



CERTIFICATE OF ANALYSIS

SDG: 150221-45
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1103
Report Number: 310972
Superseded Report:

Lab Sample No(s) Customer Sample Ref. AGS Ref. Depth Type	10879119	10878837	10878842	10878850	10878861	10878866	10878873	10878878	10878883	10878961
	TPE0640	TPE0649	TPE0649	TPE0649	TPE0649	TPE0677	TPE0677	TPE0677	TPE0677	TPE0725
	3.80	0.80	2.00	3.00	4.00	0.80	2.00	3.00	4.00	0.50
	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Asbestos ID in Solid Samples		11-Mar-2015				10-Mar-2015				10-Mar-2015
EPH CWG (Aliphatic) GC (S)	09-Mar-2015	06-Mar-2015	04-Mar-2015	05-Mar-2015	04-Mar-2015	07-Mar-2015	05-Mar-2015	05-Mar-2015	05-Mar-2015	07-Mar-2015
EPH CWG (Aromatic) GC (S)	09-Mar-2015	06-Mar-2015	04-Mar-2015	05-Mar-2015	04-Mar-2015	07-Mar-2015	05-Mar-2015	05-Mar-2015	05-Mar-2015	07-Mar-2015
GRO by GC-FID (S)	10-Mar-2015	10-Mar-2015	10-Mar-2015	10-Mar-2015	10-Mar-2015	10-Mar-2015	09-Mar-2015	10-Mar-2015	10-Mar-2015	09-Mar-2015
Metals in solid samples by OES	09-Mar-2015	09-Mar-2015	05-Mar-2015	06-Mar-2015	06-Mar-2015	06-Mar-2015	06-Mar-2015	06-Mar-2015	06-Mar-2015	06-Mar-2015
PAH by GCMS	09-Mar-2015	06-Mar-2015	04-Mar-2015	05-Mar-2015	04-Mar-2015	05-Mar-2015	09-Mar-2015	09-Mar-2015	05-Mar-2015	06-Mar-2015
pH	07-Mar-2015	07-Mar-2015	06-Mar-2015	07-Mar-2015	07-Mar-2015	07-Mar-2015	07-Mar-2015	07-Mar-2015	07-Mar-2015	07-Mar-2015
Sample description	28-Feb-2015	03-Mar-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015	27-Feb-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015	27-Feb-2015
Total Organic Carbon		09-Mar-2015								09-Mar-2015
TPH CWG GC (S)	10-Mar-2015	10-Mar-2015	10-Mar-2015	10-Mar-2015	10-Mar-2015	10-Mar-2015	09-Mar-2015	10-Mar-2015	10-Mar-2015	09-Mar-2015

Lab Sample No(s) Customer Sample Ref. AGS Ref. Depth Type	10878965	10878933	10878938	10878942	10878949	10878953
	TPE0725	TPE0816	TPE0816	TPE0901	TPE0901	TPE6311
	1.50	0.50	1.50	0.50	1.50	0.50
	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Asbestos ID in Solid Samples		10-Mar-2015		10-Mar-2015		10-Mar-2015
Asbestos Quantification - Full						29-Apr-2015
EPH CWG (Aliphatic) GC (S)	05-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015
EPH CWG (Aromatic) GC (S)	05-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015
GRO by GC-FID (S)	09-Mar-2015	08-Mar-2015	09-Mar-2015	09-Mar-2015	10-Mar-2015	08-Mar-2015
Metals in solid samples by OES	06-Mar-2015	06-Mar-2015	04-Mar-2015	06-Mar-2015	04-Mar-2015	06-Mar-2015
PAH by GCMS	06-Mar-2015	06-Mar-2015	04-Mar-2015	06-Mar-2015	04-Mar-2015	06-Mar-2015
pH	07-Mar-2015	07-Mar-2015	06-Mar-2015	07-Mar-2015	06-Mar-2015	07-Mar-2015
Sample description	27-Feb-2015	27-Feb-2015	28-Feb-2015	27-Feb-2015	28-Feb-2015	27-Feb-2015
TPH CWG GC (S)	09-Mar-2015	08-Mar-2015	09-Mar-2015	09-Mar-2015	10-Mar-2015	08-Mar-2015



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Appendix General

1. Results are expressed on a dry weight basis (dried at 35°C) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH₄ by the BRE method, VOC TICS and SVOC TICS.

2. Samples will be run in duplicate upon request, but an additional charge may be incurred.

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

6. When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as "Not detected". If no asbestos fibre types are found all will be reported as "Not detected" and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible. The quantity of asbestos present is not determined unless specifically requested.

7. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.

9. NDP -No determination possible due to insufficient/unsuitable sample.

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals -total metals must be requested separately.

11. Results relate only to the items tested.

12. LODs for wet tests reported on a dry weight basis are not corrected for moisture content.

13. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%, they are generally wider for volatiles analysis, 50-150%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

14. **Product analyses** -Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethylphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 15).

17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

18. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

19. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

20. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

21. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.

22. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill /made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

23. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

Sample Deviations

1	Container with Headspace provided for volatiles analysis
2	Incorrect container received
3	Deviation from method
4	Holding time exceeded before sample received
5	Samples exceeded holding time before preservation was performed
\$	Sampled on date not provided
♦	Sample holding time exceeded in laboratory
@	Sample holding time exceeded due to sampled on date
&	Sample Holding Time exceeded - Late arrival of instructions.

Asbestos

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than :
 - Trace - Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.



Atkins Global Ltd
Project Jonah site office
Llan Coed House
Suite 24
Coed Darcy
Llandarcy
SA10 6HJ

Attention: Jack Lowrie

CERTIFICATE OF ANALYSIS

Date: 12 May 2015
Customer: H_ATKINS_LDC
Sample Delivery Group (SDG): 150214-75
Your Reference: Site Wide Trial Pitting
Location: Coed Darcy
Report No: 312605

This report has been revised and directly supersedes 310683 in its entirety.

We received 127 samples on Saturday February 14, 2015 and 127 of these samples were scheduled for analysis which was completed on Tuesday April 28, 2015. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

All chemical testing (unless subcontracted) is performed at ALcontrol Hawarden Laboratories.

Approved By:

Sonia McWhan

Operations Manager





SDG: 150214-75
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1094
Report Number: 312605
Superseded Report: 310683

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
10839228	IP0874		0.50	11/02/2015
10839234	IP0874		1.50	11/02/2015
10839223	IP0968		0.50	11/02/2015
10839199	IP1082		1.00	11/02/2015
10839204	IP1082		2.00	11/02/2015
10839023	IP1083		1.00	11/02/2015
10839028	IP1083		2.00	11/02/2015
10838980	IP1092		1.00	11/02/2015
10839003	IP1092		2.00	11/02/2015
10839008	IP1092		3.00	11/02/2015
10839013	IP1092		4.00	11/02/2015
10839018	IP1092		5.00	11/02/2015
10839032	IP1204		1.00	11/02/2015
10839038	IP1204		2.00	11/02/2015
10839044	IP1204		3.00	11/02/2015
10839048	IP1204		4.00	11/02/2015
10839058	IP1579		0.50	11/02/2015
10839063	IP1579		1.50	11/02/2015
10839067	IP1579		2.50	11/02/2015
10839072	IP1579		3.50	11/02/2015
10839076	IP1666		0.50	11/02/2015
10839080	IP1666		1.50	11/02/2015
10839097	IP1749		0.50	11/02/2015
10839115	IP1750		0.50	11/02/2015
10839107	IP1751		0.50	11/02/2015
10839111	IP1751		1.50	11/02/2015
10839085	IP1752		0.50	11/02/2015
10839089	IP1752		1.50	11/02/2015
10839093	IP1752		2.50	11/02/2015
10839120	IP2106		0.50	11/02/2015
10839125	IP2106		1.50	11/02/2015
10839130	IP2189		0.50	11/02/2015
10839135	IP2189		1.50	11/02/2015
10839154	IP2204		0.50	11/02/2015
10839179	IP2603		0.50	11/02/2015
10839183	IP2603		1.50	11/02/2015
10839244	IP1092A		1.00	11/02/2015
10839249	IP1092A		2.00	11/02/2015
10839253	IP1092A		3.00	11/02/2015
10839258	IP1092A		4.00	11/02/2015
10839265	IP1092A		5.00	11/02/2015
10839238	TPE0391		0.50	11/02/2015
10839218	TPE0460		0.50	11/02/2015
10839210	TPE0461		0.50	11/02/2015
10839139	TPE1015		0.50	11/02/2015
10839163	TPE1104		0.50	11/02/2015
10839168	TPE1174		1.00	11/02/2015
10839189	TPE1189		0.50	11/02/2015
10839194	TPE1189		1.50	11/02/2015
10839174	TPE1191		1.00	11/02/2015
10839148	TPE2109		0.50	11/02/2015
10839158	TPE2797		1.00	11/02/2015
10838814	TPE2839		0.50	11/02/2015
10838992	TPE2839		1.50	11/02/2015
10839053	TPE2840		0.50	11/02/2015
10839102	TPE2841		0.50	11/02/2015



CERTIFICATE OF ANALYSIS

Validated

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10839368	TPE2842	0.50	11/02/2015
10839214	TPE2877	0.50	11/02/2015
10839272	TPE2877	0.75	11/02/2015
10839316	TPE2877	1.00	11/02/2015
10838942	TPE2890	0.00 - 0.00	11/02/2015
10838890	TPE2890	0.50	11/02/2015
10838894	TPE2890	1.50	11/02/2015
10838898	TPE2890	2.50	11/02/2015
10838923	TPE2920	0.50	11/02/2015
10838927	TPE2920	1.50	11/02/2015
10838932	TPE2920	2.50	11/02/2015
10838936	TPE2920	3.20	11/02/2015
10838870	TPE2921	0.50	11/02/2015
10838874	TPE2921	1.50	11/02/2015
10838878	TPE2921	2.60	11/02/2015
10838882	TPE2921	3.50	11/02/2015
10838886	TPE2921	4.00	11/02/2015
10838842	TPE2972	0.50	11/02/2015
10838847	TPE2972	1.50	11/02/2015
10838851	TPE2972	2.50	11/02/2015
10838857	TPE2972	3.50	11/02/2015
10838862	TPE2972	4.50	11/02/2015
10838902	TPE3014	0.50	11/02/2015
10838906	TPE3014	1.50	11/02/2015
10838915	TPE3014	2.50	11/02/2015
10838919	TPE3014	3.20	11/02/2015
10838959	TPE3239	0.50	11/02/2015
10838945	TPE3239	1.00	11/02/2015
10838963	TPE3239	1.50	11/02/2015
10838967	TPE3239	2.50	11/02/2015
10838971	TPE3239	3.50	11/02/2015
10839373	TPE3241	0.50	11/02/2015
10839378	TPE3241	1.50	11/02/2015
10839383	TPE3241	2.50	11/02/2015
10839388	TPE3241	3.50	11/02/2015
10839392	TPE3241	4.50	11/02/2015
10838822	TPE3242	0.50	11/02/2015
10838826	TPE3242	1.50	11/02/2015
10838830	TPE3242	2.50	11/02/2015
10838834	TPE3242	3.50	11/02/2015
10838838	TPE3242	4.50	11/02/2015
10838911	TPE3290	0.50	11/02/2015
10838951	TPE3290	1.00	11/02/2015
10838955	TPE3290	1.50	11/02/2015
10838818	TPE3291	0.50	11/02/2015
10838866	TPE3291	1.00	11/02/2015
10839396	TPE3292	0.50	11/02/2015
10839400	TPE3292	1.50	11/02/2015
10839404	TPE3292	2.50	11/02/2015
10839408	TPE3292	3.50	11/02/2015
10839412	TPE3292	4.50	11/02/2015
10839340	TPE3293	0.50	11/02/2015
10839345	TPE3293	1.50	11/02/2015
10839349	TPE3293	2.50	11/02/2015
10839356	TPE3293	3.50	11/02/2015
10839362	TPE3293	4.50	11/02/2015
10839276	TPE3297	0.50	11/02/2015
10839280	TPE3297	1.50	11/02/2015
10839284	TPE3297	2.50	11/02/2015



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SDG:	150214-75	Location:	Coed Darcy	Order Number:	CD1094
Job:	H_ATKINS_LDC-224	Customer:	Atkins Global Ltd	Report Number:	312605
Client Reference:	Site Wide Trial Pitting	Attention:	Jack Lowrie	Superseded Report:	310683
10839288	TPE3297			3.50	11/02/2015
10839292	TPE3297			4.50	11/02/2015
10839320	TPE3307			0.50	11/02/2015
10839324	TPE3307			1.60	11/02/2015
10839328	TPE3307			2.50	11/02/2015
10839332	TPE3307			3.50	11/02/2015
10839336	TPE3307			4.50	11/02/2015
10839308	TPE3466			0.50	11/02/2015
10839312	TPE3466			1.00	11/02/2015
10839296	TPE3480			0.50	11/02/2015
10839300	TPE3480			1.50	11/02/2015
10839304	TPE3480			2.50	11/02/2015

Only received samples which have had analysis scheduled will be shown on the following pages.



SDG: 150214-75
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Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
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Report Number: 312605
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SOLID Results Legend X Test N No Determination Possible	Lab Sample No(s)		Customer Sample Reference		AGS Reference		Depth (m)		Container	
	10839038	IP1204					2.00		250g Amber Jar	
	10839032	IP1204					1.00		60g VOC (ALE215) 400g Tub (ALE214)	
	10839018	IP1092					5.00		250g Amber Jar	
	10839013	IP1092					4.00		60g VOC (ALE215) 400g Tub (ALE214)	
	10839008	IP1092					3.00		250g Amber Jar	
	10839003	IP1092					2.00		60g VOC (ALE215) 400g Tub (ALE214)	
	10838980	IP1092					1.00		250g Amber Jar	
	10839028	IP1083					2.00		60g VOC (ALE215) 400g Tub (ALE214)	
	10839023	IP1083					1.00		250g Amber Jar	
	10839204	IP1082					2.00		60g VOC (ALE215) 400g Tub (ALE214)	
	10839199	IP1082					1.00		250g Amber Jar	
	10839223	IP0968					0.50		60g VOC (ALE215) 400g Tub (ALE214)	
	10839234	IP0874					1.50		250g Amber Jar	
	10839228	IP0874					0.50		60g VOC (ALE215) 400g Tub (ALE214)	
Asbestos ID in Solid Samples	All	NDPs: 1 Tests: 54								
Asbestos Quantification - Full	All	NDPs: 1 Tests: 22								
EPH CWG (Aliphatic) GC (S)	All	NDPs: 0 Tests: 126								
EPH CWG (Aromatic) GC (S)	All	NDPs: 0 Tests: 126								
GRO by GC-FID (S)	All	NDPs: 0 Tests: 126								
Metals in solid samples by OES	All	NDPs: 0 Tests: 126								
PAH by GCMS	All	NDPs: 0 Tests: 125								
pH	All	NDPs: 0 Tests: 126								
Sample description	All	NDPs: 0 Tests: 126								
Total Organic Carbon	All	NDPs: 0 Tests: 14								
TPH CWG GC (S)	All	NDPs: 0 Tests: 126								



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SOLID Results Legend X Test N No Determination Possible	Lab Sample No(s)		Customer Sample Reference		AGS Reference		Depth (m)		Container	
	10839085	IP1752					0.50		400g Tub (ALE214)	
	10839111	IP1751					1.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10839107	IP1751					0.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10839115	IP1750					0.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
Asbestos ID in Solid Samples	10839097	IP1749					0.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10839080	IP1666					1.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10839076	IP1666					0.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10839072	IP1579					3.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10839067	IP1579					2.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
Asbestos Quantification - Full	10839063	IP1579					1.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10839058	IP1579					0.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10839048	IP1204					4.00		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10839044	IP1204					3.00		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10839038	IP1204					2.00		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
EPH CWG (Aliphatic) GC (S)	All	NDPs: 0 Tests: 126								
EPH CWG (Aromatic) GC (S)	All	NDPs: 0 Tests: 126								
GRO by GC-FID (S)	All	NDPs: 0 Tests: 126								
Metals in solid samples by OES	All	NDPs: 0 Tests: 126								
PAH by GCMS	All	NDPs: 0 Tests: 125								
pH	All	NDPs: 0 Tests: 126								
Sample description	All	NDPs: 0 Tests: 126								
Total Organic Carbon	All	NDPs: 0 Tests: 14								
TPH CWG GC (S)	All	NDPs: 0 Tests: 126								



SDG: 150214-75
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
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Order Number: CD1094
Report Number: 312605
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SOLID Results Legend X Test N No Determination Possible	Lab Sample No(s)		Customer Sample Reference		AGS Reference		Depth (m)		Container	
	10839265		IP1092A				5.00		250g Amber Jar	
	10839268		IP1092A				4.00		60g VOC (ALE215) 400g Tub (ALE214)	
	10839253		IP1092A				3.00		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10839249		IP1092A				2.00		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10839244		IP1092A				1.00		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10839183		IP2603				1.50		60g VOC (ALE215) 400g Tub (ALE214)	
	10839179		IP2603				0.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10839154		IP2204				0.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10839135		IP2189				1.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10839130		IP2189				0.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10839125		IP2106				1.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10839120		IP2106				0.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10839093		IP1752				2.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10839089		IP1752				1.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10839085		IP1752				0.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
Asbestos ID in Solid Samples	All	NDPs: 1 Tests: 54								
Asbestos Quantification - Full	All	NDPs: 1 Tests: 22								
EPH CWG (Aliphatic) GC (S)	All	NDPs: 0 Tests: 126								
EPH CWG (Aromatic) GC (S)	All	NDPs: 0 Tests: 126								
GRO by GC-FID (S)	All	NDPs: 0 Tests: 126								
Metals in solid samples by OES	All	NDPs: 0 Tests: 126								
PAH by GCMS	All	NDPs: 0 Tests: 125								
pH	All	NDPs: 0 Tests: 126								
Sample description	All	NDPs: 0 Tests: 126								
Total Organic Carbon	All	NDPs: 0 Tests: 14								
TPH CWG GC (S)	All	NDPs: 0 Tests: 126								



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SOLID Results Legend X Test N No Determination Possible	Lab Sample No(s)		Customer Sample Reference		AGS Reference		Depth (m)		Container	
	10838992		TPE2839				1.50		400g Tub (ALE214)	
	10838814		TPE2839				0.50		60g VOC (ALE215)	
	10839158		TPE2797				1.00		400g Tub (ALE214)	
	10839148		TPE2109				0.50		60g VOC (ALE215)	
Asbestos ID in Solid Samples	10839174		TPE1191				1.00		250g Amber Jar	
	10839194		TPE1189				1.50		400g Tub (ALE214)	
Asbestos Quantification - Full	10839189		TPE1189				0.50		60g VOC (ALE215)	
	10839163		TPE1104				0.50		400g Tub (ALE214)	
EPH CWG (Aliphatic) GC (S)	10839168		TPE1174				1.00		250g Amber Jar	
	10839139		TPE1015				0.50		60g VOC (ALE215)	
EPH CWG (Aromatic) GC (S)	10839210		TPE0461				0.50		400g Tub (ALE214)	
	10839218		TPE0460				0.50		250g Amber Jar	
GRO by GC-FID (S)	10839238		TPE0391				0.50		60g VOC (ALE215)	
	10839265		IP1092A				5.00		400g Tub (ALE214)	
Metals in solid samples by OES									60g VOC (ALE215)	
									250g Amber Jar	
PAH by GCMS									400g Tub (ALE214)	
									60g VOC (ALE215)	
pH									250g Amber Jar	
									400g Tub (ALE214)	
Sample description									60g VOC (ALE215)	
									250g Amber Jar	
Total Organic Carbon									400g Tub (ALE214)	
									60g VOC (ALE215)	
TPH CWG GC (S)									250g Amber Jar	
									400g Tub (ALE214)	



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SOLID Results Legend X Test N No Determination Possible	Lab Sample No(s)		Customer Sample Reference		AGS Reference		Depth (m)		Container	
	10838936	TPE2920					3.20		400g Tub (ALE214)	
	10838932	TPE2920					2.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10838927	TPE2920					1.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10838923	TPE2920					0.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
Asbestos ID in Solid Samples	10838898	TPE2900					2.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10838894	TPE2900					1.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
Asbestos Quantification - Full	10838890	TPE2900					0.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10838942 10839316	TPE2890 TPE2877					0.00 - 0.00 1.00		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
EPH CWG (Aliphatic) GC (S)	10839272	TPE2877					0.75		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10839214	TPE2877					0.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
EPH CWG (Aromatic) GC (S)	10839368	TPE2842					0.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10839102	TPE2841					0.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
GRO by GC-FID (S)	10839063	TPE2840					0.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10838992	TPE2839					1.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
Metals in solid samples by OES										
PAH by GCMS										
pH										
Sample description										
Total Organic Carbon										
TPH CWG GC (S)										



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SOLID Results Legend X Test N No Determination Possible	Lab Sample No(s)		Customer Sample Reference		AGS Reference		Depth (m)		Container	
	10838915		TPE3014				2.50		60g VOC (ALE215) 400g Tub (ALE214) 250g Amber Jar	
	10838906		TPE3014				1.50		60g VOC (ALE215) 400g Tub (ALE214) 250g Amber Jar	
	10838902		TPE3014				0.50		60g VOC (ALE215) 400g Tub (ALE214) 250g Amber Jar	
	10838862		TPE2972				4.50		60g VOC (ALE215) 400g Tub (ALE214) 250g Amber Jar	
Asbestos ID in Solid Samples	10838857		TPE2972				3.50		60g VOC (ALE215) 400g Tub (ALE214) 250g Amber Jar	
	10838851		TPE2972				2.50		60g VOC (ALE215) 400g Tub (ALE214) 250g Amber Jar	
	10838847		TPE2972				1.50		60g VOC (ALE215) 400g Tub (ALE214) 250g Amber Jar	
	10838842		TPE2972				0.50		60g VOC (ALE215) 400g Tub (ALE214) 250g Amber Jar	
	10838886		TPE2921				4.00		60g VOC (ALE215) 400g Tub (ALE214) 250g Amber Jar	
	10838882		TPE2921				3.50		60g VOC (ALE215) 400g Tub (ALE214) 250g Amber Jar	
	10838878		TPE2921				2.60		60g VOC (ALE215) 400g Tub (ALE214) 250g Amber Jar	
	10838874		TPE2921				1.50		60g VOC (ALE215) 400g Tub (ALE214) 250g Amber Jar	
	10838870		TPE2921				0.50		60g VOC (ALE215) 400g Tub (ALE214) 250g Amber Jar	
	10838936		TPE2920				3.20		60g VOC (ALE215) 400g Tub (ALE214) 250g Amber Jar	
EPH CWG (Aliphatic) GC (S)	All	NDPs: 0 Tests: 126								
EPH CWG (Aromatic) GC (S)	All	NDPs: 0 Tests: 126								
GRO by GC-FID (S)	All	NDPs: 0 Tests: 126								
Metals in solid samples by OES	All	NDPs: 0 Tests: 126								
PAH by GCMS	All	NDPs: 0 Tests: 125								
pH	All	NDPs: 0 Tests: 126								
Sample description	All	NDPs: 0 Tests: 126								
Total Organic Carbon	All	NDPs: 0 Tests: 14								
TPH CWG GC (S)	All	NDPs: 0 Tests: 126								



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SOLID Results Legend X Test N No Determination Possible	Lab Sample No(s)		Customer Sample Reference		AGS Reference		Depth (m)		Container	
	10838830		TPE3242				2.50		250g Amber Jar	
	10838826		TPE3242				1.50		60g VOC (ALE215) 400g Tub (ALE214)	
	10838822		TPE3242				0.50		60g VOC (ALE215) 400g Tub (ALE214)	
	10839392		TPE3241				4.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10839388		TPE3241				3.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10839383		TPE3241				2.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10839378		TPE3241				1.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10839373		TPE3241				0.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10838971		TPE3239				3.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10838967		TPE3239				2.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10838963		TPE3239				1.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10838945		TPE3239				1.00		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10838959		TPE3239				0.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10838919		TPE3014				3.20		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
Asbestos ID in Solid Samples	All	NDPs: 1 Tests: 54								
Asbestos Quantification - Full	All	NDPs: 1 Tests: 22								
EPH CWG (Aliphatic) GC (S)	All	NDPs: 0 Tests: 126								
EPH CWG (Aromatic) GC (S)	All	NDPs: 0 Tests: 126								
GRO by GC-FID (S)	All	NDPs: 0 Tests: 126								
Metals in solid samples by OES	All	NDPs: 0 Tests: 126								
PAH by GCMS	All	NDPs: 0 Tests: 125								
pH	All	NDPs: 0 Tests: 126								
Sample description	All	NDPs: 0 Tests: 126								
Total Organic Carbon	All	NDPs: 0 Tests: 14								
TPH CWG GC (S)	All	NDPs: 0 Tests: 126								



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SOLID Results Legend X Test N No Determination Possible	Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
Asbestos ID in Solid Samples	All	NDPs: 1 Tests: 54			
Asbestos Quantification - Full	All	NDPs: 1 Tests: 22			
EPH CWG (Aliphatic) GC (S)	All	NDPs: 0 Tests: 126			
EPH CWG (Aromatic) GC (S)	All	NDPs: 0 Tests: 126			
GRO by GC-FID (S)	All	NDPs: 0 Tests: 126			
Metals in solid samples by OES	All	NDPs: 0 Tests: 126			
PAH by GCMS	All	NDPs: 0 Tests: 125			
pH	All	NDPs: 0 Tests: 126			
Sample description	All	NDPs: 0 Tests: 126			
Total Organic Carbon	All	NDPs: 0 Tests: 14			
TPH CWG GC (S)	All	NDPs: 0 Tests: 126			



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SOLID Results Legend X Test N No Determination Possible	Lab Sample No(s)		Customer Sample Reference		AGS Reference		Depth (m)		Container	
	10839332	TPE3307					3.50		60g VOC (ALE215)	
	10839328	TPE3307					2.50		400g Tub (ALE214)	
	10839324	TPE3307					1.60		250g Amber Jar	
	10839320	TPE3307					0.50		60g VOC (ALE215)	
Asbestos ID in Solid Samples	All	NDPs: 1 Tests: 54								
Asbestos Quantification - Full	All	NDPs: 1 Tests: 22								
EPH CWG (Aliphatic) GC (S)	All	NDPs: 0 Tests: 126								
EPH CWG (Aromatic) GC (S)	All	NDPs: 0 Tests: 126								
GRO by GC-FID (S)	All	NDPs: 0 Tests: 126								
Metals in solid samples by OES	All	NDPs: 0 Tests: 126								
PAH by GCMS	All	NDPs: 0 Tests: 125								
pH	All	NDPs: 0 Tests: 126								
Sample description	All	NDPs: 0 Tests: 126								
TPH CWG GC (S)	All	NDPs: 0 Tests: 126								



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SOLID Results Legend X Test N No Determination Possible	Lab Sample No(s)		10839336	10839308	10839312	10839296	10839300	10839304
	Customer Sample Reference		TPE3307	TPE3466	TPE3466	TPE3480	TPE3480	TPE3480
	AGS Reference							
	Depth (m)		4.50	0.50	1.00	0.50	1.50	2.50
	Container		60g VOC (ALE215) 400g Tub (ALE214) 250g Amber Jar	60g VOC (ALE215) 400g Tub (ALE214) 250g Amber Jar	60g VOC (ALE215) 400g Tub (ALE214) 250g Amber Jar	60g VOC (ALE215) 400g Tub (ALE214) 250g Amber Jar	60g VOC (ALE215) 400g Tub (ALE214) 250g Amber Jar	60g VOC (ALE215) 400g Tub (ALE214) 250g Amber Jar
Asbestos ID in Solid Samples	All	NDPs: 1 Tests: 54		X	X	X		
Asbestos Quantification - Full	All	NDPs: 1 Tests: 22		X		X		
EPH CWG (Aliphatic) GC (S)	All	NDPs: 0 Tests: 126	X	X	X	X	X	X
EPH CWG (Aromatic) GC (S)	All	NDPs: 0 Tests: 126	X	X	X	X	X	X
GRO by GC-FID (S)	All	NDPs: 0 Tests: 126		X	X	X	X	X
Metals in solid samples by OES	All	NDPs: 0 Tests: 126	X	X	X	X	X	X
PAH by GCMS	All	NDPs: 0 Tests: 125	X	X	X	X	X	X
pH	All	NDPs: 0 Tests: 126	X	X	X	X	X	X
Sample description	All	NDPs: 0 Tests: 126	X	X	X	X	X	X
Total Organic Carbon	All	NDPs: 0 Tests: 14				X		
TPH CWG GC (S)	All	NDPs: 0 Tests: 126	X	X	X	X	X	X



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Sample Descriptions

Grain Sizes

very fine	<0.063mm	fine	0.063mm - 0.1mm	medium	0.1mm - 2mm	coarse	2mm - 10mm	very coarse	>10mm
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Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Grain size	Inclusions	Inclusions 2
10839228	IP0874	0.50	Light Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	None
10839234	IP0874	1.50	Light Brown	Sandy Silt Loam	0.1 - 2 mm	Stones	Vegetation
10839223	IP0968	0.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	Vegetation
10839199	IP1082	1.00	Black	Sandy Loam	0.1 - 2 mm	Stones	None
10839204	IP1082	2.00	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	Oil/Petroleum
10839023	IP1083	1.00	Black	Sandy Loam	0.1 - 2 mm	Stones	N/A
10839028	IP1083	2.00	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	Oil/Petroleum
10838980	IP1092	1.00	Black	Sandy Clay Loam	0.1 - 2 mm	Crushed Brick	Stones
10839003	IP1092	2.00	Black	Sand	0.1 - 2 mm	Stones	None
10839008	IP1092	3.00	Black	Sand	0.1 - 2 mm	Stones	None
10839013	IP1092	4.00	Black	Sand	0.1 - 2 mm	Stones	None
10839018	IP1092	5.00	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	None
10839032	IP1204	1.00	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Brick	Stones
10839038	IP1204	2.00	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	Vegetation
10839044	IP1204	3.00	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	Vegetation
10839048	IP1204	4.00	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	None
10839058	IP1579	0.50	Black	Sandy Loam	0.1 - 2 mm	Vegetation	Stones
10839063	IP1579	1.50	Black	Sand	0.1 - 2 mm	Stones	Vegetation
10839067	IP1579	2.50	Grey	Sandy Clay Loam	0.1 - 2 mm	Stones	None
10839072	IP1579	3.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	Oil/Petroleum
10839076	IP1666	0.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	Oil/Petroleum
10839080	IP1666	1.50	Grey	Sand	0.1 - 2 mm	Stones	Oil/Petroleum
10839097	IP1749	0.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Vegetation	Stones
10839115	IP1750	0.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Vegetation	Stones
10839107	IP1751	0.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Vegetation	Stones
10839111	IP1751	1.50	Dark Brown	Sand	0.1 - 2 mm	Oil/Petroleum	Stones
10839085	IP1752	0.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	Vegetation
10839089	IP1752	1.50	Light Brown	Sand	0.1 - 2 mm	Stones	None
10839093	IP1752	2.50	Light Brown	Sand	0.1 - 2 mm	Stones	None
10839120	IP2106	0.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	Vegetation
10839125	IP2106	1.50	Dark Brown	Sand	0.1 - 2 mm	Oil/Petroleum	Stones
10839130	IP2189	0.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	Vegetation
10839135	IP2189	1.50	Grey	Sandy Clay Loam	0.1 - 2 mm	Stones	None
10839154	IP2204	0.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	Oil/Petroleum
10839179	IP2603	0.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	None
10839183	IP2603	1.50	Light Brown	Sandy Silt Loam	0.1 - 2 mm	Stones	Vegetation
10839244	IP1092A	1.00	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	Brick
10839249	IP1092A	2.00	Black	Sand	0.1 - 2 mm	Stones	Crushed Brick



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			Colour	Description	Grain size	Inclusions	Inclusions 2
10839253	IP1092A	3.00	Black	Sand	0.1 - 2 mm	Stones	None
10839258	IP1092A	4.00	Black	Loamy Sand	0.1 - 2 mm	Stones	Fibres
10839265	IP1092A	5.00	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	None
10839238	TPE0391	0.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	Vegetation
10839218	TPE0460	0.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	None
10839210	TPE0461	0.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	Vegetation
10839139	TPE1015	0.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	None
10839163	TPE1104	0.50	Dark Brown	Sandy Clay	0.1 - 2 mm	Stones	Vegetation
10839168	TPE1174	1.00	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	None
10839189	TPE1189	0.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Oil/Petroleum	Stones
10839194	TPE1189	1.50	Light Brown	Loamy Sand	0.1 - 2 mm	Stones	None
10839174	TPE1191	1.00	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	None
10839148	TPE2109	0.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	Vegetation
10839158	TPE2797	1.00	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	Brick
10838814	TPE2839	0.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	Vegetation
10838992	TPE2839	1.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	None
10839053	TPE2840	0.50	Light Brown	Loamy Sand	0.1 - 2 mm	Stones	Vegetation
10839102	TPE2841	0.50	Light Brown	Loamy Sand	0.1 - 2 mm	Stones	Vegetation
10839368	TPE2842	0.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	Vegetation
10839214	TPE2877	0.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	Vegetation
10839272	TPE2877	0.75	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	Vegetation
10839316	TPE2877	1.00	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	Vegetation
10838890	TPE2890	0.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	Vegetation
10838894	TPE2890	1.50	Black	Sandy Loam	0.1 - 2 mm	Stones	Vegetation
10838898	TPE2890	2.50	Black	N/A	0.1 - 2 mm	N/A	None
10838942	TPE2890	0.00 - 0.00	White	N/A	<0.063 mm	N/A	None
10838923	TPE2920	0.50	Dark Brown	Stone/Soil	0.1 - 2 mm	Vegetation	Stones
10838927	TPE2920	1.50	Black	Sand	0.1 - 2 mm	Stones	Brick
10838932	TPE2920	2.50	Black	Sand	0.1 - 2 mm	Stones	Brick
10838936	TPE2920	3.20	Dark Brown	Sand	0.1 - 2 mm	Stones	None
10838870	TPE2921	0.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Vegetation	Stones
10838874	TPE2921	1.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	None
10838878	TPE2921	2.60	Light Brown	Sandy Loam	0.063 - 0.1 mm	Stones	None
10838882	TPE2921	3.50	Dark Brown	Sandy Silt Loam	0.1 - 2 mm	Stones	None
10838886	TPE2921	4.00	Dark Brown	Silt Loam	0.1 - 2 mm	Stones	Vegetation
10838842	TPE2972	0.50	Black	Sand	0.1 - 2 mm	Stones	Brick
10838847	TPE2972	1.50	Black	Sand	0.1 - 2 mm	Stones	None
10838851	TPE2972	2.50	Dark Brown	Silty Clay Loam	0.063 - 0.1 mm	Vegetation	Stones
10838857	TPE2972	3.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	None	None
10838862	TPE2972	4.50	Light Brown	Silty Clay Loam	0.063 - 0.1 mm	Stones	Vegetation
10838902	TPE3014	0.50	Dark Brown	Sand	0.1 - 2 mm	Stones	Vegetation



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			Colour	Description	Grain size	Inclusions	Inclusions 2
10838906	TPE3014	1.50	Light Brown	Sandy Loam	0.063 - 0.1 mm	Stones	None
10838915	TPE3014	2.50	Light Brown	Sand	0.1 - 2 mm	Stones	None
10838919	TPE3014	3.20	Dark Brown	Sandy Loam	0.1 - 2 mm	Oil/Petroleum	Stones
10838945	TPE3239	1.00	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	Vegetation
10838959	TPE3239	0.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	None
10838963	TPE3239	1.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	None
10838967	TPE3239	2.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	None
10838971	TPE3239	3.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	None
10839373	TPE3241	0.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	Brick
10839378	TPE3241	1.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	Vegetation
10839383	TPE3241	2.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Oil/Petroleum	Stones
10839388	TPE3241	3.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Oil/Petroleum	Stones
10839392	TPE3241	4.50	Light Brown	Loamy Sand	0.1 - 2 mm	Stones	None
10838822	TPE3242	0.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	Brick
10838826	TPE3242	1.50	Dark Brown	Clay Loam	0.1 - 2 mm	None	None
10838830	TPE3242	2.50	Dark Brown	Loamy Sand	0.1 - 2 mm	None	None
10838834	TPE3242	3.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	None
10838838	TPE3242	4.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	None
10838911	TPE3290	0.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	Vegetation
10838951	TPE3290	1.00	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	None
10838955	TPE3290	1.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	None
10838818	TPE3291	0.50	Dark Brown	Silt Loam	0.063 - 0.1 mm	Stones	Vegetation
10838866	TPE3291	1.00	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	None
10839396	TPE3292	0.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	None
10839400	TPE3292	1.50	Dark Brown	Sandy Silt Loam	0.1 - 2 mm	Oil/Petroleum	Stones
10839404	TPE3292	2.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Oil/Petroleum	Stones
10839408	TPE3292	3.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Oil/Petroleum	Stones
10839412	TPE3292	4.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Oil/Petroleum	Stones
10839340	TPE3293	0.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	None
10839345	TPE3293	1.50	Dark Brown	Sandy Clay Loam	0.063 - 0.1 mm	Stones	Vegetation
10839349	TPE3293	2.50	Light Brown	Sandy Clay Loam	0.063 - 0.1 mm	Stones	None
10839356	TPE3293	3.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	None
10839362	TPE3293	4.50	Light Brown	Sandy Clay Loam	0.063 - 0.1 mm	Stones	None
10839276	TPE3297	0.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	None
10839280	TPE3297	1.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	Vegetation
10839284	TPE3297	2.50	Dark Brown	Sand	0.1 - 2 mm	Brick	Stones
10839288	TPE3297	3.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	Vegetation
10839292	TPE3297	4.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	Vegetation
10839320	TPE3307	0.50	Dark Brown	Silty Clay Loam	0.063 - 0.1 mm	Stones	Vegetation
10839324	TPE3307	1.60	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	None
10839328	TPE3307	2.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Oil/Petroleum	Stones



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			Colour	Description	Grain size	Inclusions	Inclusions 2
10839332	TPE3307	3.50	Light Brown	Sandy Loam	0.063 - 0.1 mm	Stones	None
10839336	TPE3307	4.50	Grey	Sandy Clay	0.1 - 2 mm	Stones	None
10839308	TPE3466	0.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	None
10839312	TPE3466	1.00	Dark Brown	Silty Clay Loam	0.063 - 0.1 mm	Stones	Vegetation
10839296	TPE3480	0.50	Dark Brown	Sandy Silt Loam	0.1 - 2 mm	Stones	Vegetation
10839300	TPE3480	1.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	None
10839304	TPE3480	2.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	None

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

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Location: Coed Darcy
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TPH CWG (S)

Results Legend		Customer Sample Ref.	IP0874	IP0874	IP0968	IP1082	IP1082	IP1083
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	0.50	1.50	0.50	1.00	2.00	1.00
M	mCERTS accredited.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
aq	Aqueous / settled sample.		11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015
diss.filt	Dissolved / filtered sample.		14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015
tot.unfilt	Total / unfiltered sample.		150214-75	150214-75	150214-75	150214-75	150214-75	150214-75
*	Subcontracted test.		10839228	10839234	10839223	10839199	10839204	10839023
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed							
1-5&*\$@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	105	80	86	101	90	86
			@	@	@	@	@	@
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	203000	88800	<176	<880	76600	74600
			@ M	@ M	@ M	@ M	@ M	@ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	<20	<20	<100	<20	676
			@ M	@ M	@ M	@ M	@ M	@ M
Benzene	<10 µg/kg	TM089	<40	<40	<40	<200	54.1	72.5
			@ M	@ M	@ M	@ M	@ M	@ M
Toluene	<2 µg/kg	TM089	<8	<8	<8	<40	<8	<8
			@ M	@ M	@ M	@ M	@ M	@ M
Ethylbenzene	<3 µg/kg	TM089	<12	<12	<12	<60	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
m,p-Xylene	<6 µg/kg	TM089	<24	<24	<24	<120	<24	<24
			@ M	@ M	@ M	@ M	@ M	@ M
o-Xylene	<3 µg/kg	TM089	867	<12	<12	<60	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	867	<9	<9	<9	<9	<9
			@	@	@	@	@	@
sum of detected BTEX by GC	<24 µg/kg	TM089	867	<24	<24	<24	54.1	72.5
			@	@	@	@	@	@
Aliphatics >C5-C6	<10 µg/kg	TM089	<40	<40	<40	<200	285	147
			@	@	@	@	@	@
Aliphatics >C6-C8	<10 µg/kg	TM089	839	231	<40	<200	8310	4380
			@	@	@	@	@	@
Aliphatics >C8-C10	<10 µg/kg	TM089	46100	22600	<40	<200	19900	13200
			@	@	@	@	@	@
Aliphatics >C10-C12	<10 µg/kg	TM089	74400	30600	<40	<200	20800	28400
			@	@	@	@	@	@
Aliphatics >C12-C16	<100 µg/kg	TM173	232000	2170	<100	12600	971000	815000
Aliphatics >C16-C21	<100 µg/kg	TM173	163000	303	<100	71700	1250000	944000
Aliphatics >C21-C35	<100 µg/kg	TM173	30400	<100	<100	172000	1070000	1400000
Aliphatics >C35-C44	<100 µg/kg	TM173	<100	<100	<100	62100	165000	445000
Total Aliphatics >C12-C44	<100 µg/kg	TM173	425000	2470	<100	318000	3460000	3610000
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	<40	<40	<200	54.1	72.5
			@	@	@	@	@	@
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<40	<40	<200	<40	<40
			@	@	@	@	@	@
Aromatics >EC8-EC10	<10 µg/kg	TM089	31600	15100	<40	<200	13300	8790
			@	@	@	@	@	@
Aromatics >EC10-EC12	<10 µg/kg	TM089	49600	20400	<40	<200	13900	18900
			@	@	@	@	@	@
Aromatics >EC12-EC16	<100 µg/kg	TM173	11600	<100	<100	3100	82800	168000
Aromatics >EC16-EC21	<100 µg/kg	TM173	30500	549	<100	13300	290000	359000
Aromatics >EC21-EC35	<100 µg/kg	TM173	9230	2530	<100	108000	446000	801000
Aromatics >EC35-EC44	<100 µg/kg	TM173	<100	<100	<100	89400	111000	351000
Aromatics >EC40-EC44	<100 µg/kg	TM173	<100	<100	<100	40300	45000	146000
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	51400	3080	<100	214000	930000	1680000
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	679000	94400	<100	532000	4460000	5360000



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Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

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TPH CWG (S)

Results Legend		Customer Sample Ref.	IP1083	IP1092	IP1092	IP1092	IP1092	IP1092
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference						
M	mCERTS accredited.							
aq	Aqueous / settled sample.							
diss.filt	Dissolved / filtered sample.							
tot.unfilt	Total / unfiltered sample.							
*	Subcontracted test.							
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed							
1-5&*&\$@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	88	61	69	46	103	93
			@	@	@	@	@	@
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	77600	2580	109	<176	13300	53300
			@ M	@ M	@ M	@ M	@ M	@ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	1320	<20	<5	<20	<20	<20
			@ M	@ M	@ M	@ M	@ M	@ M
Benzene	<10 µg/kg	TM089	55.4	<40	<10	<40	<40	<40
			@ M	@ M	@ M	@ M	@ M	@ M
Toluene	<2 µg/kg	TM089	<8	12.9	<2	<8	<8	<8
			@ M	@ M	@ M	@ M	@ M	@ M
Ethylbenzene	<3 µg/kg	TM089	<12	<12	<3	<12	25.8	<12
			@ M	@ M	@ M	@ M	@ M	@ M
m,p-Xylene	<6 µg/kg	TM089	<24	<24	<6	<24	111	<24
			@ M	@ M	@ M	@ M	@ M	@ M
o-Xylene	<3 µg/kg	TM089	<12	<12	<3	<12	55.5	<12
			@ M	@ M	@ M	@ M	@ M	@ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	<9	<9	<9	167	<9
			@	@	@	@	@	@
sum of detected BTEX by GC	<24 µg/kg	TM089	55.4	<24	<24	<24	193	<24
			@	@	@	@	@	@
Aliphatics >C5-C6	<10 µg/kg	TM089	187	45.6	<10	<40	128	117
			@	@	@	@	@	@
Aliphatics >C6-C8	<10 µg/kg	TM089	4090	163	13.3	<40	179	4560
			@	@	@	@	@	@
Aliphatics >C8-C10	<10 µg/kg	TM089	10400	274	21.3	<40	1530	12700
			@	@	@	@	@	@
Aliphatics >C10-C12	<10 µg/kg	TM089	32700	1120	31.9	<40	6150	16400
			@	@	@	@	@	@
Aliphatics >C12-C16	<100 µg/kg	TM173	846000	50000	16200	14100	6220	438000
Aliphatics >C16-C21	<100 µg/kg	TM173	704000	168000	53300	46200	34300	604000
Aliphatics >C21-C35	<100 µg/kg	TM173	305000	349000	68000	58700	74600	417000
Aliphatics >C35-C44	<100 µg/kg	TM173	75600	95200	15200	10300	27000	22000
Total Aliphatics >C12-C44	<100 µg/kg	TM173	1930000	662000	153000	129000	142000	1480000
Aromatics >EC5-EC7	<10 µg/kg	TM089	55.4	<40	<10	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<40	<10	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC8-EC10	<10 µg/kg	TM089	6960	206	16	<40	1210	8480
			@	@	@	@	@	@
Aromatics >EC10-EC12	<10 µg/kg	TM089	21800	746	21.3	<40	4100	11000
			@	@	@	@	@	@
Aromatics >EC12-EC16	<100 µg/kg	TM173	263000	7420	5580	2200	<100	164000
Aromatics >EC16-EC21	<100 µg/kg	TM173	289000	82300	23900	12900	11700	416000
Aromatics >EC21-EC35	<100 µg/kg	TM173	226000	391000	63400	54200	64700	300000
Aromatics >EC35-EC44	<100 µg/kg	TM173	71400	164000	28100	19700	45500	68700
Aromatics >EC40-EC44	<100 µg/kg	TM173	25000	65200	11700	8530	19300	27400
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	850000	645000	121000	89000	122000	949000
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	2860000	1310000	274000	218000	277000	2480000



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Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1094
Report Number: 312605
Superseded Report: 310683

TPH CWG (S)

Results Legend		Customer Sample Ref.	IP1204	IP1204	IP1204	IP1204	IP1579	IP1579
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	1.00	2.00	3.00	4.00	0.50	1.50
M	mCERTS accredited.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
aq	Aqueous / settled sample.		11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015
diss.filt	Dissolved / filtered sample.		14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015
tot.unfilt	Total / unfiltered sample.		150214-75	150214-75	150214-75	150214-75	150214-75	150214-75
*	Subcontracted test.		10839032	10839038	10839044	10839048	10839058	10839063
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed							
1-5&*&\$@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	81	80	88	74	63	43
			@	@	@	@	@	@
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	319	<176	<176	139000	<176	<176
			@ M	@ M	@ M	@ M	@ M	@ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	<20	<20	<20	<20	<20
			@ M	@ M	@ M	@ M	@ M	@ M
Benzene	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@ M	@ M	@ M	@ M	@ M	@ M
Toluene	<2 µg/kg	TM089	<8	<8	<8	<8	<8	<8
			@ M	@ M	@ M	@ M	@ M	@ M
Ethylbenzene	<3 µg/kg	TM089	<12	<12	<12	<12	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
m,p-Xylene	<6 µg/kg	TM089	<24	<24	<24	<24	<24	<24
			@ M	@ M	@ M	@ M	@ M	@ M
o-Xylene	<3 µg/kg	TM089	<12	<12	<12	<12	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	<9	<9	<9	<9	<9
			@	@	@	@	@	@
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	<24	<24	<24	<24	<24
			@	@	@	@	@	@
Aliphatics >C5-C6	<10 µg/kg	TM089	<40	<40	<40	116	<40	<40
			@	@	@	@	@	@
Aliphatics >C6-C8	<10 µg/kg	TM089	41	<40	<40	8780	42.5	52
			@	@	@	@	@	@
Aliphatics >C8-C10	<10 µg/kg	TM089	55.9	<40	<40	41900	<40	41.6
			@	@	@	@	@	@
Aliphatics >C10-C12	<10 µg/kg	TM089	85.5	<40	<40	36300	<40	<40
			@	@	@	@	@	@
Aliphatics >C12-C16	<100 µg/kg	TM173	17300	9320	9340	2740000	8100	5220
Aliphatics >C16-C21	<100 µg/kg	TM173	70000	50200	41300	3050000	24300	18700
Aliphatics >C21-C35	<100 µg/kg	TM173	240000	405000	331000	2910000	94500	52800
Aliphatics >C35-C44	<100 µg/kg	TM173	106000	92600	75600	640000	52300	18800
Total Aliphatics >C12-C44	<100 µg/kg	TM173	433000	557000	458000	9340000	179000	95500
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC8-EC10	<10 µg/kg	TM089	45.6	<40	<40	28000	<40	<40
			@	@	@	@	@	@
Aromatics >EC10-EC12	<10 µg/kg	TM089	57	<40	<40	24200	<40	<40
			@	@	@	@	@	@
Aromatics >EC12-EC16	<100 µg/kg	TM173	11100	3680	5870	276000	<100	<100
Aromatics >EC16-EC21	<100 µg/kg	TM173	84800	17800	29900	760000	6030	8130
Aromatics >EC21-EC35	<100 µg/kg	TM173	472000	237000	229000	1190000	62600	58200
Aromatics >EC35-EC44	<100 µg/kg	TM173	217000	133000	120000	429000	55200	38900
Aromatics >EC40-EC44	<100 µg/kg	TM173	81400	45900	39000	175000	22700	16000
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	784000	392000	385000	2660000	124000	105000
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	1220000	948000	842000	12100000	303000	201000



SDG: 150214-75
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TPH CWG (S)

Results Legend		Customer Sample Ref.	IP1579	IP1579	IP1666	IP1666	IP1749	IP1750
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference						
M	mCERTS accredited.		2.50	3.50	0.50	1.50	0.50	0.50
aq	Aqueous / settled sample.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
diss.filt	Dissolved / filtered sample.		11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015
tot.unfilt	Total / unfiltered sample.		14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015
*	Subcontracted test.		150214-75	150214-75	150214-75	150214-75	150214-75	150214-75
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery		10839067	10839072	10839076	10839080	10839097	10839115
(F)	Trigger breach confirmed							
1-5&*&\$@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	190	145	117	134	80	103
			@	@	@	@	@	@
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	1940000	672000	615000	127000	8810	1980
			3 @ M	@ M	@ M	@ M	@ M	@ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<100	<100	290	<20	<20	<20
			@ M	@ M	@ M	@ M	@ M	@ M
Benzene	<10 µg/kg	TM089	<200	<200	<200	<40	<40	<40
			@ M	@ M	@ M	@ M	@ M	@ M
Toluene	<2 µg/kg	TM089	<40	<40	<40	<8	<8	<8
			@ M	@ M	@ M	@ M	@ M	@ M
Ethylbenzene	<3 µg/kg	TM089	<60	<60	<60	<12	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
m,p-Xylene	<6 µg/kg	TM089	<120	<120	<120	<24	<24	<24
			@ M	@ M	@ M	@ M	@ M	@ M
o-Xylene	<3 µg/kg	TM089	<60	<60	<60	<12	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	<9	<9	<9	<9	<9
			@	@	@	@	@	@
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	<24	<24	<24	<24	<24
			@	@	@	@	@	@
Aliphatics >C5-C6	<10 µg/kg	TM089	154000	19400	<200	2620	831	259
			3 @	@	@	@	@	@
Aliphatics >C6-C8	<10 µg/kg	TM089	772000	175000	39600	34900	2410	902
			3 @	@	@	@	@	@
Aliphatics >C8-C10	<10 µg/kg	TM089	405000	165000	174000	30400	1290	287
			3 @	@	@	@	@	@
Aliphatics >C10-C12	<10 µg/kg	TM089	204000	122000	171000	23400	2050	205
			3 @	@	@	@	@	@
Aliphatics >C12-C16	<100 µg/kg	TM173	284000	466000	1970000	357000	7120	2600
Aliphatics >C16-C21	<100 µg/kg	TM173	206000	347000	1990000	323000	6530	4080
Aliphatics >C21-C35	<100 µg/kg	TM173	325000	554000	2660000	483000	7910	7470
Aliphatics >C35-C44	<100 µg/kg	TM173	74000	131000	910000	142000	<100	<100
Total Aliphatics >C12-C44	<100 µg/kg	TM173	889000	1500000	7530000	1300000	21600	14100
Aromatics >EC5-EC7	<10 µg/kg	TM089	<200	<200	219	<40	<40	<40
			3 @	@	@	@	@	@
Aromatics >EC7-EC8	<10 µg/kg	TM089	<200	<200	<200	<40	<40	<40
			3 @	@	@	@	@	@
Aromatics >EC8-EC10	<10 µg/kg	TM089	270000	110000	116000	20200	862	190
			3 @	@	@	@	@	@
Aromatics >EC10-EC12	<10 µg/kg	TM089	136000	81000	114000	15600	1370	137
			3 @	@	@	@	@	@
Aromatics >EC12-EC16	<100 µg/kg	TM173	124000	172000	452000	88200	<100	<100
Aromatics >EC16-EC21	<100 µg/kg	TM173	157000	224000	978000	168000	1140	<100
Aromatics >EC21-EC35	<100 µg/kg	TM173	240000	345000	2190000	283000	9630	<100
Aromatics >EC35-EC44	<100 µg/kg	TM173	67000	101000	971000	106000	1150	<100
Aromatics >EC40-EC44	<100 µg/kg	TM173	26300	39600	401000	42900	391	<100
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	587000	842000	4590000	645000	11900	<100
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	3420000	3010000	12700000	2080000	42300	16100



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TPH CWG (S)

Results Legend		Customer Sample Ref.	IP1751	IP1751	IP1752	IP1752	IP1752	IP2106
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	0.50	1.50	0.50	1.50	2.50	0.50
M	mCERTS accredited.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
aq	Aqueous / settled sample.		11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015
diss.filt	Dissolved / filtered sample.		14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015
tot.unfilt	Total / unfiltered sample.		150214-75	150214-75	150214-75	150214-75	150214-75	150214-75
*	Subcontracted test.		10839107	10839111	10839085	10839089	10839093	10839120
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed							
1-5&*&\$@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	83	107	128	110	109	108
			@	@	@	@	@	@
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	220000	3600	885	10200	4740	125000
			@ M	@ M	@ M	@ M	@ M	@ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	<20	<20	<20	<20	<20
			@ M	@ M	@ M	@ M	@ M	@ M
Benzene	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@ M	@ M	@ M	@ M	@ M	@ M
Toluene	<2 µg/kg	TM089	<8	<8	<8	<8	<8	<8
			@ M	@ M	@ M	@ M	@ M	@ M
Ethylbenzene	<3 µg/kg	TM089	<12	<12	<12	<12	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
m,p-Xylene	<6 µg/kg	TM089	<24	<24	<24	<24	<24	<24
			@ M	@ M	@ M	@ M	@ M	@ M
o-Xylene	<3 µg/kg	TM089	1820	<12	<12	<12	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	1820	<9	<9	<9	<9	<9
			@	@	@	@	@	@
sum of detected BTEX by GC	<24 µg/kg	TM089	1820	<24	<24	<24	<24	<24
			@	@	@	@	@	@
Aliphatics >C5-C6	<10 µg/kg	TM089	5200	121	<40	<40	424	479
			@	@	@	@	@	@
Aliphatics >C6-C8	<10 µg/kg	TM089	42600	884	185	1300	1450	12800
			@	@	@	@	@	@
Aliphatics >C8-C10	<10 µg/kg	TM089	56800	728	227	3290	846	30800
			@	@	@	@	@	@
Aliphatics >C10-C12	<10 µg/kg	TM089	45200	833	166	2030	862	36500
			@	@	@	@	@	@
Aliphatics >C12-C16	<100 µg/kg	TM173	666000	36300	10700	<100	120	473000
Aliphatics >C16-C21	<100 µg/kg	TM173	736000	37600	64000	<100	<100	443000
Aliphatics >C21-C35	<100 µg/kg	TM173	1030000	50900	185000	<100	<100	576000
Aliphatics >C35-C44	<100 µg/kg	TM173	339000	14700	75200	<100	<100	178000
Total Aliphatics >C12-C44	<100 µg/kg	TM173	2770000	139000	335000	<100	120	1670000
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC8-EC10	<10 µg/kg	TM089	39700	485	157	2190	580	20500
			@	@	@	@	@	@
Aromatics >EC10-EC12	<10 µg/kg	TM089	30100	555	111	1350	576	24300
			@	@	@	@	@	@
Aromatics >EC12-EC16	<100 µg/kg	TM173	47000	9800	1580	<100	<100	34700
Aromatics >EC16-EC21	<100 µg/kg	TM173	197000	16700	17800	<100	<100	101000
Aromatics >EC21-EC35	<100 µg/kg	TM173	611000	37400	124000	<100	<100	283000
Aromatics >EC35-EC44	<100 µg/kg	TM173	277000	16000	107000	<100	<100	125000
Aromatics >EC40-EC44	<100 µg/kg	TM173	109000	6600	47800	<100	<100	48300
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	1130000	80000	250000	<100	<100	543000
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	4120000	223000	586000	10200	4860	2340000



