/LA/4904 Detail 6
  - Recessed Acrylic Sports Surfaces  
Colour: Green  
See Drawing 5041855/LA/4904 Detail 7
  - ATP  
Synthetic Sports Surface  
Colour: Green  
See Drawing 5041855/LA/4904 Detail 7
  - MICA  
Cushioned Acrylic Sports Surfaces  
Colour: Red  
See Drawing 5041855/LA/4904 Detail 8
  - Indoor / Outdoor Enclosure  
Rubberised Safety Play Surface  
with integrated multicoloured patterns and games  
See Drawing 5041855/LA/4904 Detail 8
  - Handrail / Broken Space  
Dark Red Asphalt  
See Drawing 5041855/LA/4904 Detail 8
  - Building Apron  
Recessed paving  
See Drawing 5041855/LA/4904 Detail 8
  - Emergency Vehicle Access  
Nelson Advanced Turf  
Mesh reinforced turf system  
See Drawing 5041855/LA/4904 Detail 8
  - 200mm Thick Concrete Site Grade CAR,  
With wall mesh (below: 250g/m<sup>2</sup>)  
See Drawing 5041855/LA/4904 Detail 8
- \* Demands : Refer to Manufacturers Details



St Julians's Glebelands (Recreation Ground)



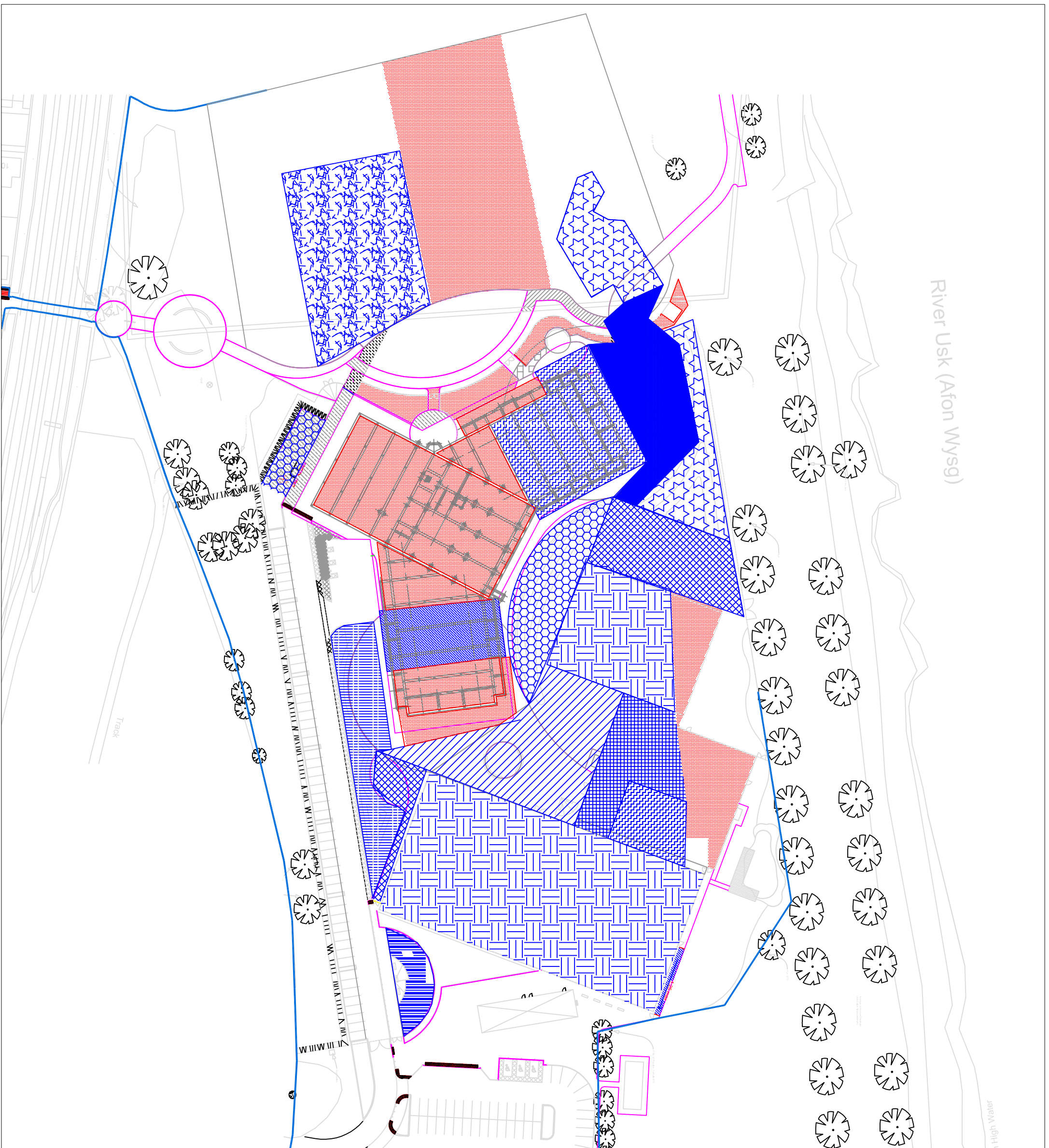
River Usk (Afon Wysg)

