#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
12		cadmium { cadmium sulfide }			1	0.4	mg/kg	1.29	0.514	mg/kg	0.00004 %		
		048-010-00-4	215-147-8	1306-23-6									
13		chromium in chromium(III) compounds { chromium(III) oxide }				23	mg/kg	1.46	33.616	mg/kg	0.00336 %		
			215-160-9	1308-38-9									
14		chromium in chromium(VI) compounds { chromium(VI) oxide }				1.2	mg/kg	1.92	2.308	mg/kg	0.000231 %		
		024-001-00-0	215-607-8	1333-82-0									
15		chrysene				9.8	mg/kg		9.8	mg/kg	0.00098 %		
		601-048-00-0	205-923-4	218-01-9									
16		copper { dicopper oxide; copper (I) oxide }				57	mg/kg	1.13	64.176	mg/kg	0.00642 %		
		029-002-00-X	215-270-7	1317-39-1									
17		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				1	mg/kg	1.88	1.884	mg/kg	0.000188 %		
		006-007-00-5											
18		dibenz[a,h]anthracene				0.94	mg/kg		0.94	mg/kg	0.000094 %		
		601-041-00-2	200-181-8	53-70-3									
19		fluoranthene				25	mg/kg		25	mg/kg	0.0025 %		
			205-912-4	206-44-0									
20		fluorene				1.9	mg/kg		1.9	mg/kg	0.00019 %		
			201-695-5	86-73-7									
21		indeno[123-cd]pyrene				4.2	mg/kg		4.2	mg/kg	0.00042 %		
			205-893-2	193-39-5									
22		lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	69	mg/kg		69	mg/kg	0.0069 %		
		082-001-00-6											
23		mercury { mercury dichloride }				0.3	mg/kg	1.35	0.406	mg/kg	0.000041 %		
		080-010-00-X	231-299-8	7487-94-7									
24		naphthalene				1.3	mg/kg		1.3	mg/kg	0.00013 %		
		601-052-00-2	202-049-5	91-20-3									
25		nickel { nickel dihydroxide }				25	mg/kg	1.58	39.487	mg/kg	0.00395 %		
		028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
26		pH				8.2	pH		8.2	pH	8.2 pH		
				PH									
27		phenanthrene				17	mg/kg		17	mg/kg	0.0017 %		
			201-581-5	85-01-8									
28		phenol				1	mg/kg		1	mg/kg	0.0001 %		
		604-001-00-2	203-632-7	108-95-2									
29		pyrene				24	mg/kg		24	mg/kg	0.0024 %		
			204-927-3	129-00-0									
30		zinc { zinc oxide }				65	mg/kg	1.24	80.906	mg/kg	0.00809 %		
		030-013-00-7	215-222-5	1314-13-2									
										Total:	0.0453 %		

Key

	User supplied data
	Potentially Hazardous result
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: HP05

Potentially Hazardous Waste
Classified as **17 05 04** or **17 05 03 ***
in the List of Waste

Sample details

Sample Name:
HP05
Sample Depth:
0.50-0.50 m
Moisture content:
0%
(no correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 or 17 05 03 * (Soil and stones other than those mentioned in 17 05 03 or Soil and stones containing hazardous substances)

Hazard properties (substances considered hazardous until shown otherwise)

HP 2: Oxidizing "waste which may, generally by providing oxygen, cause or contribute to the combustion of other materials"

Hazard Statements hit:

Ox. Sol. 1; H271 "May cause fire or explosion; strong oxidiser."

Because of determinand:

chromium(VI) oxide: (compound conc.: 0.000231%)

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
1		acenaphthene				2.9	mg/kg		2.9	mg/kg	0.00029 %		
			201-469-6	83-32-9									
2		acenaphthylene				0.54	mg/kg		0.54	mg/kg	0.000054 %		
			205-917-1	208-96-8									
3		anthracene				6.1	mg/kg		6.1	mg/kg	0.00061 %		
			204-371-1	120-12-7									
4		arsenic { arsenic trioxide }				11	mg/kg	1.32	14.524	mg/kg	0.00145 %		
		033-003-00-0	215-481-4	1327-53-3									
5		benzo[a]anthracene				16	mg/kg		16	mg/kg	0.0016 %		
		601-033-00-9	200-280-6	56-55-3									
6		benzo[a]pyrene; benzo[def]chrysene				12	mg/kg		12	mg/kg	0.0012 %		
		601-032-00-3	200-028-5	50-32-8									
7		benzo[b]fluoranthene				18	mg/kg		18	mg/kg	0.0018 %		
		601-034-00-4	205-911-9	205-99-2									
8		benzo[ghi]perylene				6.4	mg/kg		6.4	mg/kg	0.00064 %		
			205-883-8	191-24-2									
9		benzo[k]fluoranthene				5.6	mg/kg		5.6	mg/kg	0.00056 %		
		601-036-00-5	205-916-6	207-08-9									
10		beryllium { beryllium oxide }				1	mg/kg	2.78	2.775	mg/kg	0.000278 %		
		004-003-00-8	215-133-1	1304-56-9									
11		boron { boron tribromide/trichloride/trifluoride (combined) }				0.5	mg/kg	13.43	6.715	mg/kg	0.000672 %		
				10294-33-4, 10294-34-5, 7637-07-2									

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
12		cadmium { cadmium sulfide }			1	0.3	mg/kg	1.29	0.386	mg/kg	0.00003 %		
		048-010-00-4	215-147-8	1306-23-6									
13		chromium in chromium(III) compounds { chromium(III) oxide }				23	mg/kg	1.46	33.616	mg/kg	0.00336 %		
			215-160-9	1308-38-9									
14		chromium in chromium(VI) compounds { chromium(VI) oxide }				1.2	mg/kg	1.92	2.308	mg/kg	0.000231 %		
		024-001-00-0	215-607-8	1333-82-0									
15		chrysene				12	mg/kg		12	mg/kg	0.0012 %		
		601-048-00-0	205-923-4	218-01-9									
16		copper { dicopper oxide; copper (I) oxide }				98	mg/kg	1.13	110.337	mg/kg	0.011 %		
		029-002-00-X	215-270-7	1317-39-1									
17		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				1	mg/kg	1.88	1.884	mg/kg	0.000188 %		
		006-007-00-5											
18		dibenz[a,h]anthracene				1.4	mg/kg		1.4	mg/kg	0.00014 %		
		601-041-00-2	200-181-8	53-70-3									
19		fluoranthene				34	mg/kg		34	mg/kg	0.0034 %		
			205-912-4	206-44-0									
20		fluorene				2.5	mg/kg		2.5	mg/kg	0.00025 %		
			201-695-5	86-73-7									
21		indeno[123-cd]pyrene				5.2	mg/kg		5.2	mg/kg	0.00052 %		
			205-893-2	193-39-5									
22		lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	70	mg/kg		70	mg/kg	0.007 %		
		082-001-00-6											
23		mercury { mercury dichloride }				0.3	mg/kg	1.35	0.406	mg/kg	0.000041 %		
		080-010-00-X	231-299-8	7487-94-7									
24		naphthalene				1.2	mg/kg		1.2	mg/kg	0.00012 %		
		601-052-00-2	202-049-5	91-20-3									
25		nickel { nickel dihydroxide }				22	mg/kg	1.58	34.749	mg/kg	0.00347 %		
		028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
26		pH				8.2	pH		8.2	pH	8.2 pH		
				PH									
27		phenanthrene				25	mg/kg		25	mg/kg	0.0025 %		
			201-581-5	85-01-8									
28		phenol				1	mg/kg		1	mg/kg	0.0001 %		
		604-001-00-2	203-632-7	108-95-2									
29		pyrene				32	mg/kg		32	mg/kg	0.0032 %		
			204-927-3	129-00-0									
30		zinc { zinc oxide }				92	mg/kg	1.24	114.514	mg/kg	0.0115 %		
		030-013-00-7	215-222-5	1314-13-2									
										Total:	0.0574 %		

Key

	User supplied data
	Potentially Hazardous result
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: HP06

Potentially Hazardous Waste
Classified as **17 05 04** or **17 05 03 ***
in the List of Waste

Sample details

Sample Name:
HP06
Sample Depth:
0.50-0.50 m
Moisture content:
0%
(no correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 or 17 05 03 * (Soil and stones other than those mentioned in 17 05 03 or Soil and stones containing hazardous substances)

Hazard properties (substances considered hazardous until shown otherwise)

HP 2: Oxidizing "waste which may, generally by providing oxygen, cause or contribute to the combustion of other materials"

Hazard Statements hit:

Ox. Sol. 1; H271 "May cause fire or explosion; strong oxidiser."