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TPH CWG (S)

Results Legend		Customer Sample Ref.	IP2106	IP2189	IP2189	IP2204	IP2603	IP2603
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	1.50	0.50	1.50	0.50	0.50	1.50
M	mCERTS accredited.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
aq	Aqueous / settled sample.		11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015
diss.filt	Dissolved / filtered sample.		14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015
tot.unfilt	Total / unfiltered sample.		150214-75	150214-75	150214-75	150214-75	150214-75	150214-75
*	Subcontracted test.		10839125	10839130	10839135	10839154	10839179	10839183
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed							
1-5&*&\$@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	219	105	132	161	17	84
			@	@	@	@	@	@
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	962000	87900	60200	792000	589	23400
			@ M	@ M	@ M	@ M	@ M	@ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<50	<20	<20	<100	<20	<20
			@ M	@ M	@ M	@ M	@ M	@ M
Benzene	<10 µg/kg	TM089	<100	<40	<40	<200	<40	<40
			@ M	@ M	@ M	@ M	@ M	@ M
Toluene	<2 µg/kg	TM089	<20	<8	<8	<40	9.84	<8
			@ M	@ M	@ M	@ M	@ M	@ M
Ethylbenzene	<3 µg/kg	TM089	<30	<12	<12	<60	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
m,p-Xylene	<6 µg/kg	TM089	<60	<24	<24	<120	<24	<24
			@ M	@ M	@ M	@ M	@ M	@ M
o-Xylene	<3 µg/kg	TM089	<30	<12	<12	<60	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	<9	<9	<9	<9	<9
			@	@	@	@	@	@
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	<24	<24	<24	<24	<24
			@	@	@	@	@	@
Aliphatics >C5-C6	<10 µg/kg	TM089	26300	808	1510	5510	<40	<40
			@	@	@	@	@	@
Aliphatics >C6-C8	<10 µg/kg	TM089	327000	25100	13600	162000	124	276
			@	@	@	@	@	@
Aliphatics >C8-C10	<10 µg/kg	TM089	240000	20500	13400	193000	78.7	1690
			@	@	@	@	@	@
Aliphatics >C10-C12	<10 µg/kg	TM089	125000	16700	13600	182000	154	12200
			@	@	@	@	@	@
Aliphatics >C12-C16	<100 µg/kg	TM173	503000	179000	96900	1030000	3450	1660
Aliphatics >C16-C21	<100 µg/kg	TM173	353000	156000	84400	725000	7920	6650
Aliphatics >C21-C35	<100 µg/kg	TM173	280000	167000	90800	789000	23700	15700
Aliphatics >C35-C44	<100 µg/kg	TM173	38700	39700	22400	213000	5610	9960
Total Aliphatics >C12-C44	<100 µg/kg	TM173	1170000	542000	294000	2760000	40700	34000
Aromatics >EC5-EC7	<10 µg/kg	TM089	<100	<40	<40	<200	<40	<40
			@	@	@	@	@	@
Aromatics >EC7-EC8	<10 µg/kg	TM089	<100	<40	<40	<200	<40	<40
			@	@	@	@	@	@
Aromatics >EC8-EC10	<10 µg/kg	TM089	160000	13700	8940	128000	59	1130
			@	@	@	@	@	@
Aromatics >EC10-EC12	<10 µg/kg	TM089	83400	11100	9090	121000	103	8100
			@	@	@	@	@	@
Aromatics >EC12-EC16	<100 µg/kg	TM173	192000	64500	11600	203000	3430	<100
Aromatics >EC16-EC21	<100 µg/kg	TM173	274000	77200	23200	205000	5940	750
Aromatics >EC21-EC35	<100 µg/kg	TM173	301000	124000	46600	340000	21100	11600
Aromatics >EC35-EC44	<100 µg/kg	TM173	99200	40800	21000	133000	6190	8920
Aromatics >EC40-EC44	<100 µg/kg	TM173	39800	16100	9040	52000	1770	4170
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	867000	307000	102000	881000	36600	21300
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	3000000	937000	457000	4430000	77900	78700



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TPH CWG (S)

Results Legend		Customer Sample Ref.	IP1092A	IP1092A	IP1092A	IP1092A	IP1092A	TPE0391
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	1.00	2.00	3.00	4.00	5.00	0.50
M	mCERTS accredited.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
aq	Aqueous / settled sample.		11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015
diss.filt	Dissolved / filtered sample.		14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015
tot.unfilt	Total / unfiltered sample.		150214-75	150214-75	150214-75	150214-75	150214-75	150214-75
*	Subcontracted test.		10839244	10839249	10839253	10839258	10839265	10839238
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed							
1-5&*&\$@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	71	102	68	65	76	96
			@	@	@	@	@	@
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	381	<880	<176	288	22000	<176
			@ M	@ M	@ M	@ M	@ M	@ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	<100	<20	<20	<20	<20
			@ M	@ M	@ M	@ M	@ M	@ M
Benzene	<10 µg/kg	TM089	<40	<200	<40	<40	<40	<40
			@ M	@ M	@ M	@ M	@ M	@ M
Toluene	<2 µg/kg	TM089	<8	<40	<8	<8	<8	<8
			@ M	@ M	@ M	@ M	@ M	@ M
Ethylbenzene	<3 µg/kg	TM089	<12	<60	<12	<12	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
m,p-Xylene	<6 µg/kg	TM089	<24	<120	<24	<24	<24	<24
			@ M	@ M	@ M	@ M	@ M	@ M
o-Xylene	<3 µg/kg	TM089	<12	<60	<12	<12	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	<9	<9	<9	<9	<9
			@	@	@	@	@	@
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	<24	<24	<24	<24	<24
			@	@	@	@	@	@
Aliphatics >C5-C6	<10 µg/kg	TM089	<40	<200	<40	<40	<40	<40
			@	@	@	@	@	@
Aliphatics >C6-C8	<10 µg/kg	TM089	52.6	<200	<40	<40	363	<40
			@	@	@	@	@	@
Aliphatics >C8-C10	<10 µg/kg	TM089	61.6	<200	<40	52	2790	<40
			@	@	@	@	@	@
Aliphatics >C10-C12	<10 µg/kg	TM089	110	<200	<40	73.8	10200	<40
			@	@	@	@	@	@
Aliphatics >C12-C16	<100 µg/kg	TM173	21200	16900	3790	4730	294000	368
Aliphatics >C16-C21	<100 µg/kg	TM173	104000	127000	30500	26000	356000	<100
Aliphatics >C21-C35	<100 µg/kg	TM173	300000	304000	88300	78700	418000	<100
Aliphatics >C35-C44	<100 µg/kg	TM173	94600	83300	18600	20900	108000	<100
Total Aliphatics >C12-C44	<100 µg/kg	TM173	520000	532000	141000	130000	1180000	368
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	<200	<40	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<200	<40	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC8-EC10	<10 µg/kg	TM089	57.1	<200	<40	43.6	1860	<40
			@	@	@	@	@	@
Aromatics >EC10-EC12	<10 µg/kg	TM089	72.8	<200	<40	49.6	6790	<40
			@	@	@	@	@	@
Aromatics >EC12-EC16	<100 µg/kg	TM173	4120	3130	181	324	17600	<100
Aromatics >EC16-EC21	<100 µg/kg	TM173	30700	22700	5270	5350	63300	<100
Aromatics >EC21-EC35	<100 µg/kg	TM173	226000	191000	46400	48800	148000	<100
Aromatics >EC35-EC44	<100 µg/kg	TM173	115000	114000	22800	32900	63100	<100
Aromatics >EC40-EC44	<100 µg/kg	TM173	47200	47400	9380	13300	26400	<100
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	376000	330000	74600	87300	292000	<100
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	896000	863000	216000	218000	1490000	368



SDG: 150214-75
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1094
Report Number: 312605
Superseded Report: 310683

TPH CWG (S)

Results Legend		Customer Sample Ref.	TPE0460	TPE0461	TPE1015	TPE1104	TPE1174	TPE1189
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	0.50	0.50	0.50	0.50	1.00	0.50
M	mCERTS accredited.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
aq	Aqueous / settled sample.		11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015
diss.filt	Dissolved / filtered sample.		14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015
tot.unfilt	Total / unfiltered sample.		150214-75	150214-75	150214-75	150214-75	150214-75	150214-75
*	Subcontracted test.		10839218	10839210	10839139	10839163	10839168	10839189
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed							
1-5&*&\$@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	93	85	105	132	144	76
			@	@	@	@	@	@
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	<176	<176	78200	224000	1090000	254000
			@ M	@ M	@ M	@ M	@ M	@ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	<20	<20	712	<100	<20
			@ M	@ M	@ M	@ M	@ M	@ M
Benzene	<10 µg/kg	TM089	<40	<40	<40	164	<200	<40
			@ M	@ M	@ M	@ M	@ M	@ M
Toluene	<2 µg/kg	TM089	<8	<8	<8	<8	<40	<8
			@ M	@ M	@ M	@ M	@ M	@ M
Ethylbenzene	<3 µg/kg	TM089	<12	<12	<12	<12	<60	<12
			@ M	@ M	@ M	@ M	@ M	@ M
m,p-Xylene	<6 µg/kg	TM089	<24	<24	<24	<24	<120	<24
			@ M	@ M	@ M	@ M	@ M	@ M
o-Xylene	<3 µg/kg	TM089	<12	<12	<12	<12	<60	<12
			@ M	@ M	@ M	@ M	@ M	@ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	<9	<9	<9	<9	<9
			@	@	@	@	@	@
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	<24	<24	164	<24	<24
			@	@	@	@	@	@
Aliphatics >C5-C6	<10 µg/kg	TM089	<40	<40	605	1860	1480	2770
			@	@	@	@	@	@
Aliphatics >C6-C8	<10 µg/kg	TM089	<40	<40	13400	57600	78800	25300
			@	@	@	@	@	@
Aliphatics >C8-C10	<10 µg/kg	TM089	<40	<40	17800	53000	234000	39600
			@	@	@	@	@	@
Aliphatics >C10-C12	<10 µg/kg	TM089	<40	<40	20700	45200	373000	95800
			@	@	@	@	@	@
Aliphatics >C12-C16	<100 µg/kg	TM173	<100	<100	54100	2480000	1530000	306000
Aliphatics >C16-C21	<100 µg/kg	TM173	<100	<100	50800	3740000	758000	138000
Aliphatics >C21-C35	<100 µg/kg	TM173	<100	<100	48700	5230000	636000	145000
Aliphatics >C35-C44	<100 µg/kg	TM173	<100	<100	12600	1610000	151000	39100
Total Aliphatics >C12-C44	<100 µg/kg	TM173	<100	<100	166000	13000000	3080000	628000
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	<40	<40	164	<200	<40
			@	@	@	@	@	@
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<40	<40	<40	<200	<40
			@	@	@	@	@	@
Aromatics >EC8-EC10	<10 µg/kg	TM089	<40	<40	11900	35300	156000	26400
			@	@	@	@	@	@
Aromatics >EC10-EC12	<10 µg/kg	TM089	<40	<40	13800	30200	249000	63900
			@	@	@	@	@	@
Aromatics >EC12-EC16	<100 µg/kg	TM173	<100	<100	22200	888000	412000	487000
Aromatics >EC16-EC21	<100 µg/kg	TM173	989	641	28100	1800000	243000	62500
Aromatics >EC21-EC35	<100 µg/kg	TM173	6850	3650	46000	3160000	286000	114000
Aromatics >EC35-EC44	<100 µg/kg	TM173	5420	1720	18100	1130000	100000	47200
Aromatics >EC40-EC44	<100 µg/kg	TM173	2560	1010	7890	457000	39000	19500
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	13300	6010	114000	6980000	1040000	710000
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	13300	6010	359000	20200000	5210000	1590000



SDG: 150214-75
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1094
Report Number: 312605
Superseded Report: 310683

TPH CWG (S)

Results Legend		Customer Sample Ref.	TPE1189	TPE1191	TPE2109	TPE2797	TPE2839	TPE2839
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	1.50	1.00	0.50	1.00	0.50	1.50
M	mCERTS accredited.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
aq	Aqueous / settled sample.		11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015
diss.filt	Dissolved / filtered sample.		14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015
tot.unfilt	Total / unfiltered sample.		150214-75	150214-75	150214-75	150214-75	150214-75	150214-75
*	Subcontracted test.		10839194	10839174	10839148	10839158	10838814	10838992
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed							
1-5&*&\$@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	132	137	155	101	87	94
			@	@	@	@	@	@
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	19600	516000	655000	<176	<176	570
			@ M	@ M	@ M	@ M	@ M	@ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	<50	<100	<20	<20	<20
			@ M	@ M	@ M	@ M	@ M	@ M
Benzene	<10 µg/kg	TM089	<40	<100	<200	<40	<40	<40
			@ M	@ M	@ M	@ M	@ M	@ M
Toluene	<2 µg/kg	TM089	<8	<20	<40	<8	<8	<8
			@ M	@ M	@ M	@ M	@ M	@ M
Ethylbenzene	<3 µg/kg	TM089	<12	<30	<60	<12	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
m,p-Xylene	<6 µg/kg	TM089	<24	<60	<120	<24	<24	<24
			@ M	@ M	@ M	@ M	@ M	@ M
o-Xylene	<3 µg/kg	TM089	<12	<30	<60	<12	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	<9	<9	<9	<9	<9
			@	@	@	@	@	@
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	<24	<24	<24	<24	<24
			@	@	@	@	@	@
Aliphatics >C5-C6	<10 µg/kg	TM089	486	1420	2200	<40	<40	<40
			@	@	@	@	@	@
Aliphatics >C6-C8	<10 µg/kg	TM089	2950	38900	98500	<40	<40	<40
			@	@	@	@	@	@
Aliphatics >C8-C10	<10 µg/kg	TM089	2270	96400	170000	<40	<40	131
			@	@	@	@	@	@
Aliphatics >C10-C12	<10 µg/kg	TM089	7400	189000	162000	<40	<40	186
			@	@	@	@	@	@
Aliphatics >C12-C16	<100 µg/kg	TM173	552	498000	776000	1030	1080	3160
Aliphatics >C16-C21	<100 µg/kg	TM173	<100	271000	588000	<100	15300	14600
Aliphatics >C21-C35	<100 µg/kg	TM173	<100	231000	611000	<100	39600	12600
Aliphatics >C35-C44	<100 µg/kg	TM173	<100	42200	160000	<100	8350	<100
Total Aliphatics >C12-C44	<100 µg/kg	TM173	552	1040000	2130000	1030	64400	30400
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	<100	<200	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<100	<200	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC8-EC10	<10 µg/kg	TM089	1520	64300	113000	<40	<40	87.3
			@	@	@	@	@	@
Aromatics >EC10-EC12	<10 µg/kg	TM089	4930	126000	108000	<40	<40	124
			@	@	@	@	@	@
Aromatics >EC12-EC16	<100 µg/kg	TM173	8240	378000	77500	<100	<100	<100
Aromatics >EC16-EC21	<100 µg/kg	TM173	<100	135000	147000	<100	5800	3230
Aromatics >EC21-EC35	<100 µg/kg	TM173	<100	182000	283000	2600	60100	11100
Aromatics >EC35-EC44	<100 µg/kg	TM173	1930	63300	110000	4160	29700	4440
Aromatics >EC40-EC44	<100 µg/kg	TM173	1490	26300	42600	2200	12900	1750
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	10200	758000	617000	6750	95500	18800
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	30300	2320000	3410000	7880	160000	49800



SDG: 150214-75
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Order Number: CD1094
Report Number: 312605
Superseded Report: 310683

TPH CWG (S)

Results Legend		Customer Sample Ref.	TPE2840	TPE2841	TPE2842	TPE2877	TPE2877	TPE2877
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	0.50	0.50	0.50	0.50	0.75	1.00
M	mCERTS accredited.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
aq	Aqueous / settled sample.		11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015
diss.filt	Dissolved / filtered sample.		14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015
tot.unfilt	Total / unfiltered sample.		150214-75	150214-75	150214-75	150214-75	150214-75	150214-75
*	Subcontracted test.		10839053	10839102	10839368	10839214	10839272	10839316
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed							
1-5&*&\$@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	100	77	81	76	26	88
			@	@	@	@	@	@
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	<176	<176	<176	202	1130	<176
			@ M	@ M	@ M	@ M	@ M	@ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	<20	<20	<20	<20	<20
			@ M	@ M	@ M	@ M	@ M	@ M
Benzene	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@ M	@ M	@ M	@ M	@ M	@ M
Toluene	<2 µg/kg	TM089	<8	<8	<8	<8	<8	<8
			@ M	@ M	@ M	@ M	@ M	@ M
Ethylbenzene	<3 µg/kg	TM089	<12	<12	<12	<12	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
m,p-Xylene	<6 µg/kg	TM089	<24	<24	<24	<24	<24	<24
			@ M	@ M	@ M	@ M	@ M	@ M
o-Xylene	<3 µg/kg	TM089	<12	<12	<12	<12	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	<9	<9	<9	<9	<9
			@	@	@	@	@	@
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	<24	<24	<24	<24	<24
			@	@	@	@	@	@
Aliphatics >C5-C6	<10 µg/kg	TM089	<40	<40	<40	<40	107	<40
			@	@	@	@	@	@
Aliphatics >C6-C8	<10 µg/kg	TM089	<40	<40	<40	<40	126	<40
			@	@	@	@	@	@
Aliphatics >C8-C10	<10 µg/kg	TM089	<40	<40	<40	<40	81.7	<40
			@	@	@	@	@	@
Aliphatics >C10-C12	<10 µg/kg	TM089	<40	<40	<40	44.5	451	<40
			@	@	@	@	@	@
Aliphatics >C12-C16	<100 µg/kg	TM173	3170	1460	<100	<100	35600	1860
Aliphatics >C16-C21	<100 µg/kg	TM173	23400	20800	<100	3110	292000	11600
Aliphatics >C21-C35	<100 µg/kg	TM173	26300	191000	2200	40500	2130000	97800
Aliphatics >C35-C44	<100 µg/kg	TM173	5930	93900	<100	61500	985000	50200
Total Aliphatics >C12-C44	<100 µg/kg	TM173	58800	307000	2200	105000	3440000	162000
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC8-EC10	<10 µg/kg	TM089	<40	<40	<40	<40	57.3	<40
			@	@	@	@	@	@
Aromatics >EC10-EC12	<10 µg/kg	TM089	<40	<40	<40	<40	301	<40
			@	@	@	@	@	@
Aromatics >EC12-EC16	<100 µg/kg	TM173	<100	<100	<100	<100	8850	<100
Aromatics >EC16-EC21	<100 µg/kg	TM173	4920	1840	<100	1360	38900	1240
Aromatics >EC21-EC35	<100 µg/kg	TM173	41800	169000	1660	28200	1870000	92700
Aromatics >EC35-EC44	<100 µg/kg	TM173	24000	173000	<100	38400	1460000	85300
Aromatics >EC40-EC44	<100 µg/kg	TM173	9700	69200	<100	18700	569000	34000
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	70700	344000	1660	67900	3380000	179000
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	130000	650000	3860	173000	6830000	341000



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Superseded Report: 310683

TPH CWG (S)

Results Legend		Customer Sample Ref.	TPE2890	TPE2890	TPE2890	TPE2920	TPE2920	TPE2920
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	0.50	1.50	2.50	0.50	1.50	2.50
M	mCERTS accredited.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
aq	Aqueous / settled sample.		11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015
diss.filt	Dissolved / filtered sample.		14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015
tot.unfilt	Total / unfiltered sample.		150214-75	150214-75	150214-75	150214-75	150214-75	150214-75
*	Subcontracted test.		10838890	10838894	10838898	10838923	10838927	10838932
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed							
1-5&*\$@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	51	45	44	60	63	58
			@	@	@	@	@	@
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	595	<176	<176	285	620	1070
			@ M	@ M	@	@ #	@ M	@ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	<20	<20	<20	<20	<20
			@ M	@ M	@	@ #	@ M	@ M
Benzene	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@ M	@ M	@	@ #	@ M	@ M
Toluene	<2 µg/kg	TM089	32.2	<8	<8	<8	<8	<8
			@ M	@ M	@	@ #	@ M	@ M
Ethylbenzene	<3 µg/kg	TM089	<12	<12	<12	<12	<12	<12
			@ M	@ M	@	@ #	@ M	@ M
m,p-Xylene	<6 µg/kg	TM089	31	<24	<24	<24	<24	<24
			@ M	@ M	@	@ #	@ M	@ M
o-Xylene	<3 µg/kg	TM089	<12	<12	<12	<12	<12	<12
			@ M	@ M	@	@ #	@ M	@ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	31	<9	<9	<9	<9	<9
			@	@	@	@	@	@
sum of detected BTEX by GC	<24 µg/kg	TM089	63.2	<24	<24	<24	<24	<24
			@	@	@	@	@	@
Aliphatics >C5-C6	<10 µg/kg	TM089	45.9	<40	<40	<40	<40	41.5
			@	@	@	@	@	@
Aliphatics >C6-C8	<10 µg/kg	TM089	100	<40	<40	74.2	91.8	93.9
			@	@	@	@	@	@
Aliphatics >C8-C10	<10 µg/kg	TM089	108	<40	<40	60.3	76.9	79.3
			@	@	@	@	@	@
Aliphatics >C10-C12	<10 µg/kg	TM089	100	<40	<40	51.6	211	470
			@	@	@	@	@	@
Aliphatics >C12-C16	<100 µg/kg	TM173	80000	8420	4420	12000	101000	23800
Aliphatics >C16-C21	<100 µg/kg	TM173	211000	19000	14000	40100	98400	82600
Aliphatics >C21-C35	<100 µg/kg	TM173	377000	40100	69500	194000	356000	266000
Aliphatics >C35-C44	<100 µg/kg	TM173	109000	19700	25800	148000	96200	80400
Total Aliphatics >C12-C44	<100 µg/kg	TM173	777000	87300	114000	394000	651000	453000
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC8-EC10	<10 µg/kg	TM089	119	<40	<40	43	57	58.6
			@	@	@	@	@	@
Aromatics >EC10-EC12	<10 µg/kg	TM089	67	<40	<40	<40	140	314
			@	@	@	@	@	@
Aromatics >EC12-EC16	<100 µg/kg	TM173	18900	<100	<100	2660	8620	4950
Aromatics >EC16-EC21	<100 µg/kg	TM173	71000	<100	4350	13800	39700	41600
Aromatics >EC21-EC35	<100 µg/kg	TM173	269000	12700	47600	219000	374000	276000
Aromatics >EC35-EC44	<100 µg/kg	TM173	117000	13300	40300	280000	218000	163000
Aromatics >EC40-EC44	<100 µg/kg	TM173	48000	5550	17200	126000	94300	78900
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	476000	26000	92200	515000	640000	486000
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	1250000	113000	206000	909000	1290000	940000



SDG: 150214-75
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1094
Report Number: 312605
Superseded Report: 310683

TPH CWG (S)

Results Legend		Customer Sample Ref.	TPE2920	TPE2921	TPE2921	TPE2921	TPE2921	TPE2921
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	3.20	0.50	1.50	2.60	3.50	4.00
M	mCERTS accredited.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
aq	Aqueous / settled sample.		11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015
diss.filt	Dissolved / filtered sample.		14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015
tot.unfilt	Total / unfiltered sample.		150214-75	150214-75	150214-75	150214-75	150214-75	150214-75
*	Subcontracted test.		10838936	10838870	10838874	10838878	10838882	10838886
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed							
1-5&*&\$@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	89	120	77	92	88	93
			@	@	@	@	@	@
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	4060	12800	26100	4370	9050	5690
			@ M	@ M	@ M	@ M	@ M	@ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	22.6	<20	<20	<20	<20	<20
			@ M	@ M	@ M	@ M	@ M	@ M
Benzene	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@ M	@ M	@ M	@ M	@ M	@ M
Toluene	<2 µg/kg	TM089	<8	<8	<8	<8	<8	<8
			@ M	@ M	@ M	@ M	@ M	@ M
Ethylbenzene	<3 µg/kg	TM089	<12	<12	<12	<12	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
m,p-Xylene	<6 µg/kg	TM089	<24	<24	<24	<24	<24	<24
			@ M	@ M	@ M	@ M	@ M	@ M
o-Xylene	<3 µg/kg	TM089	27.1	<12	<12	<12	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	27.1	<9	<9	<9	<9	<9
			@	@	@	@	@	@
sum of detected BTEX by GC	<24 µg/kg	TM089	27.1	<24	<24	<24	<24	<24
			@	@	@	@	@	@
Aliphatics >C5-C6	<10 µg/kg	TM089	<40	46.7	<40	<40	<40	47.9
			@	@	@	@	@	@
Aliphatics >C6-C8	<10 µg/kg	TM089	829	173	529	155	270	511
			@	@	@	@	@	@
Aliphatics >C8-C10	<10 µg/kg	TM089	731	2510	5600	722	1280	496
			@	@	@	@	@	@
Aliphatics >C10-C12	<10 µg/kg	TM089	1160	5060	9710	1800	3980	2580
			@	@	@	@	@	@
Aliphatics >C12-C16	<100 µg/kg	TM173	16600	42300	240000	215000	166000	533000
Aliphatics >C16-C21	<100 µg/kg	TM173	286000	95500	326000	379000	335000	946000
Aliphatics >C21-C35	<100 µg/kg	TM173	1190000	167000	118000	61600	57300	122000
Aliphatics >C35-C44	<100 µg/kg	TM173	68100	72600	11500	<100	<100	<100
Total Aliphatics >C12-C44	<100 µg/kg	TM173	1560000	378000	695000	656000	559000	1600000
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC8-EC10	<10 µg/kg	TM089	515	1670	3730	482	854	339
			@	@	@	@	@	@
Aromatics >EC10-EC12	<10 µg/kg	TM089	775	3370	6470	1200	2650	1720
			@	@	@	@	@	@
Aromatics >EC12-EC16	<100 µg/kg	TM173	4220	11400	19000	20800	6170	35600
Aromatics >EC16-EC21	<100 µg/kg	TM173	151000	53600	72300	87600	58000	222000
Aromatics >EC21-EC35	<100 µg/kg	TM173	805000	205000	46600	24500	30700	46300
Aromatics >EC35-EC44	<100 µg/kg	TM173	65400	118000	10400	1500	7730	<100
Aromatics >EC40-EC44	<100 µg/kg	TM173	19000	52600	4430	<100	3190	<100
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	1030000	388000	148000	134000	103000	304000
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	2590000	778000	869000	794000	671000	1910000



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Customer: Atkins Global Ltd
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Order Number: CD1094
Report Number: 312605
Superseded Report: 310683

TPH CWG (S)

Results Legend		Customer Sample Ref.	TPE2972	TPE2972	TPE2972	TPE2972	TPE2972	TPE3014
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	0.50	1.50	2.50	3.50	4.50	0.50
M	mCERTS accredited.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
aq	Aqueous / settled sample.		11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015
diss.filt	Dissolved / filtered sample.		14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015
tot.unfilt	Total / unfiltered sample.		150214-75	150214-75	150214-75	150214-75	150214-75	150214-75
*	Subcontracted test.		10838842	10838847	10838851	10838857	10838862	10838902
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed							
1-5&*&@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	70	72	102	110	83	81
			@	@	@	@	@	@
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	<176	614	<176	<176	<176	38500
			@ M	@ M	@ M	@ M	@ M	@ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	<20	<20	<20	<20	<20
			@ M	@ M	@ M	@ M	@ M	@ M
Benzene	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@ M	@ M	@ M	@ M	@ M	@ M
Toluene	<2 µg/kg	TM089	<8	<8	<8	<8	<8	<8
			@ M	@ M	@ M	@ M	@ M	@ M
Ethylbenzene	<3 µg/kg	TM089	<12	<12	<12	<12	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
m,p-Xylene	<6 µg/kg	TM089	<24	<24	<24	<24	<24	<24
			@ M	@ M	@ M	@ M	@ M	@ M
o-Xylene	<3 µg/kg	TM089	<12	<12	<12	<12	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	<9	<9	<9	<9	<9
			@	@	@	@	@	@
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	<24	<24	<24	<24	<24
			@	@	@	@	@	@
Aliphatics >C5-C6	<10 µg/kg	TM089	<40	80.6	<40	<40	<40	61.6
			@	@	@	@	@	@
Aliphatics >C6-C8	<10 µg/kg	TM089	<40	146	<40	<40	<40	1490
			@	@	@	@	@	@
Aliphatics >C8-C10	<10 µg/kg	TM089	<40	108	<40	<40	<40	5640
			@	@	@	@	@	@
Aliphatics >C10-C12	<10 µg/kg	TM089	<40	121	<40	<40	<40	16500
			@	@	@	@	@	@
Aliphatics >C12-C16	<100 µg/kg	TM173	3550	3570	<100	<100	<100	1060000
Aliphatics >C16-C21	<100 µg/kg	TM173	6810	12100	<100	<100	<100	979000
Aliphatics >C21-C35	<100 µg/kg	TM173	17700	26400	<100	788	<100	283000
Aliphatics >C35-C44	<100 µg/kg	TM173	9480	6900	<100	<100	<100	3590
Total Aliphatics >C12-C44	<100 µg/kg	TM173	37600	49000	<100	788	<100	2330000
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC8-EC10	<10 µg/kg	TM089	<40	72.8	<40	<40	<40	3760
			@	@	@	@	@	@
Aromatics >EC10-EC12	<10 µg/kg	TM089	<40	80.6	<40	<40	<40	11000
			@	@	@	@	@	@
Aromatics >EC12-EC16	<100 µg/kg	TM173	<100	985	<100	1190	<100	505000
Aromatics >EC16-EC21	<100 µg/kg	TM173	<100	5860	<100	1120	<100	489000
Aromatics >EC21-EC35	<100 µg/kg	TM173	14100	35800	<100	2620	<100	188000
Aromatics >EC35-EC44	<100 µg/kg	TM173	11300	21100	<100	<100	<100	5100
Aromatics >EC40-EC44	<100 µg/kg	TM173	4050	8600	<100	<100	<100	833
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	25400	63800	<100	4920	<100	1190000
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	63100	113000	<100	5710	<100	3550000



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Report Number: 312605
Superseded Report: 310683

TPH CWG (S)

Results Legend		Customer Sample Ref.	TPE3014	TPE3014	TPE3014	TPE3239	TPE3239	TPE3239
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	1.50	2.50	3.20	0.50	1.00	1.50
M	mCERTS accredited.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
aq	Aqueous / settled sample.		11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015
diss.filt	Dissolved / filtered sample.		14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015
tot.unfilt	Total / unfiltered sample.		150214-75	150214-75	150214-75	150214-75	150214-75	150214-75
*	Subcontracted test.		10838906	10838915	10838919	10838959	10838945	10838963
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed							
1-5&*&\$@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	113	110	113	79	77	100
			@	@	@	@	@	@
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	119000	98000	89100	32200	805000	1250
			@ M	@ M	@ M	@ M	@ M	@ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	1080	<20	<20	<20	<50	<20
			@ M	@ M	@ M	@ M	@ M	@ M
Benzene	<10 µg/kg	TM089	258	<40	70.4	<40	187	<40
			@ M	@ M	@ M	@ M	@ M	@ M
Toluene	<2 µg/kg	TM089	<8	<8	<8	<8	<20	<8
			@ M	@ M	@ M	@ M	@ M	@ M
Ethylbenzene	<3 µg/kg	TM089	<12	<12	<12	<12	<30	<12
			@ M	@ M	@ M	@ M	@ M	@ M
m,p-Xylene	<6 µg/kg	TM089	<24	<24	<24	<24	<60	<24
			@ M	@ M	@ M	@ M	@ M	@ M
o-Xylene	<3 µg/kg	TM089	<12	<12	<12	<12	<30	16.1
			@ M	@ M	@ M	@ M	@ M	@ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	<9	<9	<9	<9	16.1
			@	@	@	@	@	@
sum of detected BTEX by GC	<24 µg/kg	TM089	258	<24	70.4	<24	187	<24
			@	@	@	@	@	@
Aliphatics >C5-C6	<10 µg/kg	TM089	1810	177	426	<40	1090	<40
			@	@	@	@	@	@
Aliphatics >C6-C8	<10 µg/kg	TM089	55400	19400	19800	976	117000	209
			@	@	@	@	@	@
Aliphatics >C8-C10	<10 µg/kg	TM089	17400	23200	21600	5230	247000	317
			@	@	@	@	@	@
Aliphatics >C10-C12	<10 µg/kg	TM089	18800	23800	19600	13500	165000	291
			@	@	@	@	@	@
Aliphatics >C12-C16	<100 µg/kg	TM173	1640000	1070000	477000	29000	1910000	46400
Aliphatics >C16-C21	<100 µg/kg	TM173	1500000	970000	419000	44400	869000	66000
Aliphatics >C21-C35	<100 µg/kg	TM173	454000	272000	177000	105000	261000	26300
Aliphatics >C35-C44	<100 µg/kg	TM173	8120	3250	7240	40300	74900	<100
Total Aliphatics >C12-C44	<100 µg/kg	TM173	3610000	2320000	1080000	218000	3120000	139000
Aromatics >EC5-EC7	<10 µg/kg	TM089	258	43.7	70.4	<40	187	<40
			@	@	@	@	@	@
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<40	<40	<40	<100	<40
			@	@	@	@	@	@
Aromatics >EC8-EC10	<10 µg/kg	TM089	11600	15400	14400	3490	165000	227
			@	@	@	@	@	@
Aromatics >EC10-EC12	<10 µg/kg	TM089	12500	15900	13100	8990	110000	193
			@	@	@	@	@	@
Aromatics >EC12-EC16	<100 µg/kg	TM173	314000	517000	189000	4450	413000	4410
Aromatics >EC16-EC21	<100 µg/kg	TM173	371000	482000	258000	16000	381000	29600
Aromatics >EC21-EC35	<100 µg/kg	TM173	158000	182000	121000	81900	328000	44300
Aromatics >EC35-EC44	<100 µg/kg	TM173	8800	50700	16500	50500	101000	13200
Aromatics >EC40-EC44	<100 µg/kg	TM173	3320	26300	6600	22100	41500	5260
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	851000	1230000	585000	153000	1220000	91600
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	4570000	3640000	1750000	403000	5140000	232000



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TPH CWG (S)

Results Legend		Customer Sample Ref.	TPE3239	TPE3239	TPE3241	TPE3241	TPE3241	TPE3241
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	2.50	3.50	0.50	1.50	2.50	3.50
M	mCERTS accredited.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
aq	Aqueous / settled sample.		11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015
diss.filt	Dissolved / filtered sample.		14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015
tot.unfilt	Total / unfiltered sample.		150214-75	150214-75	150214-75	150214-75	150214-75	150214-75
*	Subcontracted test.		1083967	1083971	10839373	10839378	10839383	10839388
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed							
1-5&*&\$@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	154	88	79	98	136	145
			@	@	@	@	@	@
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	1950000	1910000	10300	6150	77200	888000
			3 @ M	3 @ M	@ M	@ M	@ M	@ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<100	<100	<20	<20	<50	<100
			@ M	@ M	@ M	@ M	@ M	@ M
Benzene	<10 µg/kg	TM089	<200	<200	<40	<40	<100	<200
			@ M	@ M	@ M	@ M	@ M	@ M
Toluene	<2 µg/kg	TM089	<40	<40	<8	<8	<20	<40
			@ M	@ M	@ M	@ M	@ M	@ M
Ethylbenzene	<3 µg/kg	TM089	<60	<60	<12	<12	<30	<60
			@ M	@ M	@ M	@ M	@ M	@ M
m,p-Xylene	<6 µg/kg	TM089	<120	<120	<24	<24	<60	<120
			@ M	@ M	@ M	@ M	@ M	@ M
o-Xylene	<3 µg/kg	TM089	<60	<60	<12	<12	<30	<60
			@ M	@ M	@ M	@ M	@ M	@ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	<9	<9	<9	<9	<9
			@	@	@	@	@	@
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	<24	<24	<24	<24	<24
			@	@	@	@	@	@
Aliphatics >C5-C6	<10 µg/kg	TM089	1420	1940	48.8	121	<100	1180
			3 @	3 @	@	@	@	@
Aliphatics >C6-C8	<10 µg/kg	TM089	182000	155000	432	1480	1320	54200
			3 @	3 @	@	@	@	@
Aliphatics >C8-C10	<10 µg/kg	TM089	482000	467000	898	1270	9260	190000
			3 @	3 @	@	@	@	@
Aliphatics >C10-C12	<10 µg/kg	TM089	576000	584000	4980	1460	36200	310000
			3 @	3 @	@	@	@	@
Aliphatics >C12-C16	<100 µg/kg	TM173	1240000	332000	236000	23900	314000	500000
Aliphatics >C16-C21	<100 µg/kg	TM173	367000	99600	143000	55900	125000	185000
Aliphatics >C21-C35	<100 µg/kg	TM173	80800	18800	106000	32100	38100	36600
Aliphatics >C35-C44	<100 µg/kg	TM173	10700	3350	23200	5100	5390	4110
Total Aliphatics >C12-C44	<100 µg/kg	TM173	1700000	453000	509000	117000	482000	725000
Aromatics >EC5-EC7	<10 µg/kg	TM089	<200	<200	<40	<40	<100	<200
			3 @	3 @	@	@	@	@
Aromatics >EC7-EC8	<10 µg/kg	TM089	<200	<200	<40	<40	<100	<200
			3 @	3 @	@	@	@	@
Aromatics >EC8-EC10	<10 µg/kg	TM089	321000	311000	600	848	6170	126000
			3 @	3 @	@	@	@	@
Aromatics >EC10-EC12	<10 µg/kg	TM089	384000	389000	3320	974	24200	207000
			3 @	3 @	@	@	@	@
Aromatics >EC12-EC16	<100 µg/kg	TM173	344000	110000	72300	8170	108000	164000
Aromatics >EC16-EC21	<100 µg/kg	TM173	160000	51600	81500	30700	60300	89300
Aromatics >EC21-EC35	<100 µg/kg	TM173	95700	21900	107000	40300	37900	44800
Aromatics >EC35-EC44	<100 µg/kg	TM173	20600	3500	39900	16400	8960	9550
Aromatics >EC40-EC44	<100 µg/kg	TM173	6540	1530	16200	7250	3730	3840
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	620000	187000	301000	95600	215000	308000
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	4270000	2550000	820000	219000	775000	1920000



SDG: 150214-75
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1094
Report Number: 312605
Superseded Report: 310683

TPH CWG (S)

Results Legend		Customer Sample Ref.	TPE3241	TPE3242	TPE3242	TPE3242	TPE3242	TPE3242
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	4.50	0.50	1.50	2.50	3.50	4.50
M	mCERTS accredited.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
aq	Aqueous / settled sample.		11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015
diss.filt	Dissolved / filtered sample.		14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015
tot.unfilt	Total / unfiltered sample.		150214-75	150214-75	150214-75	150214-75	150214-75	150214-75
*	Subcontracted test.		10839392	10838822	10838826	10838830	10838834	10838838
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed							
1-5&*\$@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	121	68	83	99	149	129
			@	@	@	@	@	@
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	445000	9610	126000	107000	676000	262000
			@ M	@ M	@ M	@ M	@ M	@ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	<20	<20	<20	<100	<20
			@ M	@ M	@ M	@ M	@ M	@ M
Benzene	<10 µg/kg	TM089	56.6	<40	<40	<40	<200	<40
			@ M	@ M	@ M	@ M	@ M	@ M
Toluene	<2 µg/kg	TM089	<8	<8	<8	<8	<40	<8
			@ M	@ M	@ M	@ M	@ M	@ M
Ethylbenzene	<3 µg/kg	TM089	<12	<12	<12	<12	<60	<12
			@ M	@ M	@ M	@ M	@ M	@ M
m,p-Xylene	<6 µg/kg	TM089	<24	<24	<24	<24	<120	<24
			@ M	@ M	@ M	@ M	@ M	@ M
o-Xylene	<3 µg/kg	TM089	<12	<12	<12	<12	<60	<12
			@ M	@ M	@ M	@ M	@ M	@ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	<9	<9	<9	<9	<9
			@	@	@	@	@	@
sum of detected BTEX by GC	<24 µg/kg	TM089	56.6	<24	<24	<24	<24	<24
			@	@	@	@	@	@
Aliphatics >C5-C6	<10 µg/kg	TM089	1790	66.6	2360	3380	3490	3420
			@	@	@	@	@	@
Aliphatics >C6-C8	<10 µg/kg	TM089	47300	1020	25600	33200	107000	64200
			@	@	@	@	@	@
Aliphatics >C8-C10	<10 µg/kg	TM089	103000	1110	16800	16600	156000	61900
			@	@	@	@	@	@
Aliphatics >C10-C12	<10 µg/kg	TM089	134000	4000	42100	25800	184000	54600
			@	@	@	@	@	@
Aliphatics >C12-C16	<100 µg/kg	TM173	814000	104000	175000	375000	522000	272000
Aliphatics >C16-C21	<100 µg/kg	TM173	289000	299000	278000	582000	207000	98300
Aliphatics >C21-C35	<100 µg/kg	TM173	81900	268000	493000	705000	281000	141000
Aliphatics >C35-C44	<100 µg/kg	TM173	5920	53900	94000	109000	11100	10700
Total Aliphatics >C12-C44	<100 µg/kg	TM173	1190000	725000	1040000	1770000	1020000	522000
Aromatics >EC5-EC7	<10 µg/kg	TM089	56.6	<40	<40	<40	<200	<40
			@	@	@	@	@	@
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<40	<40	<40	<200	<40
			@	@	@	@	@	@
Aromatics >EC8-EC10	<10 µg/kg	TM089	69000	743	11200	11000	104000	41300
			@	@	@	@	@	@
Aromatics >EC10-EC12	<10 µg/kg	TM089	89300	2670	28000	17200	123000	36400
			@	@	@	@	@	@
Aromatics >EC12-EC16	<100 µg/kg	TM173	148000	8130	26800	113000	227000	131000
Aromatics >EC16-EC21	<100 µg/kg	TM173	130000	66000	112000	255000	152000	92400
Aromatics >EC21-EC35	<100 µg/kg	TM173	110000	133000	375000	515000	258000	155000
Aromatics >EC35-EC44	<100 µg/kg	TM173	23400	44000	98400	117000	29700	24300
Aromatics >EC40-EC44	<100 µg/kg	TM173	8830	17300	40600	44700	8930	7800
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	412000	251000	612000	1000000	667000	402000
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	2050000	986000	1780000	2880000	2360000	1190000



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Order Number: CD1094
Report Number: 312605
Superseded Report: 310683

TPH CWG (S)

Results Legend		Customer Sample Ref.	TPE3290	TPE3290	TPE3290	TPE3291	TPE3291	TPE3292
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	0.50	1.00	1.50	0.50	1.00	0.50
M	mCERTS accredited.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
aq	Aqueous / settled sample.		11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015
diss.filt	Dissolved / filtered sample.							
tot.unfilt	Total / unfiltered sample.							
*	Subcontracted test.		14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery		150214-75	150214-75	150214-75	150214-75	150214-75	150214-75
(F)	Trigger breach confirmed		10838911	10838951	10838955	10838818	10838866	10839396
1-5&*&\$@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	84	155	180	156	130	137
			@	@	@	@	@	@
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	<176	762000	307000	1420000	407000	315000
			@ M	@ M	@ M	@ M	@ M	@ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	<100	<20	<100	<100	<100
			@ M	@ M	@ M	@ M	@ M	@ M
Benzene	<10 µg/kg	TM089	<40	<200	<40	<200	<200	<200
			@ M	@ M	@ M	@ M	@ M	@ M
Toluene	<2 µg/kg	TM089	<8	<40	<8	<40	<40	<40
			@ M	@ M	@ M	@ M	@ M	@ M
Ethylbenzene	<3 µg/kg	TM089	<12	<60	<12	<60	<60	<60
			@ M	@ M	@ M	@ M	@ M	@ M
m,p-Xylene	<6 µg/kg	TM089	<24	<120	<24	<120	<120	<120
			@ M	@ M	@ M	@ M	@ M	@ M
o-Xylene	<3 µg/kg	TM089	<12	<60	<12	<60	<60	<60
			@ M	@ M	@ M	@ M	@ M	@ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	<9	<9	<9	<9	<9
			@	@	@	@	@	@
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	<24	<24	<24	<24	<24
			@	@	@	@	@	@
Aliphatics >C5-C6	<10 µg/kg	TM089	<40	1590	1140	912	492	4530
			@	@	@	@	@	@
Aliphatics >C6-C8	<10 µg/kg	TM089	<40	111000	47600	208000	34400	101000
			@	@	@	@	@	@
Aliphatics >C8-C10	<10 µg/kg	TM089	<40	171000	70800	423000	90300	69700
			@	@	@	@	@	@
Aliphatics >C10-C12	<10 µg/kg	TM089	<40	218000	84000	300000	133000	55900
			@	@	@	@	@	@
Aliphatics >C12-C16	<100 µg/kg	TM173	1120	1710000	1260000	1840000	509000	261000
Aliphatics >C16-C21	<100 µg/kg	TM173	9580	796000	464000	1040000	248000	131000
Aliphatics >C21-C35	<100 µg/kg	TM173	84700	550000	232000	412000	91400	76700
Aliphatics >C35-C44	<100 µg/kg	TM173	72600	122000	37900	47100	10700	16700
Total Aliphatics >C12-C44	<100 µg/kg	TM173	168000	3170000	2000000	3340000	859000	486000
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	<200	<40	<200	<200	<200
			@	@	@	@	@	@
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<200	<40	<200	<200	<200
			@	@	@	@	@	@
Aromatics >EC8-EC10	<10 µg/kg	TM089	<40	114000	47200	282000	60200	46500
			@	@	@	@	@	@
Aromatics >EC10-EC12	<10 µg/kg	TM089	<40	146000	56000	200000	88800	37300
			@	@	@	@	@	@
Aromatics >EC12-EC16	<100 µg/kg	TM173	<100	566000	474000	166000	68500	27500
Aromatics >EC16-EC21	<100 µg/kg	TM173	21200	571000	283000	225000	69500	32700
Aromatics >EC21-EC35	<100 µg/kg	TM173	275000	1120000	285000	249000	71000	41300
Aromatics >EC35-EC44	<100 µg/kg	TM173	126000	504000	65500	59600	17900	14300
Aromatics >EC40-EC44	<100 µg/kg	TM173	55700	211000	24300	21300	6490	6220
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	422000	2760000	1110000	700000	227000	116000
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	590000	6690000	3410000	5460000	1490000	916000



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TPH CWG (S)

Results Legend		Customer Sample Ref.	TPE3292	TPE3292	TPE3292	TPE3292	TPE3293	TPE3293
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	1.50	2.50	3.50	4.50	0.50	1.50
M	mCERTS accredited.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
aq	Aqueous / settled sample.		11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015
diss.filt	Dissolved / filtered sample.		14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015
tot.unfilt	Total / unfiltered sample.		150214-75	150214-75	150214-75	150214-75	150214-75	150214-75
*	Subcontracted test.		10839400	10839404	10839408	10839412	10839340	10839345
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed							
1-5&*&\$@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	200	174	170	175	129	93
			@	@	@	@	@	@
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	1430000	877000	946000	879000	96300	2220
			@ M	@ M	@ M	@ M	@ M	@ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<100	<100	<100	<100	<20	<20
			@ M	@ M	@ M	@ M	@ M	@ M
Benzene	<10 µg/kg	TM089	<200	<200	<200	<200	59	<40
			@ M	@ M	@ M	@ M	@ M	@ M
Toluene	<2 µg/kg	TM089	<40	<40	<40	<40	<8	<8
			@ M	@ M	@ M	@ M	@ M	@ M
Ethylbenzene	<3 µg/kg	TM089	<60	<60	<60	<60	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
m,p-Xylene	<6 µg/kg	TM089	<120	<120	<120	<120	<24	<24
			@ M	@ M	@ M	@ M	@ M	@ M
o-Xylene	<3 µg/kg	TM089	<60	<60	<60	<60	<12	22.1
			@ M	@ M	@ M	@ M	@ M	@ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	<9	<9	<9	<9	22.1
			@	@	@	@	@	@
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	<24	<24	<24	59	<24
			@	@	@	@	@	@
Aliphatics >C5-C6	<10 µg/kg	TM089	37300	9300	10800	7980	315	74.5
			@	@	@	@	@	@
Aliphatics >C6-C8	<10 µg/kg	TM089	533000	218000	217000	182000	9890	551
			@	@	@	@	@	@
Aliphatics >C8-C10	<10 µg/kg	TM089	305000	194000	218000	185000	24000	687
			@	@	@	@	@	@
Aliphatics >C10-C12	<10 µg/kg	TM089	212000	196000	213000	228000	27600	253
			@	@	@	@	@	@
Aliphatics >C12-C16	<100 µg/kg	TM173	819000	838000	428000	522000	262000	159000
Aliphatics >C16-C21	<100 µg/kg	TM173	379000	379000	191000	199000	117000	381000
Aliphatics >C21-C35	<100 µg/kg	TM173	130000	102000	66500	62200	205000	2780000
Aliphatics >C35-C44	<100 µg/kg	TM173	21400	15500	6520	11300	45700	1470000
Total Aliphatics >C12-C44	<100 µg/kg	TM173	1350000	1330000	692000	794000	629000	4790000
Aromatics >EC5-EC7	<10 µg/kg	TM089	<200	<200	<200	<200	59	<40
			@	@	@	@	@	@
Aromatics >EC7-EC8	<10 µg/kg	TM089	<200	<200	<200	<200	<40	<40
			@	@	@	@	@	@
Aromatics >EC8-EC10	<10 µg/kg	TM089	203000	129000	145000	124000	16000	480
			@	@	@	@	@	@
Aromatics >EC10-EC12	<10 µg/kg	TM089	142000	131000	142000	152000	18400	168
			@	@	@	@	@	@
Aromatics >EC12-EC16	<100 µg/kg	TM173	363000	314000	189000	219000	<100	25400
Aromatics >EC16-EC21	<100 µg/kg	TM173	229000	198000	123000	139000	91600	291000
Aromatics >EC21-EC35	<100 µg/kg	TM173	155000	115000	100000	104000	181000	1960000
Aromatics >EC35-EC44	<100 µg/kg	TM173	36700	23600	25000	26200	53300	988000
Aromatics >EC40-EC44	<100 µg/kg	TM173	15100	9350	10100	10800	19700	400000
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	784000	651000	437000	489000	325000	3260000
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	3560000	2860000	2070000	2160000	1050000	8050000



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TPH CWG (S)

Results Legend		Customer Sample Ref.	TPE3293	TPE3293	TPE3293	TPE3297	TPE3297	TPE3297
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	2.50	3.50	4.50	0.50	1.50	2.50
M	mCERTS accredited.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
aq	Aqueous / settled sample.		11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015
diss.filt	Dissolved / filtered sample.		14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015
tot.unfilt	Total / unfiltered sample.		150214-75	150214-75	150214-75	150214-75	150214-75	150214-75
*	Subcontracted test.		10839349	10839356	10839362	10839276	10839280	10839284
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed							
1-5&*\$@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	146	126	175	60	104	73
			@	@	@	@	@	@
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	619000	171000	1490000	1000	3720	2280
			@ M	@ M	3 @ M	@ M	@ M	@ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<100	<20	<100	<20	<20	<20
			@ M	@ M	@ M	@ M	@ M	@ M
Benzene	<10 µg/kg	TM089	<200	<40	<200	<40	<40	<40
			@ M	@ M	@ M	@ M	@ M	@ M
Toluene	<2 µg/kg	TM089	<40	<8	<40	<8	<8	<8
			@ M	@ M	@ M	@ M	@ M	@ M
Ethylbenzene	<3 µg/kg	TM089	<60	<12	<60	<12	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
m,p-Xylene	<6 µg/kg	TM089	<120	<24	<120	<24	<24	<24
			@ M	@ M	@ M	@ M	@ M	@ M
o-Xylene	<3 µg/kg	TM089	<60	<12	<60	<12	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	<9	<9	<9	<9	<9
			@	@	@	@	@	@
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	<24	<24	<24	<24	<24
			@	@	@	@	@	@
Aliphatics >C5-C6	<10 µg/kg	TM089	7520	1130	22300	<40	<40	97.1
			@	@	3 @	@	@	@
Aliphatics >C6-C8	<10 µg/kg	TM089	125000	29800	274000	<40	110	117
			@	@	3 @	@	@	@
Aliphatics >C8-C10	<10 µg/kg	TM089	136000	39200	338000	123	562	177
			@	@	3 @	@	@	@
Aliphatics >C10-C12	<10 µg/kg	TM089	156000	44800	380000	446	1580	1060
			@	@	3 @	@	@	@
Aliphatics >C12-C16	<100 µg/kg	TM173	567000	392000	1150000	28200	31600	10600
Aliphatics >C16-C21	<100 µg/kg	TM173	252000	144000	419000	101000	83200	33100
Aliphatics >C21-C35	<100 µg/kg	TM173	328000	78000	143000	529000	287000	168000
Aliphatics >C35-C44	<100 µg/kg	TM173	138000	25100	32700	119000	87100	74300
Total Aliphatics >C12-C44	<100 µg/kg	TM173	1280000	639000	1750000	778000	489000	286000
Aromatics >EC5-EC7	<10 µg/kg	TM089	<200	<40	<200	<40	<40	<40
			@	@	3 @	@	@	@
Aromatics >EC7-EC8	<10 µg/kg	TM089	<200	<40	<200	<40	<40	<40
			@	@	3 @	@	@	@
Aromatics >EC8-EC10	<10 µg/kg	TM089	90400	26100	226000	85.1	398	126
			@	@	3 @	@	@	@
Aromatics >EC10-EC12	<10 µg/kg	TM089	104000	29900	253000	298	1050	704
			@	@	3 @	@	@	@
Aromatics >EC12-EC16	<100 µg/kg	TM173	90200	150000	167000	5120	7030	3470
Aromatics >EC16-EC21	<100 µg/kg	TM173	107000	94300	142000	57000	37800	19800
Aromatics >EC21-EC35	<100 µg/kg	TM173	282000	101000	128000	712000	329000	440000
Aromatics >EC35-EC44	<100 µg/kg	TM173	113000	34000	35800	272000	154000	201000
Aromatics >EC40-EC44	<100 µg/kg	TM173	42800	13700	13700	100000	58400	67900
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	592000	379000	473000	1050000	528000	665000
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	2500000	1190000	3710000	1820000	1020000	952000



SDG: 150214-75
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1094
Report Number: 312605
Superseded Report: 310683

TPH CWG (S)

Results Legend		Customer Sample Ref.	TPE3297	TPE3297	TPE3307	TPE3307	TPE3307	TPE3307
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	3.50	4.50	0.50	1.60	2.50	3.50
M	mCERTS accredited.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
aq	Aqueous / settled sample.		11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015
diss.filt	Dissolved / filtered sample.		14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015
tot.unfilt	Total / unfiltered sample.		150214-75	150214-75	150214-75	150214-75	150214-75	150214-75
*	Subcontracted test.		10839288	10839292	10839320	10839324	10839328	10839332
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed							
1-5&*&@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	98	129	62	86	120	189
			@	@	@	@	@	@
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	304	802	4550	5680	53700	2170000
			@ M	@ M	@ M	@ M	@ M	@ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	<20	<20	<20	41.4	514
			@ M	@ M	@ M	@ M	@ M	@ M
Benzene	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<200
			@ M	@ M	@ M	@ M	@ M	@ M
Toluene	<2 µg/kg	TM089	<8	<8	<8	<8	<8	<40
			@ M	@ M	@ M	@ M	@ M	@ M
Ethylbenzene	<3 µg/kg	TM089	<12	<12	<12	<12	<12	<60
			@ M	@ M	@ M	@ M	@ M	@ M
m,p-Xylene	<6 µg/kg	TM089	<24	<24	<24	<24	<24	<120
			@ M	@ M	@ M	@ M	@ M	@ M
o-Xylene	<3 µg/kg	TM089	<12	26	<12	<12	<12	<60
			@ M	@ M	@ M	@ M	@ M	@ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	26	<9	<9	<9	<9
			@	@	@	@	@	@
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	26	<24	<24	<24	<24
			@	@	@	@	@	@
Aliphatics >C5-C6	<10 µg/kg	TM089	<40	<40	<40	<40	<40	877
			@	@	@	@	@	@
Aliphatics >C6-C8	<10 µg/kg	TM089	<40	87.3	154	476	2340	136000
			@	@	@	@	@	@
Aliphatics >C8-C10	<10 µg/kg	TM089	69	254	428	1720	13200	663000
			@	@	@	@	@	@
Aliphatics >C10-C12	<10 µg/kg	TM089	99.2	145	2190	1390	17500	555000
			@	@	@	@	@	@
Aliphatics >C12-C16	<100 µg/kg	TM173	5030	715	60400	3570	52900	922000
Aliphatics >C16-C21	<100 µg/kg	TM173	7920	702	169000	1540	38000	357000
Aliphatics >C21-C35	<100 µg/kg	TM173	18300	158	234000	30000	158000	264000
Aliphatics >C35-C44	<100 µg/kg	TM173	6940	<100	74300	13400	59100	67300
Total Aliphatics >C12-C44	<100 µg/kg	TM173	38200	1580	538000	48500	308000	1610000
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<200
			@	@	@	@	@	@
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<200
			@	@	@	@	@	@
Aromatics >EC8-EC10	<10 µg/kg	TM089	50.8	205	285	1140	8820	442000
			@	@	@	@	@	@
Aromatics >EC10-EC12	<10 µg/kg	TM089	65.3	96.8	1460	928	11700	370000
			@	@	@	@	@	@
Aromatics >EC12-EC16	<100 µg/kg	TM173	2140	<100	16300	<100	19800	83000
Aromatics >EC16-EC21	<100 µg/kg	TM173	5340	<100	85000	5370	34100	125000
Aromatics >EC21-EC35	<100 µg/kg	TM173	25700	1740	190000	52100	138000	136000
Aromatics >EC35-EC44	<100 µg/kg	TM173	16100	<100	66000	27000	55200	33200
Aromatics >EC40-EC44	<100 µg/kg	TM173	6120	<100	26200	9430	21000	13000
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	49200	1740	358000	84500	248000	377000
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	87800	4110	900000	139000	609000	4150000