Complete to show purpose of each state

B.H.Box for client signatures when required

Main section  
Site section  
Detail

Final issue signature  
Dwg No. & Label  
Revision



River Usk (Afon Wysg)

High Water

CUT

FILL

No CUT/FILL required

FILL generated by a temporary borrow pit highlighted in Drawing 189573/SK/065

**NOTE**

All FILL areas correspond to a CUT area with identical hatching in drawing 189573/SK/064.

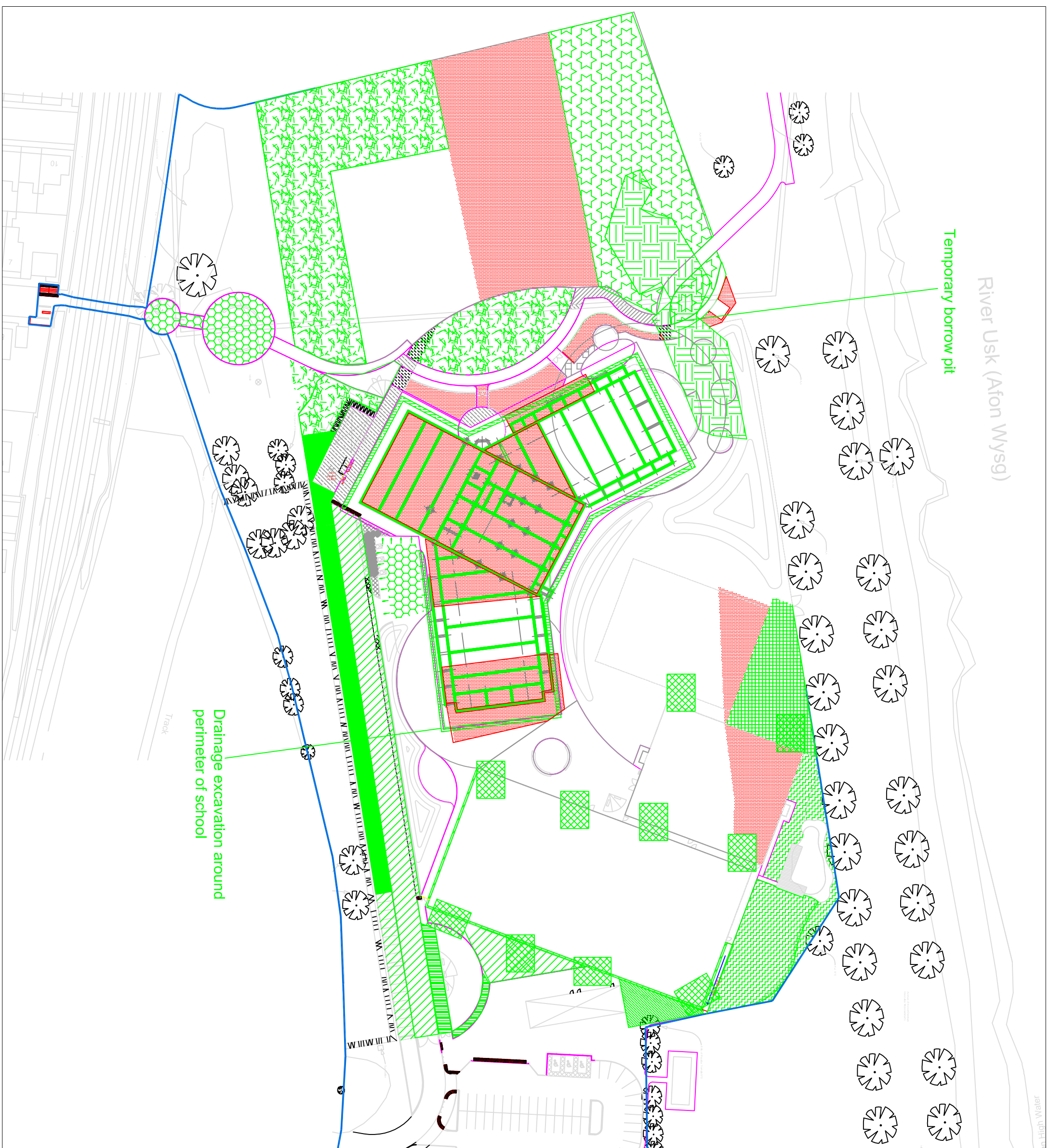
**NORWEST HOLST**  
 NORWEST HOLST LTD.  
 Astral House  
 Imperial Way  
 Watford WD24 4WW  
 Tel: 01923-233433  
 Fax: 01923-800085

