



Comment	Project 173044
	Reference 6B Plot 257 Arisings
	Date 17/01/19
	Originator Richard Heath
	 Environmental Consultants AAe AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment <u>Strata comprises:</u> 0.00-0.50m Dark greyish brown sandy gravelly CLAY. Gravel is subangular fine of brick, concrete and hardcore. Dark brown silty CLAY. (MADE GROUND)	<table border="1"> <tr> <td data-bbox="646 1350 1165 1422"> Project 173044 </td><td data-bbox="1165 1350 1458 1422"></td></tr> <tr> <td data-bbox="646 1422 1165 1489"> Reference 6B Plot 260 </td><td data-bbox="1165 1422 1458 1489"></td></tr> <tr> <td data-bbox="646 1489 1165 1556"> Date 17/01/19 </td><td data-bbox="1165 1489 1458 1556"></td></tr> <tr> <td data-bbox="646 1556 1165 1624"> Originator Richard Heath </td><td data-bbox="1165 1556 1458 1624"></td></tr> <tr> <td data-bbox="646 1624 1165 1881">  </td><td data-bbox="1165 1624 1458 1881"> AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com </td></tr> </table>	Project 173044		Reference 6B Plot 260		Date 17/01/19		Originator Richard Heath			AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com
Project 173044											
Reference 6B Plot 260											
Date 17/01/19											
Originator Richard Heath											
	AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com										



Comment	Project 173044
	Reference 6B Plot 260 Arisings
	Date 17/01/19
	Originator Richard Heath
	 Environmental Consultants AAe AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment	Project 173044
<u>Strata comprises:</u>	Reference 6B Plot 262
0.0-0.50m: Dark brown silty CLAY with rare brick an concrete. (MADE GROUND)	Date 17/01/19
	Originator Richard Heath  AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment	Project 173044
	Reference 6B Plot 262 Arisings
	Date 17/01/19
	Originator Richard Heath
	 AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment <u>Strata comprises:</u> 0.00-0.50m Dark greyish brown sandy gravelly CLAY. Gravel is subangular fine of brick, concrete and hardcore. (MADE GROUND)	Project 173044
	Reference 6B Plot 264
	Date 17/01/19
	Originator Richard Heath
	AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment	Project 173044
	Reference 6B Plot 264 Arisings
	Date 17/01/19
	Originator Richard Heath
	 AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment <u>Strata comprises:</u> 0.00-0.40m Dark greyish brown sandy gravelly CLAY. Gravel is subangular fine of brick, concrete and hardcore. (MADE GROUND) 0.20-0.60m: Dark brown silty CLAY. (PETERBOROUGH MEMBER)	<table border="1"> <tr> <td data-bbox="646 1348 1165 1422"> Project 173044 </td><td data-bbox="1165 1348 1444 1422"></td></tr> <tr> <td data-bbox="646 1422 1165 1489"> Reference 6B Plot 265 </td><td data-bbox="1165 1422 1444 1489"></td></tr> <tr> <td data-bbox="646 1489 1165 1545"> Date 17/01/19 </td><td data-bbox="1165 1489 1444 1545"></td></tr> <tr> <td data-bbox="646 1545 1165 1612"> Originator Richard Heath </td><td data-bbox="1165 1545 1444 1612"></td></tr> <tr> <td data-bbox="646 1612 1165 1879">  </td><td data-bbox="1165 1612 1444 1879"> AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com </td></tr> </table>	Project 173044		Reference 6B Plot 265		Date 17/01/19		Originator Richard Heath			AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com
Project 173044											
Reference 6B Plot 265											
Date 17/01/19											
Originator Richard Heath											
	AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com										



Comment	Project 173044
	Reference 6B Plot 265 Arisings
	Date 17/01/19
	Originator Richard Heath
	 Environmental Consultants AAe AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment <u>Strata comprises:</u> 0.00-0.50m: Dark brown silty CLAY. (PETERBOROUGH MEMBER)	Project 173044
	Reference 6B Plot 269
	Date 17/01/19
	Originator Richard Heath
	AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment	Project 173044
	Reference 6B Plot 269 Arisings
	Date 17/01/19
	Originator Richard Heath
	 Environmental Consultants AAe AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment <u>Strata comprises:</u> 0.00-0.55m: Dark blackish brown silty CLAY. (PETERBOROUGH MEMBER)	<table border="1"> <tr> <td data-bbox="646 1350 1165 1422"> Project 173044 </td><td data-bbox="1165 1350 1458 1422"></td></tr> <tr> <td data-bbox="646 1422 1165 1489"> Reference 6B Plot 271 </td><td data-bbox="1165 1422 1458 1489"></td></tr> <tr> <td data-bbox="646 1489 1165 1556"> Date 17/01/19 </td><td data-bbox="1165 1489 1458 1556"></td></tr> <tr> <td data-bbox="646 1556 1165 1624"> Originator Richard Heath </td><td data-bbox="1165 1556 1458 1624"></td></tr> <tr> <td data-bbox="646 1624 1165 1881">  </td><td data-bbox="1165 1624 1458 1881"> AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com </td></tr> </table>	Project 173044		Reference 6B Plot 271		Date 17/01/19		Originator Richard Heath			AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com
Project 173044											
Reference 6B Plot 271											
Date 17/01/19											
Originator Richard Heath											
	AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com										



Comment	Project 173044
	Reference 6B Plot 271 Arisings
	Date 17/01/19
	Originator Richard Heath
	 AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment <u>Strata comprises:</u> 0.00-0.50m: Dark brown silty CLAY. (PETERBOROUGH MEMBER)	Project 173044
	Reference 6B Plot 272
	Date 17/01/19
	Originator Richard Heath
	 Environmental Consultants AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment	Project 173044
	Reference 6B Plot 272 Arisings
	Date 17/01/19
	Originator Richard Heath
	 AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment <u>Strata comprises:</u> 0.00-0.20m Dark greyish brown sandy gravelly CLAY. Gravel is subangular fine of brick, concrete and hardcore. (MADE GROUND) 0.20-0.45m: Dark brown silty CLAY. (PETERBOROUGH MEMBER)	Project 173044 Reference 6C Plot 306 Date 17/01/19 Originator Richard Heath  Environmental Consultants AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com
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Comment	Project 173044
	Reference 6C Plot 306 Arisings
	Date 17/01/19
	Originator Richard Heath
	AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment <u>Strata comprises:</u> 0.00-0.60m Greyish brown silty CLAY. (PETERBOROUGH MEMBER)	Project 173044
	Reference 6C Plot 313
	Date 17/01/19
	Originator Richard Heath
	 AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment	Project 173044
	Reference 6C Plot 313 Arisings
	Date 17/01/19
	Originator Richard Heath
	 Environmental Consultants AAe AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment <u>Strata comprises:</u> 0.00-0.30m Dark greyish brown sandy gravelly CLAY. Gravel is subangular fine of brick, concrete and hardcore. (MADE GROUND) 0.30-0.70m: Greyish brown silty CLAY. (PETERBOROUGH MEMBER)	Project 173044
	Reference 6C Plot 314
	Date 17/01/19
	Originator Richard Heath
	AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment	Project 173044
	Reference 6C Plot 314 Arisings
	Date 17/01/19
	Originator Richard Heath
	 Environmental Consultants AAe AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment	Project 173044
<u>Strata comprises:</u>	Reference 6C Plot 315
0.00-0.20m Dark greyish brown sandy gravelly CLAY. Gravel is subangular fine of brick, concrete and hardcore. (MADE GROUND)	Date 17/01/19
0.30-0.60m: Greyish brown silty CLAY. (PETERBOROUGH MEMBER)	Originator Richard Heath
	 Environmental Consultants AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment	Project 173044
	Reference 6C Plot 315 Arisings
	Date 17/01/19
	Originator Richard Heath
	 AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment	Project 173044
<u>Strata comprises:</u>	Reference 6C Plot 316
0.00-0.30m Dark greyish brown sandy gravelly CLAY. Gravel is subangular fine of brick, concrete and hardcore. (MADE GROUND)	Date 17/01/19
0.30-0.60m: Greyish brown silty CLAY. (PETERBOROUGH MEMBER)	Originator Richard Heath
	 AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment	Project 173044
	Reference 6C Plot 316 Arisings
	Date 17/01/19
	Originator Richard Heath
	  AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment	Project 173044
<u>Strata comprises:</u>	Reference 6C Plot 317
0.00-0.50m Dark greyish brown sandy gravelly CLAY with a low cobble content. Gravel is subangular fine of brick, concrete and hardcore. Cobble are concrete. (MADE GROUND)	Date 17/01/19
	Originator Richard Heath
	 Environmental Consultants AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment	Project 173044
	Reference 6C Plot 317 Arisings
	Date 17/01/19
	Originator Richard Heath
	 AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment <u>Strata comprises:</u> 0.00-0.50m Dark greyish brown slightly sandy gravelly CLAY. Gravel is subangular fine of brick, concrete and hardcore. (MADE GROUND)	Project 173044
	Reference 6C Plot 319
	Date 17/01/19
	Originator Richard Heath
	AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment	Project 173044
	Reference 6C Plot 319 Arisings
	Date 17/01/19
	Originator Richard Heath
	 AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment <u>Strata comprises:</u> 0.00-0.50m Dark greyish brown sandy gravelly CLAY. Gravel is subangular fine of brick, concrete and hardcore. (MADE GROUND)	Project 173044
	Reference 6C Plot 326
	Date 16/01/19
	Originator Richard Heath
	AAe Environmental Consultants AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment	Project 173044
	Reference 6C Plot 326 Arisings
	Date 16/01/19
	Originator Richard Heath
	 AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment <u>Strata comprises:</u> 0.00-0.45m Dark greyish brown sandy gravelly CLAY. Gravel is subangular fine of brick, concrete and hardcore. (MADE GROUND)	Project 173044
	Reference 6C Plot 328
	Date 16/01/19
	Originator Richard Heath
	AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment	Project 173044
	Reference 6C Plot 328 Arisings
	Date 16/01/19
	Originator Richard Heath
	 Environmental Consultants AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment	Project 173044
<u>Strata comprises:</u>	Reference 6C Plot 330
0.00-0.35m Dark greyish brown sandy gravelly CLAY. Gravel is subangular fine of brick, concrete and hardcore. (MADE GROUND)	Date 16/01/19
0.35-0.45m: Blackish brown silty CLAY with natural organic odour. (PETERBOROUGH MEMBER)	Originator Richard Heath
	 Environmental Consultants AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment <u>Strata comprises:</u> 0.00-0.45m Dark greyish brown sandy gravelly CLAY. Gravel is subangular fine of brick, concrete and hardcore and greyish brown silty CLAY. (MADE GROUND)	<table border="1"> <tr> <td data-bbox="651 1348 1117 1422"> Project 173044 </td><td data-bbox="1117 1348 1442 1422"></td></tr> <tr> <td data-bbox="651 1422 1117 1489"> Reference 6C Plot 332 </td><td data-bbox="1117 1422 1442 1489"></td></tr> <tr> <td data-bbox="651 1489 1117 1545"> Date 16/01/19 </td><td data-bbox="1117 1489 1442 1545"></td></tr> <tr> <td data-bbox="651 1545 1117 1612"> Originator Richard Heath </td><td data-bbox="1117 1545 1442 1612"></td></tr> <tr> <td data-bbox="651 1612 1117 1881">  </td><td data-bbox="1117 1612 1442 1881"> AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com </td></tr> </table>	Project 173044		Reference 6C Plot 332		Date 16/01/19		Originator Richard Heath			AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com
Project 173044											
Reference 6C Plot 332											
Date 16/01/19											
Originator Richard Heath											
	AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com										