SDG: 150214-75
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1094
Report Number: 312605
Superseded Report: 310683

TPH CWG (S)

Results Legend		Customer Sample Ref.	TPE3307	TPE3466	TPE3466	TPE3480	TPE3480	TPE3480
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	4.50	0.50	1.00	0.50	1.50	2.50
M	mCERTS accredited.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
aq	Aqueous / settled sample.		11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015	11/02/2015
diss.filt	Dissolved / filtered sample.		14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015	14/02/2015
tot.unfilt	Total / unfiltered sample.		150214-75	150214-75	150214-75	150214-75	150214-75	150214-75
*	Subcontracted test.		10839336	10839308	10839312	10839296	10839300	10839304
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed							
1-5&*&\$@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	159	83	176	67	93	87
			@	@	@	@	@	@
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	1100000	5270	1530000	794	7230	51600
			@ M	@ M	@ M	@ M	@ M	@ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<100	<20	<100	<20	<20	<20
			@ M	@ M	@ M	@ M	@ M	@ M
Benzene	<10 µg/kg	TM089	<200	<40	<200	<40	<40	<40
			@ M	@ M	@ M	@ M	@ M	@ M
Toluene	<2 µg/kg	TM089	<40	42.9	<40	<8	<8	<8
			@ M	@ M	@ M	@ M	@ M	@ M
Ethylbenzene	<3 µg/kg	TM089	<60	<12	<60	<12	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
m,p-Xylene	<6 µg/kg	TM089	<120	<24	<120	<24	<24	<24
			@ M	@ M	@ M	@ M	@ M	@ M
o-Xylene	<3 µg/kg	TM089	<60	<12	<60	<12	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	<9	<9	<9	<9	<9
			@	@	@	@	@	@
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	42.9	<24	<24	<24	<24
			@	@	@	@	@	@
Aliphatics >C5-C6	<10 µg/kg	TM089	5580	63.3	271	<40	<40	<40
			@	@	@	@	@	@
Aliphatics >C6-C8	<10 µg/kg	TM089	117000	724	64800	57.3	61.6	266
			@	@	@	@	@	@
Aliphatics >C8-C10	<10 µg/kg	TM089	303000	1260	432000	160	1350	8320
			@	@	@	@	@	@
Aliphatics >C10-C12	<10 µg/kg	TM089	286000	1390	446000	263	2940	22500
			@	@	@	@	@	@
Aliphatics >C12-C16	<100 µg/kg	TM173	379000	22400	286000	37500	61400	106000
Aliphatics >C16-C21	<100 µg/kg	TM173	139000	48800	76800	141000	122000	50100
Aliphatics >C21-C35	<100 µg/kg	TM173	80100	203000	176000	1040000	725000	155000
Aliphatics >C35-C44	<100 µg/kg	TM173	22200	179000	144000	330000	172000	34100
Total Aliphatics >C12-C44	<100 µg/kg	TM173	620000	453000	683000	1550000	1080000	345000
Aromatics >EC5-EC7	<10 µg/kg	TM089	<200	<40	<200	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC7-EC8	<10 µg/kg	TM089	<200	42.9	<200	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC8-EC10	<10 µg/kg	TM089	202000	842	288000	117	912	5550
			@	@	@	@	@	@
Aromatics >EC10-EC12	<10 µg/kg	TM089	190000	930	298000	176	1960	15000
			@	@	@	@	@	@
Aromatics >EC12-EC16	<100 µg/kg	TM173	47600	9330	132000	9200	16700	10500
Aromatics >EC16-EC21	<100 µg/kg	TM173	59500	35600	63500	49600	57400	29700
Aromatics >EC21-EC35	<100 µg/kg	TM173	68200	240000	88500	435000	275000	101000
Aromatics >EC35-EC44	<100 µg/kg	TM173	23300	268000	52400	262000	117000	34800
Aromatics >EC40-EC44	<100 µg/kg	TM173	10400	128000	25000	111000	44200	12800
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	199000	553000	337000	756000	466000	176000
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	1920000	1010000	2550000	2310000	1550000	573000



SDG: 150214-75
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1094
Report Number: 312605
Superseded Report: 310683

Asbestos Identification - Solid Samples

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP0874 0.50 SOLID 11/02/2015 00:00:00 24/02/2015 11:51:28 150214-75 10839228 TM048	2/3/15	Simon Postlewhite	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP0968 0.50 SOLID 11/02/2015 00:00:00 24/02/2015 11:58:21 150214-75 10839223 TM048	2/3/15	Simon Postlewhite	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP1082 1.00 SOLID 11/02/2015 00:00:00 25/02/2015 08:33:57 150214-75 10839199 TM048	2/3/15	Kevin Hughes	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP1083 1.00 SOLID 11/02/2015 00:00:00 25/02/2015 16:39:06 150214-75 10839023 TM048	2/3/15	Kevin Hughes	Loose fibres in soil	Not Detected (#)	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP1092 1.00 SOLID 11/02/2015 00:00:00 25/02/2015 16:33:47 150214-75 10838980 TM048	2/3/15	Kevin Hughes	Loose fibres in soil	Detected (#)	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected



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Report Number: 312605
Superseded Report: 310683

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP1204 1.00 SOLID 11/02/2015 00:00:00 25/02/2015 16:36:10 150214-75 10839032 TM048	2/3/15	Kevin Hughes	Soil containing loose fibres and ACM debris	Detected (#)	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP1579 0.50 SOLID 11/02/2015 00:00:00 25/02/2015 07:42:03 150214-75 10839058 TM048	2/3/15	Kevin Hughes	Loose fibres in soil	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP1666 0.50 SOLID 11/02/2015 00:00:00 25/02/2015 07:39:47 150214-75 10839076 TM048	3/3/15	Chris Swindells	Loose fibres in soil	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP1749 0.50 SOLID 11/02/2015 00:00:00 25/02/2015 19:07:12 150214-75 10839097 TM048	2/3/15	Kevin Hughes	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP1750 0.50 SOLID 11/02/2015 00:00:00 25/02/2015 19:03:38 150214-75 10839115 TM048	2/3/15	Simon Postlewhite	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP1751 0.50 SOLID 11/02/2015 00:00:00 25/02/2015 19:00:18 150214-75 10839107 TM048	2/3/15	Simon Postlewhite	Loose fibres in soil	Not Detected (#)	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected



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		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP1752 0.50 SOLID 11/02/2015 00:00:00 25/02/2015 07:44:40 150214-75 10839085 TM048	2/3/15	Simon Postlewhite	Loose fibres in soil	Not Detected (#)	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP2106 0.50 SOLID 11/02/2015 00:00:00 25/02/2015 19:10:12 150214-75 10839120 TM048	2/3/15	Kevin Hughes	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP2189 0.50 SOLID 11/02/2015 00:00:00 23/02/2015 09:59:46 150214-75 10839130 TM048	3/3/15	Chris Swindells	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP2204 0.50 SOLID 11/02/2015 00:00:00 23/02/2015 10:09:49 150214-75 10839154 TM048	2/3/15	Chris Swindells	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP2603 0.50 SOLID 11/02/2015 00:00:00 24/02/2015 11:20:11 150214-75 10839179 TM048	2/3/15	Rebecca Rawlings	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP1092A 1.00 SOLID 11/02/2015 00:00:00 25/02/2015 08:36:49 150214-75 10839244 TM048	2/3/15	Simon Postlewhite	Loose fibres in soil	Not Detected (#)	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected



SDG: 150214-75
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Order Number: CD1094
Report Number: 312605
Superseded Report: 310683

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE0391 0.50 SOLID 11/02/2015 00:00:00 24/02/2015 08:49:59 150214-75 10839238 TM048	2/3/15	Chris Swindells	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE0460 0.50 SOLID 11/02/2015 00:00:00 25/02/2015 08:30:49 150214-75 10839218 TM048	2/3/15	Chris Swindells	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE0461 0.50 SOLID 11/02/2015 00:00:00 24/02/2015 11:55:10 150214-75 10839210 TM048	2/3/15	Chris Swindells	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE1015 0.50 SOLID 11/02/2015 00:00:00 23/02/2015 10:06:46 150214-75 10839139 TM048	2/3/15	Simon Postlewhite	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE1104 0.50 SOLID 11/02/2015 00:00:00 23/02/2015 10:12:57 150214-75 10839163 TM048	2/3/15	Kevin Gill	Loose fibres in soil	Trace (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE1174 1.00 SOLID 11/02/2015 00:00:00 24/02/2015 11:18:01 150214-75 10839168 TM048	2/3/15	Chris Swindells	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected



CERTIFICATE OF ANALYSIS

SDG: 150214-75
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1094
Report Number: 312605
Superseded Report: 310683

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE1189 0.50 SOLID 11/02/2015 00:00:00 24/02/2015 11:13:57 150214-75 10839189 TM048	3/3/15	Kevin Hughes	Loose fibres in soil	Not Detected (#)	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE1191 1.00 SOLID 11/02/2015 00:00:00 24/02/2015 11:15:57 150214-75 10839174 TM048	3/3/15	Simon Postlewhite	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE2109 0.50 SOLID 11/02/2015 00:00:00 23/02/2015 10:03:00 150214-75 10839148 TM048	2/3/15	Kevin Gill	Loose fibres in soil	Not Detected (#)	Trace (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE2797 1.00 SOLID 11/02/2015 00:00:00 25/02/2015 15:51:02 150214-75 10839158 TM048	2/3/15	Kevin Hughes	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE2839 0.50 SOLID 11/02/2015 00:00:00 25/02/2015 08:18:03 150214-75 10838814 TM048	2/3/15	Simon Postlewhite	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE2840 0.50 SOLID 11/02/2015 00:00:00 25/02/2015 13:32:28 150214-75 10839053 TM048	2/3/15	Chris Swindells	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected



SDG: 150214-75
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1094
Report Number: 312605
Superseded Report: 310683

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE2841 0.50 SOLID 11/02/2015 00:00:00 25/02/2015 08:23:07 150214-75 10839102 TM048	2/3/15	Simon Postlewhite	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE2842 0.50 SOLID 11/02/2015 00:00:00 25/02/2015 08:16:13 150214-75 10839368 TM048	2/3/15	Simon Postlewhite	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE2877 0.50 SOLID 11/02/2015 00:00:00 25/02/2015 08:11:29 150214-75 10839214 TM048	2/3/15	Simon Postlewhite	Loose fibres in soil	Detected (#)	Not Detected (#)	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE2877 0.75 SOLID 11/02/2015 00:00:00 25/02/2015 08:20:51 150214-75 10839272 TM048	3/3/15	Kevin Hughes	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE2877 1.00 SOLID 11/02/2015 00:00:00 25/02/2015 08:13:56 150214-75 10839316 TM048	2/3/15	Kevin Gill	Loose fibres in soil	Trace (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE2890 0.50 SOLID 11/02/2015 00:00:00 24/02/2015 08:48:54 150214-75 10838890 TM048	3/3/15	Kevin Hughes	Loose fibres in soil	Not Detected (#)	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected



SDG: 150214-75
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
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Order Number: CD1094
Report Number: 312605
Superseded Report: 310683

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE2920 0.50 SOLID 11/02/2015 00:00:00 23/02/2015 10:45:41 150214-75 10838923 TM048	3/3/15	Simon Postlewhite	Loose fibres in soil	Not Detected (#)	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE2921 0.50 SOLID 11/02/2015 00:00:00 24/02/2015 08:51:09 150214-75 10838870 TM048	2/3/15	Kevin Hughes	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE2972 0.50 SOLID 11/02/2015 00:00:00 25/02/2015 07:49:56 150214-75 10838842 TM048	2/3/15	Kevin Hughes	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE3014 0.50 SOLID 11/02/2015 00:00:00 23/02/2015 10:42:29 150214-75 10838902 TM048	3/3/15	Simon Postlewhite	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE3239 0.50 SOLID 11/02/2015 00:00:00 25/02/2015 15:54:22 150214-75 10838959 TM048	2/3/15	Chris Swindells	Loose fibres in soil	Not Detected (#)	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE3239 1.00 SOLID 11/02/2015 00:00:00 25/02/2015 15:48:17 150214-75 10838945 TM048	2/3/15	Kevin Hughes	Loose fibres in soil	Not Detected (#)	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected



SDG: 150214-75
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1094
Report Number: 312605
Superseded Report: 310683

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE3241 0.50 SOLID 11/02/2015 00:00:00 25/02/2015 13:34:54 150214-75 10839373 TM048	2/3/15	Kevin Hughes	Loose fibres in soil	Not Detected (#)	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE3242 0.50 SOLID 11/02/2015 00:00:00 25/02/2015 07:46:43 150214-75 10838822 TM048	2/3/15	Kevin Hughes	Loose fibres in soil	Not Detected (#)	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE3290 0.50 SOLID 11/02/2015 00:00:00 23/02/2015 11:07:15 150214-75 10838911 TM048	2/3/15	Simon Postlewhite	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE3290 1.00 SOLID 11/02/2015 00:00:00 24/02/2015 08:52:33 150214-75 10838951 TM048	2/3/15	Rebecca Rawlings	Loose fibres in soil	Detected (#)	Detected (#)	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE3291 0.50 SOLID 11/02/2015 00:00:00 24/02/2015 08:54:23 150214-75 10838818 TM048	2/3/15	Chris Swindells	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE3291 1.00 SOLID 11/02/2015 00:00:00 23/02/2015 11:09:46 150214-75 10838866 TM048	2/3/15	Simon Postlewhite	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected



CERTIFICATE OF ANALYSIS

Validated

SDG: 150214-75
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1094
Report Number: 312605
Superseded Report: 310683

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE3292 0.50 SOLID 11/02/2015 00:00:00 23/02/2015 11:48:57 150214-75 10839396 TM048	2/3/15	Rebecca Rawlings	Loose fibres in soil	Not Detected (#)	Detected (#)	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE3293 0.50 SOLID 11/02/2015 00:00:00 23/02/2015 13:21:28 150214-75 10839340 TM048	2/3/15	Rebecca Rawlings	Loose fibres in soil	Not Detected (#)	Detected (#)	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE3297 0.50 SOLID 11/02/2015 00:00:00 24/02/2015 11:32:34 150214-75 10839276 TM048	2/3/15	Rebecca Rawlings	Loose fibres in soil	Not Detected (#)	Detected (#)	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE3307 0.50 SOLID 11/02/2015 00:00:00 25/02/2015 14:07:53 150214-75 10839320 TM048	2/3/15	Kevin Hughes	Loose fibres in soil	Not Detected (#)	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE3466 0.50 SOLID 11/02/2015 00:00:00 25/02/2015 14:10:40 150214-75 10839308 TM048	2/3/15	Simon Postlewhite	Loose fibres in soil	Not Detected (#)	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE3466 1.00 SOLID 11/02/2015 00:00:00 24/02/2015 11:36:02 150214-75 10839312 TM048	2/3/15	Rebecca Rawlings	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected



CERTIFICATE OF ANALYSIS

Validated

SDG: 150214-75
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1094
Report Number: 312605
Superseded Report: 310683

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE3480 0.50 SOLID 11/02/2015 00:00:00 24/02/2015 11:39:33 150214-75 10839296 TM048	2/3/15	Simon Postlewhite	Loose fibres in soil	Detected (#)	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected



SDG: 150214-75
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1094
Report Number: 312605
Superseded Report: 310683

Asbestos Quantification - Full

		Additional Asbestos Components (Using TM048)	Analysts Comments	Asbestos Quantification - Gravimetric - %	Asbestos Quantification - PCOM Evaluation - %	Asbestos Quantification - Total - %
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP1083 1.00 SOLID 11/02/2015 00:00:00 15/04/2015 09:50:29 150214-75 10839023 TM 304	None (#)	N/C	<0.001 (#)	<0.001 (#)	<0.001 (#)
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP1092 1.00 SOLID 11/02/2015 00:00:00 15/04/2015 09:46:30 150214-75 10838980 TM 304	None (#)	N/C	<0.001 (#)	<0.001 (#)	<0.001 (#)
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP1204 1.00 SOLID 11/02/2015 00:00:00 15/04/2015 09:26:01 150214-75 10839032 TM 304	None (#)	N/C	0.0557 (#)	0.0020 (#)	0.0577 (#)
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP1579 0.50 SOLID 11/02/2015 00:00:00 15/04/2015 23:21:24 150214-75 10839058 TM 304	None (#)	N/C	0.0069 (#)	0.0014 (#)	0.0083 (#)
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP1666 0.50 SOLID 11/02/2015 00:00:00 15/04/2015 23:27:45 150214-75 10839076 TM 304	None (#)	N/C	<0.001 (#)	<0.001 (#)	<0.001 (#)



SDG: 150214-75
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1094
Report Number: 312605
Superseded Report: 310683

		Additional Asbestos Components (Using TM048)	Analysts Comments	Asbestos Quantification - Gravimetric - %	Asbestos Quantification - PCOM Evaluation - %	Asbestos Quantification - Total - %
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP1751 0.50 SOLID 11/02/2015 00:00:00 16/04/2015 02:48:48 150214-75 10839107 TM 304	None (#)	N/C	0.0095 (#)	<0.001 (#)	0.0102 (#)
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP1752 0.50 SOLID 11/02/2015 00:00:00 15/04/2015 23:24:50 150214-75 10839085 TM 304	None (#)	N/C	<0.001 (#)	<0.001 (#)	<0.001 (#)
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP1092A 1.00 SOLID 11/02/2015 00:00:00 20/04/2015 09:33:53 150214-75 10839244 TM 304	Amosite (Loose fibres in soil) (#)	N/C	0.0101 (#)	0.0011 (#)	0.0112 (#)
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE1189 0.50 SOLID 11/02/2015 00:00:00 16/04/2015 02:43:22 150214-75 10839189 TM 304	None (#)	N/C	<0.001 (#)	<0.001 (#)	<0.001 (#)
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE2877 0.50 SOLID 11/02/2015 00:00:00 21/04/2015 06:42:15 150214-75 10839214 TM 304	None (#)	N/C	<0.001 (#)	0.0013 (#)	0.0016 (#)
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE2890 0.50 SOLID 11/02/2015 00:00:00 14/04/2015 09:39:58 150214-75 10838890 TM 304	None (#)	N/C	<0.001 (#)	<0.001 (#)	<0.001 (#)



SDG: 150214-75
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

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Attention: Jack Lowrie

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Superseded Report: 310683

		Additional Asbestos Components (Using TM048)	Analysts Comments	Asbestos Quantification - Gravimetric - %	Asbestos Quantification - PCOM Evaluation - %	Asbestos Quantification - Total - %
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE2920 0.50 SOLID 11/02/2015 00:00:00 14/04/2015 12:29:47 150214-75 10838923 TM 304	None (#)	N/C	0.0015 (#)	<0.001 (#)	0.0018 (#)
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE3239 0.50 SOLID 11/02/2015 00:00:00 15/04/2015 09:59:10 150214-75 10838959 TM 304	None (#)	N/C	<0.001 (#)	<0.001 (#)	<0.001 (#)
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE3239 1.00 SOLID 11/02/2015 00:00:00 15/04/2015 10:04:14 150214-75 10838945 TM 304	None (#)	N/C	<0.001 (#)	<0.001 (#)	<0.001 (#)
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE3241 0.50 SOLID 11/02/2015 00:00:00 16/04/2015 11:13:11 150214-75 10839373 TM 304	None (#)	N/C	<0.001 (#)	<0.001 (#)	<0.001 (#)
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE3242 0.50 SOLID 11/02/2015 00:00:00 16/04/2015 09:57:32 150214-75 10838822 TM 304	Crocidolite (Loose fibres in soil). (#)	N/C	0.0200 (#)	0.0010 (#)	0.021 (#)
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE3292 0.50 SOLID 11/02/2015 00:00:00 16/04/2015 12:10:04 150214-75 10839396 TM 304	None (#)	N/C	0.0042 (#)	<0.001 (#)	0.0045 (#)



SDG: 150214-75
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Report Number: 312605
Superseded Report: 310683

		Additional Asbestos Components (Using TM048)	Analysts Comments	Asbestos Quantification - Gravimetric - %	Asbestos Quantification - PCOM Evaluation - %	Asbestos Quantification - Total - %
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE3293 0.50 SOLID 11/02/2015 00:00:00 16/04/2015 09:21:27 150214-75 10839340 TM 304	None (#)	N/C	0.0017 (#)	<0.001 (#)	0.0019 (#)
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE3297 0.50 SOLID 11/02/2015 00:00:00 16/04/2015 01:11:28 150214-75 10839276 TM 304	None (#)	N/C	0.0018 (#)	<0.001 (#)	0.002 (#)
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE3307 0.50 SOLID 11/02/2015 00:00:00 16/04/2015 12:02:58 150214-75 10839320 TM 304	None (#)	N/C	0.0055 (#)	<0.001 (#)	0.0063 (#)
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE3466 0.50 SOLID 11/02/2015 00:00:00 16/04/2015 12:05:14 150214-75 10839308 TM 304	Amosite, Crocidolite (Loose fibres in soil). (#)	N/C	0.0030 (#)	0.0011 (#)	0.0041 (#)
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE3480 0.50 SOLID 11/02/2015 00:00:00 16/04/2015 01:08:34 150214-75 10839296 TM 304	Crocidolite (Loose fibres and debris of asbestos insulation material). (#)	N/C	0.0391 (#)	0.0033 (#)	0.0424 (#)



SDG:	150214-75	Location:	Coed Darcy	Order Number:	CD1094
Job:	H_ATKINS_LDC-224	Customer:	Atkins Global Ltd	Report Number:	312605
Client Reference:	Site Wide Trial Pitting	Attention:	Jack Lowrie	Superseded Report:	310683

Notification of NDPs (No determination possible)

Date Received : 14/02/2015 14:58:34

Sample No	Customer Sample Ref.	Depth (m)	Test	Comment
10838951	TPE3290	1.00	Asbestos Quantification - Full	Insufficient Sample
10838942	TPE2890	0.00 - 0.00	Asbestos ID in Solid Samples	Sample contains oil / product



SDG:	150214-75	Location:	Coed Darcy	Order Number:	CD1094
Job:	H_ATKINS_LDC-224	Customer:	Atkins Global Ltd	Report Number:	312605
Client Reference:	Site Wide Trial Pitting	Attention:	Jack Lowrie	Superseded Report:	310683

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample ¹	Surrogate Corrected
ASB_PREP				
PM001		Preparation of Samples for Metals Analysis		
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material		
TM 304				
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material		
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) and BTEX (MTBE) compounds by Headspace GC-FID (C4-C12)		
TM132	In - house Method	ELTRA CS800 Operators Guide		
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter		
TM173	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GC-FID		
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES		
TM218	Microwave extraction – EPA method 3546	Microwave extraction - EPA method 3546		

¹ Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.



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Report Number: 312605
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Test Completion Dates

Lab Sample No(s) Customer Sample Ref. AGS Ref. Depth Type	10839228	10839234	10839223	10839199	10839204	10839023	10839028	10838980	10839003	10839008
	IP0874	IP0874	IP0968	IP1082	IP1082	IP1083	IP1083	IP1092	IP1092	IP1092
	0.50	1.50	0.50	1.00	2.00	1.00	2.00	1.00	2.00	3.00
	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Asbestos ID in Solid Samples	03-Mar-2015		03-Mar-2015	03-Mar-2015		03-Mar-2015		03-Mar-2015		
Asbestos Quantification - Full						22-Apr-2015		22-Apr-2015		
EPH CWG (Aliphatic) GC (S)	27-Feb-2015	28-Feb-2015	02-Mar-2015	02-Mar-2015	28-Feb-2015	27-Feb-2015	02-Mar-2015	27-Feb-2015	02-Mar-2015	27-Feb-2015
EPH CWG (Aromatic) GC (S)	27-Feb-2015	28-Feb-2015	02-Mar-2015	02-Mar-2015	28-Feb-2015	27-Feb-2015	02-Mar-2015	27-Feb-2015	02-Mar-2015	27-Feb-2015
GRO by GC-FID (S)	28-Feb-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015
Metals in solid samples by OES	27-Feb-2015	02-Mar-2015	03-Mar-2015	03-Mar-2015	02-Mar-2015	02-Mar-2015	27-Feb-2015	02-Mar-2015	27-Feb-2015	26-Feb-2015
PAH by GCMS	28-Feb-2015	27-Feb-2015	28-Feb-2015	28-Feb-2015	27-Feb-2015	28-Feb-2015	26-Feb-2015	28-Feb-2015	26-Feb-2015	03-Mar-2015
pH	02-Mar-2015	26-Feb-2015	02-Mar-2015	02-Mar-2015	26-Feb-2015	02-Mar-2015	26-Feb-2015	02-Mar-2015	25-Feb-2015	25-Feb-2015
Sample description	24-Feb-2015	25-Feb-2015	24-Feb-2015	24-Feb-2015	25-Feb-2015	25-Feb-2015	24-Feb-2015	25-Feb-2015	24-Feb-2015	24-Feb-2015
Total Organic Carbon								02-Mar-2015		
TPH CWG GC (S)	28-Feb-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015
Lab Sample No(s) Customer Sample Ref. AGS Ref. Depth Type	10839013	10839018	10839032	10839038	10839044	10839048	10839058	10839063	10839067	10839072
	IP1092	IP1092	IP1204	IP1204	IP1204	IP1204	IP1579	IP1579	IP1579	IP1579
	4.00	5.00	1.00	2.00	3.00	4.00	0.50	1.50	2.50	3.50
	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Asbestos ID in Solid Samples			03-Mar-2015				03-Mar-2015			
Asbestos Quantification - Full			23-Apr-2015				23-Apr-2015			
EPH CWG (Aliphatic) GC (S)	02-Mar-2015	02-Mar-2015	27-Feb-2015	02-Mar-2015	02-Mar-2015	03-Mar-2015	27-Feb-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015
EPH CWG (Aromatic) GC (S)	02-Mar-2015	02-Mar-2015	27-Feb-2015	02-Mar-2015	02-Mar-2015	03-Mar-2015	27-Feb-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015
GRO by GC-FID (S)	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	28-Feb-2015	03-Mar-2015	03-Mar-2015	03-Mar-2015
Metals in solid samples by OES	27-Feb-2015	26-Feb-2015	02-Mar-2015	02-Mar-2015	26-Feb-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015	26-Feb-2015	26-Feb-2015
PAH by GCMS	26-Feb-2015	26-Feb-2015	28-Feb-2015	26-Feb-2015	26-Feb-2015	27-Feb-2015	02-Mar-2015	01-Mar-2015	26-Feb-2015	26-Feb-2015
pH	27-Feb-2015	25-Feb-2015	02-Mar-2015	27-Feb-2015	26-Feb-2015	27-Feb-2015	02-Mar-2015	25-Feb-2015	26-Feb-2015	27-Feb-2015
Sample description	24-Feb-2015	24-Feb-2015	25-Feb-2015	24-Feb-2015	24-Feb-2015	25-Feb-2015	23-Feb-2015	24-Feb-2015	24-Feb-2015	24-Feb-2015
Total Organic Carbon									02-Mar-2015	
TPH CWG GC (S)	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	28-Feb-2015	03-Mar-2015	03-Mar-2015	03-Mar-2015
Lab Sample No(s) Customer Sample Ref. AGS Ref. Depth Type	10839076	10839080	10839097	10839115	10839107	10839111	10839085	10839089	10839093	10839120
	IP1666	IP1666	IP1749	IP1750	IP1751	IP1751	IP1752	IP1752	IP1752	IP2106
	0.50	1.50	0.50	0.50	0.50	1.50	0.50	1.50	2.50	0.50
	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Asbestos ID in Solid Samples	03-Mar-2015		03-Mar-2015	03-Mar-2015	03-Mar-2015		03-Mar-2015			03-Mar-2015
Asbestos Quantification - Full	23-Apr-2015				23-Apr-2015		23-Apr-2015			
EPH CWG (Aliphatic) GC (S)	02-Mar-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015	27-Feb-2015	27-Feb-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015
EPH CWG (Aromatic) GC (S)	02-Mar-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015	27-Feb-2015	27-Feb-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015
GRO by GC-FID (S)	04-Mar-2015	28-Feb-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	28-Feb-2015	28-Feb-2015	28-Feb-2015	04-Mar-2015
Metals in solid samples by OES	02-Mar-2015	26-Feb-2015	02-Mar-2015	03-Mar-2015	02-Mar-2015	26-Feb-2015	02-Mar-2015	26-Feb-2015	26-Feb-2015	02-Mar-2015
PAH by GCMS	02-Mar-2015	26-Feb-2015	28-Feb-2015	28-Feb-2015	01-Mar-2015	26-Feb-2015	27-Feb-2015	26-Feb-2015	26-Feb-2015	01-Mar-2015
pH	02-Mar-2015	25-Feb-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015	25-Feb-2015	02-Mar-2015	27-Feb-2015	25-Feb-2015	02-Mar-2015
Sample description	25-Feb-2015	24-Feb-2015	24-Feb-2015		24-Feb-2015	24-Feb-2015	25-Feb-2015	24-Feb-2015	24-Feb-2015	24-Feb-2015
Total Organic Carbon				02-Mar-2015						
TPH CWG GC (S)	04-Mar-2015	03-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	28-Feb-2015	03-Mar-2015	03-Mar-2015	04-Mar-2015
Lab Sample No(s) Customer Sample Ref. AGS Ref. Depth Type	10839125	10839130	10839135	10839154	10839179	10839183	10839244	10839249	10839253	10839258
	IP2106	IP2189	IP2189	IP2204	IP2603	IP2603	IP1092A	IP1092A	IP1092A	IP1092A
	1.50	0.50	1.50	0.50	0.50	1.50	1.00	2.00	3.00	4.00
	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Asbestos ID in Solid Samples		03-Mar-2015		03-Mar-2015	03-Mar-2015		03-Mar-2015			
Asbestos Quantification - Full							24-Apr-2015			
EPH CWG (Aliphatic) GC (S)	02-Mar-2015	27-Feb-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015	28-Feb-2015	02-Mar-2015	28-Feb-2015	28-Feb-2015	02-Mar-2015
EPH CWG (Aromatic) GC (S)	02-Mar-2015	27-Feb-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015	28-Feb-2015	02-Mar-2015	28-Feb-2015	28-Feb-2015	02-Mar-2015
GRO by GC-FID (S)	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	28-Feb-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015
Metals in solid samples by OES	26-Feb-2015	02-Mar-2015	02-Mar-2015	03-Mar-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015
PAH by GCMS	26-Feb-2015	28-Feb-2015	27-Feb-2015	28-Feb-2015	28-Feb-2015	27-Feb-2015	28-Feb-2015	27-Feb-2015	27-Feb-2015	28-Feb-2015
pH	25-Feb-2015	28-Feb-2015	25-Feb-2015	02-Mar-2015	02-Mar-2015	25-Feb-2015	02-Mar-2015	26-Feb-2015	25-Feb-2015	25-Feb-2015
Sample description	24-Feb-2015	23-Feb-2015	25-Feb-2015	24-Feb-2015	24-Feb-2015	25-Feb-2015	25-Feb-2015	26-Feb-2015	25-Feb-2015	25-Feb-2015
Total Organic Carbon						02-Mar-2015	02-Mar-2015			
TPH CWG GC (S)	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	28-Feb-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015



SDG: 150214-75
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1094
Report Number: 312605
Superseded Report: 310683

Lab Sample No(s) Customer Sample Ref. AGS Ref. Depth Type	10839265	10839238	10839218	10839210	10839139	10839163	10839168	10839189	10839194	10839174
	IP1092A	TPE0391	TPE0460	TPE0461	TPE1015	TPE1104	TPE1174	TPE1189	TPE1189	TPE1191
	5.00	0.50	0.50	0.50	0.50	0.50	1.00	0.50	1.50	1.00
	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Asbestos ID in Solid Samples		03-Mar-2015	03-Mar-2015	03-Mar-2015	03-Mar-2015	03-Mar-2015	03-Mar-2015	04-Mar-2015		03-Mar-2015
Asbestos Quantification - Full								24-Apr-2015		
EPH CWG (Aliphatic) GC (S)	28-Feb-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015	03-Mar-2015	02-Mar-2015	27-Feb-2015	27-Feb-2015	02-Mar-2015
EPH CWG (Aromatic) GC (S)	28-Feb-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015	03-Mar-2015	02-Mar-2015	27-Feb-2015	27-Feb-2015	02-Mar-2015
GRO by GC-FID (S)	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	28-Feb-2015	28-Feb-2015	04-Mar-2015	28-Feb-2015	28-Feb-2015	04-Mar-2015
Metals in solid samples by OES	02-Mar-2015	03-Mar-2015	03-Mar-2015	03-Mar-2015	03-Mar-2015	03-Mar-2015	03-Mar-2015	02-Mar-2015	02-Mar-2015	03-Mar-2015
PAH by GCMS	27-Feb-2015	28-Feb-2015	28-Feb-2015	28-Feb-2015	28-Feb-2015	28-Feb-2015	28-Feb-2015	28-Feb-2015	27-Feb-2015	28-Feb-2015
pH	25-Feb-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015	28-Feb-2015	02-Mar-2015	28-Feb-2015	02-Mar-2015	25-Feb-2015	02-Mar-2015
Sample description	25-Feb-2015	24-Feb-2015	24-Feb-2015	24-Feb-2015	24-Feb-2015	24-Feb-2015	24-Feb-2015	24-Feb-2015	25-Feb-2015	24-Feb-2015
TPH CWG GC (S)	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	02-Mar-2015	03-Mar-2015	04-Mar-2015	28-Feb-2015	28-Feb-2015	04-Mar-2015

Lab Sample No(s) Customer Sample Ref. AGS Ref. Depth Type	10839148	10839158	10838814	10838992	10839053	10839102	10839368	10839214	10839272	10839316
	TPE2109	TPE2797	TPE2839	TPE2839	TPE2840	TPE2841	TPE2842	TPE2877	TPE2877	TPE2877
	0.50	1.00	0.50	1.50	0.50	0.50	0.50	0.50	0.75	1.00
	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Asbestos ID in Solid Samples	03-Mar-2015	03-Mar-2015	03-Mar-2015		03-Mar-2015	03-Mar-2015	03-Mar-2015	03-Mar-2015	03-Mar-2015	03-Mar-2015
Asbestos Quantification - Full								24-Apr-2015		
EPH CWG (Aliphatic) GC (S)	02-Mar-2015	02-Mar-2015	03-Mar-2015	27-Feb-2015	03-Mar-2015	03-Mar-2015	03-Mar-2015	03-Mar-2015	03-Mar-2015	03-Mar-2015
EPH CWG (Aromatic) GC (S)	02-Mar-2015	02-Mar-2015	03-Mar-2015	27-Feb-2015	03-Mar-2015	03-Mar-2015	03-Mar-2015	03-Mar-2015	03-Mar-2015	03-Mar-2015
GRO by GC-FID (S)	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015
Metals in solid samples by OES	03-Mar-2015	02-Mar-2015	03-Mar-2015	02-Mar-2015	03-Mar-2015	03-Mar-2015	02-Mar-2015	03-Mar-2015	02-Mar-2015	02-Mar-2015
PAH by GCMS	28-Feb-2015	28-Feb-2015	28-Feb-2015	26-Feb-2015	28-Feb-2015	28-Feb-2015	28-Feb-2015	28-Feb-2015	28-Feb-2015	28-Feb-2015
pH	28-Feb-2015	02-Mar-2015	02-Mar-2015	25-Feb-2015	28-Feb-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015
Sample description	24-Feb-2015	25-Feb-2015	23-Feb-2015	24-Feb-2015	23-Feb-2015	23-Feb-2015	23-Feb-2015	23-Feb-2015	23-Feb-2015	23-Feb-2015
Total Organic Carbon			02-Mar-2015				02-Mar-2015			
TPH CWG GC (S)	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015

Lab Sample No(s) Customer Sample Ref. AGS Ref. Depth Type	10838890	10838894	10838898	10838942	10838923	10838927	10838932	10838936	10838870	10838874
	TPE2890	TPE2890	TPE2890	TPE2890	TPE2920	TPE2920	TPE2920	TPE2920	TPE2921	TPE2921
	0.50	1.50	2.50	0.00 - 0.00	0.50	1.50	2.50	3.20	0.50	1.50
	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Asbestos ID in Solid Samples	03-Mar-2015				03-Mar-2015				03-Mar-2015	
Asbestos Quantification - Full	21-Apr-2015				22-Apr-2015					
EPH CWG (Aliphatic) GC (S)	27-Feb-2015	02-Mar-2015	02-Mar-2015		27-Feb-2015	02-Mar-2015	02-Mar-2015	03-Mar-2015	27-Feb-2015	27-Feb-2015
EPH CWG (Aromatic) GC (S)	27-Feb-2015	02-Mar-2015	02-Mar-2015		27-Feb-2015	02-Mar-2015	02-Mar-2015	27-Feb-2015	27-Feb-2015	27-Feb-2015
GRO by GC-FID (S)	04-Mar-2015	04-Mar-2015	04-Mar-2015		04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	28-Feb-2015
Metals in solid samples by OES	03-Mar-2015	02-Mar-2015	27-Feb-2015		26-Feb-2015	03-Mar-2015	03-Mar-2015	27-Feb-2015	27-Feb-2015	27-Feb-2015
PAH by GCMS	26-Feb-2015	01-Mar-2015			26-Feb-2015	28-Feb-2015	28-Feb-2015	26-Feb-2015	26-Feb-2015	25-Feb-2015
pH	02-Mar-2015	25-Feb-2015	25-Feb-2015		02-Mar-2015	02-Mar-2015	02-Mar-2015	25-Feb-2015	02-Mar-2015	25-Feb-2015
Sample description	23-Feb-2015	24-Feb-2015	24-Feb-2015	23-Feb-2015	23-Feb-2015	23-Feb-2015	23-Feb-2015	23-Feb-2015	23-Feb-2015	24-Feb-2015
Total Organic Carbon	02-Mar-2015				02-Mar-2015					
TPH CWG GC (S)	04-Mar-2015	04-Mar-2015	04-Mar-2015		04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	28-Feb-2015

Lab Sample No(s) Customer Sample Ref. AGS Ref. Depth Type	10838878	10838882	10838886	10838842	10838847	10838851	10838857	10838862	10838902	10838906
	TPE2921	TPE2921	TPE2921	TPE2972	TPE2972	TPE2972	TPE2972	TPE2972	TPE3014	TPE3014
	2.60	3.50	4.00	0.50	1.50	2.50	3.50	4.50	0.50	1.50
	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Asbestos ID in Solid Samples				03-Mar-2015					03-Mar-2015	
EPH CWG (Aliphatic) GC (S)	02-Mar-2015	28-Feb-2015	28-Feb-2015	02-Mar-2015	27-Feb-2015	28-Feb-2015	27-Feb-2015	27-Feb-2015	27-Feb-2015	27-Feb-2015
EPH CWG (Aromatic) GC (S)	02-Mar-2015	28-Feb-2015	28-Feb-2015	02-Mar-2015	27-Feb-2015	28-Feb-2015	27-Feb-2015	27-Feb-2015	27-Feb-2015	27-Feb-2015
GRO by GC-FID (S)	28-Feb-2015	28-Feb-2015	28-Feb-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015
Metals in solid samples by OES	02-Mar-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015	27-Feb-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015	26-Feb-2015	02-Mar-2015
PAH by GCMS	26-Feb-2015	27-Feb-2015	27-Feb-2015	28-Feb-2015	26-Feb-2015	27-Feb-2015	26-Feb-2015	27-Feb-2015	26-Feb-2015	26-Feb-2015
pH	26-Feb-2015	26-Feb-2015	26-Feb-2015	02-Mar-2015	25-Feb-2015	25-Feb-2015	25-Feb-2015	25-Feb-2015	02-Mar-2015	26-Feb-2015
Sample description	24-Feb-2015	25-Feb-2015	25-Feb-2015	25-Feb-2015	24-Feb-2015	25-Feb-2015	24-Feb-2015	25-Feb-2015	23-Feb-2015	24-Feb-2015
Total Organic Carbon				03-Mar-2015						
TPH CWG GC (S)	02-Mar-2015	28-Feb-2015	28-Feb-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015



SDG: 150214-75
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1094
Report Number: 312605
Superseded Report: 310683

Lab Sample No(s) Customer Sample Ref. AGS Ref. Depth Type	10838915	10838919	10838945	10838959	10838963	10838967	10838971	10839373	10839378	10839383
	TPE3014	TPE3014	TPE3239	TPE3239	TPE3239	TPE3239	TPE3239	TPE3241	TPE3241	TPE3241
	2.50	3.20	1.00	0.50	1.50	2.50	3.50	0.50	1.50	2.50
	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Asbestos ID in Solid Samples			03-Mar-2015	03-Mar-2015				03-Mar-2015		
Asbestos Quantification - Full			22-Apr-2015	22-Apr-2015				27-Apr-2015		
EPH CWG (Aliphatic) GC (S)	27-Feb-2015	02-Mar-2015	27-Feb-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015	27-Feb-2015	27-Feb-2015	27-Feb-2015	27-Feb-2015
EPH CWG (Aromatic) GC (S)	27-Feb-2015	02-Mar-2015	27-Feb-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015	27-Feb-2015	27-Feb-2015	27-Feb-2015	27-Feb-2015
GRO by GC-FID (S)	04-Mar-2015	04-Mar-2015	06-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015
Metals in solid samples by OES	27-Feb-2015	26-Feb-2015	02-Mar-2015	02-Mar-2015	26-Feb-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015
PAH by GCMS	26-Feb-2015	25-Feb-2015	28-Feb-2015	28-Feb-2015	26-Feb-2015	27-Feb-2015	27-Feb-2015	27-Feb-2015	27-Feb-2015	27-Feb-2015
pH	25-Feb-2015	25-Feb-2015	02-Mar-2015	02-Mar-2015	25-Feb-2015	26-Feb-2015	26-Feb-2015	02-Mar-2015	25-Feb-2015	26-Feb-2015
Sample description	23-Feb-2015	24-Feb-2015	23-Feb-2015	25-Feb-2015	24-Feb-2015	25-Feb-2015	25-Feb-2015	25-Feb-2015	24-Feb-2015	24-Feb-2015
Total Organic Carbon			02-Mar-2015							
TPH CWG GC (S)	04-Mar-2015	04-Mar-2015	06-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015
Lab Sample No(s) Customer Sample Ref. AGS Ref. Depth Type	10839388	10839392	10838822	10838826	10838830	10838834	10838838	10838911	10838951	10838955
	TPE3241	TPE3241	TPE3242	TPE3242	TPE3242	TPE3242	TPE3242	TPE3290	TPE3290	TPE3290
	3.50	4.50	0.50	1.50	2.50	3.50	4.50	0.50	1.00	1.50
	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Asbestos ID in Solid Samples			03-Mar-2015					03-Mar-2015	03-Mar-2015	
Asbestos Quantification - Full			27-Apr-2015							
EPH CWG (Aliphatic) GC (S)	27-Feb-2015	28-Feb-2015	02-Mar-2015	27-Feb-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015	27-Feb-2015	27-Feb-2015	27-Feb-2015
EPH CWG (Aromatic) GC (S)	27-Feb-2015	28-Feb-2015	02-Mar-2015	27-Feb-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015	27-Feb-2015	27-Feb-2015	27-Feb-2015
GRO by GC-FID (S)	04-Mar-2015	04-Mar-2015	04-Mar-2015	28-Feb-2015	28-Feb-2015	04-Mar-2015	04-Mar-2015	28-Feb-2015	04-Mar-2015	04-Mar-2015
Metals in solid samples by OES	02-Mar-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015	27-Feb-2015	27-Feb-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015
PAH by GCMS	27-Feb-2015	27-Feb-2015	28-Feb-2015	26-Feb-2015	26-Feb-2015	26-Feb-2015	26-Feb-2015	02-Mar-2015	02-Mar-2015	28-Feb-2015
pH	25-Feb-2015	25-Feb-2015	02-Mar-2015	25-Feb-2015	25-Feb-2015	25-Feb-2015	25-Feb-2015	28-Feb-2015	02-Mar-2015	27-Feb-2015
Sample description	24-Feb-2015	25-Feb-2015	25-Feb-2015	24-Feb-2015	24-Feb-2015	24-Feb-2015	24-Feb-2015	23-Feb-2015	23-Feb-2015	23-Feb-2015
TPH CWG GC (S)	04-Mar-2015	04-Mar-2015	04-Mar-2015	28-Feb-2015	03-Mar-2015	04-Mar-2015	04-Mar-2015	28-Feb-2015	04-Mar-2015	04-Mar-2015
Lab Sample No(s) Customer Sample Ref. AGS Ref. Depth Type	10838818	10838866	10839396	10839400	10839404	10839408	10839412	10839340	10839345	10839349
	TPE3291	TPE3291	TPE3292	TPE3292	TPE3292	TPE3292	TPE3292	TPE3293	TPE3293	TPE3293
	0.50	1.00	0.50	1.50	2.50	3.50	4.50	0.50	1.50	2.50
	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Asbestos ID in Solid Samples	03-Mar-2015	03-Mar-2015	03-Mar-2015					03-Mar-2015		
Asbestos Quantification - Full			28-Apr-2015					28-Apr-2015		
EPH CWG (Aliphatic) GC (S)	27-Feb-2015	03-Mar-2015	02-Mar-2015	27-Feb-2015	27-Feb-2015	27-Feb-2015	27-Feb-2015	27-Feb-2015	03-Mar-2015	27-Feb-2015
EPH CWG (Aromatic) GC (S)	27-Feb-2015	03-Mar-2015	02-Mar-2015	27-Feb-2015	27-Feb-2015	27-Feb-2015	27-Feb-2015	27-Feb-2015	27-Feb-2015	27-Feb-2015
GRO by GC-FID (S)	03-Mar-2015	03-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015
Metals in solid samples by OES	02-Mar-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015	26-Feb-2015	02-Mar-2015
PAH by GCMS	02-Mar-2015	02-Mar-2015	28-Feb-2015	27-Feb-2015	27-Feb-2015	27-Feb-2015	27-Feb-2015	27-Feb-2015	26-Feb-2015	27-Feb-2015
pH	02-Mar-2015	28-Feb-2015	28-Feb-2015	25-Feb-2015	25-Feb-2015	25-Feb-2015	25-Feb-2015	28-Feb-2015	25-Feb-2015	25-Feb-2015
Sample description	23-Feb-2015	23-Feb-2015	25-Feb-2015	24-Feb-2015	24-Feb-2015	24-Feb-2015	24-Feb-2015	25-Feb-2015	24-Feb-2015	24-Feb-2015
Total Organic Carbon			02-Mar-2015					02-Mar-2015		
TPH CWG GC (S)	03-Mar-2015	03-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015
Lab Sample No(s) Customer Sample Ref. AGS Ref. Depth Type	10839356	10839362	10839276	10839280	10839284	10839288	10839292	10839320	10839324	10839328
	TPE3293	TPE3293	TPE3297	TPE3297	TPE3297	TPE3297	TPE3297	TPE3307	TPE3307	TPE3307
	3.50	4.50	0.50	1.50	2.50	3.50	4.50	0.50	1.60	2.50
	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Asbestos ID in Solid Samples			03-Mar-2015					03-Mar-2015		
Asbestos Quantification - Full			24-Apr-2015					27-Apr-2015		
EPH CWG (Aliphatic) GC (S)	27-Feb-2015	02-Mar-2015	27-Feb-2015	02-Mar-2015	27-Feb-2015	02-Mar-2015	27-Feb-2015	27-Feb-2015	02-Mar-2015	02-Mar-2015
EPH CWG (Aromatic) GC (S)	27-Feb-2015	02-Mar-2015	27-Feb-2015	02-Mar-2015	27-Feb-2015	02-Mar-2015	27-Feb-2015	27-Feb-2015	02-Mar-2015	02-Mar-2015
GRO by GC-FID (S)	04-Mar-2015	04-Mar-2015	04-Mar-2015	02-Mar-2015	04-Mar-2015	02-Mar-2015	02-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015
Metals in solid samples by OES	02-Mar-2015	02-Mar-2015	02-Mar-2015	26-Feb-2015	03-Mar-2015	26-Feb-2015	26-Feb-2015	26-Feb-2015	02-Mar-2015	02-Mar-2015
PAH by GCMS	26-Feb-2015	27-Feb-2015	27-Feb-2015	27-Feb-2015	27-Feb-2015	27-Feb-2015	27-Feb-2015	26-Feb-2015	26-Feb-2015	26-Feb-2015
pH	25-Feb-2015	25-Feb-2015	02-Mar-2015	25-Feb-2015	02-Mar-2015	25-Feb-2015	25-Feb-2015	02-Mar-2015	25-Feb-2015	25-Feb-2015
Sample description	24-Feb-2015	24-Feb-2015	25-Feb-2015	24-Feb-2015	24-Feb-2015	24-Feb-2015	24-Feb-2015	23-Feb-2015	24-Feb-2015	24-Feb-2015
TPH CWG GC (S)	04-Mar-2015	04-Mar-2015	04-Mar-2015	03-Mar-2015	04-Mar-2015	03-Mar-2015	02-Mar-2015	04-Mar-2015	04-Mar-2015	04-Mar-2015



CERTIFICATE OF ANALYSIS

Validated

SDG: 150214-75
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1094
Report Number: 312605
Superseded Report: 310683

Lab Sample No(s)
Customer Sample Ref.

AGS Ref.
Depth
Type

	10839332	10839336	10839308	10839312	10839296	10839300	10839304
	TPE3307	TPE3307	TPE3466	TPE3466	TPE3480	TPE3480	TPE3480
	3.50	4.50	0.50	1.00	0.50	1.50	2.50
	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Asbestos ID in Solid Samples			03-Mar-2015	03-Mar-2015	03-Mar-2015		
Asbestos Quantification - Full			27-Apr-2015		24-Apr-2015		
EPH CWG (Aliphatic) GC (S)	27-Feb-2015	27-Feb-2015	27-Feb-2015	27-Feb-2015	27-Feb-2015	02-Mar-2015	02-Mar-2015
EPH CWG (Aromatic) GC (S)	27-Feb-2015	27-Feb-2015	27-Feb-2015	27-Feb-2015	27-Feb-2015	02-Mar-2015	02-Mar-2015
GRO by GC-FID (S)	04-Mar-2015	04-Mar-2015	02-Mar-2015	03-Mar-2015	04-Mar-2015	02-Mar-2015	04-Mar-2015
Metals in solid samples by OES	26-Feb-2015	26-Feb-2015	02-Mar-2015	26-Feb-2015	26-Feb-2015	02-Mar-2015	02-Mar-2015
PAH by GCMS	26-Feb-2015	26-Feb-2015	27-Feb-2015	26-Feb-2015	26-Feb-2015	26-Feb-2015	26-Feb-2015
pH	25-Feb-2015	26-Feb-2015	02-Mar-2015	02-Mar-2015	02-Mar-2015	25-Feb-2015	25-Feb-2015
Sample description	24-Feb-2015	24-Feb-2015	25-Feb-2015	23-Feb-2015	23-Feb-2015	24-Feb-2015	24-Feb-2015
Total Organic Carbon						02-Mar-2015	
TPH CWG GC (S)	04-Mar-2015	04-Mar-2015	02-Mar-2015	03-Mar-2015	04-Mar-2015	03-Mar-2015	04-Mar-2015



SDG: 150214-75
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1094
Report Number: 312605
Superseded Report: 310683

Appendix General

1. Results are expressed on a dry weight basis (dried at 35°C) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH₄ by the BRE method, VOC TICS and SVOC TICS.

2. Samples will be run in duplicate upon request, but an additional charge may be incurred

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

6. When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as "Not detected". If no asbestos fibre types are found all will be reported as "Not detected" and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible. The quantity of asbestos present is not determined unless specifically requested.

7. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.

9. NDP -No determination possible due to insufficient/unsuitable sample.

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals -total metals must be requested separately.

11. Results relate only to the items tested.

12. LODs for wet tests reported on a dry weight basis are not corrected for moisture content.

13. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%, they are generally wider for volatiles analysis, 50-150%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

14. **Product analyses** -Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethylphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 15).

17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

18. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

19. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

20. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

21. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.

22. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

23. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5 -C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

Sample Deviations

1	Container with Headspace provided for volatiles analysis
2	Incorrect container received
3	Deviation from method
4	Holding time exceeded before sample received
5	Samples exceeded holding time before preservation was performed
\$	Sampled on date not provided
♦	Sample holding time exceeded in laboratory
@	Sample holding time exceeded due to sampled on date
&	Sample Holding Time exceeded - Late arrival of instructions.

Asbestos

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.



Atkins Global Ltd
Project Jonah site office
Llan Coed House
Suite 24
Coed Darcy
Llandarcy
SA10 6HJ

Attention: Jack Lowrie

CERTIFICATE OF ANALYSIS

Date: 06 February 2015
Customer: H_ATKINS_LDC
Sample Delivery Group (SDG): 141202-67
Your Reference: Site Wide Trial Pitting
Location: Coed Darcy
Report No: 300946

We received 17 samples on Tuesday December 02, 2014 and 17 of these samples were scheduled for analysis which was completed on Friday February 06, 2015. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

All chemical testing (unless subcontracted) is performed at ALcontrol Hawarden Laboratories.

Approved By:

Sonia McWhan

Operations Manager





SDG:	141202-67	Location:	Coed Darcy	Order Number:	CD1013
Job:	H_ATKINS_LDC-224	Customer:	Atkins Global Ltd	Report Number:	300946
Client Reference:	Site Wide Trial Pitting	Attention:	Jack Lowrie	Superseded Report:	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
10486998	IP0809		0.50	28/11/2014
10486918	IP0809		1.50	28/11/2014
10486922	IP0809		2.50	28/11/2014
10486927	IP0897		0.50	28/11/2014
10486933	IP1000		0.20	28/11/2014
10486951	IP3134		0.20	28/11/2014
10486937	IP3136		0.50	28/11/2014
10486943	IP3136		1.30	28/11/2014
10486987	IP3137		0.50	28/11/2014
10486913	TPE449		0.50	28/11/2014
10486956	TPE589		0.50	28/11/2014
10486962	TPE589		1.50	28/11/2014
10486969	TPE589		2.50	28/11/2014
10486976	TPE589		3.50	28/11/2014
10486981	TPE589		4.50	28/11/2014
10486947	TPE1437		0.50	28/11/2014
10486992	TPE1438		0.50	28/11/2014

Only received samples which have had analysis scheduled will be shown on the following pages.

