25.

Ph8-S13

26.

Ph8-S13

27.

Ph8-S14

28.

Ph8-S14

29.

Stockpile of site-generated aggregate

30.

Southern view down centre of site

Chemtest Ltd.
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.co.uk

Final Report

Report No.:	18-07142-1
Initial Date of Issue:	20-Mar-2018
Client	Smith Grant LLP
Client Address:	Station House, Station Road Ruabon Wrexham LL14 6DL
Contact(s):	Dan Wayland
Project	1217426 Heyford, Dorchester

Quotation No.:		**Date Received:**	14-Mar-2018
Order No.:		**Date Instructed:**	14-Mar-2018
No. of Samples:	20		
Turnaround (Wkdays):	5	**Results Due:**	20-Mar-2018
Date Approved:	20-Mar-2018		

Approved By:

Details: Martin Dyer, Laboratory Manager

Chemtest
The right chemistry to deliver results

Results - Soil

Project: 1217426 Heyford, Dorchester

Client: Smith Grant LLP		**Chemtest Job No.:**			18-07142	18-07142	18-07142	18-07142	18-07142	18-07142	18-07142	18-07142	18-07142
Quotation No.:		**Chemtest Sample ID.:**			591847	591848	591849	591850	591851	591852	591853	591854	591855
Order No.:		Client Sample Ref.:			PH8-S1	PH8-S2	PH8-S3	PH8-S4	PH8-S5	PH8-S6	PH8-S7	PH8-S8	PH8-S9
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			0	0	0	0	0	0	0	0	0
		Bottom Depth (m):			0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
		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

Results - Soil

Project: 1217426 Heyford, Dorchester

Client: Smith Grant LLP		**Chemtest Job No.:**			18-07142	18-07142	18-07142	18-07142	18-07142	18-07142	18-07142	18-07142	18-07142
Quotation No.:		**Chemtest Sample ID.:**			591856	591857	591858	591859	591860	591861	591862	591863	591864
Order No.:		Client Sample Ref.:			PH8-S10	PH8-S11	PH8-S12	PH8-S13	PH8-S14	PH8-CRUSH-1	PH8-CRUSH-2	PH8-CRUSH-3	PH8-CRUSH-4
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			0	0	0	0	0				
		Bottom Depth (m):			0.4	0.4	0.4	0.4	0.4				
		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

Results - Soil

Project: 1217426 Heyford, Dorchester

Client: Smith Grant LLP			**Chemtest Job No.:**		18-07142	18-07142
Quotation No.:			**Chemtest Sample ID.:**		591865	591866
Order No.:			Client Sample Ref.:		PH8-CRUSH-5	PH8-CRUSH-6
			Sample Type:		SOIL	SOIL
			Top Depth (m):			
			Bottom Depth (m):			
			Asbestos Lab:		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

Test Methods

SOP	Title	Parameters included	Method summary
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry

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

Exova Jones Environmental

Registered Address : Exova (UK) Ltd, Lochend Industrial Estate, Newbridge, Midlothian, EH28 8PL

Unit 3 Deeside Point
Zone 3
Deeside Industrial Park
Deeside
CH5 2UA

Tel: +44 (0) 1244 833780
Fax: +44 (0) 1244 833781

Smith Grant LLP
Station House
Station Road
Ruabon
Wrexham
LL14 6DL

4225

Attention :	Dan Wayland
Date :	23rd March, 2018
Your reference :	R17426
Our reference :	Test Report 18/3756 Batch 1
Location :	Heyford(Dorchester)
Date samples received :	14th March, 2018
Status :	Final report
Issue :	1

Seventeen samples were received for analysis on 14th March, 2018 of which seventeen were scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.
All analysis is carried out on as received samples and reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected.

Compiled By:

Phil Sommerton BSc
Project Manager

Client Name: Smith Grant LLP
Reference: R17426
Location: Heyford(Dorchester)
Contact: Dan Wayland
JE Job No.: 18/3756