Comment	Project 173044
	Reference 6C Plot 332 Arisings
	Date 16/01/19
	Originator Richard Heath
	 AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment <u>Strata comprises:</u> 0.00-0.35m Dark greyish brown sandy gravelly CLAY. Gravel is subangular fine of brick, concrete and hardcore. (MADE GROUND) 0.35-0.45m: Blackish brown silty CLAY with natural organic odour. (PETERBOROUGH MEMBER)	Project 173044 Reference 6C Plot 333 Date 17/01/19 Originator Richard Heath  AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com
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Comment	Project 173044
	Reference 6C Plot 333 Arisings
	Date 17/01/19
	Originator Richard Heath
	 Environmental Consultants AAe AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment <u>Strata comprises:</u> 0.00-0.55m Dark greyish brown and blackish brown silty CLAY with rare gravel of brick and hardcore. (MADE GROUND)	Project 173044
	Reference 6C Plot 334
	Date 17/01/19
	Originator Richard Heath
	AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment	Project 173044
	Reference 6C Plot 334 Arisings
	Date 17/01/19
	Originator Richard Heath
	 Environmental Consultants AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment	Project 173044
<u>Strata comprises:</u>	Reference 6C Plot 335
0.00-0.60m	Date 17/01/19
Dark greyish brown silty CLAY. (PETERBOROUGH MEMBER)	Originator Richard Heath
	 Environmental Consultants AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment	Project 173044
	Reference 6C Plot 335 Arisings
	Date 17/01/19
	Originator Richard Heath
	 AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment	Project 173044
<u>Strata comprises:</u>	Reference 6C Plot 340
0.00-0.20m Dark greyish brown and blackish brown silty CLAY with gravel of brick at 0.30m. (MADE GROUND)	Date 17/01/19
0.20-0.45m: Dark greyish brown and blackish brown silty CLAY. (PETERBOROUGH MEMBER)	Originator Richard Heath  Environmental Consultants AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment	Project 173044
	Reference 6C Plot 340 Arisings
	Date 17/01/19
	Originator Richard Heath
	 AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment	Project 173044
<u>Strata comprises:</u>	Reference 6C Plot 340
0.00-0.50m	Date 17/01/19
Dark greyish brown silty CLAY. (PETERBOROUGH MEMBER)	Originator Richard Heath
	 Environmental Consultants AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment	Project 173044
	Reference 6C Plot 348 Arisings
	Date 17/01/19
	Originator Richard Heath
	 AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment <u>Strata comprises:</u> 0.00-0.30m Dark greyish brown sandy gravelly CLAY. Gravel is subangular fine of brick, concrete and hardcore. (MADE GROUND) 0.30-0.45m: Dark blackish brown silty gravelly CLAY. Gravel is subangular fine of brick, concrete and hardcore. (MADE GROUND)	Project 173044 Reference 6 Plot 318 Date 25/03/19 Originator Richard Heath  AAe Environmental Consultants AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com
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Comment	Project 173044
	Reference 6 Plot 318 arisings
	Date 26/03/19
	Originator Richard Heath
	 AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment <u>Strata comprises:</u> 0.00-0.30m Dark greyish brown sandy gravelly CLAY. Gravel is subangular fine of brick, concrete and hardcore. (MADE GROUND) 0.30-0.45m: Dark blackish brown silty CLAY. (PETERBOROUGH MEMBER)	Project 173044 Reference 6 Plot 320 Date 25/03/19 Originator Richard Heath  Environmental Consultants AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com
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Comment	Project 173044
	Reference 6 Plot 320 arisings
	Date 26/03/19
	Originator Richard Heath
	 AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment <u>Strata comprises:</u> 0.00-0.45m: Dark greyish brown silty CLAY. (PETERBOROUGH MEMBER)	Project 173044
	Reference 6 Plot 327
	Date 25/03/19
	Originator Richard Heath
	Environmental Consultants AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment	Project 173044
	Reference 6 Plot 327 arisings
	Date 26/03/19
	Originator Richard Heath
	 AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment <u>Strata comprises:</u> 0.00-0.35m: Dark greyish brown sandy gravelly CLAY. Gravel is subangular fine of brick, concrete and hardcore. (MADE GROUND) 0.35-0.45m: Dark blackish brown silty CLAY. (PETERBOROUGH MEMBER)	Project 173044
	Reference 6 Plot 329
	Date 25/03/19
	Originator Richard Heath
	Environmental Consultants AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment	Project 173044
	Reference 6 Plot 329 arisings
	Date 26/03/19
	Originator Richard Heath
	 AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment <u>Strata comprises:</u> 0.00-0.45m Brown to dark brown greyish brown silty CLAY. (PETERBOROUGH MEMBER)	Project 173044
	Reference 6D Plot 355
	Date 15/01/19
	Originator Richard Heath
	AAe Environmental Consultants AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment	Project 173044
	Reference 6D Plot 355 Arisings
	Date 15/01/19
	Originator Richard Heath
	 AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment <u>Strata comprises:</u> 0.00-0.45m Brown to dark brown greyish brown silty CLAY. (PETERBOROUGH MEMBER)	Project 173044
	Reference 6D Plot 358
	Date 15/01/19
	Originator Richard Heath
	 AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment	Project 173044
	Reference 6D Plot 358 Arisings
	Date 15/01/19
	Originator Richard Heath
	 AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment <u>Strata comprises:</u> 0.00-0.20m Dark greyish brown silty CLAY. (PETERBOROUGH MEMBER) 0.20-0.45m: Blackish brown silty CLAY. (PETERBOROUGH MEMBER)	Project 173044
	Reference 6D Plot 362
	Date 15/01/19
	Originator Richard Heath
	AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment

Project
173044

Reference
6D Plot 362 Arisings

Date
15/01/19

Originator
Richard Heath



**AA Environmental
Limited**
Units 4-8 Cholswell Court
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Comment <u>Strata comprises:</u> 0.00-0.30m Dark greyish brown sandy gravelly CLAY. Gravel is subangular fine of brick, concrete and hardcore. (MADE GROUND) 0.30-0.45m Blackish brown silty CLAY. (PETERBOROUGH MEMBER)	Project 173044
	Reference 6D Plot 366
	Date 15/01/19
	Originator Richard Heath
	 Environmental Consultants AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment	Project 173044
	Reference 6D Plot 366 Arisings
	Date 15/01/19
	Originator Richard Heath
	 AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment	Project 173044
<u>Strata comprises:</u>	Reference 6D Plot 368
0.00-0.45m	Date 15/01/19
Dark greyish brown and blackish brown sandy gravelly CLAY. Gravel is subangular fine of brick, concrete and hardcore. (MADE GROUND)	Originator Richard Heath
	 Environmental Consultants AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment	Project 173044
	Reference 6D Plot 368 Arisings
	Date 15/01/19
	Originator Richard Heath
	 AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment <u>Strata comprises:</u> 0.00-0.20m Dark greyish brown sandy gravelly CLAY. Gravel is subangular fine of brick, concrete and hardcore. (MADE GROUND) 0.20-0.45m Dark brown silty CLAY. (PETERBOROUGH MEMBER)	Project 173044 Reference 6D Plot 369 Date 15/01/19 Originator Richard Heath  Environmental Consultants AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com
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Comment	Project 173044
	Reference 6D Plot 369 Arisings
	Date 15/01/19
	Originator Richard Heath
	 Environmental Consultants AAe AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment <u>Strata comprises:</u> 0.00-0.45m Dark greyish brown to blackish brown sandy gravelly CLAY. Gravel is subangular fine of brick, concrete and hardcore. (MADE GROUND)	Project 173044
	Reference 6D Plot 371
	Date 15/01/19
	Originator Richard Heath
	AAe Environmental Consultants AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment

Project

173044

Reference

6D Plot 371

Date

15/01/19

Originator

Richard Heath



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Comment	Project 173044
<u>Strata comprises:</u>	Reference 6D Plot 372
0.00-0.30m Dark greyish brown sandy gravelly CLAY. Gravel is subangular fine of brick, concrete and hardcore. (MADE GROUND)	Date 15/01/19
0.30-0.45m Blackish brown silty CLAY. (PETERBOROUGH MEMBER)	Originator Richard Heath
	 AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment

Project
173044

Reference
6D Plot 372 Arisings

Date
15/01/19

Originator
Richard Heath



AA Environmental Limited
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info@aae-llp.com
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Comment <u>Strata comprises:</u> 0.00-0.45m Dark greyish brown sandy gravelly CLAY. Gravel is subangular fine of brick, concrete and hardcore. (MADE GROUND)	Project 173044 Reference 6D Plot 374 Date 15/01/19 Originator Richard Heath  AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com
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Comment	Project 173044
	Reference 6D Plot 374
	Date 15/01/19
	Originator Richard Heath
	 AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment <u>Strata comprises:</u> 0.00-0.45m Blackish brown silty CLAY. (PETERBOROUGH MEMBER)	Project 173044
	Reference 6D Plot 376
	Date 15/01/19
	Originator Richard Heath
	AAe AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment	Project 173044
	Reference 6D Plot 376
	Date 15/01/19
	Originator Richard Heath
	 Environmental Consultants AAe AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com

APPENDIX C

Certificates of Analysis – Verification Trial Pits

DRAFT



Amended Report

Report No.: 19-01913-7

Initial Date of Issue: 24-Jan-2019 **Date of Re-Issue:** 24-Apr-2019

Client AA Environmental Ltd

Client Address: Units 4 to 8
Cholswell Court
Shippon
Abingdon
Oxfordshire
OX136HX

Contact(s): Ed Brown
Henry Austin
Ioannis Markidis
Jack Taylor
John McCusker
Mark Anderson
Matthew Lawman
Richard Heath
Sam Muir
Tomos Eaves

Project 173044 - Graven Hill

Quotation No.: **Date Received:** 18-Jan-2019

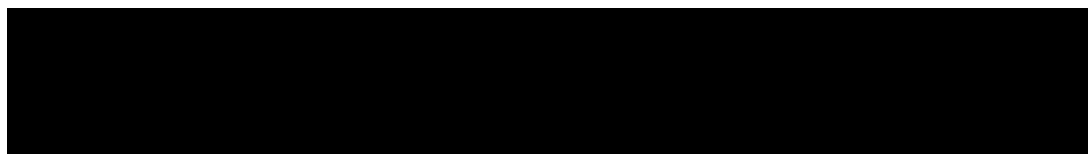
Order No.: 173044 **Date Instructed:** 21-Jan-2019

No. of Samples: 31

Turnaround (Wkdays): 18 **Results Due:** 13-Feb-2019

Date Approved: 13-Feb-2019

Approved By:



Details: Glynn Harvey, Laboratory Manager
Martin Dyer, Laboratory Manager

Results - Soil

Project: 173044 - Graven Hill

Client: AA Environmental Ltd	Chemtest Job No.:				19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913
Quotation No.:	Chemtest Sample ID.:				756956	756957	756958	756959	756960	756961	756962	756963	756964
	Client Sample ID.:				P254	P257	P260	P262	P264	P265	P269	P271	P272
	Sample Location:				6B	6B	6B	6B	6B	6B	6B	6B	6B
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Bottom Depth (m):				0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45
	Date Sampled:				17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019
	Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD									
ACM Type	U	2192		N/A	-	-	-	-	-	Fibres/Clumps	-	-	-
Asbestos Identification	U	2192	%	0.001	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	Chrysotile	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
ACM Detection Stage	U	2192		N/A						Stereo Microscopy			
Asbestos by Gravimetry	U	2192	%	0.001						0.001			
Total Asbestos	N	2192	%	0.001						0.001			
Moisture	N	2030	%	0.020	18	19	13	18	19	23	24	18	21
Soil Colour	N	2040		N/A	Brown,	Brown,	Brown,	Brown,	Brown,	Brown,	Brown,	Brown,	Brown,
Other Material	N	2040		N/A	Stones	Stones,	Stones,	Stones,	Stones	Stones,	Stones	Stones,	Stones,
Soil Texture	N	2040		N/A	Clay,	Clay,	Clay,	Clay,	Clay,	Clay,	Clay,	Clay,	Clay,
pH	M	2010		N/A	8.2	8.6	9.1	8.2	8.2	8.1	8.0	8.1	8.0
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	1.2	0.86	0.99	1.0	1.2	1.4	1.1	2.0	1.0
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	0.55	0.27	0.44	0.37	0.19	0.17	0.47	0.47	0.54
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	11	16	15	8.4	11	10	20	190	18
Arsenic	M	2450	mg/kg	1.0	16	17	18	14	12	20	14	15	16
Beryllium	U	2450	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.1	1.2	1.1	2.9	1.1
Cadmium	M	2450	mg/kg	0.10	0.31	0.37	0.23	0.27	0.34	0.32	0.41	0.33	0.34
Chromium	M	2450	mg/kg	1.0	30	30	20	29	33	33	34	40	34
Copper	M	2450	mg/kg	0.50	22	27	21	25	23	26	22	19	22
Mercury	M	2450	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nickel	M	2450	mg/kg	0.50	28	34	17	34	52	42	37	33	38
Lead	M	2450	mg/kg	0.50	24	24	13	21	26	30	19	27	49
Selenium	M	2450	mg/kg	0.20	< 0.20	< 0.20	< 0.20	0.21	0.37	< 0.20	< 0.20	0.23	< 0.20
Vanadium	U	2450	mg/kg	5.0	35	38	30	34	33	46	35	54	35
Zinc	M	2450	mg/kg	0.50	76	80	82	74	100	88	76	70	75
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Organic Carbon	M	2625	%	0.20	1.4	1.4	0.92	1.5	1.6	2.7	0.96	1.7	1.8
Be Stomach Bioaccessibility	N	2630	mg/kg	0.20								< 0.20	
Be Intestinal Bioaccessibility 1	N	2630	mg/kg	0.20								< 0.20	
Be Intestinal Bioaccessibility 2	N	2630	mg/kg	0.20								< 0.20	
Be Bioaccessible Fraction	N	2630	%	0.10								1.3	
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Client: AA Environmental Ltd	Chemtest Job No.:				19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913
Quotation No.:	Chemtest Sample ID.:				756956	756957	756958	756959	756960	756961	756962	756963	756964
	Client Sample ID.:				P254	P257	P260	P262	P264	P265	P269	P271	P272
	Sample Location:				6B	6B	6B	6B	6B	6B	6B	6B	6B
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Bottom Depth (m):				0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45
	Date Sampled:				17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019
	Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD									
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	3.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	1.3	< 1.0	< 1.0	8.6	1.5	1.3	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	35	< 1.0	< 1.0	36	49	36	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	36	< 5.0	< 5.0	48	50	37	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	23	< 1.0	< 1.0	< 1.0	3.1	2.8
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	2.6	< 1.0	< 1.0	140	4.9	3.5	< 1.0	13	12
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	60	< 1.0	< 1.0	340	130	78	< 1.0	36	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	63	< 5.0	< 5.0	510	130	81	< 5.0	53	15
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	99	< 10	< 10	550	180	120	< 10	53	15
Naphthalene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.57	< 0.10	< 0.10	1.4	< 0.10
Acenaphthylene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.49	< 0.10	< 0.10	0.39	< 0.10
Acenaphthene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.31	< 0.10	< 0.10	0.29	< 0.10
Fluorene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.36	< 0.10	< 0.10	0.19	< 0.10
Phenanthrene	M	2700	mg/kg	0.10	1.3	0.90	< 0.10	1.4	3.1	0.80	< 0.10	1.4	0.82
Anthracene	M	2700	mg/kg	0.10	0.43	< 0.10	< 0.10	0.72	0.74	0.22	< 0.10	0.55	0.78
Fluoranthene	M	2700	mg/kg	0.10	3.6	1.8	< 0.10	2.6	5.1	1.8	0.89	5.3	1.6
Pyrene	M	2700	mg/kg	0.10	3.8	1.8	< 0.10	2.6	4.8	1.8	1.0	4.8	1.8
Benzo[a]anthracene	M	2700	mg/kg	0.10	1.9	1.1	< 0.10	1.6	2.0	1.2	< 0.10	3.2	1.1
Chrysene	M	2700	mg/kg	0.10	2.4	0.76	< 0.10	1.5	2.7	1.4	< 0.10	4.2	1.5
Benzo[b]fluoranthene	M	2700	mg/kg	0.10	2.9	1.7	< 0.10	1.7	3.1	1.6	< 0.10	4.9	1.4
Benzo[k]fluoranthene	M	2700	mg/kg	0.10	0.95	0.46	< 0.10	0.58	1.1	0.71	< 0.10	1.9	0.30
Benzo[a]pyrene	M	2700	mg/kg	0.10	2.0	0.96	< 0.10	1.2	1.8	1.1	< 0.10	2.6	1.2
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.10	0.96	< 0.10	< 0.10	< 0.10	0.76	0.53	< 0.10	1.5	0.54
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.10	0.25	< 0.10	< 0.10	< 0.10	0.26	0.12	< 0.10	0.45	< 0.10
Benzo[g,h,i]perylene	M	2700	mg/kg	0.10	1.5	< 0.10	< 0.10	< 0.10	0.95	0.59	< 0.10	1.6	0.50
Total Of 16 PAH's	M	2700	mg/kg	2.0	22	9.5	< 2.0	14	28	12	< 2.0	35	12
Benzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: 173044 - Graven Hill

Client: AA Environmental Ltd	Chemtest Job No.:		19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913
Quotation No.:	Chemtest Sample ID.:		756956	756957	756958	756959	756960	756961	756962	756963
	Client Sample ID.:		P254	P257	P260	P262	P264	P265	P269	P271
	Sample Location:		6B	6B	6B	6B	6B	6B	6B	6B
	Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Bottom Depth (m):		0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45
	Date Sampled:		17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019
	Asbestos Lab:		DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD						
Total Phenols	M	2920	mg/kg	0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30

Results - Soil

Project: 173044 - Graven Hill

Client: AA Environmental Ltd	Chemtest Job No.:		19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913
Quotation No.:	Chemtest Sample ID.:		756967	756968	756969	756975	756976	756977	756978	756979	756980		
	Client Sample ID.:		P330	P328	P326	P335	P334	P340	P348	P323	P299		
	Sample Location:		6C	6C	6C	6C	6C	6C	6C	6C	6C		
	Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL		
	Top Depth (m):		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	Bottom Depth (m):		0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45		
	Date Sampled:		16-Jan-2019	16-Jan-2019	16-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019		
	Asbestos Lab:		DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM		
Determinand	Accred.	SOP	Units	LOD									
ACM Type	U	2192		N/A	-	Fibres/Clumps	-	-	-	-	-	-	-
Asbestos Identification	U	2192	%	0.001	No Asbestos Detected	Chrysotile	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
ACM Detection Stage	U	2192		N/A		Stereo Microscopy							
Asbestos by Gravimetry	U	2192	%	0.001		0.001							
Total Asbestos	N	2192	%	0.001		0.001							
Moisture	N	2030	%	0.020	22	14	19	20	23	20	20	19	15
Soil Colour	N	2040		N/A	Brown,	Brown	Brown,	Brown,	Brown,	Brown,	Brown,	Brown,	Brown,
Other Material	N	2040		N/A	Stones,	Stones,	Stones,	Stones	Stones,	Stones,	Stones,	Stones,	Stones,
Soil Texture	N	2040		N/A	Clay,	Clay,	Clay,	Clay,	Clay,	Clay,	Clay,	Clay,	Clay,
pH	M	2010		N/A	8.0	8.7	8.1	7.8	8.3	8.1	8.2	7.9	8.2
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	0.88	0.97	1.2	0.99	0.91	0.77	1.2	1.4	1.1
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	0.12	0.24	0.28	0.97	0.39	0.36	< 0.010	0.096	< 0.010
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	25	14	4.6	3.1	6.3	14	2.3	3.5	1.3
Arsenic	M	2450	mg/kg	1.0	15	21	10	12	15	15	17	11	11
Beryllium	U	2450	mg/kg	1.0	1.3	< 1.0	1.0	< 1.0	< 1.0	1.2	1.2	< 1.0	< 1.0
Cadmium	M	2450	mg/kg	0.10	0.47	0.29	0.48	0.14	0.39	0.35	0.38	0.31	0.49
Chromium	M	2450	mg/kg	1.0	35	28	36	29	32	34	34	36	26
Copper	M	2450	mg/kg	0.50	29	16	21	16	23	19	16	20	16
Mercury	M	2450	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.15	< 0.10	< 0.10	< 0.10	< 0.10
Nickel	M	2450	mg/kg	0.50	40	22	43	34	35	37	46	37	55
Lead	M	2450	mg/kg	0.50	54	23	15	14	24	19	22	15	9.3
Selenium	M	2450	mg/kg	0.20	0.25	< 0.20	< 0.20	< 0.20	0.21	< 0.20	< 0.20	0.34	< 0.20
Vanadium	U	2450	mg/kg	5.0	41	36	32	30	37	41	50	39	29
Zinc	M	2450	mg/kg	0.50	97	69	73	51	84	67	85	74	50
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Organic Carbon	M	2625	%	0.20	4.1	0.93	0.78	0.79	2.1	1.3	1.0	0.97	0.31
Be Stomach Bioaccessibility	N	2630	mg/kg	0.20									
Be Intestinal Bioaccessibility 1	N	2630	mg/kg	0.20									
Be Intestinal Bioaccessibility 2	N	2630	mg/kg	0.20									
Be Bioaccessible Fraction	N	2630	%	0.10									
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: 173044 - Graven Hill

Client: AA Environmental Ltd	Chemtest Job No.:				19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913
Quotation No.:	Chemtest Sample ID.:				756967	756968	756969	756975	756976	756977	756978	756979	756980
	Client Sample ID.:				P330	P328	P326	P335	P334	P340	P348	P323	P299
	Sample Location:				6C	6C	6C	6C	6C	6C	6C	6C	6C
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Bottom Depth (m):				0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45
	Date Sampled:				16-Jan-2019	16-Jan-2019	16-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019
	Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD									
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	3.8	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	12	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	6.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	22	< 5.0	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10	< 10	< 10	< 10	22	< 10	< 10	< 10	< 10
Naphthalene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	M	2700	mg/kg	0.10	0.93	< 0.10	< 0.10	< 0.10	1.2	0.90	< 0.10	< 0.10	< 0.10
Anthracene	M	2700	mg/kg	0.10	0.19	< 0.10	< 0.10	< 0.10	0.56	0.25	< 0.10	< 0.10	< 0.10
Fluoranthene	M	2700	mg/kg	0.10	1.4	1.0	0.71	0.74	2.6	1.6	< 0.10	< 0.10	< 0.10
Pyrene	M	2700	mg/kg	0.10	1.8	1.2	1.2	1.1	2.6	1.9	< 0.10	< 0.10	< 0.10
Benzo[a]anthracene	M	2700	mg/kg	0.10	0.78	< 0.10	< 0.10	< 0.10	1.5	0.49	< 0.10	< 0.10	< 0.10
Chrysene	M	2700	mg/kg	0.10	1.2	< 0.10	< 0.10	< 0.10	2.2	0.45	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	M	2700	mg/kg	0.10	1.5	< 0.10	< 0.10	< 0.10	2.6	0.85	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	M	2700	mg/kg	0.10	0.19	< 0.10	< 0.10	< 0.10	0.98	0.48	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene	M	2700	mg/kg	0.10	0.66	< 0.10	< 0.10	< 0.10	1.2	0.52	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.10	0.24	< 0.10	< 0.10	< 0.10	0.78	0.30	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.10	0.12	< 0.10	< 0.10	< 0.10	0.25	0.11	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	M	2700	mg/kg	0.10	0.27	< 0.10	< 0.10	< 0.10	1.0	0.29	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	M	2700	mg/kg	2.0	9.3	2.2	< 2.0	< 2.0	18	8.1	< 2.0	< 2.0	< 2.0
Benzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: 173044 - Graven Hill

Client: AA Environmental Ltd	Chemtest Job No.:		19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913
Quotation No.:	Chemtest Sample ID.:		756967	756968	756969	756975	756976	756977	756978	756980
	Client Sample ID.:		P330	P328	P326	P335	P334	P340	P348	P323
	Sample Location:		6C	6C	6C	6C	6C	6C	6C	6C
	Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Bottom Depth (m):		0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45
	Date Sampled:		16-Jan-2019	16-Jan-2019	16-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019
	Asbestos Lab:		DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD						
Total Phenols	M	2920	mg/kg	0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30