Because of determinand:

chromium(VI) oxide: (compound conc.: 0.000231%)

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
1		acenaphthene				5.3	mg/kg		5.3	mg/kg	0.00053 %		
			201-469-6	83-32-9									
2		acenaphthylene				0.52	mg/kg		0.52	mg/kg	0.000052 %		
			205-917-1	208-96-8									
3		anthracene				8.4	mg/kg		8.4	mg/kg	0.00084 %		
			204-371-1	120-12-7									
4		arsenic { arsenic trioxide }				9.7	mg/kg	1.32	12.807	mg/kg	0.00128 %		
		033-003-00-0	215-481-4	1327-53-3									
5		benzo[a]anthracene				21	mg/kg		21	mg/kg	0.0021 %		
		601-033-00-9	200-280-6	56-55-3									
6		benzo[a]pyrene; benzo[def]chrysene				17	mg/kg		17	mg/kg	0.0017 %		
		601-032-00-3	200-028-5	50-32-8									
7		benzo[b]fluoranthene				26	mg/kg		26	mg/kg	0.0026 %		
		601-034-00-4	205-911-9	205-99-2									
8		benzo[ghi]perylene				10	mg/kg		10	mg/kg	0.001 %		
			205-883-8	191-24-2									
9		benzo[k]fluoranthene				10	mg/kg		10	mg/kg	0.001 %		
		601-036-00-5	205-916-6	207-08-9									
10		beryllium { beryllium oxide }				0.85	mg/kg	2.78	2.359	mg/kg	0.000236 %		
		004-003-00-8	215-133-1	1304-56-9									
11		boron { boron tribromide/trichloride/trifluoride (combined) }				0.8	mg/kg	13.43	10.744	mg/kg	0.00107 %		
				10294-33-4, 10294-34-5, 7637-07-2									

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
12		cadmium { cadmium sulfide }			1	0.3	mg/kg	1.29	0.386	mg/kg	0.00003 %		
		048-010-00-4	215-147-8	1306-23-6									
13		chromium in chromium(III) compounds { chromium(III) oxide }				17	mg/kg	1.46	24.846	mg/kg	0.00248 %		
			215-160-9	1308-38-9									
14		chromium in chromium(VI) compounds { chromium(VI) oxide }				1.2	mg/kg	1.92	2.308	mg/kg	0.000231 %		
		024-001-00-0	215-607-8	1333-82-0									
15		chrysene				19	mg/kg		19	mg/kg	0.0019 %		
		601-048-00-0	205-923-4	218-01-9									
16		copper { dicopper oxide; copper (I) oxide }				54	mg/kg	1.13	60.798	mg/kg	0.00608 %		
		029-002-00-X	215-270-7	1317-39-1									
17		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				1	mg/kg	1.88	1.884	mg/kg	0.000188 %		
		006-007-00-5											
18		dibenz[a,h]anthracene				2.5	mg/kg		2.5	mg/kg	0.00025 %		
		601-041-00-2	200-181-8	53-70-3									
19		fluoranthene				47	mg/kg		47	mg/kg	0.0047 %		
			205-912-4	206-44-0									
20		fluorene				4	mg/kg		4	mg/kg	0.0004 %		
			201-695-5	86-73-7									
21		indeno[123-cd]pyrene				9.4	mg/kg		9.4	mg/kg	0.00094 %		
			205-893-2	193-39-5									
22		lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	62	mg/kg		62	mg/kg	0.0062 %		
		082-001-00-6											
23		mercury { mercury dichloride }				0.3	mg/kg	1.35	0.406	mg/kg	0.000041 %		
		080-010-00-X	231-299-8	7487-94-7									
24		naphthalene				1.6	mg/kg		1.6	mg/kg	0.00016 %		
		601-052-00-2	202-049-5	91-20-3									
25		nickel { nickel dihydroxide }				17	mg/kg	1.58	26.851	mg/kg	0.00269 %		
		028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
26		pH				9.6	pH		9.6	pH	9.6 pH		
				PH									
27		phenanthrene				32	mg/kg		32	mg/kg	0.0032 %		
			201-581-5	85-01-8									
28		phenol				1	mg/kg		1	mg/kg	0.0001 %		
		604-001-00-2	203-632-7	108-95-2									
29		pyrene				42	mg/kg		42	mg/kg	0.0042 %		
			204-927-3	129-00-0									
30		zinc { zinc oxide }				100	mg/kg	1.24	124.471	mg/kg	0.0124 %		
		030-013-00-7	215-222-5	1314-13-2									
										Total:	0.0586 %		

Key

	User supplied data
	Potentially Hazardous result
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TPA1[1]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TPA1[1]
Sample Depth:
0.5 m
Moisture content:
0%
(no correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		acenaphthene		201-469-6	83-32-9		2.24	mg/kg		2.24	mg/kg	0.000224 %		
2		acenaphthylene		205-917-1	208-96-8		0.34	mg/kg		0.34	mg/kg	0.000034 %		
3		anthracene		204-371-1	120-12-7		3.47	mg/kg		3.47	mg/kg	0.000347 %		
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		2.9	mg/kg	1.32	3.829	mg/kg	0.000383 %		
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		7.21	mg/kg		7.21	mg/kg	0.000721 %		
6		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		8.65	mg/kg		8.65	mg/kg	0.000865 %		
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		13.37	mg/kg		13.37	mg/kg	0.00134 %		
8		benzo[ghi]perylene		205-883-8	191-24-2		4.95	mg/kg		4.95	mg/kg	0.000495 %		
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		13.37	mg/kg		13.37	mg/kg	0.00134 %		
10		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		0.3	mg/kg	13.43	4.029	mg/kg	0.000403 %		
11		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	4.8	mg/kg	1.29	6.169	mg/kg	0.00048 %		
12		chrysene	601-048-00-0	205-923-4	218-01-9		8.07	mg/kg		8.07	mg/kg	0.000807 %		
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		27	mg/kg	1.13	30.399	mg/kg	0.00304 %		
14		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides,					0.5	mg/kg	1.88	0.942	mg/kg	0.000094 %		

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
		ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }											
		006-007-00-5											
15		dibenz[a,h]anthracene				0.78	mg/kg		0.78	mg/kg	0.000078 %		
		601-041-00-2	200-181-8	53-70-3									
16		fluoranthene				19.35	mg/kg		19.35	mg/kg	0.00194 %		
			205-912-4	206-44-0									
17		fluorene				1.77	mg/kg		1.77	mg/kg	0.000177 %		
			201-695-5	86-73-7									
18		indeno[123-cd]pyrene				5.07	mg/kg		5.07	mg/kg	0.000507 %		
			205-893-2	193-39-5									
19		lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	26	mg/kg		26	mg/kg	0.0026 %		
		082-001-00-6											
20		mercury { mercury dichloride }				0.1	mg/kg	1.35	0.135	mg/kg	0.000014 %		
		080-010-00-X	231-299-8	7487-94-7									
21		naphthalene				0.83	mg/kg		0.83	mg/kg	0.000083 %		
		601-052-00-2	202-049-5	91-20-3									
22		nickel { nickel dihydroxide }				23.2	mg/kg	1.58	36.644	mg/kg	0.00366 %		
		028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
23		phenanthrene				15.47	mg/kg		15.47	mg/kg	0.00155 %		
			201-581-5	85-01-8									
24		phenol				0.01	mg/kg		0.01	mg/kg	0.000001 %		
		604-001-00-2	203-632-7	108-95-2									
25		pyrene				16.56	mg/kg		16.56	mg/kg	0.00166 %		
			204-927-3	129-00-0									
26		zinc { zinc oxide }				39	mg/kg	1.24	48.544	mg/kg	0.00485 %		
		030-013-00-7	215-222-5	1314-13-2									
										Total:	0.0277 %		