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

J E Sample No.	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	LOD/LOR	Units	Method No.
Sample ID	PH8-S1	PH8-S2	PH8-S3	PH8-S4	PH8-S5	PH8-S6	PH8-S7	PH8-S8	PH8-S9	PH8-S10			
Depth	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4			
COC No / misc													
Containers	V J	V J	V J	V J	V J	V J	V J	V J	V J	V J			
Sample Date	13/03/2018	13/03/2018	13/03/2018	13/03/2018	13/03/2018	13/03/2018	13/03/2018	13/03/2018	13/03/2018	13/03/2018			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	14/03/2018	14/03/2018	14/03/2018	14/03/2018	14/03/2018	14/03/2018	14/03/2018	14/03/2018	14/03/2018	14/03/2018			
Antimony	2	<1	2	<1	3	<1	<1	1	<1	<1	<1	mg/kg	TM30/PM15
Arsenic #M	22.6	11.9	26.1	13.3	15.8	16.0	10.9	21.3	10.4	11.9	<0.5	mg/kg	TM30/PM15
Barium #M	96	27	100	47	72	53	23	71	35	28	<1	mg/kg	TM30/PM15
Beryllium	1.4	0.6	1.7	0.8	1.0	1.0	<0.5	1.3	0.5	0.6	<0.5	mg/kg	TM30/PM15
Cadmium #M	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM30/PM15
Chromium #M	55.9	16.1	53.1	21.7	25.3	25.8	19.0	37.1	17.4	36.2	<0.5	mg/kg	TM30/PM15
Cobalt #M	12.0	4.0	14.3	6.1	6.8	6.9	3.5	9.8	3.7	5.4	<0.5	mg/kg	TM30/PM15
Copper #M	11	6	12	6	10	10	7	11	6	6	<1	mg/kg	TM30/PM15
Lead #M	36	8	23	11	38	15	6	21	10	8	<5	mg/kg	TM30/PM15
Mercury #M	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM30/PM15
Molybdenum #M	2.7	1.0	1.7	0.8	1.0	1.1	0.9	1.4	0.8	2.5	<0.1	mg/kg	TM30/PM15
Nickel #M	26.2	10.7	31.0	14.8	15.3	17.6	9.5	22.7	9.5	13.2	<0.7	mg/kg	TM30/PM15
Selenium #M	<1	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	mg/kg	TM30/PM15
Vanadium	77	38	89	47	49	50	32	65	32	37	<1	mg/kg	TM30/PM15
Water Soluble Boron #M	1.2	1.5	2.2	0.8	1.2	0.8	0.6	1.1	3.3	0.5	<0.1	mg/kg	TM74/PM32
Zinc #M	57	20	74	31	54	49	54	57	25	24	<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #M	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Acenaphthylene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.04	<0.03	mg/kg	TM4/PM8
Acenaphthene #M	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	TM4/PM8
Fluorene #M	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Phenanthrene #M	0.35	0.03	<0.03	0.03	0.19	0.09	<0.03	0.05	0.10	0.22	<0.03	mg/kg	TM4/PM8
Anthracene #	0.07	<0.04	<0.04	<0.04	0.06	0.05	<0.04	<0.04	0.05	0.08	<0.04	mg/kg	TM4/PM8
Fluoranthene #M	0.61	0.06	<0.03	0.10	0.50	0.36	<0.03	0.18	0.23	0.56	<0.03	mg/kg	TM4/PM8
Pyrene #	0.47	0.05	<0.03	0.09	0.43	0.34	<0.03	0.16	0.20	0.48	<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	0.32	<0.06	<0.06	0.07	0.27	0.18	<0.06	0.11	0.14	0.27	<0.06	mg/kg	TM4/PM8
Chrysene #M	0.35	0.04	<0.02	0.06	0.28	0.16	<0.02	0.09	0.12	0.26	<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #M	0.56	<0.07	<0.07	0.09	0.53	0.40	<0.07	0.20	0.27	0.53	<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	0.28	<0.04	<0.04	0.05	0.26	0.23	<0.04	0.11	0.15	0.27	<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #M	0.16	<0.04	<0.04	<0.04	0.18	0.18	<0.04	0.07	0.09	0.20	<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	0.16	<0.04	<0.04	<0.04	0.19	0.18	<0.04	0.07	0.09	0.19	<0.04	mg/kg	TM4/PM8
PAH 16 Total	3.3	<0.6	<0.6	<0.6	2.9	2.2	<0.6	1.0	1.4	3.1	<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	0.40	<0.05	<0.05	0.06	0.38	0.29	<0.05	0.14	0.19	0.38	<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	0.16	<0.02	<0.02	0.03	0.15	0.11	<0.02	0.06	0.08	0.15	<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	99	85	95	93	96	94	94	91	96	92	<0	%	TM4/PM8

Please see attached notes for all abbreviations and acronyms

Client Name: Smith Grant LLP
Reference: R17426
Location: Heyford(Dorchester)
Contact: Dan Wayland
JE Job No.: 18/3756

