Appendix H
Hazard Waste Assessment

Waste Classification Report

Q3SCJ-6WB2S-HL9CC

Job name

GWPR2950

Description/Comments

Project

GWPR2950

Site

Related Documents

#	Name	Description
None		

Waste Stream Template

Ground and Water V2 PA

Classified by

Name:
Darina Jurovskaja
Date:
08 Feb 2019 08:37 GMT
Telephone:
0333 600 1221

Company:
Ground and Water
2 The Long Barn
Norton Farm, Selborne Road
Alton
GU34 3NB

Report

Created by: Darina Jurovskaja
Created date: 08 Feb 2019 08:37 GMT

Job summary

Classification of sample: BH1

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

Sample details

Sample Name:
BH1
Sample Depth:
0.25 m

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	pH			PH		8.5 pH		8.5 pH	8.5 pH		
2	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 }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
3	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		32 mg/kg	1.32	42.25 mg/kg	0.00423 %		
4	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	1.2 mg/kg	1.285	1.542 mg/kg	0.00012 %		
5	Chromium (III) Sulphate			10101-53-8		31 mg/kg		31 mg/kg	0.0031 %		
6	chromium { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<2 mg/kg	1.923	<3.846 mg/kg	<0.000385 %		<LOD
7	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		23 mg/kg	1.126	25.895 mg/kg	0.00259 %		
8	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	67 mg/kg	1.56	104.508 mg/kg	0.0067 %		
9	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<1 mg/kg	1.353	<1.353 mg/kg	<0.000135 %		<LOD
10	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		13 mg/kg	1.579	20.533 mg/kg	0.00205 %		
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<8 mg/kg	2.554	<20.429 mg/kg	<0.00204 %		<LOD
12	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		48 mg/kg	1.785	85.689 mg/kg	0.00857 %		
13	zinc { zinc chromate }	024-007-00-3				111 mg/kg	2.774	307.93 mg/kg	0.0308 %		
14	phenol	604-001-00-2	203-632-7	108-95-2		<2 mg/kg		<2 mg/kg	<0.0002 %		<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									
15		naphthalene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		**<LOD**
		601-052-00-2	202-049-5	91-20-3									
16	●	acenaphthylene				0.03	mg/kg		0.03	mg/kg	0.000003 %		
			205-917-1	208-96-8									
17	●	acenaphthene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		**<LOD**
			201-469-6	83-32-9									
18	●	fluorene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		**<LOD**
			201-695-5	86-73-7									
19	●	phenanthrene				0.15	mg/kg		0.15	mg/kg	0.000015 %		
			201-581-5	85-01-8									
20	●	anthracene				0.07	mg/kg		0.07	mg/kg	0.000007 %		
			204-371-1	120-12-7									
21	●	fluoranthene				0.5	mg/kg		0.5	mg/kg	0.00005 %		
			205-912-4	206-44-0									
22	●	pyrene				0.43	mg/kg		0.43	mg/kg	0.000043 %		
			204-927-3	129-00-0									
23		benzo[a]anthracene				0.25	mg/kg		0.25	mg/kg	0.000025 %		
		601-033-00-9	200-280-6	56-55-3									
24		chrysene				0.29	mg/kg		0.29	mg/kg	0.000029 %		
		601-048-00-0	205-923-4	218-01-9									
25		benzo[b]fluoranthene				0.29	mg/kg		0.29	mg/kg	0.000029 %		
		601-034-00-4	205-911-9	205-99-2									
26		benzo[k]fluoranthene				0.12	mg/kg		0.12	mg/kg	0.000012 %		
		601-036-00-5	205-916-6	207-08-9									
27		benzo[a]pyrene; benzo[def]chrysene				0.24	mg/kg		0.24	mg/kg	0.000024 %		
		601-032-00-3	200-028-5	50-32-8									
28	●	indeno[123-cd]pyrene				0.16	mg/kg		0.16	mg/kg	0.000016 %		
			205-893-2	193-39-5									
29		dibenz[a,h]anthracene				0.04	mg/kg		0.04	mg/kg	0.000004 %		
		601-041-00-2	200-181-8	53-70-3									
30	●	benzo[ghi]perylene				0.15	mg/kg		0.15	mg/kg	0.000015 %		
			205-883-8	191-24-2									
31	●	diesel petroleum group				24	mg/kg		24	mg/kg	0.0024 %		
				68334-30-5, 68476-34-6, 94114-59-7, 1159170-26-9									
32	●	TPH (C6 to C40) petroleum group				24	mg/kg		24	mg/kg	0.0024 %		
				TPH									
										Total:	0.0662 %		

Key

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

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because Unlikely to be flammable below this limit.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinands:

diesel petroleum group: (conc.: 0.0024%)
TPH (C6 to C40) petroleum group: (conc.: 0.0024%)

Classification of sample: BH2

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

Sample details

Sample Name:
BH2
Sample Depth:
0.5 m

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	pH			PH		10.3 pH		10.3 pH	10.3 pH		
2	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 }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
3	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		<10 mg/kg	1.32	<13.203 mg/kg	<0.00132 %		<LOD
4	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.7 mg/kg	1.285	0.9 mg/kg	0.00007 %		
5	Chromium (III) Sulphate			10101-53-8		29 mg/kg		29 mg/kg	0.0029 %		
6	chromium { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<2 mg/kg	1.923	<3.846 mg/kg	<0.000385 %		<LOD
7	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		11 mg/kg	1.126	12.385 mg/kg	0.00124 %		
8	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	29 mg/kg	1.56	45.235 mg/kg	0.0029 %		
9	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<1 mg/kg	1.353	<1.353 mg/kg	<0.000135 %		<LOD
10	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		18 mg/kg	1.579	28.431 mg/kg	0.00284 %		
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<8 mg/kg	2.554	<20.429 mg/kg	<0.00204 %		<LOD
12	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		64 mg/kg	1.785	114.252 mg/kg	0.0114 %		
13	zinc { zinc chromate }	024-007-00-3				276 mg/kg	2.774	765.664 mg/kg	0.0766 %		
14	phenol	604-001-00-2	203-632-7	108-95-2		<2 mg/kg		<2 mg/kg	<0.0002 %		<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									
15		naphthalene				0.03	mg/kg		0.03	mg/kg	0.000003 %		
		601-052-00-2	202-049-5	91-20-3									
16	●	acenaphthylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			205-917-1	208-96-8									
17	●	acenaphthene				0.03	mg/kg		0.03	mg/kg	0.000003 %		
			201-469-6	83-32-9									
18	●	fluorene				0.04	mg/kg		0.04	mg/kg	0.000004 %		
			201-695-5	86-73-7									
19	●	phenanthrene				0.31	mg/kg		0.31	mg/kg	0.000031 %		
			201-581-5	85-01-8									
20	●	anthracene				0.1	mg/kg		0.1	mg/kg	0.00001 %		
			204-371-1	120-12-7									
21	●	fluoranthene				0.5	mg/kg		0.5	mg/kg	0.00005 %		
			205-912-4	206-44-0									
22	●	pyrene				0.43	mg/kg		0.43	mg/kg	0.000043 %		
			204-927-3	129-00-0									
23		benzo[a]anthracene				0.27	mg/kg		0.27	mg/kg	0.000027 %		
		601-033-00-9	200-280-6	56-55-3									
24		chrysene				0.3	mg/kg		0.3	mg/kg	0.00003 %		
		601-048-00-0	205-923-4	218-01-9									
25		benzo[b]fluoranthene				0.26	mg/kg		0.26	mg/kg	0.000026 %		
		601-034-00-4	205-911-9	205-99-2									
26		benzo[k]fluoranthene				0.12	mg/kg		0.12	mg/kg	0.000012 %		
		601-036-00-5	205-916-6	207-08-9									
27		benzo[a]pyrene; benzo[def]chrysene				0.22	mg/kg		0.22	mg/kg	0.000022 %		
		601-032-00-3	200-028-5	50-32-8									
28	●	indeno[123-cd]pyrene				0.14	mg/kg		0.14	mg/kg	0.000014 %		
			205-893-2	193-39-5									
29		dibenz[a,h]anthracene				0.03	mg/kg		0.03	mg/kg	0.000003 %		
		601-041-00-2	200-181-8	53-70-3									
30	●	benzo[ghi]perylene				0.13	mg/kg		0.13	mg/kg	0.000013 %		
			205-883-8	191-24-2									
31	●	diesel petroleum group				25	mg/kg		25	mg/kg	0.0025 %		
				68334-30-5, 68476-34-6, 94114-59-7, 1159170-26-9									
32	●	TPH (C6 to C40) petroleum group				25	mg/kg		25	mg/kg	0.0025 %		
				TPH									
										Total:	0.108 %		

Key

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

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because Unlikely to be flammable below this limit.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinands:

diesel petroleum group: (conc.: 0.0025%)
TPH (C6 to C40) petroleum group: (conc.: 0.0025%)

Appendix A: Classifier defined and non CLP determinands

pH (CAS Number: PH)

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

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)/Risk Phrase(s):
14 Dec 2015 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

Chromium (III) Sulphate (CAS Number: 10101-53-8)

Description/Comments:
Data source: 10101-53-8
Data source date: 24 Jun 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: Skin Irrit. 2 H315 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Acute Tox. 1 H310 , Acute Tox. 1 H330 , Acute Tox. 4 H302

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: Aquatic Chronic 2 H411 , Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Skin Irrit. 2 H315 , STOT SE 3 H335 , Eye Irrit. 2 H319

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 Chronic 1 H410 , Aquatic Acute 1 H400

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: Skin Irrit. 2 H315 , Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Skin Sens. 1 H317 , Carc. 2 H351 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Acute Tox. 4 H302

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: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Skin Sens. 1 H317 , Skin Irrit. 2 H315 , STOT SE 3 H335 , Eye Irrit. 2 H319

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

- **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: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Skin Irrit. 2 H315

- **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 Chronic 1 H410 , Aquatic Acute 1 H400

- **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 May 2015
Hazard Statements: Aquatic Chronic 2 H411 , STOT RE 2 H373 , Asp. Tox. 1 H304 , Carc. 2 H351 , Acute Tox. 4 H332 , Skin Irrit. 2 H315 , Flam. Liq. 3 H226

- **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: Aquatic Chronic 2 H411 , Repr. 2 H361d , Carc. 1B H350 , Muta. 1B H340 , STOT RE 2 H373 , Asp. Tox. 1 H304 , Flam. Liq. 3 H226

Appendix B: Rationale for selection of metal 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

arsenic {arsenic trioxide}

Worst case species based on risk phrases

cadmium {cadmium sulfide}

Worst case species based on risk phrases

chromium {chromium(VI) oxide}

Worst case species based on risk phrases

copper {dicopper oxide; copper (I) oxide}

Most likely common species

lead {lead chromate}

Worst case species based on risk phrases

mercury {mercury dichloride}

Worst case species based on risk phrases

nickel {nickel dihydroxide}

Worst case species based on risk phrases

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

Worst case species based on risk phrases

vanadium {divanadium pentaoxide; vanadium pentoxide}

most common form

zinc {zinc chromate}

Worst case species based on risk phrases

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.1, May 2018
HazWasteOnline Classification Engine Version: 2019.38.3777.7713 (07 Feb 2019)
HazWasteOnline Database: 2019.38.3777.7713 (07 Feb 2019)

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 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
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
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