Order Number: CD1013
Report Number: 300946
Superseded Report:

Page 3 of 21

SDG: 141202-67
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1013
Report Number: 300946
Superseded Report:

SOLID Results Legend X Test N No Determination Possible	Lab Sample No(s)		10486992		10486947		10486981		10486976	
	Customer Sample Reference		TPE1438		TPE1437		TPE589		TPE589	
	AGS Reference									
	Depth (m)		0.50		0.50		4.50		3.50	
	Container		60g VOC (ALE215) 400g Tub (ALE214)		60g VOC (ALE215) 400g Tub (ALE214)		60g VOC (ALE215) 400g Tub (ALE214)		60g VOC (ALE215) 400g Tub (ALE214)	
			60g VOC (ALE215) 400g Tub (ALE214)		60g VOC (ALE215) 400g Tub (ALE214)		60g VOC (ALE215) 400g Tub (ALE214)		60g VOC (ALE215) 400g Tub (ALE214)	
Asbestos fibres in Soil*	All	NDPs: 0 Tests: 10				X			X	
EPH CWG (Aliphatic) GC (S)	All	NDPs: 0 Tests: 17				X		X		
EPH CWG (Aromatic) GC (S)	All	NDPs: 0 Tests: 17				X		X		
GRO by GC-FID (S)	All	NDPs: 0 Tests: 17				X		X		
Metals in solid samples by OES	All	NDPs: 0 Tests: 17				X		X		
PAH by GCMS	All	NDPs: 0 Tests: 17				X		X		
pH	All	NDPs: 0 Tests: 17				X		X		
Sample description	All	NDPs: 0 Tests: 17				X		X		
Total Organic Carbon	All	NDPs: 0 Tests: 4							X	
TPH CWG GC (S)	All	NDPs: 0 Tests: 17				X		X		



CERTIFICATE OF ANALYSIS

SDG: 141202-67
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1013
Report Number: 300946
Superseded Report:

Sample Descriptions

Grain Sizes

very fine	<0.063mm	fine	0.063mm - 0.1mm	medium	0.1mm - 2mm	coarse	2mm - 10mm	very coarse	>10mm
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Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Grain size	Inclusions	Inclusions 2
10486918	IP0809	1.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	None
10486922	IP0809	2.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	None
10486998	IP0809	0.50	Grey	Sandy Silt Loam	0.1 - 2 mm	Oil/Petroleum	Vegetation
10486927	IP0897	0.50	Dark Brown	Sandy Silt Loam	0.1 - 2 mm	Stones	Vegetation
10486933	IP1000	0.20	Grey	Sandy Silt Loam	0.1 - 2 mm	Stones	Vegetation
10486951	IP3134	0.20	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	Vegetation
10486937	IP3136	0.50	Light Brown	Sandy Silt Loam	0.1 - 2 mm	Vegetation	None
10486943	IP3136	1.30	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	Vegetation
10486987	IP3137	0.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	Vegetation
10486913	TPE449	0.50	Grey	Loamy Sand	0.1 - 2 mm	Stones	Vegetation
10486956	TPE589	0.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	Plastic
10486962	TPE589	1.50	Black	Clinker	2 - 10 mm	Stones	None
10486969	TPE589	2.50	Black	Clinker	2 - 10 mm	None	None
10486976	TPE589	3.50	Black	Clinker	2 - 10 mm	None	None
10486981	TPE589	4.50	Black	Clinker	2 - 10 mm	None	None
10486947	TPE1437	0.50	Dark Brown	Sand	0.1 - 2 mm	Stones	Vegetation
10486992	TPE1438	0.50	Dark Brown	Sand	0.1 - 2 mm	Stones	Vegetation

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

Order Number: CD1013
Report Number: 300946
Superseded Report:

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Order Number: CD1013
Report Number: 300946
Superseded Report:

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Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1013
Report Number: 300946
Superseded Report:

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Order Number: CD1013
Report Number: 300946
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Order Number: CD1013
Report Number: 300946
Superseded Report:

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Order Number: CD1013
Report Number: 300946
Superseded Report:

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CERTIFICATE OF ANALYSIS

SDG: 141202-67
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1013
Report Number: 300946
Superseded Report:

TPH CWG (S)

Results Legend		Customer Sample R						
#	ISO17025 accredited.		IP0809	IP0809	IP0809	IP0897	IP1000	IP3134
M	mCERTS accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	0.50 Soil/Solid 28/11/2014	1.50 Soil/Solid 28/11/2014	2.50 Soil/Solid 28/11/2014	0.50 Soil/Solid 28/11/2014	0.20 Soil/Solid 28/11/2014	0.20 Soil/Solid 28/11/2014
aq	Aqueous / settled sample.							
diss.filt	Dissolved / filtered sample.							
tot.unfilt	Total / unfiltered sample.							
*	Subcontracted test.							
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed							
1-5&\$@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	117	128	74	77	120	72
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	1120000	159000	48200	1650	146000	<176
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<100	64.8	<20	<20	379	<20
Benzene	<10 µg/kg	TM089	<200	<40	<40	<40	98.8	<40
Toluene	<2 µg/kg	TM089	<40	553	<8	<8	<8	<8
Ethylbenzene	<3 µg/kg	TM089	<60	<12	<12	14.5	<12	<12
m,p-Xylene	<6 µg/kg	TM089	<120	<24	<24	<24	<24	<24
o-Xylene	<3 µg/kg	TM089	<60	<12	<12	<12	<12	<12
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	<9	<9	<9	<9	<9
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	553	<24	<24	98.8	<24
Aliphatics >C5-C6	<10 µg/kg	TM089	<200	140	189	<40	500	<40
Aliphatics >C6-C8	<10 µg/kg	TM089	76500	29300	11200	212	61800	<40
Aliphatics >C8-C10	<10 µg/kg	TM089	308000	32000	9290	379	26100	<40
Aliphatics >C10-C12	<10 µg/kg	TM089	316000	45100	12800	443	23800	<40
Aliphatics >C12-C16	<100 µg/kg	TM173	913000	39000	282000	6150	10300	1720
Aliphatics >C16-C21	<100 µg/kg	TM173	288000	12700	77800	<100	34000	28700
Aliphatics >C21-C35	<100 µg/kg	TM173	88800	6980	27000	<100	30700	70600
Aliphatics >C35-C44	<100 µg/kg	TM173	4040	<100	5330	<100	6580	19600
Total Aliphatics >C12-C44	<100 µg/kg	TM173	1290000	58600	392000	6150	81500	121000
Aromatics >EC5-EC7	<10 µg/kg	TM089	<200	<40	<40	<40	98.8	<40
Aromatics >EC7-EC8	<10 µg/kg	TM089	<200	553	<40	<40	<40	<40
Aromatics >EC8-EC10	<10 µg/kg	TM089	205000	21300	6190	281	17400	<40
Aromatics >EC10-EC12	<10 µg/kg	TM089	211000	30100	8540	295	15900	<40
Aromatics >EC12-EC16	<100 µg/kg	TM173	60500	2190	8520	771	561	280
Aromatics >EC16-EC21	<100 µg/kg	TM173	52700	<100	10000	<100	3390	2810
Aromatics >EC21-EC35	<100 µg/kg	TM173	37300	<100	7840	<100	19300	38100
Aromatics >EC35-EC44	<100 µg/kg	TM173	14400	<100	<100	<100	10800	26500
Aromatics >EC40-EC44	<100 µg/kg	TM173	4100	<100	<100	<100	4000	10500
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	165000	2190	26400	771	34100	67700
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	2580000	219000	467000	8570	261000	188000



CERTIFICATE OF ANALYSIS

SDG: 141202-67
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1013
Report Number: 300946
Superseded Report:

TPH CWG (S)

Results Legend		Customer Sample R						
#	ISO17025 accredited.							
M	mCERTS accredited.	Depth (m)						
aq	Aqueous / settled sample.							
diss.filt	Dissolved / filtered sample.	Sample Type						
tot.unfilt	Total / unfiltered sample.							
*	Subcontracted test.	Date Sampled						
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed	Date Received						
1-5&\$@	Sample deviation (see appendix)							
		Lab Sample No.(s)						
		AGS Reference						
Component	LOD/Units	Method	IP3136	IP3136	IP3137	TPE449	TPE589	TPE589
GRO Surrogate % recovery**	%	TM089	80	73	73	84	90	85
			@	@	@	@	@	@
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	<176	67100	23500	478000	334	<880
			@ M	@ M	@ M	@ M	@ M	@ #
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	<20	<20	<100	<20	<100
			@ M	@ M	@ M	@ M	@ M	@ #
Benzene	<10 µg/kg	TM089	<40	<40	<40	<200	<40	<200
			@ M	@ M	@ M	@ M	@ M	@ #
Toluene	<2 µg/kg	TM089	<8	<8	<8	<40	<8	<40
			@ M	@ M	@ M	@ M	@ M	@ #
Ethylbenzene	<3 µg/kg	TM089	<12	<12	<12	<60	<12	<60
			@ M	@ M	@ M	@ M	@ M	@ #
m,p-Xylene	<6 µg/kg	TM089	<24	<24	<24	<120	<24	<120
			@ M	@ M	@ M	@ M	@ M	@ #
o-Xylene	<3 µg/kg	TM089	<12	<12	<12	<60	<12	<60
			@ M	@ M	@ M	@ M	@ M	@ #
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	<9	<9	<9	<9	<9
			@	@	@	@	@	@
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	<24	<24	<24	<24	<24
			@	@	@	@	@	@
Aliphatics >C5-C6	<10 µg/kg	TM089	<40	<40	<40	<200	<40	<200
			@	@	@	@	@	@
Aliphatics >C6-C8	<10 µg/kg	TM089	<40	451	2030	3100	<40	<200
			@	@	@	@	@	@
Aliphatics >C8-C10	<10 µg/kg	TM089	<40	8320	6260	87000	47.6	<200
			@	@	@	@	@	@
Aliphatics >C10-C12	<10 µg/kg	TM089	<40	31600	6610	198000	125	<200
			@	@	@	@	@	@
Aliphatics >C12-C16	<100 µg/kg	TM173	457	470000	<100	1300000	26700	9280
Aliphatics >C16-C21	<100 µg/kg	TM173	936	386000	1060	472000	18300	32900
Aliphatics >C21-C35	<100 µg/kg	TM173	5840	85300	9070	517000	67100	169000
Aliphatics >C35-C44	<100 µg/kg	TM173	681	3860	3060	140000	19800	73500
Total Aliphatics >C12-C44	<100 µg/kg	TM173	7920	944000	13200	2430000	132000	285000
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	<40	<40	<200	<40	<200
			@	@	@	@	@	@
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<40	<40	<200	<40	<200
			@	@	@	@	@	@
Aromatics >EC8-EC10	<10 µg/kg	TM089	<40	5540	4170	58000	<40	<200
			@	@	@	@	@	@
Aromatics >EC10-EC12	<10 µg/kg	TM089	<40	21100	4400	132000	83.5	<200
			@	@	@	@	@	@
Aromatics >EC12-EC16	<100 µg/kg	TM173	<100	58800	<100	43000	<100	6760
Aromatics >EC16-EC21	<100 µg/kg	TM173	<100	93800	623	101000	5390	57200
Aromatics >EC21-EC35	<100 µg/kg	TM173	2930	26300	7330	347000	63700	328000
Aromatics >EC35-EC44	<100 µg/kg	TM173	1510	<100	6400	158000	38300	148000
Aromatics >EC40-EC44	<100 µg/kg	TM173	<100	<100	3090	63900	14600	51800
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	4440	179000	14400	649000	107000	540000
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	12400	1190000	51000	3560000	240000	825000



CERTIFICATE OF ANALYSIS

SDG: 141202-67
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1013
Report Number: 300946
Superseded Report:

TPH CWG (S)

Results Legend		Customer Sample R					
#	ISO17025 accredited.		TPE589	TPE589	TPE589	TPE1437	TPE1438
M	mCERTS accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	2.50	3.50	4.50	0.50	0.50
aq	Aqueous / settled sample.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
diss.filt	Dissolved / filtered sample.		28/11/2014	28/11/2014	28/11/2014	28/11/2014	28/11/2014
tot.unfilt	Total / unfiltered sample.						
*	Subcontracted test.						
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery		02/12/2014	02/12/2014	02/12/2014	02/12/2014	02/12/2014
(F)	Trigger breach confirmed		141202-67	141202-67	141202-67	141202-67	141202-67
1-5&*\$@	Sample deviation (see appendix)		10486969	10486976	10486981	10486947	10486992
Component	LOD/Units	Method					
GRO Surrogate % recovery**	%	TM089	70 @	95 @	75 @	78 @	77 @
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	577 @ #	<880 @ #	2200 @ #	<176 @ M	<176 @ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20 @ #	<100 @ #	<20 @ #	<20 @ M	<20 @ M
Benzene	<10 µg/kg	TM089	<40 @ #	<200 @ #	62.7 @ #	<40 @ M	<40 @ M
Toluene	<2 µg/kg	TM089	74.5 @ #	65.6 @ #	75 @ #	<8 @ M	<8 @ M
Ethylbenzene	<3 µg/kg	TM089	<12 @ #	<60 @ #	<12 @ #	<12 @ M	<12 @ M
m,p-Xylene	<6 µg/kg	TM089	63.2 @ #	<120 @ #	59.7 @ #	<24 @ M	<24 @ M
o-Xylene	<3 µg/kg	TM089	25.9 @ #	<60 @ #	19.9 @ #	<12 @ M	<12 @ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	89.1 @	<9 @	79.6 @	<9 @	<9 @
sum of detected BTEX by GC	<24 µg/kg	TM089	164 @	65.6 @	217 @	<24 @	<24 @
Aliphatics >C5-C6	<10 µg/kg	TM089	<40 @	<200 @	<40 @	<40 @	<40 @
Aliphatics >C6-C8	<10 µg/kg	TM089	55.1 @	<200 @	101 @	<40 @	<40 @
Aliphatics >C8-C10	<10 µg/kg	TM089	66.4 @	<200 @	329 @	<40 @	<40 @
Aliphatics >C10-C12	<10 µg/kg	TM089	95.6 @	<200 @	767 @	<40 @	44.6 @
Aliphatics >C12-C16	<100 µg/kg	TM173	4820	14100	7930	730	<100
Aliphatics >C16-C21	<100 µg/kg	TM173	12900	33300	21900	2760	<100
Aliphatics >C21-C35	<100 µg/kg	TM173	42100	124000	58800	6310	<100
Aliphatics >C35-C44	<100 µg/kg	TM173	18500	54300	<100	1810	<100
Total Aliphatics >C12-C44	<100 µg/kg	TM173	78300	225000	88600	11600	<100
Aromatics >EC5-EC7	<10 µg/kg	TM089	43.7 @	<200 @	62.7 @	<40 @	<40 @
Aromatics >EC7-EC8	<10 µg/kg	TM089	74.5 @	<200 @	75 @	<40 @	<40 @
Aromatics >EC8-EC10	<10 µg/kg	TM089	146 @	<200 @	306 @	<40 @	<40 @
Aromatics >EC10-EC12	<10 µg/kg	TM089	64.8 @	<200 @	511 @	<40 @	<40 @
Aromatics >EC12-EC16	<100 µg/kg	TM173	3400	4910	6670	<100	<100
Aromatics >EC16-EC21	<100 µg/kg	TM173	10900	19600	10400	<100	<100
Aromatics >EC21-EC35	<100 µg/kg	TM173	48200	246000	54800	2320	2000
Aromatics >EC35-EC44	<100 µg/kg	TM173	34400	119000	22400	870	911
Aromatics >EC40-EC44	<100 µg/kg	TM173	16000	46800	8590	<100	<100
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	96900	390000	94300	3190	2910
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	176000	615000	185000	14800	3090



SDG:	141202-67	Location:	Coed Darcy	Order Number:	CD1013
Job:	H_ATKINS_LDC-224	Customer:	Atkins Global Ltd	Report Number:	300946
Client Reference:	Site Wide Trial Pitting	Attention:	Jack Lowrie	Superseded Report:	

Asbestos Quantification - Full

Additional Asbestos Components (Using TM048)	Analysts Comments	Asbestos Quantification - Gravimetric - %	Asbestos Quantification - PCOM Evaluation - %	Asbestos Quantification - Total - %
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Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPES89 0.50 SOLID 28/11/2014 00:00:00 15/01/2015 12:10:52 141202-67 10486956 TM 304	None (#)	N/C	0.0024 (#)	<0.001 (#)	0.0025 (#)
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SDG:	141202-67	Location:	Coed Darcy	Order Number:	CD1013
Job:	H_ATKINS_LDC-224	Customer:	Atkins Global Ltd	Report Number:	300946
Client Reference:	Site Wide Trial Pitting	Attention:	Jack Lowrie	Superseded Report:	

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample ¹	Surrogate Corrected
ASB_PREP				
PM001		Preparation of Samples for Metals Analysis		
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material		
SUB (ASB)				
TM 304				
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) and BTEX (MTBE) compounds by Headspace GC-FID (C4-C12)		
TM132	In - house Method	ELTRA CS800 Operators Guide		
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter		
TM173	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GC-FID		
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES		
TM218	Microwave extraction – EPA method 3546	Microwave extraction - EPA method 3546		

¹ Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.



CERTIFICATE OF ANALYSIS

SDG: 141202-67
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1013
Report Number: 300946
Superseded Report:

Test Completion Dates

Lab Sample No(s)	10486918	10486922	10486998	10486927	10486933	10486951	10486937	10486943	10486987	10486913
Customer Sample Ref.	IP0809	IP0809	IP0809	IP0897	IP1000	IP3134	IP3136	IP3136	IP3137	TPE449
AGS Ref.										
Depth	1.50	2.50	0.50	0.50	0.20	0.20	0.50	1.30	0.50	0.50
Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Asbestos fibres in Soil*			11-Dec-2014	10-Dec-2014	10-Dec-2014	10-Dec-2014	10-Dec-2014		10-Dec-2014	10-Dec-2014
EPH CWG (Aliphatic) GC (S)	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014
EPH CWG (Aromatic) GC (S)	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014
GRO by GC-FID (S)	22-Dec-2014	20-Dec-2014	29-Dec-2014	20-Dec-2014	22-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	23-Dec-2014
Metals in solid samples by OES	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014
PAH by GCMS	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	18-Dec-2014	19-Dec-2014	18-Dec-2014	18-Dec-2014	19-Dec-2014
pH	18-Dec-2014	17-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014
Sample description	08-Dec-2014	08-Dec-2014	11-Dec-2014	11-Dec-2014	11-Dec-2014	11-Dec-2014	11-Dec-2014	08-Dec-2014	11-Dec-2014	11-Dec-2014
Total Organic Carbon					15-Dec-2014	16-Dec-2014				15-Dec-2014
TPH CWG GC (S)	22-Dec-2014	20-Dec-2014	29-Dec-2014	20-Dec-2014	22-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	23-Dec-2014

Lab Sample No(s)	10486956	10486962	10486969	10486976	10486981	10486947	10486992
Customer Sample Ref.	TPE589	TPE589	TPE589	TPE589	TPE589	TPE1437	TPE1438
AGS Ref.							
Depth	0.50	1.50	2.50	3.50	4.50	0.50	0.50
Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Asbestos fibres in Soil*	10-Dec-2014					10-Dec-2014	10-Dec-2014
Asbestos Quantification - Full	06-Feb-2015						
EPH CWG (Aliphatic) GC (S)	18-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014
EPH CWG (Aromatic) GC (S)	18-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014
GRO by GC-FID (S)	29-Dec-2014	29-Dec-2014	29-Dec-2014	29-Dec-2014	29-Dec-2014	20-Dec-2014	22-Dec-2014
Metals in solid samples by OES	17-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014
PAH by GCMS	18-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	18-Dec-2014	18-Dec-2014
pH	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014
Sample description	15-Dec-2014	08-Dec-2014	08-Dec-2014	08-Dec-2014	08-Dec-2014	11-Dec-2014	11-Dec-2014
Total Organic Carbon							16-Dec-2014
TPH CWG GC (S)	29-Dec-2014	29-Dec-2014	29-Dec-2014	29-Dec-2014	29-Dec-2014	20-Dec-2014	22-Dec-2014



Certificate of Analysis

Certificate Number 14-22391

10-Dec-14

Client Alcontrol Laboratories
Units 7 & 8
Hawarden Business Park
Manor Road
Hawarden
Deeside
CH5 3US

Our Reference 14-22391

Client Reference 141202-67

Contract Title 141202-67

Description 10 Soil samples.

Date Received 04-Dec-14

Date Started 04-Dec-14

Date Completed 10-Dec-14

Test Procedures Asbestos Analysis DETSC 1101.

Notes Opinions and interpretations are outside the scope of UKAS accreditation. 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. Observations and interpretations are outside the scope of ISO 17025. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

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

Rob Brown
Business Manager



Summary of Asbestos Analysis

Soil Samples

Our Ref 14-22391
 Client Ref 141202-67
 Contract Title 141202-67

Lab No	Sample ID	Material Type	Result	Comment*	Analyst
742041	10490111 IP0809 0.50	SOIL	NAD	none	Andrew Little
742042	10490093 IP0897 0.50	SOIL	NAD	none	Andrew Little
742043	10490097 IP1000 0.20	SOIL	NAD	none	Andrew Little
742044	10490220 IP3134 0.20	SOIL	NAD	none	Andrew Little
742045	10490234 IP3136 0.50	SOIL	NAD	none	Andrew Little
742046	10490216 IP3137 0.50	SOIL	NAD	none	Andrew Little
742047	10490229 TPE1437 0.50	SOIL	NAD	none	Andrew Little
742048	10490238 TPE1438 0.50	SOIL	NAD	none	Andrew Little
742049	10490087 TPE449 0.50	SOIL	NAD	none	Andrew Little
742050	10490155 TPE589 0.50	SOIL	Chrysotile	Free Chrysotile fibres present	Andrew Little

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: * -not included in laboratory scope of accreditation.

Information in Support of the Analytical Results

Our Ref 14-22391
Client Ref 141202-67
Contract 141202-67

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
742041	10490111 0.50 SOIL	28/11/14	PT 500ml		
742042	10490093 0.50 SOIL	28/11/14	PT 500ml		
742043	10490097 0.20 SOIL	28/11/14	PT 500ml		
742044	10490220 0.20 SOIL	28/11/14	PT 500ml		
742045	10490234 0.50 SOIL	28/11/14	PT 500ml		
742046	10490216 0.50 SOIL	28/11/14	PT 500ml		
742047	10490229 0.50 SOIL	28/11/14	PT 500ml		
742048	10490238 0.50 SOIL	28/11/14	PT 500ml		
742049	10490087 0.50 SOIL	28/11/14	PT 500ml		
742050	10490155 0.50 SOIL	28/11/14	PT 500ml		

Key: P-Plastic T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time and/or inappropriate containers are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



SDG: 141202-67
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1013
Report Number: 300946
Superseded Report:

Appendix General

1. Results are expressed on a dry weight basis (dried at 35°C) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH₄ by the BRE method, VOC TICS and SVOC TICS.

2. Samples will be run in duplicate upon request, but an additional charge may be incurred.

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

6. When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as "Not detected". If no asbestos fibre types are found all will be reported as "Not detected" and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible. The quantity of asbestos present is not determined unless specifically requested.

7. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.

9. NDP -No determination possible due to insufficient/unsuitable sample.

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals -total metals must be requested separately.

11. Results relate only to the items tested.

12. LODs for wet tests reported on a dry weight basis are not corrected for moisture content.

13. **Surrogate recoveries** -Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted. Acceptable limits for most organic methods are 70 -130 %.

14. **Product analyses** -Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethylphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 15).

17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

18. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

19. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

20. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

21. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.

22. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill /made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

23. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

Sample Deviations

1	Container with Headspace provided for volatiles analysis
2	Incorrect container received
3	Deviation from method
4	Holding time exceeded before sample received
5	Samples exceeded holding time before preservation was performed
\$	Sampled on date not provided
♦	Sample holding time exceeded in laboratory
@	Sample holding time exceeded due to sampled on date
&	Sample Holding Time exceeded - Late arrival of instructions.

Asbestos

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than :
 - Trace - Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.



Atkins Global Ltd
Project Jonah site office
Llan Coed House
Suite 24
Coed Darcy
Llandarcy
SA10 6HJ

Attention: Jack Lowrie

CERTIFICATE OF ANALYSIS

Date: 07 February 2015
Customer: H_ATKINS_LDC
Sample Delivery Group (SDG): 141202-60
Your Reference: Site Wide Trial Pitting
Location: Coed Darcy
Report No: 300970

We received 49 samples on Tuesday December 02, 2014 and 49 of these samples were scheduled for analysis which was completed on Friday February 06, 2015. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

All chemical testing (unless subcontracted) is performed at ALcontrol Hawarden Laboratories.

Approved By:

Sonia McWhan

Operations Manager





SDG: 141202-60
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1012
Report Number: 300970
Superseded Report:

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
10485424	IP0888		0.50	27/11/2014
10485430	IP0888		1.50	27/11/2014
10485434	IP0888		2.50	27/11/2014
10485569	IP0889		0.50	27/11/2014
10485625	IP0889		1.50	27/11/2014
10485439	IP0894		0.50	27/11/2014
10485443	IP0894		1.50	27/11/2014
10485449	IP0894		2.50	27/11/2014
10485463	IP956		0.50	27/11/2014
10485473	IP956		1.50	27/11/2014
10485477	IP956		2.50	27/11/2014
10485482	IP957		0.50	27/11/2014
10485486	IP957		1.50	27/11/2014
10485416	IP959		0.50	27/11/2014
10485468	IP959		1.50	27/11/2014
10485523	IP959		2.50	27/11/2014
10485635	IP960		0.50	27/11/2014
10485642	IP960		1.50	27/11/2014
10485646	IP960		2.50	27/11/2014
10485420	IP960		3.50	27/11/2014
10485507	IP0981		0.50	27/11/2014
10485514	IP0981		1.50	27/11/2014
10485518	IP0982		0.50	27/11/2014
10485527	IP0984		0.50	27/11/2014
10485531	IP0989		0.50	27/11/2014
10485535	IP0989		1.50	27/11/2014
10485540	IP0990		0.50	27/11/2014
10485544	IP0990		1.50	27/11/2014
10485548	IP0990		2.50	27/11/2014
10485552	IP0991		0.50	27/11/2014
10485556	IP0991		1.50	27/11/2014
10485560	IP0991		2.50	27/11/2014
10485565	IP0992		0.50	27/11/2014
10485574	IP0992		1.50	27/11/2014
10485578	IP0992		2.50	27/11/2014
10485607	IP0996		0.50	27/11/2014
10485612	IP0996		1.50	27/11/2014
10485619	IP0996		2.50	27/11/2014
10485601	IP0997		0.50	27/11/2014
10485592	IP0998		0.50	27/11/2014
10485597	IP0998		1.50	27/11/2014
10485583	IP0999		0.50	27/11/2014
10485588	IP0999		1.50	27/11/2014
10485454	TPE447		0.50	27/11/2014
10485459	TPE447		1.50	27/11/2014
10485490	TPE448		0.50	27/11/2014
10485497	TPE448		1.50	27/11/2014
10485503	TPE448		2.50	27/11/2014
10485629	TPE451		0.50	27/11/2014

Only received samples which have had analysis scheduled will be shown on the following pages.



SDG: 141202-60
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1012
Report Number: 300970
Superseded Report:

SOLID Results Legend X Test N No Determination Possible	Lab Sample No(s)		Customer Sample Reference		AGS Reference		Depth (m)		Container	
	10485416	IP969					0.50		250g Amber Jar (AL	
	10485486	IP967					1.50		60g VOC (ALE215)	
	10485482	IP967					0.50		400g Tub (ALE214)	
	10485477	IP966					2.50		250g Amber Jar (AL	
	10485473	IP966					1.50		60g VOC (ALE215)	
	10485463	IP966					0.50		400g Tub (ALE214)	
	10485449	IP0894					2.50		250g Amber Jar (AL	
	10485443	IP0894					1.50		60g VOC (ALE215)	
	10485439	IP0894					0.50		400g Tub (ALE214)	
	10485625	IP0889					1.50		250g Amber Jar (AL	
	10485659	IP0889					0.50		60g VOC (ALE215)	
	10485434	IP0888					2.50		400g Tub (ALE214)	
	10485430	IP0888					1.50		250g Amber Jar (AL	
	10485424	IP0888					0.50		60g VOC (ALE215)	
Asbestos fibres in Soil*	All	NDPs: 0 Tests: 21								
EPH CWG (Aliphatic) GC (S)	All	NDPs: 0 Tests: 49								
EPH CWG (Aromatic) GC (S)	All	NDPs: 0 Tests: 49								
GRO by GC-FID (S)	All	NDPs: 0 Tests: 49								
Metals in solid samples by OES	All	NDPs: 0 Tests: 49								
PAH by GCMS	All	NDPs: 0 Tests: 49								
pH	All	NDPs: 0 Tests: 49								
Sample description	All	NDPs: 0 Tests: 49								
Total Organic Carbon	All	NDPs: 0 Tests: 9								
TPH CWG GC (S)	All	NDPs: 0 Tests: 49								



CERTIFICATE OF ANALYSIS

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Order Number: CD1012
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SOLID Results Legend X Test N No Determination Possible	Lab Sample No(s)		Customer Sample Reference		AGS Reference		Depth (m)		Container	
	10485416		IP959				0.50		400g Tub (ALE214)	
	10485468		IP959				1.50		250g Amber Jar (AL)	
	10485523		IP959				2.50		60g VOC (ALE215)	
	10485635		IP960				0.50		400g Tub (ALE214)	
Asbestos fibres in Soil*	10485642		IP960				1.50		250g Amber Jar (AL)	
	10485646		IP960				2.50		60g VOC (ALE215)	
Asbestos Quantification - Full	10485420		IP960				3.50		400g Tub (ALE214)	
	10485507		IP981				0.50		250g Amber Jar (AL)	
EPH CWG (Aliphatic) GC (S)	10485514		IP981				1.50		60g VOC (ALE215)	
	10485518		IP982				0.50		400g Tub (ALE214)	
EPH CWG (Aromatic) GC (S)	10485527		IP984				0.50		250g Amber Jar (AL)	
	10485531		IP989				0.50		60g VOC (ALE215)	
GRO by GC-FID (S)	10485540		IP0990				0.50		400g Tub (ALE214)	
	10485535		IP0989				1.50		250g Amber Jar (AL)	
Metals in solid samples by OES	10485540		IP0990				0.50		60g VOC (ALE215)	
	10485535		IP0989				1.50		400g Tub (ALE214)	
PAH by GCMS	10485531		IP0989				0.50		250g Amber Jar (AL)	
	10485527		IP0984				0.50		60g VOC (ALE215)	
pH	10485518		IP0982				0.50		400g Tub (ALE214)	
	10485514		IP0981				1.50		250g Amber Jar (AL)	
Sample description	10485507		IP981				0.50		60g VOC (ALE215)	
	10485420		IP960				3.50		400g Tub (ALE214)	
Total Organic Carbon	10485646		IP960				2.50		250g Amber Jar (AL)	
	10485642		IP960				1.50		60g VOC (ALE215)	
TPH CWG GC (S)	10485635		IP960				0.50		400g Tub (ALE214)	
	10485523		IP959				2.50		250g Amber Jar (AL)	
	10485468		IP959				1.50		60g VOC (ALE215)	
	10485416		IP959				0.50		400g Tub (ALE214)	
Asbestos fibres in Soil*	All	NDPs: 0 Tests: 21								
Asbestos Quantification - Full	All	NDPs: 0 Tests: 2								
EPH CWG (Aliphatic) GC (S)	All	NDPs: 0 Tests: 49								
EPH CWG (Aromatic) GC (S)	All	NDPs: 0 Tests: 49								
GRO by GC-FID (S)	All	NDPs: 0 Tests: 49								
Metals in solid samples by OES	All	NDPs: 0 Tests: 49								
PAH by GCMS	All	NDPs: 0 Tests: 49								
pH	All	NDPs: 0 Tests: 49								
Sample description	All	NDPs: 0 Tests: 49								
Total Organic Carbon	All	NDPs: 0 Tests: 9								
TPH CWG GC (S)	All	NDPs: 0 Tests: 49								



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SOLID Results Legend X Test N No Determination Possible	Lab Sample No(s)		Customer Sample Reference		AGS Reference		Depth (m)		Container	
	10485592		IP0938				0.50		60g VOC (ALE215)	
	10485601		IP0937				0.50		400g Tub (ALE214)	
	10485619		IP0936				2.50		250g Amber Jar (AL)	
	10485612		IP0936				1.50		60g VOC (ALE215)	
Asbestos fibres in Soil*	10485574		IP0932				1.50		400g Tub (ALE214)	
	10485578		IP0932				2.50		250g Amber Jar (AL)	
	10485607		IP0936				0.50		60g VOC (ALE215)	
	10485565		IP0932				0.50		400g Tub (ALE214)	
	10485560		IP0931				2.50		250g Amber Jar (AL)	
	10485556		IP0931				1.50		60g VOC (ALE215)	
	10485552		IP0931				0.50		400g Tub (ALE214)	
	10485548		IP0930				2.50		250g Amber Jar (AL)	
	10485544		IP0930				1.50		60g VOC (ALE215)	
	10485540		IP0930				0.50		400g Tub (ALE214)	
									250g Amber Jar (AL)	
									60g VOC (ALE215)	
Asbestos Quantification - Full	All	NDPs: 0 Tests: 2								
EPH CWG (Aliphatic) GC (S)	All	NDPs: 0 Tests: 49								
EPH CWG (Aromatic) GC (S)	All	NDPs: 0 Tests: 49								
GRO by GC-FID (S)	All	NDPs: 0 Tests: 49								
Metals in solid samples by OES	All	NDPs: 0 Tests: 49								
PAH by GCMS	All	NDPs: 0 Tests: 49								
pH	All	NDPs: 0 Tests: 49								
Sample description	All	NDPs: 0 Tests: 49								
Total Organic Carbon	All	NDPs: 0 Tests: 9								
TPH CWG GC (S)	All	NDPs: 0 Tests: 49								

Location: Coed Darcy
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Sample Descriptions

Grain Sizes

very fine	<0.063mm	fine	0.063mm - 0.1mm	medium	0.1mm - 2mm	coarse	2mm - 10mm	very coarse	>10mm
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Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Grain size	Inclusions	Inclusions 2
10485424	IP0888	0.50	Beige	Sandy Clay Loam	0.1 - 2 mm	Stones	None
10485430	IP0888	1.50	Light Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	None
10485434	IP0888	2.50	Grey	Sand	0.1 - 2 mm	Stones	Oil/Petroleum
10485569	IP0889	0.50	Dark Brown	Sandy Clay	0.1 - 2 mm	Stones	None
10485625	IP0889	1.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	Vegetation
10485439	IP0894	0.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	None
10485443	IP0894	1.50	Grey	Loamy Sand	0.1 - 2 mm	Stones	None
10485449	IP0894	2.50	Light Brown	Loamy Sand	0.1 - 2 mm	Stones	None
10485463	IP956	0.50	Dark Brown	Sandy Clay	0.1 - 2 mm	Stones	None
10485473	IP956	1.50	Dark Brown	Clay	0.063 - 0.1 mm	Oil/Petroleum	Stones
10485477	IP956	2.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	None
10485482	IP957	0.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	Vegetation
10485486	IP957	1.50	Dark Brown	Silty Clay	0.063 - 0.1 mm	Stones	Vegetation
10485416	IP959	0.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	None
10485468	IP959	1.50	Dark Brown	Sandy Clay	0.1 - 2 mm	Vegetation	None
10485523	IP959	2.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	None
10485420	IP960	3.50	Dark Brown	Sand	0.1 - 2 mm	Stones	None
10485635	IP960	0.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	None
10485642	IP960	1.50	Dark Brown	Sandy Loam	0.1 - 2 mm	None	Stones
10485646	IP960	2.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	None
10485507	IP0981	0.50	Light Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	Vegetation
10485514	IP0981	1.50	Dark Brown	Sand	0.1 - 2 mm	Stones	None
10485518	IP0982	0.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	Brick
10485527	IP0984	0.50	Light Brown	Sandy Clay	0.1 - 2 mm	Stones	None
10485531	IP0989	0.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	Vegetation
10485535	IP0989	1.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	Vegetation
10485540	IP0990	0.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	None
10485544	IP0990	1.50	Dark Brown	Silty Clay Loam	0.063 - 0.1 mm	Vegetation	None
10485548	IP0990	2.50	Light Brown	Silty Sand	0.063 - 0.1 mm	Vegetation	Stones
10485552	IP0991	0.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	None
10485556	IP0991	1.50	Dark Brown	Silty Sand	0.063 - 0.1 mm	Vegetation	None
10485560	IP0991	2.50	Dark Brown	Silty Sand	0.1 - 2 mm	Vegetation	None
10485565	IP0992	0.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	None
10485574	IP0992	1.50	Light Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	None
10485578	IP0992	2.50	Light Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	None
10485607	IP0996	0.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Crushed Brick	Stones
10485612	IP0996	1.50	Light Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	None
10485619	IP0996	2.50	Grey	Sandy Loam	0.1 - 2 mm	Stones	Vegetation



CERTIFICATE OF ANALYSIS

SDG: 141202-60
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1012
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			Colour	Description	Grain size	Inclusions	Inclusions 2
10485601	IP0997	0.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	None
10485592	IP0998	0.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	None
10485597	IP0998	1.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	Vegetation
10485583	IP0999	0.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	Vegetation
10485588	IP0999	1.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	Oil/Petroleum
10485454	TPE447	0.50	Dark Brown	Sandy Clay	0.1 - 2 mm	Stones	None
10485459	TPE447	1.50	Light Brown	Clay	0.063 - 0.1 mm	Stones	Vegetation
10485490	TPE448	0.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	Vegetation
10485497	TPE448	1.50	Dark Brown	Silty Clay	0.063 - 0.1 mm	Stones	Vegetation
10485503	TPE448	2.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	Brick
10485629	TPE451	0.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	None

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

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TPH CWG (S)

Results Legend		Customer Sample R						
#	ISO17025 accredited.		IP0888	IP0888	IP0888	IP0889	IP0889	IP0894
M	mCERTS accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	0.50 Soil/Solid 27/11/2014	1.50 Soil/Solid 27/11/2014	2.50 Soil/Solid 27/11/2014	0.50 Soil/Solid 27/11/2014	1.50 Soil/Solid 27/11/2014	0.50 Soil/Solid 27/11/2014
aq	Aqueous / settled sample.							
diss.filt	Dissolved / filtered sample.							
tot.unfilt	Total / unfiltered sample.							
*	Subcontracted test.							
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed							
1-5&\$@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	73 @	74	87 @	80 @	88 @	93 @
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	39200 @ M	736 M	18100 @ M	<176 @ M	<176 @ M	<880 @ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20 @ M	<20 M	<20 @ M	<20 @ M	<20 @ M	<100 @ M
Benzene	<10 µg/kg	TM089	<40 @ M	<40 M	<40 @ M	<40 @ M	<40 @ M	<200 @ M
Toluene	<2 µg/kg	TM089	<8 @ M	<8 M	<8 @ M	<8 @ M	<8 @ M	<40 @ M
Ethylbenzene	<3 µg/kg	TM089	<12 @ M	<12 M	<12 @ M	<12 @ M	<12 @ M	<60 @ M
m,p-Xylene	<6 µg/kg	TM089	<24 @ M	<24 M	<24 @ M	<24 @ M	<24 @ M	<120 @ M
o-Xylene	<3 µg/kg	TM089	375 @ M	<12 M	106 @ M	<12 @ M	<12 @ M	<60 @ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	375 @	<9	106 @	<9 @	<9 @	<9 @
sum of detected BTEX by GC	<24 µg/kg	TM089	375 @	<24	106 @	<24 @	<24 @	<24 @
Aliphatics >C5-C6	<10 µg/kg	TM089	146 @	<40	<40 @	<40 @	<40 @	<200 @
Aliphatics >C6-C8	<10 µg/kg	TM089	6430 @	46.3	656 @	<40 @	<40 @	324 @
Aliphatics >C8-C10	<10 µg/kg	TM089	9800 @	103	2820 @	<40 @	<40 @	<200 @
Aliphatics >C10-C12	<10 µg/kg	TM089	9560 @	303	7590 @	<40 @	<40 @	<200 @
Aliphatics >C12-C16	<100 µg/kg	TM173	412000	<100	<100	1880	<100	2660
Aliphatics >C16-C21	<100 µg/kg	TM173	483000	<100	<100	2990	<100	4120
Aliphatics >C21-C35	<100 µg/kg	TM173	491000	<100	<100	<100	<100	<100
Aliphatics >C35-C44	<100 µg/kg	TM173	82000	<100	<100	<100	<100	<100
Total Aliphatics >C12-C44	<100 µg/kg	TM173	1470000	<100	<100	4870	<100	6780
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40 @	<40	<40 @	<40 @	<40 @	<200 @
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40 @	<40	<40 @	<40 @	<40 @	<200 @
Aromatics >EC8-EC10	<10 µg/kg	TM089	6910 @	68.9	1990 @	<40 @	<40 @	<200 @
Aromatics >EC10-EC12	<10 µg/kg	TM089	6370 @	202	5060 @	<40 @	<40 @	<200 @
Aromatics >EC12-EC16	<100 µg/kg	TM173	35400	<100	<100	<100	<100	<100
Aromatics >EC16-EC21	<100 µg/kg	TM173	140000	<100	659	1380	<100	<100
Aromatics >EC21-EC35	<100 µg/kg	TM173	288000	<100	1050	3020	1030	<100
Aromatics >EC35-EC44	<100 µg/kg	TM173	106000	<100	<100	<100	<100	<100
Aromatics >EC40-EC44	<100 µg/kg	TM173	42600	<100	<100	<100	<100	<100
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	569000	<100	1700	4410	1030	<100
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	2080000	736	19900	9280	1030	7720



CERTIFICATE OF ANALYSIS

SDG: 141202-60
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1012
Report Number: 300970
Superseded Report:

TPH CWG (S)

Results Legend		Customer Sample R	IP0894		IP0894		IP956		IP956		IP956		IP957	
#	ISO17025 accredited.		1.50	Soil/Solid	2.50	Soil/Solid	0.50	Soil/Solid	1.50	Soil/Solid	2.50	Soil/Solid	0.50	Soil/Solid
M	mCERTS accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	27/11/2014	27/11/2014	27/11/2014	27/11/2014	27/11/2014	27/11/2014	27/11/2014	27/11/2014	27/11/2014	27/11/2014	27/11/2014	27/11/2014
aq	Aqueous / settled sample.		02/12/2014	02/12/2014	02/12/2014	02/12/2014	02/12/2014	02/12/2014	02/12/2014	02/12/2014	02/12/2014	02/12/2014	02/12/2014	02/12/2014
diss.filt	Dissolved / filtered sample.		141202-60	141202-60	141202-60	141202-60	141202-60	141202-60	141202-60	141202-60	141202-60	141202-60	141202-60	141202-60
tot.unfilt	Total / unfiltered sample.		10485443	10485449	10485449	10485463	10485463	10485473	10485473	10485477	10485477	10485482	10485482	10485482
*	Subcontracted test.													
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery													
(F)	Trigger breach confirmed													
1-5&*\$@	Sample deviation (see appendix)													
Component	LOD/Units	Method	IP0894		IP0894		IP956		IP956		IP956		IP957	
GRO Surrogate % recovery**	%	TM089	83	@	80	@	71	@	121	@	115	@	92	@
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	<176	@ M	<176	@ M	29700	@ M	294000	@ M	709000	@ M	<176	@ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	@ M	<20	@ M	<20	@ M	<20	@ M	<100	@ M	<20	@ M
Benzene	<10 µg/kg	TM089	<40	@ M	<40	@ M	<40	@ M	<40	@ M	<200	@ M	<40	@ M
Toluene	<2 µg/kg	TM089	<8	@ M	<8	@ M	<8	@ M	<8	@ M	<40	@ M	<8	@ M
Ethylbenzene	<3 µg/kg	TM089	<12	@ M	<12	@ M	<12	@ M	<12	@ M	<60	@ M	<12	@ M
m,p-Xylene	<6 µg/kg	TM089	<24	@ M	<24	@ M	<24	@ M	<24	@ M	<120	@ M	<24	@ M
o-Xylene	<3 µg/kg	TM089	<12	@ M	<12	@ M	<12	@ M	<12	@ M	<60	@ M	<12	@ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	@	<9	@	<9	@	<9	@	<9	@	<9	@
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	@	<24	@	<24	@	<24	@	<24	@	<24	@
Aliphatics >C5-C6	<10 µg/kg	TM089	<40	@	<40	@	72.8	@	1100	@	3210	@	<40	@
Aliphatics >C6-C8	<10 µg/kg	TM089	<40	@	<40	@	720	@	19800	@	141000	@	<40	@
Aliphatics >C8-C10	<10 µg/kg	TM089	<40	@	<40	@	7860	@	72700	@	192000	@	<40	@
Aliphatics >C10-C12	<10 µg/kg	TM089	<40	@	<40	@	9500	@	91100	@	147000	@	<40	@
Aliphatics >C12-C16	<100 µg/kg	TM173	<100		<100		12800		34600		45200		2530	
Aliphatics >C16-C21	<100 µg/kg	TM173	<100		<100		5790		635		48600		15000	
Aliphatics >C21-C35	<100 µg/kg	TM173	<100		<100		10800		<100		57300		54700	
Aliphatics >C35-C44	<100 µg/kg	TM173	<100		<100		6650		<100		16200		21300	
Total Aliphatics >C12-C44	<100 µg/kg	TM173	<100		<100		36000		35200		167000		93600	
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	@	<40	@	<40	@	<40	@	<200	@	<40	@
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	@	<40	@	<40	@	<40	@	<200	@	<40	@
Aromatics >EC8-EC10	<10 µg/kg	TM089	<40	@	<40	@	5240	@	48500	@	128000	@	<40	@
Aromatics >EC10-EC12	<10 µg/kg	TM089	<40	@	<40	@	6330	@	60700	@	98100	@	<40	@
Aromatics >EC12-EC16	<100 µg/kg	TM173	<100		<100		2170		5390		1640		<100	
Aromatics >EC16-EC21	<100 µg/kg	TM173	<100		<100		2220		<100		10400		5360	
Aromatics >EC21-EC35	<100 µg/kg	TM173	<100		2010		9590		<100		29500		36500	
Aromatics >EC35-EC44	<100 µg/kg	TM173	<100		4470		6150		<100		18900		23300	
Aromatics >EC40-EC44	<100 µg/kg	TM173	<100		2620		3630		<100		8840		9610	
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	<100		6480		20100		5390		60400		65200	
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	<100		6480		85900		335000		937000		159000	



CERTIFICATE OF ANALYSIS

SDG: 141202-60
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1012
Report Number: 300970
Superseded Report:

TPH CWG (S)

Results Legend		Customer Sample R		IP957	IP959	IP959	IP959	IP960	IP960
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference		1.50	0.50	1.50	2.50	0.50	1.50
M	mCERTS accredited.			Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
aq	Aqueous / settled sample.			27/11/2014	27/11/2014	27/11/2014	27/11/2014	27/11/2014	27/11/2014
diss.filt	Dissolved / filtered sample.								
tot.unfilt	Total / unfiltered sample.								
*	Subcontracted test.								
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery			02/12/2014	02/12/2014	02/12/2014	02/12/2014	02/12/2014	02/12/2014
(F)	Trigger breach confirmed			141202-60	141202-60	141202-60	141202-60	141202-60	141202-60
1-5&*\$@	Sample deviation (see appendix)			10485486	10485416	10485468	10485523	10485635	10485642
Component	LOD/Units			Method					
GRO Surrogate % recovery**	%	TM089		101	76	103	69	90	75
				@	@	@	@	@	@
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089		6760	12700	<176	<176	677	10900
				@ M	@ M	@ M	@ M	@ M	@ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089		<20	<20	<20	<20	<20	<20
				@ M	@ M	@ M	@ M	@ M	@ M
Benzene	<10 µg/kg	TM089		<40	<40	<40	<40	<40	<40
				@ M	@ M	@ M	@ M	@ M	@ M
Toluene	<2 µg/kg	TM089		<8	<8	<8	<8	<8	<8
				@ M	@ M	@ M	@ M	@ M	@ M
Ethylbenzene	<3 µg/kg	TM089		<12	<12	<12	<12	<12	<12
				@ M	@ M	@ M	@ M	@ M	@ M
m,p-Xylene	<6 µg/kg	TM089		<24	<24	<24	<24	<24	<24
				@ M	@ M	@ M	@ M	@ M	@ M
o-Xylene	<3 µg/kg	TM089		<12	<12	<12	<12	<12	<12
				@ M	@ M	@ M	@ M	@ M	@ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089		<9	<9	<9	<9	<9	<9
				@	@	@	@	@	@
sum of detected BTEX by GC	<24 µg/kg	TM089		<24	<24	<24	<24	<24	<24
				@	@	@	@	@	@
Aliphatics >C5-C6	<10 µg/kg	TM089		<40	<40	<40	<40	<40	46.3
				@	@	@	@	@	@
Aliphatics >C6-C8	<10 µg/kg	TM089		1470	365	<40	<40	42.5	826
				@	@	@	@	@	@
Aliphatics >C8-C10	<10 µg/kg	TM089		1730	2120	<40	<40	93.2	2350
				@	@	@	@	@	@
Aliphatics >C10-C12	<10 µg/kg	TM089		1420	5270	<40	<40	276	3660
				@	@	@	@	@	@
Aliphatics >C12-C16	<100 µg/kg	TM173		3690	326000	<100	<100	102000	24200
Aliphatics >C16-C21	<100 µg/kg	TM173		4970	442000	<100	<100	131000	34700
Aliphatics >C21-C35	<100 µg/kg	TM173		7740	540000	<100	<100	151000	47700
Aliphatics >C35-C44	<100 µg/kg	TM173		<100	121000	<100	<100	28200	12000
Total Aliphatics >C12-C44	<100 µg/kg	TM173		16400	1430000	<100	<100	412000	119000
Aromatics >EC5-EC7	<10 µg/kg	TM089		<40	<40	<40	<40	<40	<40
				@	@	@	@	@	@
Aromatics >EC7-EC8	<10 µg/kg	TM089		<40	<40	<40	<40	<40	<40
				@	@	@	@	@	@
Aromatics >EC8-EC10	<10 µg/kg	TM089		1160	1410	<40	<40	63.7	1570
				@	@	@	@	@	@
Aromatics >EC10-EC12	<10 µg/kg	TM089		945	3520	<40	<40	184	2440
				@	@	@	@	@	@
Aromatics >EC12-EC16	<100 µg/kg	TM173		<100	16100	<100	<100	4100	<100
Aromatics >EC16-EC21	<100 µg/kg	TM173		<100	104000	<100	<100	27600	5010
Aromatics >EC21-EC35	<100 µg/kg	TM173		<100	295000	3050	3880	72800	20700
Aromatics >EC35-EC44	<100 µg/kg	TM173		<100	118000	777	6640	23500	8790
Aromatics >EC40-EC44	<100 µg/kg	TM173		<100	46900	<100	3780	8480	3680
Total Aromatics >EC12-EC44	<100 µg/kg	TM173		<100	533000	3830	10500	128000	34500
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173		23200	1970000	3850	10500	541000	164000



CERTIFICATE OF ANALYSIS

SDG: 141202-60
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1012
Report Number: 300970
Superseded Report:

TPH CWG (S)

Results Legend		Customer Sample R	IP960		IP960		IP0981		IP0981		IP0982		IP0984	
#	ISO17025 accredited.		2.50	Soil/Solid	3.50	Soil/Solid	0.50	Soil/Solid	1.50	Soil/Solid	0.50	Soil/Solid	0.50	Soil/Solid
M	mCERTS accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	27/11/2014	27/11/2014	27/11/2014	27/11/2014	27/11/2014	27/11/2014	27/11/2014	27/11/2014	27/11/2014	27/11/2014	27/11/2014	27/11/2014
aq	Aqueous / settled sample.		02/12/2014	02/12/2014	02/12/2014	02/12/2014	02/12/2014	02/12/2014	02/12/2014	02/12/2014	02/12/2014	02/12/2014	02/12/2014	02/12/2014
diss.filt	Dissolved / filtered sample.		141202-60	141202-60	141202-60	141202-60	141202-60	141202-60	141202-60	141202-60	141202-60	141202-60	141202-60	141202-60
tot.unfilt	Total / unfiltered sample.		10485646	10485646	10485420	10485646	10485646	10485646	10485514	10485646	10485518	10485646	10485527	10485646
*	Subcontracted test.													
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery													
(F)	Trigger breach confirmed													
1-5&\$@	Sample deviation (see appendix)													
Component	LOD/Units	Method	IP960		IP960		IP0981		IP0981		IP0982		IP0984	
GRO Surrogate % recovery**	%	TM089	126	@	103	@	93	@	89	@	97	@	87	@
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	<176	@ M	<176	@ M	<176	@ M	<176	@ M	<176	@ M	<176	@ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	@ M	<20	@ M	<20	@ M	<20	@ M	<20	@ M	<20	@ M
Benzene	<10 µg/kg	TM089	<40	@ M	<40	@ M	<40	@ M	<40	@ M	<40	@ M	<40	@ M
Toluene	<2 µg/kg	TM089	<8	@ M	<8	@ M	<8	@ M	<8	@ M	<8	@ M	<8	@ M
Ethylbenzene	<3 µg/kg	TM089	<12	@ M	<12	@ M	<12	@ M	<12	@ M	<12	@ M	<12	@ M
m,p-Xylene	<6 µg/kg	TM089	<24	@ M	<24	@ M	<24	@ M	<24	@ M	<24	@ M	<24	@ M
o-Xylene	<3 µg/kg	TM089	<12	@ M	<12	@ M	<12	@ M	<12	@ M	<12	@ M	<12	@ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	@	<9	@	<9	@	<9	@	<9	@	<9	@
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	@	<24	@	<24	@	<24	@	<24	@	<24	@
Aliphatics >C5-C6	<10 µg/kg	TM089	<40	@	<40	@	<40	@	<40	@	<40	@	<40	@
Aliphatics >C6-C8	<10 µg/kg	TM089	<40	@	<40	@	<40	@	<40	@	<40	@	<40	@
Aliphatics >C8-C10	<10 µg/kg	TM089	<40	@	<40	@	<40	@	<40	@	<40	@	<40	@
Aliphatics >C10-C12	<10 µg/kg	TM089	<40	@	<40	@	<40	@	<40	@	<40	@	<40	@
Aliphatics >C12-C16	<100 µg/kg	TM173	<100		<100		<100		20000		<100		<100	
Aliphatics >C16-C21	<100 µg/kg	TM173	<100		<100		<100		31300		<100		<100	
Aliphatics >C21-C35	<100 µg/kg	TM173	<100		<100		<100		15300		<100		<100	
Aliphatics >C35-C44	<100 µg/kg	TM173	<100		<100		<100		<100		<100		<100	
Total Aliphatics >C12-C44	<100 µg/kg	TM173	<100		<100		<100		66600		<100		<100	
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	@	<40	@	<40	@	<40	@	<40	@	<40	@
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	@	<40	@	<40	@	<40	@	<40	@	<40	@
Aromatics >EC8-EC10	<10 µg/kg	TM089	<40	@	<40	@	<40	@	<40	@	<40	@	<40	@
Aromatics >EC10-EC12	<10 µg/kg	TM089	<40	@	<40	@	<40	@	<40	@	<40	@	<40	@
Aromatics >EC12-EC16	<100 µg/kg	TM173	<100		<100		<100		1060		<100		<100	
Aromatics >EC16-EC21	<100 µg/kg	TM173	<100		<100		<100		6790		<100		3120	
Aromatics >EC21-EC35	<100 µg/kg	TM173	1900		2690		<100		19000		<100		18500	
Aromatics >EC35-EC44	<100 µg/kg	TM173	1570		2590		<100		6780		<100		8760	
Aromatics >EC40-EC44	<100 µg/kg	TM173	839		1320		<100		2480		<100		3880	
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	3470		5280		<100		33600		<100		30400	
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	3480		5290		<100		100000		<100		30400	



CERTIFICATE OF ANALYSIS

SDG: 141202-60
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1012
Report Number: 300970
Superseded Report:

TPH CWG (S)