Results - Soil

Project: 173044 - Graven Hill

Client: AA Environmental Ltd	Chemtest Job No.:				19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913
Quotation No.:	Chemtest Sample ID.:				756981	756983	756984	756985	756986	756988	756989	756990	756991
	Client Sample ID.:				P306	P314	P313	P317	P319	P355	P358	P362	P366
	Sample Location:				6C	6C	6C	6C	6C	6D	6D	6D	6D
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Bottom Depth (m):				0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45
	Date Sampled:				17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	15-Jan-2019	15-Jan-2019	15-Jan-2019	15-Jan-2019
	Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD									
ACM Type	U	2192		N/A	-	-	-	-	Fibres/Clumps	-	-	-	-
Asbestos Identification	U	2192	%	0.001	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	Chrysotile	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
ACM Detection Stage	U	2192		N/A					Stereo Microscopy				
Asbestos by Gravimetry	U	2192	%	0.001					0.001				
Total Asbestos	N	2192	%	0.001					0.001				
Moisture	N	2030	%	0.020	19	20	20	13	12	18	20	19	21
Soil Colour	N	2040		N/A	Brown	Brown,	Brown,	Brown,	Brown,	Brown,	Brown,	Brown,	Brown,
Other Material	N	2040		N/A	Stones,	Stones,	Stones	Stones,	Stones,	Stones	Stones,	Stones,	Stones,
Soil Texture	N	2040		N/A	Clay,	Clay,	Clay,	Clay,	Clay,	Clay,	Clay,	Clay,	Clay,
pH	M	2010		N/A	7.7	7.9	7.8	11.0	9.6	7.9	8.2	8.1	8.0
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	1.6	1.0	0.87	1.0	1.7	1.0	1.5	1.3	1.3
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	0.89	0.31	0.54	0.82	1.1	0.027	0.020	0.080	0.26
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	2.6	4.9	4.3	2.0	6.7	1.6	4.8	3.8	3.9
Arsenic	M	2450	mg/kg	1.0	10	14	14	24	23	11	19	21	19
Beryllium	U	2450	mg/kg	1.0	< 1.0	1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.1	1.1	1.1
Cadmium	M	2450	mg/kg	0.10	0.36	0.30	0.29	10	0.28	0.31	0.26	0.14	0.18
Chromium	M	2450	mg/kg	1.0	35	35	31	17	19	30	34	36	36
Copper	M	2450	mg/kg	0.50	21	22	22	13	21	12	19	17	20
Mercury	M	2450	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nickel	M	2450	mg/kg	0.50	41	39	38	19	21	28	50	44	46
Lead	M	2450	mg/kg	0.50	14	20	22	40	31	12	25	18	20
Selenium	M	2450	mg/kg	0.20	< 0.20	0.22	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Vanadium	U	2450	mg/kg	5.0	27	35	35	30	30	36	47	51	46
Zinc	M	2450	mg/kg	0.50	62	79	75	61	65	54	81	65	71
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Organic Carbon	M	2625	%	0.20	0.72	1.3	1.3	0.75	1.2	0.79	1.9	0.84	1.1
Be Stomach Bioaccessibility	N	2630	mg/kg	0.20									
Be Intestinal Bioaccessibility 1	N	2630	mg/kg	0.20									
Be Intestinal Bioaccessibility 2	N	2630	mg/kg	0.20									
Be Bioaccessible Fraction	N	2630	%	0.10									
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Project: 173044 - Graven Hill

Client: AA Environmental Ltd	Chemtest Job No.:				19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913
Quotation No.:	Chemtest Sample ID.:				756981	756983	756984	756985	756986	756988	756989	756990	756991
	Client Sample ID.:				P306	P314	P313	P317	P319	P355	P358	P362	P366
	Sample Location:				6C	6C	6C	6C	6C	6D	6D	6D	6D
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Bottom Depth (m):				0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45
	Date Sampled:				17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	15-Jan-2019	15-Jan-2019	15-Jan-2019	15-Jan-2019
	Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD									
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	30	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	39	7.0	< 1.0	< 1.0	< 1.0	2.6
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	100	310	< 1.0	< 1.0	< 1.0	43
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	5.7	130	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	180	450	< 5.0	< 5.0	< 5.0	46
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	3.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	11	7.0	4.8	< 1.0	< 1.0	< 1.0	3.2
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	190	400	< 1.0	< 1.0	< 1.0	5.8
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	82	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	14	200	480	< 5.0	< 5.0	< 5.0	9.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10	< 10	14	370	930	< 10	< 10	< 10	55
Naphthalene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	M	2700	mg/kg	0.10	< 0.10	0.77	0.88	1.3	< 0.10	< 0.10	< 0.10	< 0.10	1.7
Anthracene	M	2700	mg/kg	0.10	< 0.10	0.26	0.33	0.53	< 0.10	< 0.10	< 0.10	< 0.10	0.82
Fluoranthene	M	2700	mg/kg	0.10	1.0	1.6	2.2	1.7	1.2	< 0.10	< 0.10	< 0.10	1.7
Pyrene	M	2700	mg/kg	0.10	1.0	1.9	2.1	2.2	1.3	< 0.10	< 0.10	< 0.10	1.6
Benzo[a]anthracene	M	2700	mg/kg	0.10	< 0.10	0.73	0.88	1.2	0.64	< 0.10	< 0.10	< 0.10	0.41
Chrysene	M	2700	mg/kg	0.10	< 0.10	1.0	1.2	1.2	0.64	< 0.10	< 0.10	< 0.10	0.47
Benzo[b]fluoranthene	M	2700	mg/kg	0.10	< 0.10	0.95	1.3	1.7	0.78	< 0.10	< 0.10	< 0.10	0.66
Benzo[k]fluoranthene	M	2700	mg/kg	0.10	< 0.10	0.38	0.55	0.64	0.29	< 0.10	< 0.10	< 0.10	0.20
Benzo[a]pyrene	M	2700	mg/kg	0.10	< 0.10	0.46	0.61	1.3	0.71	< 0.10	< 0.10	< 0.10	0.23
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.10	< 0.10	0.17	0.27	1.0	0.38	< 0.10	< 0.10	< 0.10	0.11
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	0.23	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	M	2700	mg/kg	0.10	< 0.10	0.38	0.38	1.3	0.68	< 0.10	< 0.10	< 0.10	0.13
Total Of 16 PAH's	M	2700	mg/kg	2.0	2.0	8.6	11	14	6.6	< 2.0	< 2.0	< 2.0	8.0
Benzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: 173044 - Graven Hill

Client: AA Environmental Ltd	Chemtest Job No.:				19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913
Quotation No.:	Chemtest Sample ID.:				756981	756983	756984	756985	756986	756988	756989	756990	756991	756991
	Client Sample ID.:				P306	P314	P313	P317	P319	P355	P358	P362	P366	P366
	Sample Location:				6C	6C	6C	6C	6C	6D	6D	6D	6D	6D
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Bottom Depth (m):				0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45
	Date Sampled:				17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	15-Jan-2019	15-Jan-2019	15-Jan-2019	15-Jan-2019	15-Jan-2019
	Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD										
Total Phenols	M	2920	mg/kg	0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30

Project: 173044 - Graven Hill

Client: AA Environmental Ltd	Chemtest Job No.:				19-01913	19-01913	19-01913	19-01913
Quotation No.:	Chemtest Sample ID.:				756992	756993	756994	756995
	Client Sample ID.:				P368	P369	P371	P376
	Sample Location:				6D	6D	6D	6D
	Sample Type:				SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.00	0.00	0.00	0.00
	Bottom Depth (m):				0.45	0.45	0.45	0.45
	Date Sampled:				15-Jan-2019	15-Jan-2019	15-Jan-2019	15-Jan-2019
	Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD				
ACM Type	U	2192		N/A	-	-	-	-
Asbestos Identification	U	2192	%	0.001	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
ACM Detection Stage	U	2192		N/A				
Asbestos by Gravimetry	U	2192	%	0.001				
Total Asbestos	N	2192	%	0.001				
Moisture	N	2030	%	0.020	17	23	16	19
Soil Colour	N	2040		N/A	Brown,	Brown,	Brown,	Brown,
Other Material	N	2040		N/A	Stones,	Stones,	Stones	Stones,
Soil Texture	N	2040		N/A	Clay,	Clay,	Clay,	Clay,
pH	M	2010		N/A	8.2	8.1	8.5	8.0
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	1.3	1.1	1.2	0.92
Sulphate (2:1 Water Soluble) as SO ₄	M	2120	g/l	0.010	0.74	0.35	0.63	0.28
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	7.1	26	4.1	8.0
Arsenic	M	2450	mg/kg	1.0	16	9.0	16	15
Beryllium	U	2450	mg/kg	1.0	< 1.0	1.1	< 1.0	1.3
Cadmium	M	2450	mg/kg	0.10	0.36	0.35	0.35	0.53
Chromium	M	2450	mg/kg	1.0	32	40	29	41
Copper	M	2450	mg/kg	0.50	23	25	21	23
Mercury	M	2450	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nickel	M	2450	mg/kg	0.50	34	44	35	45
Lead	M	2450	mg/kg	0.50	19	16	21	22
Selenium	M	2450	mg/kg	0.20	0.38	0.37	0.29	< 0.20
Vanadium	U	2450	mg/kg	5.0	34	31	36	48
Zinc	M	2450	mg/kg	0.50	77	72	82	86
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Organic Carbon	M	2625	%	0.20	1.3	1.1	1.8	1.9
Be Stomach Bioaccessibility	N	2630	mg/kg	0.20				
Be Intestinal Bioaccessibility 1	N	2630	mg/kg	0.20				
Be Intestinal Bioaccessibility 2	N	2630	mg/kg	0.20				
Be Bioaccessible Fraction	N	2630	%	0.10				
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	11	< 1.0

Project: 173044 - Graven Hill

Client: AA Environmental Ltd	Chemtest Job No.:				19-01913	19-01913	19-01913	19-01913
Quotation No.:	Chemtest Sample ID.:				756992	756993	756994	756995
	Client Sample ID.:				P368	P369	P371	P376
	Sample Location:				6D	6D	6D	6D
	Sample Type:				SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.00	0.00	0.00	0.00
	Bottom Depth (m):				0.45	0.45	0.45	0.45
	Date Sampled:				15-Jan-2019	15-Jan-2019	15-Jan-2019	15-Jan-2019
	Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD				
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	8.9	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	1.6	2.9	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	25	40	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	26	63	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	9.7	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	4.1	< 1.0	12	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	12	3.2	50	< 1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	88	200	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	120	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	16	91	390	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	16	120	450	< 10
Naphthalene	M	2700	mg/kg	0.10	< 0.10	< 0.10	14	< 0.10
Acenaphthylene	M	2700	mg/kg	0.10	< 0.10	< 0.10	1.9	< 0.10
Acenaphthene	M	2700	mg/kg	0.10	< 0.10	< 0.10	15	< 0.10
Fluorene	M	2700	mg/kg	0.10	< 0.10	< 0.10	14	< 0.10
Phenanthrene	M	2700	mg/kg	0.10	1.3	< 0.10	67	0.72
Anthracene	M	2700	mg/kg	0.10	0.44	< 0.10	18	0.26
Fluoranthene	M	2700	mg/kg	0.10	2.4	0.74	56	1.0
Pyrene	M	2700	mg/kg	0.10	2.7	0.47	51	0.94
Benzo[a]anthracene	M	2700	mg/kg	0.10	0.84	< 0.10	16	0.56
Chrysene	M	2700	mg/kg	0.10	1.4	< 0.10	21	0.47
Benzo[b]fluoranthene	M	2700	mg/kg	0.10	1.4	< 0.10	16	0.47
Benzo[k]fluoranthene	M	2700	mg/kg	0.10	0.45	< 0.10	6.8	0.37
Benzo[a]pyrene	M	2700	mg/kg	0.10	0.77	< 0.10	11	0.23
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.10	0.47	< 0.10	5.0	0.39
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.10	0.11	< 0.10	1.2	< 0.10
Benzo[g,h,i]perylene	M	2700	mg/kg	0.10	0.49	< 0.10	4.7	0.25
Total Of 16 PAH's	M	2700	mg/kg	2.0	13	< 2.0	320	5.7
Benzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: 173044 - Graven Hill

Client: AA Environmental Ltd	Chemtest Job No.:				
Quotation No.:	Chemtest Sample ID.:				
	Client Sample ID.:	P368	P369	P371	P376
	Sample Location:	6D	6D	6D	6D
	Sample Type:	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):	0.00	0.00	0.00	0.00
	Bottom Depth (m):	0.45	0.45	0.45	0.45
	Date Sampled:	15-Jan-2019	15-Jan-2019	15-Jan-2019	15-Jan-2019
	Asbestos Lab:	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD	
Total Phenols	M	2920	mg/kg	0.30	< 0.30

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N-dimethyl-p-phenylenediamine.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2630	PBET	PBET	Extraction at 37C / ICP-MS
2680	TPH A/A Split	Aliphatics: >C5-C6, >C6-C8,>C8-C10, >C10-C12, >C12-C16, >C16-C21, >C21-C35, >C35- C44Aromatics: >C5-C7, >C7-C8, >C8- C10, >C10-C12, >C12-C16, >C16- C21, >C21- C35, >C35- C44	Dichloromethane extraction / GCxGC FID detection
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenzo[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

Report Information

Key

- U UKAS accredited
- M MCERTS and UKAS accredited
- N Unaccredited
- S This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
- SN This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
- T This analysis has been subcontracted to an unaccredited laboratory
- I/S Insufficient Sample
- U/S Unsuitable Sample
- N/E not evaluated
- < "less than"
- > "greater than"

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at the indicated laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 45 days from the date of receipt

All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.com



Amended Report

Report No.: 19-02109-2

Initial Date of Issue: 25-Jan-2019 **Date of Re-Issue:** 30-Jan-2019

Client AA Environmental Ltd

Client Address: Units 4 to 8
Cholswell Court
Shippon
Abingdon
Oxfordshire
OX136HX

Contact(s): Ed Brown
Henry Austin
Ioannis Markidis
Jack Taylor
John McCusker
Mark Anderson
Matthew Lawman
Richard Heath
Sam Muir
Tomos Eaves