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

J E Sample No.	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	LOD/LOR	Units	Method No.
Sample ID	PH8-S1	PH8-S2	PH8-S3	PH8-S4	PH8-S5	PH8-S6	PH8-S7	PH8-S8	PH8-S9	PH8-S10			
Depth	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4			
COC No / misc													
Containers	V J	V J	V J	V J	V J	V J	V J	V J	V J	V J			
Sample Date	13/03/2018	13/03/2018	13/03/2018	13/03/2018	13/03/2018	13/03/2018	13/03/2018	13/03/2018	13/03/2018	13/03/2018			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	14/03/2018	14/03/2018	14/03/2018	14/03/2018	14/03/2018	14/03/2018	14/03/2018	14/03/2018	14/03/2018	14/03/2018			
TPH CWG													
Aliphatics													
>C5-C6 #M	<0.1	<0.1 SV	<0.1	<0.1	<0.1	<0.1	<0.1 SV	<0.1	<0.1	<0.1 SV	<0.1	mg/kg	TM36/PM12
>C6-C8 #M	<0.1	<0.1 SV	<0.1	<0.1	<0.1	<0.1	<0.1 SV	<0.1	<0.1	<0.1 SV	<0.1	mg/kg	TM36/PM12
>C8-C10	<0.1	<0.1 SV	<0.1	<0.1	<0.1	<0.1	<0.1 SV	<0.1	<0.1	<0.1 SV	<0.1	mg/kg	TM36/PM12
>C10-C12 #M	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 #M	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	mg/kg	TM5/PM8/PM16
>C16-C21 #M	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TM5/PM8/PM16
>C21-C35 #M	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-35	<19	<19	<19	<19	<19	<19	<19	<19	<19	<19	<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Aromatics													
>C5-EC7 #	<0.1	<0.1 SV	<0.1	<0.1	<0.1	<0.1	<0.1 SV	<0.1	<0.1	<0.1 SV	<0.1	mg/kg	TM36/PM12
>EC7-EC8 #	<0.1	<0.1 SV	<0.1	<0.1	<0.1	<0.1	<0.1 SV	<0.1	<0.1	<0.1 SV	<0.1	mg/kg	TM36/PM12
>EC8-EC10 #M	<0.1	<0.1 SV	<0.1	<0.1	<0.1	<0.1	<0.1 SV	<0.1	<0.1	<0.1 SV	<0.1	mg/kg	TM36/PM12
>EC10-EC12 #	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 #	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 #	<7	<7	<7	<7	34	14	<7	<7	<7	<7	<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 #	<7	<7	<7	<7	120	73	<7	<7	<7	<7	<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-35 #	<19	<19	<19	<19	154	87	<19	<19	<19	<19	<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Total aliphatics and aromatics(C5-35)	<38	<38	<38	<38	154	87	<38	<38	<38	<38	<38	mg/kg	TM5/TM36/PM8/PM12/PM16
MTBE #	<5	<5 SV	<5	<5	<5	<5	<5 SV	<5	<5	<5 SV	<5	ug/kg	TM31/PM12
Benzene #	<5	<5 SV	<5	<5	<5	<5	<5 SV	<5	<5	<5 SV	<5	ug/kg	TM31/PM12
Toluene #	<5	<5 SV	<5	<5	<5	<5	<5 SV	<5	<5	<5 SV	<5	ug/kg	TM31/PM12
Ethylbenzene #	<5	<5 SV	<5	<5	<5	<5	<5 SV	<5	<5	<5 SV	<5	ug/kg	TM31/PM12
m/p-Xylene #	<5	<5 SV	<5	<5	<5	<5	<5 SV	<5	<5	<5 SV	<5	ug/kg	TM31/PM12
o-Xylene #	<5	<5 SV	<5	<5	<5	<5	<5 SV	<5	<5	<5 SV	<5	ug/kg	TM31/PM12
Natural Moisture Content	16.7	7.2	19.7	13.5	13.6	14.7	11.7	17.6	12.6	9.8	<0.1	%	PM4/PM0
Hexavalent Chromium #	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	mg/kg	TM38/PM20
Organic Matter	1.2	0.4	1.5	0.7	1.1	0.6	0.3	1.2	0.4	0.4	<0.2	%	TM21/PM24
Electrical Conductivity @25C (5:1 ext)	169	124	227	162	198	205	135	191	225	278	<100	uS/cm	TM76/PM58
pH #M	8.32	8.57	8.41	8.30	8.42	8.56	8.51	8.76	9.21	8.20	<0.01	pH units	TM73/PM11
Sample Type	Clay	Clay	Clay	Clay	Clay	Clay	Clay	Clay	Clay	Clay		None	PM13/PM0
Sample Colour	Medium Brown	Medium Brown	Medium Brown	Medium Brown	Medium Brown	Medium Brown	Light Brown	Medium Brown	Light Brown	Medium Brown		None	PM13/PM0
Other Items	stones, sand and roots	stones	stones	stones	stones and sand	stones	stones and sand	stones and sand	stones and sand	stones and sand		None	PM13/PM0