Results Legend		Customer Sample R						
#	ISO17025 accredited.		IP0989		IP0990		IP0991	
M	mCERTS accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	0.50	1.50	0.50	1.50	2.50	0.50
aq	Aqueous / settled sample.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
diss.filt	Dissolved / filtered sample.		27/11/2014	27/11/2014	27/11/2014	27/11/2014	27/11/2014	27/11/2014
tot.unfilt	Total / unfiltered sample.							
*	Subcontracted test.							
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery		02/12/2014	02/12/2014	02/12/2014	02/12/2014	02/12/2014	02/12/2014
(F)	Trigger breach confirmed		141202-60	141202-60	141202-60	141202-60	141202-60	141202-60
1-5&*\$@	Sample deviation (see appendix)		10485531	10485535	10485540	10485544	10485548	10485552
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	84	78	76	85	99	84
			@	@	@	@	@	@
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	<176	19700	1840	1530	<176	2550
			@ M	@ M	@ M	@ M	@ M	@ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	<20	<20	<20	<20	<20
			@ M	@ M	@ M	@ M	@ M	@ M
Benzene	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@ M	@ M	@ M	@ M	@ M	@ M
Toluene	<2 µg/kg	TM089	<8	<8	<8	<8	<8	<8
			@ M	@ M	@ M	@ M	@ M	@ M
Ethylbenzene	<3 µg/kg	TM089	<12	<12	<12	<12	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
m,p-Xylene	<6 µg/kg	TM089	<24	<24	<24	<24	<24	<24
			@ M	@ M	@ M	@ M	@ M	@ M
o-Xylene	<3 µg/kg	TM089	<12	<12	<12	<12	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	<9	<9	<9	<9	<9
			@	@	@	@	@	@
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	<24	<24	<24	<24	<24
			@	@	@	@	@	@
Aliphatics >C5-C6	<10 µg/kg	TM089	<40	78	<40	<40	<40	<40
			@	@	@	@	@	@
Aliphatics >C6-C8	<10 µg/kg	TM089	<40	1100	55	81.9	<40	115
			@	@	@	@	@	@
Aliphatics >C8-C10	<10 µg/kg	TM089	<40	3240	209	227	<40	503
			@	@	@	@	@	@
Aliphatics >C10-C12	<10 µg/kg	TM089	<40	7890	841	624	<40	935
			@	@	@	@	@	@
Aliphatics >C12-C16	<100 µg/kg	TM173	17400	412000	225000	<100	<100	108000
Aliphatics >C16-C21	<100 µg/kg	TM173	82600	705000	396000	<100	<100	220000
Aliphatics >C21-C35	<100 µg/kg	TM173	212000	964000	423000	<100	<100	248000
Aliphatics >C35-C44	<100 µg/kg	TM173	72100	249000	123000	<100	<100	62600
Total Aliphatics >C12-C44	<100 µg/kg	TM173	385000	2330000	1170000	<100	<100	638000
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC8-EC10	<10 µg/kg	TM089	<40	2160	145	151	<40	335
			@	@	@	@	@	@
Aromatics >EC10-EC12	<10 µg/kg	TM089	<40	5260	562	416	<40	623
			@	@	@	@	@	@
Aromatics >EC12-EC16	<100 µg/kg	TM173	1870	105000	41800	<100	<100	16100
Aromatics >EC16-EC21	<100 µg/kg	TM173	29600	368000	198000	<100	<100	85600
Aromatics >EC21-EC35	<100 µg/kg	TM173	257000	986000	540000	4850	735	282000
Aromatics >EC35-EC44	<100 µg/kg	TM173	157000	396000	289000	2660	<100	157000
Aromatics >EC40-EC44	<100 µg/kg	TM173	70200	160000	131000	1480	<100	72100
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	446000	1850000	1070000	7520	735	541000
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	831000	4200000	2240000	9040	735	1180000



CERTIFICATE OF ANALYSIS

SDG: 141202-60
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1012
Report Number: 300970
Superseded Report:

TPH CWG (S)

Results Legend		Customer Sample R						
#	ISO17025 accredited.		IP0991		IP0992		IP0992	
M	mCERTS accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	1.50	2.50	0.50	1.50	2.50	0.50
aq	Aqueous / settled sample.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
diss.filt	Dissolved / filtered sample.		27/11/2014	27/11/2014	27/11/2014	27/11/2014	27/11/2014	27/11/2014
tot.unfilt	Total / unfiltered sample.							
*	Subcontracted test.							
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed		02/12/2014	02/12/2014	02/12/2014	02/12/2014	02/12/2014	02/12/2014
1-5&\$@	Sample deviation (see appendix)		141202-60	141202-60	141202-60	141202-60	141202-60	141202-60
			10485556	10485560	10485565	10485574	10485578	10485607
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	88	96	71	83	80	70
			@	@	@	@	@	@
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	9410	<176	10100	567	3550	4090
			@ M	@ M	@ M	@ M	@ M	@ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	<20	<20	<20	<20	<20
			@ M	@ M	@ M	@ M	@ M	@ M
Benzene	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@ M	@ M	@ M	@ M	@ M	@ M
Toluene	<2 µg/kg	TM089	<8	<8	<8	<8	<8	<8
			@ M	@ M	@ M	@ M	@ M	@ M
Ethylbenzene	<3 µg/kg	TM089	<12	<12	<12	<12	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
m,p-Xylene	<6 µg/kg	TM089	<24	<24	<24	<24	<24	<24
			@ M	@ M	@ M	@ M	@ M	@ M
o-Xylene	<3 µg/kg	TM089	<12	<12	<12	<12	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	<9	<9	<9	<9	<9
			@	@	@	@	@	@
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	<24	<24	<24	<24	<24
			@	@	@	@	@	@
Aliphatics >C5-C6	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@	@	@	@	@	@
Aliphatics >C6-C8	<10 µg/kg	TM089	868	<40	581	54.5	288	242
			@	@	@	@	@	@
Aliphatics >C8-C10	<10 µg/kg	TM089	2220	<40	2020	106	764	1130
			@	@	@	@	@	@
Aliphatics >C10-C12	<10 µg/kg	TM089	2830	<40	3640	192	1170	1170
			@	@	@	@	@	@
Aliphatics >C12-C16	<100 µg/kg	TM173	<100	1760	254000	3340	5100	127000
Aliphatics >C16-C21	<100 µg/kg	TM173	<100	3470	361000	9280	12900	285000
Aliphatics >C21-C35	<100 µg/kg	TM173	<100	7440	387000	9540	15200	406000
Aliphatics >C35-C44	<100 µg/kg	TM173	<100	1110	110000	1010	8590	105000
Total Aliphatics >C12-C44	<100 µg/kg	TM173	<100	13800	1110000	23200	41800	923000
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC8-EC10	<10 µg/kg	TM089	1480	<40	1350	70.5	509	751
			@	@	@	@	@	@
Aromatics >EC10-EC12	<10 µg/kg	TM089	1880	<40	2420	128	782	780
			@	@	@	@	@	@
Aromatics >EC12-EC16	<100 µg/kg	TM173	<100	254	64400	<100	1350	2740
Aromatics >EC16-EC21	<100 µg/kg	TM173	<100	1790	193000	3420	29600	31400
Aromatics >EC21-EC35	<100 µg/kg	TM173	<100	11300	439000	16800	102000	179000
Aromatics >EC35-EC44	<100 µg/kg	TM173	<100	5540	208000	8270	39900	94500
Aromatics >EC40-EC44	<100 µg/kg	TM173	<100	2810	92300	2770	15800	38500
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	<100	18800	905000	28500	172000	308000
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	9310	32600	2030000	52300	218000	1230000



CERTIFICATE OF ANALYSIS

SDG: 141202-60
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1012
Report Number: 300970
Superseded Report:

TPH CWG (S)

Results Legend		Customer Sample R						
#	ISO17025 accredited.		IP0996		IP0997		IP0998	
M	mCERTS accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	1.50	2.50	0.50	0.50	1.50	0.50
aq	Aqueous / settled sample.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
diss.filt	Dissolved / filtered sample.		27/11/2014	27/11/2014	27/11/2014	27/11/2014	27/11/2014	27/11/2014
tot.unfilt	Total / unfiltered sample.							
*	Subcontracted test.							
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed		02/12/2014	02/12/2014	02/12/2014	02/12/2014	02/12/2014	02/12/2014
1-5&\$@	Sample deviation (see appendix)		141202-60	141202-60	141202-60	141202-60	141202-60	141202-60
			10485612	10485619	10485601	10485592	10485597	10485583
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	82	100	85	70	81	77
			@	@	@	@	@	@
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	4090	9730	48900	14800	6260	235
			@ M	@ M	@ M	@ M	@ M	@ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	<100	112	<20	<20	<20
			@ M	@ M	@ M	@ M	@ M	@ M
Benzene	<10 µg/kg	TM089	<40	<200	<40	<40	<40	<40
			@ M	@ M	@ M	@ M	@ M	@ M
Toluene	<2 µg/kg	TM089	<8	<40	<8	<8	<8	<8
			@ M	@ M	@ M	@ M	@ M	@ M
Ethylbenzene	<3 µg/kg	TM089	<12	<60	271	<12	17.4	<12
			@ M	@ M	@ M	@ M	@ M	@ M
m,p-Xylene	<6 µg/kg	TM089	<24	<120	<24	<24	<24	<24
			@ M	@ M	@ M	@ M	@ M	@ M
o-Xylene	<3 µg/kg	TM089	<12	<60	282	<12	73.1	<12
			@ M	@ M	@ M	@ M	@ M	@ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	<9	282	<9	73.1	<9
			@	@	@	@	@	@
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	<24	553	<24	90.5	<24
			@	@	@	@	@	@
Aliphatics >C5-C6	<10 µg/kg	TM089	<40	<200	73	84	191	<40
			@	@	@	@	@	@
Aliphatics >C6-C8	<10 µg/kg	TM089	89.7	599	4420	1880	1580	44.1
			@	@	@	@	@	@
Aliphatics >C8-C10	<10 µg/kg	TM089	1280	2100	10600	3700	1360	47.6
			@	@	@	@	@	@
Aliphatics >C10-C12	<10 µg/kg	TM089	1110	3340	15600	4030	1270	56.8
			@	@	@	@	@	@
Aliphatics >C12-C16	<100 µg/kg	TM173	<100	9540	398000	124000	37200	73100
Aliphatics >C16-C21	<100 µg/kg	TM173	<100	20800	559000	200000	79000	168000
Aliphatics >C21-C35	<100 µg/kg	TM173	<100	39500	437000	303000	125000	211000
Aliphatics >C35-C44	<100 µg/kg	TM173	<100	12400	95700	93000	53400	48000
Total Aliphatics >C12-C44	<100 µg/kg	TM173	<100	82200	1490000	719000	295000	501000
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	<200	<40	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<200	<40	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC8-EC10	<10 µg/kg	TM089	851	1400	7600	2470	1010	<40
			@	@	@	@	@	@
Aromatics >EC10-EC12	<10 µg/kg	TM089	740	2230	10400	2680	849	<40
			@	@	@	@	@	@
Aromatics >EC12-EC16	<100 µg/kg	TM173	<100	839	31800	7370	1870	5730
Aromatics >EC16-EC21	<100 µg/kg	TM173	<100	6890	160000	53900	15700	56300
Aromatics >EC21-EC35	<100 µg/kg	TM173	<100	43300	302000	236000	96000	218000
Aromatics >EC35-EC44	<100 µg/kg	TM173	<100	23500	136000	121000	46200	108000
Aromatics >EC40-EC44	<100 µg/kg	TM173	<100	7950	54900	48500	20900	47300
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	<100	74600	629000	417000	160000	388000
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	4090	167000	2170000	1150000	461000	888000



CERTIFICATE OF ANALYSIS

SDG: 141202-60
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1012
Report Number: 300970
Superseded Report:

TPH CWG (S)

Results Legend		Customer Sample R Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	IP0999	TPE447	TPE447	TPE448	TPE448	TPE448
#	ISO17025 accredited.		1.50	0.50	1.50	0.50	1.50	2.50
M	mCERTS accredited.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
aq	Aqueous / settled sample.		27/11/2014	27/11/2014	27/11/2014	27/11/2014	27/11/2014	27/11/2014
diss.filt	Dissolved / filtered sample.							
tot.unfilt	Total / unfiltered sample.							
*	Subcontracted test.							
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery		02/12/2014	02/12/2014	02/12/2014	02/12/2014	02/12/2014	02/12/2014
(F)	Trigger breach confirmed		141202-60	141202-60	141202-60	141202-60	141202-60	141202-60
1-5&\$@	Sample deviation (see appendix)		10485588	10485454	10485459	10485490	10485497	10485503
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	78	47	141	85	54	45
			@	@	@	@	@	@
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	1240000	3080	1460000	21200	358	<176
			@ M	@ M	@ M	@ M	@ M	@ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<100	<20	<100	<20	<20	<20
			@ M	@ M	@ M	@ M	@ M	@ M
Benzene	<10 µg/kg	TM089	<200	<40	<200	<40	<40	<40
			@ M	@ M	@ M	@ M	@ M	@ M
Toluene	<2 µg/kg	TM089	<40	<8	<40	<8	<8	<8
			@ M	@ M	@ M	@ M	@ M	@ M
Ethylbenzene	<3 µg/kg	TM089	<60	<12	<60	<12	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
m,p-Xylene	<6 µg/kg	TM089	<120	<24	<120	<24	<24	<24
			@ M	@ M	@ M	@ M	@ M	@ M
o-Xylene	<3 µg/kg	TM089	<60	<12	<60	<12	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	<9	<9	<9	<9	<9
			@	@	@	@	@	@
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	<24	<24	<24	<24	<24
			@	@	@	@	@	@
Aliphatics >C5-C6	<10 µg/kg	TM089	15600	113	54400	355	<40	<40
			@	@	@	@	@	@
Aliphatics >C6-C8	<10 µg/kg	TM089	245000	672	434000	5990	48.6	<40
			@	@	@	@	@	@
Aliphatics >C8-C10	<10 µg/kg	TM089	347000	633	361000	4680	66.7	<40
			@	@	@	@	@	@
Aliphatics >C10-C12	<10 µg/kg	TM089	242000	725	223000	4230	106	<40
			@	@	@	@	@	@
Aliphatics >C12-C16	<100 µg/kg	TM173	143000	<100	63000	40700	3700	<100
Aliphatics >C16-C21	<100 µg/kg	TM173	57100	<100	8630	84100	7190	<100
Aliphatics >C21-C35	<100 µg/kg	TM173	31300	<100	6790	188000	7720	<100
Aliphatics >C35-C44	<100 µg/kg	TM173	1830	<100	<100	70600	<100	<100
Total Aliphatics >C12-C44	<100 µg/kg	TM173	233000	<100	78400	384000	18600	<100
Aromatics >EC5-EC7	<10 µg/kg	TM089	241	<40	<200	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC7-EC8	<10 µg/kg	TM089	<200	<40	<200	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC8-EC10	<10 µg/kg	TM089	231000	421	241000	3120	52	<40
			@	@	@	@	@	@
Aromatics >EC10-EC12	<10 µg/kg	TM089	162000	484	148000	2820	71.2	<40
			@	@	@	@	@	@
Aromatics >EC12-EC16	<100 µg/kg	TM173	11900	<100	3660	8490	<100	<100
Aromatics >EC16-EC21	<100 µg/kg	TM173	16500	<100	<100	32400	2240	<100
Aromatics >EC21-EC35	<100 µg/kg	TM173	14900	<100	<100	146000	8220	<100
Aromatics >EC35-EC44	<100 µg/kg	TM173	<100	<100	<100	97000	2120	<100
Aromatics >EC40-EC44	<100 µg/kg	TM173	<100	<100	<100	42600	<100	<100
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	43300	<100	3660	283000	12600	<100
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	1520000	3080	1540000	688000	31500	<100



CERTIFICATE OF ANALYSIS

SDG: 141202-60
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1012
Report Number: 300970
Superseded Report:

TPH CWG (S)

Results Legend		Customer Sample R		TPE451				
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	0.50 Soil/Solid 27/11/2014 . 02/12/2014 141202-60 10485629					
M	mCERTS accredited.							
aq	Aqueous / settled sample.							
diss.filt	Dissolved / filtered sample.							
tot.unfilt	Total / unfiltered sample.							
*	Subcontracted test.							
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed							
1-5&*\$@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	79	@				
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	14500	@ M				
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	@ M				
Benzene	<10 µg/kg	TM089	<40	@ M				
Toluene	<2 µg/kg	TM089	<8	@ M				
Ethylbenzene	<3 µg/kg	TM089	<12	@ M				
m,p-Xylene	<6 µg/kg	TM089	<24	@ M				
o-Xylene	<3 µg/kg	TM089	<12	@ M				
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	@				
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	@				
Aliphatics >C5-C6	<10 µg/kg	TM089	205	@				
Aliphatics >C6-C8	<10 µg/kg	TM089	2130	@				
Aliphatics >C8-C10	<10 µg/kg	TM089	3330	@				
Aliphatics >C10-C12	<10 µg/kg	TM089	3970	@				
Aliphatics >C12-C16	<100 µg/kg	TM173	323000					
Aliphatics >C16-C21	<100 µg/kg	TM173	379000					
Aliphatics >C21-C35	<100 µg/kg	TM173	453000					
Aliphatics >C35-C44	<100 µg/kg	TM173	120000					
Total Aliphatics >C12-C44	<100 µg/kg	TM173	1280000					
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	@				
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	@				
Aromatics >EC8-EC10	<10 µg/kg	TM089	2220	@				
Aromatics >EC10-EC12	<10 µg/kg	TM089	2650	@				
Aromatics >EC12-EC16	<100 µg/kg	TM173	15900					
Aromatics >EC16-EC21	<100 µg/kg	TM173	92100					
Aromatics >EC21-EC35	<100 µg/kg	TM173	256000					
Aromatics >EC35-EC44	<100 µg/kg	TM173	115000					
Aromatics >EC40-EC44	<100 µg/kg	TM173	46900					
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	478000					
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	1770000					



SDG:	141202-60	Location:	Coed Darcy	Order Number:	CD1012
Job:	H_ATKINS_LDC-224	Customer:	Atkins Global Ltd	Report Number:	300970
Client Reference:	Site Wide Trial Pitting	Attention:	Jack Lowrie	Superseded Report:	

Asbestos Quantification - Full

Additional Asbestos Components (Using TM048)	Analysts Comments	Asbestos Quantification - Gravimetric - %	Asbestos Quantification - PCOM Evaluation - %	Asbestos Quantification - Total - %
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Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP0989 0.50 SOLID 27/11/2014 00:00:00 15/01/2015 12:02:39 141202-60 10485531 TM 304	None (#)	N/C	<0.001 (#)	<0.001 (#)	<0.001 (#)
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP0997 0.50 SOLID 27/11/2014 00:00:00 15/01/2015 08:31:13 141202-60 10485601 TM 304	None (#)	N/C	<0.001 (#)	<0.001 (#)	<0.001 (#)



SDG:	141202-60	Location:	Coed Darcy	Order Number:	CD1012
Job:	H_ATKINS_LDC-224	Customer:	Atkins Global Ltd	Report Number:	300970
Client Reference:	Site Wide Trial Pitting	Attention:	Jack Lowrie	Superseded Report:	

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample ¹	Surrogate Corrected
ASB_PREP				
PM001		Preparation of Samples for Metals Analysis		
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material		
SUB (ASB)				
TM 304				
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) and BTEX (MTBE) compounds by Headspace GC-FID (C4-C12)		
TM132	In - house Method	ELTRA CS800 Operators Guide		
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter		
TM173	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GC-FID		
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES		
TM218	Microwave extraction – EPA method 3546	Microwave extraction - EPA method 3546		

¹ Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.



CERTIFICATE OF ANALYSIS

SDG: 141202-60
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1012
Report Number: 300970
Superseded Report:

Test Completion Dates

Lab Sample No(s) Customer Sample Ref.	10485424	10485430	10485434	10485569	10485625	10485439	10485443	10485449	10485463	10485473
AGS Ref.	IP0888	IP0888	IP0888	IP0889	IP0889	IP0894	IP0894	IP0894	IP956	IP956
Depth	0.50	1.50	2.50	0.50	1.50	0.50	1.50	2.50	0.50	1.50
Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Asbestos fibres in Soil*	15-Dec-2014			15-Dec-2014		15-Dec-2014			15-Dec-2014	
EPH CWG (Aliphatic) GC (S)	18-Dec-2014	19-Dec-2014	20-Dec-2014	19-Dec-2014	19-Dec-2014	18-Dec-2014	20-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014
EPH CWG (Aromatic) GC (S)	18-Dec-2014	19-Dec-2014	20-Dec-2014	19-Dec-2014	19-Dec-2014	18-Dec-2014	20-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014
GRO by GC-FID (S)	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	22-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014
Metals in solid samples by OES	18-Dec-2014	12-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	11-Dec-2014	12-Dec-2014	18-Dec-2014	12-Dec-2014
PAH by GCMS	19-Dec-2014	18-Dec-2014	18-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	18-Dec-2014	18-Dec-2014	19-Dec-2014	18-Dec-2014
pH	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	19-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014
Sample description	12-Dec-2014	08-Dec-2014	06-Dec-2014	12-Dec-2014	08-Dec-2014	12-Dec-2014	06-Dec-2014	08-Dec-2014	13-Dec-2014	08-Dec-2014
Total Organic Carbon	16-Dec-2014								18-Dec-2014	
TPH CWG GC (S)	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	22-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014

Lab Sample No(s) Customer Sample Ref.	10485477	10485482	10485486	10485416	10485468	10485523	10485420	10485635	10485642	10485646
AGS Ref.	IP956	IP957	IP957	IP959	IP959	IP959	IP960	IP960	IP960	IP960
Depth	2.50	0.50	1.50	0.50	1.50	2.50	3.50	0.50	1.50	2.50
Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Asbestos fibres in Soil*		15-Dec-2014		15-Dec-2014				15-Dec-2014		
EPH CWG (Aliphatic) GC (S)	19-Dec-2014	19-Dec-2014	19-Dec-2014	18-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	18-Dec-2014	19-Dec-2014	19-Dec-2014
EPH CWG (Aromatic) GC (S)	19-Dec-2014	19-Dec-2014	19-Dec-2014	18-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	18-Dec-2014	19-Dec-2014	19-Dec-2014
GRO by GC-FID (S)	22-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014
Metals in solid samples by OES	12-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	12-Dec-2014	18-Dec-2014	12-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014
PAH by GCMS	18-Dec-2014	19-Dec-2014	18-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	18-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014
pH	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	19-Dec-2014	19-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014
Sample description	08-Dec-2014	13-Dec-2014	08-Dec-2014	12-Dec-2014	08-Dec-2014	08-Dec-2014	08-Dec-2014	12-Dec-2014	08-Dec-2014	08-Dec-2014
Total Organic Carbon				16-Dec-2014						
TPH CWG GC (S)	22-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014

Lab Sample No(s) Customer Sample Ref.	10485507	10485514	10485518	10485527	10485531	10485535	10485540	10485544	10485548	10485552
AGS Ref.	IP0981	IP0981	IP0982	IP0984	IP0989	IP0989	IP0990	IP0990	IP0990	IP0991
Depth	0.50	1.50	0.50	0.50	0.50	1.50	0.50	1.50	2.50	0.50
Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Asbestos fibres in Soil*	15-Dec-2014		15-Dec-2014	15-Dec-2014	15-Dec-2014		15-Dec-2014			15-Dec-2014
Asbestos Quantification - Full					06-Feb-2015					
EPH CWG (Aliphatic) GC (S)	19-Dec-2014	19-Dec-2014	19-Dec-2014	22-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014
EPH CWG (Aromatic) GC (S)	19-Dec-2014	19-Dec-2014	19-Dec-2014	22-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014
GRO by GC-FID (S)	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014
Metals in solid samples by OES	18-Dec-2014	12-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014
PAH by GCMS	19-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	19-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	19-Dec-2014
pH	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	19-Dec-2014	19-Dec-2014	18-Dec-2014	19-Dec-2014	18-Dec-2014	18-Dec-2014
Sample description	13-Dec-2014	08-Dec-2014	13-Dec-2014	13-Dec-2014	13-Dec-2014	08-Dec-2014	13-Dec-2014	08-Dec-2014	08-Dec-2014	13-Dec-2014
Total Organic Carbon			17-Dec-2014				18-Dec-2014			
TPH CWG GC (S)	20-Dec-2014	20-Dec-2014	20-Dec-2014	22-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014

Lab Sample No(s) Customer Sample Ref.	10485556	10485560	10485565	10485574	10485578	10485607	10485612	10485619	10485601	10485592
AGS Ref.	IP0991	IP0991	IP0992	IP0992	IP0992	IP0996	IP0996	IP0996	IP0997	IP0998
Depth	1.50	2.50	0.50	1.50	2.50	0.50	1.50	2.50	0.50	0.50
Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Asbestos fibres in Soil*			15-Dec-2014			15-Dec-2014			15-Dec-2014	15-Dec-2014
Asbestos Quantification - Full									06-Feb-2015	
EPH CWG (Aliphatic) GC (S)	19-Dec-2014	19-Dec-2014	19-Dec-2014	20-Dec-2014	20-Dec-2014	18-Dec-2014	19-Dec-2014	20-Dec-2014	18-Dec-2014	18-Dec-2014
EPH CWG (Aromatic) GC (S)	19-Dec-2014	19-Dec-2014	19-Dec-2014	20-Dec-2014	20-Dec-2014	18-Dec-2014	19-Dec-2014	20-Dec-2014	18-Dec-2014	18-Dec-2014
GRO by GC-FID (S)	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	22-Dec-2014	22-Dec-2014	20-Dec-2014
Metals in solid samples by OES	18-Dec-2014	12-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	12-Dec-2014	18-Dec-2014	18-Dec-2014
PAH by GCMS	18-Dec-2014	18-Dec-2014	19-Dec-2014	18-Dec-2014	18-Dec-2014	19-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014
pH	18-Dec-2014	19-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014
Sample description	08-Dec-2014	08-Dec-2014	13-Dec-2014	05-Dec-2014	05-Dec-2014	12-Dec-2014	08-Dec-2014	06-Dec-2014	12-Dec-2014	12-Dec-2014
Total Organic Carbon						16-Dec-2014				
TPH CWG GC (S)	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	22-Dec-2014	22-Dec-2014	20-Dec-2014



CERTIFICATE OF ANALYSIS

SDG: 141202-60
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1012
Report Number: 300970
Superseded Report:

Lab Sample No(s) Customer Sample Ref. AGS Ref. Depth Type	10485597	10485583	10485588	10485454	10485459	10485490	10485497	10485503	10485629
	IP0998	IP0999	IP0999	TPE447	TPE447	TPE448	TPE448	TPE448	TPE451
	1.50	0.50	1.50	0.50	1.50	0.50	1.50	2.50	0.50
	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Asbestos fibres in Soil*		15-Dec-2014		15-Dec-2014		15-Dec-2014			15-Dec-2014
EPH CWG (Aliphatic) GC (S)	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	18-Dec-2014	18-Dec-2014
EPH CWG (Aromatic) GC (S)	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	18-Dec-2014	18-Dec-2014
GRO by GC-FID (S)	22-Dec-2014	20-Dec-2014	23-Dec-2014	22-Dec-2014	22-Dec-2014	20-Dec-2014	22-Dec-2014	22-Dec-2014	20-Dec-2014
Metals in solid samples by OES	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	12-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014
PAH by GCMS	18-Dec-2014	19-Dec-2014	18-Dec-2014	19-Dec-2014	18-Dec-2014	19-Dec-2014	18-Dec-2014	19-Dec-2014	19-Dec-2014
pH	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014
Sample description	08-Dec-2014	13-Dec-2014	08-Dec-2014	13-Dec-2014	08-Dec-2014	13-Dec-2014	08-Dec-2014	08-Dec-2014	12-Dec-2014
Total Organic Carbon		18-Dec-2014				18-Dec-2014			16-Dec-2014
TPH CWG GC (S)	22-Dec-2014	20-Dec-2014	23-Dec-2014	22-Dec-2014	22-Dec-2014	20-Dec-2014	22-Dec-2014	22-Dec-2014	20-Dec-2014



Certificate of Analysis

Certificate Number 14-22386

14-Dec-14

Client Alcontrol Laboratories
Units 7 & 8
Hawarden Business Park
Manor Road
Hawarden
Deeside
CH5 3US

Our Reference 14-22386

Client Reference 141202-60

Contract Title 141202-60

Description 21 Soil samples.

Date Received 04-Dec-14

Date Started 04-Dec-14

Date Completed 14-Dec-14

Test Procedures Asbestos Analysis DETSC 1101.

Notes Opinions and interpretations are outside the scope of UKAS accreditation. 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. Observations and interpretations are outside the scope of ISO 17025. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

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

Rob Brown
Business Manager



Summary of Asbestos Analysis

Soil Samples

Our Ref 14-22386
 Client Ref 141202-60
 Contract Title 141202-60

Lab No	Sample ID	Material Type	Result	Comment*	Analyst
741938	10490067 0.50	SOIL	NAD	none	Colin Patrick
741939	10490010 0.50	SOIL	NAD	none	Colin Patrick
741940	10490055 0.50	SOIL	NAD	none	Colin Patrick
741941	10489985 0.50	SOIL	NAD	none	Colin Patrick
741942	10489978 0.50	SOIL	NAD	none	Colin Patrick
741943	10490036 0.50	SOIL	NAD	none	Colin Patrick
741944	10490044 0.50	SOIL	Chrysotile	bundle of chrysotile fibres	Colin Patrick
741945	10490041 0.50	SOIL	NAD	none	Colin Patrick
741946	10490048 0.50	SOIL	NAD	none	Colin Patrick
741947	10489884 0.50	SOIL	NAD	none	Colin Patrick
741948	10490060 0.50	SOIL	NAD	none	Colin Patrick
741949	10489954 0.50	SOIL	Chrysotile	bundle of chrysotile fibres	Colin Patrick
741950	10489890 0.50	SOIL	NAD	none	Colin Patrick
741951	10489946 0.50	SOIL	NAD	none	Colin Patrick
741952	10490257 0.50	SOIL	NAD	none	Colin Patrick
741953	10490187 0.50	SOIL	NAD	none	Colin Patrick
741954	10490007 0.50	SOIL	NAD	none	Colin Patrick
741955	10489987 0.50	SOIL	NAD	none	Colin Patrick
741956	10490254 0.50	SOIL	NAD	none	Colin Patrick
741957	10490182 0.50	SOIL	NAD	none	Colin Patrick
741958	10489983 0.50	SOIL	NAD	none	Colin Patrick

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: * -not included in laboratory scope of accreditation.

Information in Support of the Analytical Results

Our Ref 14-22386
 Client Ref 141202-60
 Contract 141202-60

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
741938	10490067 0.50 SOIL	27/11/14	PT 500ml		
741939	10490010 0.50 SOIL	27/11/14	PT 500ml		
741940	10490055 0.50 SOIL	27/11/14	PT 500ml		
741941	10489985 0.50 SOIL	27/11/14	PT 500ml		
741942	10489978 0.50 SOIL	27/11/14	PT 500ml		
741943	10490036 0.50 SOIL	27/11/14	PT 500ml		
741944	10490044 0.50 SOIL	27/11/14	PT 500ml		
741945	10490041 0.50 SOIL	27/11/14	PT 500ml		
741946	10490048 0.50 SOIL	27/11/14	PT 500ml		
741947	10489884 0.50 SOIL	27/11/14	PT 500ml		
741948	10490060 0.50 SOIL	27/11/14	PT 500ml		
741949	10489954 0.50 SOIL	27/11/14	PT 500ml		
741950	10489890 0.50 SOIL	27/11/14	PT 500ml		
741951	10489946 0.50 SOIL	27/11/14	PT 500ml		
741952	10490257 0.50 SOIL	27/11/14	PT 500ml		
741953	10490187 0.50 SOIL	27/11/14	PT 500ml		
741954	10490007 0.50 SOIL	27/11/14	PT 500ml		
741955	10489987 0.50 SOIL	27/11/14	PT 500ml		
741956	10490254 0.50 SOIL	27/11/14	PT 500ml		
741957	10490182 0.50 SOIL	27/11/14	PT 500ml		
741958	10489983 0.50 SOIL	27/11/14	PT 500ml		

Key: P-Plastic T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time and/or inappropriate containers are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



SDG:	141202-60	Location:	Coed Darcy	Order Number:	CD1012
Job:	H_ATKINS_LDC-224	Customer:	Atkins Global Ltd	Report Number:	300970
Client Reference:	Site Wide Trial Pitting	Attention:	Jack Lowrie	Superseded Report:	

Appendix
General

1. Results are expressed on a dry weight basis (dried at 35°C) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICS and SVOC TICS.
2. Samples will be run in duplicate upon request, but an additional charge may be incurred.
3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.
4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.
5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.
6. When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as "Not detected". If no asbestos fibre types are found all will be reported as "Not detected" and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible. The quantity of asbestos present is not determined unless specifically requested.
7. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.
8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.
9. NDP -No determination possible due to insufficient/unsuitable sample.
10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals -total metals must be requested separately.
11. Results relate only to the items tested.
12. LODs for wet tests reported on a dry weight basis are not corrected for moisture content.
13. **Surrogate recoveries** -Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted. Acceptable limits for most organic methods are 70 -130 %.
14. **Product analyses** -Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors employed.
15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethylphenol, 3,5 Dimethylphenol).
16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 15).
17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.
18. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.
19. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

20. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.
21. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.
22. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill /made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.
23. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

Sample Deviations

1	Container with Headspace provided for volatiles analysis
2	Incorrect container received
3	Deviation from method
4	Holding time exceeded before sample received
5	Samples exceeded holding time before preservation was performed
\$	Sampled on date not provided
♦	Sample holding time exceeded in laboratory
@	Sample holding time exceeded due to sampled on date
&	Sample Holding Time exceeded - Late arrival of instructions.

Asbestos

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than :
- Trace - Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.



Atkins Global Ltd
Project Jonah site office
Llan Coed House
Suite 24
Coed Darcy
Llandarcy
SA10 6HJ

Attention: Jack Lowrie

CERTIFICATE OF ANALYSIS

Date: 05 February 2015
Customer: H_ATKINS_LDC
Sample Delivery Group (SDG): 141128-120
Your Reference: Site Wide Trial Pitting
Location: Coed Darcy
Report No: 300820

We received 53 samples on Friday November 28, 2014 and 53 of these samples were scheduled for analysis which was completed on Thursday February 05, 2015. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

All chemical testing (unless subcontracted) is performed at ALcontrol Hawarden Laboratories.

Approved By:

Sonia McWhan

Operations Manager





SDG: 141128-120
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1010
Report Number: 300820
Superseded Report:

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
10466665	IP0867		0.50	26/11/2014
10466751	IP870		0.50	25/11/2014
10466871	IP0875		0.50	26/11/2014
10466849	IP0876		0.50	26/11/2014
10466899	IP0880		0.50	26/11/2014
10466908	IP0881		0.50	26/11/2014
10466729	IP0882		0.50	26/11/2014
10466780	IP0883		0.50	26/11/2014
10466837	IP0883		1.50	26/11/2014
10466903	IP0883		2.50	26/11/2014
10466928	IP0884		0.50	26/11/2014
10466931	IP0884		1.50	26/11/2014
10466935	IP0885		0.50	26/11/2014
10466939	IP0885		1.50	26/11/2014
10466669	IP0885		2.50	26/11/2014
10466673	IP0885		3.50	26/11/2014
10466796	IP0891		0.50	26/11/2014
10466800	IP0891		1.50	26/11/2014
10466805	IP0892		0.50	26/11/2014
10466810	IP0892		1.50	26/11/2014
10466841	IP0896		0.50	26/11/2014
10466845	IP0896		1.50	26/11/2014
10466816	IP0958		0.50	26/11/2014
10466824	IP0958		1.50	26/11/2014
10466829	IP0958		2.50	26/11/2014
10466833	IP0958		3.50	26/11/2014
10466861	IP0966		0.50	26/11/2014
10466918	IP0975		0.50	26/11/2014
10466913	IP0977		0.50	26/11/2014
10466892	IP0978		0.50	26/11/2014
10466887	IP0979		0.50	26/11/2014
10466877	IP0980		0.50	26/11/2014
10466883	IP0980		1.50	26/11/2014
10466742	IP0985		0.50	26/11/2014
10466721	IP0986		0.50	26/11/2014
10466725	IP0986		1.50	26/11/2014
10466733	IP0986		2.50	26/11/2014
10466737	IP0986		3.50	26/11/2014
10466708	IP0987		0.50	26/11/2014
10466717	IP0987		1.50	26/11/2014
10466923	IP0987		2.50	26/11/2014
10466685	IP0988		0.50	26/11/2014
10466690	IP0988		1.50	26/11/2014
10466694	IP0988		2.50	26/11/2014
10466700	IP0988		3.50	26/11/2014
10466755	IP993		0.50	25/11/2014
10466759	IP993		1.50	25/11/2014
10466766	IP994		0.50	26/11/2014
10466771	IP994		1.50	26/11/2014
10466776	IP994		2.50	26/11/2014
10466747	TPE395		0.50	25/11/2014
10466783	TPE450		0.50	26/11/2014
10466793	TPE450		1.50	26/11/2014

Only received samples which have had analysis scheduled will be shown on the following pages.



SDG: 141128-120
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1010
Report Number: 300820
Superseded Report:

SOLID Results Legend X Test N No Determination Possible	Lab Sample No(s)		Customer Sample Reference		AGS Reference		Depth (m)		Container	
	10466939	IP0885					1.50		60g VOC (ALE215)	
	10466935	IP0885					0.50		400g Tub (ALE214)	
	10466931	IP0884					1.50		250g Amber Jar (AL)	
	10466928	IP0884					0.50		60g VOC (ALE215)	
	10466903	IP0883					2.50		400g Tub (ALE214)	
	10466837	IP0883					1.50		250g Amber Jar (AL)	
	10466780	IP0883					0.50		60g VOC (ALE215)	
	10466729	IP0882					0.50		400g Tub (ALE214)	
	10466908	IP0881					0.50		250g Amber Jar (AL)	
	10466899	IP0880					0.50		60g VOC (ALE215)	
	10466849	IP0876					0.50		400g Tub (ALE214)	
	10466871	IP0875					0.50		250g Amber Jar (AL)	
	10466751	IP870					0.50		60g VOC (ALE215)	
	10466655	IP0867					0.50		400g Tub (ALE214)	
Asbestos fibres in Soil*	All	NDPs: 0 Tests: 28								
EPH CWG (Aliphatic) GC (S)	All	NDPs: 0 Tests: 53								
EPH CWG (Aromatic) GC (S)	All	NDPs: 0 Tests: 53								
GRO by GC-FID (S)	All	NDPs: 0 Tests: 53								
Metals in solid samples by OES	All	NDPs: 0 Tests: 53								
PAH by GCMS	All	NDPs: 0 Tests: 53								
pH	All	NDPs: 0 Tests: 53								
Sample description	All	NDPs: 0 Tests: 53								
Total Organic Carbon	All	NDPs: 0 Tests: 10								
TPH CWG GC (S)	All	NDPs: 0 Tests: 53								



SDG: 141128-120
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1010
Report Number: 300820
Superseded Report:

SOLID Results Legend X Test N No Determination Possible	Lab Sample No(s)		Customer Sample Reference		AGS Reference		Depth (m)		Container	
	10466918	IP0975					0.50		400g Tub (ALE214)	
	10466861	IP0966					0.50		250g Amber Jar (AL 60g VOC (ALE215))	
	10466833	IP0958					3.50		400g Tub (ALE214)	
	10466829	IP0958					2.50		250g Amber Jar (AL 60g VOC (ALE215))	
Asbestos fibres in Soil*	10466824	IP0958					1.50		400g Tub (ALE214)	
	10466816	IP0958					0.50		250g Amber Jar (AL 60g VOC (ALE215))	
	10466845	IP0896					1.50		400g Tub (ALE214)	
	10466841	IP0896					0.50		250g Amber Jar (AL 60g VOC (ALE215))	
	10466810	IP0892					1.50		400g Tub (ALE214)	
	10466805	IP0892					0.50		250g Amber Jar (AL 60g VOC (ALE215))	
	10466800	IP0891					1.50		400g Tub (ALE214)	
	10466796	IP0891					0.50		250g Amber Jar (AL 60g VOC (ALE215))	
	10466673	IP0885					3.50		400g Tub (ALE214)	
	10466669	IP0885					2.50		250g Amber Jar (AL 60g VOC (ALE215))	
EPH CWG (Aliphatic) GC (S)	All	NDPs: 0 Tests: 53								
EPH CWG (Aromatic) GC (S)	All	NDPs: 0 Tests: 53								
GRO by GC-FID (S)	All	NDPs: 0 Tests: 53								
Metals in solid samples by OES	All	NDPs: 0 Tests: 53								
PAH by GCMS	All	NDPs: 0 Tests: 53								
pH	All	NDPs: 0 Tests: 53								
Sample description	All	NDPs: 0 Tests: 53								
Total Organic Carbon	All	NDPs: 0 Tests: 10								
TPH CWG GC (S)	All	NDPs: 0 Tests: 53								

Validated

Order Number: CD1010
Report Number: 300820
Superseded Report:



CERTIFICATE OF ANALYSIS

SDG: 141128-120
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1010
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SOLID Results Legend X Test N No Determination Possible	Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
	10466793	TPE450		1.50	60g VOC (ALE215) 400g Tub (ALE214)
	10466783	TPE450		0.50	60g VOC (ALE215) 400g Tub (ALE214)
	10466747	TPE395		0.50	60g VOC (ALE215) 400g Tub (ALE214)
	10466776	IP994		2.50	60g VOC (ALE215) 400g Tub (ALE214)
	10466771	IP994		1.50	60g VOC (ALE215) 400g Tub (ALE214)
	10466766	IP994		0.50	60g VOC (ALE215) 400g Tub (ALE214)
	10466759	IP993		1.50	60g VOC (ALE215) 400g Tub (ALE214)
	10466755	IP993		0.50	60g VOC (ALE215) 400g Tub (ALE214)
	10466700	IP0988		3.50	60g VOC (ALE215) 400g Tub (ALE214)
	10466694	IP0988		2.50	60g VOC (ALE215) 400g Tub (ALE214)
	10466690	IP0988		1.50	60g VOC (ALE215) 400g Tub (ALE214)
	10466685	IP0988		0.50	60g VOC (ALE215) 400g Tub (ALE214)
					250g Amber Jar (AL)
					250g Amber Jar (AL)
Asbestos fibres in Soil*	All	NDPs: 0 Tests: 28			
EPH CWG (Aliphatic) GC (S)	All	NDPs: 0 Tests: 53			
EPH CWG (Aromatic) GC (S)	All	NDPs: 0 Tests: 53			
GRO by GC-FID (S)	All	NDPs: 0 Tests: 53			
Metals in solid samples by OES	All	NDPs: 0 Tests: 53			
PAH by GCMS	All	NDPs: 0 Tests: 53			
pH	All	NDPs: 0 Tests: 53			
Sample description	All	NDPs: 0 Tests: 53			
Total Organic Carbon	All	NDPs: 0 Tests: 10			
TPH CWG GC (S)	All	NDPs: 0 Tests: 53			



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Sample Descriptions

Grain Sizes

very fine	<0.063mm	fine	0.063mm - 0.1mm	medium	0.1mm - 2mm	coarse	2mm - 10mm	very coarse	>10mm
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Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Grain size	Inclusions	Inclusions 2
10466665	IP0867	0.50	Grey	Loamy Sand	0.1 - 2 mm	Stones	None
10466751	IP870	0.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	Vegetation
10466871	IP0875	0.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	None
10466849	IP0876	0.50	Dark Brown	Sand	0.1 - 2 mm	Stones	None
10466899	IP0880	0.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	None
10466908	IP0881	0.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	None
10466729	IP0882	0.50	Dark Brown	Silt Loam	0.063 - 0.1 mm	Vegetation	Stones
10466780	IP0883	0.50	Dark Brown	Silty Clay Loam	0.063 - 0.1 mm	Stones	None
10466837	IP0883	1.50	Dark Brown	Silty Sand	0.1 - 2 mm	Stones	None
10466903	IP0883	2.50	Light Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	None
10466928	IP0884	0.50	Dark Brown	Silty Clay Loam	0.063 - 0.1 mm	Stones	Vegetation
10466931	IP0884	1.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	None
10466669	IP0885	2.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	None
10466673	IP0885	3.50	Dark Brown	Silty Clay Loam	0.063 - 0.1 mm	Stones	None
10466935	IP0885	0.50	Dark Brown	Silty Clay	0.063 - 0.1 mm	Stones	Vegetation
10466939	IP0885	1.50	Light Brown	Loamy Sand	0.1 - 2 mm	Stones	None
10466796	IP0891	0.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Vegetation	Stones
10466800	IP0891	1.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	None
10466805	IP0892	0.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Vegetation	Stones
10466810	IP0892	1.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	None
10466841	IP0896	0.50	Dark Brown	Clay	0.063 - 0.1 mm	Oil/Petroleum	Vegetation
10466845	IP0896	1.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Oil/Petroleum	Stones
10466816	IP0958	0.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Vegetation	Stones
10466824	IP0958	1.50	Dark Brown	Silty Clay Loam	0.063 - 0.1 mm	Stones	Vegetation
10466829	IP0958	2.50	Dark Brown	Clay Loam	0.1 - 2 mm	Stones	None
10466833	IP0958	3.50	Dark Brown	Sandy Clay	0.1 - 2 mm	Stones	None
10466861	IP0966	0.50	Dark Brown	Sand	0.1 - 2 mm	Stones	None
10466918	IP0975	0.50	Black	Loamy Sand	0.1 - 2 mm	Stones	None
10466913	IP0977	0.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	None
10466892	IP0978	0.50	Dark Brown	Sand	0.1 - 2 mm	Stones	Brick
10466887	IP0979	0.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	Vegetation
10466877	IP0980	0.50	Black	Sandy Clay Loam	0.1 - 2 mm	Stones	Vegetation
10466883	IP0980	1.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	Vegetation
10466742	IP0985	0.50	Dark Brown	Silty Clay Loam	0.063 - 0.1 mm	Stones	None
10466721	IP0986	0.50	Dark Brown	Silty Clay Loam	0.063 - 0.1 mm	Oil/Petroleum	Stones
10466725	IP0986	1.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	None
10466733	IP0986	2.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	None
10466737	IP0986	3.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	None



CERTIFICATE OF ANALYSIS

SDG: 141128-120
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1010
Report Number: 300820
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			Colour	Description	Grain size	Inclusions	Inclusions 2
10466708	IP0987	0.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	None
10466717	IP0987	1.50	Dark Brown	Clay Loam	0.1 - 2 mm	Vegetation	None
10466923	IP0987	2.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	None
10466685	IP0988	0.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	None
10466690	IP0988	1.50	Dark Brown	Clay Loam	0.1 - 2 mm	Vegetation	None
10466694	IP0988	2.50	Dark Brown	Clay Loam	0.1 - 2 mm	Stones	Vegetation
10466700	IP0988	3.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	Vegetation
10466755	IP993	0.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	Vegetation
10466759	IP993	1.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	Vegetation
10466766	IP994	0.50	Dark Brown	Silty Clay	0.063 - 0.1 mm	Coal fragments	Stones
10466771	IP994	1.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	Vegetation
10466776	IP994	2.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	Vegetation
10466747	TPE395	0.50	Dark Brown	Silty Clay	0.063 - 0.1 mm	Stones	None
10466783	TPE450	0.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	Vegetation
10466793	TPE450	1.50	Grey	Sandy Loam	0.1 - 2 mm	Stones	None

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

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PAH by GCMS

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Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1010
Report Number: 300820
Superseded Report:

TPH CWG (S)

Results Legend		Customer Sample R	IP0867		IP870		IP0875		IP0876		IP0880		IP0881	
#	ISO17025 accredited.		0.50		0.50		0.50		0.50		0.50		0.50	
M	mCERTS accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	Soil/Solid		Soil/Solid		Soil/Solid		Soil/Solid		Soil/Solid		Soil/Solid	
aq	Aqueous / settled sample.		26/11/2014		25/11/2014		26/11/2014		26/11/2014		26/11/2014		26/11/2014	
diss.filt	Dissolved / filtered sample.		28/11/2014		28/11/2014		28/11/2014		28/11/2014		28/11/2014		28/11/2014	
tot.unfilt	Total / unfiltered sample.		141128-120		141128-120		141128-120		141128-120		141128-120		141128-120	
*	Subcontracted test.		10466665		10466751		10466871		10466849		10466899		10466908	
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery													
(F)	Trigger breach confirmed													
1-5&*\$@	Sample deviation (see appendix)													
Component	LOD/Units	Method												
GRO Surrogate % recovery**	%	TM089	106	♦	90	@	96	♦	102	♦	110	♦	110	♦
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	<176	♦ M	<176	@ M	<176	♦ M	<176	♦ M	<176	♦ M	<176	♦ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	♦ M	<20	@ M	<20	♦ M	<20	♦ M	<20	♦ M	<20	♦ M
Benzene	<10 µg/kg	TM089	<40	♦ M	<40	@ M	<40	♦ M	<40	♦ M	<40	♦ M	<40	♦ M
Toluene	<2 µg/kg	TM089	<8	♦ M	<8	@ M	<8	♦ M	<8	♦ M	<8	♦ M	<8	♦ M
Ethylbenzene	<3 µg/kg	TM089	<12	♦ M	<12	@ M	<12	♦ M	<12	♦ M	<12	♦ M	<12	♦ M
m,p-Xylene	<6 µg/kg	TM089	<24	♦ M	<24	@ M	<24	♦ M	<24	♦ M	<24	♦ M	<24	♦ M
o-Xylene	<3 µg/kg	TM089	<12	♦ M	<12	@ M	<12	♦ M	<12	♦ M	<12	♦ M	<12	♦ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	♦	<36	@	<9	♦	<9	♦	<9	♦	<9	♦
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	♦	<96	@	<24	♦	<24	♦	<24	♦	<24	♦
Aliphatics >C5-C6	<10 µg/kg	TM089	<40	♦	<40	@	<40	♦	<40	♦	<40	♦	<40	♦
Aliphatics >C6-C8	<10 µg/kg	TM089	<40	♦	<40	@	<40	♦	<40	♦	<40	♦	<40	♦
Aliphatics >C8-C10	<10 µg/kg	TM089	<40	♦	<40	@	<40	♦	<40	♦	<40	♦	<40	♦
Aliphatics >C10-C12	<10 µg/kg	TM089	<40	♦	<40	@	<40	♦	<40	♦	<40	♦	<40	♦
Aliphatics >C12-C16	<100 µg/kg	TM173	36900		<100		<100		<100		<100		<100	
Aliphatics >C16-C21	<100 µg/kg	TM173	101000		<100		<100		<100		<100		<100	
Aliphatics >C21-C35	<100 µg/kg	TM173	141000		<100		<100		12300		<100		<100	
Aliphatics >C35-C44	<100 µg/kg	TM173	44400		<100		<100		<100		<100		<100	
Total Aliphatics >C12-C44	<100 µg/kg	TM173	323000		<100		<100		12300		<100		<100	
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	♦	<40	@	<40	♦	<40	♦	<40	♦	<40	♦
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	♦	<40	@	<40	♦	<40	♦	<40	♦	<40	♦
Aromatics >EC8-EC10	<10 µg/kg	TM089	<40	♦	<40	@	<40	♦	<40	♦	<40	♦	<40	♦
Aromatics >EC10-EC12	<10 µg/kg	TM089	<40	♦	<40	@	<40	♦	<40	♦	<40	♦	<40	♦
Aromatics >EC12-EC16	<100 µg/kg	TM173	3910		<100		<100		<100		<100		<100	
Aromatics >EC16-EC21	<100 µg/kg	TM173	22700		<100		<100		1830		<100		718	
Aromatics >EC21-EC35	<100 µg/kg	TM173	86600		<100		4620		12200		1930		4520	
Aromatics >EC35-EC44	<100 µg/kg	TM173	47500		<100		2480		6510		2250		3940	
Aromatics >EC40-EC44	<100 µg/kg	TM173	21400		<100		828		2720		1040		1920	
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	161000		<100		7090		20500		4180		9180	
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	484000		<100		7100		32900		4180		9180	



CERTIFICATE OF ANALYSIS

SDG: 141128-120
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1010
Report Number: 300820
Superseded Report:

TPH CWG (S)

Results Legend		Customer Sample R Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	IP0882	IP0883	IP0883	IP0883	IP0884	IP0884
#	ISO17025 accredited.		0.50	0.50	1.50	2.50	0.50	1.50
M	mCERTS accredited.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
aq	Aqueous / settled sample.		26/11/2014	26/11/2014	26/11/2014	26/11/2014	26/11/2014	26/11/2014
diss.filt	Dissolved / filtered sample.							
tot.unfilt	Total / unfiltered sample.							
*	Subcontracted test.							
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery		28/11/2014	28/11/2014	28/11/2014	28/11/2014	28/11/2014	28/11/2014
(F)	Trigger breach confirmed		141128-120	141128-120	141128-120	141128-120	141128-120	141128-120
1-5&\$@	Sample deviation (see appendix)		10466729	10466780	10466837	10466903	10466928	10466931
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	89	93	84	76	92	82
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	79700	653	3960	422	21200	4520
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	<20	<20	<20	<20	<20
Benzene	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
Toluene	<2 µg/kg	TM089	<8	<8	<8	<8	<8	<8
Ethylbenzene	<3 µg/kg	TM089	<12	<12	14.6	<12	<12	14.4
m,p-Xylene	<6 µg/kg	TM089	1330	39.5	<24	46.2	<24	35.5
o-Xylene	<3 µg/kg	TM089	<12	<12	14.6	<12	114	<12
sum of detected mpo xylene by GC	<9 µg/kg	TM089	1330	39.5	<36	46.2	114	35.5
sum of detected BTEX by GC	<24 µg/kg	TM089	1330	39.5	<96	<96	114	49.9
Aliphatics >C5-C6	<10 µg/kg	TM089	299	<40	<40	<40	<40	<40
Aliphatics >C6-C8	<10 µg/kg	TM089	6370	<40	75	<40	1160	89.9
Aliphatics >C8-C10	<10 µg/kg	TM089	25400	96.5	763	68.2	5050	879
Aliphatics >C10-C12	<10 µg/kg	TM089	17700	245	1530	129	6880	1740
Aliphatics >C12-C16	<100 µg/kg	TM173	28300	4740	34800	<100	279000	79900
Aliphatics >C16-C21	<100 µg/kg	TM173	27100	7120	37700	<100	376000	140000
Aliphatics >C21-C35	<100 µg/kg	TM173	29900	9380	36700	<100	352000	151000
Aliphatics >C35-C44	<100 µg/kg	TM173	3610	<100	3900	<100	61000	24200
Total Aliphatics >C12-C44	<100 µg/kg	TM173	88800	21200	113000	<100	1070000	396000
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
Aromatics >EC8-EC10	<10 µg/kg	TM089	18200	112	558	106	3480	637
Aromatics >EC10-EC12	<10 µg/kg	TM089	11800	163	1020	85.8	4580	1160
Aromatics >EC12-EC16	<100 µg/kg	TM173	9630	<100	5120	<100	15900	8580
Aromatics >EC16-EC21	<100 µg/kg	TM173	7030	1970	14100	<100	85200	25900
Aromatics >EC21-EC35	<100 µg/kg	TM173	31800	6130	25800	1530	206000	44900
Aromatics >EC35-EC44	<100 µg/kg	TM173	16100	3690	8990	<100	84500	15100
Aromatics >EC40-EC44	<100 µg/kg	TM173	7900	1580	3610	<100	36300	5790
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	64500	11800	54000	1530	392000	94500
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	233000	33700	171000	1950	1480000	495000



CERTIFICATE OF ANALYSIS

SDG: 141128-120
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1010
Report Number: 300820
Superseded Report:

TPH CWG (S)

Results Legend		Customer Sample R						
#	ISO17025 accredited.		IP0885		IP0885		IP0891	
M	mCERTS accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	0.50	1.50	2.50	3.50	0.50	1.50
aq	Aqueous / settled sample.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
diss.filt	Dissolved / filtered sample.		26/11/2014	26/11/2014	26/11/2014	26/11/2014	26/11/2014	26/11/2014
tot.unfilt	Total / unfiltered sample.							
*	Subcontracted test.							
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery		28/11/2014	28/11/2014	28/11/2014	28/11/2014	28/11/2014	28/11/2014
(F)	Trigger breach confirmed		141128-120	141128-120	141128-120	141128-120	141128-120	141128-120
1-5&*&@	Sample deviation (see appendix)		10466935	10466939	10466669	10466673	10466796	10466800
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	90	104	88	71	91	71
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	17400	3550	<176	980	<176	2780
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	<20	<20	<20	<20	<20
Benzene	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
Toluene	<2 µg/kg	TM089	<8	<8	<8	<8	<8	<8
Ethylbenzene	<3 µg/kg	TM089	<12	<12	<12	31.6	<12	<12
m,p-Xylene	<6 µg/kg	TM089	<24	<24	33.3	238	<24	<24
o-Xylene	<3 µg/kg	TM089	146	<12	<12	<12	<12	<12
sum of detected mpo xylene by GC	<9 µg/kg	TM089	146	<9	<36	238	<9	<9
sum of detected BTEX by GC	<24 µg/kg	TM089	146	<24	<96	270	<24	<24
Aliphatics >C5-C6	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
Aliphatics >C6-C8	<10 µg/kg	TM089	904	103	<40	<40	<40	193
Aliphatics >C8-C10	<10 µg/kg	TM089	4000	939	<40	142	<40	583
Aliphatics >C10-C12	<10 µg/kg	TM089	5780	1120	43	241	<40	961
Aliphatics >C12-C16	<100 µg/kg	TM173	379000	2810	1120	<100	<100	1300
Aliphatics >C16-C21	<100 µg/kg	TM173	532000	5680	1830	<100	<100	1620
Aliphatics >C21-C35	<100 µg/kg	TM173	504000	4580	1580	<100	<100	3140
Aliphatics >C35-C44	<100 µg/kg	TM173	101000	<100	<100	<100	<100	<100
Total Aliphatics >C12-C44	<100 µg/kg	TM173	1520000	13100	4530	<100	<100	6070
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
Aromatics >EC8-EC10	<10 µg/kg	TM089	2810	643	64.4	375	<40	389
Aromatics >EC10-EC12	<10 µg/kg	TM089	3850	744	<40	160	<40	640
Aromatics >EC12-EC16	<100 µg/kg	TM173	25000	236	<100	<100	<100	172
Aromatics >EC16-EC21	<100 µg/kg	TM173	131000	1110	<100	176	1420	818
Aromatics >EC21-EC35	<100 µg/kg	TM173	304000	2030	<100	1600	6720	3750
Aromatics >EC35-EC44	<100 µg/kg	TM173	117000	<100	<100	168	3250	<100
Aromatics >EC40-EC44	<100 µg/kg	TM173	51100	<100	<100	<100	1520	<100
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	577000	3370	<100	1940	11400	4740
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	2110000	20000	4620	2920	11400	13600



