SOCOTEC Ref: 25042799
Project Ref: Land at Haddon Road, Athersley South, Barnsley, S71 3SY
Analytical Test Results - Solid

Soil Contamination Screening Assessment

25042799	Sample Number:	GAC Residential (with HGP)	Source of GACs	25042799-001	25042799-002	25042799-003	25042799-004	25042799-005	25042799-006	25042799-007	25042799-008	25042799-009	25042799-010	25042799-011	25042799-012	25042799-013	25042799-014	25042799-015	25042799-016
SEL Ltd	Customer Ref:			WS01 0.10-0.20	WS01 0.20-0.40	WS01 0.53-0.63	WS02A 0.20-0.29	WS02A 0.29-0.42	WS02A 1.60-1.70	WS03 0.35-0.50	WS04 0.17-0.37	WS04 0.37-0.60	WS04 0.63-0.67	WS05 0.50-0.60	WS06 0.13-0.29	WS06 0.29-0.45	WS06 1.35-1.45	WS07 0.28-0.46	WS07 0.46-0.51
Land at Haddon Rd	Matrix:			Soil Sample	Soil Sample	Soil Sample	Soil Sample	Soil Sample	Soil Sample	Soil Sample	Soil Sample	Soil Sample	Soil Sample	Soil Sample	Soil Sample	Soil Sample	Soil Sample	Soil Sample	Soil Sample
06/05/2025	Sampling Date:			15/04/2025	15/04/2025	15/04/2025	15/04/2025	15/04/2025	15/04/2025	15/04/2025	15/04/2025	15/04/2025	15/04/2025	16/04/2025	16/04/2025	16/04/2025	16/04/2025	16/04/2025	16/04/2025
Analyte	Units																		
Total Moisture at 35°C	%				12.3	6.6	10.3	9.5	10.3	14.3	8.1	14.7	12.4	11.4		16.1	11.8	13.2	11.8
Major Constituents	-				SILT	SILT	SILT	SILT	SAND	SILT	SILT	SILT	SILT	SILT		SILT	SAND	SILT	SILT
Minor Constituents	-				Gravel	Gravel	Gravel	Gravel	Clay	Clay	Gravel	Clay	Clay	Clay		Gravel	Clay	Clay	Clay
Nature of Material	-			Made Ground	Made Ground	Natural	Made Ground	Made Ground	Natural	Made Ground	Made Ground	Made Ground	Natural	Made Ground	Made Ground	Made Ground	Natural	Made Ground	Made Ground
Colour of Material	-				Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown		Brown	Brown	Brown	Brown
Equivalent Weight of Dry Material (kg)	kg																		
Fraction above 4mm (%)	%																		
Fraction of non-crushable material (%)	%																		
Volume of Water for 10:1 Leach (ltr)	l																		
Weight of Sample Leached (kg)	kg																		
Asbestos Identification	-	Presence	N/A	NAD	NAD		NAD			NAD	NAD			NAD	NAD	NAD		NAD	
pH (2.5:1 extraction)	pH units					7.6			7.9				8.2				8.3		
pH (2.5:1 extraction)^	pH units				8		8.3	8.8		7.3	11.4	8.9		8.6		10.7		9	8
Soil Organic Matter^	% m/m				4.37		3.17	2.02		4.29	1.22	4.74		3.94		2.71		2.77	2.28
Nitrate as NO3	mg/kg					3.7			3.8				7.7				3.2		
Chloride as Cl	mg/kg					6			8				13				6		
Water Soluble Sulphate as SO4 2:1 Ext	mg/l					31			10				56				<10		
Water Soluble Sulphate as SO4 by Mass^	mg/kg				114		102	429		86	179	407		238		248		140	162