Key

	User supplied data
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TPA2[1]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TPA2[1]
Sample Depth:
0.5 m
Moisture content:
0%
(no correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	acenaphthene		201-469-6	83-32-9		0.72 mg/kg		0.72 mg/kg	0.000072 %		
2	acenaphthylene		205-917-1	208-96-8		0.83 mg/kg		0.83 mg/kg	0.000083 %		
3	anthracene		204-371-1	120-12-7		2.17 mg/kg		2.17 mg/kg	0.000217 %		
4	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		10.1 mg/kg	1.32	13.335 mg/kg	0.00133 %		
5	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		4.54 mg/kg		4.54 mg/kg	0.000454 %		
6	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		4.29 mg/kg		4.29 mg/kg	0.000429 %		
7	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		6.23 mg/kg		6.23 mg/kg	0.000623 %		
8	benzo[ghi]perylene		205-883-8	191-24-2		2.42 mg/kg		2.42 mg/kg	0.000242 %		
9	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		6.23 mg/kg		6.23 mg/kg	0.000623 %		
10	boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		0.9 mg/kg	13.43	12.087 mg/kg	0.00121 %		
11	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.1 mg/kg	1.29	0.129 mg/kg	0.00001 %		
12	chrysene	601-048-00-0	205-923-4	218-01-9		4.32 mg/kg		4.32 mg/kg	0.000432 %		
13	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		26 mg/kg	1.13	29.273 mg/kg	0.00293 %		
14	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides,					0.5 mg/kg	1.88	0.942 mg/kg	0.000094 %		

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
		ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }											
		006-007-00-5											
15		dibenz[a,h]anthracene				0.4	mg/kg		0.4	mg/kg	0.00004 %		
		601-041-00-2	200-181-8	53-70-3									
16		fluoranthene				9.63	mg/kg		9.63	mg/kg	0.000963 %		
			205-912-4	206-44-0									
17		fluorene				1.1	mg/kg		1.1	mg/kg	0.00011 %		
			201-695-5	86-73-7									
18		indeno[123-cd]pyrene				2.3	mg/kg		2.3	mg/kg	0.00023 %		
			205-893-2	193-39-5									
19		lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	37	mg/kg		37	mg/kg	0.0037 %		
		082-001-00-6											
20		mercury { mercury dichloride }				0.1	mg/kg	1.35	0.135	mg/kg	0.000014 %		
		080-010-00-X	231-299-8	7487-94-7									
21		naphthalene				0.42	mg/kg		0.42	mg/kg	0.000042 %		
		601-052-00-2	202-049-5	91-20-3									
22		nickel { nickel dihydroxide }				37.5	mg/kg	1.58	59.231	mg/kg	0.00592 %		
		028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
23		phenanthrene				9.37	mg/kg		9.37	mg/kg	0.000937 %		
			201-581-5	85-01-8									
24		phenol				0.01	mg/kg		0.01	mg/kg	0.000001 %		
		604-001-00-2	203-632-7	108-95-2									
25		pyrene				8.79	mg/kg		8.79	mg/kg	0.000879 %		
			204-927-3	129-00-0									
26		zinc { zinc oxide }				76	mg/kg	1.24	94.598	mg/kg	0.00946 %		
		030-013-00-7	215-222-5	1314-13-2									
										Total:	0.031 %		

Key

	User supplied data
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TPA3[1]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TPA3[1]
Sample Depth:
1.5 m
Moisture content:
0%
(no correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	acenaphthene		201-469-6	83-32-9		1.28 mg/kg		1.28 mg/kg	0.000128 %		
2	acenaphthylene		205-917-1	208-96-8		1.62 mg/kg		1.62 mg/kg	0.000162 %		
3	anthracene		204-371-1	120-12-7		3.61 mg/kg		3.61 mg/kg	0.000361 %		
4	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		16.8 mg/kg	1.32	22.181 mg/kg	0.00222 %		
5	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		4.56 mg/kg		4.56 mg/kg	0.000456 %		
6	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		5.21 mg/kg		5.21 mg/kg	0.000521 %		
7	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		6.99 mg/kg		6.99 mg/kg	0.000699 %		
8	benzo[ghi]perylene		205-883-8	191-24-2		2.74 mg/kg		2.74 mg/kg	0.000274 %		
9	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		6.99 mg/kg		6.99 mg/kg	0.000699 %		
10	boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		1.2 mg/kg	13.43	16.116 mg/kg	0.00161 %		
11	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.5 mg/kg	1.29	0.643 mg/kg	0.00005 %		
12	chrysene	601-048-00-0	205-923-4	218-01-9		4.99 mg/kg		4.99 mg/kg	0.000499 %		
13	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		71 mg/kg	1.13	79.938 mg/kg	0.00799 %		
14	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides,					0.5 mg/kg	1.88	0.942 mg/kg	0.000094 %		

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
		ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }											
		006-007-00-5											
15		dibenz[a,h]anthracene				0.45	mg/kg		0.45	mg/kg	0.000045 %		
		601-041-00-2	200-181-8	53-70-3									
16		fluoranthene				12.07	mg/kg		12.07	mg/kg	0.00121 %		
			205-912-4	206-44-0									
17		fluorene				2.67	mg/kg		2.67	mg/kg	0.000267 %		
			201-695-5	86-73-7									
18		indeno[123-cd]pyrene				2.69	mg/kg		2.69	mg/kg	0.000269 %		
			205-893-2	193-39-5									
19		lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	143	mg/kg		143	mg/kg	0.0143 %		
		082-001-00-6											
20		mercury { mercury dichloride }				0.2	mg/kg	1.35	0.271	mg/kg	0.000027 %		
		080-010-00-X	231-299-8	7487-94-7									
21		naphthalene				2.89	mg/kg		2.89	mg/kg	0.000289 %		
		601-052-00-2	202-049-5	91-20-3									
22		nickel { nickel dihydroxide }				28.3	mg/kg	1.58	44.7	mg/kg	0.00447 %		
		028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
23		phenanthrene				14.75	mg/kg		14.75	mg/kg	0.00148 %		
			201-581-5	85-01-8									
24		phenol				0.01	mg/kg		0.01	mg/kg	0.000001 %		
		604-001-00-2	203-632-7	108-95-2									
25		pyrene				11.54	mg/kg		11.54	mg/kg	0.00115 %		
			204-927-3	129-00-0									
26		zinc { zinc oxide }				120	mg/kg	1.24	149.366	mg/kg	0.0149 %		
		030-013-00-7	215-222-5	1314-13-2									
										Total:	0.0542 %		