Site FILL summary

Glebelands PFI Newport

Scale @ size	Date	Drawn	Revision
1:1000 @ A3	17.02.09	DW	A

Drawing No. 189573/SK/065



River Usk (Afon Wysg)

Temporary borrow pit

Drainage excavation around perimeter of school

Track

**KEY**

- CUT
- FILL
- No CUT/FILL required

**NOTE**

All CUT areas correspond to a FILL area with identical hatching in drawing 189573/SK/065.

**NORWEST HOLST**

NORWEST HOLST LTD.  
 Astral House  
 Imperial Way  
 Watford WD24 4WW  
 Tel: 01923-233433  
 Fax: 01923-800085

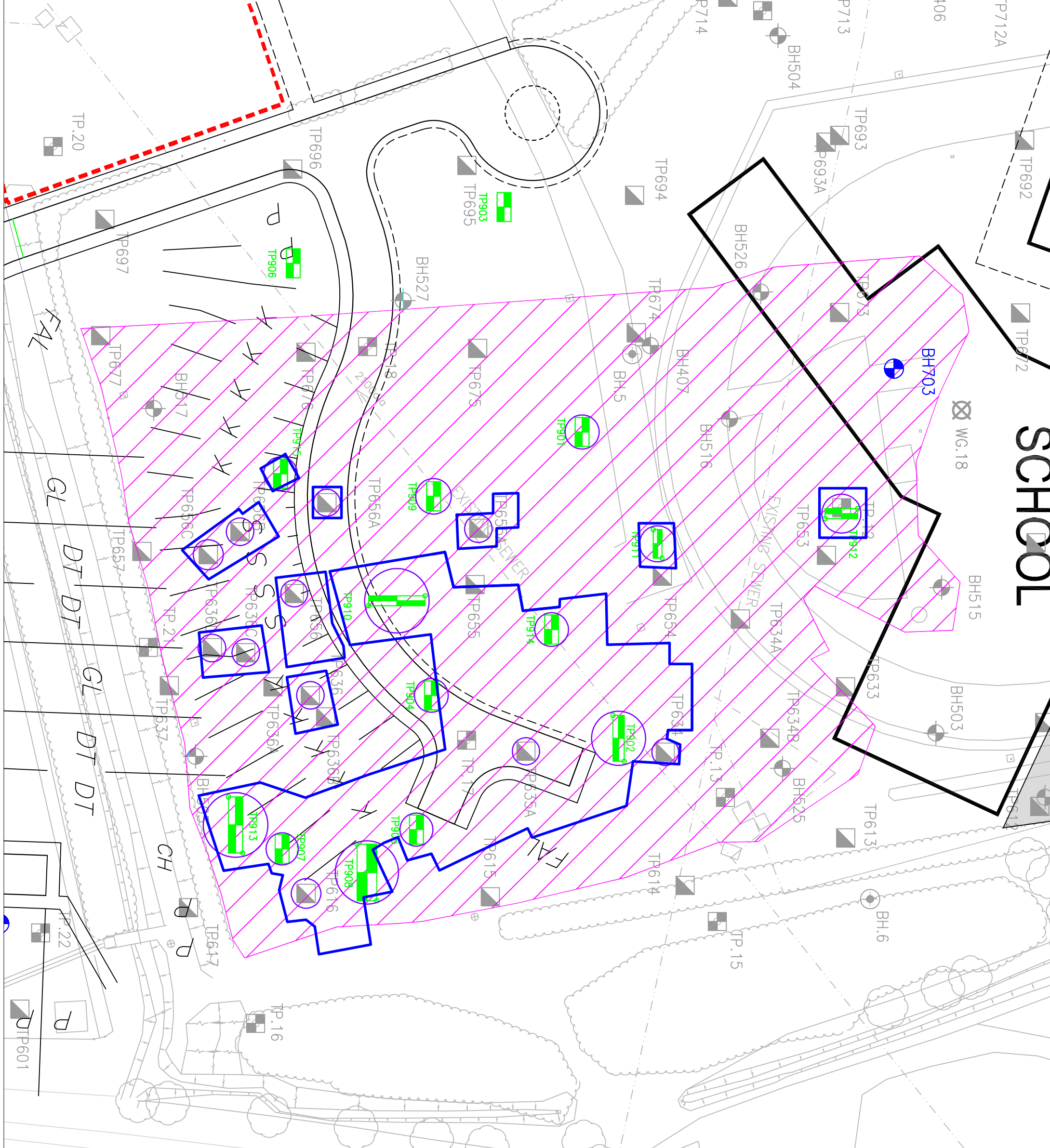
Site CUT summary

**Glebelands PFI Newport**

Scale @ size	Date	Drawn	Revision
1:1000 @ A3	17.02.09	DW	A

Drawing No. 189573/SK/064



# SCHOOL



## NOTE

Trial pits TP901, TP904, TP907 and TP909 deleted, as agreed on site.

## KEY

-  Excavation outlines
-  Area for geophysical validation survey

**NORWEST HOLST LTD.**  
 Astral House  
 Imperial Way  
 Watford WD24 4WW  
 Tel: 01923-233433  
 Fax: 01923-800085

Title: **PCB Excavation outlines**

Project: **Glebelands PFI Newport**

Scale @ size	Date	Drawn	Revision
1:500 @ A3	11.02.09	DW	0

Drawing No. **189573/SK/062**





**Appendix R    Prestige            Air-Technology            Ltd**  
**Completion Certificate**

# NORWEST HOLST

9<sup>th</sup> January 2009

356378/JEC/4.3

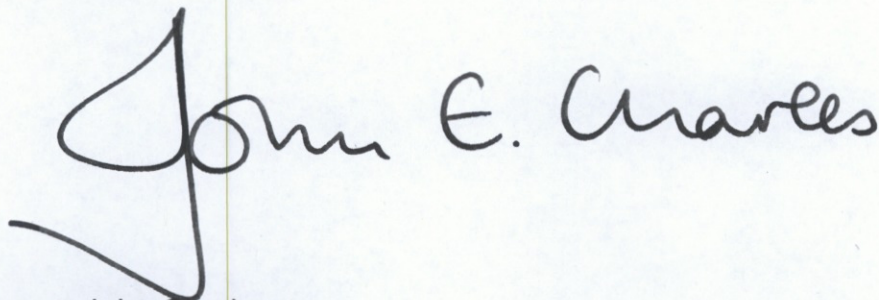
G Aston Esq  
Ridge & Partners LLP  
Eden Office Park  
65 Macrae Road  
Ham Green  
Bristol  