Project 173044 - Graven Hill

Quotation No.: **Date Received:** 22-Jan-2019

Order No.: 173044 **Date Instructed:** 22-Jan-2019

No. of Samples: 5

Turnaround (Wkdays): 7 **Results Due:** 30-Jan-2019

Date Approved: 30-Jan-2019

Approved By:



Details: Glynn Harvey, Laboratory Manager

Project: 173044 - Graven Hill

Client: AA Environmental Ltd	Chemtest Job No.:				19-02109	19-02109	19-02109	19-02109	19-02109
Quotation No.:	Chemtest Sample ID.:				757925	757926	757927	757928	757929
	Client Sample ID.:				P315	P316	P374	P333	P332
	Sample Location:				6C	6C	6D	6C	6C
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.00	0.00	0.00	0.00	0.00
	Bottom Depth (m):				0.45	0.45	0.45	0.45	0.45
	Date Sampled:				17-Jan-2019	17-Jan-2019	15-Jan-2019	16-Jan-2019	16-Jan-2019
	Asbestos Lab:				COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	Accred.	SOP	Units	LOD					
ACM Type	U	2192		N/A	-	-	-	-	-
Asbestos Identification	U	2192	%	0.001	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
ACM Detection Stage	U	2192		N/A	-	-	-	-	-
Moisture	N	2030	%	0.020	12	10	11	14	12
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Sand
pH	M	2010		N/A	8.5	8.5	9.3	8.7	8.8
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	1.5	1.5	1.2	1.1	1.3
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	0.60	0.59	0.65	0.49	0.59
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	13	14	12	13	18
Arsenic	M	2450	mg/kg	1.0	17	18	14	15	15
Beryllium	U	2450	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Cadmium	M	2450	mg/kg	0.10	0.58	0.49	0.43	0.35	0.63
Chromium	M	2450	mg/kg	1.0	32	31	24	28	30
Copper	M	2450	mg/kg	0.50	41	46	25	21	30
Mercury	M	2450	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nickel	M	2450	mg/kg	0.50	37	38	29	36	33
Lead	M	2450	mg/kg	0.50	34	28	22	19	28
Selenium	M	2450	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Vanadium	U	2450	mg/kg	5.0	38	37	30	34	35
Zinc	M	2450	mg/kg	0.50	160	130	96	75	110
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Organic Carbon	M	2625	%	0.20	1.0	0.99	1.1	1.1	1.0
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	13	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0	7.1	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	31	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	50	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Client: AA Environmental Ltd	Chemtest Job No.:				19-02109	19-02109	19-02109	19-02109	19-02109
Quotation No.:	Chemtest Sample ID.:				757925	757926	757927	757928	757929
	Client Sample ID.:				P315	P316	P374	P333	P332
	Sample Location:				6C	6C	6D	6C	6C
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.00	0.00	0.00	0.00	0.00
	Bottom Depth (m):				0.45	0.45	0.45	0.45	0.45
	Date Sampled:				17-Jan-2019	17-Jan-2019	15-Jan-2019	16-Jan-2019	16-Jan-2019
	Asbestos Lab:				COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	Accred.	SOP	Units	LOD					
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	6.4	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	26	< 1.0	< 1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	66	< 1.0	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	98	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10	< 10	150	< 10	< 10
Naphthalene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	M	2700	mg/kg	0.10	0.58	0.70	0.41	< 0.10	0.95
Anthracene	M	2700	mg/kg	0.10	0.29	< 0.10	< 0.10	< 0.10	0.26
Fluoranthene	M	2700	mg/kg	0.10	1.1	0.90	0.66	0.87	1.1
Pyrene	M	2700	mg/kg	0.10	0.90	1.0	0.70	0.97	1.2
Benzo[a]anthracene	M	2700	mg/kg	0.10	0.66	0.70	0.46	0.66	0.60
Chrysene	M	2700	mg/kg	0.10	0.84	0.68	0.48	0.97	0.69
Benzo[b]fluoranthene	M	2700	mg/kg	0.10	0.43	0.75	< 0.10	< 0.10	0.53
Benzo[k]fluoranthene	M	2700	mg/kg	0.10	0.19	0.39	< 0.10	< 0.10	0.17
Benzo[a]pyrene	M	2700	mg/kg	0.10	0.53	0.46	< 0.10	< 0.10	0.48
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.10	0.57	1.0	< 0.10	< 0.10	0.22
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.10	0.18	0.50	< 0.10	< 0.10	0.22
Benzo[g,h,i]perylene	M	2700	mg/kg	0.10	0.36	0.59	< 0.10	< 0.10	0.22
Total Of 16 PAH's	M	2700	mg/kg	2.0	6.6	7.7	2.7	3.5	6.6
Benzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Phenols	M	2920	mg/kg	0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N-dimethyl-p-phenylenediamine.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenzo[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

Report Information

Key

- U UKAS accredited
- M MCERTS and UKAS accredited
- N Unaccredited
- S This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
- SN This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
- T This analysis has been subcontracted to an unaccredited laboratory
- I/S Insufficient Sample
- U/S Unsuitable Sample
- N/E not evaluated
- < "less than"
- > "greater than"

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at the indicated laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 45 days from the date of receipt

All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.com



Amended Report

Report No.: 19-02478-6

Initial Date of Issue: 29-Jan-2019 **Date of Re-Issue:** 23-Apr-2019

Client AA Environmental Ltd

Client Address: Units 4 to 8
Cholswell Court
Shippon
Abingdon
Oxfordshire
OX136HX

Contact(s): Ed Brown
Henry Austin
Ioannis Markidis
Jack Taylor
John McCusker
Mark Anderson
Matthew Lawman
Richard Heath
Sam Muir
Tomos Eaves

Project 173044 - Graven Hill

Quotation No.: **Date Received:** 24-Jan-2019

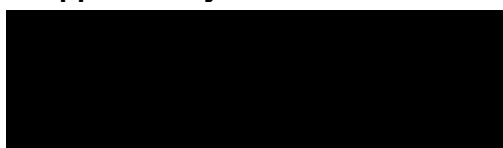
Order No.: 173044 **Date Instructed:** 24-Jan-2019

No. of Samples: 1

Turnaround (Wkdays): 7 **Results Due:** 01-Feb-2019

Date Approved: 01-Feb-2019

Approved By:



Details: Glynn Harvey, Laboratory Manager

Project: 173044 - Graven Hill

Client: AA Environmental Ltd	Chemtest Job No.:				19-02478
Quotation No.:	Chemtest Sample ID.:				759800
	Client Sample ID.:				P372
	Sample Location:				6D
	Sample Type:				SOIL
	Date Sampled:				15-Jan-2019
	Asbestos Lab:				DURHAM
Determinand	Accred.	SOP	Units	LOD	
ACM Type	U	2192		N/A	-
Asbestos Identification	U	2192	%	0.001	No Asbestos Detected
ACM Detection Stage	U	2192		N/A	-
Moisture	N	2030	%	0.020	22
Soil Colour	N	2040		N/A	Brown
Other Material	N	2040		N/A	Stones
Soil Texture	N	2040		N/A	Clay
pH	M	2010		N/A	7.7
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	0.75
Sulphate (2:1 Water Soluble) as SO ₄	M	2120	g/l	0.010	0.013
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	1.4
Arsenic	M	2450	mg/kg	1.0	9.9
Beryllium	U	2450	mg/kg	1.0	1.2
Cadmium	M	2450	mg/kg	0.10	0.51
Chromium	M	2450	mg/kg	1.0	44
Copper	M	2450	mg/kg	0.50	25
Mercury	M	2450	mg/kg	0.10	< 0.10
Nickel	M	2450	mg/kg	0.50	39
Lead	M	2450	mg/kg	0.50	18
Selenium	M	2450	mg/kg	0.20	0.61
Vanadium	U	2450	mg/kg	5.0	33
Zinc	M	2450	mg/kg	0.50	100
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50
Total Organic Carbon	M	2625	%	0.20	1.3
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	1.8
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	51
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	53
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0

Results - Soil

Project: 173044 - Graven Hill

Client: AA Environmental Ltd	Chemtest Job No.:		19-02478		
Quotation No.:	Chemtest Sample ID.:		759800		
	Client Sample ID.:		P372		
	Sample Location:		6D		
	Sample Type:		SOIL		
	Date Sampled:		15-Jan-2019		
	Asbestos Lab:		DURHAM		
Determinand	Accred.	SOP	Units	LOD	
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	5.8
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	120
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	130
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	180
Naphthalene	M	2700	mg/kg	0.10	< 0.10
Acenaphthylene	M	2700	mg/kg	0.10	< 0.10
Acenaphthene	M	2700	mg/kg	0.10	< 0.10
Fluorene	M	2700	mg/kg	0.10	< 0.10
Phenanthrene	M	2700	mg/kg	0.10	< 0.10
Anthracene	M	2700	mg/kg	0.10	< 0.10
Fluoranthene	M	2700	mg/kg	0.10	< 0.10
Pyrene	M	2700	mg/kg	0.10	< 0.10
Benzo[a]anthracene	M	2700	mg/kg	0.10	< 0.10
Chrysene	M	2700	mg/kg	0.10	< 0.10
Benzo[b]fluoranthene	M	2700	mg/kg	0.10	< 0.10
Benzo[k]fluoranthene	M	2700	mg/kg	0.10	< 0.10
Benzo[a]pyrene	M	2700	mg/kg	0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.10	< 0.10
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.10	< 0.10
Benzo[g,h,i]perylene	M	2700	mg/kg	0.10	< 0.10
Total Of 16 PAH's	M	2700	mg/kg	2.0	< 2.0
Benzene	M	2760	µg/kg	1.0	< 1.0
Toluene	M	2760	µg/kg	1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0
Total Phenols	M	2920	mg/kg	0.30	< 0.30

Results - Soil

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N-dimethyl-p-phenylenediamine.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenzo[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

Report Information

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- I/S Insufficient Sample
- U/S Unsuitable Sample
- N/E not evaluated
- < "less than"
- > "greater than"

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at the indicated laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 45 days from the date of receipt

All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.com



2183

Amended Report

Report No.:	19-11427-2		
Initial Date of Issue:	03-Apr-2019	Date of Re-Issue:	30-Apr-2019
Client	AA Environmental Ltd		
Client Address:	Units 4 to 8 Cholswell Court Shippon Abingdon Oxfordshire OX136HX		
Contact(s):	Ed Brown Henry Austin Ioannis Markidis Jack Taylor John McCusker Mark Anderson Matthew Lawman Richard Heath Sam Muir Tomos Eaves		
Project	173044 - Graven Hill		
Quotation No.:		Date Received:	02-Apr-2019
Order No.:	173044	Date Instructed:	02-Apr-2019
No. of Samples:	4		
Turnaround (Wkdays):	19	Results Due:	30-Apr-2019
Date Approved:	30-Apr-2019		
Approved By:			

Details: Glynn Harvey, Laboratory Manager

Results - Soil

Project: 173044 - Graven Hill

Client: AA Environmental Ltd	Chemtest Job No.:				19-11427	19-11427	19-11427	19-11427
Quotation No.:	Chemtest Sample ID.:				804077	804078	804079	804080
	Client Sample ID.:				P329	P327	P318	P320
	Sample Location:				S6	S6	S6	S6
	Sample Type:				SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.35	0.35	0.30	0.35
	Date Sampled:				26-Mar-2019	26-Mar-2019	26-Mar-2019	26-Mar-2019
	Asbestos Lab:				IN-TRAN-D	IN-TRAN-D	IN-TRAN-D	IN-TRAN-D
Determinand	Accred.	SOP	Units	LOD				
ACM Type	U	2192		N/A	-	-	-	-
Asbestos Identification	U	2192	%	0.001	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
ACM Detection Stage	U	2192		N/A	-	-	-	-
Moisture	N	2030	%	0.020	19	19	22	21
Florisil Cleanup	N		-	N/A	Done	Done	Done	Done
Naphthalene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	U	2700	mg/kg	0.10	1.0	< 0.10	< 0.10	< 0.10
Anthracene	U	2700	mg/kg	0.10	0.29	< 0.10	< 0.10	< 0.10
Fluoranthene	U	2700	mg/kg	0.10	1.7	0.14	0.37	0.25
Pyrene	U	2700	mg/kg	0.10	1.5	0.14	0.36	0.25
Benzo[a]anthracene	U	2700	mg/kg	0.10	< 0.10	< 0.10	0.62	0.45
Chrysene	U	2700	mg/kg	0.10	< 0.10	< 0.10	0.55	0.40
Benzo[b]fluoranthene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	U	2700	mg/kg	2.0	4.5	< 2.0	< 2.0	< 2.0