Please see attached notes for all abbreviations and acronyms

Client Name: Smith Grant LLP
Reference: R17426
Location: Heyford(Dorchester)
Contact: Dan Wayland
JE Job No.: 18/3756

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

Please see attached notes for all abbreviations and acronyms

J E Sample No.	21-22	23-24	25-26	27-28	29-30	31-32	33-34				LOD/LOR	Units	Method No.
Sample ID	PH8-S11	PH8-S12	PH8-S13	PH8-S14	PH8-CRUSH-1	PH8-CRUSH-2	PH8-CRUSH-3						
Depth	0.4	0.4	0.4	0.4									
COC No / misc													
Containers	V J	V J	V J	V J	V J	V J	V J						
Sample Date	13/03/2018	13/03/2018	13/03/2018	13/03/2018	13/03/2018	13/03/2018	13/03/2018						
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil						
Batch Number	1	1	1	1	1	1	1						
Date of Receipt	14/03/2018	14/03/2018	14/03/2018	14/03/2018	14/03/2018	14/03/2018	14/03/2018						
Antimony	2	<1	<1	2	<1	3	1				<1	mg/kg	TM30/PM15
Arsenic #M	21.6	19.2	9.4	21.9	21.3	21.7	14.4				<0.5	mg/kg	TM30/PM15
Barium #M	68	45	15	91	111	135	207				<1	mg/kg	TM30/PM15
Beryllium	1.2	1.0	<0.5	1.5	0.9	1.2	0.8				<0.5	mg/kg	TM30/PM15
Cadmium #M	<0.1	<0.1	<0.1	0.2	0.2	0.1	0.2				<0.1	mg/kg	TM30/PM15
Chromium #M	35.1	28.2	12.9	42.5	33.2	46.7	30.8				<0.5	mg/kg	TM30/PM15
Cobalt #M	8.6	7.1	3.1	11.0	5.9	8.0	5.3				<0.5	mg/kg	TM30/PM15
Copper #M	12	7	5	16	12	14	11				<1	mg/kg	TM30/PM15
Lead #M	20	10	<5	33	30	45	29				<5	mg/kg	TM30/PM15
Mercury #M	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1				<0.1	mg/kg	TM30/PM15
Molybdenum #M	1.1	1.5	0.9	2.3	2.2	2.6	2.1				<0.1	mg/kg	TM30/PM15
Nickel #M	21.1	17.7	7.9	26.7	17.3	20.9	15.1				<0.7	mg/kg	TM30/PM15
Selenium #M	<1	<1	<1	<1	<1	<1	<1				<1	mg/kg	TM30/PM15
Vanadium	61	54	29	73	37	45	33				<1	mg/kg	TM30/PM15
Water Soluble Boron #M	0.9	0.8	0.5	2.6	1.6	1.3	1.6				<0.1	mg/kg	TM74/PM32
Zinc #M	58	37	15	75	72	84	71				<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #M	<0.04	<0.04	<0.04	<0.04	0.21	0.23	1.10				<0.04	mg/kg	TM4/PM8
Acenaphthylene	<0.03	<0.03	<0.03	<0.03	0.15	0.16	0.17				<0.03	mg/kg	TM4/PM8
Acenaphthene #M	<0.05	<0.05	<0.05	<0.05	0.29	0.69	1.71				<0.05	mg/kg	TM4/PM8
Fluorene #M	<0.04	<0.04	<0.04	<0.04	0.27	0.55	1.38				<0.04	mg/kg	TM4/PM8
Phenanthrene #M	0.07	0.06	<0.03	0.11	1.94	3.69	7.81				<0.03	mg/kg	TM4/PM8
Anthracene #	<0.04	<0.04	<0.04	<0.04	0.71	1.28	2.72				<0.04	mg/kg	TM4/PM8
Fluoranthene #M	0.27	0.11	<0.03	0.27	3.45	6.21	8.35				<0.03	mg/kg	TM4/PM8
Pyrene #	0.24	0.10	<0.03	0.24	3.09	5.14	6.46				<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	0.16	0.08	<0.06	0.14	1.44	2.15	2.74				<0.06	mg/kg	TM4/PM8
Chrysene #M	0.15	0.07	<0.02	0.13	1.38	2.09	2.60				<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #M	0.31	0.12	<0.07	0.26	2.93	4.14	4.87				<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	0.16	0.07	<0.04	0.14	1.68	2.37	2.76				<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #M	0.10	<0.04	<0.04	0.11	1.05	1.47	1.75				<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	<0.04	<0.04	<0.04	<0.04	0.15	0.17	0.17				<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	0.10	<0.04	<0.04	0.09	0.99	1.34	1.60				<0.04	mg/kg	TM4/PM8
PAH 16 Total	1.6	0.6	<0.6	1.5	19.7	31.7	46.2				<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	0.22	0.09	<0.05	0.19	2.11	2.98	3.51				<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	0.09	0.03	<0.02	0.07	0.82	1.16	1.36				<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	95	98	91	89	88	96	92				<0	%	TM4/PM8