BS20 0DD

Dear Greg

## YSGOL GLAN USK SCHOOL - GAS MANAGEMENT SYSTEM

Please find enclosed a copy of Prestige Air Technology Limited's Completion Certificate dated 8<sup>th</sup> January 2009.

Yours sincerely



John Charles  
Project Manager

Encl

Cc + encl

Currie & Brown - G Newton, Esq

■ NORWEST HOLST LIMITED  
Project Office, Bank Street, Newport NP19 7HF  
Tel: 01633 235920 - Fax: 01633 264764  
[www.norwest-holst.co.uk](http://www.norwest-holst.co.uk)

Registered in England No.2295904  
Registered Office: Astral House, Imperial Way, Watford, Hertfordshire WD24 4WW

**VINCI**   
PLC



# PRESTIGE

## AIR-TECHNOLOGY LTD

Prestige House, Landews Meadow  
Green Lane, Challock  
ASHFORD  
Kent TN25 4BL



Date: 8<sup>th</sup> January 2009.

Ref: 2258/RS/gc

Norwest Holst Limited  
Project Office  
Bank Street  
Newport  
NP19 7HF

Tel. 01233 740844 Fax. 01233 740834  
e-mail: [glynis@prestigeair.com](mailto:glynis@prestigeair.com)

A handwritten signature in blue ink, appearing to be "J.C.", with a horizontal line underneath.

For the attention of John Charles

Dear Mr. Charles

**Ref: Ysgol Glan Usk School, Newport – Gas Management System**

Further to your letter dated 23<sup>rd</sup> December 2008 .Please find enclosed Completion Certificate for the detailed work at the above site.

Yours sincerely

A handwritten signature in blue ink, appearing to be "G. Cooper." with a horizontal line underneath.