SOP	Title	Parameters included	Method summary
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenzo[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)

Report Information

Key

- U UKAS accredited
- M MCERTS and UKAS accredited
- N Unaccredited
- S This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
- SN This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
- T This analysis has been subcontracted to an unaccredited laboratory
- I/S Insufficient Sample
- U/S Unsuitable Sample
- N/E not evaluated
- < "less than"
- > "greater than"

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

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APPENDIX D

Consolidated Results and Statistical Analysis - Section 6 Fill

DRAFT

Consolidated Results - Soil

Project: 173044 - Careys Graven Hill - PHASE 1 Section 6

Determinand	Waterman Landscaping and Residential Gardens Criteria mg/kg	Tier 1 Residential with homegrown produce SGV mg/kg	Chemtest Job No.				19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-02109	19-02109	19-02109	19-02109	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	
			Chemtest Sample ID.:				756956	756957	756958	756959	756960	756961	756962	756963	756964	757928	757929	757925	757926	756967	756968	756969	756975	756976	756977	756978	
			Client Sample Ref.:				P254	P257	P260	P262	P264	P265	P269	P271	P272	P333	P332	P315	P316	P330	P328	P335	P334	P340	P348		
			Section				6B	6B	6B	6B	6B	6B	6B	6B	6B	6C	6C	6C	6C	6C	6C	6C	6C	6C	6C	6C	
			Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bottom Depth (m):				0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45
			Date Sampled:				17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	16-Jan-2019	16-Jan-2019	17-Jan-2019	17-Jan-2019	16-Jan-2019	16-Jan-2019	16-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019
			Strata																								
			Accred.				SOP	Units	LOD																		
ACM Type			U	2192		N/A	-	-	-	-	-	Fibres/Clumps	-	-	-	-	-	-	-	Fibres/Clumps	-	-	-	-	-		
Asbestos Identification	No visible, <0.001%		U	2192	%	0.001	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	Chrysotile	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	Chrysotile	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected		
Asbestos by Gravimetry			U	2192	%	0.001	-	-	-	-	-	0.001	-	-	-	-	-	-	-	-	0.001	-	-	-	-		
Total Asbestos			N	2192	%	0.001	-	-	-	-	-	0.001	-	-	-	-	-	-	-	-	-	0.001	-	-	-	-	
Moisture		NR	N	2030	%	0.020	18.00	19.00	13.00	18.00	19.00	23.00	24.00	18.00	21.00	14.00	12.00	12.00	10.00	22.00	14.00	19.00	20.00	23.00	20.00		
pH		NR	M	2010		N/A	8.20	8.60	9.10	8.20	8.20	8.10	8.00	8.10	8.00	8.70	8.80	8.50	8.50	8.00	8.70	8.10	7.80	8.30	8.10		
Boron (Hot Water Soluble)		290	M	2120	mg/kg	0.40	1.20	0.86	0.99	1.00	1.20	1.40	1.10	2.00	1.00	1.10	1.30	1.50	0.88	0.97	1.20	0.99	0.91	0.77	1.20		
Sulphate (2:1 Water Soluble) as SO4		NR	M	2120	g/l	0.010	0.55	0.27	0.44	0.37	0.19	0.17	0.47	0.47	0.54	0.49	0.59	0.60	0.59	0.12	0.24	0.28	0.97	0.39			
Cyanide (Total)	26		M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		
Sulphide (Easily Liberatable)		NR	N	2325	mg/kg	0.50	11.00	16.00	15.00	8.40	11.00	10.00	20.00	190.00	18.00	13.00	18.00	13.00	14.00	25.00	14.00	4.60	3.10	6.30	14.00		
Arsenic	37		M	2450	mg/kg	1.0	16.00	17.00	18.00	14.00	12.00	20.00	14.00	15.00	16.00	15.00	15.00	17.00	18.00	15.00	21.00	10.00	12.00	15.00	17.00		
Beryllium	1.7						< 1.0	< 1.0	< 1.0	< 1.0	1.10	1.20	1.10	2.90	1.10	< 1.0	< 1.0	< 1.0	< 1.0	1.30	< 1.0	1.00	< 1.0	< 1.0	1.20		
Cadmium	22		M	2450	mg/kg	0.10	0.31	0.37	0.23	0.27	0.34	0.32	0.41	0.33	0.34	0.35	0.63	0.58	0.49	0.47	0.29	0.48	0.14	0.39	0.38		
Chromium	910		M	2450	mg/kg	1.0	30.00	30.00	20.00	29.00	33.00	33.00	34.00	40.00	34.00	28.00	30.00	32.00	31.00	35.00	28.00	36.00	29.00	32.00	34.00		
Copper	2400		M	2450	mg/kg	0.50	22.00	27.00	21.00	25.00	23.00	26.00	22.00	19.00	22.00	21.00	30.00	41.00	46.00	29.00	16.00	21.00	16.00	23.00	19.00		
Mercury	1.2		M	2450	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10		
Nickel	180		M	2450	mg/kg	0.50	28.00	34.00	17.00	34.00	52.00	42.00	37.00	33.00	38.00	36.00	33.00	37.00	38.00	40.00	22.00	43.00	34.00	35.00	37.00		
Lead	200		M	2450	mg/kg	0.50	24.00	24.00	13.00	21.00	26.00	30.00	19.00	27.00	49.00	19.00	28.00	34.00	28.00	54.00	23.00	15.00	14.00	24.00	19.00		
Selenium	250		M	2450	mg/kg	0.20	< 0.20	< 0.20	< 0.20	0.21	0.37	< 0.20	< 0.20	0.23	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	0.25	< 0.20	< 0.20	< 0.20	0.21	< 0.20		
Vanadium			U	2450	mg/kg	5.0	35.00	38.00	30.00	34.00	33.00	46.00	35.00	54.00	35.00	34.00	35.00	38.00	37.00	41.00	36.00	32.00	30.00	37.00	41.00		
Zinc	3700		M	2450	mg/kg	0.50	76.00	80.00	82.00	74.00	100.00	88.00	76.00	70.00	75.00	75.00	110.00	160.00	130.00	97.00	69.00	73.00	51.00	84.00	67.00		
Chromium (Hexavalent)		6	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		
Total Organic Carbon			M	2625	%	0.20	1.40	1.40	0.92	1.50	1.60	2.70	0.96	1.70	1.80	1.10	1.00	1.00	0.99	4.10	0.93	0.78	0.79	2.10	1.30		
Aliphatic TPH >C5-C6	78		N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		
Aliphatic TPH >C6-C8	230		N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		
Aliphatic TPH >C8-C10	230		M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		
Aliphatic TPH >C10-C12	330		M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		
Aliphatic TPH >C12-C16	2400		M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	3.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1				

Consolidated Results - Soil

Project: 173044 - Careys Graven Hill - PHASE 1 Section 6

Determinand	Waterman Landscaping and Residential Gardens Criteria mg/kg	Tier 1 Residential with homegrown produce SGV mg/kg	Chemtest Job No.:				19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-01913	19-02109	19-02478	19-11427	19-11427	19-11427	19-11427			
			Chemtest Sample ID.:				756981	756983	756984	756985	756986	756988	756989	756990	756991	756992	756993	756994	756995	757927	759800	804077	804078	804079	804080		
			Client Sample Ref.:				P306	P314	P313	P317	P319	P355	P358	P362	P366	P368	P369	P371	P376	P374	P372	P329	P327	P318	P320		
			Section				6C	6C	6C	6C	6C	6D	6D	6D	6D	6D	6D	6D	6D	6D	6D	6C	6C	6C	6C		
			Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	
			Top Depth (m):				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.35	0.30	0.35	
			Bottom Depth (m):				0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45				
			Date Sampled:				17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	15-Jan-2019	15-Jan-2019	15-Jan-2019	15-Jan-2019	15-Jan-2019	15-Jan-2019	15-Jan-2019	15-Jan-2019	15-Jan-2019	15-Jan-2019	15-Jan-2019	26-Mar-2019	26-Mar-2019	26-Mar-2019	26-Mar-2019	
			Strata																								
			Accred.				SOP	Units	LOD																		
ACM Type			U	2192		N/A	-	-	-	-	Fibres/Clumps	-	-	-	-	-	-	-	-	-	-	-	-	-			
Asbestos Identification	No visible, <0.001%		U	2192	%	0.001	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	Chrysotile	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected			
Asbestos by Gravimetry		U	2192	%	0.001	-	-	-	-	-	0.001	-	-	-	-	-	-	-	-	-	-	-	-	-			
Total Asbestos		N	2192	%	0.001	-	-	-	-	-	0.001	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Moisture		NR	N	2030	%	0.020	19.00	20.00	20.00	13.00	12.00	18.00	20.00	19.00	21.00	17.00	23.00	16.00	19.00	11.00	22.00						
pH		NR	M	2010		N/A	7.70	7.90	7.80	11.00	9.60	7.90	8.20	8.10	8.00	8.20	8.10	8.50	8.00	9.30	7.70						
Boron (Hot Water Soluble)		290	M	2120	mg/kg	0.40	1.60	1.00	0.87	1.00	1.70	1.00	1.50	1.30	1.30	1.10	1.20	0.92	1.20	0.75							
Sulphate (2:1 Water Soluble) as SO4		NR	M	2120	g/l	0.010	0.89	0.31	0.54	0.82	1.10	0.03	0.02	0.08	0.26	0.74	0.35	0.63	0.28	0.65	0.01						
Cyanide (Total)	26		M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50						
Sulphide (Easily Liberatable)		NR	N	2325	mg/kg	0.50	2.60	4.90	4.30	2.00	6.70	1.60	4.80	3.80	3.90	7.10	26.00	4.10	8.00	12.00	1.40						
Arsenic	37		M	2450	mg/kg	1.0	10.00	14.00	14.00	24.00	23.00	11.00	19.00	21.00	19.00	16.00	9.00	16.00	15.00	14.00	9.90						
Beryllium	1.7						< 1.0	1.00	< 1.0	< 1.0	< 1.0	< 1.0	1.10	1.10	1.10	< 1.0	1.10	< 1.0	1.30	< 1.0	1.20						
Cadmium	22		M	2450	mg/kg	0.10	0.36	0.30	0.29	10.00	0.28	0.31	0.26	0.14	0.18	0.36	0.35	0.35	0.53	0.43	0.51						
Chromium	910		M	2450	mg/kg	1.0	35.00	35.00	31.00	17.00	19.00	30.00	34.00	36.00	36.00	32.00	40.00	29.00	41.00	24.00	44.00						
Copper	2400		M	2450	mg/kg	0.50	21.00	22.00	22.00	13.00	21.00	12.00	19.00	17.00	20.00	23.00	25.00	21.00	23.00	25.00	25.00						
Mercury	1.2		M	2450	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10						
Nickel	180		M	2450	mg/kg	0.50	41.00	39.00	38.00	19.00	21.00	28.00	50.00	44.00	46.00	34.00	44.00	35.00	45.00	29.00	39.00						
Lead	200		M	2450	mg/kg	0.50	14.00	20.00	22.00	40.00	31.00	12.00	25.00	18.00	20.00	19.00	16.00	21.00	22.00	22.00	18.00						
Selenium	250		M	2450	mg/kg	0.20	< 0.20	0.22	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	0.38	0.37	0.29	< 0.20	< 0.20	0.61						
Vanadium			U	2450	mg/kg	5.0	27.00	35.00	35.00	30.00	30.00	36.00	47.00	51.00	46.00	34.00	31.00	36.00	48.00	30.00	33.00						
Zinc	3700		M	2450	mg/kg	0.50	62.00	79.00	75.00	61.00	65.00	54.00	81.00	65.00	71.00	77.00	72.00	82.00	86.00	96.00	100.00						
Chromium (Hexavalent)		6	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50						
Total Organic Carbon			M	2625	%	0.20	0.72	1.30	1.30	0.75	1.20	0.79	1.90	0.84	1.10	1.30	1.10	1.80	1.90	1.10	1.30						
Aliphatic TPH >C5-C6	78		N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0						
Aliphatic TPH >C6-C8	230		N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0						
Aliphatic TPH >C8-C10	230		M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0						
Aliphatic TPH >C10-C12	330		M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	11	< 1.0	< 1.0	< 1.0						
Aliphatic TPH >C12-C16	2400		M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	30.00	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	8.9	< 1.0	13.00	< 1.0						
Aliphatic TPH >C16-C21	92000		M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	39.00	7.00	< 1.0	< 1.0	< 1.0	2.60	< 1.0	1.60	2.90	< 1.0	7.10	1.80						
Aliphatic TPH >C21-C35	92000		M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	100.00	310.00	< 1.0	< 1.0	< 1.0	43.00	< 1.0	25.00	40.00	< 1.0	31.00	51.00						
Aliphatic TPH >C35-C44		92000	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	5.70	130.00	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0						
Total Aliphatic Hydrocarbons		NR	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	180.00	450.00	< 5.0	< 5.0	< 5.0	46.00	< 5.0	26.00	63.00	< 5.0	50.00	53.00						
Aromatic TPH >C5-C7	1																										

Client/client ref	AA Environmental Limited		
Project ref	173044		
Site ref	Graven Hill		
Data description	Section 6 Exceedence Analysis - SUBSOIL ONLY		
Contaminant(s)			
Test scenario	Planning: is true mean lower than critical concentration ($\mu < C_c$)?		▼
Date	30.04.19		
User details	JNT		

Statistics Calculator (Version 2)



Input data

This spreadsheet has been produced based on the document 'Guidance on Comparing Soil Contamination Data with a Critical Concentration (CIEH/CL:AIRE, 2008)'. Users of this spreadsheet should always refer to this guidance, the User Manual and to relevant guidance on UK legislation and policy, in order to understand how the procedure should be applied in an appropriate context.