Client Name: Smith Grant LLP
Reference: R17426
Location: Heyford(Dorchester)
Contact: Dan Wayland
JE Job No.: 18/3756

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

Please see attached notes for all abbreviations and acronyms

J E Sample No.	21-22	23-24	25-26	27-28	29-30	31-32	33-34	LOD/LOR	Units	Method No.
Sample ID	PH8-S11	PH8-S12	PH8-S13	PH8-S14	PH8-CRUSH-1	PH8-CRUSH-2	PH8-CRUSH-3			
Depth	0.4	0.4	0.4	0.4						
COC No / misc										
Containers	V J	V J	V J	V J	V J	V J	V J			
Sample Date	13/03/2018	13/03/2018	13/03/2018	13/03/2018	13/03/2018	13/03/2018	13/03/2018			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1			
Date of Receipt	14/03/2018	14/03/2018	14/03/2018	14/03/2018	14/03/2018	14/03/2018	14/03/2018			
TPH CWG										
Aliphatics										
>C5-C6 #M	<0.1	<0.1	<0.1 SV	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C6-C8 #M	<0.1	<0.1	<0.1 SV	<0.1	<0.1	0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C8-C10	<0.1	<0.1	<0.1 SV	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C10-C12 #M	<0.2	<0.2	<0.2	<0.2	<0.2	5.7	2.6	<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 #M	<4	<4	<4	<4	9	28	29	<4	mg/kg	TM5/PM8/PM16
>C16-C21 #M	<7	<7	<7	<7	18	38	31	<7	mg/kg	TM5/PM8/PM16
>C21-C35 #M	<7	<7	<7	<7	50	132	182	<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-35	<19	<19	<19	<19	77	204	245	<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Aromatics										
>C5-EC7 #	<0.1	<0.1	<0.1 SV	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC7-EC8 #	<0.1	<0.1	<0.1 SV	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC8-EC10 #M	<0.1	<0.1	<0.1 SV	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC10-EC12 #	<0.2	<0.2	<0.2	<0.2	<0.2	5.2	<0.2	<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 #	<4	<4	<4	<4	5	36	23	<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 #	<7	<7	<7	<7	27	120	154	<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 #	<7	41	<7	<7	132	337	1377	<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-35 #	<19	41	<19	<19	164	498	1554	<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Total aliphatics and aromatics(C5-35)	<38	41	<38	<38	241	702	1799	<38	mg/kg	TM5/TM36/PM8/PM12/PM16
MTBE #	<5	<5	<5 SV	<5	<5	<5	<5	<5	ug/kg	TM31/PM12
Benzene #	<5	<5	<5 SV	<5	<5	<5	<5	<5	ug/kg	TM31/PM12
Toluene #	<5	<5	<5 SV	<5	<5	<5	<5	<5	ug/kg	TM31/PM12
Ethylbenzene #	<5	<5	<5 SV	<5	<5	<5	<5	<5	ug/kg	TM31/PM12
m/p-Xylene #	<5	<5	<5 SV	<5	<5	<5	<5	<5	ug/kg	TM31/PM12
o-Xylene #	<5	<5	<5 SV	<5	<5	<5	<5	<5	ug/kg	TM31/PM12
Natural Moisture Content	16.1	11.4	9.5	18.5	8.0	8.2	6.7	<0.1	%	PM4/PM0
Hexavalent Chromium #	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	mg/kg	TM38/PM20
Organic Matter	1.4	0.8	<0.2	3.6	1.3	1.1	1.6	<0.2	%	TM21/PM24
Electrical Conductivity @25C (5:1 ext)	170	261	107	187	2066	1623	2181	<100	uS/cm	TM76/PM58
pH #M	8.52	8.17	8.53	8.33	11.94	10.42	11.57	<0.01	pH units	TM73/PM11
Sample Type	Clay	Clay	Clay	Clay	Sand	Clayey Sand	Clayey Sand		None	PM13/PM0
Sample Colour	Medium Brown	Medium Brown	Light Brown	Medium Brown	Light Brown	Medium Brown	Light Brown		None	PM13/PM0
Other Items	stones and sand	stones and sand	stones and sand	stones, san and roots	stones	stones and brick fragment	clinker and stones		None	PM13/PM0