Glynis Cooper

**PRESTIGE AIR-TECHNOLOGY LTD**  
**COMPLETION CERTIFICATE**

Job Name , Glan Usk Primary School

Job No : 2258

Building reference Glan Usk Primary School

Description of work element

Installation of Air Inlet Manifold and Sub Floor Probe System as per our Method Statement dated 16<sup>th</sup> October 2008.....

This is to certify that the works described above have been completed in accordance with our specification of works and method statement and that any variations have been agreed and recorded.

Signed



Name Richard Stevens

Date of issue . 8<sup>th</sup> January 2009.

Prestige Air-Technology Limited, Prestige House, Landews Meadow, Green Lane,  
Challock, Ashford, Kent TN25 4BL

Tel: 01233 740844 Fax: 01233 740834

17<sup>th</sup> February 2009

356378/18.1.7

A Williams Esq  
Environmental Health Officer  
Newport City Council  
Civic Centre  
Newport  
NP20 4UR

Dear Andrew

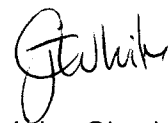
## YSGOL GLAN USK SCHOOL - GAS MEMBRANE TEST

Please find enclosed the following documentation in respect of the Pressure Test carried out on the gas membrane by Prestige Air-Technology Limited on 29<sup>th</sup> January 2009;

- Letter dated 16<sup>th</sup> February 2009 setting out methodology of test and commenting on results
- Test Results
- Method Statement

Kindly let me know if you require any further information.

Yours sincerely

*pp*  


John Charles  
Project Manager

Encl

Cc + encl

White Young Green - C Pugh, Esq  
VCUK CE - R Hogg, Esq

Date 16<sup>th</sup> February 2009

Our Ref: 58/RS/gcs

Norwest Holst Ltd  
Norwest House  
C1 Vantage Park  
Old Gloucester Road  
Hambrook  
Bristol  
BS16 1GW

**For the attention of John Charles – Project Manager**

Dear Mr Charles

**Re: Pressure Test 29.1.09. – Glan Usk School, Newport.**

The pressure test was conducted by temporarily fixing a portable fan at the air input point for each of the 2 manifold systems and recording the pressures and gas levels at each of the sub-floor probes. To be within specification the probe pressures should be super ambient and the soil gas levels should be below 1%v/v for methane and below 1.5%v/v for carbon dioxide. The results obtained showed that the system was operating within specification. I hope this answers your queries.

Kind regards

Richard Stevens  
Company Secretary

**PRESTIGE**  
**AIR-TECHNOLOGY LTD**  
*Prestige House, Landews Meadow*  
*Green Lane, Challock*  
**ASHFORD**  
*Kent TN25 4BL*

*Tel. 01233 740844 Fax. 01233 740834*  
*e-mail: [gail@prestigeair.com](mailto:gail@prestigeair.com)*

## PRESSURE TEST RECORD

**Job No.....2258.....**

**Job Title** Glan Usk School, Newport

**Weather ....** Cold

**Gas Detector No. ...**GA 45.

**Date.....**29.1.09.

**ATM** 1007mb

Probe No.	Initial Gas Readings			Fan on 5	Fan on 10	Final Gas Readings		
	CH4	CO2	O2	Pressure PA	Pressure PA	CH4	CO2	O2
1	0.0%	0.2%	20.0%		23.3			
2	0.0%	0.2%	19.7%		133.0			
3	0.0%	0.2%	19.0%		28.4			
4	0.0%	0.2%	18.7%		4.2			
5	0.0%	0.2%	20.0%		2.2			
6	0.0%	0.2%	19.0%		2.9			
7	0.0%	0.2%	20.0%		1.9			

**Gas Test Carried out by.....**Lee Barnes.....

**PRESTIGE AIR TECHNOLOGY LTD**

**LOW ENERGY CLEAN AIR BLANKET**

**METHOD STATEMENT**

**AT**

**GLAN USK SCHOOL  
BANK STREET  
GLEBELANDS  
NEWPORT  
NP19 7HF**

**FOR**

**NORWEST HOLST LTD  
NORWEST HOLST LTD  
C1 VANTAGE PARK  
OLD GLOUCESTER ROAD  
HAMBROOK  
BRISTOL  
BS16 1GW**

**REF: 2258**

**DATE: 16<sup>TH</sup> OCTOBER 2008**

## PRESSURE TEST RECORD

**Job No.....2258.....**

**Job Title** Glan Usk School, Newport

**Weather ....** Cold

**Gas Detector No. ...**GA 45.

**Date.....**29.1.09.

**ATM** 1007mb

Probe No.	Initial Gas Readings			Fan on 5	Fan on 10	Final Gas Readings		
	CH4	CO2	O2	Pressure PA	Pressure PA	CH4	CO2	O2
1	0.0%	0.2%	20.0%		23.3			
2	0.0%	0.2%	19.7%		133.0			
3	0.0%	0.2%	19.0%		28.4			
4	0.0%	0.2%	18.7%		4.2			
5	0.0%	0.2%	20.0%		2.2			
6	0.0%	0.2%	19.0%		2.9			
7	0.0%	0.2%	20.0%		1.9			