CERTIFICATE OF ANALYSIS

SDG: 141128-120
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1010
Report Number: 300820
Superseded Report:

TPH CWG (S)

Results Legend		Customer Sample R	IP0892		IP0892		IP0896		IP0896		IP0958		IP0958	
#	ISO17025 accredited.		Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	0.50	1.50	0.50	1.50	0.50	1.50	0.50	1.50			
m	mCERTS accredited.			Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid					
aq	Aqueous / settled sample.			26/11/2014	26/11/2014	26/11/2014	26/11/2014	26/11/2014	26/11/2014					
diss.filt	Dissolved / filtered sample.			28/11/2014	28/11/2014	28/11/2014	28/11/2014	28/11/2014	28/11/2014					
tot.unfilt	Total / unfiltered sample.			141128-120	141128-120	141128-120	141128-120	141128-120	141128-120					
*	Subcontracted test.			10466805	10466810	10466841	10466845	10466816	10466824					
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery													
(F)	Trigger breach confirmed													
1-5&*\$@	Sample deviation (see appendix)													
Component	LOD/Units	Method												
GRO Surrogate % recovery**	%	TM089	84	89	77	116	96	73						
			♦	♦	2	♦	♦	♦						
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	<176	<176	175000	1430000	53800	3610						
			♦ M	♦ M	2 M	♦ M	♦ M	♦ M						
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	<20	<20	<100	<20	<20						
			♦ M	♦ M	2 M	♦ M	♦ M	♦ M						
Benzene	<10 µg/kg	TM089	<40	<40	50	319	<40	<40						
			♦ M	♦ M	2 M	♦ M	♦ M	♦ M						
Toluene	<2 µg/kg	TM089	<8	<8	<8	<40	<8	<8						
			♦ M	♦ M	2 M	♦ M	♦ M	♦ M						
Ethylbenzene	<3 µg/kg	TM089	<12	<12	<12	<60	<12	<12						
			♦ M	♦ M	2 M	♦ M	♦ M	♦ M						
m,p-Xylene	<6 µg/kg	TM089	<24	<24	<24	<120	<24	<24						
			♦ M	♦ M	2 M	♦ M	♦ M	♦ M						
o-Xylene	<3 µg/kg	TM089	<12	<12	<12	<60	<12	<12						
			♦ M	♦ M	2 M	♦ M	♦ M	♦ M						
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	<9	<9	<9	<9	<36						
			♦	♦	2	♦	♦	♦						
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	<24	50	319	<24	<96						
			♦	♦	2	♦	♦	♦						
Aliphatics >C5-C6	<10 µg/kg	TM089	<40	<40	264	11500	186	<40						
			♦	♦	2	♦	♦	♦						
Aliphatics >C6-C8	<10 µg/kg	TM089	<40	<40	7690	317000	8460	74.1						
			♦	♦	2	♦	♦	♦						
Aliphatics >C8-C10	<10 µg/kg	TM089	<40	<40	48900	352000	13000	505						
			♦	♦	2	♦	♦	♦						
Aliphatics >C10-C12	<10 µg/kg	TM089	<40	<40	51300	309000	14100	1610						
			♦	♦	2	♦	♦	♦						
Aliphatics >C12-C16	<100 µg/kg	TM173	<100	347	228000	154000	9350	52800						
Aliphatics >C16-C21	<100 µg/kg	TM173	<100	589	38600	23500	22500	113000						
Aliphatics >C21-C35	<100 µg/kg	TM173	<100	607	<100	19700	51200	231000						
Aliphatics >C35-C44	<100 µg/kg	TM173	<100	<100	<100	1390	6960	87200						
Total Aliphatics >C12-C44	<100 µg/kg	TM173	<100	1540	266000	199000	90000	484000						
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	<40	50	319	<40	<40						
			♦	♦	2	♦	♦	♦						
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<40	<40	<200	<40	<40						
			♦	♦	2	♦	♦	♦						
Aromatics >EC8-EC10	<10 µg/kg	TM089	<40	<40	32600	235000	8650	337						
			♦	♦	2	♦	♦	♦						
Aromatics >EC10-EC12	<10 µg/kg	TM089	<40	<40	34200	206000	9400	1070						
			♦	♦	2	♦	♦	♦						
Aromatics >EC12-EC16	<100 µg/kg	TM173	<100	<100	10400	9370	<100	3260						
Aromatics >EC16-EC21	<100 µg/kg	TM173	<100	<100	1180	9190	4680	26300						
Aromatics >EC21-EC35	<100 µg/kg	TM173	9700	<100	<100	21300	28700	124000						
Aromatics >EC35-EC44	<100 µg/kg	TM173	4390	<100	<100	9660	15400	57800						
Aromatics >EC40-EC44	<100 µg/kg	TM173	2070	<100	<100	4620	6290	22900						
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	14100	<100	11500	49500	48800	211000						
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	14100	1540	453000	1680000	193000	699000						



CERTIFICATE OF ANALYSIS

SDG: 141128-120
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1010
Report Number: 300820
Superseded Report:

TPH CWG (S)

Results Legend		Customer Sample R						
#	ISO17025 accredited.							
M	mCERTS accredited.	Depth (m)						
aq	Aqueous / settled sample.							
diss.filt	Dissolved / filtered sample.	Sample Type						
tot.unfilt	Total / unfiltered sample.							
*	Subcontracted test.	Date Sampled						
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed	Date Received						
1-5&\$@	Sample deviation (see appendix)							
		Lab Sample No.(s)						
		AGS Reference						
Component	LOD/Units	Method	IP0958	IP0958	IP0966	IP0975	IP0977	IP0978
GRO Surrogate % recovery**	%	TM089	95	92	109	73	81	108
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	953	213	4210	346000	<176	<176
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	<20	<20	<100	<20	<20
Benzene	<10 µg/kg	TM089	<40	<40	<40	<200	<40	<40
Toluene	<2 µg/kg	TM089	<8	<8	<8	<40	<8	<8
Ethylbenzene	<3 µg/kg	TM089	<12	<12	<12	<60	<12	<12
m,p-Xylene	<6 µg/kg	TM089	<24	<24	<24	<120	<24	<24
o-Xylene	<3 µg/kg	TM089	<12	<12	<12	<60	<12	<12
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	<9	<9	<9	<9	<9
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	<24	<24	<24	<24	<24
Aliphatics >C5-C6	<10 µg/kg	TM089	<40	<40	<40	<200	<40	<40
Aliphatics >C6-C8	<10 µg/kg	TM089	50.6	<40	<40	1130	<40	<40
Aliphatics >C8-C10	<10 µg/kg	TM089	179	45.6	332	64300	<40	<40
Aliphatics >C10-C12	<10 µg/kg	TM089	354	66.1	2160	143000	<40	<40
Aliphatics >C12-C16	<100 µg/kg	TM173	2340	67700	9280	430000	<100	<100
Aliphatics >C16-C21	<100 µg/kg	TM173	3970	99000	<100	321000	<100	2910
Aliphatics >C21-C35	<100 µg/kg	TM173	6060	141000	<100	1860000	<100	19900
Aliphatics >C35-C44	<100 µg/kg	TM173	1150	40600	<100	1040000	<100	8320
Total Aliphatics >C12-C44	<100 µg/kg	TM173	13500	348000	9280	3650000	<100	31100
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	<40	<40	<200	<40	<40
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<40	<40	<200	<40	<40
Aromatics >EC8-EC10	<10 µg/kg	TM089	123	<40	222	42900	<40	<40
Aromatics >EC10-EC12	<10 µg/kg	TM089	237	44.5	1440	95100	<40	<40
Aromatics >EC12-EC16	<100 µg/kg	TM173	264	4550	<100	37900	<100	<100
Aromatics >EC16-EC21	<100 µg/kg	TM173	1230	24200	<100	76300	<100	920
Aromatics >EC21-EC35	<100 µg/kg	TM173	5140	84600	2660	293000	<100	7900
Aromatics >EC35-EC44	<100 µg/kg	TM173	890	33200	2900	204000	<100	4740
Aromatics >EC40-EC44	<100 µg/kg	TM173	<100	13200	1360	79900	<100	1530
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	7520	146000	5560	611000	<100	13600
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	22000	495000	19000	4600000	<100	44700



CERTIFICATE OF ANALYSIS

SDG: 141128-120
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1010
Report Number: 300820
Superseded Report:

TPH CWG (S)

Results Legend		Customer Sample R						
#	ISO17025 accredited.		IP0979	IP0980	IP0980	IP0985	IP0986	IP0986
M	mCERTS accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	0.50 Soil/Solid 26/11/2014	0.50 Soil/Solid 26/11/2014	1.50 Soil/Solid 26/11/2014	0.50 Soil/Solid 26/11/2014	0.50 Soil/Solid 26/11/2014	1.50 Soil/Solid 26/11/2014
aq	Aqueous / settled sample.		28/11/2014 141128-120 10466887	28/11/2014 141128-120 10466877	28/11/2014 141128-120 10466883	28/11/2014 141128-120 10466742	28/11/2014 141128-120 10466721	28/11/2014 141128-120 10466725
diss.filt	Dissolved / filtered sample.							
tot.unfilt	Total / unfiltered sample.							
*	Subcontracted test.							
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed							
1-5&*\$@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	106	96	87	94	76	85
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	<176	<880	<176	65700	102000	519
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	<100	<20	<20	<20	<20
Benzene	<10 µg/kg	TM089	<40	<200	<40	54.9	<40	<40
Toluene	<2 µg/kg	TM089	<8	<40	<8	<8	<8	<8
Ethylbenzene	<3 µg/kg	TM089	<12	<60	<12	<12	<12	<12
m,p-Xylene	<6 µg/kg	TM089	<24	<120	<24	<24	<24	<24
o-Xylene	<3 µg/kg	TM089	<12	<60	<12	255	<12	<12
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	<9	<9	255	<9	<36
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	<24	<24	310	<24	<96
Aliphatics >C5-C6	<10 µg/kg	TM089	<40	<200	<40	336	<40	<40
Aliphatics >C6-C8	<10 µg/kg	TM089	<40	<200	<40	14600	792	<40
Aliphatics >C8-C10	<10 µg/kg	TM089	<40	<200	<40	16900	21200	91.8
Aliphatics >C10-C12	<10 µg/kg	TM089	<40	222	<40	13400	39400	194
Aliphatics >C12-C16	<100 µg/kg	TM173	4040	16800	2940	454000	193000	<100
Aliphatics >C16-C21	<100 µg/kg	TM173	3250	43100	8440	542000	247000	<100
Aliphatics >C21-C35	<100 µg/kg	TM173	16900	126000	41300	381000	141000	<100
Aliphatics >C35-C44	<100 µg/kg	TM173	7700	32000	7310	75200	6900	<100
Total Aliphatics >C12-C44	<100 µg/kg	TM173	31900	218000	60000	1450000	587000	<100
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	<200	<40	54.9	<40	<40
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<200	<40	<40	<40	<40
Aromatics >EC8-EC10	<10 µg/kg	TM089	<40	<200	<40	11500	14200	67.2
Aromatics >EC10-EC12	<10 µg/kg	TM089	<40	<200	<40	8910	26300	129
Aromatics >EC12-EC16	<100 µg/kg	TM173	<100	1870	<100	49200	36200	<100
Aromatics >EC16-EC21	<100 µg/kg	TM173	1420	8160	5120	163000	128000	<100
Aromatics >EC21-EC35	<100 µg/kg	TM173	19500	53200	34900	248000	123000	3370
Aromatics >EC35-EC44	<100 µg/kg	TM173	9450	21600	16800	93700	24600	4150
Aromatics >EC40-EC44	<100 µg/kg	TM173	3610	8290	6840	41200	10500	2050
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	30400	84800	56800	553000	312000	7520
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	62300	304000	117000	2070000	1000000	8040



CERTIFICATE OF ANALYSIS

SDG: 141128-120
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1010
Report Number: 300820
Superseded Report:

TPH CWG (S)

Results Legend		Customer Sample R						
#	ISO17025 accredited.							
M	mCERTS accredited.	Depth (m)						
aq	Aqueous / settled sample.							
diss.filt	Dissolved / filtered sample.	Sample Type						
tot.unfilt	Total / unfiltered sample.							
*	Subcontracted test.	Date Sampled						
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed	SDG Ref						
1-5&*\$@	Sample deviation (see appendix)							
Component		LOD/Units	Method					
GRO Surrogate % recovery**	%	TM089	65	104	74	106	61	87
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	1160	3010	37300	2120	2010	22100
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	<20	<20	<20	<20	<20
Benzene	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
Toluene	<2 µg/kg	TM089	<8	<8	<8	<8	<8	<8
Ethylbenzene	<3 µg/kg	TM089	<12	<12	<12	27.5	<12	<12
m,p-Xylene	<6 µg/kg	TM089	<24	<24	<24	<24	<24	<24
o-Xylene	<3 µg/kg	TM089	<12	<12	<12	<12	<12	131
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<36	<9	<9	<9	<9	131
sum of detected BTEX by GC	<24 µg/kg	TM089	<96	<24	<24	27.5	<24	131
Aliphatics >C5-C6	<10 µg/kg	TM089	<40	<40	145	<40	<40	76.2
Aliphatics >C6-C8	<10 µg/kg	TM089	<40	45.5	3850	71.3	89.9	3180
Aliphatics >C8-C10	<10 µg/kg	TM089	177	605	7650	790	536	5510
Aliphatics >C10-C12	<10 µg/kg	TM089	484	1170	12300	410	595	5700
Aliphatics >C12-C16	<100 µg/kg	TM173	<100	1950	495000	1980	<100	61300
Aliphatics >C16-C21	<100 µg/kg	TM173	<100	768	668000	4080	<100	138000
Aliphatics >C21-C35	<100 µg/kg	TM173	967	<100	512000	3690	140	185000
Aliphatics >C35-C44	<100 µg/kg	TM173	<100	<100	162000	<100	<100	50900
Total Aliphatics >C12-C44	<100 µg/kg	TM173	967	2710	1840000	9750	140	435000
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
Aromatics >EC8-EC10	<10 µg/kg	TM089	125	403	5100	554	370	3810
Aromatics >EC10-EC12	<10 µg/kg	TM089	323	778	8200	274	396	3800
Aromatics >EC12-EC16	<100 µg/kg	TM173	<100	<100	65500	<100	<100	4390
Aromatics >EC16-EC21	<100 µg/kg	TM173	<100	<100	245000	<100	971	31000
Aromatics >EC21-EC35	<100 µg/kg	TM173	<100	1430	582000	<100	3060	139000
Aromatics >EC35-EC44	<100 µg/kg	TM173	<100	2230	259000	<100	629	70600
Aromatics >EC40-EC44	<100 µg/kg	TM173	<100	1280	114000	<100	<100	30400
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	<100	3660	1150000	<100	4660	245000
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	2130	9380	3030000	11900	6810	702000



CERTIFICATE OF ANALYSIS

SDG: 141128-120
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1010
Report Number: 300820
Superseded Report:

TPH CWG (S)

Results Legend		Customer Sample R						
#	ISO17025 accredited.		IP0988	IP0988	IP0988	IP993	IP993	IP994
M	mCERTS accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	1.50	2.50	3.50	0.50	1.50	0.50
aq	Aqueous / settled sample.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
diss.filt	Dissolved / filtered sample.		26/11/2014	26/11/2014	26/11/2014	25/11/2014	25/11/2014	26/11/2014
tot.unfilt	Total / unfiltered sample.							
*	Subcontracted test.							
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery		28/11/2014	28/11/2014	28/11/2014	28/11/2014	28/11/2014	28/11/2014
(F)	Trigger breach confirmed		141128-120	141128-120	141128-120	141128-120	141128-120	141128-120
1-5&*\$@	Sample deviation (see appendix)		10466690	10466694	10466700	10466755	10466759	10466766
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	99	61	65	78	100	81
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	1040	<176	5680	7370	648	369
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	<20	<20	<20	<20	<20
Benzene	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
Toluene	<2 µg/kg	TM089	<8	<8	<8	<8	<8	<8
Ethylbenzene	<3 µg/kg	TM089	<12	<12	<12	37.4	<12	<12
m,p-Xylene	<6 µg/kg	TM089	<24	<24	<24	<24	<24	<24
o-Xylene	<3 µg/kg	TM089	<12	<12	<12	<12	<12	<12
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	<9	<9	<9	<36	<36
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	<24	<24	37.4	<96	<96
Aliphatics >C5-C6	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
Aliphatics >C6-C8	<10 µg/kg	TM089	50.8	<40	245	489	<40	40.3
Aliphatics >C8-C10	<10 µg/kg	TM089	215	<40	1040	1310	91.3	93.2
Aliphatics >C10-C12	<10 µg/kg	TM089	371	<40	2210	2750	269	98.3
Aliphatics >C12-C16	<100 µg/kg	TM173	11600	<100	306000	158000	12600	16400
Aliphatics >C16-C21	<100 µg/kg	TM173	17300	<100	436000	246000	23400	<100
Aliphatics >C21-C35	<100 µg/kg	TM173	17100	152	367000	234000	23100	10100
Aliphatics >C35-C44	<100 µg/kg	TM173	1790	<100	93300	60200	2500	<100
Total Aliphatics >C12-C44	<100 µg/kg	TM173	47800	152	1200000	699000	61600	26500
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
Aromatics >EC8-EC10	<10 µg/kg	TM089	142	<40	693	922	60.8	61.7
Aromatics >EC10-EC12	<10 µg/kg	TM089	248	<40	1480	1830	180	65.5
Aromatics >EC12-EC16	<100 µg/kg	TM173	<100	<100	26500	15800	1610	<100
Aromatics >EC16-EC21	<100 µg/kg	TM173	7080	<100	102000	65900	6030	907
Aromatics >EC21-EC35	<100 µg/kg	TM173	19700	808	223000	174000	23200	24300
Aromatics >EC35-EC44	<100 µg/kg	TM173	8250	<100	115000	79100	9570	9210
Aromatics >EC40-EC44	<100 µg/kg	TM173	3510	<100	51000	34200	4190	2850
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	35100	808	466000	335000	40400	34400
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	83900	961	1670000	1040000	103000	61300



CERTIFICATE OF ANALYSIS

SDG: 141128-120
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1010
Report Number: 300820
Superseded Report:

TPH CWG (S)

Results Legend		Customer Sample R	IP994		IP994		TPE395		TPE450		TPE450	
#	ISO17025 accredited.		1.50	Soil/Solid	2.50	Soil/Solid	0.50	Soil/Solid	0.50	Soil/Solid	1.50	Soil/Solid
M	mCERTS accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	26/11/2014	26/11/2014	26/11/2014	26/11/2014	25/11/2014	25/11/2014	26/11/2014	26/11/2014	26/11/2014	26/11/2014
aq	Aqueous / settled sample.		28/11/2014	28/11/2014	28/11/2014	28/11/2014	28/11/2014	28/11/2014	28/11/2014	28/11/2014	28/11/2014	28/11/2014
diss.filt	Dissolved / filtered sample.		141128-120	141128-120	141128-120	141128-120	141128-120	141128-120	141128-120	141128-120	141128-120	141128-120
tot.unfilt	Total / unfiltered sample.		10466771	10466776	10466776	10466747	10466747	10466747	10466783	10466783	10466793	10466793
*	Subcontracted test.											
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery											
(F)	Trigger breach confirmed											
1-5&*&@	Sample deviation (see appendix)											
Component	LOD/Units	Method	IP994		IP994		TPE395		TPE450		TPE450	
GRO Surrogate % recovery**	%	TM089	60	♦	77	♦	86	@	95	♦	97	♦
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	543	♦ M	593	♦ M	<176	@ M	997	♦ M	6540	♦ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	♦ M	<20	♦ M	<20	@ M	<20	♦ M	<20	♦ M
Benzene	<10 µg/kg	TM089	<40	♦ M	<40	♦ M	<40	@ M	<40	♦ M	<40	♦ M
Toluene	<2 µg/kg	TM089	<8	♦ M	<8	♦ M	<8	@ M	<8	♦ M	<8	♦ M
Ethylbenzene	<3 µg/kg	TM089	<12	♦ M	<12	♦ M	<12	@ M	<12	♦ M	113	♦ M
m,p-Xylene	<6 µg/kg	TM089	<24	♦ M	<24	♦ M	<24	@ M	<24	♦ M	191	♦ M
o-Xylene	<3 µg/kg	TM089	<12	♦ M	<12	♦ M	<12	@ M	<12	♦ M	86.6	♦ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<36	♦	<9	♦	<36	@	<9	♦	278	♦
sum of detected BTEX by GC	<24 µg/kg	TM089	<96	♦	<24	♦	<96	@	<24	♦	391	♦
Aliphatics >C5-C6	<10 µg/kg	TM089	<40	♦	<40	♦	<40	@	<40	♦	<40	♦
Aliphatics >C6-C8	<10 µg/kg	TM089	<40	♦	49.7	♦	<40	@	50.6	♦	246	♦
Aliphatics >C8-C10	<10 µg/kg	TM089	89.5	♦	110	♦	<40	@	147	♦	1200	♦
Aliphatics >C10-C12	<10 µg/kg	TM089	207	♦	202	♦	<40	@	401	♦	2320	♦
Aliphatics >C12-C16	<100 µg/kg	TM173	4660		193		<100		17700		6880	
Aliphatics >C16-C21	<100 µg/kg	TM173	891		1670		<100		23500		9710	
Aliphatics >C21-C35	<100 µg/kg	TM173	<100		3140		<100		41300		14700	
Aliphatics >C35-C44	<100 µg/kg	TM173	<100		<100		<100		12100		2530	
Total Aliphatics >C12-C44	<100 µg/kg	TM173	5560		5000		<100		94500		33800	
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	♦	<40	♦	<40	@	<40	♦	<40	♦
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	♦	<40	♦	<40	@	<40	♦	<40	♦
Aromatics >EC8-EC10	<10 µg/kg	TM089	60	♦	80.2	♦	<40	@	121	♦	1190	♦
Aromatics >EC10-EC12	<10 µg/kg	TM089	139	♦	134	♦	<40	@	267	♦	1550	♦
Aromatics >EC12-EC16	<100 µg/kg	TM173	<100		<100		<100		<100		915	
Aromatics >EC16-EC21	<100 µg/kg	TM173	<100		<100		<100		7260		2740	
Aromatics >EC21-EC35	<100 µg/kg	TM173	8020		<100		<100		27200		10700	
Aromatics >EC35-EC44	<100 µg/kg	TM173	8470		<100		<100		11600		4090	
Aromatics >EC40-EC44	<100 µg/kg	TM173	4160		<100		<100		4660		1750	
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	16500		<100		<100		46000		18500	
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	22600		5590		<100		142000		58800	



SDG:	141128-120	Location:	Coed Darcy	Order Number:	CD1010
Job:	H_ATKINS_LDC-224	Customer:	Atkins Global Ltd	Report Number:	300820
Client Reference:	Site Wide Trial Pitting	Attention:	Jack Lowrie	Superseded Report:	

Asbestos Quantification - Full

Additional Asbestos Components (Using TM048)	Analysts Comments	Asbestos Quantification - Gravimetric - %	Asbestos Quantification - PCOM Evaluation - %	Asbestos Quantification - Total - %
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Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP0985 0.50 SOLID 26/11/2014 00:00:00 15/01/2015 08:20:03 141128-120 10466742 TM 304	None (#)	N/C	0.0018 (#)	<0.001 (#)	0.002 (#)
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP0987 0.50 SOLID 26/11/2014 00:00:00 15/01/2015 08:17:59 141128-120 10466708 TM 304	None (#)	N/C	<0.001 (#)	<0.001 (#)	<0.001 (#)



SDG:	141128-120	Location:	Coed Darcy	Order Number:	CD1010
Job:	H_ATKINS_LDC-224	Customer:	Atkins Global Ltd	Report Number:	300820
Client Reference:	Site Wide Trial Pitting	Attention:	Jack Lowrie	Superseded Report:	

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample ¹	Surrogate Corrected
ASB_PREP				
PM001		Preparation of Samples for Metals Analysis		
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material		
SUB (ASB)				
TM 304				
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) and BTEX (MTBE) compounds by Headspace GC-FID (C4-C12)		
TM132	In - house Method	ELTRA CS800 Operators Guide		
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter		
TM173	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GC-FID		
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES		
TM218	Microwave extraction – EPA method 3546	Microwave extraction - EPA method 3546		

¹ Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.



CERTIFICATE OF ANALYSIS

SDG: 141128-120
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
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Order Number: CD1010
Report Number: 300820
Superseded Report:

Test Completion Dates

Lab Sample No(s)	10466665	10466751	10466871	10466849	10466899	10466908	10466729	10466780	10466837	10466903
Customer Sample Ref.	IP0867	IP870	IP0875	IP0876	IP0880	IP0881	IP0882	IP0883	IP0883	IP0883
AGS Ref.										
Depth	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	1.50	2.50
Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Asbestos fibres in Soil*	09-Dec-2014	10-Dec-2014	09-Dec-2014	09-Dec-2014	09-Dec-2014	09-Dec-2014	09-Dec-2014	09-Dec-2014		
EPH CWG (Aliphatic) GC (S)	19-Dec-2014	18-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	18-Dec-2014	19-Dec-2014	18-Dec-2014	18-Dec-2014
EPH CWG (Aromatic) GC (S)	19-Dec-2014	18-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	18-Dec-2014	19-Dec-2014	18-Dec-2014	18-Dec-2014
GRO by GC-FID (S)	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	20-Dec-2014	19-Dec-2014	19-Dec-2014
Metals in solid samples by OES	05-Dec-2014	16-Dec-2014	12-Dec-2014	12-Dec-2014	12-Dec-2014	05-Dec-2014	17-Dec-2014	09-Dec-2014	12-Dec-2014	12-Dec-2014
PAH by GCMS	17-Dec-2014	18-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	18-Dec-2014	17-Dec-2014	18-Dec-2014	18-Dec-2014
pH	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014
Sample description	01-Dec-2014	11-Dec-2014	01-Dec-2014	01-Dec-2014	01-Dec-2014	01-Dec-2014	12-Dec-2014	01-Dec-2014	06-Dec-2014	06-Dec-2014
Total Organic Carbon	15-Dec-2014							15-Dec-2014		
TPH CWG GC (S)	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	20-Dec-2014	19-Dec-2014	19-Dec-2014

Lab Sample No(s)	10466928	10466931	10466669	10466673	10466935	10466939	10466796	10466800	10466805	10466810
Customer Sample Ref.	IP0884	IP0884	IP0885	IP0885	IP0885	IP0885	IP0891	IP0891	IP0892	IP0892
AGS Ref.										
Depth	0.50	1.50	2.50	3.50	0.50	1.50	0.50	1.50	0.50	1.50
Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Asbestos fibres in Soil*	09-Dec-2014				09-Dec-2014		09-Dec-2014		10-Dec-2014	
EPH CWG (Aliphatic) GC (S)	19-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014
EPH CWG (Aromatic) GC (S)	19-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014
GRO by GC-FID (S)	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014
Metals in solid samples by OES	09-Dec-2014	16-Dec-2014	12-Dec-2014	12-Dec-2014	16-Dec-2014	16-Dec-2014	17-Dec-2014	15-Dec-2014	17-Dec-2014	12-Dec-2014
PAH by GCMS	17-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014
pH	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014
Sample description	01-Dec-2014	06-Dec-2014	05-Dec-2014	06-Dec-2014	11-Dec-2014	06-Dec-2014	12-Dec-2014	06-Dec-2014	12-Dec-2014	05-Dec-2014
Total Organic Carbon					16-Dec-2014				15-Dec-2014	
TPH CWG GC (S)	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014

Lab Sample No(s)	10466841	10466845	10466816	10466824	10466829	10466833	10466861	10466918	10466913	10466892
Customer Sample Ref.	IP0896	IP0896	IP0958	IP0958	IP0958	IP0958	IP0966	IP0975	IP0977	IP0978
AGS Ref.										
Depth	0.50	1.50	0.50	1.50	2.50	3.50	0.50	0.50	0.50	0.50
Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Asbestos fibres in Soil*	10-Dec-2014		10-Dec-2014				10-Dec-2014	10-Dec-2014	10-Dec-2014	10-Dec-2014
EPH CWG (Aliphatic) GC (S)	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014
EPH CWG (Aromatic) GC (S)	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014
GRO by GC-FID (S)	23-Dec-2014	20-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	20-Dec-2014	19-Dec-2014	19-Dec-2014
Metals in solid samples by OES	16-Dec-2014	15-Dec-2014	17-Dec-2014	16-Dec-2014	16-Dec-2014	15-Dec-2014	05-Dec-2014	05-Dec-2014	12-Dec-2014	12-Dec-2014
PAH by GCMS	18-Dec-2014	18-Dec-2014	17-Dec-2014	18-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014
pH	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014
Sample description	11-Dec-2014	05-Dec-2014	12-Dec-2014	06-Dec-2014	06-Dec-2014	06-Dec-2014	01-Dec-2014	01-Dec-2014	01-Dec-2014	01-Dec-2014
Total Organic Carbon	16-Dec-2014							15-Dec-2014		
TPH CWG GC (S)	23-Dec-2014	20-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	20-Dec-2014	19-Dec-2014	19-Dec-2014

Lab Sample No(s)	10466887	10466877	10466883	10466742	10466721	10466725	10466733	10466737	10466708	10466717
Customer Sample Ref.	IP0979	IP0980	IP0980	IP0985	IP0986	IP0986	IP0986	IP0986	IP0987	IP0987
AGS Ref.										
Depth	0.50	0.50	1.50	0.50	0.50	1.50	2.50	3.50	0.50	1.50
Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Asbestos fibres in Soil*	10-Dec-2014	10-Dec-2014		10-Dec-2014	10-Dec-2014				10-Dec-2014	
Asbestos Quantification - Full				05-Feb-2015					05-Feb-2015	
EPH CWG (Aliphatic) GC (S)	18-Dec-2014	19-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	19-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014
EPH CWG (Aromatic) GC (S)	18-Dec-2014	19-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	19-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014
GRO by GC-FID (S)	19-Dec-2014	22-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014
Metals in solid samples by OES	16-Dec-2014	12-Dec-2014	12-Dec-2014	17-Dec-2014	16-Dec-2014	16-Dec-2014	12-Dec-2014	12-Dec-2014	17-Dec-2014	12-Dec-2014
PAH by GCMS	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014
pH	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	18-Dec-2014	17-Dec-2014	17-Dec-2014	18-Dec-2014
Sample description	11-Dec-2014	01-Dec-2014	05-Dec-2014	13-Dec-2014	11-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	13-Dec-2014	05-Dec-2014
Total Organic Carbon		12-Dec-2014		17-Dec-2014					17-Dec-2014	
TPH CWG GC (S)	19-Dec-2014	22-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014



CERTIFICATE OF ANALYSIS

SDG: 141128-120
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1010
Report Number: 300820
Superseded Report:

Lab Sample No(s)	10466923	10466685	10466690	10466694	10466700	10466755	10466759	10466766	10466771	10466776
Customer Sample Ref.	IP0987	IP0988	IP0988	IP0988	IP0988	IP993	IP993	IP994	IP994	IP994
AGS Ref.										
Depth	2.50	0.50	1.50	2.50	3.50	0.50	1.50	0.50	1.50	2.50
Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Asbestos fibres in Soil*		10-Dec-2014				10-Dec-2014		10-Dec-2014		
EPH CWG (Aliphatic) GC (S)	18-Dec-2014	19-Dec-2014	18-Dec-2014	18-Dec-2014	19-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	19-Dec-2014	18-Dec-2014
EPH CWG (Aromatic) GC (S)	18-Dec-2014	19-Dec-2014	18-Dec-2014	18-Dec-2014	19-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	19-Dec-2014	18-Dec-2014
GRO by GC-FID (S)	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	22-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	22-Dec-2014
Metals in solid samples by OES	12-Dec-2014	09-Dec-2014	12-Dec-2014	12-Dec-2014	12-Dec-2014	17-Dec-2014	16-Dec-2014	16-Dec-2014	12-Dec-2014	12-Dec-2014
PAH by GCMS	18-Dec-2014	17-Dec-2014	17-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014
pH	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	18-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014
Sample description	05-Dec-2014	01-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	11-Dec-2014	05-Dec-2014	11-Dec-2014	05-Dec-2014	05-Dec-2014
TPH CWG GC (S)	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	22-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	22-Dec-2014

Lab Sample No(s)	10466747	10466783	10466793
Customer Sample Ref.	TPE395	TPE450	TPE450
AGS Ref.			
Depth	0.50	0.50	1.50
Type	SOLID	SOLID	SOLID
Asbestos fibres in Soil*	10-Dec-2014	10-Dec-2014	
EPH CWG (Aliphatic) GC (S)	18-Dec-2014	18-Dec-2014	18-Dec-2014
EPH CWG (Aromatic) GC (S)	18-Dec-2014	18-Dec-2014	18-Dec-2014
GRO by GC-FID (S)	19-Dec-2014	19-Dec-2014	19-Dec-2014
Metals in solid samples by OES	16-Dec-2014	17-Dec-2014	12-Dec-2014
PAH by GCMS	18-Dec-2014	18-Dec-2014	17-Dec-2014
pH	17-Dec-2014	17-Dec-2014	17-Dec-2014
Sample description	11-Dec-2014	12-Dec-2014	05-Dec-2014
Total Organic Carbon		15-Dec-2014	
TPH CWG GC (S)	19-Dec-2014	19-Dec-2014	19-Dec-2014



Certificate of Analysis

Certificate Number 14-22285

08-Dec-14

Client Alcontrol Laboratories
Units 7 & 8
Hawarden Business Park
Manor Road
Hawarden
Deeside
CH5 3US

Our Reference 14-22285

Client Reference 141128-120

Contract Title 141128-120

Description 28 Soil samples.

Date Received 03-Dec-14

Date Started 04-Dec-14

Date Completed 08-Dec-14

Test Procedures Asbestos Analysis DETSC 1101.

Notes Opinions and interpretations are outside the scope of UKAS accreditation. 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. Observations and interpretations are outside the scope of ISO 17025. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

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

Rob Brown
Business Manager



Summary of Asbestos Analysis

Soil Samples

Our Ref 14-22285
 Client Ref 141128-120
 Contract Title 141128-120

Lab No	Sample ID	Material Type	Result	Comment*	Analyst
741411	10481584 IP0867 0.50	SOIL	NAD	none	Colin Patrick
741412	10481568 IP0875 0.50	SOIL	NAD	none	Colin Patrick
741413	10481726 IP0876 0.50	SOIL	NAD	none	Colin Patrick
741414	10481571 IP0880 0.50	SOIL	NAD	none	Colin Patrick
741415	10481577 IP0881 0.50	SOIL	NAD	none	Colin Patrick
741416	10481682 IP0882 0.50	SOIL	NAD	none	Colin Patrick
741417	10481689 IP0883 0.50	SOIL	NAD	none	Colin Patrick
741418	10481692 IP0884 0.50	SOIL	NAD	none	Colin Patrick
741419	10481633 IP0885 0.50	SOIL	NAD	none	Colin Patrick
741420	10481650 IP0891 0.50	SOIL	NAD	none	Colin Patrick
741421	10481670 IP0892 0.50	SOIL	NAD	none	Colin Patrick
741422	10481625 IP0896 0.50	SOIL	NAD	none	Colin Patrick
741423	10481640 IP0958 0.50	SOIL	NAD	none	Colin Patrick
741424	10481576 IP0966 0.50	SOIL	NAD	none	Colin Patrick
741425	10481564 IP0975 0.50	SOIL	NAD	none	Colin Patrick
741426	10481567 IP0977 0.50	SOIL	NAD	none	Colin Patrick
741427	10481566 IP0978 0.50	SOIL	NAD	none	Colin Patrick
741428	10481573 IP0979 0.50	SOIL	NAD	none	Colin Patrick
741429	10481748 IP0980 0.50	SOIL	NAD	none	Colin Patrick
741430	10481589 IP0985 0.50	SOIL	Chrysotile Amosite	bundle of chrysotile fibres+ free amosite fibres	Colin Patrick
741431	10481621 IP0986 0.50	SOIL	NAD	none	Colin Patrick
741432	10481597 IP0987 0.50	SOIL	Chrysotile	bundle of chrysotile fibres	Colin Patrick
741433	10481578 IP0988 0.50	SOIL	NAD	none	Colin Patrick
741434	10481646 IP870 0.50	SOIL	NAD	none	Colin Patrick
741435	10481594 IP993 0.50	SOIL	NAD	none	Colin Patrick
741436	10481638 IP994 0.50	SOIL	NAD	none	Colin Patrick
741437	10481630 TPE395 0.50	SOIL	NAD	none	Colin Patrick
741438	10481673 TPE450 0.50	SOIL	NAD	none	Colin Patrick

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: * -not included in laboratory scope of accreditation.

Information in Support of the Analytical Results

Our Ref 14-22285
Client Ref 141128-120
Contract 141128-120

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
741411	10481584 0.50 SOIL	26/11/14	PT 500ml		
741412	10481568 0.50 SOIL	26/11/14	PT 500ml		
741413	10481726 0.50 SOIL	26/11/14	PT 500ml		
741414	10481571 0.50 SOIL	26/11/14	PT 500ml		
741415	10481577 0.50 SOIL	26/11/14	PT 500ml		
741416	10481682 0.50 SOIL	26/11/14	PT 500ml		
741417	10481689 0.50 SOIL	26/11/14	PT 500ml		
741418	10481692 0.50 SOIL	26/11/14	PT 500ml		
741419	10481633 0.50 SOIL	26/11/14	PT 500ml		
741420	10481650 0.50 SOIL	26/11/14	PT 500ml		
741421	10481670 0.50 SOIL	26/11/14	PT 500ml		
741422	10481625 0.50 SOIL	26/11/14	PT 500ml		
741423	10481640 0.50 SOIL	26/11/14	PT 500ml		
741424	10481576 0.50 SOIL	26/11/14	PT 500ml		
741425	10481564 0.50 SOIL	26/11/14	PT 500ml		
741426	10481567 0.50 SOIL	26/11/14	PT 500ml		
741427	10481566 0.50 SOIL	26/11/14	PT 500ml		
741428	10481573 0.50 SOIL	26/11/14	PT 500ml		
741429	10481748 0.50 SOIL	26/11/14	PT 500ml		
741430	10481589 0.50 SOIL	26/11/14	PT 500ml		
741431	10481621 0.50 SOIL	26/11/14	PT 500ml		
741432	10481597 0.50 SOIL	26/11/14	PT 500ml		
741433	10481578 0.50 SOIL	26/11/14	PT 500ml		
741434	10481646 0.50 SOIL	26/11/14	PT 500ml		
741435	10481594 0.50 SOIL	26/11/14	PT 500ml		
741436	10481638 0.50 SOIL	26/11/14	PT 500ml		
741437	10481630 0.50 SOIL	26/11/14	PT 500ml		
741438	10481673 0.50 SOIL	26/11/14	PT 500ml		

Key: P-Plastic T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time and/or inappropriate containers are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



SDG:	141128-120	Location:	Coed Darcy	Order Number:	CD1010
Job:	H_ATKINS_LDC-224	Customer:	Atkins Global Ltd	Report Number:	300820
Client Reference:	Site Wide Trial Pitting	Attention:	Jack Lowrie	Superseded Report:	

Appendix
General

1. Results are expressed on a dry weight basis (dried at 35°C) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICS and SVOC TICS.
2. Samples will be run in duplicate upon request, but an additional charge may be incurred.
3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.
4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.
5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.
6. When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as "Not detected". If no asbestos fibre types are found all will be reported as "Not detected" and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible. The quantity of asbestos present is not determined unless specifically requested.
7. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.
8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.
9. NDP -No determination possible due to insufficient/unsuitable sample.
10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals -total metals must be requested separately.
11. Results relate only to the items tested.
12. LODs for wet tests reported on a dry weight basis are not corrected for moisture content.
13. **Surrogate recoveries** -Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted. Acceptable limits for most organic methods are 70 -130 %.
14. **Product analyses** -Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors employed.
15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethylphenol, 3,5 Dimethylphenol).
16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 15).
17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.
18. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.
19. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

20. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.
21. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.
22. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill /made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.
23. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

Sample Deviations

1	Container with Headspace provided for volatiles analysis
2	Incorrect container received
3	Deviation from method
4	Holding time exceeded before sample received
5	Samples exceeded holding time before preservation was performed
\$	Sampled on date not provided
♦	Sample holding time exceeded in laboratory
@	Sample holding time exceeded due to sampled on date
&	Sample Holding Time exceeded - Late arrival of instructions.

Asbestos

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than :
- Trace - Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.



Atkins Global Ltd
Project Jonah site office
Llan Coed House
Suite 24
Coed Darcy
Llandarcy
SA10 6HJ

Attention: Jack Lowrie

CERTIFICATE OF ANALYSIS

Date: 08 December 2014
Customer: H_ATKINS_LDC
Sample Delivery Group (SDG): 141126-70
Your Reference: Site Wide Trial Pitting
Location: Coed Darcy
Report No: 294873

We received 14 samples on Wednesday November 26, 2014 and 14 of these samples were scheduled for analysis which was completed on Monday December 08, 2014. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

All chemical testing (unless subcontracted) is performed at ALcontrol Hawarden Laboratories.

Approved By:

Sonia McWhan

Operations Manager





SDG:	141126-70	Location:	Coed Darcy	Order Number:	CD1004
Job:	H_ATKINS_LDC-224	Customer:	Atkins Global Ltd	Report Number:	294873
Client Reference:	Site Wide Trial Pitting	Attention:	Jack Lowrie	Superseded Report:	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
10450405	IP456		0.50	24/11/2014
10450409	IP456		1.50	24/11/2014
10450328	IP456		2.50	24/11/2014
10450351	IP963		0.50	24/11/2014
10450355	IP963		1.50	24/11/2014
10450341	IP964		0.50	24/11/2014
10450346	IP964		1.50	24/11/2014
10450372	IP965		0.50	24/11/2014
10450378	IP965		1.50	24/11/2014
10450386	IP965		2.50	24/11/2014
10450397	IP965		3.50	24/11/2014
10450319	TPE457		0.50	24/11/2014
10450361	TPE457		1.50	24/11/2014
10450367	TPE457		2.50	24/11/2014

Only received samples which have had analysis scheduled will be shown on the following pages.



CERTIFICATE OF ANALYSIS

SDG: 141126-70
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1004
Report Number: 294873
Superseded Report:

SOLID Results Legend X Test N No Determination Possible	Lab Sample No(s)		Customer Sample Reference		AGS Reference		Depth (m)		Container	
	10450367		TPE457				2.50		250g Amber Jar (AL	
	10450361		TPE457				1.50		60g VOC (ALE215)	
	10450319		TPE457				0.50		400g Tub (ALE214)	
	10450397		IP965				3.50		250g Amber Jar (AL	
Asbestos ID in Solid Samples	10450372		IP965				0.50		60g VOC (ALE215)	
	10450378		IP965				1.50		400g Tub (ALE214)	
	10450386		IP965				2.50		60g VOC (ALE215)	
	10450346		IP964				1.50		250g Amber Jar (AL	
	10450341		IP964				0.50		400g Tub (ALE214)	
	10450355		IP963				1.50		60g VOC (ALE215)	
	10450351		IP963				0.50		250g Amber Jar (AL	
	10450328		IP456				2.50		400g Tub (ALE214)	
	10450409		IP456				1.50		60g VOC (ALE215)	
	10450405		IP456				0.50		250g Amber Jar (AL	
									400g Tub (ALE214)	
									60g VOC (ALE215)	
									250g Amber Jar (AL	
									400g Tub (ALE214)	
EPH CWG (Aliphatic) GC (S)	All	NDPs: 0 Tests: 14								
EPH CWG (Aromatic) GC (S)	All	NDPs: 0 Tests: 14								
GRO by GC-FID (S)	All	NDPs: 0 Tests: 14								
Metals in solid samples by OES	All	NDPs: 0 Tests: 14								
PAH by GCMS	All	NDPs: 0 Tests: 14								
pH	All	NDPs: 0 Tests: 14								
Sample description	All	NDPs: 0 Tests: 14								
Total Organic Carbon	All	NDPs: 0 Tests: 4								
TPH CWG GC (S)	All	NDPs: 0 Tests: 14								



CERTIFICATE OF ANALYSIS

Validated

SDG:	141126-70	Location:	Coed Darcy	Order Number:	CD1004
Job:	H_ATKINS_LDC-224	Customer:	Atkins Global Ltd	Report Number:	294873
Client Reference:	Site Wide Trial Pitting	Attention:	Jack Lowrie	Superseded Report:	

SOLID
Results Legend

- X

Test
- N

No Determination Possible

Lab Sample No(s)

10450367

Customer
Sample Reference

TPE457

AGS Reference

Depth (m)

2.50

Container

60g VOC (ALE215)
400g Tub (ALE214)

GRO by GC-FID (S)

All

NDPs: 0
Tests: 14

X

pH

All

NDPs: 0
Tests: 14

X



SDG:	141126-70	Location:	Coed Darcy	Order Number:	CD1004
Job:	H_ATKINS_LDC-224	Customer:	Atkins Global Ltd	Report Number:	294873
Client Reference:	Site Wide Trial Pitting	Attention:	Jack Lowrie	Superseded Report:	

Sample Descriptions

Grain Sizes

very fine	<0.063mm	fine	0.063mm - 0.1mm	medium	0.1mm - 2mm	coarse	2mm - 10mm	very coarse	>10mm
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Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Grain size	Inclusions	Inclusions 2
10450328	IP456	2.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	None
10450405	IP456	0.50	Dark Brown	Clay	0.063 - 0.1 mm	None	None
10450409	IP456	1.50	Dark Brown	Silty Clay Loam	0.063 - 0.1 mm	Stones	None
10450351	IP963	0.50	Dark Brown	Clay	0.063 - 0.1 mm	Stones	None
10450355	IP963	1.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	Vegetation
10450341	IP964	0.50	Dark Brown	Clay	0.063 - 0.1 mm	None	None
10450346	IP964	1.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	None
10450372	IP965	0.50	Dark Brown	Sandy Clay	0.1 - 2 mm	Stones	None
10450378	IP965	1.50	Dark Brown	Silty Clay Loam	0.063 - 0.1 mm	Stones	None
10450386	IP965	2.50	Dark Brown	Sandy Silt Loam	0.1 - 2 mm	Stones	None
10450397	IP965	3.50	Dark Brown	Sandy Silt Loam	0.1 - 2 mm	Stones	None
10450319	TPE457	0.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	None
10450361	TPE457	1.50	Dark Brown	Sandy Silt Loam	0.1 - 2 mm	Stones	None
10450367	TPE457	2.50	Dark Brown	Silty Clay Loam	0.063 - 0.1 mm	Stones	None

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

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CERTIFICATE OF ANALYSIS

SDG: 141126-70
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1004
Report Number: 294873
Superseded Report:

PAH by GCMS

Results Legend		Customer Sample R	TPE457		TPE457				
#	ISO17025 accredited.								
M	mCERTS accredited.								
aq	Aqueous / settled sample.								
diss.filt	Dissolved / filtered sample.								
tot.unfilt	Total / unfiltered sample.								
*	Subcontracted test.								
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery								
(F)	Trigger breach confirmed								
1-5&\$#@	Sample deviation (see appendix)								
	AGS Reference								
Component	LOD/Units		Method						
Naphthalene-d8 % recovery**	%	TM218	102		103				
Acenaphthene-d10 % recovery**	%	TM218	97.8		98.7				
Phenanthrene-d10 % recovery**	%	TM218	94.7		96.1				
Chrysene-d12 % recovery**	%	TM218	90.5		93.6				
Perylene-d12 % recovery**	%	TM218	81.5		86.5				
Naphthalene	<9 µg/kg	TM218	12		28.9				
Acenaphthylene	<12 µg/kg	TM218		M		M			
Acenaphthene	<8 µg/kg	TM218	<12		<12				
				M		M			
Fluorene	<10 µg/kg	TM218	<8		<8				
				M		M			
Phenanthrene	<15 µg/kg	TM218	<10		17.8				
				M		M			
Anthracene	<16 µg/kg	TM218	91.7		241				
				M		M			
Fluoranthene	<17 µg/kg	TM218	<16		74.1				
				M		M			
Pyrene	<17 µg/kg	TM218	28.2		572				
				M		M			
Pyrene	<15 µg/kg	TM218	17.2		371				
				M		M			
Benz(a)anthracene	<14 µg/kg	TM218	<14		341				
				M		M			
Chrysene	<10 µg/kg	TM218	<10		330				
				M		M			
Benzo(b)fluoranthene	<15 µg/kg	TM218	38		383				
				M		M			
Benzo(k)fluoranthene	<14 µg/kg	TM218	<14		142				
				M		M			
Benzo(a)pyrene	<15 µg/kg	TM218	<15		249				
				M		M			
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218	<18		160				
				M		M			
Dibenzo(a,h)anthracene	<23 µg/kg	TM218	<23		70.9				
				M		M			
Benzo(g,h,i)perylene	<24 µg/kg	TM218	<24		198				
				M		M			
PAH, Total Detected USEPA 16	<118 µg/kg	TM218	187		3180				



CERTIFICATE OF ANALYSIS

SDG: 141126-70
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Customer: Atkins Global Ltd
Attention: Jack Lowrie

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TPH CWG (S)

Results Legend		Customer Sample R						
#	ISO17025 accredited.		IP456		IP456		IP963	
M	mCERTS accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	0.50	1.50	2.50	0.50	1.50	0.50
aq	Aqueous / settled sample.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
diss.filt	Dissolved / filtered sample.		24/11/2014	24/11/2014	24/11/2014	24/11/2014	24/11/2014	24/11/2014
tot.unfilt	Total / unfiltered sample.							
*	Subcontracted test.							
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery		26/11/2014	26/11/2014	26/11/2014	26/11/2014	26/11/2014	26/11/2014
(F)	Trigger breach confirmed		141126-70	141126-70	141126-70	141126-70	141126-70	141126-70
1-5&*\$@	Sample deviation (see appendix)		10450405	10450409	10450328	10450351	10450355	10450341
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	66	84	76	82	74	72
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	<176	<176	<176	<176	328	<176
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	<20	<20	<20	<20	<20
Benzene	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
Toluene	<2 µg/kg	TM089	<8	<8	<8	<8	<8	<8
Ethylbenzene	<3 µg/kg	TM089	<12	<12	<12	<12	<12	<12
m,p-Xylene	<6 µg/kg	TM089	<24	<24	<24	<24	<24	<24
o-Xylene	<3 µg/kg	TM089	<12	<12	<12	<12	<12	<12
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	<9	<9	<9	<9	<9
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	<24	<24	<24	<24	<24
Aliphatics >C5-C6	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
Aliphatics >C6-C8	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
Aliphatics >C8-C10	<10 µg/kg	TM089	<40	<40	<40	<40	47.5	<40
Aliphatics >C10-C12	<10 µg/kg	TM089	<40	<40	<40	<40	129	<40
Aliphatics >C12-C16	<100 µg/kg	TM173	<100	<100	<100	<100	3340	<100
Aliphatics >C16-C21	<100 µg/kg	TM173	<100	<100	<100	<100	4020	<100
Aliphatics >C21-C35	<100 µg/kg	TM173	<100	<100	<100	<100	3540	8520
Aliphatics >C35-C44	<100 µg/kg	TM173	<100	<100	<100	<100	<100	<100
Total Aliphatics >C12-C44	<100 µg/kg	TM173	<100	<100	<100	<100	10900	8520
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
Aromatics >EC8-EC10	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
Aromatics >EC10-EC12	<10 µg/kg	TM089	<40	<40	<40	<40	86.3	<40
Aromatics >EC12-EC16	<100 µg/kg	TM173	<100	<100	<100	<100	523	<100
Aromatics >EC16-EC21	<100 µg/kg	TM173	<100	<100	<100	<100	1010	<100
Aromatics >EC21-EC35	<100 µg/kg	TM173	<100	<100	<100	<100	1340	<100
Aromatics >EC35-EC44	<100 µg/kg	TM173	<100	<100	<100	<100	<100	<100
Aromatics >EC40-EC44	<100 µg/kg	TM173	<100	<100	<100	<100	<100	<100
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	<100	<100	<100	<100	2870	<100
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	<100	<100	<100	<100	14100	8580



CERTIFICATE OF ANALYSIS

SDG: 141126-70
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1004
Report Number: 294873
Superseded Report:

TPH CWG (S)

Results Legend		Customer Sample R						
#	ISO17025 accredited.		IP964		IP965		IP965	
M	mCERTS accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	1.50		0.50		1.50	
aq	Aqueous / settled sample.		Soil/Solid		Soil/Solid		Soil/Solid	
diss.filt	Dissolved / filtered sample.		24/11/2014		24/11/2014		24/11/2014	
tot.unfilt	Total / unfiltered sample.		26/11/2014		26/11/2014		26/11/2014	
*	Subcontracted test.		141126-70		141126-70		141126-70	
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery		10450346		10450372		10450386	
(F)	Trigger breach confirmed							
1-5&*\$@	Sample deviation (see appendix)							
Component	LOD/Units	Method	IP964		IP965		IP965	
GRO Surrogate % recovery**	%	TM089	80		72		81	
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	<176		<176		12800	
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20		<20		<20	
Benzene	<10 µg/kg	TM089	<40		<40		<40	
Toluene	<2 µg/kg	TM089	<8		<8		<8	
Ethylbenzene	<3 µg/kg	TM089	<12		<12		<12	
m,p-Xylene	<6 µg/kg	TM089	<24		<24		<24	
o-Xylene	<3 µg/kg	TM089	<12		<12		<12	
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9		<9		<9	
sum of detected BTEX by GC	<24 µg/kg	TM089	<24		<24		<24	
Aliphatics >C5-C6	<10 µg/kg	TM089	<40		<40		<40	
Aliphatics >C6-C8	<10 µg/kg	TM089	<40		<40		41.1	
Aliphatics >C8-C10	<10 µg/kg	TM089	<40		<40		616	
Aliphatics >C10-C12	<10 µg/kg	TM089	<40		<40		7040	
Aliphatics >C12-C16	<100 µg/kg	TM173	<100		938		25500	
Aliphatics >C16-C21	<100 µg/kg	TM173	<100		670		44300	
Aliphatics >C21-C35	<100 µg/kg	TM173	<100		751		9390	
Aliphatics >C35-C44	<100 µg/kg	TM173	<100		<100		2790	
Total Aliphatics >C12-C44	<100 µg/kg	TM173	<100		2360		82000	
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40		<40		<40	
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40		<40		<40	
Aromatics >EC8-EC10	<10 µg/kg	TM089	<40		<40		411	
Aromatics >EC10-EC12	<10 µg/kg	TM089	<40		<40		4690	
Aromatics >EC12-EC16	<100 µg/kg	TM173	<100		190		3370	
Aromatics >EC16-EC21	<100 µg/kg	TM173	<100		137		11400	
Aromatics >EC21-EC35	<100 µg/kg	TM173	<100		<100		5680	
Aromatics >EC35-EC44	<100 µg/kg	TM173	<100		<100		<100	
Aromatics >EC40-EC44	<100 µg/kg	TM173	<100		<100		<100	
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	<100		327		20500	
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	<100		2690		115000	



CERTIFICATE OF ANALYSIS

SDG: 141126-70
Job: H_ATKINS_LDC-224
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Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1004
Report Number: 294873
Superseded Report:

TPH CWG (S)

Results Legend		Customer Sample R	TPE457				
#	ISO17025 accredited.						
M	mCERTS accredited.						
aq	Aqueous / settled sample.						
diss.filt	Dissolved / filtered sample.						
tot.unfilt	Total / unfiltered sample.						
*	Subcontracted test.						
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery						
(F)	Trigger breach confirmed						
1-5&*\$@	Sample deviation (see appendix)						
		Depth (m)	1.50	2.50			
		Sample Type	Soil/Solid	Soil/Solid			
		Date Sampled	24/11/2014	24/11/2014			
		Sample Time	.	.			
		Date Received	26/11/2014	26/11/2014			
		SDG Ref	141126-70	141126-70			
		Lab Sample No.(s)	10450361	10450367			
		AGS Reference					
Component	LOD/Units	Method					
GRO Surrogate % recovery**	%	TM089	78	80			
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	2890 M	<176 M			
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20 M	<20 M			
Benzene	<10 µg/kg	TM089	<40 M	<40 M			
Toluene	<2 µg/kg	TM089	<8 M	<8 M			
Ethylbenzene	<3 µg/kg	TM089	<12 M	<12 M			
m,p-Xylene	<6 µg/kg	TM089	<24 M	<24 M			
o-Xylene	<3 µg/kg	TM089	<12 M	<12 M			
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	<9			
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	<24			
Aliphatics >C5-C6	<10 µg/kg	TM089	<40	<40			
Aliphatics >C6-C8	<10 µg/kg	TM089	<40	<40			
Aliphatics >C8-C10	<10 µg/kg	TM089	821	<40			
Aliphatics >C10-C12	<10 µg/kg	TM089	891	<40			
Aliphatics >C12-C16	<100 µg/kg	TM173	3990	272			
Aliphatics >C16-C21	<100 µg/kg	TM173	6460	<100			
Aliphatics >C21-C35	<100 µg/kg	TM173	7360	<100			
Aliphatics >C35-C44	<100 µg/kg	TM173	<100	<100			
Total Aliphatics >C12-C44	<100 µg/kg	TM173	17800	272			
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	<40			
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<40			
Aromatics >EC8-EC10	<10 µg/kg	TM089	547	<40			
Aromatics >EC10-EC12	<10 µg/kg	TM089	594	<40			
Aromatics >EC12-EC16	<100 µg/kg	TM173	21800	<100			
Aromatics >EC16-EC21	<100 µg/kg	TM173	28500	3010			
Aromatics >EC21-EC35	<100 µg/kg	TM173	17600	8010			
Aromatics >EC35-EC44	<100 µg/kg	TM173	831	<100			
Aromatics >EC40-EC44	<100 µg/kg	TM173	<100	<100			
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	68600	11000			
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	89300	11300			



SDG:	141126-70	Location:	Coed Darcy	Order Number:	CD1004
Job:	H_ATKINS_LDC-224	Customer:	Atkins Global Ltd	Report Number:	294873
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Asbestos Identification - Solid Samples

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP456 0.50 SOLID 24/11/2014 00:00:00 01/12/2014 07:44:03 141126-70 10450405 TM048	5/12/14	Simon Postlewhite	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP963 0.50 SOLID 24/11/2014 00:00:00 01/12/2014 07:41:50 141126-70 10450351 TM048	5/12/14	Simon Postlewhite	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP964 0.50 SOLID 24/11/2014 00:00:00 01/12/2014 07:32:33 141126-70 10450341 TM048	5/12/14	Simon Postlewhite	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP965 0.50 SOLID 24/11/2014 00:00:00 01/12/2014 07:38:12 141126-70 10450372 TM048	5/12/14	Simon Postlewhite	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE457 0.50 SOLID 24/11/2014 00:00:00 27/11/2014 20:38:24 141126-70 10450319 TM048	5/12/14	Simon Postlewhite	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected



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Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample ¹	Surrogate Corrected
ASB_PREP				
PM001		Preparation of Samples for Metals Analysis		
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material		
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material		
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) and BTEX (MTBE) compounds by Headspace GC-FID (C4-C12)		
TM132	In - house Method	ELTRA CS800 Operators Guide		
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter		
TM173	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GC-FID		
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES		
TM218	Microwave extraction – EPA method 3546	Microwave extraction - EPA method 3546		

¹ Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.