Key

	User supplied data
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TPA4[1]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TPA4[1]
Sample Depth:
0.25 m
Moisture content:
0%
(no correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		acenaphthene 201-469-6 / 83-32-9		0.97 mg/kg		0.97 mg/kg	0.000097 %		
2		acenaphthylene 205-917-1 / 208-96-8		0.3 mg/kg		0.3 mg/kg	0.00003 %		
3		anthracene 204-371-1 / 120-12-7		2.14 mg/kg		2.14 mg/kg	0.000214 %		
4		arsenic { arsenic trioxide } 033-003-00-0 / 215-481-4 / 1327-53-3		16.2 mg/kg	1.32	21.389 mg/kg	0.00214 %		
5		benzo[a]anthracene 601-033-00-9 / 200-280-6 / 56-55-3		7.08 mg/kg		7.08 mg/kg	0.000708 %		
6		benzo[a]pyrene; benzo[def]chrysene 601-032-00-3 / 200-028-5 / 50-32-8		6.52 mg/kg		6.52 mg/kg	0.000652 %		
7		benzo[b]fluoranthene 601-034-00-4 / 205-911-9 / 205-99-2		10.27 mg/kg		10.27 mg/kg	0.00103 %		
8		benzo[ghi]perylene 205-883-8 / 191-24-2		3.75 mg/kg		3.75 mg/kg	0.000375 %		
9		benzo[k]fluoranthene 601-036-00-5 / 205-916-6 / 207-08-9		10.27 mg/kg		10.27 mg/kg	0.00103 %		
10		boron { boron tribromide/trichloride/trifluoride (combined) } 10294-33-4, 10294-34-5, 7637-07-2		0.8 mg/kg	13.43	10.744 mg/kg	0.00107 %		
11		cadmium { cadmium sulfide } 048-010-00-4 / 215-147-8 / 1306-23-6	1	0.1 mg/kg	1.29	0.129 mg/kg	0.00001 %		
12		chrysene 601-048-00-0 / 205-923-4 / 218-01-9		6.1 mg/kg		6.1 mg/kg	0.00061 %		
13		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		45 mg/kg	1.13	50.665 mg/kg	0.00507 %		
14		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides,		0.5 mg/kg	1.88	0.942 mg/kg	0.000094 %		

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
		ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }											
		006-007-00-5											
15		dibenz[a,h]anthracene				0.37	mg/kg		0.37	mg/kg	0.000037 %		
		601-041-00-2	200-181-8	53-70-3									
16		fluoranthene				14.14	mg/kg		14.14	mg/kg	0.00141 %		
			205-912-4	206-44-0									
17		fluorene				0.65	mg/kg		0.65	mg/kg	0.000065 %		
			201-695-5	86-73-7									
18		indeno[123-cd]pyrene				3.86	mg/kg		3.86	mg/kg	0.000386 %		
			205-893-2	193-39-5									
19		lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	70	mg/kg		70	mg/kg	0.007 %		
		082-001-00-6											
20		mercury { mercury dichloride }				0.1	mg/kg	1.35	0.135	mg/kg	0.000014 %		
		080-010-00-X	231-299-8	7487-94-7									
21		naphthalene				0.23	mg/kg		0.23	mg/kg	0.000023 %		
		601-052-00-2	202-049-5	91-20-3									
22		nickel { nickel dihydroxide }				33.8	mg/kg	1.58	53.387	mg/kg	0.00534 %		
		028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
23		phenanthrene				8.62	mg/kg		8.62	mg/kg	0.000862 %		
			201-581-5	85-01-8									
24		phenol				0.01	mg/kg		0.01	mg/kg	0.000001 %		
		604-001-00-2	203-632-7	108-95-2									
25		pyrene				12.61	mg/kg		12.61	mg/kg	0.00126 %		
			204-927-3	129-00-0									
26		zinc { zinc oxide }				76	mg/kg	1.24	94.598	mg/kg	0.00946 %		
		030-013-00-7	215-222-5	1314-13-2									
										Total:	0.039 %		

Key

	User supplied data
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TPA5[1]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TPA5[1]
Sample Depth:
1.5 m
Moisture content:
0%
(no correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
1		acenaphthene				0.9	mg/kg		0.9	mg/kg	0.00009 %		
			201-469-6	83-32-9									
2		acenaphthylene				0.16	mg/kg		0.16	mg/kg	0.000016 %		
			205-917-1	208-96-8									
3		anthracene				1.83	mg/kg		1.83	mg/kg	0.000183 %		
			204-371-1	120-12-7									
4		arsenic { arsenic trioxide }				33.8	mg/kg	1.32	44.627	mg/kg	0.00446 %		
		033-003-00-0	215-481-4	1327-53-3									
5		benzo[a]anthracene				3.46	mg/kg		3.46	mg/kg	0.000346 %		
		601-033-00-9	200-280-6	56-55-3									
6		benzo[a]pyrene; benzo[def]chrysene				3.98	mg/kg		3.98	mg/kg	0.000398 %		
		601-032-00-3	200-028-5	50-32-8									
7		benzo[b]fluoranthene				6.25	mg/kg		6.25	mg/kg	0.000625 %		
		601-034-00-4	205-911-9	205-99-2									
8		benzo[ghi]perylene				2.55	mg/kg		2.55	mg/kg	0.000255 %		
			205-883-8	191-24-2									
9		benzo[k]fluoranthene				6.25	mg/kg		6.25	mg/kg	0.000625 %		
		601-036-00-5	205-916-6	207-08-9									
10		boron { boron tribromide/trichloride/trifluoride (combined) }				1.3	mg/kg	13.43	17.459	mg/kg	0.00175 %		
				10294-33-4, 10294-34-5, 7637-07-2									
11		cadmium { cadmium sulfide }			1	0.1	mg/kg	1.29	0.129	mg/kg	0.00001 %		
		048-010-00-4	215-147-8	1306-23-6									
12		chrysene				3.99	mg/kg		3.99	mg/kg	0.000399 %		
		601-048-00-0	205-923-4	218-01-9									
13		copper { dicopper oxide; copper (I) oxide }				256	mg/kg	1.13	288.227	mg/kg	0.0288 %		
		029-002-00-X	215-270-7	1317-39-1									
14		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides,				0.5	mg/kg	1.88	0.942	mg/kg	0.000094 %		

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
		ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5											
15		dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		0.31	mg/kg		0.31	mg/kg	0.000031 %		
16		fluoranthene 	205-912-4	206-44-0		9.69	mg/kg		9.69	mg/kg	0.000969 %		
17		fluorene 	201-695-5	86-73-7		0.66	mg/kg		0.66	mg/kg	0.000066 %		
18		indeno[123-cd]pyrene 	205-893-2	193-39-5		2.46	mg/kg		2.46	mg/kg	0.000246 %		
19		lead { lead compounds with the exception of those specified elsewhere in this Annex } 082-001-00-6			1	148	mg/kg		148	mg/kg	0.0148 %		
20		mercury { mercury dichloride } 080-010-00-X	231-299-8	7487-94-7		0.2	mg/kg	1.35	0.271	mg/kg	0.000027 %		
21		naphthalene 601-052-00-2	202-049-5	91-20-3		0.32	mg/kg		0.32	mg/kg	0.000032 %		
22		nickel { nickel dihydroxide } 028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		47.6	mg/kg	1.58	75.184	mg/kg	0.00752 %		
23		phenanthrene 	201-581-5	85-01-8		7.89	mg/kg		7.89	mg/kg	0.000789 %		
24		phenol 604-001-00-2	203-632-7	108-95-2		0.01	mg/kg		0.01	mg/kg	0.000001 %		
25		pyrene 	204-927-3	129-00-0		8.6	mg/kg		8.6	mg/kg	0.00086 %		
26		zinc { zinc oxide } 030-013-00-7	215-222-5	1314-13-2		130	mg/kg	1.24	161.813	mg/kg	0.0162 %		
										Total:	0.0796 %		

Key

	User supplied data
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
CLP: Note 1	Only the metal concentration has been used for classification

Appendix A: Classifier defined and non CLP determinands

acenaphthene (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17/07/2015
Risk Phrases: R36 , R37 , R38 , N R50/53 , N R51/53
Hazard Statements: Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410 , Aquatic Chronic 2 H411

acenaphthylene (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17/07/2015
Risk Phrases: R22 , R26 , R27 , R36 , R37 , R38
Hazard Statements: Acute Tox. 4 H302 , Acute Tox. 1 H330 , Acute Tox. 1 H310 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315

anthracene (EC Number: 204-371-1, CAS Number: 120-12-7)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17/07/2015
Risk Phrases: R36 , R37 , R38 , R43 , N R50/53
Hazard Statements: Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Skin Sens. 1 H317 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

benzo[ghi]perylene (EC Number: 205-883-8, CAS Number: 191-24-2)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 23/07/2015
Risk Phrases: N R50/53
Hazard Statements: Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

boron tribromide/trichloride/trifluoride (combined) (CAS Number: 10294-33-4, 10294-34-5, 7637-07-2)