**Gas Test Carried out by.....**Lee Barnes.....

## **LOW ENERGY CLEAN AIR BLANKET**

### **SYSTEM METHOD STATEMENT**

#### **STAGE 1**

##### **Air Inlet Manifold and Sub Floor Probe System**

##### **Materials**

1. The air inlet manifold is to be formed from 110mm proprietary plastic pipework and fittings. The pipework is to be pre-drilled with 10mm drainage holes at 2m centres.
2. The manifold is to terminate in 6 No. plastic diffusers see Drawing No. 5719AA(57)021 : 1000mm x 130mm wide x 140mm deep.
3. The probe sampler system is to be formed from 8mm nylon tube.
4. The probe sampler system terminates in a maximum of 8No. Prestige Air probe heads see Drawing No.5719AA(57)002 P.2 : 150mm dia x 200mm deep.
5. Each probe head is sampled from the P.P.U. cabinet via its own dedicated 8mm nylon tube.

##### **Installation**

1. The air input manifold is installed within shallow trenches formed by the Main Contractor within the oversite in accordance with Prestige Air's Drawings Nos. 5719AA(57)008 P.2. It should be noted that with a power floated slab the trenches need to be a minimum 450mm depth. The layout for the manifold, which may be subject to alteration on installation to accommodate local conditions, is as detailed in Prestige Air's Drawing No. 7308 AL (57) 001 P6 The trenches are to be back filled by the Main Contractor with the graded "as dug" material. The finished surface should be level with the adjacent oversite and reasonably flat and free from sharp protrusions. Where the need is specified by the main contractors' engineers, the pipework is to be strapped and hung from the slab re-enforcement. The straps are typically 25mm galvanised steel straps at 6m centres. The tails of the straps are to be tied to the slab re-enforcement by the main contractor.
2. Where passings through concrete beams are required to accommodate the manifold these should be a minimum 150mm. Passings to be formed by Main Contractor. If passings through beams are prohibited, then pipework may be taken down and underneath beams as a non standard detail.

3. The diffusers are located with the top surface level with the finished oversite ready to receive the void former. In the case of a power floated slab the diffusers are installed immediately prior to the slab pour to avoid damage from vehicular traffic. With a traditional flood poured slab the diffusers will be installed prior to the slab installation and care should be taken to avoid their damage. Each diffuser is overlaid with a section of 20mm void former min size 2m<sup>2</sup>
4. The sub floor probe sampler system is to be installed within the trenches alongside the air input manifold where appropriate and otherwise to be loose laid on the oversite.
5. The Prestige Air probe heads are placed within shallow recesses formed within the oversite in locations noted on Prestige Air's Drawings No. 7308 AL (57) 001 P6
6. Risk Assessments No. 1, 2, 3, 4 to apply.
7. All systems installers where required to attend site induction before commencing work.

### **Oversite Formation**

#### **Materials**

1. The oversite to be finished with min 50mm crushed concrete or other granular material to be approved by Prestige Air and to be supplied and laid by the Main Contractor and to provide a surface reasonably flat and free from sharp protrusions.
2. PAG 6 strips are a 6mm void forming venting layer formed from a HDPE single cusped core and a thermally bonded polypropylene geotextile filter.

#### **Installation**

1. 100mm wide strips of PAG 6 to be installed either below or through the perimeter construction at design locations. Installation to be carried out by Main Contractor.

## **STAGE 2**

### **Positive Pressure Units**

#### **Materials**

1. 2 No.100mm outlet positive pressure units. Colour as standard unless otherwise specified.
2. 1no. remote status indicator panel per P.P.U.

#### **Installation**

1. The positive pressurisation units are to be located externally to the building, exact location to be agreed with the Client.
2. The positive pressurisation units are wall mounted and communicate directly with the air input manifold via a continuation of the manifold pipework. The dimensions and fixing details are as detailed on Prestige Air Drawing No. 5719AA(57) 012 P.3.
3. Each positive pressurisation unit requires a 13amp 240v fused spur outlet to be provided by the Main Contractor and connected to the electrical supply by the Main Contractor.
4. Each positive pressurisation unit requires a 3 pair low voltage signal cable linking it to the remote status indicator panel. The cable and any associated ducting are to be provided by the Main Contractor.
5. The positive pressure units are commissioned in accordance with Prestige Air's installation procedure.
6. Risk Assessment No. 1, 2, 3, 4 and COSHH assessment for use of Sulphur Hexafluoride to apply.
7. All systems installers where required to attend site induction before commencing work.