ESI Ltd (ESI) do not promise that the spreadsheet will provide any particular facilities or functions. The user must ensure that the spreadsheet meets their needs and they remain solely responsible for the competent use of the spreadsheet. Users are entirely responsible for the consequences of any use of the spreadsheet, ESI do not provide any warranty about the fitness for purpose or performance of any part of the spreadsheet. We do not promise that the media will always be free from defects, computer viruses, software locks or other similar code or that the operation of the spreadsheet will be uninterrupted or error free. The user should carry out all necessary virus checks prior to installing on their computing system.

Client/client ref: AA Environmental Limited
Project ref: 173044
Site ref: Graven Hill
Data description: Section 6 Exceedence
Analysis - SUBSOIL ONLY
Contaminant(s):
Test scenario: Planning
Date: 30.04.19

Critical concentration, C _c		1.7	5.6	11	3.3	2.7	0.28							
Notes														
Full dataset size	0	35	39	39	39	39	39	0	0	0	0	0	0	0
Outliers present?		Yes	Yes	Yes	Yes	Yes	Yes							
Number of outliers temporarily excluded						0								
Number removed by filter	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sample size, n	0	35	39	39	39	39	39	0	0	0	0	0	0	0
Sample mean, $\bar{x}$	No Data	0.78285714	0.45564103	1.05076923	1.23384615	0.79282051	0.13589744	No Data	No Data	No Data	No Data	No Data	No Data	No Data
Standard deviation, s		0.48521415	2.23770417	2.55057721	2.65800936	1.79097143	0.20625378							
Number of non-detects	0	23	36	14	18	18	26	0	0	0	0	0	0	0
Set non-detect values to:	Half detection limit	Half detection limit	Half detection limit	Half detection limit	Half detection limit	Half detection limit	Half detection limit	Half detection limit	Half detection limit	Half detection limit	Half detection limit	Half detection limit	Half detection limit	Half detection limit
Distribution		Non-normal	Non-normal	Non-normal	Non-normal	Non-normal	Non-normal							
Statistical approach	Auto	Auto: Chebyshev	Auto: Chebyshev	Auto: Chebyshev	Auto: Chebyshev	Auto: Chebyshev	Auto: Chebyshev	Auto	Auto	Auto	Auto	Auto	Auto	Auto

Test scenario:	Planning: is true mean lower than critical concentration ($\mu < C_c$)?			Evidence level required:		95%	Use Normal distribution to test for outliers							
t statistic, t ₀ (or k ₀)		-11.18246509	-14.35690734	-24.36033925	-4.854432351	-6.650207733	-4.363169658							
Upper confidence limit (on true mean concentration, μ)		1.1403573	2.01751925	2.83102734	3.08909001	2.04288713	0.27985895							
Evidence level		99%	100%	100%	96%	98%	95%							
Base decision on:		evidence level	evidence level	evidence level	evidence level	evidence level	evidence level							
Result		$\mu < C_c$	$\mu < C_c$	$\mu < C_c$	$\mu < C_c$	$\mu < C_c$	$\mu < C_c$							
Select dataset		○ Y	○ Y	○ Y	○ Y	● Y	○ Y	○ Y	○ Y	○ Y	○ Y	○ Y	○ Y	○ Y

Back to data	Go to outlier test	Go to normality test	Show individual summary
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APPENDIX E

Photo Plates - Remediation of Non-Conforming Areas

DRAFT



Comment View of Plot 265 remedial excavation.	Project 173044
	Reference 1
	Date 09/04/19
	Originator Jack Taylor
	 Environmental Consultants AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment View of backfill of Plot 265 remedial excavation.	Project 173044
	Reference 2
	Date 09/04/19
	Originator Jack Taylor
	 AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment View of backfill of Plot 265 remedial excavation.	Project 173044
	Reference 3
	Date 09/04/19
	Originator Jack Taylor
	 Environmental Consultants AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment View of backfill of Plot 265 remedial excavation.	Project 173044
	Reference 4
	Date 09/04/19
	Originator Jack Taylor
	 AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aee-llp.com www.aee-llp.com



Comment View of completed Plot 265 remedial excavation.	Project 173044
	Reference 5
	Date 10/04/19
	Originator Richard Heath
	 AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment View looking east of Plot 319 remedial excavation.	Project 173044
	Reference 1
	Date 05/04/19
	Originator Richard Heath
	 Environmental Consultants AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aee-llp.com www.aee-llp.com



Comment View looking east of Plot 319 remedial excavation.	Project 173044
	Reference 2
	Date 05/04/19
	Originator Richard Heath
	 AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment View of Made Ground at base of remedial excavation of Plot 319. Made ground covered with terram and capping layer of subsoil.	Project 173044
	Reference 3
	Date 10/04/19
	Originator Richard Heath
	 Environmental Consultants AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment View of terram being placed in Plot 319 remedial excavation.	Project 173044
	Reference 4
	Date 10/04/19
	Originator Richard Heath
	 Environmental Consultants AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment View of terram being placed in Plot 319 remedial excavation.	Project 173044
	Reference 5
	Date 10/04/19
	Originator Richard Heath
	 AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment View of backfill of Plot 319 remedial excavation.	Project 173044
	Reference 6
	Date 10/04/19
	Originator Richard Heath
	 AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment View of backfill of Plot 319 remedial excavation.	Project 173044
	Reference 7
	Date 10/04/19
	Originator Richard Heath
	 AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment View of backfill of Plot 319 remedial excavation.	Project 173044
	Reference 8
	Date 10/04/19
	Originator Richard Heath
	 AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment View looking west of Plot 328 remedial excavation.	Project 173044
	Reference 1
	Date 05/04/19
	Originator Richard Heath
	 AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment View looking north west of Plot 328 remedial excavation.	Project 173044
	Reference 2
	Date 05/04/19
	Originator Richard Heath
	 Environmental Consultants AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment View looking north of Plot 328 remedial excavation.	Project 173044
	Reference 3
	Date 05/04/19
	Originator Richard Heath
	 AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment View of backfill of plot 328.	Project 173044
	Reference 4
	Date 10/04/19
	Originator Richard Heath
	 Environmental Consultants AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aee-llp.com www.aee-llp.com



Comment View of terram used beneath the backfill of Plot 328	Project 173044
	Reference 5
	Date 10/04/19
	Originator Richard Heath
	 Environmental Consultants AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment View of terram used beneath the backfill of Plot 328	Project 173044
	Reference 6
	Date 10/04/19
	Originator Richard Heath
	 AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-llp.com www.aae-llp.com



Comment View of terram used beneath the backfill of Plot 328	Project 173044
	Reference 7
	Date 10/04/19
	Originator Richard Heath
	 AA Environmental Limited Units 4-8 Cholswell Court Shippon, Abingdon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aee-llp.com www.aee-llp.com

APPENDIX F
Certificates of Analysis – Stockpile Testing

DRAFT



2183



Final Report

Report No.: 18-18546-1

Initial Date of Issue: 30-Jun-2018

Client AA Environmental Ltd

Client Address: Units 4 to 8
Cholswell Court
Shippon
Abingdon
Oxfordshire
OX136HX

Contact(s): Carrie Lorton
Ed Brown
Henry Austin
Jack Taylor
John McCusker
Mark Anderson
Matthew Lawman
Richard Heath
Sam Muir

Project 173044 - Careys Graven Hill

Quotation No.: **Date Received:** 27-Jun-2018

Order No.: 173044 **Date Instructed:** 27-Jun-2018

No. of Samples: 9

Turnaround (Wkdays): 3 **Results Due:** 29-Jun-2018

Date Approved: 30-Jun-2018

Approved By:

Details: Martin Dyer, Laboratory Manager

Results - Soil

Project: 173044 - Careys Graven Hill

Client: AA Environmental Ltd	Chemtest Job No.:				18-18546	18-18546	18-18546	18-18546	18-18546	18-18546	18-18546	18-18546	18-18546
Quotation No.:	Chemtest Sample ID.:				645213	645214	645215	645216	645217	645218	645219	645220	645221
	Client Sample ID.:				SPI01	SPI02	SPHTP311	SPHTP311	SPHTP311	SPHTP312	SPHTP312	SPHTP312	SPHTP312
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):						0.00	1.00	2.00	0.00	0.75	1.50	2.25
	Bottom Depth (m):						1.00	2.00	3.00	0.75	1.50	2.25	3.50
	Date Sampled:				25-Jun-2018	25-Jun-2018	25-Jun-2018	25-Jun-2018	25-Jun-2018	25-Jun-2018	25-Jun-2018	25-Jun-2018	25-Jun-2018
	Asbestos Lab:				COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	Accred.	SOP	Units	LOD									
ACM Type	U	2192		N/A	-	-	-	-	-	-	-	-	-
Asbestos Identification	U	2192	%	0.001	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture	N	2030	%	0.020	12	15	19	17	20	19	19	19	20
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown,
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Clay	Clay	Clay	Clay	Clay	Clay	Sand,
pH	M	2010		N/A	8.1	8.2	8.4	7.9	8.0	7.7	7.8	7.7	7.8
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	1.5	1.8	1.6	1.5	1.5	1.5	1.3	1.3	1.5
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	0.68	0.77	0.65	0.59	0.66	0.67	0.74	0.68	0.85
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	5.0	17	4.7	7.3	5.2	3.5	19	9.5	6.7
Arsenic	M	2450	mg/kg	1.0	25	36	27	24	26	23	19	21	23
Cadmium	M	2450	mg/kg	0.10	0.48	0.50	0.39	0.36	0.37	0.35	0.35	0.31	0.35
Chromium	M	2450	mg/kg	1.0	50	41	40	39	48	42	42	40	42
Copper	M	2450	mg/kg	0.50	68	29	28	25	30	25	28	24	27
Mercury	M	2450	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nickel	M	2450	mg/kg	0.50	42	34	37	35	41	35	34	33	35
Lead	M	2450	mg/kg	0.50	46	57	37	30	29	27	24	25	28
Selenium	M	2450	mg/kg	0.20	0.22	< 0.20	< 0.20	< 0.20	< 0.20	0.29	0.57	0.47	0.45
Vanadium	U	2450	mg/kg	5.0	56	64	54	50	64	48	44	44	47
Zinc	M	2450	mg/kg	0.50	120	110	96	110	94	85	78	80	85
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Organic Carbon	M	2625	%	0.20	1.4	1.7	1.5	1.7	1.5	1.4	1.2	1.4	1.2
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	13	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	13	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: 173044 - Careys Graven Hill