CERTIFICATE OF ANALYSIS

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Test Completion Dates

Lab Sample No(s)	10450328	10450405	10450409	10450351	10450355	10450341	10450346	10450372	10450378	10450386
Customer Sample Ref.	IP456	IP456	IP456	IP963	IP963	IP964	IP964	IP965	IP965	IP965
AGS Ref.										
Depth	2.50	0.50	1.50	0.50	1.50	0.50	1.50	0.50	1.50	2.50
Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Asbestos ID in Solid Samples		08-Dec-2014		08-Dec-2014		08-Dec-2014		08-Dec-2014		
EPH CWG (Aliphatic) GC (S)	05-Dec-2014	06-Dec-2014	05-Dec-2014	06-Dec-2014	04-Dec-2014	06-Dec-2014	05-Dec-2014	04-Dec-2014	05-Dec-2014	05-Dec-2014
EPH CWG (Aromatic) GC (S)	05-Dec-2014	06-Dec-2014	05-Dec-2014	06-Dec-2014	04-Dec-2014	06-Dec-2014	05-Dec-2014	04-Dec-2014	05-Dec-2014	05-Dec-2014
GRO by GC-FID (S)	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	08-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014
Metals in solid samples by OES	08-Dec-2014	04-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	08-Dec-2014	08-Dec-2014	04-Dec-2014	05-Dec-2014	05-Dec-2014
PAH by GCMS	07-Dec-2014	06-Dec-2014	06-Dec-2014	06-Dec-2014	07-Dec-2014	06-Dec-2014	05-Dec-2014	07-Dec-2014	06-Dec-2014	06-Dec-2014
pH	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014
Sample description	27-Nov-2014	28-Nov-2014	27-Nov-2014	28-Nov-2014	01-Dec-2014	28-Nov-2014	27-Nov-2014	01-Dec-2014	27-Nov-2014	27-Nov-2014
Total Organic Carbon		08-Dec-2014		03-Dec-2014				08-Dec-2014		
TPH CWG GC (S)	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	08-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014

Lab Sample No(s)	10450397	10450319	10450361	10450367
Customer Sample Ref.	IP965	TPE457	TPE457	TPE457
AGS Ref.				
Depth	3.50	0.50	1.50	2.50
Type	SOLID	SOLID	SOLID	SOLID
Asbestos ID in Solid Samples		08-Dec-2014		
EPH CWG (Aliphatic) GC (S)	05-Dec-2014	04-Dec-2014	05-Dec-2014	05-Dec-2014
EPH CWG (Aromatic) GC (S)	05-Dec-2014	04-Dec-2014	05-Dec-2014	05-Dec-2014
GRO by GC-FID (S)	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014
Metals in solid samples by OES	05-Dec-2014	04-Dec-2014	05-Dec-2014	08-Dec-2014
PAH by GCMS	06-Dec-2014	07-Dec-2014	06-Dec-2014	06-Dec-2014
pH	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014
Sample description	27-Nov-2014	01-Dec-2014	27-Nov-2014	27-Nov-2014
Total Organic Carbon		04-Dec-2014		
TPH CWG GC (S)	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014



SDG:	141126-70	Location:	Coed Darcy	Order Number:	CD1004
Job:	H_ATKINS_LDC-224	Customer:	Atkins Global Ltd	Report Number:	294873
Client Reference:	Site Wide Trial Pitting	Attention:	Jack Lowrie	Superseded Report:	

Appendix General

1. Results are expressed on a dry weight basis (dried at 35°C) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICS and SVOC TICS.
2. Samples will be run in duplicate upon request, but an additional charge may be incurred.
3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.
4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.
5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.
6. When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as "Not detected". If no asbestos fibre types are found all will be reported as "Not detected" and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible. The quantity of asbestos present is not determined unless specifically requested.
7. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.
8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.
9. NDP -No determination possible due to insufficient/unsuitable sample.
10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals -total metals must be requested separately.
11. Results relate only to the items tested.
12. LODs for wet tests reported on a dry weight basis are not corrected for moisture content.
13. **Surrogate recoveries** -Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted. Acceptable limits for most organic methods are 70 -130 %.
14. **Product analyses** -Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors employed.
15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethylphenol, 3,5 Dimethylphenol).
16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 15).
17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.
18. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.
19. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

20. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.
21. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.
22. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill /made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.
23. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

Sample Deviations

1	Container with Headspace provided for volatiles analysis
2	Incorrect container received
3	Deviation from method
4	Holding time exceeded before sample received
5	Samples exceeded holding time before preservation was performed
\$	Sampled on date not provided
♦	Sample holding time exceeded in laboratory
@	Sample holding time exceeded due to sampled on date
&	Sample Holding Time exceeded - Late arrival of instructions.

Asbestos

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than :
- Trace - Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.



Atkins Global Ltd
Project Jonah site office
Llan Coed House
Suite 24
Coed Darcy
Llandarcy
SA10 6HJ

Attention: Jack Lowrie

CERTIFICATE OF ANALYSIS

Date: 06 February 2015
Customer: H_ATKINS_LDC
Sample Delivery Group (SDG): 141126-46
Your Reference: Site Wide Trial Pitting
Location: Coed Darcy
Report No: 300867

We received 29 samples on Wednesday November 26, 2014 and 29 of these samples were scheduled for analysis which was completed on Friday February 06, 2015. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

All chemical testing (unless subcontracted) is performed at ALcontrol Hawarden Laboratories.

Approved By:

Sonia McWhan

Operations Manager





SDG: 141126-46
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1007
Report Number: 300867
Superseded Report:

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
10448652	IP795		0.50	25/11/2014
10448614	IP797		0.50	25/11/2014
10448648	IP798		0.20	25/11/2014
10448720	IP800		0.50	25/11/2014
10448698	IP802		0.50	25/11/2014
10448690	IP805		0.50	25/11/2014
10448694	IP805		1.50	25/11/2014
10448638	IP806		0.50	25/11/2014
10448644	IP806		1.50	25/11/2014
10448634	IP807		0.50	25/11/2014
10448618	IP808		0.50	25/11/2014
10448625	IP862		0.50	25/11/2014
10448630	IP862		1.50	25/11/2014
10448707	IP863		0.50	25/11/2014
10448667	IP868		0.50	25/11/2014
10448726	IP0869		0.50	25/11/2014
10448680	IP0886		0.50	25/11/2014
10448685	IP0886		1.00	25/11/2014
10448663	IP0887		0.50	25/11/2014
10448676	IP961		0.50	25/11/2014
10448740	IP962		0.50	25/11/2014
10448744	IP962		1.50	25/11/2014
10448716	TPE0394		0.50	25/11/2014
10448711	TPE399		0.50	25/11/2014
10448702	TPE400		0.50	25/11/2014
10448671	TPE452		0.50	25/11/2014
10448656	TPE453		0.50	25/11/2014
10448730	TPE454		0.50	25/11/2014
10448736	TPE454		1.50	25/11/2014

Only received samples which have had analysis scheduled will be shown on the following pages.



SDG: 141126-46
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1007
Report Number: 300867
Superseded Report:

SOLID Results Legend X Test N No Determination Possible	Lab Sample No(s)		Customer Sample Reference		AGS Reference		Depth (m)		Container	
	10448707	IP863					0.50		250g Amber Jar (AL)	
	10448630	IP862					1.50		400g Tub (ALE214)	
	10448625	IP862					0.50		250g Amber Jar (AL)	
	10448618	IP808					0.50		250g Amber Jar (AL)	
	10448634	IP807					0.50		400g Tub (ALE214)	
	10448644	IP806					1.50		250g Amber Jar (AL)	
	10448638	IP806					0.50		60g VOC (ALE215)	
	10448694	IP805					1.50		400g Tub (ALE214)	
	10448690	IP805					0.50		250g Amber Jar (AL)	
	10448698	IP802					0.50		60g VOC (ALE215)	
	10448720	IP800					0.50		400g Tub (ALE214)	
	10448648	IP798					0.20		250g Amber Jar (AL)	
	10448614	IP797					0.50		60g VOC (ALE215)	
	10448652	IP795					0.50		250g Amber Jar (AL)	
Asbestos fibres in Soil*	All	NDPs: 0 Tests: 24	X	X	X	X	X	X		
Asbestos Quantification - Full	All	NDPs: 0 Tests: 2		X						
EPH CWG (Aliphatic) GC (S)	All	NDPs: 0 Tests: 29	X	X	X	X	X	X	X	X
EPH CWG (Aromatic) GC (S)	All	NDPs: 0 Tests: 29	X	X	X	X	X	X	X	X
GRO by GC-FID (S)	All	NDPs: 0 Tests: 29		X	X	X	X	X	X	X
Metals in solid samples by OES	All	NDPs: 0 Tests: 29	X	X	X	X	X	X	X	X
PAH by GCMS	All	NDPs: 0 Tests: 29	X	X	X	X	X	X	X	X
pH	All	NDPs: 0 Tests: 29	X	X	X	X	X	X	X	X
Sample description	All	NDPs: 0 Tests: 29	X	X	X	X	X	X	X	X
Total Organic Carbon	All	NDPs: 0 Tests: 10		X	X				X	X
TPH CWG GC (S)	All	NDPs: 0 Tests: 29	X	X	X	X	X	X	X	X



SDG: 141126-46
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1007
Report Number: 300867
Superseded Report:

SOLID Results Legend X Test N No Determination Possible	Lab Sample No(s)		Customer Sample Reference		AGS Reference		Depth (m)		Container	
	10448656		TPE453				0.50		60g VOC (ALE215)	
	10448671		TPE452				0.50		400g Tub (ALE214)	
	10448702		TPE400				0.50		250g Amber Jar (AL)	
	10448711		TPE399				0.50		60g VOC (ALE215)	
Asbestos fibres in Soil*	10448744		IP962				1.50		400g Tub (ALE214)	
	10448716		TPE0394				0.50		60g VOC (ALE215)	
	10448740		IP962				0.50		250g Amber Jar (AL)	
	10448676		IP961				0.50		60g VOC (ALE215)	
	10448663		IP0887				0.50		400g Tub (ALE214)	
	10448685		IP0886				1.00		250g Amber Jar (AL)	
	10448680		IP0886				0.50		60g VOC (ALE215)	
	10448726		IP0869				0.50		400g Tub (ALE214)	
	10448667		IP868				0.50		60g VOC (ALE215)	
	10448707		IP863				0.50		250g Amber Jar (AL)	
Asbestos Quantification - Full	All	NDPs: 0 Tests: 2							400g Tub (ALE214)	
EPH CWG (Aliphatic) GC (S)	All	NDPs: 0 Tests: 29							60g VOC (ALE215)	
EPH CWG (Aromatic) GC (S)	All	NDPs: 0 Tests: 29							400g Tub (ALE214)	
GRO by GC-FID (S)	All	NDPs: 0 Tests: 29							250g Amber Jar (AL)	
Metals in solid samples by OES	All	NDPs: 0 Tests: 29							60g VOC (ALE215)	
PAH by GCMS	All	NDPs: 0 Tests: 29							400g Tub (ALE214)	
pH	All	NDPs: 0 Tests: 29							250g Amber Jar (AL)	
Sample description	All	NDPs: 0 Tests: 29							60g VOC (ALE215)	
Total Organic Carbon	All	NDPs: 0 Tests: 10							400g Tub (ALE214)	
TPH CWG GC (S)	All	NDPs: 0 Tests: 29							250g Amber Jar (AL)	



SDG: 141126-46
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1007
Report Number: 300867
Superseded Report:

SOLID Results Legend X Test N No Determination Possible	Lab Sample No(s)		10448730	10448736
	Customer Sample Reference		TPE454	TPE454
	AGS Reference			
	Depth (m)		0.50	1.50
	Container		250g Amber Jar (AL 400g Tub (ALE214) 60g VOC (ALE215))	60g VOC (ALE215) 400g Tub (ALE214) 250g Amber Jar (AL 60g VOC (ALE215))
Asbestos fibres in Soil*	All	NDPs: 0 Tests: 24	X	
EPH CWG (Aliphatic) GC (S)	All	NDPs: 0 Tests: 29	X	X
EPH CWG (Aromatic) GC (S)	All	NDPs: 0 Tests: 29	X	X
GRO by GC-FID (S)	All	NDPs: 0 Tests: 29		X
Metals in solid samples by OES	All	NDPs: 0 Tests: 29	X	X
PAH by GCMS	All	NDPs: 0 Tests: 29	X	X
pH	All	NDPs: 0 Tests: 29	X	X
Sample description	All	NDPs: 0 Tests: 29	X	X
TPH CWG GC (S)	All	NDPs: 0 Tests: 29	X	X



CERTIFICATE OF ANALYSIS

SDG: 141126-46
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1007
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Sample Descriptions

Grain Sizes

very fine	<0.063mm	fine	0.063mm - 0.1mm	medium	0.1mm - 2mm	coarse	2mm - 10mm	very coarse	>10mm
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Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Grain size	Inclusions	Inclusions 2
10448652	IP795	0.50	Light Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	None
10448614	IP797	0.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	None
10448648	IP798	0.20	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	None
10448720	IP800	0.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	None
10448698	IP802	0.50	Light Brown	Sandy Clay Loam	0.1 - 2 mm	Vegetation	Stones
10448690	IP805	0.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	Vegetation
10448694	IP805	1.50	Light Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	None
10448638	IP806	0.50	Dark Brown	Sandy Clay	0.1 - 2 mm	Stones	None
10448644	IP806	1.50	Grey	Loamy Sand	0.1 - 2 mm	Stones	None
10448634	IP807	0.50	Dark Brown	Silty Clay Loam	0.1 - 2 mm	Stones	None
10448618	IP808	0.50	Dark Brown	Silty Clay	0.063 - 0.1 mm	Stones	None
10448625	IP862	0.50	Dark Brown	Sandy Clay	0.1 - 2 mm	Vegetation	Stones
10448630	IP862	1.50	Grey	Loamy Sand	0.1 - 2 mm	Oil/Petroleum	Stones
10448707	IP863	0.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Vegetation	Stones
10448667	IP868	0.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	None
10448726	IP0869	0.50	Dark Brown	Sand	0.1 - 2 mm	Stones	None
10448680	IP0886	0.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Oil/Petroleum	Stones
10448685	IP0886	1.00	Dark Brown	Silty Clay Loam	0.063 - 0.1 mm	Stones	Vegetation
10448663	IP0887	0.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Oil/Petroleum	Stones
10448676	IP961	0.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Oil/Petroleum	Stones
10448740	IP962	0.50	Dark Brown	Silty Clay	0.063 - 0.1 mm	Stones	None
10448744	IP962	1.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	Oil/Petroleum
10448716	TPE0394	0.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	None
10448711	TPE399	0.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	None
10448702	TPE400	0.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	None
10448671	TPE452	0.50	Dark Brown	Clay	0.063 - 0.1 mm	Stones	None
10448656	TPE453	0.50	Dark Brown	Clay	0.063 - 0.1 mm	Stones	None
10448730	TPE454	0.50	Dark Brown	Silty Clay	0.063 - 0.1 mm	Stones	None
10448736	TPE454	1.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	None

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

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Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1007
Report Number: 300867
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[illegible]



CERTIFICATE OF ANALYSIS

SDG: 141126-46
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1007
Report Number: 300867
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TPH CWG (S)

Results Legend		Customer Sample R						
#	ISO17025 accredited.		IP795	IP797	IP798	IP800	IP802	IP805
M	mCERTS accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	0.50	0.50	0.20	0.50	0.50	0.50
aq	Aqueous / settled sample.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
diss.filt	Dissolved / filtered sample.		25/11/2014	25/11/2014	25/11/2014	25/11/2014	25/11/2014	25/11/2014
tot.unfilt	Total / unfiltered sample.							
*	Subcontracted test.							
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed		26/11/2014	26/11/2014	26/11/2014	26/11/2014	26/11/2014	26/11/2014
1-5&*\$@	Sample deviation (see appendix)		141126-46	141126-46	141126-46	141126-46	141126-46	141126-46
			10448652	10448614	10448648	10448720	10448698	10448690
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	70	76	72	95	107	68
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	<176	3870	801	5170	<176	1170
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	<20	<20	<20	<20	<100
Benzene	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<200
Toluene	<2 µg/kg	TM089	<8	<8	<8	<8	<8	<40
Ethylbenzene	<3 µg/kg	TM089	<12	<12	<12	<12	<12	<60
m,p-Xylene	<6 µg/kg	TM089	<24	<24	<24	<24	<24	<120
o-Xylene	<3 µg/kg	TM089	<12	<12	<12	<12	<12	<60
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<36	<36	<36	<36	<36	<9
sum of detected BTEX by GC	<24 µg/kg	TM089	<96	<96	<96	<96	<96	<24
Aliphatics >C5-C6	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<200
Aliphatics >C6-C8	<10 µg/kg	TM089	<40	212	58.5	334	<40	<200
Aliphatics >C8-C10	<10 µg/kg	TM089	40.7	729	144	1010	<40	223
Aliphatics >C10-C12	<10 µg/kg	TM089	<40	1450	288	1870	<40	364
Aliphatics >C12-C16	<100 µg/kg	TM173	<100	25300	<100	128000	42200	<100
Aliphatics >C16-C21	<100 µg/kg	TM173	<100	58300	<100	285000	191000	<100
Aliphatics >C21-C35	<100 µg/kg	TM173	857	120000	<100	76000	86000	<100
Aliphatics >C35-C44	<100 µg/kg	TM173	<100	30300	<100	3310	11300	<100
Total Aliphatics >C12-C44	<100 µg/kg	TM173	857	234000	<100	492000	331000	<100
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<200
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<200
Aromatics >EC8-EC10	<10 µg/kg	TM089	<40	486	99.7	687	<40	<200
Aromatics >EC10-EC12	<10 µg/kg	TM089	<40	967	192	1240	<40	243
Aromatics >EC12-EC16	<100 µg/kg	TM173	<100	3640	<100	6080	1700	<100
Aromatics >EC16-EC21	<100 µg/kg	TM173	<100	34900	<100	57300	15100	2080
Aromatics >EC21-EC35	<100 µg/kg	TM173	3770	130000	<100	32600	39700	5390
Aromatics >EC35-EC44	<100 µg/kg	TM173	4410	42000	<100	803	16200	<100
Aromatics >EC40-EC44	<100 µg/kg	TM173	2480	17400	<100	<100	5960	<100
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	8180	211000	<100	96700	72800	7470
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	9180	448000	801	594000	404000	8650



CERTIFICATE OF ANALYSIS

SDG: 141126-46
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1007
Report Number: 300867
Superseded Report:

TPH CWG (S)

Results Legend		Customer Sample R						
#	ISO17025 accredited.		IP805	IP806	IP806	IP807	IP808	IP862
M	mCERTS accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	1.50	0.50	1.50	0.50	0.50	0.50
aq	Aqueous / settled sample.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
diss.filt	Dissolved / filtered sample.		25/11/2014	25/11/2014	25/11/2014	25/11/2014	25/11/2014	25/11/2014
tot.unfilt	Total / unfiltered sample.							
*	Subcontracted test.							
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed		26/11/2014	26/11/2014	26/11/2014	26/11/2014	26/11/2014	26/11/2014
1-5&*&@	Sample deviation (see appendix)		141126-46	141126-46	141126-46	141126-46	141126-46	141126-46
			10448694	10448638	10448644	10448634	10448618	10448625
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	81	82	101	103	71	69
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	624	724	<176	1340000	78000	4050
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	<20	<20	<100	<20	<20
Benzene	<10 µg/kg	TM089	<40	<40	<40	<200	<40	<40
Toluene	<2 µg/kg	TM089	<8	<8	<8	<40	<8	<8
Ethylbenzene	<3 µg/kg	TM089	<12	<12	<12	<60	<12	<12
m,p-Xylene	<6 µg/kg	TM089	<24	<24	<24	<120	<24	<24
o-Xylene	<3 µg/kg	TM089	<12	<12	<12	<60	<12	<12
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	<36	<36	<9	<36	<36
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	<96	<96	<24	<96	<96
Aliphatics >C5-C6	<10 µg/kg	TM089	<40	<40	<40	2450	805	117
Aliphatics >C6-C8	<10 µg/kg	TM089	47.9	231	<40	89400	18900	696
Aliphatics >C8-C10	<10 µg/kg	TM089	94.6	119	<40	226000	17100	803
Aliphatics >C10-C12	<10 µg/kg	TM089	245	158	<40	521000	17900	1120
Aliphatics >C12-C16	<100 µg/kg	TM173	<100	<100	<100	23900	158000	4230
Aliphatics >C16-C21	<100 µg/kg	TM173	<100	1750	<100	4120	17100	4740
Aliphatics >C21-C35	<100 µg/kg	TM173	<100	13500	<100	10900	13900	37100
Aliphatics >C35-C44	<100 µg/kg	TM173	<100	1430	<100	1520	<100	3890
Total Aliphatics >C12-C44	<100 µg/kg	TM173	<100	16700	<100	40500	189000	49900
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	<40	<40	<200	<40	<40
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<40	<40	<200	<40	<40
Aromatics >EC8-EC10	<10 µg/kg	TM089	63.8	79.2	<40	151000	11400	535
Aromatics >EC10-EC12	<10 µg/kg	TM089	164	105	<40	347000	11900	750
Aromatics >EC12-EC16	<100 µg/kg	TM173	<100	<100	<100	1360	17700	890
Aromatics >EC16-EC21	<100 µg/kg	TM173	<100	<100	<100	<100	2820	585
Aromatics >EC21-EC35	<100 µg/kg	TM173	<100	<100	<100	<100	2460	5060
Aromatics >EC35-EC44	<100 µg/kg	TM173	<100	<100	<100	<100	<100	2230
Aromatics >EC40-EC44	<100 µg/kg	TM173	<100	<100	<100	<100	<100	323
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	<100	<100	<100	1360	23000	8770
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	624	17400	<100	1380000	290000	62700



CERTIFICATE OF ANALYSIS

SDG: 141126-46
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1007
Report Number: 300867
Superseded Report:

TPH CWG (S)

Results Legend		Customer Sample R	IP862		IP863		IP868		IP0869		IP0886		IP0886	
#	ISO17025 accredited.		1.50	Soil/Solid	0.50	Soil/Solid	0.50	Soil/Solid	0.50	Soil/Solid	0.50	Soil/Solid	1.00	Soil/Solid
M	mCERTS accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	25/11/2014	25/11/2014	25/11/2014	25/11/2014	25/11/2014	25/11/2014	25/11/2014	25/11/2014	25/11/2014	25/11/2014	25/11/2014	25/11/2014
aq	Aqueous / settled sample.													
diss.filt	Dissolved / filtered sample.													
tot.unfilt	Total / unfiltered sample.													
*	Subcontracted test.													
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery													
(F)	Trigger breach confirmed													
1-5&*&@	Sample deviation (see appendix)													
Component	LOD/Units		Method											
GRO Surrogate % recovery**	%		TM089	140	68	93	104	94	91					
GRO TOT (Moisture Corrected)	<44 µg/kg		TM089	4350000 3 ♦ M	868 ♦ M	<176 ♦ M	<176 ♦ M	5570 ♦ M	7170 ♦ M					
Methyl tertiary butyl ether (MTBE)	<5 µg/kg		TM089	<100 ♦ M	<20 ♦ M	<20 ♦ M	<20 ♦ M	<20 ♦ M	<20 ♦ M					
Benzene	<10 µg/kg		TM089	961 ♦ M	<40 ♦ M	<40 ♦ M	<40 ♦ M	<40 ♦ M	<40 ♦ M					
Toluene	<2 µg/kg		TM089	<40 ♦ M	<8 ♦ M	<8 ♦ M	<8 ♦ M	<8 ♦ M	<8 ♦ M					
Ethylbenzene	<3 µg/kg		TM089	<60 ♦ M	<12 ♦ M	<12 ♦ M	<12 ♦ M	<12 ♦ M	<12 ♦ M					
m,p-Xylene	<6 µg/kg		TM089	<120 ♦ M	<24 ♦ M	<24 ♦ M	<24 ♦ M	<24 ♦ M	<24 ♦ M					
o-Xylene	<3 µg/kg		TM089	<60 ♦ M	<12 ♦ M	<12 ♦ M	<12 ♦ M	<12 ♦ M	<12 ♦ M					
sum of detected mpo xylene by GC	<9 µg/kg		TM089	<9 ♦	<36 ♦	<36 ♦	<36 ♦	<36 ♦	<36 ♦					
sum of detected BTEX by GC	<24 µg/kg		TM089	961 ♦	<96 ♦	<96 ♦	<96 ♦	<96 ♦	<96 ♦					
Aliphatics >C5-C6	<10 µg/kg		TM089	28200 ♦	<40 ♦	<40 ♦	<40 ♦	<40 ♦	<40 ♦					
Aliphatics >C6-C8	<10 µg/kg		TM089	886000 ♦	87.7 ♦	<40 ♦	<40 ♦	295 ♦	450 ♦					
Aliphatics >C8-C10	<10 µg/kg		TM089	1150000 ♦	127 ♦	<40 ♦	<40 ♦	1030 ♦	1310 ♦					
Aliphatics >C10-C12	<10 µg/kg		TM089	912000 ♦	325 ♦	<40 ♦	<40 ♦	2120 ♦	2710 ♦					
Aliphatics >C12-C16	<100 µg/kg		TM173	445000	<100	35100	<100	459000	226000					
Aliphatics >C16-C21	<100 µg/kg		TM173	6230	<100	98300	<100	695000	393000					
Aliphatics >C21-C35	<100 µg/kg		TM173	<100	5850	147000	<100	422000	431000					
Aliphatics >C35-C44	<100 µg/kg		TM173	<100	<100	33200	<100	81700	96000					
Total Aliphatics >C12-C44	<100 µg/kg		TM173	451000	5850	314000	<100	1660000	1150000					
Aromatics >EC5-EC7	<10 µg/kg		TM089	961 ♦	<40 ♦	<40 ♦	<40 ♦	<40 ♦	<40 ♦					
Aromatics >EC7-EC8	<10 µg/kg		TM089	<200 ♦	<40 ♦	<40 ♦	<40 ♦	<40 ♦	<40 ♦					
Aromatics >EC8-EC10	<10 µg/kg		TM089	765000 ♦	89.9 ♦	<40 ♦	<40 ♦	689 ♦	874 ♦					
Aromatics >EC10-EC12	<10 µg/kg		TM089	608000 ♦	216 ♦	<40 ♦	<40 ♦	1410 ♦	1810 ♦					
Aromatics >EC12-EC16	<100 µg/kg		TM173	83400	808	53400	<100	36400	14500					
Aromatics >EC16-EC21	<100 µg/kg		TM173	6070	826	476000	<100	145000	77500					
Aromatics >EC21-EC35	<100 µg/kg		TM173	<100	5550	822000	<100	219000	238000					
Aromatics >EC35-EC44	<100 µg/kg		TM173	<100	2420	202000	<100	74900	110000					
Aromatics >EC40-EC44	<100 µg/kg		TM173	<100	534	75500	<100	29900	45500					
Total Aromatics >EC12-EC44	<100 µg/kg		TM173	89500	9600	1550000	<100	475000	440000					
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg		TM173	4890000	16300	1870000	<100	2140000	1590000					



CERTIFICATE OF ANALYSIS

SDG: 141126-46
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1007
Report Number: 300867
Superseded Report:

TPH CWG (S)

Results Legend		Customer Sample R						
#	ISO17025 accredited.		IP0887	IP961	IP962	IP962	TPE0394	TPE399
M	mCERTS accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	0.50	0.50	0.50	1.50	0.50	0.50
aq	Aqueous / settled sample.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
diss.filt	Dissolved / filtered sample.		25/11/2014	25/11/2014	25/11/2014	25/11/2014	25/11/2014	25/11/2014
tot.unfilt	Total / unfiltered sample.							
*	Subcontracted test.							
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery		26/11/2014	26/11/2014	26/11/2014	26/11/2014	26/11/2014	26/11/2014
(F)	Trigger breach confirmed		141126-46	141126-46	141126-46	141126-46	141126-46	141126-46
1-5&\$@	Sample deviation (see appendix)		10448663	10448676	10448740	10448744	10448716	10448711
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	71	107	88	85	82	68
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	36100	81000	50200	50800	556	14400
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	88.9	78.7	<20	<20	<20	<20
Benzene	<10 µg/kg	TM089	<40	46.7	<40	<40	<40	<40
Toluene	<2 µg/kg	TM089	<8	<8	<8	<8	<8	<8
Ethylbenzene	<3 µg/kg	TM089	<12	<12	<12	<12	<12	<12
m,p-Xylene	<6 µg/kg	TM089	<24	<24	<24	<24	<24	61
o-Xylene	<3 µg/kg	TM089	<12	<12	<12	<12	<12	<12
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	<9	<9	<9	<36	61
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	46.7	<24	<24	<96	<96
Aliphatics >C5-C6	<10 µg/kg	TM089	83.2	77.5	<40	<40	<40	67.8
Aliphatics >C6-C8	<10 µg/kg	TM089	6070	10100	217	373	<40	808
Aliphatics >C8-C10	<10 µg/kg	TM089	9680	22400	11600	14000	96.6	2530
Aliphatics >C10-C12	<10 µg/kg	TM089	8230	20000	18300	16200	208	5550
Aliphatics >C12-C16	<100 µg/kg	TM173	430000	654000	1720	<100	3220	231000
Aliphatics >C16-C21	<100 µg/kg	TM173	474000	647000	<100	<100	8010	340000
Aliphatics >C21-C35	<100 µg/kg	TM173	432000	952000	<100	<100	31000	436000
Aliphatics >C35-C44	<100 µg/kg	TM173	83000	232000	<100	<100	8750	97300
Total Aliphatics >C12-C44	<100 µg/kg	TM173	1420000	2480000	1720	<100	51000	1100000
Aromatics >EC5-EC7	<10 µg/kg	TM089	44.5	46.7	<40	<40	<40	<40
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
Aromatics >EC8-EC10	<10 µg/kg	TM089	6450	14900	7740	9360	66.6	1740
Aromatics >EC10-EC12	<10 µg/kg	TM089	5480	13400	12200	10800	139	3700
Aromatics >EC12-EC16	<100 µg/kg	TM173	21400	75600	3290	<100	<100	22600
Aromatics >EC16-EC21	<100 µg/kg	TM173	104000	260000	985	1150	1160	100000
Aromatics >EC21-EC35	<100 µg/kg	TM173	216000	672000	4470	3590	19600	257000
Aromatics >EC35-EC44	<100 µg/kg	TM173	77000	240000	2770	2670	5380	100000
Aromatics >EC40-EC44	<100 µg/kg	TM173	31000	90700	1270	1220	1680	39600
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	418000	1250000	11500	7400	26200	480000
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	1870000	3810000	63400	58200	77700	1600000



CERTIFICATE OF ANALYSIS

SDG: 141126-46
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1007
Report Number: 300867
Superseded Report:

TPH CWG (S)

Results Legend		Customer Sample R					
#	ISO17025 accredited.		TPE400	TPE452	TPE453	TPE454	TPE454
M	mCERTS accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	0.50	0.50	0.50	0.50	1.50
aq	Aqueous / settled sample.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
diss.filt	Dissolved / filtered sample.		25/11/2014	25/11/2014	25/11/2014	25/11/2014	25/11/2014
tot.unfilt	Total / unfiltered sample.						
*	Subcontracted test.						
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery		26/11/2014	26/11/2014	26/11/2014	26/11/2014	26/11/2014
(F)	Trigger breach confirmed		141126-46	141126-46	141126-46	141126-46	141126-46
1-5&*\$@	Sample deviation (see appendix)		10448702	10448671	10448656	10448730	10448736
Component	LOD/Units	Method					
GRO Surrogate % recovery**	%	TM089	95	89	113	73	62
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	32600	45200	56200	<176	<176
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	<20	151	<20	<20
Benzene	<10 µg/kg	TM089	<40	<40	<40	<40	<40
Toluene	<2 µg/kg	TM089	<8	<8	<8	<8	<8
Ethylbenzene	<3 µg/kg	TM089	<12	<12	<12	<12	<12
m,p-Xylene	<6 µg/kg	TM089	<24	<24	<24	<24	<24
o-Xylene	<3 µg/kg	TM089	<12	<12	<12	<12	<12
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<36	<9	<9	<9	<9
sum of detected BTEX by GC	<24 µg/kg	TM089	<96	<24	<24	<24	<24
Aliphatics >C5-C6	<10 µg/kg	TM089	549	196	132	<40	<40
Aliphatics >C6-C8	<10 µg/kg	TM089	8670	5690	4450	<40	<40
Aliphatics >C8-C10	<10 µg/kg	TM089	5910	12900	16300	<40	<40
Aliphatics >C10-C12	<10 µg/kg	TM089	8110	10600	14500	<40	<40
Aliphatics >C12-C16	<100 µg/kg	TM173	73800	300000	9460	3960	<100
Aliphatics >C16-C21	<100 µg/kg	TM173	9430	283000	14500	6610	<100
Aliphatics >C21-C35	<100 µg/kg	TM173	15500	374000	19500	12400	<100
Aliphatics >C35-C44	<100 µg/kg	TM173	<100	67900	<100	<100	<100
Total Aliphatics >C12-C44	<100 µg/kg	TM173	98700	1030000	43500	22900	<100
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	<40	<40	<40	<40
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<40	<40	<40	<40
Aromatics >EC8-EC10	<10 µg/kg	TM089	3940	8610	10900	<40	<40
Aromatics >EC10-EC12	<10 µg/kg	TM089	5400	7090	9680	<40	<40
Aromatics >EC12-EC16	<100 µg/kg	TM173	10200	19500	<100	<100	<100
Aromatics >EC16-EC21	<100 µg/kg	TM173	1740	71200	3310	3570	2190
Aromatics >EC21-EC35	<100 µg/kg	TM173	7580	224000	14800	11600	5840
Aromatics >EC35-EC44	<100 µg/kg	TM173	<100	92100	6620	6280	3160
Aromatics >EC40-EC44	<100 µg/kg	TM173	<100	35800	2990	2750	1320
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	19500	407000	24700	21500	11200
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	151000	1480000	124000	44400	11200



SDG:	141126-46	Location:	Coed Darcy	Order Number:	CD1007
Job:	H_ATKINS_LDC-224	Customer:	Atkins Global Ltd	Report Number:	300867
Client Reference:	Site Wide Trial Pitting	Attention:	Jack Lowrie	Superseded Report:	

Asbestos Quantification - Full

Additional Asbestos Components (Using TM048)	Analysts Comments	Asbestos Quantification - Gravimetric - %	Asbestos Quantification - PCOM Evaluation - %	Asbestos Quantification - Total - %
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Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP797 0.50 SOLID 25/11/2014 00:00:00 14/01/2015 09:04:50 141126-46 10448614 TM 304	None (#)	N/C	<0.001 (#)	<0.001 (#)	<0.001 (#)
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP868 0.50 SOLID 25/11/2014 00:00:00 14/01/2015 09:01:47 141126-46 10448667 TM 304	None (#)	N/C	<0.001 (#)	<0.001 (#)	<0.001 (#)



SDG:	141126-46	Location:	Coed Darcy	Order Number:	CD1007
Job:	H_ATKINS_LDC-224	Customer:	Atkins Global Ltd	Report Number:	300867
Client Reference:	Site Wide Trial Pitting	Attention:	Jack Lowrie	Superseded Report:	

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample ¹	Surrogate Corrected
ASB_PREP				
PM001		Preparation of Samples for Metals Analysis		
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material		
SUB (ASB)				
TM 304				
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) and BTEX (MTBE) compounds by Headspace GC-FID (C4-C12)		
TM132	In - house Method	ELTRA CS800 Operators Guide		
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter		
TM173	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GC-FID		
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES		
TM218	Microwave extraction – EPA method 3546	Microwave extraction - EPA method 3546		

¹ Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.



CERTIFICATE OF ANALYSIS

SDG: 141126-46
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD1007
Report Number: 300867
Superseded Report:

Test Completion Dates

Lab Sample No(s)	10448652	10448614	10448648	10448720	10448698	10448690	10448694	10448638	10448644	10448634
Customer Sample Ref.	IP795	IP797	IP798	IP800	IP802	IP805	IP805	IP806	IP806	IP807
AGS Ref.										
Depth	0.50	0.50	0.20	0.50	0.50	0.50	1.50	0.50	1.50	0.50
Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Asbestos fibres in Soil*	08-Dec-2014	08-Dec-2014	08-Dec-2014	08-Dec-2014	08-Dec-2014	08-Dec-2014		08-Dec-2014		08-Dec-2014
Asbestos Quantification - Full		06-Feb-2015								
EPH CWG (Aliphatic) GC (S)	15-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014
EPH CWG (Aromatic) GC (S)	15-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014
GRO by GC-FID (S)	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	19-Dec-2014	18-Dec-2014	20-Dec-2014	20-Dec-2014	23-Dec-2014
Metals in solid samples by OES	10-Dec-2014	11-Dec-2014	11-Dec-2014	12-Dec-2014	16-Dec-2014	16-Dec-2014	12-Dec-2014	16-Dec-2014	12-Dec-2014	16-Dec-2014
PAH by GCMS	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	16-Dec-2014	16-Dec-2014	16-Dec-2014
pH	17-Dec-2014	16-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014
Sample description	05-Dec-2014	04-Dec-2014	05-Dec-2014	04-Dec-2014	08-Dec-2014	08-Dec-2014	05-Dec-2014	08-Dec-2014	05-Dec-2014	08-Dec-2014
Total Organic Carbon		15-Dec-2014	15-Dec-2014			12-Dec-2014		12-Dec-2014		
TPH CWG GC (S)	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	19-Dec-2014	18-Dec-2014	20-Dec-2014	20-Dec-2014	23-Dec-2014
Lab Sample No(s)	10448618	10448625	10448630	10448707	10448667	10448726	10448680	10448685	10448663	10448676
Customer Sample Ref.	IP808	IP862	IP862	IP863	IP868	IP0869	IP0886	IP0886	IP0887	IP961
AGS Ref.										
Depth	0.50	0.50	1.50	0.50	0.50	0.50	0.50	1.00	0.50	0.50
Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Asbestos fibres in Soil*	08-Dec-2014	08-Dec-2014		08-Dec-2014	08-Dec-2014	08-Dec-2014	08-Dec-2014	08-Dec-2014	08-Dec-2014	08-Dec-2014
Asbestos Quantification - Full					06-Feb-2015					
EPH CWG (Aliphatic) GC (S)	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	18-Dec-2014	18-Dec-2014	17-Dec-2014	18-Dec-2014	17-Dec-2014	17-Dec-2014
EPH CWG (Aromatic) GC (S)	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	18-Dec-2014	18-Dec-2014	17-Dec-2014	18-Dec-2014	17-Dec-2014	17-Dec-2014
GRO by GC-FID (S)	20-Dec-2014	20-Dec-2014	23-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	18-Dec-2014	19-Dec-2014
Metals in solid samples by OES	11-Dec-2014	16-Dec-2014	12-Dec-2014	16-Dec-2014	10-Dec-2014	12-Dec-2014	16-Dec-2014	11-Dec-2014	16-Dec-2014	16-Dec-2014
PAH by GCMS	17-Dec-2014	16-Dec-2014	16-Dec-2014	16-Dec-2014	17-Dec-2014	17-Dec-2014	16-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014
pH	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	16-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014
Sample description	08-Dec-2014	08-Dec-2014	05-Dec-2014	08-Dec-2014	04-Dec-2014	04-Dec-2014	08-Dec-2014	28-Nov-2014	08-Dec-2014	08-Dec-2014
Total Organic Carbon		12-Dec-2014		12-Dec-2014	15-Dec-2014	15-Dec-2014				12-Dec-2014
TPH CWG GC (S)	20-Dec-2014	20-Dec-2014	23-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	18-Dec-2014	19-Dec-2014
Lab Sample No(s)	10448740	10448744	10448716	10448711	10448702	10448671	10448656	10448730	10448736	
Customer Sample Ref.	IP962	IP962	TPE0394	TPE399	TPE400	TPE452	TPE453	TPE454	TPE454	
AGS Ref.										
Depth	0.50	1.50	0.50	0.50	0.50	0.50	0.50	0.50	1.50	
Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	
Asbestos fibres in Soil*	08-Dec-2014		08-Dec-2014	08-Dec-2014	08-Dec-2014	08-Dec-2014	08-Dec-2014	08-Dec-2014		
EPH CWG (Aliphatic) GC (S)	17-Dec-2014	18-Dec-2014	18-Dec-2014	17-Dec-2014	17-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	
EPH CWG (Aromatic) GC (S)	17-Dec-2014	18-Dec-2014	18-Dec-2014	17-Dec-2014	17-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	
GRO by GC-FID (S)	18-Dec-2014	18-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	19-Dec-2014	
Metals in solid samples by OES	16-Dec-2014	09-Dec-2014	12-Dec-2014	16-Dec-2014	16-Dec-2014	11-Dec-2014	11-Dec-2014	11-Dec-2014	09-Dec-2014	
PAH by GCMS	16-Dec-2014	17-Dec-2014	17-Dec-2014	16-Dec-2014	16-Dec-2014	17-Dec-2014	12-Dec-2014	16-Dec-2014	17-Dec-2014	
pH	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	
Sample description	11-Dec-2014	27-Nov-2014	04-Dec-2014	08-Dec-2014	08-Dec-2014	28-Nov-2014	28-Nov-2014	28-Nov-2014	27-Nov-2014	
Total Organic Carbon						15-Dec-2014				
TPH CWG GC (S)	18-Dec-2014	18-Dec-2014	20-Dec-2014	20-Dec-2014	20-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	19-Dec-2014	



Certificate of Analysis

Certificate Number 14-21947

05-Dec-14

Client Alcontrol Laboratories
Units 7 & 8
Hawarden Business Park
Manor Road
Hawarden
Deeside
CH5 3US

Our Reference 14-21947

Client Reference 141126-46

Contract Title 141126-46

Description 24 Soil samples.

Date Received 28-Nov-14

Date Started 28-Nov-14

Date Completed 05-Dec-14

Test Procedures Asbestos Analysis DETSC 1101.

Notes Opinions and interpretations are outside the scope of UKAS accreditation. 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. Observations and interpretations are outside the scope of ISO 17025. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

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

Rob Brown
Business Manager



Summary of Asbestos Analysis

Soil Samples

Our Ref 14-21947
 Client Ref 141126-46
 Contract Title 141126-46

Lab No	Sample ID	Material Type	Result	Comment*	Analyst
739289	10457826 IP0869 0.50	SOIL	NAD	none	Jeff Cruddas
739290	10457190 IP0886 0.50	SOIL	NAD	none	Jeff Cruddas
739291	10457212 IP0886 1.00	SOIL	NAD	none	Jeff Cruddas
739292	10457233 IP0887 0.50	SOIL	NAD	none	Jeff Cruddas
739293	10457927 IP795 0.50	SOIL	NAD	none	Jeff Cruddas
739294	10457740 IP797 0.50	SOIL	Chrysotile	Chrysotile present as fibre bundles	Jeff Cruddas
739295	10457969 IP798 0.20	SOIL	NAD	none	Jeff Cruddas
739296	10457781 IP800 0.50	SOIL	NAD	none	Jeff Cruddas
739297	10457647 IP802 0.50	SOIL	NAD	none	Jeff Cruddas
739298	10457168 IP805 0.50	SOIL	NAD	none	Jeff Cruddas
739299	10457721 IP806 0.50	SOIL	NAD	none	Jeff Cruddas
739300	10457943 IP807 0.50	SOIL	NAD	none	Jeff Cruddas
739301	10457959 IP808 0.50	SOIL	NAD	none	Jeff Cruddas
739302	10457660 IP862 0.50	SOIL	NAD	none	Jeff Cruddas
739303	10457652 IP863 0.50	SOIL	NAD	none	Jeff Cruddas
739304	10457762 IP868 0.50	SOIL	Chrysotile	Chrysotile present as fibre bundles	Jeff Cruddas
739305	10457174 IP961 0.50	SOIL	NAD	none	Jeff Cruddas
739306	10457128 IP962 0.50	SOIL	NAD	none	Jeff Cruddas
739307	10457803 TPE0394 0.50	SOIL	NAD	none	Jeff Cruddas
739308	10457866 TPE399 0.50	SOIL	NAD	none	Jeff Cruddas
739309	10457642 TPE400 0.50	SOIL	NAD	none	Jeff Cruddas
739310	10457257 TPE452 0.50	SOIL	NAD	none	Jeff Cruddas
739311	10457262 TPE453 0.50	SOIL	NAD	none	Jeff Cruddas
739312	10457134 TPE454 0.50	SOIL	NAD	none	Jeff Cruddas

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: * -not included in laboratory scope of accreditation.

Information in Support of the Analytical Results

Our Ref 14-21947
 Client Ref 141126-46
 Contract 141126-46

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
739289	10457826 0.50 SOIL	25/11/14	PT 500ml		
739290	10457190 0.50 SOIL	25/11/14	PT 500ml		
739291	10457212 1.00 SOIL	25/11/14	PT 500ml		
739292	10457233 0.50 SOIL	25/11/14	PT 500ml		
739293	10457927 0.50 SOIL	25/11/14	PT 500ml		
739294	10457740 0.50 SOIL	25/11/14	PT 500ml		
739295	10457969 0.20 SOIL	25/11/14	PT 500ml		
739296	10457781 0.50 SOIL	25/11/14	PT 500ml		
739297	10457647 0.50 SOIL	25/11/14	PT 500ml		
739298	10457168 0.50 SOIL	25/11/14	PT 500ml		
739299	10457721 0.50 SOIL	25/11/14	PT 500ml		
739300	10457943 0.50 SOIL	25/11/14	PT 500ml		
739301	10457959 0.50 SOIL	25/11/14	PT 500ml		
739302	10457660 0.50 SOIL	25/11/14	PT 500ml		
739303	10457652 0.50 SOIL	25/11/14	PT 500ml		
739304	10457762 0.50 SOIL	25/11/14	PT 500ml		
739305	10457174 0.50 SOIL	25/11/14	PT 500ml		
739306	10457128 0.50 SOIL	25/11/14	PT 500ml		
739307	10457803 0.50 SOIL	25/11/14	PT 500ml		
739308	10457866 0.50 SOIL	25/11/14	PT 500ml		
739309	10457642 0.50 SOIL	25/11/14	PT 500ml		
739310	10457257 0.50 SOIL	25/11/14	PT 500ml		
739311	10457262 0.50 SOIL	25/11/14	PT 500ml		
739312	10457134 0.50 SOIL	25/11/14	PT 500ml		

Key: P-Plastic T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time and/or inappropriate containers are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



CERTIFICATE OF ANALYSIS

SDG:	141126-46	Location:	Coed Darcy	Order Number:	CD1007
Job:	H_ATKINS_LDC-224	Customer:	Atkins Global Ltd	Report Number:	300867
Client Reference:	Site Wide Trial Pitting	Attention:	Jack Lowrie	Superseded Report:	

Appendix
General

1. Results are expressed on a dry weight basis (dried at 35°C) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICS and SVOC TICS.
2. Samples will be run in duplicate upon request, but an additional charge may be incurred.
3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.
4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.
5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.
6. When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as "Not detected". If no asbestos fibre types are found all will be reported as "Not detected" and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible. The quantity of asbestos present is not determined unless specifically requested.
7. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.
8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.
9. NDP -No determination possible due to insufficient/unsuitable sample.
10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals -total metals must be requested separately.
11. Results relate only to the items tested.
12. LODs for wet tests reported on a dry weight basis are not corrected for moisture content.
13. **Surrogate recoveries** -Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted. Acceptable limits for most organic methods are 70 -130 %.
14. **Product analyses** -Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors employed.
15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethylphenol, 3,5 Dimethylphenol).
16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 15).
17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.
18. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.
19. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

20. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.
21. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.
22. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill /made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.
23. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

Sample Deviations

1	Container with Headspace provided for volatiles analysis
2	Incorrect container received
3	Deviation from method
4	Holding time exceeded before sample received
5	Samples exceeded holding time before preservation was performed
\$	Sampled on date not provided
♦	Sample holding time exceeded in laboratory
@	Sample holding time exceeded due to sampled on date
&	Sample Holding Time exceeded - Late arrival of instructions.

Asbestos

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than :
- Trace - Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.



Atkins Global Ltd
Project Jonah site office
Llan Coed House
Suite 24
Coed Darcy
Llandarcy
SA10 6HJ

Attention: Jack Lowrie

CERTIFICATE OF ANALYSIS

Date: 29 January 2015
Customer: H_ATKINS_LDC
Sample Delivery Group (SDG): 141118-67
Your Reference: Site Wide Trial Pitting
Location: Coed Darcy
Report No: 300144

This report has been revised and directly supersedes 299977 in its entirety.

We received 49 samples on Tuesday November 18, 2014 and 49 of these samples were scheduled for analysis which was completed on Wednesday January 28, 2015. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

All chemical testing (unless subcontracted) is performed at ALcontrol Hawarden Laboratories.

Approved By:

Sonia McWhan

Operations Manager





SDG: 141118-67
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD0980
Report Number: 300144
Superseded Report: 299977

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
10400976	IP842		0.50	13/11/2014
10400980	IP843		0.50	13/11/2014
10400941	IP929		1.00	13/11/2014
10400996	IP929		2.00	13/11/2014
10400891	IP930		1.00	13/11/2014
10400897	IP931		0.50	13/11/2014
10400901	IP931		1.50	13/11/2014
10400908	IP937		0.50	13/11/2014
10400912	IP937		1.00	13/11/2014
10401131	IP1034		1.00	13/11/2014
10401124	IP1035		1.00	13/11/2014
10400929	IP1038		0.50	13/11/2014
10400917	IP1039		0.50	13/11/2014
10400923	IP1039		0.75	13/11/2014
10400905	IP1040		0.50	13/11/2014
10400933	IP1072		1.00	13/11/2014
10400937	IP1072		2.00	13/11/2014
10401088	IP1383		0.50	13/11/2014
10401094	IP1383		1.50	13/11/2014
10401100	IP1383		2.50	13/11/2014
10401105	IP1383		3.50	13/11/2014
10401037	IP1384		0.50	13/11/2014
10401043	IP1384		1.50	13/11/2014
10401049	IP1384		2.50	13/11/2014
10401053	IP1384		3.50	13/11/2014
10401135	IP1386		0.50	13/11/2014
10401140	IP1386		1.00	13/11/2014
10400985	TPE420		0.50	13/11/2014
10400991	TPE420		1.50	13/11/2014
10401063	TPE429		1.00	13/11/2014
10401120	TPE429		2.00	13/11/2014
10400964	TPE493		0.50	13/11/2014
10400969	TPE493		1.50	13/11/2014
10401110	TPE521		0.50	13/11/2014
10401115	TPE521		1.50	13/11/2014
10401059	TPE522		0.50	13/11/2014
10401069	TPE522		1.50	13/11/2014
10401074	TPE522		2.50	13/11/2014
10401079	TPE522		3.50	13/11/2014
10401083	TPE522		4.50	13/11/2014
10400946	TPE585		1.00	13/11/2014
10400950	TPE585		2.00	13/11/2014
10400954	TPE585		3.00	13/11/2014
10400959	TPE585		4.00	13/11/2014
10401004	TPE610		0.50	13/11/2014
10401013	TPE610		1.50	13/11/2014
10401020	TPE610		2.50	13/11/2014
10401025	TPE610		3.50	13/11/2014
10401031	TPE610		4.50	13/11/2014

Only received samples which have had analysis scheduled will be shown on the following pages.