Conversion factor: 13.43
Description/Comments: Combines the hazard statements and the average of the conversion factors for boron tribromide, boron trichloride and boron trifluoride
Data source: N/A
Data source date: 06/08/2015
Risk Phrases: R14 , T+ R26/28 , C R34 , C R35
Hazard Statements: EUH014 , Acute Tox. 2 H330 , Acute Tox. 2 H300 , Skin Corr. 1A H314 , Skin Corr. 1B H314

dicopper oxide; copper (I) oxide (EC Number: 215-270-7, CAS Number: 1317-39-1)

CLP index number: 029-002-00-X
Data source: Regulation (EU) 2016/1179 of 19 July 2016 (ATP9)
Additional Risk Phrases: N R50/53 , N R50/53 >= 0.25 %
Additional Hazard Statement(s): None.
Reason for additional Hazards Statement(s)/Risk Phrase(s):
10/10/2016 - N R50/53 risk phrase sourced from: WM3 v1 still uses ecotoxic risk phrases
10/10/2016 - N R50/53 >= 0.25 % risk phrase sourced from: WM3 v1 still uses ecotoxic risk phrases

salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex

CLP index number: 006-007-00-5
Data source: Commission Regulation (EC) No 790/2009 - 1st Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP1)
Additional Risk Phrases: None.
Additional Hazard Statement(s): EUH032 >= 0.2 %
Reason for additional Hazards Statement(s)/Risk Phrase(s):
14/12/2015 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

ethylbenzene (EC Number: 202-849-4, CAS Number: 100-41-4)

CLP index number: 601-023-00-4
Data source: Commission Regulation (EU) No 605/2014 – 6th Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP6)
Additional Risk Phrases: None.
Additional Hazard Statement(s): Carc. 2 H351
Reason for additional Hazards Statement(s)/Risk Phrase(s):
03/06/2015 - Carc. 2 H351 hazard statement sourced from: IARC Group 2B (77) 2000

fluoranthene (EC Number: 205-912-4, CAS Number: 206-44-0)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 21/08/2015
Risk Phrases: Xn R22 , N R50/53
Hazard Statements: Acute Tox. 4 H302 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

fluorene (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06/08/2015
Risk Phrases: N R50/53
Hazard Statements: Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

indeno[123-cd]pyrene (EC Number: 205-893-2, CAS Number: 193-39-5)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06/08/2015
Risk Phrases: R40
Hazard Statements: Carc. 2 H351

lead compounds with the exception of those specified elsewhere in this Annex

CLP index number: 082-001-00-6
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Additional Risk Phrases: None.
Additional Hazard Statement(s): Carc. 2 H351
Reason for additional Hazards Statement(s)/Risk Phrase(s):
03/06/2015 - Carc. 2 H351 hazard statement sourced from: IARC Group 2A (Sup 7, 87) 2006; Lead REACH Consortium www.reach-lead.eu/substanceinformation.html. Review date 29/09/2015

phenanthrene (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06/08/2015
Risk Phrases: R22 , R36 , R37 , R38 , R40 , R43 , N R50/53
Hazard Statements: Acute Tox. 4 H302 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Carc. 2 H351 , Skin Sens. 1 H317 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410 , Skin Irrit. 2 H315

pyrene (EC Number: 204-927-3, CAS Number: 129-00-0)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 21/08/2015
Risk Phrases: Xi R36/37/38 , N R50/53
Hazard Statements: Skin Irrit. 2 H315 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

chromium(III) oxide (EC Number: 215-160-9, CAS Number: 1308-38-9)

Conversion factor: 1.462
Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17/07/2015
Risk Phrases: R20 , R22 , R36 , R37 , R38 , R42 , R43 , R50/53 , R60 , R61
Hazard Statements: Acute Tox. 4 H332 , Acute Tox. 4 H302 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Resp. Sens. 1 H334 , Skin Sens. 1 H317 , Repr. 1B H360FD , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

pH (CAS Number: PH)

Description/Comments: Appendix C4
Data source: WM3 1st Edition 2015
Data source date: 25/05/2015
Risk Phrases: None.
Hazard Statements: None.

TPH (C6 to C40) petroleum group (CAS Number: TPH)

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013
Data source: WM3 1st Edition 2015
Data source date: 25/05/2015
Risk Phrases: R10 , R45 , R46 , R51/53 , R63 , R65
Hazard Statements: Flam. Liq. 3 H226 , Asp. Tox. 1 H304 , STOT RE 2 H373 , Muta. 1B H340 , Carc. 1B H350 , Repr. 2 H361d , Aquatic Chronic 2 H411

diesel petroleum group (CAS Number: 68334-30-5, 68476-34-6, 94114-59-7, 1159170-26-9)

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013
Data source: WM3 1st Edition 2015
Data source date: 25/05/2015
Risk Phrases: R40 , R51/53 , R65 , R66
Hazard Statements: Flam. Liq. 3 H226 , Skin Irrit. 2 H315 , Acute Tox. 4 H332 , Carc. 2 H351 , Asp. Tox. 1 H304 , STOT RE 2 H373 , Aquatic Chronic 2 H411

Appendix B: Rationale for selection of metal species

arsenic {arsenic trioxide}

Worst case species based on hazard statements

boron {boron tribromide/trichloride/trifluoride (combined)}

Worst case species based on hazard statements

cadmium {cadmium sulfide}

Worst case species based on hazard statements

copper {dicopper oxide; copper (I) oxide}

Most likely common species

cyanides {salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex}

Worst case species

lead {lead compounds with the exception of those specified elsewhere in this Annex}

Worst case species based on hazard statements

mercury {mercury dichloride}

Worst case species based on hazard statements

nickel {nickel dihydroxide}

Worst case species based on hazard statements

zinc {zinc oxide}

Worst case species based on hazard statements

beryllium {beryllium oxide}

Worst case species based on hazard statements

chromium in chromium(III) compounds {chromium(III) oxide}

Worst case species based on hazard statements

chromium in chromium(VI) compounds {chromium(VI) oxide}

Worst case species based on hazard statements

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition, May 2015
HazWasteOnline Classification Engine Version: 2017.9.3184.6334 (09 Jan 2017)
HazWasteOnline Database: 2017.9.3184.6334 (09 Jan 2017)

This classification utilises the following guidance and legislation:
WM3 - Waste Classification - May 2015
CLP Regulation - Regulation 1272/2008/EC of 16 December 2008
1st ATP - Regulation 790/2009/EC of 10 August 2009
2nd ATP - Regulation 286/2011/EC of 10 March 2011
3rd ATP - Regulation 618/2012/EU of 10 July 2012
4th ATP - Regulation 487/2013/EU of 8 May 2013
Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013
5th ATP - Regulation 944/2013/EU of 2 October 2013
6th ATP - Regulation 605/2014/EU of 5 June 2014
WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014
Revised List of Wastes 2014 - Decision 2014/955/EU of 18 December 2014
7th ATP - Regulation 2015/1221/EU of 24 July 2015
8th ATP - Regulation (EU) 2016/918 of 19 May 2016
9th ATP - Regulation (EU) 2016/1179 of 19 July 2016
POPs Regulation 2004 - Regulation 850/2004/EC of 29 April 2004
1st ATP to POPs Regulation - Regulation 756/2010/EU of 24 August 2010
2nd ATP to POPs Regulation - Regulation 757/2010/EU of 24 August 2010

Japanese Knotweed Solutions Ltd

WORKING ON BEHALF OF
Hydrock

To: Hydrock

Site: Fallowfield Campus, Manchester

For: Remediation of Japanese Knotweed

Summary and proposed remediation methodology

Prepared by:



Japanese Knotweed Solutions Ltd

Intellectual property rights remain with
JKS Ltd unless written approval granted

PROJECT SURVEYOR	Jonathan Harris
AUTHORISED BY	**MIKE CLOUGH (JKSL)**
DATE	25th November 2016

Table of Contents

Summary 3
Proposed remediation methodology 5
Sequence of excavations 5
Stump Removal 7
Asbestos 7
Transferral of Waste to Loading Area (applicable for areas classified as non-hazardous) 9
Lining of loading area 10
Removal from site 10
Removal of hazardous material containing >0.1% asbestos and Japanese Knotweed 10
Vertical root barrier 11
Backfilling/Securing excavations 11
Decontamination of machinery relating to Japanese Knotweed 11

Summary

The mechanical remediation option in relation to the Japanese Knotweed located on the mound at the Fallowfield Campus, Manchester, that the University of Manchester (UoM) have to decided to undertake, is removal off-site i.e. excavation and disposal off-site at a licenced disposal facility.

