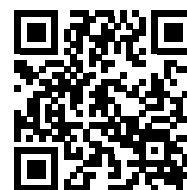


Waste Classification Report

HazWasteOnline™ classifies waste as either **hazardous** or **non-hazardous** based on its chemical composition, related legislation and the rules and data defined in the current UK or EU technical guidance (Appendix C) (note that HP 9 Infectious is not assessed). It is the responsibility of the classifier named below to:

- understand the origin of the waste
- select the correct List of Waste code(s)
- confirm that the list of determinands, results and sampling plan are fit for purpose
- select and justify the chosen metal species (Appendix B)
- correctly apply moisture correction and other available corrections
- add the meta data for their user-defined substances (Appendix A)
- check that the classification engine is suitable with respect to the national destination of the waste (Appendix C)



6754Z-VHWEJ-45BT8

To aid the reviewer, the laboratory results, assumptions and justifications managed by the classifier are highlighted in pale yellow.

Job name

6921D

Description/Comments

HWOL_21-18777-20210611 135736

Project

6921D

Site

Arkady Industrial Estate, Briscoe Lane, Newton Heath, Manchester

Classified by

Name: **Dave Marsden**
 Date: **17 Jun 2021 15:32 GMT**
 Telephone:
 Company: **Sub Surface Consultants**

HazWasteOnline™ provides a two day, hazardous waste classification course that covers the use of the software and both basic and advanced waste classification techniques. Certification has to be renewed every 3 years.

HazWasteOnline™ Certification:

Course
 Hazardous Waste Classification

Date

-

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	SS1		Hazardous	HP 7	2
2	SS2		Hazardous	HP 7, HP 14	5
3	SS3		Non Hazardous		8

Related documents

#	Name	Description
1	HWOL_21-18777-20210611 135736.hwol	.hwol file used to create the Job
2	Waste Soil	waste stream template used to create this Job

Report

Created by: Dave Marsden

Created date: 17 Jun 2021 15:32 GMT

Appendices	Page
Appendix A: Classifier defined and non CLP determinands	10
Appendix B: Rationale for selection of metal species	11
Appendix C: Version	12

Classification of sample: SS1

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

Sample details

Sample name:	LoW Code:
SS1	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
17%	Entry:
(wet weight correction)	17 05 03 * (Soil and stones containing hazardous substances)

Hazard properties

HP 7: Carcinogenic "waste which induces cancer or increases its incidence"

Hazard Statements hit:

Carc. 1A; H350 "May cause cancer [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

zinc chromate: (compound conc.: 0.117%)

Determinands

Moisture content: 17% Wet Weight 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	asbestos 650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5		<10 mg/kg		<10 mg/kg	<0.001 %			<LOD
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	37 mg/kg	1.32	40.547 mg/kg	0.00405 %		✓	
3	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2	1.3 mg/kg	3.22	3.474 mg/kg	0.000347 %		✓	
4	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	6.4 mg/kg	1.142	6.068 mg/kg	0.000607 %		✓	
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }	215-160-9	1308-38-9		130 mg/kg	1.462	157.702 mg/kg	0.0158 %		✓	
6	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %			<LOD
7	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	510 mg/kg	1.126	476.589 mg/kg	0.0477 %		✓	
8	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	340 mg/kg	1.56	440.18 mg/kg	0.0282 %		✓	
9	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	0.38 mg/kg	1.353	0.427 mg/kg	0.0000427 %		✓	
10	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7	140 mg/kg	2.976	345.842 mg/kg	0.0346 %		✓	
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8			0.93 mg/kg	1.405	1.085 mg/kg	0.000108 %		✓	
12	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9	510 mg/kg	2.774	1174.296 mg/kg	0.117 %		✓	
13	TPH (C6 to C40) petroleum group		TPH		<10 mg/kg		<10 mg/kg	<0.001 %			<LOD

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number								
14	confirm TPH has NOT arisen from diesel or petrol				☒						
15	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
	603-181-00-X	216-653-1	1634-04-4								
16	benzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
	601-020-00-8	200-753-7	71-43-2								
17	toluene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
	601-021-00-3	203-625-9	108-88-3								
18	ethylbenzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
	601-023-00-4	202-849-4	100-41-4								
19	xylene				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %			<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]								
20	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 }				1.2 mg/kg	1.884	1.876 mg/kg	0.000188 %		✓	
	006-007-00-5										
21	pH				8.6 pH		8.6 pH	8.6 pH			
			PH								
22	naphthalene				0.38 mg/kg		0.315 mg/kg	0.0000315 %		✓	
	601-052-00-2	202-049-5	91-20-3								
23	acenaphthylene				0.48 mg/kg		0.398 mg/kg	0.0000398 %		✓	
		205-917-1	208-96-8								
24	acenaphthene				1.7 mg/kg		1.411 mg/kg	0.000141 %		✓	
		201-469-6	83-32-9								
25	fluorene				1.3 mg/kg		1.079 mg/kg	0.000108 %		✓	
		201-695-5	86-73-7								
26	phenanthrene				11 mg/kg		9.13 mg/kg	0.000913 %		✓	
		201-581-5	85-01-8								
27	anthracene				3.2 mg/kg		2.656 mg/kg	0.000266 %		✓	
		204-371-1	120-12-7								
28	fluoranthene				15 mg/kg		12.45 mg/kg	0.00125 %		✓	
		205-912-4	206-44-0								
29	pyrene				15 mg/kg		12.45 mg/kg	0.00125 %		✓	
		204-927-3	129-00-0								
30	benzo[a]anthracene				5.6 mg/kg		4.648 mg/kg	0.000465 %		✓	
	601-033-00-9	200-280-6	56-55-3								
31	chrysene				5.1 mg/kg		4.233 mg/kg	0.000423 %		✓	
	601-048-00-0	205-923-4	218-01-9								
32	benzo[b]fluoranthene				5.1 mg/kg		4.233 mg/kg	0.000423 %		✓	
	601-034-00-4	205-911-9	205-99-2								
33	benzo[k]fluoranthene				3.2 mg/kg		2.656 mg/kg	0.000266 %		✓	
	601-036-00-5	205-916-6	207-08-9								
34	benzo[a]pyrene; benzo[def]chrysene				4.8 mg/kg		3.984 mg/kg	0.000398 %		✓	
	601-032-00-3	200-028-5	50-32-8								
35	indeno[123-cd]pyrene				3.9 mg/kg		3.237 mg/kg	0.000324 %		✓	
		205-893-2	193-39-5								
36	dibenz[a,h]anthracene				1.7 mg/kg		1.411 mg/kg	0.000141 %		✓	
	601-041-00-2	200-181-8	53-70-3								
37	benzo[ghi]perylene				4.8 mg/kg		3.984 mg/kg	0.000398 %		✓	
		205-883-8	191-24-2								
38	monohydric phenols				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
			P1186								
Total:									0.258 %		

Key	
<div></div>	User supplied data
<div></div>	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
<div></div>	Hazardous result
<div></div>	Determinand defined or amended by HazWasteOnline (see Appendix A)
<div></div>	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: SS2

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

Sample details

Sample name:	LoW Code:
SS2	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
15%	Entry:
(wet weight correction)	17 05 03 * (Soil and stones containing hazardous substances)

Hazard properties

HP 7: Carcinogenic "waste which induces cancer or increases its incidence"

Hazard Statements hit:

Carc. 1A; H350 "May cause cancer [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

zinc chromate: (compound conc.: 0.111%)

HP 14: Ecotoxic "waste which presents or may present immediate or delayed risks for one or more sectors of the environment"

Hazard Statements hit:

Aquatic Chronic 1; H410 "Very toxic to aquatic life with long lasting effects."

Because of determinands:

dicopper oxide; copper (I) oxide: (compound conc.: 0.268%)

zinc chromate: (compound conc.: 0.111%)

Determinands

Moisture content: 15% Wet Weight 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	asbestos 650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
2	arsenic { arsenic trioxide } 033-003-00-0	215-481-4	1327-53-3		31 mg/kg	1.32	34.791 mg/kg	0.00348 %	✓	
3	boron { diboron trioxide; boric oxide } 005-008-00-8	215-125-8	1303-86-2		1.1 mg/kg	3.22	3.011 mg/kg	0.000301 %	✓	
4	cadmium { cadmium oxide } 048-002-00-0	215-146-2	1306-19-0		7 mg/kg	1.142	6.797 mg/kg	0.00068 %	✓	
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) } 215-160-9		1308-38-9		57 mg/kg	1.462	70.812 mg/kg	0.00708 %	✓	
6	chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0	215-607-8	1333-82-0		<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %		<LOD
7	copper { dicopper oxide; copper (I) oxide } 029-002-00-X	215-270-7	1317-39-1		2800 mg/kg	1.126	2679.614 mg/kg	0.268 %	✓	
8	lead { lead chromate } 082-004-00-2	231-846-0	7758-97-6	1	460 mg/kg	1.56	609.888 mg/kg	0.0391 %	✓	
9	mercury { mercury dichloride } 080-010-00-X	231-299-8	7487-94-7		0.41 mg/kg	1.353	0.472 mg/kg	0.0000472 %	✓	

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number								
10	nickel { nickel chromate }				79 mg/kg	2.976	199.856 mg/kg	0.02 %		✓	
	028-035-00-7	238-766-5	14721-18-7								
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				0.51 mg/kg	1.405	0.609 mg/kg	0.0000609 %		✓	
	034-002-00-8										
12	zinc { zinc chromate }				470 mg/kg	2.774	1108.272 mg/kg	0.111 %		✓	
	024-007-00-3	236-878-9	13530-65-9								
13	TPH (C6 to C40) petroleum group				<10 mg/kg		<10 mg/kg	<0.001 %			<LOD
			TPH								
14	confirm TPH has NOT arisen from diesel or petrol				☒						
15	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
	603-181-00-X	216-653-1	1634-04-4								
16	benzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
	601-020-00-8	200-753-7	71-43-2								
17	toluene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
	601-021-00-3	203-625-9	108-88-3								
18	ethylbenzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
	601-023-00-4	202-849-4	100-41-4								
19	xylene				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %			<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]								
20	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 }				1.9 mg/kg	1.884	3.043 mg/kg	0.000304 %		✓	
	006-007-00-5										
21	pH				8.9 pH		8.9 pH	8.9 pH			
			PH								
22	naphthalene				1.2 mg/kg		1.02 mg/kg	0.000102 %		✓	
	601-052-00-2	202-049-5	91-20-3								
23	acenaphthylene				0.49 mg/kg		0.417 mg/kg	0.0000416 %		✓	
		205-917-1	208-96-8								
24	acenaphthene				2.1 mg/kg		1.785 mg/kg	0.000179 %		✓	
		201-469-6	83-32-9								
25	fluorene				1.6 mg/kg		1.36 mg/kg	0.000136 %		✓	
		201-695-5	86-73-7								
26	phenanthrene				11 mg/kg		9.35 mg/kg	0.000935 %		✓	
		201-581-5	85-01-8								
27	anthracene				2.7 mg/kg		2.295 mg/kg	0.00023 %		✓	
		204-371-1	120-12-7								
28	fluoranthene				12 mg/kg		10.2 mg/kg	0.00102 %		✓	
		205-912-4	206-44-0								
29	pyrene				13 mg/kg		11.05 mg/kg	0.00111 %		✓	
		204-927-3	129-00-0								
30	benzo[a]anthracene				5.1 mg/kg		4.335 mg/kg	0.000433 %		✓	
	601-033-00-9	200-280-6	56-55-3								
31	chrysene				4.8 mg/kg		4.08 mg/kg	0.000408 %		✓	
	601-048-00-0	205-923-4	218-01-9								
32	benzo[b]fluoranthene				6.4 mg/kg		5.44 mg/kg	0.000544 %		✓	
	601-034-00-4	205-911-9	205-99-2								
33	benzo[k]fluoranthene				2.8 mg/kg		2.38 mg/kg	0.000238 %		✓	
	601-036-00-5	205-916-6	207-08-9								
34	benzo[a]pyrene; benzo[def]chrysene				4.9 mg/kg		4.165 mg/kg	0.000417 %		✓	
	601-032-00-3	200-028-5	50-32-8								
35	indeno[123-cd]pyrene				3.8 mg/kg		3.23 mg/kg	0.000323 %		✓	
		205-893-2	193-39-5								
36	dibenz[a,h]anthracene				0.96 mg/kg		0.816 mg/kg	0.0000816 %		✓	
	601-041-00-2	200-181-8	53-70-3								
37	benzo[ghi]perylene				3.5 mg/kg		2.975 mg/kg	0.000298 %		✓	
		205-883-8	191-24-2								

Report created by Dave Marsden on 17 Jun 2021

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	M/C Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number								
38	●	monohydric phenols			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD	
			P1186								
Total:								0.458 %			

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Hazardous result
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1 Only the metal concentration has been used for classification	

Classification of sample: SS3

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

Sample details

Sample name:	LoW Code:
SS3	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
19%	Entry:
(wet weight correction)	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 19% Wet Weight 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	asbestos 650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5		<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
2	arsenic { arsenic trioxide }				21	mg/kg	1.32	22.459	mg/kg	0.00225 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	boron { diboron trioxide; boric oxide }				1.1	mg/kg	3.22	2.869	mg/kg	0.000287 %	✓	
	005-008-00-8	215-125-8	1303-86-2									
4	cadmium { cadmium oxide }				7.7	mg/kg	1.142	7.125	mg/kg	0.000712 %	✓	
	048-002-00-0	215-146-2	1306-19-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				77	mg/kg	1.462	91.157	mg/kg	0.00912 %	✓	
		215-160-9	1308-38-9									
6	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.5	mg/kg	1.923	<0.962	mg/kg	<0.0000962 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
7	copper { dicopper oxide; copper (I) oxide }				520	mg/kg	1.126	474.224	mg/kg	0.0474 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
8	lead { lead chromate }			1	770	mg/kg	1.56	972.857	mg/kg	0.0624 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
9	mercury { mercury dichloride }				0.33	mg/kg	1.353	0.362	mg/kg	0.0000362 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
10	nickel { nickel chromate }				67	mg/kg	2.976	161.522	mg/kg	0.0162 %	✓	
	028-035-00-7	238-766-5	14721-18-7									
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				0.72	mg/kg	1.405	0.819	mg/kg	0.0000819 %	✓	
	034-002-00-8											
12	zinc { zinc chromate }				430	mg/kg	2.774	966.235	mg/kg	0.0966 %	✓	
	024-007-00-3	236-878-9	13530-65-9									
13	TPH (C6 to C40) petroleum group		TPH		<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
14	confirm TPH has NOT arisen from diesel or petrol				☒							
15	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
	603-181-00-X	216-653-1	1634-04-4									
16	benzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
	601-020-00-8	200-753-7	71-43-2									

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number								
17	toluene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
	601-021-00-3	203-625-9	108-88-3								
18	ethylbenzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
	601-023-00-4	202-849-4	100-41-4								
19	xylene				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %			<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]								
20	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	1.884	1.526 mg/kg	0.000153 %		✓	
	006-007-00-5										
21	pH				8.5 pH		8.5 pH	8.5 pH			
			PH								
22	naphthalene				0.5 mg/kg		0.405 mg/kg	0.0000405 %		✓	
	601-052-00-2	202-049-5	91-20-3								
23	acenaphthylene				0.19 mg/kg		0.154 mg/kg	0.0000154 %		✓	
		205-917-1	208-96-8								
24	acenaphthene				0.35 mg/kg		0.284 mg/kg	0.0000284 %		✓	
		201-469-6	83-32-9								
25	fluorene				0.39 mg/kg		0.316 mg/kg	0.0000316 %		✓	
		201-695-5	86-73-7								
26	phenanthrene				2.2 mg/kg		1.782 mg/kg	0.000178 %		✓	
		201-581-5	85-01-8								
27	anthracene				0.58 mg/kg		0.47 mg/kg	0.000047 %		✓	
		204-371-1	120-12-7								
28	fluoranthene				3.3 mg/kg		2.673 mg/kg	0.000267 %		✓	
		205-912-4	206-44-0								
29	pyrene				3.9 mg/kg		3.159 mg/kg	0.000316 %		✓	
		204-927-3	129-00-0								
30	benzo[a]anthracene				1.3 mg/kg		1.053 mg/kg	0.000105 %		✓	
	601-033-00-9	200-280-6	56-55-3								
31	chrysene				1.1 mg/kg		0.891 mg/kg	0.0000891 %		✓	
	601-048-00-0	205-923-4	218-01-9								
32	benzo[b]fluoranthene				1.8 mg/kg		1.458 mg/kg	0.000146 %		✓	
	601-034-00-4	205-911-9	205-99-2								
33	benzo[k]fluoranthene				0.93 mg/kg		0.753 mg/kg	0.0000753 %		✓	
	601-036-00-5	205-916-6	207-08-9								
34	benzo[a]pyrene; benzo[def]chrysene				1.4 mg/kg		1.134 mg/kg	0.000113 %		✓	
	601-032-00-3	200-028-5	50-32-8								
35	indeno[123-cd]pyrene				0.98 mg/kg		0.794 mg/kg	0.0000794 %		✓	
		205-893-2	193-39-5								
36	dibenz[a,h]anthracene				0.35 mg/kg		0.284 mg/kg	0.0000284 %		✓	
	601-041-00-2	200-181-8	53-70-3								
37	benzo[ghi]perylene				0.9 mg/kg		0.729 mg/kg	0.0000729 %		✓	
		205-883-8	191-24-2								
38	monohydric phenols				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
			P1186								
Total:									0.239 %		

Key

- User supplied data
- Determinand values ignored for classification, see column 'Conc. Not Used' for reason
- Determinand defined or amended by HazardWasteOnline (see Appendix A)
- Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
- <LOD Below limit of detection
- ND Not detected
- CLP: Note 1 Only the metal concentration has been used for classification

Appendix A: Classifier defined and non CLP determinands

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

Description/Comments: Data from C&L Inventory Database

Data source: <https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/33806>

Data source date: 17 Jul 2015

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

■ 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 May 2015

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

■ confirm TPH has NOT arisen from diesel or petrol

Description/Comments: Chapter 3, section 4b requires a positive confirmation for benzo[a]pyrene to be used as a marker in evaluating Carc. 1B; H350 (HP 7) and Muta. 1B; H340 (HP 11)

Data source: WM3 1st Edition 2015

Data source date: 25 May 2015

Hazard Statements: None.

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

CLP index number: 601-023-00-4

Description/Comments:

Data source: Commission Regulation (EU) No 605/2014 – 6th Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP6)

Additional Hazard Statement(s): Carc. 2 H351

Reason for additional Hazards Statement(s):

03 Jun 2015 - Carc. 2 H351 hazard statement sourced from: IARC Group 2B (77) 2000

■ 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

Description/Comments: Conversion factor based on a worst case compound: sodium cyanide

Data source: Commission Regulation (EC) No 790/2009 - 1st Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP1)

Additional Hazard Statement(s): EUH032 >= 0.2 %

Reason for additional Hazards Statement(s):

14 Dec 2015 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

■ pH (CAS Number: PH)

Description/Comments: Appendix C4

Data source: WM3 1st Edition 2015

Data source date: 25 May 2015

Hazard Statements: None.

■ 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 Jul 2015

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

■ 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 Jul 2015

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

■ 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 Aug 2015

Hazard Statements: Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

■ 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 Aug 2015

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

■ **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 Jul 2015

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

■ **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 Aug 2015

Hazard Statements: Acute Tox. 4 H302 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

■ **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 Aug 2015

Hazard Statements: Skin Irrit. 2 H315 , Eye Irrit. 2 H319 , STOT SE 3 H335 , 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 Aug 2015

Hazard Statements: Carc. 2 H351

■ **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 Jul 2015

Hazard Statements: Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

■ **monohydric phenols** (CAS Number: P1186)

Description/Comments: Combined hazards statements from harmonised entries in CLP for phenol, cresols and xylenols (604-001-00-2, 604-004-00-9, 604-006-00-X)

Data source: CLP combined data

Data source date: 26 Mar 2019

Hazard Statements: Acute Tox. 3 H301 , Acute Tox. 3 H311 , Acute Tox. 3 H331 , Skin Corr. 1B H314 , Skin Corr. 1B H314 >= 3 % , Skin Irrit. 2 H315 1 E conc. < 3 % , Eye Irrit. 2 H319 1 E conc. < 3 % , Muta. 2 H341 , STOT RE 2 H373 , Aquatic Chronic 2 H411

Appendix B: Rationale for selection of metal species

arsenic {arsenic trioxide}

Reasonable case CLP species based on hazard statements/molecular weight and most common (stable) oxide of arsenic.

boron {diboron trioxide; boric oxide}

Reasonable case CLP species based on hazard statements/ molecular weight, physical form and low solubility.

cadmium {cadmium oxide}

Reasonable case CLP species based on hazard statements/molecular weight, very low solubility in water. Worst case compounds in CLP: cadmium sulphate, chloride, fluoride & iodide not expected as either very soluble and/or compound's industrial usage not related to site history.

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

Reasonable case species based on hazard statements/molecular weight.

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

Worst case CLP species based on hazard statements/molecular weight.

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Worst case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected.

lead {lead chromate}

Worst case CLP species based on hazard statements/molecular weight.

mercury {mercury dichloride}

Worst case CLP species based on hazard statements/molecular weight.

nickel {nickel chromate}

Worst case CLP species based on hazard statements/molecular weight.

selenium {selenium compounds with the exception of cadmium selenosulphide and those specified elsewhere in this Annex}

Harmonised group entry used as most reasonable case. Pigment cadmium selenosulphide not likely to be present in this soil. No evidence for the other CLP entries: sodium selenite, nickel II selenite and nickel selenide, to be present in this soil.

zinc {zinc chromate}

Worst case CLP species based on hazard statements/molecular weight.

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}

Harmonised group entry used as most reasonable case as complex cyanides and those specified elsewhere in the annex are not likely to be present in this soil: [Note conversion factor based on a worst case compound: sodium cyanide]

Appendix C: Version

HazWasteOnline Classification Engine: **WM3 1st Edition v1.1, May 2018**

HazWasteOnline Classification Engine Version: 2021.155.4797.9144 (05 Jun 2021)

HazWasteOnline Database: 2021.155.4797.9144 (05 Jun 2021)

This classification utilises the following guidance and legislation:

WM3 v1.1 - Waste Classification - 1st Edition v1.1 - May 2018

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 Waste 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

10th ATP - Regulation (EU) 2017/776 of 4 May 2017

HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017

13th ATP - Regulation (EU) 2018/1480 of 4 October 2018

14th ATP - Regulation (EU) 2020/217 of 4 October 2019

15th ATP - Regulation (EU) 2020/1182 of 19 May 2020

The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit)

Regulations 2019 - UK: 2019 No. 720 of 27th March 2019

The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit)

Regulations 2020 - UK: 2020 No. 1567 of 16th December 2020

The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK:

2020 No. 1540 of 16th December 2020

POPs Regulation 2019 - Regulation (EU) 2019/1021 of 20 June 2019