



# Scientific Analysis Laboratories Ltd

## Certificate of Analysis

Hadfield House  
Hadfield Street  
Cornbrook  
Manchester  
M16 9FE  
Tel : 0161 874 2400  
Fax : 0161 874 2468

Scientific Analysis Laboratories is a limited company registered in England and Wales (No 2514788) whose address is at Hadfield House, Hadfield Street, Manchester M16 9FE

**Report Number:** 260934-1

**Date of Report:** 29-Dec-2011

**Customer:** PTS International Ltd  
Unit 7  
Cowling Business Park  
Canalside  
Chorley, LANCS  
PR6 0QL

**Customer Contact:** Mrs Jane Hopkinson

**Customer Job Reference:** 11/193

**Customer Site Reference:** James Corbett Road

**Date Job Received at SAL:** 09-Dec-2011

**Date Analysis Started:** 14-Dec-2011

**Date Analysis Completed:** 22-Dec-2011

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



Report checked  
and authorised by :  
Caroline Haworth  
Assistant Customer Service  
Manager

Issued by :  
Caroline Haworth  
Assistant Customer Service  
Manager



<b>SAL Reference:</b> 260934					
<b>Project Site:</b> James Corbett Road					
<b>Customer Reference:</b> 11/193					
<b>Soil</b>		Analysed as Soil			
<b>TRL Standard Mcr</b>					
<b>SAL Reference</b>					<b>260934 001</b>
<b>Customer Sample Reference</b>					<b>4937-GAL29/11/11</b>
<b>Sample Description</b>					<b>Type 1 Sub Base + SMR</b>
<b>Date Sampled</b>					<b>29-NOV-2011</b>
<b>Type</b>					<b>Sand</b>
<b>Determinand</b>	<b>Method</b>	<b>Test Sample</b>	<b>LOD</b>	<b>Units</b>	
Organic Matter	T22	M40	0.1	%	<b>3.5</b>
pH	T7	AR			<b>11.3</b>
(Total Potential) SO <sub>4</sub> (Total) Expressed as SO <sub>4</sub>	T402	M40	0.15	%	<b>0.70</b>
(Acid Soluble) SO <sub>4</sub> --	T192	M40	0.01	%	<b>0.61</b>
(Water Soluble) SO <sub>4</sub> (2:1) expressed as SO <sub>4</sub>	T242	AR	10	mg/l	<b>76</b>
(Oxidisable) Sulphide Expressed as SO <sub>4</sub>	T194	AR	0.01	%	<b>0.09</b>
(Acid Soluble) S expressed as S	T241	M40	0.01	%	<b>0.20</b>
(Water Soluble) S expressed as S	T240	AR	0.001	%	<b>0.005</b>
Sulphur (total)	T21	M40	0.05	%	<b>0.23</b>

## Index to symbols used in 260934-1

<b>Value</b>	<b>Description</b>
M40	Analysis conducted on sample assisted dried at no more than 40C. Results are reported on a dry weight basis.
AR	As Received
M105	Analysis conducted on an "as received" aliquot. Results are reported on a dry weight basis where moisture content was determined by assisted drying of sample at 105C
9	LOD raised due to dilution of sample
M	Analysis is MCERTS accredited
U	Analysis is UKAS accredited
N	Analysis is not UKAS accredited

## Method Index

<b>Value</b>	<b>Description</b>
T207	GC/MS(MCERTS)
T241	Calc (TRL 477 T2)
T194	Calc (TRL 447 T 4.11)
T21	OX/IR
T242	2:1 Extraction/ICP/OES (TRL 447 T1)
T7	Probe
T402	Calc (TRL 447 T4.13 OX/IR)
T240	Calc (TRL 477 T1)
T22	Titration
T4	Colorimetry
T277	Grav (1 Dec) (40 C)
T162	Grav (1 Dec) (105 C)
T192	HCl Extraction/ICP/OES (TRL 447 T2)

## Accreditation Summary

<b>Determinand</b>	<b>Method</b>	<b>Test Sample</b>	<b>LOD</b>	<b>Units</b>	<b>Symbol</b>	<b>SAL References</b>
Phenols(Mono)	T4	AR	1	mg/kg	U	001
Naphthalene	T207	M105	0.1	mg/kg	M	001
Acenaphthylene	T207	M105	0.1	mg/kg	U	001
Acenaphthene	T207	M105	0.1	mg/kg	M	001
Fluorene	T207	M105	0.1	mg/kg	M	001
Phenanthrene	T207	M105	0.1	mg/kg	M	001
Anthracene	T207	M105	0.1	mg/kg	U	001
Fluoranthene	T207	M105	0.1	mg/kg	M	001
Pyrene	T207	M105	0.1	mg/kg	M	001

Determinand	Method	Test Sample	LOD	Units	Symbol	SAL References
Benzo(a)Anthracene	T207	M105	0.1	mg/kg	M	001
Chrysene	T207	M105	0.1	mg/kg	M	001
Benzo(b)fluoranthene	T207	M105	0.1	mg/kg	M	001
Benzo(k)fluoranthene	T207	M105	0.1	mg/kg	M	001
Benzo(a)Pyrene	T207	M105	0.1	mg/kg	M	001
Indeno(123-cd)Pyrene	T207	M105	0.1	mg/kg	M	001
Dibenzo(ah)Anthracene	T207	M105	0.1	mg/kg	M	001
Benzo(ghi)Perylene	T207	M105	0.1	mg/kg	M	001
PAH(total)	T207	M105	0.1	mg/kg	U	001
Organic Matter	T22	M40	0.1	%	N	001
pH	T7	AR			N	001
(Total Potential) SO4(Total) Expressed as SO4	T402	M40	0.15	%	N	001
(Acid Soluble) SO4--	T192	M40	0.01	%	N	001
(Water Soluble) SO4(2:1) expressed as SO4	T242	AR	10	mg/l	N	001
(Oxidisable) Sulphide Expressed as SO4	T194	AR	0.01	%	N	001
(Acid Soluble) S expressed as S	T241	M40	0.01	%	N	001
(Water Soluble) S expressed as S	T240	AR	0.001	%	N	001
Sulphur (total)	T21	M40	0.05	%	N	001
Moisture	T277	AR	0.1	%	N	001
Moisture @ 105 C	T162	AR	0.1	%	N	001