Client Name: Smith Grant LLP
Reference: R17426
Location: Heyford(Dorchester)
Contact: Dan Wayland

J E Job No.	Batch	Sample ID	Depth	J E Sample No.	Analysis	Reason
No deviating sample report results for job 18/3756						

Please note that only samples that are deviating are mentioned in this report. If no samples are listed it is because none were deviating.
Only analyses which are accredited are recorded as deviating if set criteria are not met.

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

JE Job No.: 18/3756

SOILS

Please note we are only MCERTS accredited (UK soils only) for sand, loam and clay and any other matrix is outside our scope of accreditation.

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation has been performed on clay, sand and loam, only samples that are predominantly these matrices, or combinations of them will be within our MCERTS scope. If samples are not one of a combination of the above matrices they will not be marked as MCERTS accredited.

It is assumed that you have taken representative samples on site and require analysis on a representative subsample. Stones will generally be included unless we are requested to remove them.

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary.

If you have not already done so, please send us a purchase order if this is required by your company.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

All analysis is reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected. Samples are dried at 35°C ±5°C unless otherwise stated. Moisture content for CEN Leachate tests are dried at 105°C ±5°C.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

Where a CEN 10:1 ZERO Headspace VOC test has been carried out, a 10:1 ratio of water to wet (as received) soil has been used.

% Asbestos in Asbestos Containing Materials (ACMs) is determined by reference to HSG 264 The Survey Guide - Appendix 2 : ACMs in buildings listed in order of ease of fibre release.

Negative Neutralization Potential (NP) values are obtained when the volume of NaOH (0.1N) titrated (pH 8.3) is greater than the volume of HCl (1N) to reduce the pH of the sample to 2.0 - 2.5. Any negative NP values are corrected to 0.

The calculation of Pyrite content assumes that all oxidisable sulphides present in the sample are pyrite. This may not be the case. The calculation may be an overesitimate when other sulphides such as Barite (Barium Sulphate) are present.

WATERS

Please note we are not a UK Drinking Water Inspectorate (DWI) Approved Laboratory .

ISO17025 accreditation applies to surface water and groundwater and usually one other matrix which is analysis specific, any other liquids are outside our scope of accreditation.

As surface waters require different sample preparation to groundwaters the laboratory must be informed of the water type when submitting samples.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

DEVIATING SAMPLES

Samples must be received in a condition appropriate to the requested analyses. All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. If this is not the case you will be informed and any test results that may be compromised highlighted on your deviating samples report.

SURROGATES

Surrogate compounds are added during the preparation process to monitor recovery of analytes. However low recovery in soils is often due to peat, clay or other organic rich matrices. For waters this can be due to oxidants, surfactants, organic rich sediments or remediation fluids. Acceptable limits for most organic methods are 70 - 130% and for VOCs are 50 - 150%. When surrogate recoveries are outside the performance criteria but the associated AQC passes this is assumed to be due to matrix effect. Results are not surrogate corrected.

DILUTIONS

A dilution suffix indicates a dilution has been performed and the reported result takes this into account. No further calculation is required.

BLANKS

Where analytes have been found in the blank, the sample will be treated in accordance with our laboratory procedure for dealing with contaminated blanks.

NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a UKAS requirement for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.
Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation.

REPORTS FROM THE SOUTH AFRICA LABORATORY

Any method number not prefixed with SA has been undertaken in our UK laboratory unless reported as subcontracted.

ABBREVIATIONS and ACRONYMS USED

#	ISO17025 (UKAS Ref No. 4225) accredited - UK.
SA	ISO17025 (SANAS Ref No.T0729) accredited - South Africa.
B	Indicates analyte found in associated method blank.
DR	Dilution required.
M	MCERTS accredited.
NA	Not applicable
NAD	No Asbestos Detected.
ND	None Detected (usually refers to VOC and/SVOC TICs).
NDP	No Determination Possible
SS	Calibrated against a single substance
SV	Surrogate recovery outside performance criteria. This may be due to a matrix effect.
W	Results expressed on as received basis.
+	AQC failure, accreditation has been removed from this result, if appropriate, see 'Note' on previous page.
++	Result outside calibration range, results should be considered as indicative only and are not accredited.
*	Analysis subcontracted to a Jones Environmental approved laboratory.
AD	Samples are dried at 35°C ±5°C
CO	Suspected carry over
LOD/LOR	Limit of Detection (Limit of Reporting) in line with ISO 17025 and MCERTS
ME	Matrix Effect
NFD	No Fibres Detected
BS	AQC Sample
LB	Blank Sample
N	Client Sample
TB	Trip Blank Sample
OC	Outside Calibration Range