Acid Soluble Sulphate as SO4	mg/kg					183			56				332				67		
Sulphur as S	% m/m					<0.005			<0.005				0.009				<0.005		
Arsenic as As^	mg/kg	37	DEFRA C4SL 2014		12.4		6.8	6.9		16.2	4.2	12.8		11.5		8.1		10.1	8.8
Cadmium as Cd^	mg/kg	22	DEFRA C4SL 2014		0.3		0.9	0.4		0.2	0.3	0.2		0.3		0.3		0.4	<0.2
Total Chromium as Cr^	mg/kg	910	LQM/CIEH S4UL 2015		15.2		18.9	11.8		16.7	11.2	15.7		17		13.1		16.8	11
Chromium (VI) as Cr^	mg/kg	21	DEFRA C4SL 2014		<0.1		<0.1	<0.1		<0.1	<0.1	<0.1		<0.1		<0.1		<0.1	<0.1
Copper as Cu^	mg/kg	2400	LQM/CIEH S4UL 2015		20.1		48.7	28.4		22.1	11.8	21.5		23.4		17.8		21.6	13
Lead as Pb^	mg/kg	200	DEFRA C4SL 2014		41.4		76.2	31.6		51.1	19.1	38.5		38.5		50.3		42.2	27.1
Mercury as Hg^	mg/kg	40	LQM/CIEH S4UL 2015		<0.5		<0.5	<0.5		<0.5	<0.5	<0.5		<0.5		<0.5		<0.5	<0.5
Nickel as Ni^	mg/kg	130	LQM/CIEH S4UL 2015		14		15.4	11.9		18.3	10.4	14.6		18.7		14.9		14.8	11.5
Selenium as Se^	mg/kg	250	LQM/CIEH S4UL 2015		<0.5		<0.5	<0.5		<0.5	<0.5	<0.5		<0.5		<0.5		<0.5	<0.5
Zinc as Zn^	mg/kg	3700	LQM/CIEH S4UL 2015		52.3		210.2	95.3		53.2	55.3	52.3		120.1		97.4		127.8	46.4
Magnesium as Mg (2:1 Extract)	mg/l					7.1			1				6.9				4		
TPHS (inc. BTEX & MTBE)		2.5% SOM																	
MTBE^	µg/kg	84,000	CL:AIRE GAC 2010				<22			<23		<23		<23		<24		<23	
Benzene^	µg/kg	870	DEFRA C4SL 2014				<11			<12		<12		<11		<12		<12	
Toluene^	µg/kg	290,000	LQM/CIEH S4UL 2015				<11			<12		<12		<11		<12		<12	
Ethylbenzene^	µg/kg	110,000	LQM/CIEH S4UL 2015				<11			<12		<12		<11		<12		<12	
m/p-Xylene^	µg/kg	270,000	LQM/CIEH S4UL 2015				<22			<23		<23		<23		<24		<23	
o-Xylene^	µg/kg	140,000	LQM/CIEH S4UL 2015				<11			<12		<12		<11		<12		<12	
Total GRO C5-C10^	mg/kg						<0.223			<0.233		<0.234		<0.226		<0.238		<0.230	
C5-C6 Aliphatic^	mg/kg	78	LQM/CIEH S4UL 2015				<0.223			<0.233		<0.234		<0.226		<0.238		<0.230	
>C6-C8 Aliphatic^	mg/kg	230	LQM/CIEH S4UL 2015				<0.223			<0.233		<0.234		<0.226		<0.238		<0.230	
>C8-C10 Aliphatic^	mg/kg	65	LQM/CIEH S4UL 2015				<0.223			<0.233		<0.234		<0.226		<0.238		<0.230	
>C10-C12 (Aliphatic)^	mg/kg	330	LQM/CIEH S4UL 2015				<4.46			<4.67		<4.69		<4.51		<4.77		<4.61	
>C12-C16 (Aliphatic)^	mg/kg	2400	LQM/CIEH S4UL 2015				8.36			7.45		<4.69		<4.51		<4.77		<4.61	
>C16-C21 (Aliphatic)^	mg/kg	92,000	LQM/CIEH S4UL 2015				8.99			6.55		<4.69		7.41		<4.77		<4.61	
>C21-C35 (Aliphatic)^	mg/kg	92,000	LQM/CIEH S4UL 2015				91.1			13.3		12.7		40.8		18.5		31.3	
>C35-C44 (Aliphatic)^	mg/kg	92,000	LQM/CIEH S4UL 2015				35.2			11.5		<7.03		11.7		<7.15		<6.91	
Total TPH >C8-C40 (Aliphatic)^	mg/kg						138			37.7		26.2		62.6		31		40.1	