As part of the remediation works associated with removing material containing Japanese Knotweed, the site will be assessed from information provided by UoM, Mace and BDP – includes existing service drawings, proposed development plans and GI information issued in 2015 by Coffey. Due to the risk associated with asbestos being present within the ground, a further detailed study of the soil analysis data (produced by Bagnall and Environmental Essential in February 2016) has been undertaken / made available to facilitate the proposed remediation works.

Japanese Knotweed Solutions Ltd (JKSL) originally attended site in 2015 to assess the extents of the Japanese Knotweed infestation located within the proposed development areas. The mound was re-assessed in October 2016. Drawing JK15-0868-001 Rev A shows the areas of Japanese Knotweed within development boundary of the mound (as per the inspection undertaken in October 2016).

Drawings JK15-0868-006 Rev A and JK150868-007 Rev A, show a summary of the Ground Investigation works undertaken by Bagnall and Coffey, respectively. It is anticipated that excavation depths to remove material containing Japanese Knotweed will extend up to 2.0m bgl, based on visual inspections undertaken during the soil sampling works with Bagnall in February 2016. Due to certain locations of the mound having asbestos levels within the soil >0.1%, some of the material containing Japanese Knotweed (located along the eastern boundary of the mound) will be required to be removed off-site to a licenced facility as hazardous waste classification, with the remaining material to be removed off-site as non-hazardous waste (with levels of asbestos within the soil being <0.1%). Drawing JK15-0868-009 Rev A shows the area within the mound that contains material containing Japanese Knotweed which is likely to be affected by soils containing asbestos >0.1%.

The proposed remediation works to remove the material containing Japanese Knotweed off-site to a licenced disposal facility will be undertaken in a Phased approach. This will ensure that the areas classified as containing hazardous material are carried out in a separate phase to the other areas deemed to be classified as being non-hazardous.

Proposed remediation methodology

The Contractor will remediate the areas of Japanese Knotweed located on the mound (within the development boundary) as shown on drawing JK15-0868-001 Rev A. Please note, due to the existing maintenance building still being present within the northern area of the mound during the excavation works, the area of excavation will work up to the maintenance building (where practically feasible).

A detailed inspection of the ground will then be undertaken to determine the location of the Japanese Knotweed. If necessary the excavator will take a shallow scrape over the area in order to expose the rhizomes more clearly. Once identified these will be highlighted using spray paint or a similar method if deemed necessary.

The Contractor will then carry out removal of all rhizome from the areas highlighted on the associated drawing, within the development boundary, chasing the root structure until fully removed. Stringent methods (includes a clean site policy) will be implemented and adhered to, to avoid any spreading of contaminated material across the site during excavation and removal from site.

Specifically the excavator used to remove the rhizome, will remain in the marked area until completion, upon which the vehicle is fully decontaminated, as is any machinery used to move material or any vehicle that may enter a contaminated zone.

Dust / fibre suppressant procedures will be implemented during the excavation works.

Sequence of excavations

The proposed remediation works to remove the material containing Japanese Knotweed off-site to a licenced disposal facility will be undertaken in a Phased approach.

The proposed excavation of hazardous material containing >0.1% asbestos and Japanese Knotweed will be directly loaded into tipper wagons (or similar). To facilitate the excavation and loading process, a temporary haul road will be

progressively installed (using 6F2 aggregate material or similar, and lined with an appropriate membrane to reduce cross-contamination) as the material is gradually being excavated / removed. This will reduce the amount of times the material is handled.

Dust / fibre suppressant procedures will be implemented during the excavation works / loading process of tipper wagons. A scaffold tower will be installed along the haul road, to provide fibre / dust suppressant during the direct loading of the tipper wagon with hazardous material.

Areas containing material containing Japanese Knotweed classified as non-hazardous (i.e. <0.1% asbestos) can also be indirectly loaded i.e. the non-hazardous material waste can be transferred to a temporary loading area. The loading area will be adjacent to the hardstanding area, within an existing infested area, situated within the northern area of the site.

The excavators and dumpers (or similar, e.g. hydremas) will all contain cabins (with appropriate filters), to ensure that all machine operators / drivers are protected from potential asbestos contamination. Likewise, the drivers of the tipper wagons will stay in their cabins, with their wagons also being protected by appropriate filters.

As part of the indirect loading process (i.e. transferal of non-hazardous waste to a loading area), a dumper/hydrema will be used to move the non-hazardous material containing Japanese Knotweed across the site to the loading area. Please see *Transferral of Waste to Loading Area (applicable for areas classified as non-hazardous)* section below for more details.

The same machinery can be used for the different areas, however, will be decontaminated prior to moving to another phased area of works.

As part of the decontamination process, all cleaning of machinery is undertaken by hand using shovels, spades and stiff brushes (within the location of each phased area of works). Normally a mobile jet wash (low pressure) will also be used to clean off any remaining material. All debris are then collected by hand

and disposed of in the receptor area. Upon completion of the decontamination process, each machinery will be inspected by both Asbestos and Japanese Knotweed specialists, as part of a sign-off procedure.

Stump Removal

Existing stumps that are still present within the ground (as a result of the previous tree clearance works) will be segregated and stockpiled during the excavation process. The tree stumps will be excavated; excess soil (and potential rhizome) will be removed by hand using a shovel, stiff brush and a low pressure mobile jet wash. Upon completion of the cleaning / decontamination process, the stumps will be inspected by the Asbestos and Japanese Knotweed specialists, and then transferred to a designated stockpile on site. To facilitate works, existing piles of wood-chip (above the ground) may also be required to be transferred to a designated area on site.

Asbestos

Suitable PPE will be worn and protocols implemented during the excavation works.

Respirator Zone

Within all proposed excavation areas, a respirator zone will be created, to ensure a physical barrier (crowd barrier, or similar) is in place, thus preventing unauthorised access. The use of RPE (half masks with P3 filters, or similar) will be used by all operatives within the respirator zone.

Fibre suppressant

Within all proposed excavation areas, water/surfactant (water to be obtained from the adjacent maintenance building, and power gained from a generator) will be sprayed from a bowser and lance that will deliver a fine mist spray directly on to the area being excavated and onto the bucket of the machine. The operative spraying down will be working directly in the view of the machine driver and the banks-men. The bowser will be 1100 ltr and will require 100 ltrs of fibre suppressant.

A scaffold tower will also provide fibre / dust suppressant during the loading of the tipper wagon with hazardous material.

Appropriate 2 levels of asbestos training will be required within the respirator zones:-

- Cat C - will be for the fully trained asbestos removal operative supervising the works and wetting the soil as it is dug at the source (where required); and
- Cat B – will be for all site operatives (asbestos awareness trained) who have had the site specific training and also decontamination procedures from the fully trained asbestos removal operatives (i.e. Cat C trained).