**PRESTIGE AIR-TECHNOLOGY**

**RISK ASSESSMENT SHEET**

<b>ON SITE CLEAN AIR BLANKET SYSTEM INSTALLATION ASSESSMENT No.1</b>		<b>DATE:</b> September 2008
<b>LOCATION</b> On site		
<b>OPERATION/PROCESS:</b> Manipulation of 100mm/150mm plastic pipework and associated fittings		
<b>EQUIPMENT USED</b> N/A		
<b>SUBSTANCES USED</b> N/A	<b>COSHH ASSESSMENT</b> N/A	
<b>HAZARDS IDENTIFIED:</b> Manipulation of pipes and fittings and attempting to lift excessive weights	<b>NOISE ASSESSMENT:</b> Not done	
<b>SECONDARY HAZARDS</b> None		
<b>EXPOSED PERSONS</b> Personnel involved	<b>EXPOSURE TO OTHER PERSONNEL</b> None	
<b>FREQUENCY OF EXPOSURE:</b> Every day	<b>DURATION OF EXPOSURE</b> 8 hours per day	
<b>CONTROLS MEASURES P.P.E.</b> Ensure – 1) Personnel are fully trained 4)fluorescent jackets/waistcoats. 5) weight per single person (20kg) 7)All with teams of 2no. personnel.		
2)Safety footwear. 3)Hard hats Gloves at discretion 6)Limited Pipework installation to be carried out		
<b>MONITORING RESULTS:</b> No accidents recorded		
<b>RISK ASSESSMENT</b> Low		
<b>ASSESSOR:</b> Richard Stevens	<b>POSITION:</b> Health & Safety Officer	

**PRESTIGE AIR-TECHNOLOGY**

**RISK ASSESSMENT SHEET**

<b>ON SITE CLEAN AIR BLANKET SYSTEM INSTALLATION ASSESSMENT No.2</b>		<b>DATE:</b> September 2008						
<b>LOCATION</b> On site								
<b>OPERATION/PROCESS:</b> Plastic pipe cutting								
<b>EQUIPMENT USED</b> Hand saw, hand file								
<b>SUBSTANCES USED</b> N/A	<b>COSHH ASSESSMENT</b> N/A							
<b>HAZARDS IDENTIFIED:</b> Minor cuts and abrasions	<b>NOISE ASSESSMENT:</b> Not done							
<b>SECONDARY HAZARDS</b> None								
<b>EXPOSED PERSONS</b> Personnel involved								
<b>FREQUENCY OF EXPOSURE:</b> Every day	<b>DURATION OF EXPOSURE</b> 8 hours per day							
<b>CONTROLS MEASURES P.P.E</b> <table border="0"> <tr> <td>Ensure - 1) Personnel are fully trained</td> <td>2) Safety footwear</td> </tr> <tr> <td>3) Hard hats</td> <td>4) Florescent jackets/waistcoats</td> </tr> <tr> <td>5) Gloves at all times</td> <td></td> </tr> </table>			Ensure - 1) Personnel are fully trained	2) Safety footwear	3) Hard hats	4) Florescent jackets/waistcoats	5) Gloves at all times	
Ensure - 1) Personnel are fully trained	2) Safety footwear							
3) Hard hats	4) Florescent jackets/waistcoats							
5) Gloves at all times								
<b>MONITORING RESULTS:</b> No accidents recorded								
<b>RISK ASSESSMENT</b> Low								
<b>ASSESSOR:</b> Richard Stevens	<b>POSITION:</b> Health & Safety Officer							