C5-C7 Aromatic^	mg/kg	140	LQM/CIEH S4UL 2015				<0.011			<0.012		<0.012		<0.011		<0.012		<0.012	
>C7-C8 Aromatic^	mg/kg	290	LQM/CIEH S4UL 2015				<0.011			<0.012		<0.012		<0.011		<0.012		<0.012	
>C8-C10 Aromatic^	mg/kg	83	LQM/CIEH S4UL 2015				<0.045			<0.047		<0.047		<0.045		<0.048		<0.047	
>C10-C12 (Aromatic)^	mg/kg	180	LQM/CIEH S4UL 2015				<4.46			<4.67		<4.69		<4.51		<4.77		<4.61	
>C12-C16 (Aromatic)^	mg/kg	330	LQM/CIEH S4UL 2015				7.52			<4.67		5.32		<4.51		4.97		<4.61	
>C16-C21 (Aromatic)^	mg/kg	540	LQM/CIEH S4UL 2015				29.9			6.26		8.26		12.3		18.9		7.7	
>C21-C35 (Aromatic)^	mg/kg	1500	LQM/CIEH S4UL 2015				233			19.7		31.2		72.1		91.6		44.5	
>C35-C44 (Aromatic)^	mg/kg	1500	LQM/CIEH S4UL 2015				59.9			<7.00		<7.03		15.2		10.9		9.29	
Total TPH >C8-C40 (Aromatic)^	mg/kg						317			34.4		51.1		103		126		66.3	
PAHs		2.5% SOM																	
Acenaphthene^	mg/kg	510	LQM/CIEH S4UL 2015		2.68		<0.09	<0.09		<0.09	<0.09	<0.09		<0.09		<0.10		<0.09	<0.09
Acenaphthylene^	mg/kg	420	LQM/CIEH S4UL 2015		0.09		<0.09	<0.09		<0.09	<0.09	<0.09		<0.09		<0.10		<0.09	<0.09
Anthracene^	mg/kg	5400	LQM/CIEH S4UL 2015		4.71		0.29	0.1		<0.09	<0.09	<0.09		0.17		0.11		<0.09	<0.09
Benzo[a]anthracene^	mg/kg	11	LQM/CIEH S4UL 2015		7.71		1.69	0.62		0.12	0.19	0.2		0.63		0.37		0.18	0.1
Benzo[a]pyrene^	mg/kg	5	DEFRA C4SL 2014		6		1.83	0.66		0.11	0.21	0.21		0.62		0.31		0.2	0.11
Benzo[b]fluoranthene^	mg/kg	3.3	LQM/CIEH S4UL 2015		7.35		2.15	0.79		0.18	0.28	0.29		0.85		0.4		0.28	0.15
Benzo[g,h,i]perylene^	mg/kg	340	LQM/CIEH S4UL 2015		2.56		1.05	0.39		<0.09	0.13	0.14		0.38		0.17		0.14	<0.09
Benzo[k]fluoranthene^	mg/kg	93	LQM/CIEH S4UL 2015		2.96		0.9	0.33		<0.09	0.13	0.13		0.36		0.21		0.13	<0.09
Chrysene^	mg/kg	22	LQM/CIEH S4UL 2015		6.08		1.51	0.54		0.15	0.24	0.23		0.64		0.36		0.21	0.12
Dibenzo[a,h]anthracene^	mg/kg	0.28	LQM/CIEH S4UL 2015		0.64		0.21	<0.09		<0.09	<0.09	<0.09		<0.09		<0.10		<0.09	<0.09
Fluoranthene^	mg/kg	560	LQM/CIEH S4UL 2015		21		2.99	1.02		0.2	0.31	0.37		1.25		0.69		0.34	0.21
Fluorene^	mg/kg	400	LQM/CIEH S4UL 2015		2.38		<0.09	<0.09		<0.09	<0.09	<0.09		<0.09		<0.10		<0.09	<0.09
Indeno[1,2,3-cd]pyrene^	mg/kg	36	LQM/CIEH S4UL 2015		2.98		1.08	0.4		<0.09	0.13	0.14		0.37		0.18		0.13	<0.09
Naphthalene^	mg/kg	5.6	LQM/CIEH S4UL 2015		0.21		0.16	0.11		<0.09	<0.09	<0.09		<0.09		0.12		<0.09	<0.09
Phenanthrene^	mg/kg	220	LQM/CIEH S4UL 2015		20.6		0.96	0.3		0.13	<0.09	0.15		0.58		0.32		0.11	0.12
Pyrene^	mg/kg	1200	LQM/CIEH S4UL 2015		16.3		2.89	1.01		0.18	0.34	0.35		1.1		0.57		0.32	0.18
Total PAH 16^	mg/kg				104		18	6.61		1.91	2.55	2.78		7.39		4.18		2.61	1.8

NAD = No asbestos detected