The machine drivers will not be required to wear coveralls and masks but will have an ori-nasal half mask and disposable coveralls within their cabs in the event of a breakdown, the machine driver will keep the windows and doors shut at all times and will track to the end of the respirator zone to the decontamination zone and exit his machine. Personal monitoring will be undertaken within the cab of the machine.

Within all proposed excavation areas a separate fencing will be placed adjacent to the respirator zone; signage will be applied confirming this zone to be the decontamination zone. The machine driver is to track to the decontamination zone to exit the machine. A HEPA filtered vacuum, spray bottles, buckets, sponges & disposable towels will be available within the decontamination zone if required.

Mobile decontamination units (DCUs) for personal decontamination will also be situated adjacent to the excavation areas on site.

On completion of works within all proposed excavation areas the excavator tracks and buckets are to be washed and inspected by the Asbestos Contractor/specialist.

The air inlet filters of the cab of the machines are to be removed and replaced by Asbestos Contractor/specialist; the filters are to be disposed of as asbestos waste, and will be temporarily disposed of within double bagged / sealed asbestos waste bag, prior to onward disposal at a licenced facility by the Asbestos Contractor/specialist. The Asbestos Contractor/specialist will be providing an enclosed / lockable 16yd skip for the temporary storage of the waste bags on site, prior to onward disposal at a licenced disposal facility – this will be located adjacent to the main welfare facility on the hardstanding.

Overalls, and mask filters will also be removed as asbestos waste, and will be temporarily disposed of within doubled bagged / sealed asbestos waste bag, prior to onward disposal at a licenced facility by the Asbestos Contractor/specialist.

Personal monitoring, background air monitoring and DCU clearance testing will be undertaken.

If asbestos containing material (ACM) is visually encountered elsewhere on site (i.e. within areas currently classified as non-hazardous), excavation works will be immediately stopped and the area will be temporarily cordoned off (using orange mesh fencing), and the client notified. A procedure will be in place by the Asbestos Contractor/specialist, to separate the visual ACM from the soil material within the areas classified as non-hazardous.

The mitigation measures to be implemented (as outlined above) for the presence of asbestos during the remediation works to remove material containing Japanese Knotweed from areas classified as containing hazardous waste (includes implementation of respirator zones, decontamination zones, fibre suppressant) will also be implemented during the other proposed phases on site.

Transferral of Waste to Loading Area (applicable for areas classified as non-hazardous)

Vehicles (hydrema / dumpers and excavators) are to move and remain within the site boundary only during the excavation works. The only time machinery leaves the site boundary is when it is to be removed from site or for security reasons.

A dumper/hydrema will be used to move non-hazardous material containing Japanese Knotweed across the site to the loading area. They will not be over-loaded (maximum 75% capacity used) to avoid any cross-contamination issues. The dumpers will never drive on contaminated material within the excavation or loading area to avoid rhizomes being caught up on the wheels.

The machine loading the dumpers will remain on contaminated material at the edge of the excavation area. Once this area has been remediated the dumper can enter the area travelling on remediated land working along the infestation. This will be controlled by the excavator driver as well as the dumper driver to ensure that the dumper doesn't travel too far. JKSL will erect a small amount of orange barrier mesh fencing and signs to mark out the loading area/stopping area for the dumpers. This can be moved back across the excavation area as its remediated.

The dumper trucks will follow the designated haul routes marked out by the contractor.

Lining of loading area

Temporary loading areas will be lined with a suitable membrane to reduce the risk of cross-contamination.

Removal from site

While the above operations are taking place the Contractor will be removing the material from site to a licenced landfill in tipper wagons.

It is anticipated that the wagons will enter the site and reverse into the loading area under the guidance of banksmen. The Contractor may adapt this slightly during the works to make the process more practical if necessary.

The wagons will enter the site and position themselves next to the temporary waste management area/loading area without coming into contact with any contaminated materials. Using an appropriate ton excavator the waiting wagon will be carefully loaded.

The loaded wagon will leave site via the same route. Should any materials be dispersed onto the road via the wheels, it will immediately scraped up with shovels and brushes then jet wash the area. At the end of the working day this area will be jet washed down to ensure that it is left in the correct way.

The Contractor will ensure that the wagons are staggered thus ensuring that the side road and nearby roads doesn't become clogged up with traffic.

All wagons will be covered and will not leave site until the cover is secured in place.

Removal of hazardous material containing >0.1% asbestos and Japanese Knotweed

The proposed excavation of hazardous material containing >0.1% asbestos and Japanese Knotweed (situated along the eastern boundary of the mound / Area B) will be directly loaded into tipper wagons (to reduce the amount of times the hazardous material is handled). To facilitate the excavation and loading process

within this area of the site, a temporary haul road will be progressively installed (using 6F2 aggregate material or similar, lined with Tarram 2000 or similar) along the eastern boundary (in north-to-south direction) as the material is gradually being excavated / removed via tipper wagon. It should be noted that the 6F2 aggregate material will remain on site upon completion of the excavation works.

Vertical root barrier

Where rhizomes extend beyond the proposed development boundary, a vertical root barrier (an appropriate geo-textile membrane or similar) will be installed along the boundaries within these locations, to prevent rhizome migrating back into the remediated areas. The vertical root barrier will be installed up to a depth of 2m, extending up to 7m away from the nearest recorded Japanese Knotweed surface growth.

Backfilling/Securing excavations

To reduce the risk of additional disturbance of asbestos situated within the ground, the Contractor will not be required to backfill the proposed areas of excavation. The Contractor will however grade-off to make safe the excavation areas.

Decontamination of machinery relating to Japanese Knotweed

All cleaning of machinery is undertaken by hand using shovels, spades and stiff brushes – a mobile jet wash is then used to clean off the remaining material. All debris are then collected by hand and disposed of in the receptor area. Care is taken to ensure that the angle of the water is facing downward so as not to disperse small fragments of material any distance.

The cleaning of machinery will also not take place near road gullies – only undertaken at location of excavation site.



DISCLAIMER :
SURVEY BASED ON VISUAL INSPECTION OF SURFACE GROWTH. JKSL HOLD NO LIABILITY FOR AREAS NOT IDENTIFIED IN INITIAL INVESTIGATION WORKS. CONTINUED MONITORING OF SITE IS RECOMMENDED