JE Job No: 18/3756

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/SANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465 and BS1377.	PM0	No preparation is required.				
TM4	Modified USEPA 8270 method for the solvent extraction and determination of 16 PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM4	Modified USEPA 8270 method for the solvent extraction and determination of 16 PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM4	Modified USEPA 8270 method for the solvent extraction and determination of 16 PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes	Yes	AR	Yes
TM5	Modified USEPA 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) with carbon banding within the range C8-C40 GC-FID.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.	Yes		AR	Yes
TM5	Modified USEPA 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) with carbon banding within the range C8-C40 GC-FID.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.	Yes	Yes	AR	Yes
TM5/TM36	please refer to TM5 and TM36 for method details	PM8/PM12/PM16	please refer to PM8/PM16 and PM12 for method details			AR	Yes
TM5/TM36	please refer to TM5 and TM36 for method details	PM8/PM12/PM16	please refer to PM8/PM16 and PM12 for method details	Yes		AR	Yes
PM13	A visual examination of the solid sample is carried out to ascertain sample make up, colour and any other inclusions. This is not a geotechnical description.	PM0	No preparation is required.			AR	
TM21	Modified USEPA 415.1. Determination of Total Organic Carbon or Total Carbon by combustion in an Eltra TOC furnace/analyser in the presence of oxygen. The CO2 generated is quantified using infra-red detection. Organic Matter (SOM) calculated as per EA MCERTS Chemical Testing of Soil, March 2012 v4.	PM24	Dried and ground solid samples are washed with hydrochloric acid, then rinsed with deionised water to remove the mineral carbon before TOC analysis.			AD	Yes

JE Job No: 18/3756

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/SANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM30	Determination of Trace Metal elements by ICP-OES (Inductively Coupled Plasma - Optical Emission Spectrometry). Modified US EPA Method 200.7, 6010B and BS EN ISO 11885 2009	PM15	Acid digestion of dried and ground solid samples using Aqua Regia refluxed at 112.5 °C. Samples containing asbestos are not dried and ground.			AD	Yes
TM30	Determination of Trace Metal elements by ICP-OES (Inductively Coupled Plasma - Optical Emission Spectrometry). Modified US EPA Method 200.7, 6010B and BS EN ISO 11885 2009	PM15	Acid digestion of dried and ground solid samples using Aqua Regia refluxed at 112.5 °C. Samples containing asbestos are not dried and ground.	Yes	Yes	AD	Yes
TM31	Modified USEPA 8015B. Determination of Methyltertbutylether, Benzene, Toluene, Ethylbenzene and Xylene by headspace GC-FID.	PM12	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM36	Modified US EPA method 8015B. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID.	PM12	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM36	Modified US EPA method 8015B. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID.	PM12	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM36	Modified US EPA method 8015B. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID.	PM12	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.	Yes	Yes	AR	Yes
TM38	Soluble Ion analysis using the Thermo Aquakem Photometric Automatic Analyser. Modified US EPA methods 325.2, 375.4, 365.2, 353.1, 354.1	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes		AR	Yes
TM73	Modified US EPA methods 150.1 and 9045D and BS1377:1990. Determination of pH by Metrohm automated probe analyser.	PM11	Extraction of as received solid samples using one part solid to 2.5 parts deionised water.	Yes	Yes	AR	No
TM74	Analysis of water soluble boron (20:1 extract) by ICP-OES.	PM32	Hot water soluble boron is extracted from dried and ground samples using a 20:1 ratio.	Yes	Yes	AD	Yes
TM76	Modified US EPA method 120.1. Determination of Specific Conductance by Metrohm automated probe analyser.	PM58	Dried and ground solid samples are extracted with water in a 5:1 water to solid ratio, the samples are shaken on an orbital shaker.			AD	Yes

LABORATORY REPORT

4043

Contract Number: PSL18/1184

Report Date: 29 March 2018

Client's Reference: R1724b

Client Name: Smith Grant LLP
Station House
Station Road
Ruabon
Wrexham
LL14 6DL

For the attention of: Dan Wayland

Contract Title: Heyford Park

Date Received: 14/3/2018
Date Commenced: 14/3/2018
Date Completed: 29/3/2018

Notes: Opinions and Interpretations are outside the UKAS Accreditation

A copy of the Laboratory Schedule of accredited tests as issued by UKAS is attached to this report. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced other than in full, without the prior written approval of the laboratory.