SDG: 141118-67
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD0980
Report Number: 300144
Superseded Report: 299977

SOLID Results Legend X Test N No Determination Possible	Lab Sample No(s)		Customer Sample Reference		AGS Reference		Depth (m)		Container	
	10400923	IP1039					0.75		250g Amber Jar	
	10400917	IP1039					0.50		60g VOC (ALE215) 400g Tub (ALE214)	
	10400929	IP1038					0.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10401124	IP1035					1.00		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10401131	IP1034					1.00		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10400912	IP937					1.00		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10400908	IP937					0.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10400901	IP931					1.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10400897	IP931					0.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10400891	IP930					1.00		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10400996	IP929					2.00		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10400941	IP929					1.00		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10400980	IP843					0.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10400976	IP842					0.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
Asbestos fibres in Soil*	All	NDPs: 0 Tests: 25								
Asbestos Quantification - Full	All	NDPs: 0 Tests: 4								
EPH CWG (Aliphatic) GC (S)	All	NDPs: 0 Tests: 49								
EPH CWG (Aromatic) GC (S)	All	NDPs: 0 Tests: 49								
GRO by GC-FID (S)	All	NDPs: 0 Tests: 49								
Metals in solid samples by OES	All	NDPs: 0 Tests: 49								
PAH by GCMS	All	NDPs: 0 Tests: 49								
pH	All	NDPs: 0 Tests: 49								
Sample description	All	NDPs: 0 Tests: 46								
Total Organic Carbon	All	NDPs: 0 Tests: 6								
TPH CWG GC (S)	All	NDPs: 0 Tests: 49								



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Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

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Report Number: 300144
Superseded Report: 299977

SOLID Results Legend X Test N No Determination Possible	Lab Sample No(s)		Customer Sample Reference		AGS Reference		Depth (m)		Container	
	10401140	IP1386					1.00		60g VOC (ALE215) 400g Tub (ALE214)	
	10401135	IP1386					0.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10401053	IP1384					3.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10401049	IP1384					2.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
Asbestos fibres in Soil*	10401043	IP1384					1.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10401037	IP1384					0.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10401105	IP1383					3.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10401100	IP1383					2.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
Asbestos Quantification - Full	10401094	IP1383					1.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10401088	IP1383					0.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10400937	IP1072					2.00		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10400933	IP1072					1.00		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
EPH CWG (Aliphatic) GC (S)	10400905	IP1040					0.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10400923	IP1039					0.75		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10401140	IP1386					1.00		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10401135	IP1386					0.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
EPH CWG (Aromatic) GC (S)	10401053	IP1384					3.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10401049	IP1384					2.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10401043	IP1384					1.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10401037	IP1384					0.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
GRO by GC-FID (S)	10401105	IP1383					3.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10401100	IP1383					2.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10401094	IP1383					1.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10401088	IP1383					0.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
Metals in solid samples by OES	10400937	IP1072					2.00		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10400933	IP1072					1.00		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10400905	IP1040					0.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10400923	IP1039					0.75		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
PAH by GCMS	10401140	IP1386					1.00		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10401135	IP1386					0.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10401053	IP1384					3.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10401049	IP1384					2.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
pH	10401043	IP1384					1.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10401037	IP1384					0.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10401105	IP1383					3.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10401100	IP1383					2.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
Sample description	10401094	IP1383					1.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10401088	IP1383					0.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10400937	IP1072					2.00		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10400933	IP1072					1.00		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
Total Organic Carbon	10400905	IP1040					0.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10400923	IP1039					0.75		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10401140	IP1386					1.00		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10401135	IP1386					0.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
TPH CWG GC (S)	10401053	IP1384					3.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10401049	IP1384					2.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10401043	IP1384					1.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	
	10401037	IP1384					0.50		250g Amber Jar 60g VOC (ALE215) 400g Tub (ALE214)	



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SOLID Results Legend X Test N No Determination Possible	Lab Sample No(s)		Customer Sample Reference		AGS Reference		Depth (m)		Container	
	10400946 10401083		TPE685 TPE622				1.00 4.50		250g Amber Jar 60g VOC (AL E215) 400g Tub (AL E214)	
	10401079		TPE622				3.50		250g Amber Jar 60g VOC (AL E215) 400g Tub (AL E214)	
	10401074		TPE622				2.50		250g Amber Jar 60g VOC (AL E215) 400g Tub (AL E214)	
	10401069		TPE622				1.50		250g Amber Jar 60g VOC (AL E215) 400g Tub (AL E214)	
	10401059		TPE622				0.50		250g Amber Jar 60g VOC (AL E215) 400g Tub (AL E214)	
10401115		TPE621				1.50		250g Amber Jar 60g VOC (AL E215) 400g Tub (AL E214)		
10401110		TPE621				0.50		250g Amber Jar 60g VOC (AL E215) 400g Tub (AL E214)		
10400969		TPE493				1.50		250g Amber Jar 60g VOC (AL E215) 400g Tub (AL E214)		
10400964		TPE493				0.50		250g Amber Jar 60g VOC (AL E215) 400g Tub (AL E214)		
10401120		TPE429				2.00		250g Amber Jar 60g VOC (AL E215) 400g Tub (AL E214)		
10401063		TPE429				1.00		250g Amber Jar 60g VOC (AL E215) 400g Tub (AL E214)		
10400991		TPE420				1.50		250g Amber Jar 60g VOC (AL E215) 400g Tub (AL E214)		
10400985		TPE420				0.50		250g Amber Jar 60g VOC (AL E215) 400g Tub (AL E214)		
Asbestos fibres in Soil*	All	NDPs: 0 Tests: 25	X		X		X		X	
EPH CWG (Aliphatic) GC (S)	All	NDPs: 0 Tests: 49	X	X	X	X	X	X	X	X
EPH CWG (Aromatic) GC (S)	All	NDPs: 0 Tests: 49	X	X	X	X	X	X	X	X
GRO by GC-FID (S)	All	NDPs: 0 Tests: 49		X	X	X		X	X	X
Metals in solid samples by OES	All	NDPs: 0 Tests: 49	X	X	X	X		X	X	X
PAH by GCMS	All	NDPs: 0 Tests: 49	X	X	X	X		X	X	X
pH	All	NDPs: 0 Tests: 49	X	X	X	X		X	X	X
Sample description	All	NDPs: 0 Tests: 46	X	X		X	X	X	X	X
Total Organic Carbon	All	NDPs: 0 Tests: 6							X	X
TPH CWG GC (S)	All	NDPs: 0 Tests: 49	X	X	X	X		X	X	X



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SOLID Results Legend X Test N No Determination Possible	Lab Sample No(s)		Customer Sample Reference		AGS Reference		Depth (m)		Container	
	10400946		TPE885				1.00		400g Tub (ALE215)	
	10400950		TPE885				2.00		600g VOC (ALE215)	
	10400954		TPE885				3.00		250g Amber Jar	
	10400959		TPE885				4.00		600g VOC (ALE215)	
Asbestos fibres in Soil*	10401004		TPE610				0.50		400g Tub (ALE214)	
	10401013		TPE610				1.50		250g Amber Jar	
	10401020		TPE610				2.50		600g VOC (ALE215)	
	10401025		TPE610				3.50		400g Tub (ALE214)	
	10401031		TPE610				4.50		250g Amber Jar	
Asbestos Quantification - Full									600g VOC (ALE215)	
EPH CWG (Aliphatic) GC (S)									400g Tub (ALE214)	
EPH CWG (Aromatic) GC (S)									600g VOC (ALE215)	
GRO by GC-FID (S)									250g Amber Jar	
Metals in solid samples by OES									400g Tub (ALE214)	
PAH by GCMS									600g VOC (ALE215)	
pH									250g Amber Jar	
Sample description									400g Tub (ALE214)	
Total Organic Carbon									600g VOC (ALE215)	
TPH CWG GC (S)									250g Amber Jar	



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Sample Descriptions

Grain Sizes

very fine	<0.063mm	fine	0.063mm - 0.1mm	medium	0.1mm - 2mm	coarse	2mm - 10mm	very coarse	>10mm
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Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Grain size	Inclusions	Inclusions 2
10400976	IP842	0.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	Vegetation
10400980	IP843	0.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	None
10400941	IP929	1.00	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	Vegetation
10400996	IP929	2.00	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	Vegetation
10400891	IP930	1.00	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	None
10400897	IP931	0.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	Vegetation
10400901	IP931	1.50	Dark Brown	Silty Clay Loam	0.063 - 0.1 mm	Stones	None
10400908	IP937	0.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	None
10400912	IP937	1.00	Dark Brown	Stone/Soil	2 - 10 mm	Oil/Petroleum	Stones
10401131	IP1034	1.00	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	None
10401124	IP1035	1.00	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	Vegetation
10400929	IP1038	0.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	Vegetation
10400917	IP1039	0.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	None
10400923	IP1039	0.75	Dark Brown	Stone/Soil	2 - 10 mm	None	Vegetation
10400905	IP1040	0.50	Dark Brown	Silt Loam	0.063 - 0.1 mm	Stones	Vegetation
10400933	IP1072	1.00	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	None	None
10400937	IP1072	2.00	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	None
10401088	IP1383	0.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	Vegetation
10401094	IP1383	1.50	Dark Brown	Sandy Clay	0.1 - 2 mm	Stones	Vegetation
10401100	IP1383	2.50	Dark Brown	Loamy Sand	0.1 - 2 mm	None	Stones
10401105	IP1383	3.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	None
10401037	IP1384	0.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Vegetation	Stones
10401043	IP1384	1.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	Vegetation
10401049	IP1384	2.50	Light Brown	Sandy Clay	0.1 - 2 mm	Stones	Vegetation
10401053	IP1384	3.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	Vegetation
10401135	IP1386	0.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Oil/Petroleum	Stones
10401140	IP1386	1.00	Dark Brown	Sandy Loam	0.1 - 2 mm	Vegetation	Stones
10400985	TPE420	0.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	Vegetation
10400991	TPE420	1.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Oil/Petroleum	Stones
10401063	TPE429	1.00	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	Vegetation
10401120	TPE429	2.00	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	Vegetation
10400964	TPE493	0.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Vegetation	None
10400969	TPE493	1.50	Dark Brown	Sandy Clay	0.1 - 2 mm	Oil/Petroleum	Stones
10401110	TPE521	0.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	Vegetation
10401115	TPE521	1.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	Vegetation
10401059	TPE522	0.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	Vegetation
10401069	TPE522	1.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	Vegetation
10401074	TPE522	2.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Vegetation	Stones



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			Colour	Description	Grain size	Inclusions	Inclusions 2
10401079	TPE522	3.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	None
10401083	TPE522	4.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	None
10400946	TPE585	1.00	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	None
10400950	TPE585	2.00	Dark Brown	Sand	0.1 - 2 mm	None	Stones
10400954	TPE585	3.00	Dark Brown	Sand	0.1 - 2 mm	Stones	Vegetation
10400959	TPE585	4.00	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	Oil/Petroleum
10401004	TPE610	0.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	Vegetation
10401013	TPE610	1.50	Dark Brown	Silty Clay Loam	0.063 - 0.1 mm	Stones	Vegetation
10401020	TPE610	2.50	Dark Brown	Clay Loam	<0.063 mm	Stones	None
10401025	TPE610	3.50	Dark Brown	Loamy Sand	0.1 - 2 mm	Stones	None
10401031	TPE610	4.50	Dark Brown	Sandy Clay Loam	0.1 - 2 mm	Stones	None

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

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[illegible]

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PAH by GCMS

[illegible]

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PAH by GCMS

[illegible]

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PAH by GCMS

[illegible]

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PAH by GCMS

[illegible]

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PAH by GCMS

[illegible]

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PAH by GCMS

[illegible]

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TPH CWG (S)

Results Legend		Customer Sample Ref.	IP842	IP843	IP929	IP929	IP930	IP931
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference						
M	mCERTS accredited.							
aq	Aqueous / settled sample.							
diss.filt	Dissolved / filtered sample.							
tot.unfilt	Total / unfiltered sample.							
*	Subcontracted test.							
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed							
1-5&*&\$@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	87	62	81	83	83	71
			@	@	@	@	@	@
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	<176	<176	<176	<176	<176	<176
			@ M	@ M	@ M	@ M	@ M	@ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	<20	<20	<20	<20	<20
			@ M	@ M	@ M	@ M	@ M	@ M
Benzene	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@ M	@ M	@ M	@ M	@ M	@ M
Toluene	<2 µg/kg	TM089	<8	<8	<8	<8	<8	<8
			@ M	@ M	@ M	@ M	@ M	@ M
Ethylbenzene	<3 µg/kg	TM089	<12	<12	<12	<12	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
m,p-Xylene	<6 µg/kg	TM089	<24	<24	<24	<24	<24	<24
			@ M	@ M	@ M	@ M	@ M	@ M
o-Xylene	<3 µg/kg	TM089	<12	<12	<12	<12	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<36	<9	<9	<9	<9	<9
			@	@	@	@	@	@
sum of detected BTEX by GC	<24 µg/kg	TM089	<96	<24	<24	<24	<24	<24
			@	@	@	@	@	@
Aliphatics >C5-C6	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@	@	@	@	@	@
Aliphatics >C6-C8	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@	@	@	@	@	@
Aliphatics >C8-C10	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@	@	@	@	@	@
Aliphatics >C10-C12	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@	@	@	@	@	@
Aliphatics >C12-C16	<100 µg/kg	TM173	6480	1570	2530	1870	1280	1360
Aliphatics >C16-C21	<100 µg/kg	TM173	27400	3860	1830	9120	5700	4960
Aliphatics >C21-C35	<100 µg/kg	TM173	72800	13200	1890	68900	19400	13200
Aliphatics >C35-C44	<100 µg/kg	TM173	18600	3440	<100	25800	2050	<100
Total Aliphatics >C12-C44	<100 µg/kg	TM173	125000	22000	6260	106000	28500	19500
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC8-EC10	<10 µg/kg	TM089	<40	<40	<40	<40	42.2	<40
			@	@	@	@	@	@
Aromatics >EC10-EC12	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC12-EC16	<100 µg/kg	TM173	1500	<100	587	1140	<100	<100
Aromatics >EC16-EC21	<100 µg/kg	TM173	4520	1310	896	2900	172	1470
Aromatics >EC21-EC35	<100 µg/kg	TM173	46200	10800	2010	44000	4300	13400
Aromatics >EC35-EC44	<100 µg/kg	TM173	28000	3120	137	41900	1330	3970
Aromatics >EC40-EC44	<100 µg/kg	TM173	10500	961	<100	16700	<100	<100
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	80200	15200	3630	89900	5810	18800
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	206000	37300	9970	196000	34400	38400



SDG: 141118-67
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD0980
Report Number: 300144
Superseded Report: 299977

TPH CWG (S)

Results Legend		Customer Sample Ref.	IP931	IP937	IP937	IP1034	IP1035	IP1038
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	1.50	0.50	1.00	1.00	1.00	0.50
M	mCERTS accredited.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
aq	Aqueous / settled sample.		13/11/2014	13/11/2014	13/11/2014	13/11/2014	13/11/2014	13/11/2014
diss.filt	Dissolved / filtered sample.		18/11/2014	18/11/2014	18/11/2014	18/11/2014	18/11/2014	18/11/2014
tot.unfilt	Total / unfiltered sample.		141118-67	141118-67	141118-67	141118-67	141118-67	141118-67
*	Subcontracted test.		10400901	10400908	10400912	10401131	10401124	10400929
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed							
1-5&*&\$@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	84	70	90	72	64	64
			@	@	@	@	@	@
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	1280	<176	70100	2150	760	4420
			@ M	@ M	@ #	@ M	@ M	@ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	<20	<20	<20	<20	<20
			@ M	@ M	@ #	@ M	@ M	@ M
Benzene	<10 µg/kg	TM089	<40	<40	85.1	<40	<40	<40
			@ M	@ M	@ #	@ M	@ M	@ M
Toluene	<2 µg/kg	TM089	<8	<8	<8	<8	40.3	12.1
			@ M	@ M	@ #	@ M	@ M	@ M
Ethylbenzene	<3 µg/kg	TM089	<12	<12	<12	<12	26.9	<12
			@ M	@ M	@ #	@ M	@ M	@ M
m,p-Xylene	<6 µg/kg	TM089	<24	<24	<24	<24	54.9	33
			@ M	@ M	@ #	@ M	@ M	@ M
o-Xylene	<3 µg/kg	TM089	<12	<12	<12	<12	13.4	<12
			@ M	@ M	@ #	@ M	@ M	@ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<36	<9	<9	<9	68.3	33
			@	@	@	@	@	@
sum of detected BTEX by GC	<24 µg/kg	TM089	<96	<24	85.1	<24	136	45.1
			@	@	@	@	@	@
Aliphatics >C5-C6	<10 µg/kg	TM089	61.9	<40	299	<40	<40	<40
			@	@	@	@	@	@
Aliphatics >C6-C8	<10 µg/kg	TM089	296	<40	11800	<40	192	217
			@	@	@	@	@	@
Aliphatics >C8-C10	<10 µg/kg	TM089	239	<40	16200	76.6	112	1170
			@	@	@	@	@	@
Aliphatics >C10-C12	<10 µg/kg	TM089	313	<40	18500	1170	114	1310
			@	@	@	@	@	@
Aliphatics >C12-C16	<100 µg/kg	TM173	7970	<100	2310	4600	1830	3480
Aliphatics >C16-C21	<100 µg/kg	TM173	15600	<100	5540	5420	3220	11100
Aliphatics >C21-C35	<100 µg/kg	TM173	14300	634	16600	14300	6550	30000
Aliphatics >C35-C44	<100 µg/kg	TM173	1230	<100	<100	3590	1250	7690
Total Aliphatics >C12-C44	<100 µg/kg	TM173	39100	634	24400	27900	12800	52200
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	<40	85.1	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<40	<40	<40	40.3	<40
			@	@	@	@	@	@
Aromatics >EC8-EC10	<10 µg/kg	TM089	159	<40	10800	59.2	171	815
			@	@	@	@	@	@
Aromatics >EC10-EC12	<10 µg/kg	TM089	208	<40	12300	781	76.2	870
			@	@	@	@	@	@
Aromatics >EC12-EC16	<100 µg/kg	TM173	1070	<100	5030	<100	2170	2610
Aromatics >EC16-EC21	<100 µg/kg	TM173	4970	1740	3790	<100	5080	5560
Aromatics >EC21-EC35	<100 µg/kg	TM173	13400	5260	14500	2010	14000	32600
Aromatics >EC35-EC44	<100 µg/kg	TM173	5950	<100	5400	1160	2030	13000
Aromatics >EC40-EC44	<100 µg/kg	TM173	2340	<100	1730	<100	<100	3620
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	25400	7000	28700	3160	23300	53800
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	65800	7690	123000	33300	36900	110000



SDG: 141118-67
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

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Attention: Jack Lowrie

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Report Number: 300144
Superseded Report: 299977

TPH CWG (S)

Results Legend		Customer Sample Ref.	IP1039	IP1039	IP1040	IP1072	IP1072	IP1383
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	0.50	0.75	0.50	1.00	2.00	0.50
M	mCERTS accredited.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
aq	Aqueous / settled sample.		13/11/2014	13/11/2014	13/11/2014	13/11/2014	13/11/2014	13/11/2014
diss.filt	Dissolved / filtered sample.		18/11/2014	18/11/2014	18/11/2014	18/11/2014	18/11/2014	18/11/2014
tot.unfilt	Total / unfiltered sample.		141118-67	141118-67	141118-67	141118-67	141118-67	141118-67
*	Subcontracted test.		10400917	10400923	10400905	10400933	10400937	10401088
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed							
1-5&*&\$@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	57	79	66	65	72	86
			@	@	@	@	@	@
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	230	2300	<176	411	273	<176
			@ M	@ #	@ M	@ M	@ M	@ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	<20	<20	<20	<20	<20
			@ M	@ #	@ M	@ M	@ M	@ M
Benzene	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@ M	@ #	@ M	@ M	@ M	@ M
Toluene	<2 µg/kg	TM089	47.1	70.6	<8	<8	<8	<8
			@ M	@ #	@ M	@ M	@ M	@ M
Ethylbenzene	<3 µg/kg	TM089	19.3	44.6	<12	<12	<12	<12
			@ M	@ #	@ M	@ M	@ M	@ M
m,p-Xylene	<6 µg/kg	TM089	48.2	126	<24	<24	<24	<24
			@ M	@ #	@ M	@ M	@ M	@ M
o-Xylene	<3 µg/kg	TM089	23.6	42.6	<12	<12	<12	<12
			@ M	@ #	@ M	@ M	@ M	@ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	71.8	169	<36	<9	<9	<9
			@	@	@	@	@	@
sum of detected BTEX by GC	<24 µg/kg	TM089	138	284	<96	<24	<24	<24
			@	@	@	@	@	@
Aliphatics >C5-C6	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@	@	@	@	@	@
Aliphatics >C6-C8	<10 µg/kg	TM089	<40	175	<40	50	46.6	<40
			@	@	@	@	@	@
Aliphatics >C8-C10	<10 µg/kg	TM089	<40	368	<40	76.9	68.8	<40
			@	@	@	@	@	@
Aliphatics >C10-C12	<10 µg/kg	TM089	<40	707	<40	118	52.2	<40
			@	@	@	@	@	@
Aliphatics >C12-C16	<100 µg/kg	TM173	937	<100	4410	137	2700	<100
Aliphatics >C16-C21	<100 µg/kg	TM173	1310	2760	4220	3850	4060	<100
Aliphatics >C21-C35	<100 µg/kg	TM173	993	8010	6650	6600	20700	<100
Aliphatics >C35-C44	<100 µg/kg	TM173	<100	958	<100	337	75300	<100
Total Aliphatics >C12-C44	<100 µg/kg	TM173	3240	11700	15300	10900	103000	<100
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC7-EC8	<10 µg/kg	TM089	47.1	70.6	<40	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC8-EC10	<10 µg/kg	TM089	105	458	<40	68.3	59.9	<40
			@	@	@	@	@	@
Aromatics >EC10-EC12	<10 µg/kg	TM089	<40	471	<40	79.3	<40	<40
			@	@	@	@	@	@
Aromatics >EC12-EC16	<100 µg/kg	TM173	524	2160	<100	422	3280	<100
Aromatics >EC16-EC21	<100 µg/kg	TM173	655	2700	1670	1910	2800	<100
Aromatics >EC21-EC35	<100 µg/kg	TM173	743	12400	16500	6870	9970	<100
Aromatics >EC35-EC44	<100 µg/kg	TM173	<100	4420	8170	2750	23100	<100
Aromatics >EC40-EC44	<100 µg/kg	TM173	<100	884	<100	1110	11700	<100
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	1920	21600	26300	11900	39200	<100
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	5390	35700	41800	23300	142000	<100



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Attention: Jack Lowrie

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Report Number: 300144
Superseded Report: 299977

TPH CWG (S)

Results Legend		Customer Sample Ref.	IP1383	IP1383	IP1383	IP1384	IP1384	IP1384
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	1.50	2.50	3.50	0.50	1.50	2.50
M	mCERTS accredited.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
aq	Aqueous / settled sample.		13/11/2014	13/11/2014	13/11/2014	13/11/2014	13/11/2014	13/11/2014
diss.filt	Dissolved / filtered sample.		18/11/2014	18/11/2014	18/11/2014	18/11/2014	18/11/2014	18/11/2014
tot.unfilt	Total / unfiltered sample.		141118-67	141118-67	141118-67	141118-67	141118-67	141118-67
*	Subcontracted test.		10401094	10401100	10401105	10401037	10401043	10401049
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed							
1-5&*&\$@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	81	70	82	50	51	86
			@	@	@	@	@	@
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	11400	<176	<176	598	1030	<176
			@ M	@ M	@ M	@ M	@ M	@ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	<20	<20	<20	<20	56.1
			@ M	@ M	@ M	@ M	@ M	@ M
Benzene	<10 µg/kg	TM089	<40	<40	<40	<40	53.1	<40
			@ M	@ M	@ M	@ M	@ M	@ M
Toluene	<2 µg/kg	TM089	<8	<8	<8	59.1	46.3	<8
			@ M	@ M	@ M	@ M	@ M	@ M
Ethylbenzene	<3 µg/kg	TM089	<12	<12	<12	23	37.3	<12
			@ M	@ M	@ M	@ M	@ M	@ M
m,p-Xylene	<6 µg/kg	TM089	31.7	<24	<24	105	189	<24
			@ M	@ M	@ M	@ M	@ M	@ M
o-Xylene	<3 µg/kg	TM089	<12	<12	<12	40.5	54.2	<12
			@ M	@ M	@ M	@ M	@ M	@ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	31.7	<9	<36	146	243	<9
			@	@	@	@	@	@
sum of detected BTEX by GC	<24 µg/kg	TM089	31.7	<24	<96	228	380	<24
			@	@	@	@	@	@
Aliphatics >C5-C6	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@	@	@	@	@	@
Aliphatics >C6-C8	<10 µg/kg	TM089	112	<40	<40	62.4	115	<40
			@	@	@	@	@	@
Aliphatics >C8-C10	<10 µg/kg	TM089	1500	<40	<40	89.8	172	<40
			@	@	@	@	@	@
Aliphatics >C10-C12	<10 µg/kg	TM089	5240	<40	<40	76.7	133	<40
			@	@	@	@	@	@
Aliphatics >C12-C16	<100 µg/kg	TM173	107000	<100	8690	2090	1810	<100
Aliphatics >C16-C21	<100 µg/kg	TM173	43400	<100	4040	2550	3420	<100
Aliphatics >C21-C35	<100 µg/kg	TM173	24500	<100	5590	4730	13100	<100
Aliphatics >C35-C44	<100 µg/kg	TM173	1080	<100	187	<100	<100	<100
Total Aliphatics >C12-C44	<100 µg/kg	TM173	176000	<100	18500	9360	18300	<100
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	<40	<40	<40	53.1	<40
			@	@	@	@	@	@
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<40	<40	59.1	46.3	<40
			@	@	@	@	@	@
Aromatics >EC8-EC10	<10 µg/kg	TM089	1030	<40	<40	229	394	<40
			@	@	@	@	@	@
Aromatics >EC10-EC12	<10 µg/kg	TM089	3490	<40	<40	51.5	88.1	<40
			@	@	@	@	@	@
Aromatics >EC12-EC16	<100 µg/kg	TM173	6830	<100	1380	1800	1900	<100
Aromatics >EC16-EC21	<100 µg/kg	TM173	12500	<100	3030	1660	1840	<100
Aromatics >EC21-EC35	<100 µg/kg	TM173	21000	<100	19600	2800	4370	817
Aromatics >EC35-EC44	<100 µg/kg	TM173	4740	<100	10900	<100	2310	212
Aromatics >EC40-EC44	<100 µg/kg	TM173	1500	<100	5340	<100	764	<100
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	45100	<100	35000	6260	10400	1030
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	232000	<100	53500	16200	29700	1040



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Report Number: 300144
Superseded Report: 299977

TPH CWG (S)

Results Legend		Customer Sample Ref.	IP1384	IP1386	IP1386	TPE420	TPE420	TPE429
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference						
M	mCERTS accredited.							
aq	Aqueous / settled sample.							
diss.filt	Dissolved / filtered sample.							
tot.unfilt	Total / unfiltered sample.							
*	Subcontracted test.							
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed							
1-5&*&\$@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	61	123	71	63	88	71
			@	@	@	@	@	@
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	505	56500	<176	<176	54700	<176
			@ M	@ M	@ M	@ M	@ M	@ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	<20	<20	<20	<20	<20
			@ M	@ M	@ M	@ M	@ M	@ M
Benzene	<10 µg/kg	TM089	<40	55.9	<40	<40	114	<40
			@ M	@ M	@ M	@ M	@ M	@ M
Toluene	<2 µg/kg	TM089	<8	<8	<8	<8	2410	<8
			@ M	@ M	@ M	@ M	@ M	@ M
Ethylbenzene	<3 µg/kg	TM089	<12	842	<12	<12	1020	<12
			@ M	@ M	@ M	@ M	@ M	@ M
m,p-Xylene	<6 µg/kg	TM089	<24	5430	<24	<24	4700	<24
			@ M	@ M	@ M	@ M	@ M	@ M
o-Xylene	<3 µg/kg	TM089	<12	402	<12	<12	3100	<12
			@ M	@ M	@ M	@ M	@ M	@ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	5830	<36	<36	7800	<36
			@	@	@	@	@	@
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	6730	<96	<96	11300	<96
			@	@	@	@	@	@
Aliphatics >C5-C6	<10 µg/kg	TM089	55	657	<40	<40	957	<40
			@	@	@	@	@	@
Aliphatics >C6-C8	<10 µg/kg	TM089	103	11100	<40	<40	19400	<40
			@	@	@	@	@	@
Aliphatics >C8-C10	<10 µg/kg	TM089	80	13600	<40	<40	9210	<40
			@	@	@	@	@	@
Aliphatics >C10-C12	<10 µg/kg	TM089	124	9200	<40	<40	4610	<40
			@	@	@	@	@	@
Aliphatics >C12-C16	<100 µg/kg	TM173	<100	12600	2480	1450	47800	1670
Aliphatics >C16-C21	<100 µg/kg	TM173	<100	11900	12100	2420	37500	3830
Aliphatics >C21-C35	<100 µg/kg	TM173	6810	9360	37100	8620	45000	9370
Aliphatics >C35-C44	<100 µg/kg	TM173	<100	1370	8930	947	5200	<100
Total Aliphatics >C12-C44	<100 µg/kg	TM173	6810	35300	60600	13400	136000	14900
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	55.9	<40	<40	114	<40
			@	@	@	@	@	@
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<40	<40	<40	2410	<40
			@	@	@	@	@	@
Aromatics >EC8-EC10	<10 µg/kg	TM089	58.8	15700	<40	<40	15000	<40
			@	@	@	@	@	@
Aromatics >EC10-EC12	<10 µg/kg	TM089	82.5	6130	<40	<40	3080	<40
			@	@	@	@	@	@
Aromatics >EC12-EC16	<100 µg/kg	TM173	<100	1540	<100	538	5360	<100
Aromatics >EC16-EC21	<100 µg/kg	TM173	<100	3060	1860	1300	10400	305
Aromatics >EC21-EC35	<100 µg/kg	TM173	10100	5450	16400	9140	40500	6560
Aromatics >EC35-EC44	<100 µg/kg	TM173	1930	2720	7850	4270	18100	4260
Aromatics >EC40-EC44	<100 µg/kg	TM173	215	1250	2910	1490	6990	<100
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	12100	12800	26100	15200	74300	11100
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	19400	105000	86800	28800	265000	26000



SDG: 141118-67
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TPH CWG (S)

Results Legend		Customer Sample Ref.	TPE429	TPE493	TPE493	TPE521	TPE521	TPE522
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	2.00	0.50	1.50	0.50	1.50	0.50
M	mCERTS accredited.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
aq	Aqueous / settled sample.		13/11/2014	13/11/2014	13/11/2014	13/11/2014	13/11/2014	13/11/2014
diss.filt	Dissolved / filtered sample.		18/11/2014	18/11/2014	18/11/2014	18/11/2014	18/11/2014	18/11/2014
tot.unfilt	Total / unfiltered sample.		141118-67	141118-67	141118-67	141118-67	141118-67	141118-67
*	Subcontracted test.		10401120	10400964	10400969	10401110	10401115	10401059
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed							
1-5&*&\$@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	78	114	94	60	75	67
			@	@	@	@	@	@
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	<176	37100	9050	<176	8110	496
			@ M	@ M	@ M	@ M	@ M	@ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	<5	<20	<20	<20	<20
			@ M	@ M	@ M	@ M	@ M	@ M
Benzene	<10 µg/kg	TM089	<40	<10	<40	<40	<40	<40
			@ M	@ M	@ M	@ M	@ M	@ M
Toluene	<2 µg/kg	TM089	<8	<2	<8	<8	<8	8.79
			@ M	@ M	@ M	@ M	@ M	@ M
Ethylbenzene	<3 µg/kg	TM089	<12	<3	<12	<12	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
m,p-Xylene	<6 µg/kg	TM089	<24	<6	<24	<24	<24	<24
			@ M	@ M	@ M	@ M	@ M	@ M
o-Xylene	<3 µg/kg	TM089	<12	<3	<12	<12	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<36	<9	<9	<9	<9	<36
			@	@	@	@	@	@
sum of detected BTEX by GC	<24 µg/kg	TM089	<96	<24	<24	<24	<24	<96
			@	@	@	@	@	@
Aliphatics >C5-C6	<10 µg/kg	TM089	<40	<10	175	<40	<40	<40
			@	@	@	@	@	@
Aliphatics >C6-C8	<10 µg/kg	TM089	<40	9510	1030	<40	101	62.6
			@	@	@	@	@	@
Aliphatics >C8-C10	<10 µg/kg	TM089	<40	6450	2010	<40	1480	62.6
			@	@	@	@	@	@
Aliphatics >C10-C12	<10 µg/kg	TM089	<40	10100	2690	<40	3310	162
			@	@	@	@	@	@
Aliphatics >C12-C16	<100 µg/kg	TM173	<100	316000	5570	<100	44500	2920
Aliphatics >C16-C21	<100 µg/kg	TM173	2250	121000	2200	<100	25800	4100
Aliphatics >C21-C35	<100 µg/kg	TM173	6790	15800	2160	2220	43700	10200
Aliphatics >C35-C44	<100 µg/kg	TM173	<100	<100	<100	<100	9470	2160
Total Aliphatics >C12-C44	<100 µg/kg	TM173	9050	453000	9930	2220	123000	19300
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	<10	<40	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<10	<40	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC8-EC10	<10 µg/kg	TM089	<40	4300	1340	<40	987	75.8
			@	@	@	@	@	@
Aromatics >EC10-EC12	<10 µg/kg	TM089	<40	6720	1800	<40	2210	108
			@	@	@	@	@	@
Aromatics >EC12-EC16	<100 µg/kg	TM173	<100	1580	<100	<100	5740	<100
Aromatics >EC16-EC21	<100 µg/kg	TM173	430	4170	<100	1870	8620	1120
Aromatics >EC21-EC35	<100 µg/kg	TM173	5760	5220	<100	6010	32100	5240
Aromatics >EC35-EC44	<100 µg/kg	TM173	4040	<100	<100	<100	8270	954
Aromatics >EC40-EC44	<100 µg/kg	TM173	545	<100	<100	<100	2460	<100
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	10200	11000	<100	7880	54700	7320
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	19300	501000	19000	10200	186000	27100



SDG: 141118-67
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD0980
Report Number: 300144
Superseded Report: 299977

TPH CWG (S)

Results Legend		Customer Sample Ref.	TPE522	TPE522	TPE522	TPE522	TPE585	TPE585
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	1.50	2.50	3.50	4.50	1.00	2.00
M	mCERTS accredited.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
aq	Aqueous / settled sample.		13/11/2014	13/11/2014	13/11/2014	13/11/2014	13/11/2014	13/11/2014
diss.filt	Dissolved / filtered sample.		18/11/2014	18/11/2014	18/11/2014	18/11/2014	18/11/2014	18/11/2014
tot.unfilt	Total / unfiltered sample.		141118-67	141118-67	141118-67	141118-67	141118-67	141118-67
*	Subcontracted test.		10401069	10401074	10401079	10401083	10400946	10400950
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed							
1-5&*&\$@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	85	70	68	70	42	54
			@	@	@	@	@	@
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	2260	2850	263	2430	1330	632
			@ M	@ M	@ M	@ M	@ M	@ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	<20	<20	<20	<20	<20
			@ M	@ M	@ M	@ M	@ M	@ M
Benzene	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@ M	@ M	@ M	@ M	@ M	@ M
Toluene	<2 µg/kg	TM089	<8	<8	<8	<8	<8	18.9
			@ M	@ M	@ M	@ M	@ M	@ M
Ethylbenzene	<3 µg/kg	TM089	<12	<12	<12	<12	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
m,p-Xylene	<6 µg/kg	TM089	<24	<24	<24	<24	<24	<24
			@ M	@ M	@ M	@ M	@ M	@ M
o-Xylene	<3 µg/kg	TM089	<12	<12	<12	<12	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	<9	<9	<9	<36	<9
			@	@	@	@	@	@
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	<24	<24	<24	<96	<24
			@	@	@	@	@	@
Aliphatics >C5-C6	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@	@	@	@	@	@
Aliphatics >C6-C8	<10 µg/kg	TM089	86.3	44.1	<40	44.1	140	81
			@	@	@	@	@	@
Aliphatics >C8-C10	<10 µg/kg	TM089	273	235	47.2	262	209	104
			@	@	@	@	@	@
Aliphatics >C10-C12	<10 µg/kg	TM089	1020	1440	79.4	1160	488	171
			@	@	@	@	@	@
Aliphatics >C12-C16	<100 µg/kg	TM173	36100	66700	277	5320	125000	91000
Aliphatics >C16-C21	<100 µg/kg	TM173	17700	25500	<100	1600	425000	295000
Aliphatics >C21-C35	<100 µg/kg	TM173	11700	11400	5090	3720	946000	727000
Aliphatics >C35-C44	<100 µg/kg	TM173	2450	1370	<100	<100	1240000	257000
Total Aliphatics >C12-C44	<100 µg/kg	TM173	67900	105000	5370	10600	2740000	1370000
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<40	<40	<40	<40	<40
			@	@	@	@	@	@
Aromatics >EC8-EC10	<10 µg/kg	TM089	185	157	42.6	180	140	99.9
			@	@	@	@	@	@
Aromatics >EC10-EC12	<10 µg/kg	TM089	679	958	52.9	773	326	115
			@	@	@	@	@	@
Aromatics >EC12-EC16	<100 µg/kg	TM173	2830	4680	<100	<100	12400	125000
Aromatics >EC16-EC21	<100 µg/kg	TM173	4520	6600	<100	<100	115000	<100
Aromatics >EC21-EC35	<100 µg/kg	TM173	9980	10900	4960	<100	650000	518000
Aromatics >EC35-EC44	<100 µg/kg	TM173	4070	3990	467	<100	1330000	235000
Aromatics >EC40-EC44	<100 µg/kg	TM173	1750	1300	<100	<100	682000	100000
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	21400	26200	5430	<100	2110000	878000
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	91600	134000	11100	13100	4840000	2250000



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Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD0980
Report Number: 300144
Superseded Report: 299977

TPH CWG (S)

Results Legend		Customer Sample Ref.	TPE585	TPE585	TPE610	TPE610	TPE610	TPE610
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	3.00	4.00	0.50	1.50	2.50	3.50
M	mCERTS accredited.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
aq	Aqueous / settled sample.		13/11/2014	13/11/2014	13/11/2014	13/11/2014	13/11/2014	13/11/2014
diss.filt	Dissolved / filtered sample.		18/11/2014	18/11/2014	18/11/2014	18/11/2014	18/11/2014	18/11/2014
tot.unfilt	Total / unfiltered sample.		141118-67	141118-67	141118-67	141118-67	141118-67	141118-67
*	Subcontracted test.		10400954	10400959	10401004	10401013	10401020	10401025
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed							
1-5&*\$@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	46	138	65	47	61	57
			@	@	@	@	@	@
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	455	4330000	<176	<176	<176	1050
			@ M	3 @ M	@ M	@ M	@ M	@ M
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	<100	<20	<20	<20	<20
			@ M	@ M	@ M	@ M	@ M	@ M
Benzene	<10 µg/kg	TM089	<40	<200	<40	<40	<40	<40
			@ M	@ M	@ M	@ M	@ M	@ M
Toluene	<2 µg/kg	TM089	11.8	<40	<8	<8	<8	<8
			@ M	@ M	@ M	@ M	@ M	@ M
Ethylbenzene	<3 µg/kg	TM089	<12	<60	<12	<12	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
m,p-Xylene	<6 µg/kg	TM089	<24	<120	<24	<24	<24	<24
			@ M	@ M	@ M	@ M	@ M	@ M
o-Xylene	<3 µg/kg	TM089	<12	<60	<12	<12	<12	<12
			@ M	@ M	@ M	@ M	@ M	@ M
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	<9	<9	<36	<9	<36
			@	@	@	@	@	@
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	<24	<24	<96	<24	<96
			@	@	@	@	@	@
Aliphatics >C5-C6	<10 µg/kg	TM089	<40	122000	<40	<40	<40	<40
			@	3 @	@	@	@	@
Aliphatics >C6-C8	<10 µg/kg	TM089	86.5	1260000	<40	<40	<40	<40
			@	3 @	@	@	@	@
Aliphatics >C8-C10	<10 µg/kg	TM089	64.2	1070000	<40	<40	<40	122
			@	3 @	@	@	@	@
Aliphatics >C10-C12	<10 µg/kg	TM089	103	701000	<40	<40	<40	460
			@	3 @	@	@	@	@
Aliphatics >C12-C16	<100 µg/kg	TM173	27100	6960	1720	2660	<100	861
Aliphatics >C16-C21	<100 µg/kg	TM173	58500	10200	1810	2900	<100	392
Aliphatics >C21-C35	<100 µg/kg	TM173	194000	29400	3190	23900	24300	1580
Aliphatics >C35-C44	<100 µg/kg	TM173	96100	<100	<100	<100	<100	<100
Total Aliphatics >C12-C44	<100 µg/kg	TM173	376000	46500	6720	29400	24300	2840
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	<200	<40	<40	<40	<40
			@	3 @	@	@	@	@
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	<200	<40	<40	<40	<40
			@	3 @	@	@	@	@
Aromatics >EC8-EC10	<10 µg/kg	TM089	66.8	710000	<40	<40	<40	104
			@	3 @	@	@	@	@
Aromatics >EC10-EC12	<10 µg/kg	TM089	68.1	467000	<40	<40	<40	307
			@	3 @	@	@	@	@
Aromatics >EC12-EC16	<100 µg/kg	TM173	11500	3360	<100	<100	2120	370
Aromatics >EC16-EC21	<100 µg/kg	TM173	35000	4840	<100	796	3380	729
Aromatics >EC21-EC35	<100 µg/kg	TM173	269000	17800	<100	125000	153000	7340
Aromatics >EC35-EC44	<100 µg/kg	TM173	171000	<100	<100	24600	35000	2450
Aromatics >EC40-EC44	<100 µg/kg	TM173	69000	<100	<100	6180	7440	1040
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	486000	26000	<100	150000	193000	10900
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	862000	4400000	6780	179000	218000	14800



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Report Number: 300144
Superseded Report: 299977

TPH CWG (S)

Results Legend		Customer Sample Ref.	TPE610				
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	4.50				
M	mCERTS accredited.		Soil/Solid				
aq	Aqueous / settled sample.		13/11/2014				
diss.filt	Dissolved / filtered sample.						
tot.unfilt	Total / unfiltered sample.		18/11/2014				
*	Subcontracted test.		141118-67				
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery		10401031				
(F)	Trigger breach confirmed						
1-5&*&\$@	Sample deviation (see appendix)						
Component	LOD/Units	Method					
GRO Surrogate % recovery**	%	TM089	68	@			
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	1200	@ M			
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<20	@ M			
Benzene	<10 µg/kg	TM089	<40	@ M			
Toluene	<2 µg/kg	TM089	<8	@ M			
Ethylbenzene	<3 µg/kg	TM089	<12	@ M			
m,p-Xylene	<6 µg/kg	TM089	<24	@ M			
o-Xylene	<3 µg/kg	TM089	<12	@ M			
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	@			
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	@			
Aliphatics >C5-C6	<10 µg/kg	TM089	<40	@			
Aliphatics >C6-C8	<10 µg/kg	TM089	<40	@			
Aliphatics >C8-C10	<10 µg/kg	TM089	157	@			
Aliphatics >C10-C12	<10 µg/kg	TM089	512	@			
Aliphatics >C12-C16	<100 µg/kg	TM173	4660				
Aliphatics >C16-C21	<100 µg/kg	TM173	2330				
Aliphatics >C21-C35	<100 µg/kg	TM173	3350				
Aliphatics >C35-C44	<100 µg/kg	TM173	184				
Total Aliphatics >C12-C44	<100 µg/kg	TM173	10500				
Aromatics >EC5-EC7	<10 µg/kg	TM089	<40	@			
Aromatics >EC7-EC8	<10 µg/kg	TM089	<40	@			
Aromatics >EC8-EC10	<10 µg/kg	TM089	124	@			
Aromatics >EC10-EC12	<10 µg/kg	TM089	340	@			
Aromatics >EC12-EC16	<100 µg/kg	TM173	1330				
Aromatics >EC16-EC21	<100 µg/kg	TM173	1490				
Aromatics >EC21-EC35	<100 µg/kg	TM173	7400				
Aromatics >EC35-EC44	<100 µg/kg	TM173	2120				
Aromatics >EC40-EC44	<100 µg/kg	TM173	827				
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	12300				
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	24000				



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Asbestos Quantification - Full

		Additional Asbestos Components (Using TM048)	Analysts Comments	Asbestos Quantification - Gravimetric - %	Asbestos Quantification - PCOM Evaluation - %	Asbestos Quantification - Total - %
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP1034 1.00 SOLID 13/11/2014 00:00:00 13/01/2015 17:28:53 141118-67 10401131 TM 304	None (#)	N/C	<0.001 (#)	<0.001 (#)	<0.001 (#)
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP1039 0.50 SOLID 13/11/2014 00:00:00 13/01/2015 17:33:04 141118-67 10400917 TM 304	None (#)	N/C	<0.001 (#)	<0.001 (#)	<0.001 (#)
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	IP1383 0.50 SOLID 13/11/2014 00:00:00 13/01/2015 18:48:41 141118-67 10401088 TM 304	None (#)	N/C	<0.001 (#)	<0.001 (#)	<0.001 (#)
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPE585 1.00 SOLID 13/11/2014 00:00:00 13/01/2015 12:16:35 141118-67 10400946 TM 304	None (#)	N/C	0.0011 (#)	<0.001 (#)	0.0012 (#)



SDG:	141118-67	Location:	Coed Darcy	Order Number:	CD0980
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Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample ¹	Surrogate Corrected
ASB_PREP				
PM001		Preparation of Samples for Metals Analysis		
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material		
SUB (ASB)				
TM 304				
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) and BTEX (MTBE) compounds by Headspace GC-FID (C4-C12)		
TM132	In - house Method	ELTRA CS800 Operators Guide		
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter		
TM173	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GC-FID		
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES		
TM218	Microwave extraction – EPA method 3546	Microwave extraction - EPA method 3546		

¹ Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.



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Test Completion Dates

Lab Sample No(s) Customer Sample Ref.	10400976	10400980	10400941	10400996	10400891	10400897	10400901	10400908	10400912	10401131
	IP842	IP843	IP929	IP929	IP930	IP931	IP931	IP937	IP937	IP1034
AGS Ref. Depth Type										
	0.50	0.50	1.00	2.00	1.00	0.50	1.50	0.50	1.00	1.00
	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Asbestos fibres in Soil*	27-Nov-2014	27-Nov-2014	27-Nov-2014		27-Nov-2014	27-Nov-2014		27-Nov-2014	27-Nov-2014	27-Nov-2014
Asbestos Quantification - Full										28-Jan-2015
EPH CWG (Aliphatic) GC (S)	08-Dec-2014	05-Dec-2014	04-Dec-2014	05-Dec-2014	04-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	08-Dec-2014	06-Dec-2014
EPH CWG (Aromatic) GC (S)	08-Dec-2014	05-Dec-2014	04-Dec-2014	05-Dec-2014	04-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	08-Dec-2014	06-Dec-2014
GRO by GC-FID (S)	08-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014
Metals in solid samples by OES	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	04-Dec-2014	01-Dec-2014	05-Dec-2014	08-Dec-2014	05-Dec-2014
PAH by GCMS	08-Dec-2014	06-Dec-2014	06-Dec-2014	06-Dec-2014	06-Dec-2014	07-Dec-2014	05-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014
pH	06-Dec-2014	04-Dec-2014	06-Dec-2014	05-Dec-2014	04-Dec-2014	06-Dec-2014	04-Dec-2014	04-Dec-2014	06-Dec-2014	06-Dec-2014
Sample description	01-Dec-2014	27-Nov-2014	01-Dec-2014	25-Nov-2014	01-Dec-2014	27-Nov-2014	25-Nov-2014	27-Nov-2014	04-Dec-2014	28-Nov-2014
Total Organic Carbon					04-Dec-2014					
TPH CWG GC (S)	08-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	08-Dec-2014	07-Dec-2014
Lab Sample No(s) Customer Sample Ref.	10401124	10400929	10400917	10400923	10400905	10400933	10400937	10401088	10401094	10401100
	IP1035	IP1038	IP1039	IP1039	IP1040	IP1072	IP1072	IP1383	IP1383	IP1383
AGS Ref. Depth Type										
	1.00	0.50	0.50	0.75	0.50	1.00	2.00	0.50	1.50	2.50
	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Asbestos fibres in Soil*	27-Nov-2014	27-Nov-2014	27-Nov-2014	27-Nov-2014	27-Nov-2014	27-Nov-2014		27-Nov-2014		
Asbestos Quantification - Full			28-Jan-2015					28-Jan-2015		
EPH CWG (Aliphatic) GC (S)	05-Dec-2014	05-Dec-2014	04-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	06-Dec-2014	05-Dec-2014	05-Dec-2014
EPH CWG (Aromatic) GC (S)	05-Dec-2014	05-Dec-2014	04-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	06-Dec-2014	05-Dec-2014	05-Dec-2014
GRO by GC-FID (S)	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	08-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014
Metals in solid samples by OES	01-Dec-2014	05-Dec-2014	04-Dec-2014	04-Dec-2014	28-Nov-2014	28-Nov-2014	01-Dec-2014	02-Dec-2014	01-Dec-2014	01-Dec-2014
PAH by GCMS	05-Dec-2014	06-Dec-2014	07-Dec-2014	06-Dec-2014	06-Dec-2014	07-Dec-2014	06-Dec-2014	04-Dec-2014	06-Dec-2014	07-Dec-2014
pH	06-Dec-2014	06-Dec-2014	06-Dec-2014	06-Dec-2014	06-Dec-2014	05-Dec-2014	05-Dec-2014	06-Dec-2014	05-Dec-2014	04-Dec-2014
Sample description	27-Nov-2014	27-Nov-2014	01-Dec-2014	27-Nov-2014	25-Nov-2014	25-Nov-2014	26-Nov-2014	28-Nov-2014	25-Nov-2014	26-Nov-2014
TPH CWG GC (S)	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	08-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014
Lab Sample No(s) Customer Sample Ref.	10401105	10401037	10401043	10401049	10401053	10401135	10401140	10400985	10400991	10401063
	IP1383	IP1384	IP1384	IP1384	IP1384	IP1386	IP1386	TPE420	TPE420	TPE429
AGS Ref. Depth Type										
	3.50	0.50	1.50	2.50	3.50	0.50	1.00	0.50	1.50	1.00
	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Asbestos fibres in Soil*		27-Nov-2014				27-Nov-2014	27-Nov-2014	27-Nov-2014		27-Nov-2014
EPH CWG (Aliphatic) GC (S)	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	04-Dec-2014	05-Dec-2014	04-Dec-2014	05-Dec-2014	05-Dec-2014
EPH CWG (Aromatic) GC (S)	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	04-Dec-2014	05-Dec-2014	04-Dec-2014	05-Dec-2014	05-Dec-2014
GRO by GC-FID (S)	07-Dec-2014	07-Dec-2014	07-Dec-2014	05-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014
Metals in solid samples by OES	01-Dec-2014	05-Dec-2014	01-Dec-2014	01-Dec-2014	01-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	01-Dec-2014	01-Dec-2014
PAH by GCMS	06-Dec-2014	05-Dec-2014	06-Dec-2014	06-Dec-2014	06-Dec-2014	06-Dec-2014	06-Dec-2014	06-Dec-2014	06-Dec-2014	05-Dec-2014
pH	04-Dec-2014	04-Dec-2014	05-Dec-2014	05-Dec-2014	04-Dec-2014	06-Dec-2014	04-Dec-2014	04-Dec-2014	05-Dec-2014	06-Dec-2014
Sample description	25-Nov-2014	27-Nov-2014	25-Nov-2014	25-Nov-2014	25-Nov-2014	01-Dec-2014	27-Nov-2014	01-Dec-2014	25-Nov-2014	27-Nov-2014
Total Organic Carbon							05-Dec-2014			
TPH CWG GC (S)	07-Dec-2014	07-Dec-2014	07-Dec-2014	05-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014
Lab Sample No(s) Customer Sample Ref.	10401120	10400964	10400969	10401110	10401115	10401059	10401069	10401074	10401079	10401083
	TPE429	TPE493	TPE493	TPE521	TPE521	TPE522	TPE522	TPE522	TPE522	TPE522
AGS Ref. Depth Type										
	2.00	0.50	1.50	0.50	1.50	0.50	1.50	2.50	3.50	4.50
	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Asbestos fibres in Soil*		27-Nov-2014		27-Nov-2014		27-Nov-2014				
EPH CWG (Aliphatic) GC (S)	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014
EPH CWG (Aromatic) GC (S)	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014
GRO by GC-FID (S)	07-Dec-2014	08-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014
Metals in solid samples by OES	05-Dec-2014	05-Dec-2014	01-Dec-2014	05-Dec-2014	01-Dec-2014	05-Dec-2014	01-Dec-2014	01-Dec-2014	01-Dec-2014	01-Dec-2014
PAH by GCMS	06-Dec-2014	06-Dec-2014	06-Dec-2014	08-Dec-2014	06-Dec-2014	05-Dec-2014	05-Dec-2014	06-Dec-2014	05-Dec-2014	05-Dec-2014
pH	04-Dec-2014	05-Dec-2014	05-Dec-2014	04-Dec-2014	05-Dec-2014	04-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014
Sample description	25-Nov-2014	27-Nov-2014	26-Nov-2014	27-Nov-2014	25-Nov-2014	27-Nov-2014	25-Nov-2014	25-Nov-2014	25-Nov-2014	25-Nov-2014
Total Organic Carbon					05-Dec-2014				01-Dec-2014	
TPH CWG GC (S)	07-Dec-2014	08-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014



SDG: 141118-67
Job: H_ATKINS_LDC-224
Client Reference: Site Wide Trial Pitting

Location: Coed Darcy
Customer: Atkins Global Ltd
Attention: Jack Lowrie

Order Number: CD0980
Report Number: 300144
Superseded Report: 299977

Lab Sample No(s)
Customer Sample Ref.

AGS Ref.
Depth
Type

	10400946	10400950	10400954	10400959	10401004	10401013	10401020	10401025	10401031
	TPE585	TPE585	TPE585	TPE585	TPE610	TPE610	TPE610	TPE610	TPE610
	1.00	2.00	3.00	4.00	0.50	1.50	2.50	3.50	4.50
	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Asbestos fibres in Soil*	27-Nov-2014				27-Nov-2014				
Asbestos Quantification - Full	28-Jan-2015								
EPH CWG (Aliphatic) GC (S)	06-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014
EPH CWG (Aromatic) GC (S)	06-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014
GRO by GC-FID (S)	07-Dec-2014	08-Dec-2014	08-Dec-2014	08-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014
Metals in solid samples by OES	05-Dec-2014	01-Dec-2014	01-Dec-2014	01-Dec-2014	05-Dec-2014	01-Dec-2014	01-Dec-2014	01-Dec-2014	01-Dec-2014
PAH by GCMS	03-Dec-2014	07-Dec-2014	05-Dec-2014	05-Dec-2014	07-Dec-2014	07-Dec-2014	08-Dec-2014	07-Dec-2014	05-Dec-2014
pH	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	04-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014	05-Dec-2014
Sample description	28-Nov-2014	26-Nov-2014	26-Nov-2014	26-Nov-2014	27-Nov-2014	26-Nov-2014	25-Nov-2014	25-Nov-2014	25-Nov-2014
Total Organic Carbon	05-Dec-2014						01-Dec-2014		
TPH CWG GC (S)	07-Dec-2014	08-Dec-2014	08-Dec-2014	08-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014	07-Dec-2014



Certificate of Analysis

Certificate Number 14-21207

26-Nov-14

Client Alcontrol Laboratories
Units 7 & 8
Hawarden Business Park
Manor Road
Hawarden
Deeside
CH5 3US

Our Reference 14-21207

Client Reference 141118-67

Contract Title 141118-67

Description 25 Soil samples.

Date Received 20-Nov-14

Date Started 20-Nov-14

Date Completed 26-Nov-14

Test Procedures Asbestos Analysis DETSC 1101.

Notes Opinions and interpretations are outside the scope of UKAS accreditation. 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. Observations and interpretations are outside the scope of ISO 17025. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

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

Rob Brown
Business Manager



Summary of Asbestos Analysis

Soil Samples

Our Ref 14-21207
 Client Ref 141118-67
 Contract Title 141118-67

Lab No	Sample ID	Material Type	Result	Comment*	Analyst
734775	10405093 IP1034 1.00	SOIL	Chrysotile	Clump of chrsyotile fibres present	Andrew Little
734776	10405080 IP1035 1.00	SOIL	NAD	none	Andrew Little
734777	10405101 IP1038 0.50	SOIL	NAD	none	Andrew Little
734778	10405138 IP1039 0.50	SOIL	Chrysotile	Free Chrysotile fibres present	Andrew Little
734779	10405194 IP1039 0.75	SOIL	NAD	none	Andrew Little
734780	10405168 IP1040 0.50	SOIL	NAD	none	Andrew Little
734781	10404795 IP1072 1.00	SOIL	NAD	none	Andrew Little
734782	10403145 IP1384 0.50	SOIL	NAD	none	Andrew Little
734783	10403098 IP1386 0.50	SOIL	NAD	none	Andrew Little
734784	10403186 IP1386 1.00	SOIL	NAD	none	Andrew Little
734785	10403104 IP842 0.50	SOIL	NAD	none	Andrew Little
734786	10403135 IP843 0.50	SOIL	NAD	none	Andrew Little
734787	10405119 IP929 1.00	SOIL	NAD	none	Andrew Little
734788	10403151 IP930 1.00	SOIL	NAD	none	Andrew Little
734789	10405089 IP931 0.50	SOIL	NAD	none	Andrew Little
734790	10405219 IP937 0.50	SOIL	NAD	none	Andrew Little
734791	10405179 IP937 1.00	SOIL	NAD	none	Andrew Little
734792	10403233 TPE420 0.50	SOIL	NAD	none	Andrew Little
734793	10405107 TPE429 1.00	SOIL	NAD	none	Andrew Little
734794	10404803 TPE493 0.50	SOIL	NAD	none	Andrew Little
734795	10403152 TPE521 0.50	SOIL	NAD	none	Andrew Little
734796	10405228 TPE522 0.50	SOIL	NAD	none	Andrew Little
734797	10404809 TPE585 1.00	SOIL	Chrysotile	Bundles of Chrysotile fibres present	Andrew Little
734798	10405234 TPE610 0.50	SOIL	NAD	none	Andrew Little
734799	10407002 IP1383 0.50	SOIL	Chrysotile	Free Chrysotile fibres present	Andrew Little

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: * -not included in laboratory scope of accreditation.