AREA OF JAPANESE KNOTWEED

LIKELY EXTENT OF RHIZOME WITHIN DEVELOPMENT BOUNDARY

N

SURVEY ORIENTATED TO MAGNETIC NORTH

Rev	Description	Date	By	Chk

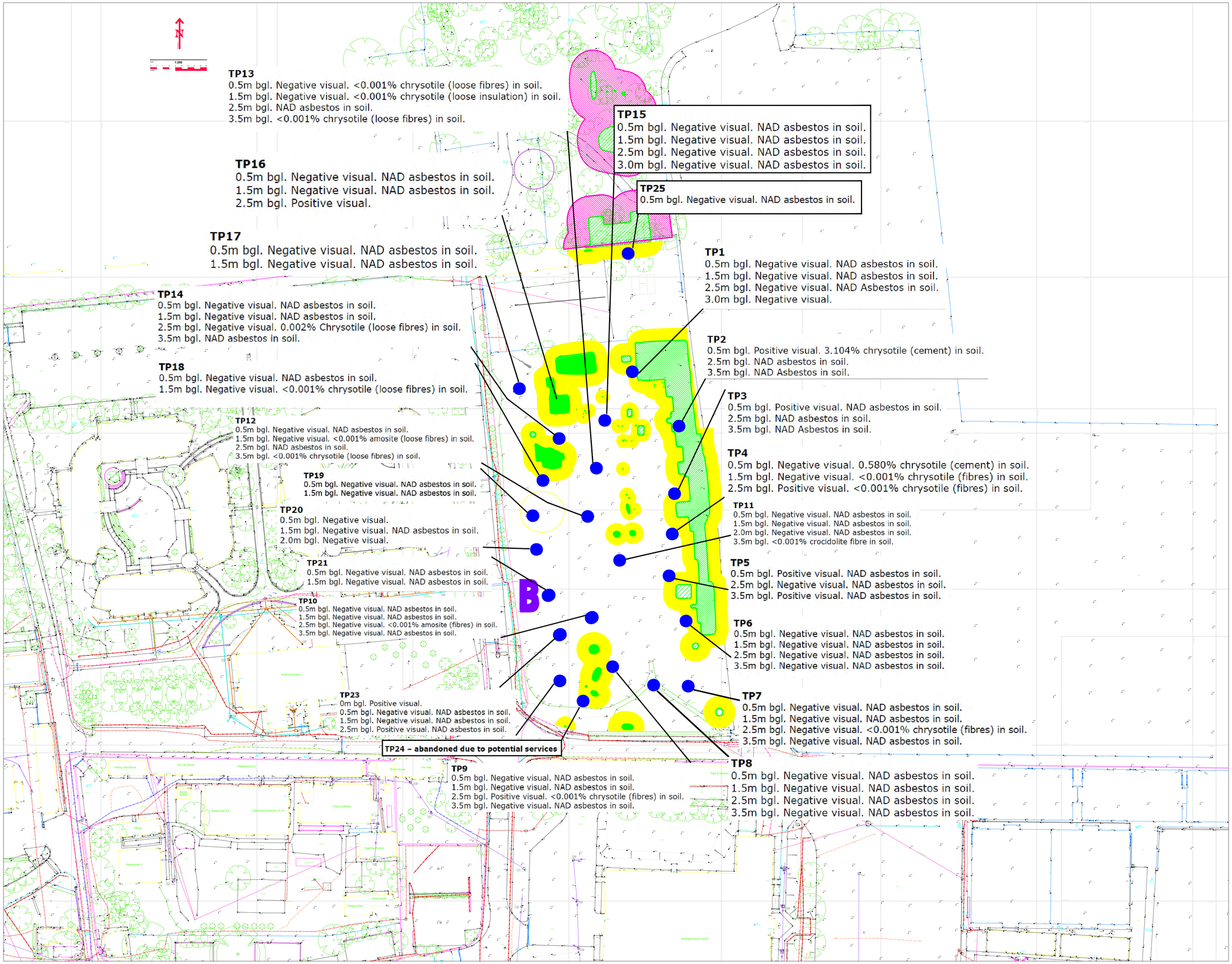
Client
University of Manchester

Contract
Fallowfield Campus, Manchester

Drawing
Japanese Knotweed inspection location plan

Japanese Knotweed Solutions

Drawing No.	JK15-0868-001	Revision	Rev A
Scales	NTS	Date	27-11-2015
Drawn	JEH	Checked	AD



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AREA OF JAPANESE KNOTWEED

LIKELY EXTENT OF RHIZOME WITHIN DEVELOPMENT BOUNDARY

SURVEY ORIENTATED TO MAGNETIC NORTH

Rev	Description	Date	By	Chk

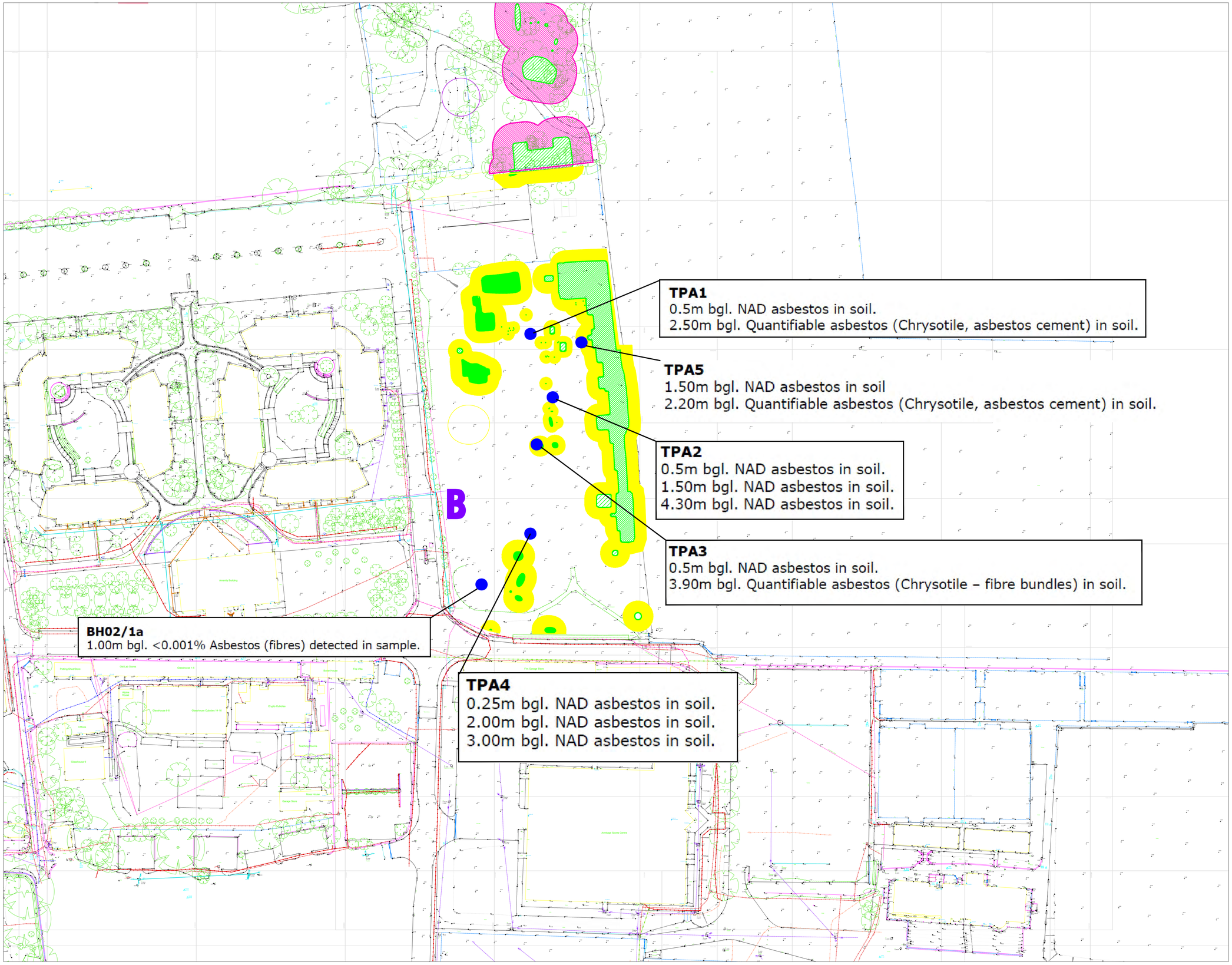
Client
University of Manchester

Contract
Fallowfield Campus, Manchester

Drawing
Location of trial pits (undertaken by Bagnalls in February 2016) in relation to Japanese Knotweed

Japanese Knotweed Solutions
W: T:
E: F:

Drawing No.	JK15-0868-006	Revision	Rev A
Scales	NTS	Date	25-11-2016
Drawn	JEH	Checked	AD



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AREA OF JAPANESE KNOTWEED

LIKELY EXTENT OF RHIZOME WITHIN DEVELOPMENT BOUNDARY

N

SURVEY ORIENTATED TO MAGNETIC NORTH

Rev	Description	Date	By	Chk

Client
University of Manchester

Contract
Fallowfield Campus, Manchester

Drawing
Location of soil samples (undertaken by Coffey in 2015) in relation to Japanese Knotweed

Japanese Knotweed Solutions

Drawing No.	JK15-0868-007	Revision	Rev A
Scales	NTS	Date	27-11-16
Drawn	JEH	Checked	AD