Client: AA Environmental Ltd	Chemtest Job No.:				18-18546	18-18546	18-18546	18-18546	18-18546	18-18546	18-18546	18-18546	18-18546
Quotation No.:	Chemtest Sample ID.:				645213	645214	645215	645216	645217	645218	645219	645220	645221
	Client Sample ID.:				SPI01	SPI02	SPHTP311	SPHTP311	SPHTP311	SPHTP312	SPHTP312	SPHTP312	SPHTP312
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):						0.00	1.00	2.00	0.00	0.75	1.50	2.25
	Bottom Depth (m):						1.00	2.00	3.00	0.75	1.50	2.25	3.50
	Date Sampled:				25-Jun-2018	25-Jun-2018	25-Jun-2018	25-Jun-2018	25-Jun-2018	25-Jun-2018	25-Jun-2018	25-Jun-2018	25-Jun-2018
	Asbestos Lab:				COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	Accred.	SOP	Units	LOD									
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	2.0	5.9	6.5	3.4	< 1.0	< 1.0	< 1.0	< 1.0	2.9
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	11	12	20	9.2	< 1.0	< 1.0	< 1.0	< 1.0	11
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	13	18	28	13	< 5.0	< 5.0	< 5.0	< 5.0	14
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	13	18	40	13	< 10	< 10	< 10	< 10	14
Naphthalene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	M	2700	mg/kg	0.10	1.5	3.6	1.6	1.1	< 0.10	1.4	1.0	1.6	1.9
Anthracene	M	2700	mg/kg	0.10	0.56	1.2	0.65	0.42	< 0.10	0.71	0.44	0.58	0.79
Fluoranthene	M	2700	mg/kg	0.10	3.1	6.3	4.0	2.7	1.9	2.4	1.3	2.6	4.1
Pyrene	M	2700	mg/kg	0.10	1.9	4.2	2.7	1.8	1.5	1.6	0.76	1.5	2.5
Benzo[a]anthracene	M	2700	mg/kg	0.10	1.2	2.7	1.7	1.2	< 0.10	< 0.10	< 0.10	0.84	2.0
Chrysene	M	2700	mg/kg	0.10	2.8	4.0	2.7	2.3	< 0.10	< 0.10	< 0.10	1.6	2.7
Benzo[b]fluoranthene	M	2700	mg/kg	0.10	1.8	3.0	2.4	1.7	< 0.10	< 0.10	< 0.10	< 0.10	2.7
Benzo[k]fluoranthene	M	2700	mg/kg	0.10	1.2	1.9	1.9	1.1	< 0.10	< 0.10	< 0.10	< 0.10	1.8
Benzo[a]pyrene	M	2700	mg/kg	0.10	1.2	2.5	1.9	1.2	< 0.10	< 0.10	< 0.10	< 0.10	2.2
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.10	< 0.10	1.5	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.10	< 0.10	0.89	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	M	2700	mg/kg	0.10	< 0.10	1.4	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	M	2700	mg/kg	2.0	15	33	20	14	3.4	6.1	3.5	8.7	21
Total Phenols	M	2920	mg/kg	0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N-dimethyl-p-phenylenediamine.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenzo[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

Report Information

Key

- U UKAS accredited
- M MCERTS and UKAS accredited
- N Unaccredited
- S This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
- SN This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
- T This analysis has been subcontracted to an unaccredited laboratory
- I/S Insufficient Sample
- U/S Unsuitable Sample
- N/E not evaluated
- < "less than"
- > "greater than"

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at the indicated laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 45 days from the date of receipt

All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.co.uk



Final Report

Report No.: 18-18674-1

Initial Date of Issue: 02-Jul-2018

Client AA Environmental Ltd

Client Address: Units 4 to 8
Cholswell Court
Shippon
Abingdon
Oxfordshire
OX136HX

Contact(s): Carrie Lorton
Ed Brown
Henry Austin
Jack Taylor
John McCusker
Mark Anderson
Matthew Lawman
Richard Heath
Sam Muir

Project 173044 - Careys Graven Hill

Quotation No.:		Date Received:	28-Jun-2018
Order No.:	173044	Date Instructed:	28-Jun-2018
No. of Samples:	8		
Turnaround (Wkdays):	3	Results Due:	02-Jul-2018
Date Approved:	02-Jul-2018		

Approved By:

Details: Glynn Harvey, Laboratory Manager

Results - Soil

Project: 173044 - Careys Graven Hill

Client: AA Environmental Ltd	Chemtest Job No.:				18-18674	18-18674	18-18674	18-18674	18-18674	18-18674	18-18674	18-18674
Quotation No.:	Chemtest Sample ID.:				645720	645721	645722	645723	645724	645725	645726	645727
	Client Sample ID.:				SPGTP313	SPGTP313	SPGTP313	SPGTP313	SPGTP314	SPGTP314	SPGTP314	SPGTP314
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.00	0.50	1.00	1.50	0.00	0.50	1.00	1.50
	Bottom Depth (m):				0.50	1.00	1.50	2.00	0.50	1.00	1.50	2.00
	Date Sampled:				26-Jun-2018	26-Jun-2018	26-Jun-2018	26-Jun-2018	26-Jun-2018	26-Jun-2018	26-Jun-2018	26-Jun-2018
	Asbestos Lab:				COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	Accred.	SOP	Units	LOD								
ACM Type	U	2192		N/A	-	-	-	-	-	-	-	-
Asbestos Identification	U	2192	%	0.001	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture	N	2030	%	0.020	24	19	24	22	20	19	19	17
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Other Material	N	2040		N/A	Stones,	NONE	Stones	NONE	NONE	Stones	Stones	NONE
Soil Texture	N	2040		N/A	Clay	Clay	Clay	Clay	Clay	Clay	Clay	Clay
pH	M	2010		N/A	8.3	8.7	8.1	8.5	8.3	7.7	8.5	10.3
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	1.7	1.1	1.5	1.7	1.5	1.2	1.7	1.2
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	0.73	0.68	0.50	0.71	0.74	0.47	0.79	0.73
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	43	4.1	12	8.6	4.7	3.1	7.0	5.5
Arsenic	M	2450	mg/kg	1.0	23	21	23	21	24	14	19	20
Beryllium	U	2450	mg/kg	1.0	1.3	1.1	1.1	1.1	1.0	1.1	1.1	1.2
Cadmium	M	2450	mg/kg	0.10	1.4	0.42	0.46	0.60	0.33	0.37	0.32	0.40
Chromium	M	2450	mg/kg	1.0	46	36	47	45	37	41	39	43
Copper	M	2450	mg/kg	0.50	51	72	52	58	28	26	34	38
Mercury	M	2450	mg/kg	0.10	0.12	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nickel	M	2450	mg/kg	0.50	49	35	45	39	39	39	46	44
Lead	M	2450	mg/kg	0.50	85	41	46	40	30	24	22	32
Selenium	M	2450	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	0.26	0.44	< 0.20
Vanadium	U	2450	mg/kg	5.0	45	41	52	44	43	45	38	50
Zinc	M	2450	mg/kg	0.50	260	150	170	180	110	110	110	120
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Organic Carbon	M	2625	%	0.20	1.5	1.1	1.6	1.2	0.98	0.73	0.97	0.94
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	4.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: 173044 - Careys Graven Hill

Client: AA Environmental Ltd	Chemtest Job No.:				18-18674	18-18674	18-18674	18-18674	18-18674	18-18674	18-18674	18-18674
Quotation No.:	Chemtest Sample ID.:				645720	645721	645722	645723	645724	645725	645726	645727
	Client Sample ID.:				SPGTP313	SPGTP313	SPGTP313	SPGTP313	SPGTP314	SPGTP314	SPGTP314	SPGTP314
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.00	0.50	1.00	1.50	0.00	0.50	1.00	1.50
	Bottom Depth (m):				0.50	1.00	1.50	2.00	0.50	1.00	1.50	2.00
	Date Sampled:				26-Jun-2018	26-Jun-2018	26-Jun-2018	26-Jun-2018	26-Jun-2018	26-Jun-2018	26-Jun-2018	26-Jun-2018
	Asbestos Lab:				COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	Accred.	SOP	Units	LOD								
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	7.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	17	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	24	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10	29	< 10	< 10	< 10	< 10	< 10	< 10
Naphthalene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.96	< 0.10	< 0.10	< 0.10
Acenaphthylene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.22	< 0.10	< 0.10	< 0.10
Acenaphthene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.28	< 0.10	< 0.10	< 0.10
Fluorene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.13	< 0.10	< 0.10	< 0.10
Phenanthrene	M	2700	mg/kg	0.10	1.1	0.28	0.54	1.6	0.89	< 0.10	0.76	< 0.10
Anthracene	M	2700	mg/kg	0.10	0.44	< 0.10	< 0.10	0.59	0.31	< 0.10	< 0.10	< 0.10
Fluoranthene	M	2700	mg/kg	0.10	1.7	0.72	0.96	2.3	1.1	< 0.10	1.2	0.44
Pyrene	M	2700	mg/kg	0.10	1.6	0.87	1.0	2.3	0.98	< 0.10	1.2	0.48
Benzo[a]anthracene	M	2700	mg/kg	0.10	0.82	0.35	0.31	0.86	0.43	< 0.10	0.78	< 0.10
Chrysene	M	2700	mg/kg	0.10	1.3	0.43	0.31	1.2	0.49	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	M	2700	mg/kg	0.10	1.1	< 0.10	< 0.10	0.56	< 0.10	< 0.10	0.56	< 0.10
Benzo[k]fluoranthene	M	2700	mg/kg	0.10	0.60	< 0.10	< 0.10	0.31	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene	M	2700	mg/kg	0.10	0.77	< 0.10	< 0.10	0.76	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.10	0.32	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	M	2700	mg/kg	0.10	0.41	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	M	2700	mg/kg	2.0	10	2.7	3.1	11	5.8	< 2.0	4.5	< 2.0
Total Phenols	M	2920	mg/kg	0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N-dimethyl-p-phenylenediamine.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenzo[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

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- U/S Unsuitable Sample
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- < "less than"
- > "greater than"

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All results are expressed on a dry weight basis

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For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at the indicated laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 45 days from the date of receipt

All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.co.uk

APPENDIX G
Soil Guidance Values

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Soil Guidance Values for Landscaping and Residential Gardens

The following table presents the adopted combined Soil Guidance Values (SGVs) based on limiting values presented within the Waterman Remedial Strategy and LQM/CIEH Suitable 2 Use Levels (S4UL) for Human Health Assessment (unless stated otherwise).

Determinant	Waterman Landscaping and Residential Gardens Criteria	Tier 1 Residential with Homegrown Produce	Source
Arsenic	37		
Boron		290	LQM S4UL 2015
Beryllium	1.7		
Cadmium	22		
Chromium (Hexavalent)		6	LQM S4UL 2015
Chromium	910		
Copper	2400		
Lead	200		
Elemental Mercury	1.2		
Nickel	180		
Selenium	250		
Vanadium		410	LQM S4UL 2015
Zinc	3700		
Asbestos	No visible and <0.001% fibres		
Cyanide	26		
Phenol (Total)		550	LQM S4UL 2015
Aliphatic (5-6)	78		
Aliphatic (6-8)	230		
Aliphatic (8-10)	230		
Aliphatic (10-12)	330		
Aliphatic (12-16)	2400		
Aliphatic (16-35)	92000		
Aliphatic (35-44)		92000	LQM S4UL 2015
Aromatic (5-7)	140		
Aromatic (7-8 toluene)	290		
Aromatic (8-10)	83		
Aromatic (10-12)	180		
Aromatic (12-16)	330		
Aromatic (16-21)	540		
Aromatic (21-35)	1500		
Aromatic (35-44)		1500	LQM S4UL 2015
Benzene	0.17		
Toluene		290	LQM S4UL 2015
Ethylbenzene		110	LQM S4UL 2015
m-Xylene		140	LQM S4UL 2015
p-Xylene		130	LQM S4UL 2015
o-Xylene		140	LQM S4UL 2015

All values in mg/kg unless stated otherwise.
Based on 2.5% SOM.

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Soil Guidance Values for Landscaping and Residential Gardens (cont.)

Determinant	Waterman Landscaping and Residential Gardens Criteria (1)	Tier 1 Residential with Homegrown Produce (2)	Source
Naphthalene		5.6	LQM S4UL 2015
Acenaphthene		510	LQM S4UL 2015
Acenaphthylene		420	LQM S4UL 2015
Fluorene		400	LQM S4UL 2015
Anthracene		5400	LQM S4UL 2015
Fluoranthene		560	LQM S4UL 2015
Phenanthrene		220	LQM S4UL 2015
Pyrene		1200	LQM S4UL 2015
Benzo(a)anthracene	11		
Chrysene		22	LQM S4UL 2015
Benzo(b)fluoranthene	3.3		
Benzo(k)fluoranthene		93	LQM S4UL 2015
Benzo(ghi)perylene		340	LQM S4UL 2015
Benzo(a)pyrene	2.7		
Dibenzo(ah)anthracene	0.28		
Indeno(123-cd)pyrene		36	LQM S4UL 2015

All values in mg/kg unless stated otherwise
Based on 2.5% SOM.

References

(1) Waterman Remediation Options Appraisal and Remedial Strategy Report - Land Transfer Area 1' January 2016 (Report reference: WIB13983-104-R-2-2-3-MA-MACF).

(2) LQM/CIEH Suitable 2 Use Levels (S4UL) for Human Health Assessment – Land Quality Management Limited (LQM) and Chartered Institute of Environmental Health (CIEH) Land Quality Press (2015)