**PRESTIGE AIR-TECHNOLOGY**

**RISK ASSESSMENT SHEET**

<b>ON SITE CLEAN AIR BLANKET SYSTEM INSTALLATION ASSESSMENT No.3</b>		<b>DATE:</b> September 2008
<b>LOCATION</b> On site		
<b>OPERATION/PROCESS:</b> Production of electric power		
<b>EQUIPMENT USED</b> Generator		
<b>SUBSTANCES USED</b> Petrol	<b>COSHH ASSESSMENT</b> Not done	
<b>HAZARDS IDENTIFIED:</b> Petrol spillage whilst refilling	<b>NOISE ASSESSMENT:</b> Not done	
<b>SECONDARY HAZARDS</b> Heat from engine body		
<b>EXPOSED PERSONS</b> Operator and assistant	<b>EXOSURE TO OTHER PERSONNEL</b> To be excluded from 1 m radius	
<b>FREQUENCY OF EXPOSURE:</b> Every day	<b>DURATION OF EXPOSURE</b> 8 hours per day	
<b>CONTROLS MEASURES P.P.E.</b> Ensure – 1) Equipment is well maintained to lift equipment. fuelling. 3) Necessary 4) Gloves at all times earth.		2)A minimum of two people are available containers/funnels are available for re- 5) Equipment to have separate
<b>MONITORING RESULTS:</b> No accidents recorded		
<b>RISK ASSESSMENT</b> Low		
<b>ASSESSOR:</b> Richard Stevens	<b>POSITION:</b> Health & Safety Officer	

**PRESTIGE AIR-TECHNOLOGY**

**RISK ASSESSMENT SHEET**

<b>ON SITE CLEAN AIR BLANKET SYSTEM INSTALLATION ASSESSMENT No.4</b>		<b>DATE:</b> September 2008
<b>LOCATION</b> On site		
<b>OPERATION/PROCESS:</b> Use of electric power tools.		
<b>EQUIPMENT USED</b> 200mm angle grinder and drill		
<b>SUBSTANCES USED</b> N/A	<b>COSHH ASSESSMENT</b> Not done	
<b>HAZARDS IDENTIFIED:</b> Cuts and abrasions	<b>NOISE ASSESSMENT:</b> Not done	
<b>SECONDARY HAZARDS</b> None		
<b>EXPOSED PERSONS</b> Personnel involved		
<b>FREQUENCY OF EXPOSURE:</b> Every day	<b>DURATION OF EXPOSURE</b> 8 hours per day	
<b>CONTROLS MEASURES P.P.E.</b> Ensure – 1) Personnel are fully trained 3) Gloves at all times 4) Safety Goggles 2) Equipment is fully maintained. 5) Safety shoes		
<b>MONITORING RESULTS:</b> No accidents recorded		
<b>RISK ASSESSMENT</b> Low		
<b>ASSESSOR:</b> Richard Stevens	<b>POSITION:</b> Health & Safety Officer	

## **COSHH ASSESSMENT**

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### **MATERIAL: Sulphur Hexafluoride**

#### **HAZARDS IDENTIFICATION**

- ☞ Liquified gas
- ☞ In high concentrations may cause asphyxiation

#### **FIRST AID MEASURES**

##### **Contact with Skin/Eyes**

- ☞ Immediately flush eyes thoroughly with water for at least 15 minutes
- ☞ In case of frostbite spray with water for a least 15 minutes. Apply a sterile dressing
- ☞ Obtain medical assistance

##### **Ingestion**

- ☞ Ingestion is not considered a potential route of exposure

##### **Inhalation**

- ☞ In high concentration may cause asphyxiation. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation.
- ☞ Remove victim to uncontaminated area. Keep victim warm and rested.
- ☞ Call a doctor. Apply artificial respiration if breathing stopped.

#### **FIRE-FIGHTING MEASURES**

- ☞ Exposure to fire may cause containers to rupture/explode
- ☞ Non-flammable
- ☞ If involved in a fire the following toxic and/or corrosive fumes may be produced by thermal decomposition:

Hydrogen fluoride

Sulphur dioxide

- ☞ All known extinguishants can be used
- ☞ If possible stop flow of product
- ☞ Move container away or cool with water from a protected position
- ☞ Use self-contained breathing apparatus and chemically protective clothing

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## **COSHH ASSESSMENT**

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### **MATERIAL: Sulphur Hexafluoride - continued**

#### **ACCIDENTAL RELEASE MEASURES**

- ☞ Evacuate area
- ☞ Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe
- ☞ Ensure adequate air ventilation
- ☞ Try to stop release
- ☞ Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous
- ☞ Ventilate area

#### **HANDLING AND STORAGE**

- ☞ Suck back of water into the container must be prevented
- ☞ Do not allow backfeed into the container
- ☞ Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt
- ☞ Refer to supplier's container handling instructions
- ☞ Keep container below 50° C in a well ventilated place

#### **EXPOSURE CONTROLS/PERSONAL PROTECTION**

- ☞ Exposure limit value for country : Gt Britain: LTEL 1000ppm STEL: 1250ppm
- ☞ Ensure adequate ventilation
- ☞ Do not smoke while handling product