Checked and Approved Signatories:

R Gunson (Director)	A Watkins (Director)	R Berriman (Quality Manager)
L Knight (Senior Technician)	S Eyre (Senior Technician)	A Fry (Senior Technician)

5 – 7 Hexthorpe Road, Hexthorpe,
Doncaster DN4 0AR
tel: +44 (0)844 815 6641
fax: +44 (0)844 815 6642
e-mail: rgunson@prosoils.co.uk
awatkins@prosoils.co.uk

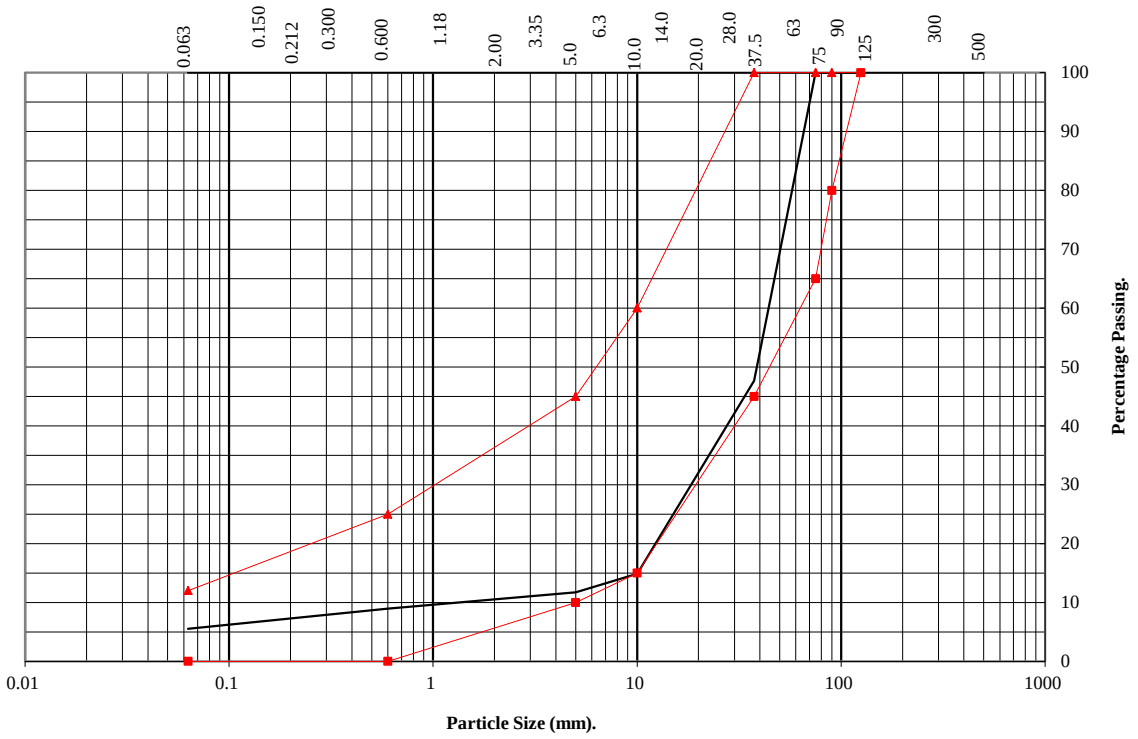
PARTICLE SIZE DISTRIBUTION TEST

BS1377:Part 2:1990

Wet Sieve: Clause 9.2

Classification for Acceptable Earthworks Materials

Sample Number: Phase 8 - Crush 1 Classification Type: 6F2



BS Test Sieve mm	Percentage Passing %	Table 6/2 Grading Requirements Lower	Upper
500	100		
300	100		
125	100	100	100
90	100	80	100
75	100	65	100
63	94		
37.5	48	45	100
28	35		
20	22		
14	17		
10	15	15	60
6.3	13		
5	12	10	45
3.35	11		
2	10		
1.18	10		
0.6	9	0	25
0.3	8		
0.212	7		
0.15	6		
0.063	6	0	12

Soil Fraction	Total Percentage
Cobbles	6
Gravel	84
Sand	4
Silt/Clay	6

Remarks:

SHW Series 600 Table 6/2 : 6F2

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Heyford Park**	**Contract No.:** PSL18/1184
			Client Ref: