

APPENDIX B - EXPLORATORY HOLE LOGS



Trial Pit Log

Trialpit No

HDP01

Sheet 1 of 1

Project Name: Bryn Lane Outline Planning

Project No.
TE1749

Co-ords: 338641.22 - 351122.96

Level: 31.96

Date

20/06/2023

Location: Wrexham

Dimensions
(m):

0.2

Depth
1.10

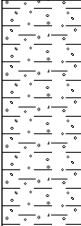
0.2

Scale

1:25

Logged
ER

Client: Net World Sports

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.20	ES		0.30	31.66		MADE GROUND: Soft to firm, dark brown, slightly sandy to sandy, gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to sub angular of mudstone, coal, brick, concrete and rare ceramic.	
	0.80	ES		1.10	30.86		MADE GROUND Firm to stiff, dark brown, mottled grey slightly gravelly CLAY. Gravel is fine to coarse, angular to sub angular of mudstone, coal, quartz and sandstone. TILL	1
							End of pit at 1.10 m	2
								3
								4
								5

Remarks: 1) Hand dug pit for geoenvironmental purposes 2) No groundwater ingress encountered 3) Terminated at 1.10m bgl.

Stability: Stable





Trial Pit Log

Trialpit No
HDP02
Sheet 1 of 1

Project Name: Bryn Lane Outline Planning

Project No.
TE1749

Co-ords: 338249.17 - 350930.08
Level: 33.20

Date
20/06/2023

Location: Wrexham

Dimensions (m):

0.2

Client: Net World Sports

Depth
1.00

0.2

Scale
1:25
Logged
ER

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
	0.50	ES		0.20	33.00		Grass over, dark to orangish brown. Slightly gravelly, clayey, fine to coarse SAND. Garvel is fine to coarse, angular to subrounded of mudstone, sandstone and clods of clay. Frequent rootlets throughout. TOPSOIL
				1.00	32.20		Firm to stiff, dark brown, mottled grey, slightly gravelly CLAY. Gravel is fine to coarse, angular to subangular of mudstone, coal, quartz and sandstone. TILL
							End of pit at 1.00 m
							1
							2
							3
							4
							5

Remarks: 1) Hand dug pit for geoenvironmental purposes 2) No groundwater ingress encountered 3) Terminated at 1.00m bgl

Stability: Stable





Trial Pit Log

Trialpit No

HDP03

Sheet 1 of 1

Project Name: Bryn Lane Outline Planning

Project No.
TE1749Co-ords: 338411.88 - 351300319.00
Level: 30.05Date
20/06/2023

Location: Wrexham

Dimensions
(m):

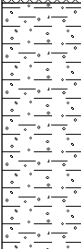
0.2

Client: Net World Sports

Depth
1.10

0.2

Scale
1:25Logged
ER

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
	0.10	ES		0.25	29.80		MADE GROUND: Crops over soft, dark brown, slightly sandy, gravelly CLAY. Sand is fine to coarse, gravel is fine to coarse, angular to subangular of brick, mudstone, sandstone and limestone.
							MADE GROUND POSSIBLE MADE GROUND: Soft, locally firm, orangish brown, mottled grey, gravelly CLAY. Gravel is fine to medium, angular to subangular of mudstone, coal and sandstone (potentially reworked)
				1.10	28.95		POSSIBLE MADE GROUND
							End of pit at 1.10 m

1

2

3

4

5

Remarks: 1) Hand dug pit for geoenvironmental purposes 2) No groundwater ingress encountered 3) Terminated at 1.10m bgl

Stability: Stable





Trial Pit Log

Trialpit No

HDP04

Sheet 1 of 1

Project Name: Bryn Lane Outline Planning

Project No.
TE1749

Co-ords: 338168.53 - 351043.49

Level: 35.95

Date

20/06/2023

Location: Wrexham

Dimensions
(m):

0.2

Depth
1.20

0.2

Scale

1:25

Logged
ER

Client: Net World Sports

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.20	ES		0.38	35.57		MADE GROUND: Grass over dark brown, slightly clayey, gravelly to very gravelly, fine to coarse SAND. Gravel is fine to coarse, angular of mudstone, brick, concrete, limestone and rare cobbles of brick. MADE GROUND	
	0.90	ES		1.20	34.75		MADE GROUND: Stiff, dark brown, slightly gravelly CLAY. Gravel is fine to coarse, angular to subrounded of mudstone, sandstone, quartz and coal. TILL	1
							End of pit at 1.20 m	2
								3
								4
								5

Remarks: 1) Hand dug pit for geoenvironmental purposes 2) No groundwater ingress encountered 3) Terminated at 1.20m bgl

Stability: Stable





Trial Pit Log

Trialpit No

HDP05

Sheet 1 of 1

Project Name: Bryn Lane Outline Planning

Project No.
TE1749Co-ords: 338819.56 - 351498.03
Level: 28.90Date
20/06/2023

Location: Wrexham

Dimensions
(m):

0.2

Depth
1.00

0.2

Scale
1:25Logged
ER

Client: Net World Sports

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.25	ES		0.35	28.55		Grass over, soft, dark brown, silty, gravelly CLAY. Gravel is fine to medium, angular to subrounded of mudstone, sandstone and limestone. Frequent rootlets throughout. TOPSOIL	
							Firm, dark brown, slightly silty, slightly gravelly CLAY. Arvel is fine to medium, angular to rounded of mudstone, quartz and coal. TILL	
				1.00	27.90			
							End of pit at 1.00 m	1
								2
								3
								4
								5

Remarks: 1) Hand dug pit for geoenvironmental purposes 2) No groundwater ingress encountered 3) Terminated at 1.00m bgl

Stability: Stable





Trial Pit Log

Trialpit No
HDP06
Sheet 1 of 1

Project Name: Bryn Lane Outline Planning

Project No.
TE1749

Co-ords: 338870.80 - 351241.64
Level: 29.78

Date
20/06/2023

Location: Wrexham

Dimensions (m):

0.2

Depth
1.10

0.2

Scale
1:25

Logged
ER

Client: Net World Sports

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.50	ES		0.20	29.58		Grass over, soft, dark brown, silty, gravelly CLAY. Gravel is fine to medium, angular to subrounded of mudstone, sandstone and limestone. Frequent rootlets throughout. TOPSOIL Firm, dark brown, slightly silty, slightly gravelly CLAY. Gravel is fine to medium, angular to rounded of mudstone, quartz and coal. TILL	
				1.10	28.68			1
							End of pit at 1.10 m	
								2
								3
								4
								5

Remarks: 1) Hand dug pit for geoenvironmental purposes 2) No groundwater ingress encountered 3) Terminated at 1.10m bgl.

Stability: Stable





Trial Pit Log

Trialpit No

HDP07

Sheet 1 of 1

Project Name: Bryn Lane Outline Planning

Project No.
TE1749

Co-ords: 338760.51 - 351278.09

Level: 30.21

Date

20/06/2023

Location: Wrexham

Dimensions
(m):

0.2

Depth
1.00

0.2

Scale

1:25

Logged
ER

Client: Net World Sports

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
	0.20	ES		0.30	29.91		MADE GROUND: Grass over dark, blackish brown, slightly clayey to clayey, gravelly, fine to coarse SAND. Gravel is fine to coarse, angular to subangular of brick, mudstone, coal, clinker, concrete and wood fragments. MADE GROUND POSSIBLE MADE GROUND: Soft, orangish brown, sandy, gravelly CLAY. Gravel is fine to coarse, angular of mudstone, sandstone and coal. (potentially reworked) POSSIBLE MADE GROUND
	0.70	ES		1.00	29.21		
							End of pit at 1.00 m

1

2

3

4

5

Remarks: 1) Hand dug pit for geoenvironmental purposes 2) No groundwater ingress encountered 3) Terminated at 1.00m bgl

Stability: Stable





Trial Pit Log

Trialpit No

HDP08

Sheet 1 of 1

Project Name: Bryn Lane Outline Planning

Project No.
TE1749

Co-ords:	338746.33 - 351271.46
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Level: 29.92

Date _____

20/06/2023

Location: Wrexham

Dimensions
(m):

0.2

Depth
1.00

0.2

Scale

1:25

Logged
ER

Client: Net World Sports

[illegible]

Remarks:	1) Hand dug pit for geoenvironmental purposes 2) No groundwater ingress encountered 3) Terminated at 1.00m bgl
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Stability: Stable





Trial Pit Log

Trialpit No

TP01

Sheet 1 of 1

Project Name: Bryn Lane Outline Planning

Project No.
TE1749

Co-ords: 338570.62 - 351104.86

Level: 32.62

Date

05/06/2023

Location: Wrexham

Dimensions
(m):

2

Client: Net World Sports

Depth
3.50

0.6

Scale

1:25

Logged
ER

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.40	ES	HVR=111 HVR=113	0.55	32.07		Crops over, firm, dark brown, silty, sandy CLAY. Sand is fine to medium. Frequent rootlets throughout. TOPSOIL	
	1.10	ES	HVR=124				Stiff to very stiff, dark brown, mottled grey, slightly silty, slightly sandy CLAY. Sand is fine. TILL <u>Grey mottled lenses are silty.</u>	1
	1.50 - 1.80	B	HVR=130					
	2.10	ES	HVR=130 HVR=130					2
	3.10	ES	HVR=130 HVR=130					3
				3.50	29.12		End of pit at 3.50 m	4
								5

Remarks: 1) Trial pit for geoenvironmental purposes. 2) No groundwater ingress encountered 3) Terminated on hard digging.

Stability: Stable





Trial Pit Log

Trialpit No

TP02

Sheet 1 of 1

Project Name: Bryn Lane Outline Planning

Project No.
TE1749

Co-ords: 338503.83 - 351209.83

Level: 31.58

Date

05/06/2023

Location: Wrexham

Dimensions
(m):

2

Depth
3.00

0.6

Scale

1:25

Logged
ER

Client: Net World Sports

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.30	ES	HVR=53	0.30	31.28		Crops over, firm, dark brown, silty, sandy CLAY. Sand is fine to medium. Frequent rootlets throughout. TOPSOIL	
	0.50 - 0.90	B	HVR=70				Firm, greyish and yellowish brown, slightly gravelly, sandy, silty CLAY. Gravel is fine to medium, angular to rounded of mudstone, sandstone and coal. Sand is fine to medium. TILL	
	0.90	ES	HVR=119	1.05	30.53		Stiff to very stiff, dark brown, mottled grey, slightly silty, slightly sandy CLAY. Sand is fine. TILL	1
	2.00	ES	HVR=130					2
			HVR=130					
			HVR=130	3.00	28.58			3
							End of pit at 3.00 m	
								4
								5

Remarks: 1) Trial pit for geoenvironmental purposes. 2) No groundwater ingress encountered 3) Terminated on hard digging.

Stability: Stable





Trial Pit Log

Trialpit No

TP03

Sheet 1 of 1

Project Name: Bryn Lane Outline Planning

Project No.
TE1749Co-ords: 338597.50 - 351217.44
Level: 30.99Date
05/06/2023

Location: Wrexham

Dimensions
(m):

2

Depth
3.50

0.6

Scale
1:25Logged
ER

Client: Net World Sports

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.25	ES	HVR=47	0.35	30.64		Crops over, firm, dark brown, silty, sandy CLAY. Sand is fine to medium. Frequent rootlets throughout. TOPSOIL	1
	0.50 - 0.70	B	HVR=89				Firm becoming stiff, greyish and yellowish brown, slightly gravelly, sandy, silty CLAY. Gravel is fine to medium, angular to rounded of mudstone and sandstone. Sand is fine to medium. TILL	
	0.95	ES	HVR=123	1.00	29.99		Stiff to very stiff, dark brown, mottled grey, slightly silty, slightly sandy CLAY. Sand is fine. TILL	
	1.40	ES	HVR=130					2
	1.50 - 1.80	B	HVR=130					
			HVR=130					
			HVR=130	3.50	27.49			3
			HVR=130					
			HVR=130					
							End of pit at 3.50 m	4
								5

Remarks: 1) Trial pit for geoenviromental purposes. 2) No groundwater ingress encountered 3) Terminated on hard digging.

Stability: Stable





Trial Pit Log

Trialpit No

TP04

Sheet 1 of 1

Project Name: Bryn Lane Outline Planning

Project No.
TE1749

Co-ords: 338454.64 - 351292.86

Level: 30.72

Date

06/06/2023

Location: Wrexham

Dimensions
(m):

2

Depth
3.50

0.6

Scale

1:25

Logged
ER

Client: Net World Sports

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.20	ES	HVR=67	0.25	30.47		Crops over, soft, dark brown, slightly gravelly, sandy, silty CLAY. Gravel is fine to medium, angular to subrounded of mudstone and siltstone. Sand is fine to medium. Frequent rootlets throughout. TOPSOIL	
	0.80	B		0.70	30.02		Firm, orangish brown to dark brown, slightly gravelly, sandy CLAY. Gravel is fine to coarse, angular to rounded of coal, mudstone, siltstone and sandstone. Sand is fine to medium. TILL	1
							Orangish brown, slightly gravelly to gravelly, clayey, silty, fine to coarse SAND. Gravel is fine to coarse, angular to rounded of mudstone, coal, quartz and sandstone. TILL <i>Encountered only in northern pit wall.</i>	
	1.30	ES	HVR=128	1.35	29.37		Stiff, becoming very stiff, dark brown, mottled bluish grey, slightly gravelly CLAY. Gravel is fine to medium, angular to rounded of mudstone, siltstone and coal. TILL	2
			HVR=130					
			HVR=130					3
			HVR=130					
				3.50	27.22		End of pit at 3.50 m	4
								5

Remarks: 1) Terminated at 3.50m bgl 2) Trial pit for geoenvironmental purposes. 3) Groundwater seepage at 0.70m bgl in northern pit wall.

Stability: Stable





Trial Pit Log

Trialpit No

TP05

Sheet 1 of 1

Project Name: Bryn Lane Outline Planning

Project No.
TE1749

Co-ords: 338275.72 - 350942.72

Level: 33.81

Date

07/06/2023

Location: Wrexham

Dimensions
(m):

2.5

Depth
3.10

0.2

Scale

1:25

Logged
ER

Client: Net World Sports

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.10	ES		0.25	33.56		Grass over dark brown, slightly clayey to clayey, silty, gravelly, fine to medium SAND. Gravel is fine to coarse, angular to rounded of mudstone, sandstone and limestone. Frequent rootlets throughout.	
	0.40	B					TOPSOIL	
	0.60	ES		0.70	33.11		Orangish brown, slightly gravelly to gravelly, clayey, fine to medium SAND. Gravel is fine to coarse, angular to subrounded of mudstone and coal.	
			HVR=123				TILL	
							Stiff becoming very stiff, dark brown, mottled bluish grey, slightly gravelly CLAY. Gravel is fine to medium, angular to rounded of mudstone, siltstone and coal.	1
							TILL	
	1.30	ES						2
			HVR=125					
			HVR=125					
			HVR=130					
	2.60	ES						
			HVR=130					
	2.90	B		3.10	30.71			3
			HVR=130					
							End of pit at 3.10 m	
								4
								5

Remarks: 1) Trial pit for geoenvironmental purposes. 2) No groundwater ingress encountered 3) Terminated at 3.10m bgl.

Stability: Stable





Trial Pit Log

Trialpit No

TP06

Sheet 1 of 1

Project Name: Bryn Lane Outline Planning

Project No.
TE1749

Co-ords: 338251.17 - 350997.05

Level: 34.67

Date

07/06/2023

Location: Wrexham

Dimensions
(m):

2

Depth
3.20

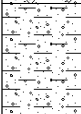
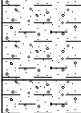
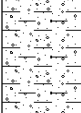
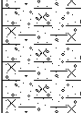
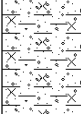
0.6

Scale

1:25

Logged
ER

Client: Net World Sports

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.20	ES		0.40	34.27		Grass over dark brown, slightly clayey to clayey, silty, gravelly, fine to medium SAND. Gravel is fine to coarse, angular to rounded of mudstone, limestone, sandstone and clods of clay. Frequent rootlets throughout. TOPSOIL	
	0.80	ES	HVR=71				Firm, light yellowish brown to brown, slightly gravelly, very sandy CLAY. Gravel is fine to coarse, angular to subrounded of mudstone, coal and quartz. Sand is fine to medium. TILL	
	1.00	B	HVR=82	1.05	33.62		Firm, locally stiff, dark reddish brown, mottled grey, gravelly, sandy CLAY. Gravel is fine to coarse, angular to rounded of mudstone, coal, quartz, sandstone and mixed igneous lithologies. Sand is fine to coarse. TILL	1
	1.50	B	HVR=85				<i>Occasional pockets of fine to coarse SAND.</i>	
	1.75	ES		1.80	32.87		Stiff to very stiff, dark reddish brown, mottled bluish grey, slightly sandy, slightly silty, slightly gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of mudstone, coal and quartz. TILL	2
	2.50	ES	HVR=130					
			HVR=130	3.20	31.47			3
							End of pit at 3.20 m	
								4
								5

Remarks: 1) Trial pit for geoenvironmental purposes. 2) No groundwater ingress encountered 3) Terminated at 3.20m bgl.

Stability: Stable





Trial Pit Log

Trialpit No

TP07

Sheet 1 of 1

Project Name: Bryn Lane Outline Planning

Project No.
TE1749

Co-ords: 338206.91 - 351034.38

Level: 35.43

Date

07/06/2023

Location: Wrexham

Dimensions
(m):

2.5

Client: Net World Sports

Depth
3.05

0.6

Scale

1:25

Logged
ER

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.15	B					Grass over dark brown, slightly clayey to clayey, silty, gravelly, fine to medium SAND. Gravel is fine to coarse, angular to rounded of mudstone, sandstone and limestone. Frequent rootlets throughout.	
	0.30	ES	HVR=118	0.38	35.05		TOPSOIL	
							Stiff, becoming very stiff, dark brown, mottled bluish grey, slightly silty, slightly gravelly CLAY. Gravel of fine to coarse, angular to subrounded of coal, mudstone, quartz and rare igneous lithologies.	
							TILL	
	1.00	ES	HVR=127					1
			HVR=130					
	2.00	ES	HVR=130					2
			HVR=130					
	2.70	B	HVR=130	3.05	32.38			3
							End of pit at 3.05 m	
								4
								5

Remarks: 1) Trial pit for geoenvironmental purposes. 2) No groundwater ingress encountered 3) Terminated at 3.05m bgl.

Stability: Stable





Trial Pit Log

Trialpit No

TP08

Sheet 1 of 1

Project Name: Bryn Lane Outline Planning

Project No.
TE1749

Co-ords: 338158.47 - 350940.50

Level: 34.78

Date

07/06/2023

Location: Wrexham

Dimensions
(m):

2

Depth
3.00

0.6

Scale

1:25

Logged
ER

Client: Net World Sports

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.20	ES		0.40	34.38		Grass over dark brown, slightly clayey to clayey, silty, gravelly, fine to medium SAND. Gravel is fine to coarse, angular to rounded of mudstone, limestone and clods of clay. Frequent rootlets throughout. TOPSOIL	
			HVR=109				Stiff becoming very stiff, dark brown mottled grey, slightly silty, slightly gravelly to gravelly CLAY. Gravel is fine to coarse, angular to subrounded of coal, mudstone, quartz and occasional sandstone.	1
			HVR=117					
	1.30	B						
			HVR=130					
	1.80	ES						
			HVR=130					2
			HVR=130					
			HVR=130	3.00	31.78			3
								4
								5

Remarks: 1) Trial pit for geoenvironmental purposes. 2) No groundwater ingress encountered 3) Terminated at 3.00m bgl.

Stability: Stable





Trial Pit Log

Trialpit No

TP10

Sheet 1 of 1

Project Name: Bryn Lane Outline Planning

Project No.
TE1749

Co-ords: 338106.44 - 351059.46

Level: 37.79

Date

07/06/2023

Location: Wrexham

Dimensions
(m):

2.1

Client: Net World Sports

Depth
3.45

0.2

Scale
1:25Logged
ER

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.25	ES		0.32	37.47		Grass over dark brown, slightly clayey, gravelly, silty, fine to medium SAND. Gravel is fine to coarse, angular to rounded of coal, mudstone and quartz. Frequent rootlets throughout. TOPSOIL	
	0.60	ES	HVR=67 HVR=91	0.70	37.09		Firm to stiff, dark brown, sandy, gravelly CLAY. Sand is fine to medium, gravel is fine to coarse, angular to rounded of mudstone, sandstone, coal and quartz. TILL	
			HVR=124				Stiff to very stiff, dark brown, slightly gravelly, friable CLAY. Gravel is fine to coarse, angular to subrounded of mudstone, coal, sandstone and mixed igneous lithologies. TILL	1
	1.50	ES	HVR=120 HVR=130					2
	2.30	B	HVR=130					
			HVR=130					3
	3.20	ES						
				3.45	34.34		End of pit at 3.45 m	4
								5

Remarks: 1) Trial pit for geoenvironmental purposes. 2) No groundwater ingress encountered 3) Terminated at 3.45m bgl.

Stability: Stable





Trial Pit Log

Trialpit No

TP12

Sheet 1 of 1

Project Name: Bryn Lane Outline Planning

Project No.
TE1749

Co-ords: 338208.44 - 351088.03

Level: 36.04

Date

07/06/2023

Location: Wrexham

Dimensions
(m):

2

Depth
3.05

0.6

Scale

1:25

Logged
ER

Client: Net World Sports

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
	0.25	ES	HVR=61	0.30	35.74		Grass over, dark brown, firm, gravelly, very sandy CLAY. Gravel is fine to coarse, angular to subrounded of coal and mudstone. Sand is fine to coarse. Frequent rootlets throughout. TOPSOIL
			HVR=112				Stiff becoming very stiff, dark brown, mottled grey, slightly gravelly, slightly silty, sandy CLAY. Gravel is fine to coarse, angular to rounded of mudstone, coal, sandstone and quartz. Sand is fine to medium. TILL
	1.30	ES	HVR=125				
			HVR=130				
	2.25	B	HVR=130				
			HVR=130				
			HVR=130	3.05	32.99		
							End of pit at 3.05 m

Remarks: 1) Trial pit for geoenvironmental purposes. 2) No groundwater ingress encountered 3) Terminated at 3.05m bgl.

Stability: Stable





Trial Pit Log

Trialpit No

TP13

Sheet 1 of 1

Project Name: Bryn Lane Outline Planning

Project No.
TE1749

Co-ords: 338643.48 - 351259.03

Level: 30.26

Date

09/06/2023

Location: Wrexham

Dimensions
(m):

2.1

Depth
3.00

0.6

Scale

1:25

Logged
ER

Client: Net World Sports

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
▼	0.15	ES		0.26	30.00		Crops over dark brown, slightly clayey, gravelly, fine to coarse SAND. Gravel is fine to coarse, angular to subrounded of mudstone, limestone and sandstone. Frequent rootlets throughout. TOPSOIL	
	0.70	ES	HVR=60				MADE GROUND: Firm, dark brown, sandy, gravelly CLAY. Sand is fine to coarse, gravel is fine to coarse, angular to subrounded of mudstone, coal and rare sandstone (reworked) MADE GROUND	
			HVR=14	0.85	29.41		MADE GROUND: Very soft, grey, gravelly, peaty, very silty CLAY. Gravel is fine to coarse, angular to subangular of mudstone and siltstone. Frequent fragments of wood and tree roots. MADE GROUND <i>Strong organic odour at 0.85m to 2.10m</i>	1
	1.45	ES	HVR=17					
	1.90	B	HVR=16	2.10	28.16		Stiff to very stiff, dark brown, mottled grey, slightly sandy CLAY. Sand is fine to medium TILL	2
	2.30	ES	HVR=121					
			HVR=130	3.00	27.26		End of pit at 3.00 m	3
								4
								5

Remarks: 1) Trial pit for geoenvironmental purposes. 2) Groundwater encountered at 0.85m bgl - rapid influx 3) Terminated at 3.00m bgl. 4) Strong organic odour between 0.85m bgl to 2.10m bgl.

Stability: Stable





Trial Pit Log

Trialpit No

TP14

Sheet 1 of 1

Project Name: Bryn Lane Outline Planning

Project No.
TE1749Co-ords: 338582.55 - 351248.22
Level: 30.53Date
09/06/2023

Location: Wrexham

Dimensions (m): 2.3

Client: Net World Sports

Depth
1.90

0.6

Scale
1:25Logged
ER

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
▼	0.20	B					MADE GROUND: Crops over, blackish brown, clayey, sandy, fine to coarse, angular to subangular GRAVEL of brick, mudstone, coal, concrete and clods of clay. MADE GROUND	
	0.40	ES						
	0.80	B	HVR=3	0.59	29.94		MADE GROUND: Very soft, grey, very silty CLAY. Frequent pockets of black, spongy, pseudofibrous to fibrous peat. MADE GROUND	1
	1.10	ES	HVR=16					
	1.80	ES	HVR=6 HVR=123	1.75 1.90	28.78 28.63		Stiff to very stiff, dark brown, mottled grey, slightly sandy CLAY. TILL	2
							End of pit at 1.90 m	3
								4
								5

Remarks: 1) Trial pit for geoenvironmental purposes. 2) Groundwater encountered at 0.70m bgl - slight influx 3) Terminated at pit collapse. 4) Strong organic odour between 0.59m bgl to 1.75m bgl.

Stability: Unstable: East wall collapse





Trial Pit Log

Trialpit No

TP15

Sheet 1 of 1

Project Name: Bryn Lane Outline Planning

Project No.
TE1749Co-ords: 338611.53 - 351371.33
Level: 29.66Date
09/06/2023

Location: Wrexham

Dimensions
(m):

2

Client: Net World Sports

Depth
4.00

0.6

Scale
1:25Logged
ER

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
	0.10	ES					Crops over dark brown, slightly gravelly, sandy CLAY. Sand is fine to medium, gravel is fine to coarse, angular to rounded of mixed natural lithologies. Frequent rootlets throughout.
			HVR=63	0.30	29.36		TOPSOIL
	0.50	ES					Firm, brown, locally yellowish brown, sandy, gravelly CLAY. Sand is fine to coarse, gravel is fine to coarse, angular to rounded of mudstone, coal, sandstone and occasional quartz.
			HVR=107	0.55	29.11		TILL
							Stiff to very stiff, dark brown, mottled grey, slightly sandy CLAY. Sand is fine to medium.
			HVR=128				TILL
	1.45	ES					
			HVR=130				
			HVR=127				
			HVR=130				
	3.00	B					
			HVR=130				
			HVR=130				
			HVR=130	4.00	25.66		End of pit at 4.00 m

Remarks: 1) Trial pit for geoenvironmental purposes. 2) No groundwater ingress encountered 3) Terminated at 4.00m bgl

Stability: Stable





Trial Pit Log

Trialpit No

TP16

Sheet 1 of 1

Project Name: Bryn Lane Outline Planning

Project No.
TE1749

Co-ords: 338541.62 - 351182.20

Level: 31.89

Date

09/06/2023

Location: Wrexham

Dimensions
(m):

2.8

Client: Net World Sports

Depth
3.00

0.6

Scale
1:25Logged
ER

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
▼	0.35	ES	HVR=53	0.60	31.29		MADE GROUND: Crops over firm, brown, gravelly, sandy CLAY. Sand is fine to coarse, gravel is fine to coarse, angular to subrounded of mixed natural lithologies, brick and rare tile. MADE GROUND	1
			HVR=12				MADE GROUND: Very soft to soft, blackish grey, silty CLAY. Frequent fragments of tree root. MADE GROUND	
	1.05	ES	HVR=31					
	1.50	B	HVR=13	1.90	29.99		Stiff to very stiff, dark brown, mottled grey, slightly sandy CLAY. Sand is fine. TILL	2
	1.95	ES	HVR=123					
	2.00	B	HVR=130					
			HVR=130	3.00	28.89		End of pit at 3.00 m	3
								4
								5

Remarks: 1) Trial pit for geoenvironmental purposes. 2) Groundwater encountered at 0.70m bgl in west pit wall - slight influx 3) Terminated at 3.00m bgl

Stability: Stable





Trial Pit Log

Trialpit No

TP17

Sheet 1 of 1

Project Name: Bryn Lane Outline Planning

Project No.
TE1749

Co-ords: 338417.93 - 351292.32

Level: 30.72

Date

09/06/2023

Location: Wrexham

Dimensions
(m):

2

Client: Net World Sports

Depth
3.10

0.6

Scale
1:25Logged
ER

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.30	ES	HVR=89	0.45	30.27		Crops over dark brown, slightly gravelly, clayey to very clayey, fine to medium SAND. Gravel is fine to medium, angular to rounded of mudstone and sandstone. Frequent rootlets throughout. TOPSOIL	
	1.00	ES	HVR=126 HVR=130				Firm becoming very stiff, dark brown, mottled grey, slightly gravelly, slightly silty CLAY. Gravel is fine to medium, angular to rounded of mudstone, siltstone, coal, sandstone and occasional quartz. TILL	1
	2.00	B	HVR=130 HVR=130 HVR=130					2
				3.10	27.62			3
							End of pit at 3.10 m	4
								5

Remarks: 1) Trial pit for geoenvironmental purposes. 2) No groundwater ingress encountered 3) Terminated at 3.00m bgl.

Stability: Stable





Borehole Log

Borehole No.

WS01

Sheet 1 of 1

Project Name: Bryn Lane Outline Planning

Project No.
TE1749

Co-ords: 338064.21 - 351153.86

Hole Type
WS

Location: Wrexham

Level: 31.73

Scale
1:50

Client: Net World Sports

Dates: 13/06/2023 -

Logged By
ER

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.40			0.40	31.33		Crops over dark brown, very clayey, fine to medium SAND. Frequent rootlets throughout. TOPSOIL	
		1.20 1.20	SPTL S	N=19 (2,3/3,5,5,6)				Firm to stiff, dark brown, mottled grey, slightly gravelly CLAY. Gravel is fine to medium, angular to rounded of mudstone, coal, rare quartz and igneous lithologies. TILL	1
		2.00 2.00	SPTL S	N=16 (2,3/4,4,4,4)					2
		3.00 3.00	SPTL S	N=16 (3,3/3,4,4,5)					3
		4.00 4.00	SPTL S	N=20 (4,4/4,4,6,6)					4
		5.00 5.00	SPTL S	N=19 (3,4/4,4,5,6)					5
					5.45	26.28		End of borehole at 5.45 m	6
									7
									8
									9
									10

Remarks

1) Hand dug pit to 1.20m bgl for service clearance 2) Terminated at 5.45m bgl 3) No groundwater ingress encountered





Borehole Log

Borehole No.

WS02

Sheet 1 of 1

Project Name: Bryn Lane Outline Planning

Project No.
TE1749

Co-ords: 338579.24 - 351248.18

Hole Type
WS

Location: Wrexham

Level: 30.38

Scale
1:50

Client: Net World Sports

Dates: 13/06/2023 -

Logged By
ER

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.60	29.78		MADE GROUND: Dark brown, clayey, sandy, fine to coarse, angular to subangular GRAVEL of mudstone, brick, limestone, terracotta, coal and frequent clods of clay.	
		1.20 1.20	SPTL S	N=0 (1,0/0,0,0,0)	1.10	29.28		MADE GROUND: Soft, brown, slightly sandy, gravelly CLAY. Sand is fine to medium. Gravel is fine to coarse, angular to subangular of brick, tile, mudstone, limestone and coal.	1
		2.00 2.00	SPTL S	N=2 (1,1/1,1,0,0)				MADE GROUND: Very soft, grey, very silty CLAY. Frequent pockets of black, spongy, pseudofibrous to fibrous peat.	2
					2.60	27.78		MADE GROUND <i>Organic odour at 1.10m to 2.60m</i>	
		3.00 3.00	SPTL S	N=12 (3,3/3,3,3,3)				Firm to stiff, dark brown, mottled grey, slightly gravelly CLAY. Gravel is fine to medium, angular to rounded of mudstone, coal, rare quartz and igneous lithologies.	3
		4.00 4.00	SPTL S	N=16 (4,4/4,4,4,4)				TILL	4
		5.00 5.00	SPTL S	N=23 (5,5/5,6,6,6)					5
					5.45	24.93		End of borehole at 5.45 m	6
									7
									8
									9
									10

Remarks

1) Hand dug pit to 1.20m bgl for service clearance. 2) Terminated at 5.45m bgl 3) Groundwater ingress at 1.10m bgl





Borehole Log

Borehole No.

WS03

Sheet 1 of 1

Project Name: Bryn Lane Outline Planning

Project No.
TE1749

Co-ords: 338545.77 - 351287.12

Hole Type
WS

Location: Wrexham

Level: 30.37

Scale
1:50

Client: Net World Sports

Dates: 13/06/2023 -

Logged By
ER

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.35			0.35	30.02		Crops over dark brown, very clayey, fine to medium SAND. Frequent rootlets throughout. TOPSOIL	
		1.20 1.20	SPTL S	N=16 (3,3/3,4,4,5)				Firm to stiff, dark brown, mottled grey, slightly gravelly CLAY. Gravel is fine to medium, angular to rounded of mudstone, coal, rare quartz and igneous lithologies. TILL	1
		2.00 2.00	SPTL S	N=23 (3,3/3,6,6,8)					2
		3.00 3.00	SPTL S	N=19 (3,3/3,5,5,6)					3
		4.00 4.00	SPTL S	N=22 (3,3/3,6,6,7)					4
		5.00 5.00	SPTL S	N=24 (4,4/5,5,7,7)					5
					5.45	24.92		End of borehole at 5.45 m	6
									7
									8
									9
									10

Remarks

1) Hand dug pit to 1.20m bgl for service clearance. 2) Terminated at 5.45m bgl 3) No groundwater ingress encountered.





Borehole Log

Borehole No.

WS04

Sheet 1 of 1

Project Name: Bryn Lane Outline Planning

Project No.
TE1749

Co-ords: 338645.78 - 351266.28

Hole Type
WS

Location: Wrexham

Level: 29.98

Scale
1:50

Client: Net World Sports

Dates: 13/06/2023 -

Logged By
ER

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.40			0.40	29.58		MADE GROUND: Crops over dark brown, clayey, sandy, fine to coarse, angular to subangular GRAVEL of mudstone, brick and limestone.	
		0.95			0.95	29.03		MADE GROUND	
		1.00	ES					MADE GROUND: Soft, brown, slightly sandy, gravelly CLAY. Sand is fine to medium. Gravel is fine to coarse, angular to subangular of brick, tile, mudstone, limestone and coal.	1
		1.20	SPTL					MADE GROUND	
		1.20	S	N=2 (1,1/1,0,0,1)				MADE GROUND: Very soft, grey, gravelly, very silty CLAY. Gravel is fine to coarse, angular to subangular of brick and mudstone. Occasional lenses of spongy fibrous peat.	
		2.00	SPTL		2.00	27.98		MADE GROUND	2
		2.00	S	N=12 (3,3/3,3,3,3)				Organic odour from 0.95m to 2.00m	
		3.00	SPTL					Firm to stiff, dark brown, mottled grey, slightly gravelly CLAY. Gravel is fine to medium, angular to rounded of mudstone, coal, rare quartz and igneous lithologies.	3
		3.00	S	N=16 (3,3/4,4,4,4)				TILL	
		4.00	SPTL						4
		4.00	S	N=12 (1,1/2,2,4,4)					
		5.00	SPTL						5
		5.00	S	N=10 (1,1/2,2,3,3)					
					5.45	24.53		End of borehole at 5.45 m	6
									7
									8
									9
									10

Remarks

1) Hand dug pit to 1.20m bgl for service clearance. 2) Terminated at 5.45m bgl 3) Groundwater ingress at 1.00m bgl.





Borehole Log

Borehole No.

WS05

Sheet 1 of 1

Project Name: Bryn Lane Outline Planning

Project No.
TE1749

Co-ords: 338182.46 - 351179.62

Hole Type
WS

Location: Wrexham

Level: 35.90

Scale
1:50

Client: Net World Sports

Dates: 15/06/2023 -

Logged By
ER

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.27	35.63		Grass over, dark brown, slightly gravelly, clayey, silty, fine to coarse SAND. Gravel is fine to coarse. angular to subrounded of mudstone and limestone. Frequent rootlets throughout. TOPSOIL Orangish brown, slightly gravelly, slightly silty, clayey, fine to medium SAND. Gravel is fine to coarse, angular to subangular of mudstone, coal, quartz and sandstone with frequent clods of clay. TILL Firm, becoming stiff, dark brown, mottled grey, slightly gravelly, slightly sandy CLAY. Gravel is fine to coarse, angular to subrounded of mudstone and coal with rare igneous lithologies. Sand is fine to medium. TILL	
		1.20	SPTL	N=17 (2,2/2,4,5,6)	0.60	35.30			
		1.20	S						
		2.00	SPTL	N=21 (3,3/4,5,6,6)					
		2.00	S						
		3.00	SPTL	N=23 (2,4/5,5,6,7)					
		3.00	S						
		4.00	SPTL	N=22 (4,4/4,6,6,6)					
		4.00	S						
		5.00	SPTL	N=26 (4,4/5,6,7,8)					
		5.00	S						
					5.45	30.45		End of borehole at 5.45 m	

Remarks

1) Hand dug pit to 1.20m bgl for service clearance. 2) Terminated at 5.45m bgl 3) No groundwater ingress encountered
4) 4.00-5.00m logged from SPTs due to no sampler recovery.





Borehole Log

Borehole No.

WS06

Sheet 1 of 1

Project Name: Bryn Lane Outline Planning

Project No.
TE1749

Co-ords: 338053.37 - 350987.98

Hole Type
WS

Location: Wrexham

Level: 37.85

Scale
1:50

Client: Net World Sports

Dates: 15/06/2023 -

Logged By
ER

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.40			0.40	37.45		Grass over, dark brown, slightly gravelly, clayey, silty, fine to coarse SAND. Gravel is fine to coarse. angular to subrounded of mudstone and limestone. Frequent rootlets throughout. TOPSOIL Firm, becoming stiff, dark brown, mottled grey, slightly gravelly, slightly sandy CLAY. Gravel is fine to coarse, angular to subrounded of mudstone and coal with rare igneous lithologies. Sand is fine to medium. TILL	
		1.20 1.20	SPTL S	N=15 (3,3/3,4,4,4)					1
		2.00 2.00	SPTL S	N=19 (4,4/4,5,5,5)					2
		3.00 3.00	SPTL S	N=19 (4,4/4,4,5,6)					3
		4.00 4.00	SPTL S	N=20 (5,5/5,5,5,5)					4
		5.00 5.00	SPTL S	N=27 (4,4/6,6,7,8)					5
					5.45	32.40		End of borehole at 5.45 m	6
									7
									8
									9
									10

Remarks

1) Hand dug pit to 1.20m bgl for service clearance 2) No groundwater ingress encountered 3) Terminated at 5.45m bgl.





Borehole Log

Borehole No.

WS07

Sheet 1 of 1

Project Name: Bryn Lane Outline Planning

Project No.
TE1749

Co-ords: 338197.45 - 350934.44

Hole Type
WS

Location: Wrexham

Level: 34.00

Scale
1:50

Client: Net World Sports

Dates: 15/06/2023 -

Logged By
ER

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.30			0.30	33.70		Grass over, dark brown, slightly gravelly, clayey, silty, fine to coarse SAND. Gravel is fine to coarse. angular to subrounded of mudstone and limestone. Frequent rootlets throughout. TOPSOIL Orangish brown, slightly gravelly, slightly silty, clayey, fine to medium SAND. Gravel is fine to coarse, angular to subangular of mudstone, coal, quartz and sandstone with frequent clods of clay. TILL Firm, becoming stiff, dark brown, mottled grey, slightly gravelly, slightly sandy CLAY. Gravel is fine to coarse, angular to subrounded of mudstone and coal with rare igneous lithologies. Sand is fine to medium. TILL	
		0.55			0.55	33.45			
		1.20	SPTL						
		1.20	S	N=15 (3,3/3,4,4,4)					
		2.00	SPTL						
		2.00	S	N=19 (4,4/4,5,5,5)					
		3.00	SPTL						
		3.00	S	N=19 (4,4/4,4,5,6)					
		4.00	SPTL						
		4.00	S	N=20 (5,5/5,5,5,5)					
		5.00	SPTL						
		5.00	S	N=27 (4,4/6,6,7,8)					
		5.45			5.45	28.55		End of borehole at 5.45 m	

Remarks

1) Hand dug pit to 1.20m bgl for service clearance 2) Terminated at 5.45m bgl 3) No groundwater ingress encountered.





Borehole Log

Borehole No.

WS08

Sheet 1 of 1

Project Name: Bryn Lane Outline Planning

Project No.
TE1749

Co-ords: 338306.42 - 350957.56

Hole Type
WS

Location: Wrexham

Level: 33.88

Scale
1:50

Client: Net World Sports

Dates: 15/06/2023 -

Logged By
ER

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.45			0.45	33.43		Grass over dark, orangish brown, slightly gravelly, slightly clayey, silty, fine to medium SAND. Gravel is fine to coarse, angular to subrounded of mudstone, coal, sandstone and clods of clay. Frequent rootlets throughout. TOPSOIL	
		1.20 1.20	SPTL S	N=15 (3,3/3,4,4,4)				Firm, becoming stiff, dark brown, mottled grey, slightly gravelly, slightly sandy CLAY. Gravel is fine to coarse, angular to subrounded of mudstone and coal with rare igneous lithologies. Sand is fine to medium. TILL	1
		2.00 2.00	SPTL S	N=19 (4,4/4,5,5,5)					2
		3.00 3.00	SPTL S	N=19 (4,4/4,4,5,6)					3
		4.00 4.00	SPTL S	N=20 (5,5/5,5,5,5)					4
		5.00 5.00	SPTL S	N=27 (4,4/6,6,7,8)					5
					5.45	28.43		End of borehole at 5.45 m	6
									7
									8
									9
									10

Remarks

1) Hand dug pit to 1.20m bgl for service clearance 2) Terminated at 5.45m bgl 3) No groundwater ingress encountered.





Borehole Log

Borehole No.

WS09

Sheet 1 of 1

Project Name: Bryn Lane Outline Planning

Project No.
TE1749

Co-ords: 338221.28 - 351072.89

Hole Type
WS

Location: Wrexham

Level: 35.64

Scale
1:50

Client: Net World Sports

Dates: 16/06/2023 -

Logged By
ER

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.40			0.40	35.24		Grass over, dark brown, slightly gravelly, clayey, silty, fine to coarse SAND. Gravel is fine to coarse. angular to subrounded of mudstone and limestone. Frequent rootlets throughout. TOPSOIL	
		1.20 1.20	SPTL S	N=14 (2,2/3,3,4,4)				Firm, becoming stiff, dark brown, mottled grey, slightly gravelly, slightly silty CLAY. Gravel is fine to coarse, angular to rounded of mudstone, coal and mixed igneous lithologies. TILL	1
		2.00 2.00	SPTL S	N=19 (3,3/3,5,5,6)					2
		3.00 3.00	SPTL S	N=16 (2,3/3,3,5,5)					3
		4.00 4.00	SPTL S	N=12 (3,3/3,3,3,3)				<i>Mottled grey areas are very silty from 4.00m to 4.55m bgl</i>	4
		5.00 5.00	SPTL S	N=21 (3,3/5,5,5,6)					5
					5.45	30.19		End of borehole at 5.45 m	6
									7
									8
									9
									10

Remarks

1) Hand dug pit to 1.20m bgl for service clearance 2) Terminated at 5.45m bgl 3) No groundwater ingress encountered





Borehole Log

Borehole No.

WS10

Sheet 1 of 1

Project Name: Bryn Lane Outline Planning

Project No.
TE1749

Co-ords: 338757.83 - 351386.79

Hole Type
WS

Location: Wrexham

Level: 29.66

Scale
1:50

Client: Net World Sports

Dates: 16/06/2023 -

Logged By
ER

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.48			0.48	29.18		Grass over, soft, dark brown, slightly gravelly, slightly sandy, silty CLAY. Gravel is fine to coarse, angular to subangular of mudstone, sandstone and quartz. Sand is fine to medium. Frequent rootlets throughout. TOPSOIL	
		1.20 1.20 1.50	SPTL S ES	N=15 (2,3/3,3,4,5)				Stiff, dark brown, mottled grey, slightly gravelly CLAY. Gravel is fine to medium, angular to subrounded of mudstone, sandstone, coal and occasional mixed igneous lithologies. TILL	1
		2.00 2.00	SPTL S	N=20 (3,3/4,5,5,6)					2
		3.00 3.00	SPTL S	N=20 (4,6/5,5,5,5)					3
		4.00 4.00	SPTL S	N=22 (3,4/5,5,6,6)					4
		5.00 5.00	SPTL S	N=22 (4,4/4,5,6,7)					5
		5.45			5.45	24.21		End of borehole at 5.45 m	6
									7
									8
									9
									10

Remarks

1) Hand dug pit to 1.20m bgl for service clearance 2) Terminated at 5.45m bgl 3) No groundwater ingress encountered.





Borehole Log

Borehole No.

WS11

Sheet 1 of 1

Project Name: Bryn Lane Outline Planning

Project No.
TE1749

Co-ords: 338818.86 - 351306.24

Hole Type
WS

Location: Wrexham

Level: 30.20

Scale
1:50

Client: Net World Sports

Dates: 16/06/2023 -

Logged By
ER

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.40			0.40	29.80		Grass over, soft, dark brown, slightly gravelly, slightly sandy, silty CLAY. Gravel is fine to coarse, angular to subangular of mudstone, sandstone and quartz. Sand is fine to medium. Frequent rootlets throughout. TOPSOIL	
		1.20 1.20	SPTL S	N=14 (2,2/3,3,4,4)				Firm, becoming stiff, dark brown, mottled bluish grey, slightly gravelly, slightly sandy CLAY. Sand is fine to medium, gravel is fine to medium, angular to subrounded of mudstone, sandstone and coal TILL	1
		2.00 2.00	SPTL S	N=20 (2,4/4,5,5,6)					2
		3.00 3.00 3.20	SPTL S ES	N=22 (3,4/4,5,6,7)					3
		4.00 4.00	SPTL S	N=19 (4,4/4,5,5,5)					4
		5.00 5.00	SPTL S	N=23 (4,5/5,5,6,7)					5
					5.45	24.75		End of borehole at 5.45 m	6
									7
									8
									9
									10

Remarks

1) Hand dug pit to 1.20m bgl for service clearance 2) Terminated at 5.45m bgl 3) No groundwater ingress encountered





Borehole Log

Borehole No.

WS12

Sheet 1 of 1

Project Name: Bryn Lane Outline Planning

Project No.
TE1749

Co-ords: 338751.68 - 351338.27

Hole Type
WS

Location: Wrexham

Level: 29.88

Scale
1:50

Client: Net World Sports

Dates: 16/06/2023 -

Logged By
ER

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.42			0.42	29.46		Grass over, soft, dark brown, slightly gravelly, slightly sandy, silty CLAY. Gravel is fine to coarse, angular to subangular of mudstone, sandstone and quartz. Sand is fine to medium. Frequent rootlets throughout. TOPSOIL	
		0.80	ES						
		1.20	SPTL						1
		1.20	S	N=19 (3,3/4,5,5,5)				Stiff, dark brown, mottled grey, slightly gravelly, slightly sandy CLAY. Gravel is fine to coarse, angular to subrounded of mudstone, coal. sandstone and mixed igneous lithologies. Sand is fine to medium.	
		2.00	SPTL						2
		2.00	S	N=20 (4,4/4,4,5,7)					
		3.00	SPTL						3
		3.00	S	N=20 (2,2/4,4,6,6)					
		4.00	SPTL						4
		4.00	S	N=17 (3,3/3,4,5,5)					
		5.00	SPTL						5
		5.00	S	N=16 (3,3/3,4,4,5)					
		5.45			5.45	24.43		End of borehole at 5.45 m	6
									7
									8
									9
									10

Remarks

1) Hand dug pit to 1.20m bgl for service clearance 2) Terminated at 5.45m bgl 3) No groundwater ingress encountered. 4) No install.



APPENDIX C - GEOENVIRONMENTAL SOIL LABORATORY RESULTS

Tier Environmental
Suite 414, Chadwick House
Warrington Rd
Birchwood
Warrington
United Kingdom
WA3 6AE



4225



Attention : Alex Preston

Date : 21st June, 2023

Your reference : TE1749

Our reference : Test Report 23/9033 Batch 1

Location : Bryn Lane Outline

Date samples received : 5th June, 2023

Status : Final Report

Issue : 1

Ten samples were received for analysis on 5th June, 2023 of which four were scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.

All analysis is carried out on as received samples and reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected.

Authorised By:



Liza Klebe

Project Co-ordinator

Please include all sections of this report if it is reproduced

Element Materials Technology

Client Name: Tier Environmental
Reference: TE1749
Location: Bryn Lane Outline
Contact: Alex Preston
EMT Job No: 23/9033

Report : Solid

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

EMT Sample No.	1-4	29-32	33-36	37-40							Please see attached notes for all abbreviations and acronyms		
Sample ID	TP01	TP03	TP03	TP03									
Depth	0.40	0.25	0.95	1.40									
COC No / misc													
Containers	V J T	V J T	V J T	V J T									
Sample Date	05/06/2023	05/06/2023	05/06/2023	05/06/2023									
Sample Type	Soil	Soil	Soil	Soil									
Batch Number	1	1	1	1									
Date of Receipt	05/06/2023	05/06/2023	05/06/2023	05/06/2023							LOD/LOR	Units	Method No.
Arsenic #	11.6	-	-	10.1							<0.5	mg/kg	TM30/PM15
Cadmium #	<0.1	-	-	<0.1							<0.1	mg/kg	TM30/PM15
Chromium #	51.9	-	-	52.1							<0.5	mg/kg	TM30/PM15
Copper #	19	-	-	25							<1	mg/kg	TM30/PM15
Lead #	48	-	-	13							<5	mg/kg	TM30/PM15
Mercury #	0.2	-	-	0.1							<0.1	mg/kg	TM30/PM15
Nickel #	35.3	-	-	43.4							<0.7	mg/kg	TM30/PM15
Selenium #	1	-	-	2							<1	mg/kg	TM30/PM15
Total Sulphate as SO4 #	336	-	-	640							<50	mg/kg	TM50/PM29
Zinc #	83	-	-	78							<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	<0.04	-	-	<0.04							<0.04	mg/kg	TM4/PM8
Acenaphthylene	<0.03	-	-	<0.03							<0.03	mg/kg	TM4/PM8
Acenaphthene #	<0.05	-	-	<0.05							<0.05	mg/kg	TM4/PM8
Fluorene #	<0.04	-	-	<0.04							<0.04	mg/kg	TM4/PM8
Phenanthrene #	<0.03	-	-	<0.03							<0.03	mg/kg	TM4/PM8
Anthracene #	<0.04	-	-	<0.04							<0.04	mg/kg	TM4/PM8
Fluoranthene #	<0.03	-	-	<0.03							<0.03	mg/kg	TM4/PM8
Pyrene #	<0.03	-	-	<0.03							<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	<0.06	-	-	<0.06							<0.06	mg/kg	TM4/PM8
Chrysene #	<0.02	-	-	<0.02							<0.02	mg/kg	TM4/PM8
Benzo(b)fluoranthene #	<0.07	-	-	<0.07							<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	<0.04	-	-	<0.04							<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	<0.04	-	-	<0.04							<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	<0.04	-	-	<0.04							<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	<0.04	-	-	<0.04							<0.04	mg/kg	TM4/PM8
PAH 16 Total	<0.6	-	-	<0.6							<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	<0.05	-	-	<0.05							<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	<0.02	-	-	<0.02							<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	89	-	-	88							<0	%	TM4/PM8

Element Materials Technology

Client Name: Tier Environmental
Reference: TE1749
Location: Bryn Lane Outline
Contact: Alex Preston
EMT Job No: 23/9033

Report : Solid

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

EMT Sample No.	1-4	29-32	33-36	37-40							Please see attached notes for all abbreviations and acronyms		
Sample ID	TP01	TP03	TP03	TP03									
Depth	0.40	0.25	0.95	1.40									
COC No / misc													
Containers	V J T	V J T	V J T	V J T									
Sample Date	05/06/2023	05/06/2023	05/06/2023	05/06/2023									
Sample Type	Soil	Soil	Soil	Soil									
Batch Number	1	1	1	1									
Date of Receipt	05/06/2023	05/06/2023	05/06/2023	05/06/2023							LOD/LOR	Units	Method No.
Pesticides													
Organophosphorus Pesticides													
Azinphos ethyl	<10	<10	-	-							<10	ug/kg	TM42/PM8
Azinphos methyl	<10	<10	-	-							<10	ug/kg	TM42/PM8
Carbophenothion	<10	<10	-	-							<10	ug/kg	TM42/PM8
Chlorfenvinphos	<10	<10	-	-							<10	ug/kg	TM42/PM8
Chlorpyrifos	<10	<10	-	-							<10	ug/kg	TM42/PM8
Chlorpyrifos-methyl	<10	<10	-	-							<10	ug/kg	TM42/PM8
Diazinon	<10	<10	-	-							<10	ug/kg	TM42/PM8
Dichlorvos	<10	<10	-	-							<10	ug/kg	TM42/PM8
Disulfoton	<10	<10	-	-							<10	ug/kg	TM42/PM8
Dimethoate	<10	<10	-	-							<10	ug/kg	TM42/PM8
Ethion	<10	<10	-	-							<10	ug/kg	TM42/PM8
Ethyl Parathion (Parathion)	<10	<10	-	-							<10	ug/kg	TM42/PM8
Etrimphos	<10	<10	-	-							<10	ug/kg	TM42/PM8
Fenitrothion	<10	<10	-	-							<10	ug/kg	TM42/PM8
Fenthion	<10	<10	-	-							<10	ug/kg	TM42/PM8
Malathion	<10	<10	-	-							<10	ug/kg	TM42/PM8
Methyl Parathion	<10	<10	-	-							<10	ug/kg	TM42/PM8
Mevinphos	<10	<10	-	-							<10	ug/kg	TM42/PM8
Phosalone	<10	<10	-	-							<10	ug/kg	TM42/PM8
Pirimiphos Methyl	<10	<10	-	-							<10	ug/kg	TM42/PM8
Propetamphos	<10	<10	-	-							<10	ug/kg	TM42/PM8
Triazophos	<10	<10	-	-							<10	ug/kg	TM42/PM8
TPH CWG													
Aliphatics													
>C5-C6 (HS_1D_AL) #	<0.1	-	-	-							<0.1	mg/kg	TM36/PM12
>C6-C8 (HS_1D_AL) #	<0.1	-	-	-							<0.1	mg/kg	TM36/PM12
>C8-C10 (HS_1D_AL)	<0.1	-	-	-							<0.1	mg/kg	TM36/PM12
>C10-C12 (EH_CU_1D_AL) #	<0.2	-	-	-							<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 (EH_CU_1D_AL) #	<4	-	-	-							<4	mg/kg	TM5/PM8/PM16
>C16-C21 (EH_CU_1D_AL) #	<7	-	-	-							<7	mg/kg	TM5/PM8/PM16
>C21-C35 (EH_CU_1D_AL) #	<7	-	-	-							<7	mg/kg	TM5/PM8/PM16
>C35-C40 (EH_CU_1D_AL)	<7	-	-	-							<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-40 (EH+HS_CU_1D_AL)	<26	-	-	-							<26	mg/kg	TM5/PM8/PM16/PM12/PM10

Element Materials Technology

Client Name: Tier Environmental
Reference: TE1749
Location: Bryn Lane Outline
Contact: Alex Preston
EMT Job No: 23/9033

Report : Solid

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

EMT Sample No.	1-4	29-32	33-36	37-40							Please see attached notes for all abbreviations and acronyms		
Sample ID	TP01	TP03	TP03	TP03									
Depth	0.40	0.25	0.95	1.40									
COC No / misc													
Containers	V J T	V J T	V J T	V J T									
Sample Date	05/06/2023	05/06/2023	05/06/2023	05/06/2023									
Sample Type	Soil	Soil	Soil	Soil									
Batch Number	1	1	1	1									
Date of Receipt	05/06/2023	05/06/2023	05/06/2023	05/06/2023							LOD/LOR	Units	Method No.
TPH CWG													
Aromatics													
>C5-EC7 (HS_1D_AR) #	<0.1	-	-	-							<0.1	mg/kg	TM36/PM12
>EC7-EC8 (HS_1D_AR) #	<0.1	-	-	-							<0.1	mg/kg	TM36/PM12
>EC8-EC10 (HS_1D_AR) #	<0.1	-	-	-							<0.1	mg/kg	TM36/PM12
>EC10-EC12 (EH_CU_1D_AR) #	<0.2	-	-	-							<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 (EH_CU_1D_AR) #	<4	-	-	-							<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 (EH_CU_1D_AR) #	<7	-	-	-							<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 (EH_CU_1D_AR) #	<7	-	-	-							<7	mg/kg	TM5/PM8/PM16
>EC35-EC40 (EH_CU_1D_AR)	<7	-	-	-							<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-40 (EH+HS_CU_1D_AR)	<26	-	-	-							<26	mg/kg	TM5/PM8/PM16/PM12/PM10
Total aliphatics and aromatics(C5-40) (EH+HS_CU_1D_Total)	<52	-	-	-							<52	mg/kg	TM5/PM8/PM16/PM12/PM10
MTBE #	<5	-	-	-							<5	ug/kg	TM36/PM12
Benzene #	<5	-	-	-							<5	ug/kg	TM36/PM12
Toluene #	<5	-	-	-							<5	ug/kg	TM36/PM12
Ethylbenzene #	<5	-	-	-							<5	ug/kg	TM36/PM12
m/p-Xylene #	<5	-	-	-							<5	ug/kg	TM36/PM12
o-Xylene #	<5	-	-	-							<5	ug/kg	TM36/PM12
Total Phenols HPLC	<0.15	-	-	<0.15							<0.15	mg/kg	TM26/PM21B
Natural Moisture Content	24.7	24.2	-	18.2							<0.1	%	PM4/PM0
Hexavalent Chromium #	<0.3	-	-	<0.3							<0.3	mg/kg	TM38/PM20
Ortho Phosphate as PO4	<0.3	-	<0.3	-							<0.3	mg/kg	TM38/PM20
Sulphate as SO4 (2:1 Ext) #	0.0030	-	-	0.1991							<0.0015	g/l	TM38/PM20
Total Organic Carbon #	1.44	-	-	0.25							<0.02	%	TM21/PM24
pH #	7.26	-	-	8.51							<0.01	pH units	TM73/PM11
Asbestos Type*	NAD	-	-	-								None	Subcontracted

Client Name: Tier Environmental

Reference: TE1749

Location: Bryn Lane Outline

Contact: Alex Preston

[illegible]

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

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

EMT Job No.: 23/9033

SOILS and ASH

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

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

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

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary. Asbestos samples are retained for 6 months.

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

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

All analysis is reported on a dry weight basis unless stated otherwise. Limits of detection for analyses carried out on as received samples are not moisture content corrected. Results are not surrogate corrected. Samples are dried at 35°C ±5°C unless otherwise stated. Moisture content for CEN Leachate tests are dried at 105°C ±5°C. Ash samples are dried at 37°C ±5°C.

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

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

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

Sufficient amount of sample must be received to carry out the testing specified. Where an insufficient amount of sample has been received the testing may not meet the requirements of our accredited methods, as such accreditation may be removed.

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

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

WATERS

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

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

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

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

STACK EMISSIONS

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation for Dioxins and Furans and Dioxin like PCBs has been performed on XAD-2 Resin, only samples which use this resin will be within our MCERTS scope.

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

DEVIATING SAMPLES

All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. The temperature of sample receipt is recorded on the confirmation schedules in order that the client can make an informed decision as to whether testing should still be undertaken.

SURROGATES

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

DILUTIONS

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

BLANKS

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

NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a requirement of our Accreditation Body for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.

Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation.

Laboratory records are kept for a period of no less than 6 years.

REPORTS FROM THE SOUTH AFRICA LABORATORY

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

Measurement Uncertainty

Measurement uncertainty defines the range of values that could reasonably be attributed to the measured quantity. This range of values has not been included within the reported results. Uncertainty expressed as a percentage can be provided upon request.

Customer Provided Information

Sample ID and depth is information provided by the customer.

ABBREVIATIONS and ACRONYMS USED

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

HWOL ACRONYMS AND OPERATORS USED

HS	Headspace Analysis.
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent.
CU	Clean-up - e.g. by florisil, silica gel.
1D	GC - Single coil gas chromatography.
Total	Aliphatics & Aromatics.
AL	Aliphatics only.
AR	Aromatics only.
2D	GC-GC - Double coil gas chromatography.
#1	EH_Total but with humics mathematically subtracted
#2	EU_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +).
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total
MS	Mass Spectrometry.

EMT Job No: 23/9033

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465:1993(E) and BS1377-2:1990.	PM0	No preparation is required.			AR	
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.			AR	Yes
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.	Yes		AR	Yes
TM5/TM36	please refer to TM5 and TM36 for method details	PM8/PM12/PM16	please refer to PM8/PM16 and PM12 for method details			AR	Yes
TM21	Modified BS 7755-3:1995, ISO10694:1995 Determination of Total Organic Carbon or Total Carbon by combustion in an Eltra TOC furnace/analyser in the presence of oxygen. The CO2 generated is quantified using infra-red detection. Organic Matter (SOM) calculated as per EA MCERTS Chemical Testing of Soil, March 2012 v4.	PM24	Preparation of Soil and Marine Sediment Samples for Total Organic Carbon.	Yes		AD	Yes
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM21B	As Received samples are extracted in Methanol: Water (60:40) by reciprocal shaker.			AR	Yes
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	PM15	Acid digestion of dried and ground solid samples using Aqua Regia refluxed at 112.5 °C. Samples containing asbestos are not dried and ground.	Yes		AD	Yes
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes

EMT Job No: 23/9033

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All anions comparable to BS ISO 15923-1: 2013I	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.			AD	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All anions comparable to BS ISO 15923-1: 2013I	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes		AD	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All anions comparable to BS ISO 15923-1: 2013I	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes		AR	Yes
TM42	Modified US EPA method 8270D v5:2014. Pesticides and herbicides by GC-MS	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM50	Acid soluble sulphate (Total Sulphate) analysed by ICP-OES	PM29	A hot hydrochloric acid digest is performed on a dried and ground sample, and the resulting liquor is analysed.	Yes		AD	Yes
TM73	Modified US EPA methods 150.1 (1982) and 9045D Rev. 4 - 2004) and BS1377-3:1990. Determination of pH by Metrohm automated probe analyser.	PM11	Extraction of as received solid samples using one part solid to 2.5 parts deionised water.	Yes		AR	No
Subcontracted	See attached subcontractor report for accreditation status and provider.					AR	

Tier Environmental
Suite 414, Chadwick House
Warrington Rd
Birchwood
Warrington
United Kingdom
WA3 6AE



4225



Attention : Alex Preston
Date : 21st June, 2023
Your reference : TE1749
Our reference : Test Report 23/9033 Batch 2
Location : Bryn Lane Outline
Date samples received : 8th June, 2023
Status : Final Report
Issue : 1

Twenty seven samples were received for analysis on 8th June, 2023 of which seven were scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.

All analysis is carried out on as received samples and reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected.

Authorised By:



Liza Klebe

Project Co-ordinator

Please include all sections of this report if it is reproduced

Element Materials Technology

Client Name: Tier Environmental
Reference: TE1749
Location: Bryn Lane Outline
Contact: Alex Preston
EMT Job No: 23/9033

Report : Solid

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

EMT Sample No.	41-44	65-68	93-96	113-116	117-120	129-132	141-144				Please see attached notes for all abbreviations and acronyms		
Sample ID	TP04	TP06	TP08	TP10	TP10	TP11	TP12						
Depth	0.20	0.20	0.20	0.25	0.60	0.10	0.25						
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T						
Sample Date	06/06/2023	07/06/2023	07/06/2023	07/06/2023	07/06/2023	07/06/2023	07/06/2023						
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil						
Batch Number	2	2	2	2	2	2	2						
Date of Receipt	08/06/2023	08/06/2023	08/06/2023	08/06/2023	08/06/2023	08/06/2023	08/06/2023				LOD/LOR	Units	Method No.
Arsenic #	-	10.7	10.3	10.6	-	-	9.8				<0.5	mg/kg	TM30/PM15
Cadmium #	-	<0.1	<0.1	<0.1	-	-	<0.1				<0.1	mg/kg	TM30/PM15
Chromium #	-	55.8	50.9	53.5	-	-	51.6				<0.5	mg/kg	TM30/PM15
Copper #	-	22	9	22	-	-	23				<1	mg/kg	TM30/PM15
Lead #	-	57	56	55	-	-	13				<5	mg/kg	TM30/PM15
Mercury #	-	0.2	0.2	0.2	-	-	0.2				<0.1	mg/kg	TM30/PM15
Nickel #	-	30.5	28.0	28.9	-	-	44.5				<0.7	mg/kg	TM30/PM15
Selenium #	-	<1	2	1	-	-	2				<1	mg/kg	TM30/PM15
Total Sulphate as SO4 #	-	707	236	813	-	-	902				<50	mg/kg	TM50/PM25
Zinc #	-	113	89	108	-	-	75				<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	-	<0.04	<0.04	<0.04	-	-	<0.04				<0.04	mg/kg	TM4/PM8
Acenaphthylene	-	<0.03	<0.03	<0.03	-	-	<0.03				<0.03	mg/kg	TM4/PM8
Acenaphthene #	-	<0.05	<0.05	<0.05	-	-	<0.05				<0.05	mg/kg	TM4/PM8
Fluorene #	-	<0.04	<0.04	<0.04	-	-	<0.04				<0.04	mg/kg	TM4/PM8
Phenanthrene #	-	<0.03	<0.03	<0.03	-	-	<0.03				<0.03	mg/kg	TM4/PM8
Anthracene #	-	<0.04	<0.04	<0.04	-	-	<0.04				<0.04	mg/kg	TM4/PM8
Fluoranthene #	-	0.06	<0.03	0.06	-	-	<0.03				<0.03	mg/kg	TM4/PM8
Pyrene #	-	0.05	<0.03	0.05	-	-	<0.03				<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	-	<0.06	<0.06	<0.06	-	-	<0.06				<0.06	mg/kg	TM4/PM8
Chrysene #	-	<0.02	<0.02	<0.02	-	-	<0.02				<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	-	<0.07	<0.07	<0.07	-	-	<0.07				<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	-	<0.04	<0.04	<0.04	-	-	<0.04				<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	-	<0.04	<0.04	<0.04	-	-	<0.04				<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	-	<0.04	<0.04	<0.04	-	-	<0.04				<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	-	<0.04	<0.04	<0.04	-	-	<0.04				<0.04	mg/kg	TM4/PM8
PAH 16 Total	-	<0.6	<0.6	<0.6	-	-	<0.6				<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	-	<0.05	<0.05	<0.05	-	-	<0.05				<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	-	<0.02	<0.02	<0.02	-	-	<0.02				<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	-	93	80	92	-	-	91				<0	%	TM4/PM8

Element Materials Technology

Client Name: Tier Environmental
Reference: TE1749
Location: Bryn Lane Outline
Contact: Alex Preston
EMT Job No: 23/9033

Report : Solid

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

EMT Sample No.	41-44	65-68	93-96	113-116	117-120	129-132	141-144				Please see attached notes for all abbreviations and acronyms		
Sample ID	TP04	TP06	TP08	TP10	TP10	TP11	TP12						
Depth	0.20	0.20	0.20	0.25	0.60	0.10	0.25						
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T						
Sample Date	06/06/2023	07/06/2023	07/06/2023	07/06/2023	07/06/2023	07/06/2023	07/06/2023						
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil						
Batch Number	2	2	2	2	2	2	2						
Date of Receipt	08/06/2023	08/06/2023	08/06/2023	08/06/2023	08/06/2023	08/06/2023	08/06/2023				LOD/LOR	Units	Method No.
Pesticides													
Organophosphorus Pesticides													
Azinphos ethyl	-	<10	<10	<10	-	-	<10				<10	ug/kg	TM42/PM8
Azinphos methyl	-	<10	<10	<10	-	-	<10				<10	ug/kg	TM42/PM8
Carbophenothion	-	<10	<10	<10	-	-	<10				<10	ug/kg	TM42/PM8
Chlorfenvinphos	-	<10	<10	<10	-	-	<10				<10	ug/kg	TM42/PM8
Chlorpyrifos	-	<10	<10	<10	-	-	<10				<10	ug/kg	TM42/PM8
Chlorpyrifos-methyl	-	<10	<10	<10	-	-	<10				<10	ug/kg	TM42/PM8
Diazinon	-	<10	<10	<10	-	-	<10				<10	ug/kg	TM42/PM8
Dichlorvos	-	<10	<10	<10	-	-	<10				<10	ug/kg	TM42/PM8
Disulfoton	-	<10	<10	<10	-	-	<10				<10	ug/kg	TM42/PM8
Dimethoate	-	<10	<10	<10	-	-	<10				<10	ug/kg	TM42/PM8
Ethion	-	<10	<10	<10	-	-	<10				<10	ug/kg	TM42/PM8
Ethyl Parathion (Parathion)	-	<10	<10	<10	-	-	<10				<10	ug/kg	TM42/PM8
Etrimphos	-	<10	<10	<10	-	-	<10				<10	ug/kg	TM42/PM8
Fenitrothion	-	<10	<10	<10	-	-	<10				<10	ug/kg	TM42/PM8
Fenthion	-	<10	<10	<10	-	-	<10				<10	ug/kg	TM42/PM8
Malathion	-	<10	<10	<10	-	-	<10				<10	ug/kg	TM42/PM8
Methyl Parathion	-	<10	<10	<10	-	-	<10				<10	ug/kg	TM42/PM8
Mevinphos	-	<10	<10	<10	-	-	<10				<10	ug/kg	TM42/PM8
Phosalone	-	<10	<10	<10	-	-	<10				<10	ug/kg	TM42/PM8
Pirimiphos Methyl	-	<10	<10	<10	-	-	<10				<10	ug/kg	TM42/PM8
Propetamphos	-	<10	<10	<10	-	-	<10				<10	ug/kg	TM42/PM8
Triazophos	-	<10	<10	<10	-	-	<10				<10	ug/kg	TM42/PM8
TPH CWG													
Aliphatics													
>C5-C6 (HS_1D_AL) #	<0.1	<0.1	<0.1	<0.1	-	-	<0.1				<0.1	mg/kg	TM36/PM12
>C6-C8 (HS_1D_AL) #	<0.1	<0.1	<0.1	<0.1	-	-	<0.1				<0.1	mg/kg	TM36/PM12
>C8-C10 (HS_1D_AL)	<0.1	<0.1	<0.1	<0.1	-	-	<0.1				<0.1	mg/kg	TM36/PM12
>C10-C12 (EH_CU_1D_AL) #	<0.2	<0.2	<0.2	<0.2	-	-	<0.2				<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 (EH_CU_1D_AL) #	<4	<4	<4	<4	-	-	<4				<4	mg/kg	TM5/PM8/PM16
>C16-C21 (EH_CU_1D_AL) #	<7	<7	<7	<7	-	-	<7				<7	mg/kg	TM5/PM8/PM16
>C21-C35 (EH_CU_1D_AL) #	<7	35	<7	44	-	-	<7				<7	mg/kg	TM5/PM8/PM16
>C35-C40 (EH_CU_1D_AL)	<7	<7	<7	<7	-	-	<7				<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-40 (EH+HS_CU_1D_AL)	<26	35	<26	44	-	-	<26				<26	mg/kg	TM5/PM8/PM16/PM12/PM15

Element Materials Technology

Client Name: Tier Environmental
Reference: TE1749
Location: Bryn Lane Outline
Contact: Alex Preston
EMT Job No: 23/9033

Report : Solid

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

EMT Sample No.	41-44	65-68	93-96	113-116	117-120	129-132	141-144				Please see attached notes for all abbreviations and acronyms		
Sample ID	TP04	TP06	TP08	TP10	TP10	TP11	TP12						
Depth	0.20	0.20	0.20	0.25	0.60	0.10	0.25						
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T						
Sample Date	06/06/2023	07/06/2023	07/06/2023	07/06/2023	07/06/2023	07/06/2023	07/06/2023						
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil						
Batch Number	2	2	2	2	2	2	2						
Date of Receipt	08/06/2023	08/06/2023	08/06/2023	08/06/2023	08/06/2023	08/06/2023	08/06/2023				LOD/LOR	Units	Method No.
TPH CWG													
Aromatics													
>C5-EC7 (HS_1D_AR) #	<0.1	<0.1	<0.1	<0.1	-	-	<0.1				<0.1	mg/kg	TM36/PM12
>EC7-EC8 (HS_1D_AR) #	<0.1	<0.1	<0.1	<0.1	-	-	<0.1				<0.1	mg/kg	TM36/PM12
>EC8-EC10 (HS_1D_AR) #	<0.1	<0.1	<0.1	<0.1	-	-	<0.1				<0.1	mg/kg	TM36/PM12
>EC10-EC12 (EH_CU_1D_AR) #	<0.2	<0.2	<0.2	<0.2	-	-	<0.2				<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 (EH_CU_1D_AR) #	<4	<4	<4	<4	-	-	<4				<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 (EH_CU_1D_AR) #	<7	<7	<7	<7	-	-	<7				<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 (EH_CU_1D_AR) #	<7	<7	<7	<7	-	-	<7				<7	mg/kg	TM5/PM8/PM16
>EC35-EC40 (EH_CU_1D_AR)	<7	<7	<7	<7	-	-	<7				<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-40 (EH+HS_CU_1D_AR)	<26	<26	<26	<26	-	-	<26				<26	mg/kg	TM5/PM8/PM16/PM12/PM10
Total aliphatics and aromatics(C5-40) (EH+HS_CU_1D_Total)	<52	<52	<52	<52	-	-	<52				<52	mg/kg	TM5/PM8/PM16/PM12/PM10
MTBE #	<5	<5	<5	<5	-	-	<5				<5	ug/kg	TM36/PM12
Benzene #	<5	<5	<5	<5	-	-	<5				<5	ug/kg	TM36/PM12
Toluene #	<5	<5	<5	<5	-	-	<5				<5	ug/kg	TM36/PM12
Ethylbenzene #	<5	<5	<5	<5	-	-	<5				<5	ug/kg	TM36/PM12
m/p-Xylene #	<5	<5	<5	<5	-	-	<5				<5	ug/kg	TM36/PM12
o-Xylene #	<5	<5	<5	<5	-	-	<5				<5	ug/kg	TM36/PM12
Total Phenols HPLC	-	<0.15	<0.15	<0.15	-	-	<0.15				<0.15	mg/kg	TM26/PM21B
Natural Moisture Content	22.6	16.4	13.8	14.9	-	-	18.6				<0.1	%	PM4/PM0
Hexavalent Chromium #	-	<0.3	<0.3	<0.3	-	-	<0.3				<0.3	mg/kg	TM38/PM20
Ortho Phosphate as PO4	-	<0.3	<0.3	-	<0.3	-	<0.3				<0.3	mg/kg	TM38/PM20
Sulphate as SO4 (2:1 Ext) #	-	0.0135	0.0154	0.0047	-	-	0.3414				<0.0015	g/l	TM38/PM20
Total Organic Carbon #	-	2.48	0.68	2.83	-	-	0.31				<0.02	%	TM21/PM24
pH #	-	7.52	7.73	7.11	-	-	7.69				<0.01	pH units	TM73/PM11
Asbestos Type*	NAD	NAD	NAD	NAD	-	NAD	NAD					None	Subcontracted

Client Name: Tier Environmental

Reference: TE1749

Location: Bryn Lane Outline

Contact: Alex Preston

[illegible]

Please note that only samples that are deviating are mentioned in this report. If no samples are listed it is because none were deviating.

Only analyses which are accredited are recorded as deviating if set criteria are not met.

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

EMT Job No.: 23/9033

SOILS and ASH

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

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

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

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary. Asbestos samples are retained for 6 months.

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

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

All analysis is reported on a dry weight basis unless stated otherwise. Limits of detection for analyses carried out on as received samples are not moisture content corrected. Results are not surrogate corrected. Samples are dried at 35°C ±5°C unless otherwise stated. Moisture content for CEN Leachate tests are dried at 105°C ±5°C. Ash samples are dried at 37°C ±5°C.

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

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

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

Sufficient amount of sample must be received to carry out the testing specified. Where an insufficient amount of sample has been received the testing may not meet the requirements of our accredited methods, as such accreditation may be removed.

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

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

WATERS

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

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

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

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

STACK EMISSIONS

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation for Dioxins and Furans and Dioxin like PCBs has been performed on XAD-2 Resin, only samples which use this resin will be within our MCERTS scope.

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

DEVIATING SAMPLES

All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. The temperature of sample receipt is recorded on the confirmation schedules in order that the client can make an informed decision as to whether testing should still be undertaken.

SURROGATES

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

DILUTIONS

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

BLANKS

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

NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a requirement of our Accreditation Body for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.

Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation.

Laboratory records are kept for a period of no less than 6 years.

REPORTS FROM THE SOUTH AFRICA LABORATORY

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

Measurement Uncertainty

Measurement uncertainty defines the range of values that could reasonably be attributed to the measured quantity. This range of values has not been included within the reported results. Uncertainty expressed as a percentage can be provided upon request.

Customer Provided Information

Sample ID and depth is information provided by the customer.

ABBREVIATIONS and ACRONYMS USED

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

HWOL ACRONYMS AND OPERATORS USED

HS	Headspace Analysis.
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent.
CU	Clean-up - e.g. by florisil, silica gel.
1D	GC - Single coil gas chromatography.
Total	Aliphatics & Aromatics.
AL	Aliphatics only.
AR	Aromatics only.
2D	GC-GC - Double coil gas chromatography.
#1	EH_Total but with humics mathematically subtracted
#2	EU_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +).
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total
MS	Mass Spectrometry.

EMT Job No: 23/9033

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465:1993(E) and BS1377-2:1990.	PM0	No preparation is required.			AR	
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.			AR	Yes
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.	Yes		AR	Yes
TM5/TM36	please refer to TM5 and TM36 for method details	PM8/PM12/PM16	please refer to PM8/PM16 and PM12 for method details			AR	Yes
TM21	Modified BS 7755-3:1995, ISO10694:1995 Determination of Total Organic Carbon or Total Carbon by combustion in an Eltra TOC furnace/analyser in the presence of oxygen. The CO2 generated is quantified using infra-red detection. Organic Matter (SOM) calculated as per EA MCERTS Chemical Testing of Soil, March 2012 v4.	PM24	Preparation of Soil and Marine Sediment Samples for Total Organic Carbon.	Yes		AD	Yes
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM21B	As Received samples are extracted in Methanol: Water (60:40) by reciprocal shaker.			AR	Yes
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	PM15	Acid digestion of dried and ground solid samples using Aqua Regia refluxed at 112.5 °C. Samples containing asbestos are not dried and ground.	Yes		AD	Yes
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes

EMT Job No: 23/9033

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All anions comparable to BS ISO 15923-1: 2013	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.			AD	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All anions comparable to BS ISO 15923-1: 2013	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes		AD	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All anions comparable to BS ISO 15923-1: 2013	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes		AR	Yes
TM42	Modified US EPA method 8270D v5:2014. Pesticides and herbicides by GC-MS	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM50	Acid soluble sulphate (Total Sulphate) analysed by ICP-OES	PM29	A hot hydrochloric acid digest is performed on a dried and ground sample, and the resulting liquor is analysed.	Yes		AD	Yes
TM73	Modified US EPA methods 150.1 (1982) and 9045D Rev. 4 - 2004) and BS1377-3:1990. Determination of pH by Metrohm automated probe analyser.	PM11	Extraction of as received solid samples using one part solid to 2.5 parts deionised water.	Yes		AR	No
Subcontracted	See attached subcontractor report for accreditation status and provider.					AR	

Tier Environmental
Suite 414, Chadwick House
Warrington Rd
Birchwood
Warrington
United Kingdom
WA3 6AE



4225



Attention : Alex Preston

Date : 21st June, 2023

Your reference : TE1749

Our reference : Test Report 23/9033 Batch 3

Location : Bryn Lane Outline

Date samples received : 9th June, 2023

Status : Final Report

Issue : 1

Fifteen samples were received for analysis on 9th June, 2023 of which nine were scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.

All analysis is carried out on as received samples and reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected.

Authorised By:



Liza Klebe

Project Co-ordinator

Please include all sections of this report if it is reproduced

Client Name: Tier Environmental
Reference: TE1749
Location: Bryn Lane Outline
Contact: Alex Preston
EMT Job No: 23/9033

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

Please see attached notes for all abbreviations and acronyms

Element Materials Technology

Client Name: Tier Environmental
Reference: TE1749
Location: Bryn Lane Outline
Contact: Alex Preston
EMT Job No: 23/9033

Report : Solid

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

EMT Sample No.	149-152	153-156	157-160	165-168	169-172	177-180	189-192	201-204	205-208		Please see attached notes for all abbreviations and acronyms		
Sample ID	TP13	TP13	TP13	TP14	TP14	TP15	TP16	TP17	TP17				
Depth	0.15	0.70	1.45	0.40	1.10	0.10	0.35	0.30	1.00				
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T				
Sample Date	09/06/2023	09/06/2023	09/06/2023	09/06/2023	09/06/2023	09/06/2023	09/06/2023	09/06/2023	09/06/2023				
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil				
Batch Number	3	3	3	3	3	3	3	3	3				
Date of Receipt	09/06/2023	09/06/2023	09/06/2023	09/06/2023	09/06/2023	09/06/2023	09/06/2023	09/06/2023	09/06/2023		LOD/LOR	Units	Method No.
Pesticides													
Organophosphorus Pesticides													
Azinphos ethyl	-	<10	-	<10	-	-	-	-	<10		<10	ug/kg	TM42/PM8
Azinphos methyl	-	<10	-	<10	-	-	-	-	<10		<10	ug/kg	TM42/PM8
Carbophenothion	-	<10	-	<10	-	-	-	-	<10		<10	ug/kg	TM42/PM8
Chlorfenvinphos	-	<10	-	<10	-	-	-	-	<10		<10	ug/kg	TM42/PM8
Chlorpyrifos	-	<10	-	<10	-	-	-	-	<10		<10	ug/kg	TM42/PM8
Chlorpyrifos-methyl	-	<10	-	<10	-	-	-	-	<10		<10	ug/kg	TM42/PM8
Diazinon	-	<10	-	<10	-	-	-	-	<10		<10	ug/kg	TM42/PM8
Dichlorvos	-	<10	-	<10	-	-	-	-	<10		<10	ug/kg	TM42/PM8
Disulfoton	-	<10	-	<10	-	-	-	-	<10		<10	ug/kg	TM42/PM8
Dimethoate	-	<10	-	<10	-	-	-	-	<10		<10	ug/kg	TM42/PM8
Ethion	-	<10	-	<10	-	-	-	-	<10		<10	ug/kg	TM42/PM8
Ethyl Parathion (Parathion)	-	<10	-	<10	-	-	-	-	<10		<10	ug/kg	TM42/PM8
Etrimphos	-	<10	-	<10	-	-	-	-	<10		<10	ug/kg	TM42/PM8
Fenitrothion	-	<10	-	<10	-	-	-	-	<10		<10	ug/kg	TM42/PM8
Fenthion	-	<10	-	<10	-	-	-	-	<10		<10	ug/kg	TM42/PM8
Malathion	-	<10	-	<10	-	-	-	-	<10		<10	ug/kg	TM42/PM8
Methyl Parathion	-	<10	-	<10	-	-	-	-	<10		<10	ug/kg	TM42/PM8
Mevinphos	-	<10	-	<10	-	-	-	-	<10		<10	ug/kg	TM42/PM8
Phosalone	-	<10	-	<10	-	-	-	-	<10		<10	ug/kg	TM42/PM8
Pirimiphos Methyl	-	<10	-	<10	-	-	-	-	<10		<10	ug/kg	TM42/PM8
Propetamphos	-	<10	-	<10	-	-	-	-	<10		<10	ug/kg	TM42/PM8
Triazophos	-	<10	-	<10	-	-	-	-	<10		<10	ug/kg	TM42/PM8
TPH CWG													
Aliphatics													
>C5-C6 (HS_1D_AL) #	-	<0.1	<0.1	<0.1	-	-	<0.1	-	<0.1		<0.1	mg/kg	TM36/PM12
>C6-C8 (HS_1D_AL) #	-	<0.1	<0.1	<0.1	-	-	<0.1	-	<0.1		<0.1	mg/kg	TM36/PM12
>C8-C10 (HS_1D_AL)	-	<0.1	<0.1	<0.1	-	-	<0.1	-	<0.1		<0.1	mg/kg	TM36/PM12
>C10-C12 (EH_CU_1D_AL) #	-	<0.2	<0.2	<0.2	-	-	<0.2	-	<0.2		<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 (EH_CU_1D_AL) #	-	<4	<4	<4	-	-	<4	-	<4		<4	mg/kg	TM5/PM8/PM16
>C16-C21 (EH_CU_1D_AL) #	-	<7	<7	<7	-	-	<7	-	<7		<7	mg/kg	TM5/PM8/PM16
>C21-C35 (EH_CU_1D_AL) #	-	<7	<7	<7	-	-	<7	-	<7		<7	mg/kg	TM5/PM8/PM16
>C35-C40 (EH_CU_1D_AL)	-	<7	<7	<7	-	-	<7	-	<7		<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-40 (EH+HS_CU_1D_AL)	-	<26	<26	<26	-	-	<26	-	<26		<26	mg/kg	TM5/PM8/PM16/PM12/PM15

Element Materials Technology

Client Name: Tier Environmental
Reference: TE1749
Location: Bryn Lane Outline
Contact: Alex Preston
EMT Job No: 23/9033

Report : Solid

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

EMT Sample No.	149-152	153-156	157-160	165-168	169-172	177-180	189-192	201-204	205-208		Please see attached notes for all abbreviations and acronyms		
Sample ID	TP13	TP13	TP13	TP14	TP14	TP15	TP16	TP17	TP17				
Depth	0.15	0.70	1.45	0.40	1.10	0.10	0.35	0.30	1.00				
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T				
Sample Date	09/06/2023	09/06/2023	09/06/2023	09/06/2023	09/06/2023	09/06/2023	09/06/2023	09/06/2023	09/06/2023				
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil				
Batch Number	3	3	3	3	3	3	3	3	3				
Date of Receipt	09/06/2023	09/06/2023	09/06/2023	09/06/2023	09/06/2023	09/06/2023	09/06/2023	09/06/2023	09/06/2023		LOD/LOR	Units	Method No.
TPH CWG													
Aromatics													
>C5-EC7 (HS_1D_AR) #	-	<0.1	<0.1	<0.1	-	-	<0.1	-	<0.1		<0.1	mg/kg	TM36/PM12
>EC7-EC8 (HS_1D_AR) #	-	<0.1	<0.1	<0.1	-	-	<0.1	-	<0.1		<0.1	mg/kg	TM36/PM12
>EC8-EC10 (HS_1D_AR) #	-	<0.1	<0.1	<0.1	-	-	<0.1	-	<0.1		<0.1	mg/kg	TM36/PM12
>EC10-EC12 (EH_CU_1D_AR) #	-	<0.2	<0.2	<0.2	-	-	<0.2	-	<0.2		<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 (EH_CU_1D_AR) #	-	<4	<4	<4	-	-	<4	-	<4		<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 (EH_CU_1D_AR) #	-	<7	<7	<7	-	-	<7	-	<7		<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 (EH_CU_1D_AR) #	-	<7	40	<7	-	-	17	-	<7		<7	mg/kg	TM5/PM8/PM16
>EC35-EC40 (EH_CU_1D_AR)	-	<7	<7	<7	-	-	9	-	<7		<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-40 (EH+HS_CU_1D_AR)	-	<26	40	<26	-	-	26	-	<26		<26	mg/kg	TM5/PM8/PM16/PM12/PM10
Total aliphatics and aromatics(C5-40) (EH+HS_CU_1D_Total)	-	<52	<52	<52	-	-	<52	-	<52		<52	mg/kg	TM5/PM8/PM16/PM12/PM10
MTBE #	-	<5	<5	<5	-	-	<5	-	<5		<5	ug/kg	TM36/PM12
Benzene #	-	<5	<5	<5	-	-	<5	-	<5		<5	ug/kg	TM36/PM12
Toluene #	-	<5	<5	<5	-	-	<5	-	<5		<5	ug/kg	TM36/PM12
Ethylbenzene #	-	<5	<5	<5	-	-	<5	-	<5		<5	ug/kg	TM36/PM12
m/p-Xylene #	-	<5	<5	<5	-	-	<5	-	<5		<5	ug/kg	TM36/PM12
o-Xylene #	-	<5	<5	<5	-	-	<5	-	<5		<5	ug/kg	TM36/PM12
Total Phenols HPLC	-	<0.15	<0.15	<0.15	<0.15	-	<0.15	-	<0.15		<0.15	mg/kg	TM26/PM21B
Natural Moisture Content	-	16.9	42.1	19.6	77.0	-	23.5	-	17.6		<0.1	%	PM4/PM0
Hexavalent Chromium #	-	<0.3	<0.3	<0.3	<0.3	-	<0.3	-	<0.3		<0.3	mg/kg	TM38/PM20
Ortho Phosphate as PO4	-	<0.3	-	0.5	-	-	-	-	<0.3		<0.3	mg/kg	TM38/PM20
Sulphate as SO4 (2:1 Ext) #	-	0.4678	0.0563	0.0665	0.0174	-	0.0371	-	0.1211		<0.0015	g/l	TM38/PM20
Total Organic Carbon #	-	0.23	2.10	1.75	1.15	-	1.30	-	0.23		<0.02	%	TM21/PM24
Calorific Value	-	-	-	-	<1	-	-	-	-		<1	MJ/kg	TM21/PM24
pH #	-	8.63	7.86	8.22	7.26	-	7.96	-	8.84		<0.01	pH units	TM73/PM11
Asbestos Type*	NAD	NAD	NAD	NAD	-	NAD	-	NAD	-		None		Subcontracted

Client Name: Tier Environmental

Reference: TE1749

Location: Bryn Lane Outline

Contact: Alex Preston

[illegible]

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

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

EMT Job No.: 23/9033

SOILS and ASH

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

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

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

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary. Asbestos samples are retained for 6 months.

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

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

All analysis is reported on a dry weight basis unless stated otherwise. Limits of detection for analyses carried out on as received samples are not moisture content corrected. Results are not surrogate corrected. Samples are dried at 35°C ±5°C unless otherwise stated. Moisture content for CEN Leachate tests are dried at 105°C ±5°C. Ash samples are dried at 37°C ±5°C.

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

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

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

Sufficient amount of sample must be received to carry out the testing specified. Where an insufficient amount of sample has been received the testing may not meet the requirements of our accredited methods, as such accreditation may be removed.

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

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

WATERS

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

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

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

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

STACK EMISSIONS

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation for Dioxins and Furans and Dioxin like PCBs has been performed on XAD-2 Resin, only samples which use this resin will be within our MCERTS scope.

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

DEVIATING SAMPLES

All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. The temperature of sample receipt is recorded on the confirmation schedules in order that the client can make an informed decision as to whether testing should still be undertaken.

SURROGATES

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

DILUTIONS

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

BLANKS

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

NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a requirement of our Accreditation Body for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.

Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation.

Laboratory records are kept for a period of no less than 6 years.

REPORTS FROM THE SOUTH AFRICA LABORATORY

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

Measurement Uncertainty

Measurement uncertainty defines the range of values that could reasonably be attributed to the measured quantity. This range of values has not been included within the reported results. Uncertainty expressed as a percentage can be provided upon request.

Customer Provided Information

Sample ID and depth is information provided by the customer.

ABBREVIATIONS and ACRONYMS USED

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

HWOL ACRONYMS AND OPERATORS USED

HS	Headspace Analysis.
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent.
CU	Clean-up - e.g. by florisil, silica gel.
1D	GC - Single coil gas chromatography.
Total	Aliphatics & Aromatics.
AL	Aliphatics only.
AR	Aromatics only.
2D	GC-GC - Double coil gas chromatography.
#1	EH_Total but with humics mathematically subtracted
#2	EU_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +).
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total
MS	Mass Spectrometry.

EMT Job No: 23/9033

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465:1993(E) and BS1377-2:1990.	PM0	No preparation is required.			AR	
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.			AR	Yes
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.	Yes		AR	Yes
TM5/TM36	please refer to TM5 and TM36 for method details	PM8/PM12/PM16	please refer to PM8/PM16 and PM12 for method details			AR	Yes
TM21	Modified BS 7755-3:1995, ISO10694:1995 Determination of Total Organic Carbon or Total Carbon by combustion in an Eltra TOC furnace/analyser in the presence of oxygen. The CO ₂ generated is quantified using infra-red detection. Organic Matter (SOM) calculated as per EA MCERTS Chemical Testing of Soil, March 2012 v4.	PM24	Preparation of Soil and Marine Sediment Samples for Total Organic Carbon.			AD	Yes
TM21	Modified BS 7755-3:1995, ISO10694:1995 Determination of Total Organic Carbon or Total Carbon by combustion in an Eltra TOC furnace/analyser in the presence of oxygen. The CO ₂ generated is quantified using infra-red detection. Organic Matter (SOM) calculated as per EA MCERTS Chemical Testing of Soil, March 2012 v4.	PM24	Preparation of Soil and Marine Sediment Samples for Total Organic Carbon.	Yes		AD	Yes
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM21B	As Received samples are extracted in Methanol: Water (60:40) by reciprocal shaker.			AR	Yes
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEPA 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	PM15	Acid digestion of dried and ground solid samples using Aqua Regia refluxed at 112.5 °C. Samples containing asbestos are not dried and ground.	Yes		AD	Yes

EMT Job No: 23/9033

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All anions comparable to BS ISO 15923-1: 2013I	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.			AD	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All anions comparable to BS ISO 15923-1: 2013I	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes		AD	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All anions comparable to BS ISO 15923-1: 2013I	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes		AR	Yes
TM42	Modified US EPA method 8270D v5:2014. Pesticides and herbicides by GC-MS	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM50	Acid soluble sulphate (Total Sulphate) analysed by ICP-OES	PM29	A hot hydrochloric acid digest is performed on a dried and ground sample, and the resulting liquor is analysed.	Yes		AD	Yes
TM73	Modified US EPA methods 150.1 (1982) and 9045D Rev. 4 - 2004) and BS1377-3:1990. Determination of pH by Metrohm automated probe analyser.	PM11	Extraction of as received solid samples using one part solid to 2.5 parts deionised water.	Yes		AR	No
Subcontracted	See attached subcontractor report for accreditation status and provider.					AR	

Tier Environmental
Suite 414, Chadwick House
Warrington Rd
Birchwood
Warrington
United Kingdom
WA3 6AE



4225



Attention : Adrian Read
Date : 27th June, 2023
Your reference : TE1749
Our reference : Test Report 23/9033 Batch 4
Location : Bryn Lane Outline
Date samples received : 19th June, 2023
Status : Final Report
Issue : 1

Nine samples were received for analysis on 19th June, 2023 of which nine were scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.

All analysis is carried out on as received samples and reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected.

Authorised By:



Liza Klebe

Project Co-ordinator

Please include all sections of this report if it is reproduced

Client Name: Tier Environmental
Reference: TE1749
Location: Bryn Lane Outline
Contact: Adrian Read
EMT Job No: 23/9033

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

Please see attached notes for all abbreviations and acronyms

Matrix : Solid

[illegible]

Client Name: Tier Environmental

Reference: TE1749

Location: Bryn Lane Outline

Contact: Adrian Read

[illegible]

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

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

EMT Job No.: 23/9033

SOILS and ASH

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

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

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

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary. Asbestos samples are retained for 6 months.

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

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

All analysis is reported on a dry weight basis unless stated otherwise. Limits of detection for analyses carried out on as received samples are not moisture content corrected. Results are not surrogate corrected. Samples are dried at 35°C ±5°C unless otherwise stated. Moisture content for CEN Leachate tests are dried at 105°C ±5°C. Ash samples are dried at 37°C ±5°C.

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

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

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

Sufficient amount of sample must be received to carry out the testing specified. Where an insufficient amount of sample has been received the testing may not meet the requirements of our accredited methods, as such accreditation may be removed.

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

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

WATERS

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

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

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

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

STACK EMISSIONS

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation for Dioxins and Furans and Dioxin like PCBs has been performed on XAD-2 Resin, only samples which use this resin will be within our MCERTS scope.

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

DEVIATING SAMPLES

All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. The temperature of sample receipt is recorded on the confirmation schedules in order that the client can make an informed decision as to whether testing should still be undertaken.

SURROGATES

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

DILUTIONS

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

BLANKS

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

NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a requirement of our Accreditation Body for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.

Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation.

Laboratory records are kept for a period of no less than 6 years.

REPORTS FROM THE SOUTH AFRICA LABORATORY

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

Measurement Uncertainty

Measurement uncertainty defines the range of values that could reasonably be attributed to the measured quantity. This range of values has not been included within the reported results. Uncertainty expressed as a percentage can be provided upon request.

Customer Provided Information

Sample ID and depth is information provided by the customer.

ABBREVIATIONS and ACRONYMS USED

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

HWOL ACRONYMS AND OPERATORS USED

HS	Headspace Analysis.
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent.
CU	Clean-up - e.g. by florisil, silica gel.
1D	GC - Single coil gas chromatography.
Total	Aliphatics & Aromatics.
AL	Aliphatics only.
AR	Aromatics only.
2D	GC-GC - Double coil gas chromatography.
#1	EH_Total but with humics mathematically subtracted
#2	EU_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +).
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total
MS	Mass Spectrometry.

EMT Job No: 23/9033

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465:1993(E) and BS1377-2:1990.	PM0	No preparation is required.			AR	
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	PM15	Acid digestion of dried and ground solid samples using Aqua Regia refluxed at 112.5 °C. Samples containing asbestos are not dried and ground.			AD	Yes
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.			AD	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All anions comparable to BS ISO 15923-1: 2013	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.			AD	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All anions comparable to BS ISO 15923-1: 2013	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes		AD	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All anions comparable to BS ISO 15923-1: 2013	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.			AR	Yes
TM50	Acid soluble sulphate (Total Sulphate) analysed by ICP-OES	PM29	A hot hydrochloric acid digest is performed on a dried and ground sample, and the resulting liquor is analysed.			AD	Yes
TM73	Modified US EPA methods 150.1 (1982) and 9045D Rev. 4 - 2004) and BS1377-3:1990. Determination of pH by Metrohm automated probe analyser.	PM11	Extraction of as received solid samples using one part solid to 2.5 parts deionised water.	Yes		AR	No

Tier Environmental
Suite 414, Chadwick House
Warrington Rd
Birchwood
Warrington
United Kingdom
WA3 6AE



4225



Attention : Adrian Read

Date : 30th June, 2023

Your reference : TE1749

Our reference : Test Report 23/9033 Batch 5

Location : Bryn Lane Outline

Date samples received : 20th June, 2023

Status : Final Report

Issue : 1

Thirteen samples were received for analysis on 20th June, 2023 of which four were scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.

All analysis is carried out on as received samples and reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected.

Authorised By:



Bruce Leslie
Project Manager

Please include all sections of this report if it is reproduced

Element Materials Technology

Client Name: Tier Environmental
Reference: TE1749
Location: Bryn Lane Outline
Contact: Adrian Read
EMT Job No: 23/9033

Report : Solid

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

EMT Sample No.	218-220	224-226	236-238	245-247							Please see attached notes for all abbreviations and acronyms		
Sample ID	HDP01	HDP02	HDP04	HDP07									
Depth	0.20	0.50	0.90	0.10									
COC No / misc													
Containers	V J T	V J T	V J T	V J T									
Sample Date	20/06/2023	20/06/2023	20/06/2023	20/06/2023									
Sample Type	Soil	Soil	Soil	Soil									
Batch Number	5	5	5	5							LOD/LOR	Units	Method No.
Date of Receipt	20/06/2023	20/06/2023	20/06/2023	20/06/2023									
Arsenic #	-	-	-	9.2							<0.5	mg/kg	TM30/PM15
Cadmium #	-	-	-	<0.1							<0.1	mg/kg	TM30/PM15
Chromium #	-	-	-	48.7							<0.5	mg/kg	TM30/PM15
Copper #	-	-	-	33							<1	mg/kg	TM30/PM15
Lead #	-	-	-	117							<5	mg/kg	TM30/PM15
Mercury #	-	-	-	0.2							<0.1	mg/kg	TM30/PM15
Nickel #	-	-	-	22.8							<0.7	mg/kg	TM30/PM15
Selenium #	-	-	-	1							<1	mg/kg	TM30/PM15
Total Sulphate as SO4 #	-	-	-	460							<50	mg/kg	TM50/PM29
Zinc #	-	-	-	154							<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	-	-	-	<0.04							<0.04	mg/kg	TM4/PM8
Acenaphthylene	-	-	-	<0.03							<0.03	mg/kg	TM4/PM8
Acenaphthene #	-	-	-	<0.05							<0.05	mg/kg	TM4/PM8
Fluorene #	-	-	-	<0.04							<0.04	mg/kg	TM4/PM8
Phenanthrene #	-	-	-	0.21							<0.03	mg/kg	TM4/PM8
Anthracene #	-	-	-	0.06							<0.04	mg/kg	TM4/PM8
Fluoranthene #	-	-	-	0.74							<0.03	mg/kg	TM4/PM8
Pyrene #	-	-	-	0.66							<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	-	-	-	0.47							<0.06	mg/kg	TM4/PM8
Chrysene #	-	-	-	0.42							<0.02	mg/kg	TM4/PM8
Benzo(b)fluoranthene #	-	-	-	0.82							<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	-	-	-	0.51							<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	-	-	-	0.36							<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	-	-	-	0.09							<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	-	-	-	0.35							<0.04	mg/kg	TM4/PM8
PAH 16 Total	-	-	-	4.7							<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	-	-	-	0.59							<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	-	-	-	0.23							<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	-	-	-	91							<0	%	TM4/PM8

Element Materials Technology

Client Name: Tier Environmental
Reference: TE1749
Location: Bryn Lane Outline
Contact: Adrian Read
EMT Job No: 23/9033

Report : Solid

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

EMT Sample No.	218-220	224-226	236-238	245-247							Please see attached notes for all abbreviations and acronyms		
Sample ID	HDP01	HDP02	HDP04	HDP07									
Depth	0.20	0.50	0.90	0.10									
COC No / misc													
Containers	V J T	V J T	V J T	V J T									
Sample Date	20/06/2023	20/06/2023	20/06/2023	20/06/2023									
Sample Type	Soil	Soil	Soil	Soil									
Batch Number	5	5	5	5									
Date of Receipt	20/06/2023	20/06/2023	20/06/2023	20/06/2023							LOD/LOR	Units	Method No.
Pesticides													
Organophosphorus Pesticides													
Azinphos ethyl	<10	<10	<10	-							<10	ug/kg	TM42/PM8
Azinphos methyl	<10	<10	<10	-							<10	ug/kg	TM42/PM8
Carbophenothion	<10	<10	<10	-							<10	ug/kg	TM42/PM8
Chlorfenvinphos	<10	<10	<10	-							<10	ug/kg	TM42/PM8
Chlorpyrifos	<10	<10	<10	-							<10	ug/kg	TM42/PM8
Chlorpyrifos-methyl	<10	<10	<10	-							<10	ug/kg	TM42/PM8
Diazinon	<10	<10	<10	-							<10	ug/kg	TM42/PM8
Dichlorvos	<10	<10	<10	-							<10	ug/kg	TM42/PM8
Disulfoton	<10	<10	<10	-							<10	ug/kg	TM42/PM8
Dimethoate	<10	<10	<10	-							<10	ug/kg	TM42/PM8
Ethion	<10	<10	<10	-							<10	ug/kg	TM42/PM8
Ethyl Parathion (Parathion)	<10	<10	<10	-							<10	ug/kg	TM42/PM8
Etrimphos	<10	<10	<10	-							<10	ug/kg	TM42/PM8
Fenitrothion	<10	<10	<10	-							<10	ug/kg	TM42/PM8
Fenthion	<10	<10	<10	-							<10	ug/kg	TM42/PM8
Malathion	<10	<10	<10	-							<10	ug/kg	TM42/PM8
Methyl Parathion	<10	<10	<10	-							<10	ug/kg	TM42/PM8
Mevinphos	<10	<10	<10	-							<10	ug/kg	TM42/PM8
Phosalone	<10	<10	<10	-							<10	ug/kg	TM42/PM8
Pirimiphos Methyl	<10	<10	<10	-							<10	ug/kg	TM42/PM8
Propetamphos	<10	<10	<10	-							<10	ug/kg	TM42/PM8
Triazophos	<10	<10	<10	-							<10	ug/kg	TM42/PM8
TPH CWG													
Aliphatics													
>C5-C6 (HS_1D_AL) #	-	-	-	<0.1							<0.1	mg/kg	TM36/PM12
>C6-C8 (HS_1D_AL) #	-	-	-	<0.1							<0.1	mg/kg	TM36/PM12
>C8-C10 (HS_1D_AL)	-	-	-	<0.1							<0.1	mg/kg	TM36/PM12
>C10-C12 (EH_CU_1D_AL) #	-	-	-	<0.2							<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 (EH_CU_1D_AL) #	-	-	-	<4							<4	mg/kg	TM5/PM8/PM16
>C16-C21 (EH_CU_1D_AL) #	-	-	-	<7							<7	mg/kg	TM5/PM8/PM16
>C21-C35 (EH_CU_1D_AL) #	-	-	-	<7							<7	mg/kg	TM5/PM8/PM16
>C35-C40 (EH_CU_1D_AL)	-	-	-	<7							<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-40 (EH+HS_CU_1D_AL)	-	-	-	<26							<26	mg/kg	TM5/PM8/PM16/PM12/PM15

Element Materials Technology

Client Name: Tier Environmental
Reference: TE1749
Location: Bryn Lane Outline
Contact: Adrian Read
EMT Job No: 23/9033

Report : Solid

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

EMT Sample No.	218-220	224-226	236-238	245-247							Please see attached notes for all abbreviations and acronyms		
Sample ID	HDP01	HDP02	HDP04	HDP07									
Depth	0.20	0.50	0.90	0.10									
COC No / misc													
Containers	V J T	V J T	V J T	V J T									
Sample Date	20/06/2023	20/06/2023	20/06/2023	20/06/2023									
Sample Type	Soil	Soil	Soil	Soil									
Batch Number	5	5	5	5									
Date of Receipt	20/06/2023	20/06/2023	20/06/2023	20/06/2023							LOD/LOR	Units	Method No.
TPH CWG													
Aromatics													
>C5-EC7 (HS_1D_AR) #	-	-	-	<0.1							<0.1	mg/kg	TM36/PM12
>EC7-EC8 (HS_1D_AR) #	-	-	-	<0.1							<0.1	mg/kg	TM36/PM12
>EC8-EC10 (HS_1D_AR) #	-	-	-	<0.1							<0.1	mg/kg	TM36/PM12
>EC10-EC12 (EH_CU_1D_AR) #	-	-	-	<0.2							<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 (EH_CU_1D_AR) #	-	-	-	<4							<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 (EH_CU_1D_AR) #	-	-	-	9							<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 (EH_CU_1D_AR) #	-	-	-	90							<7	mg/kg	TM5/PM8/PM16
>EC35-EC40 (EH_CU_1D_AR)	-	-	-	12							<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-40 (EH+HS_CU_1D_AR)	-	-	-	111							<26	mg/kg	TM5/PM8/PM16/PM12/PM10
Total aliphatics and aromatics(C5-40) (EH+HS_CU_1D_Total)	-	-	-	111							<52	mg/kg	TM5/PM8/PM16/PM12/PM10
MTBE #	-	-	-	<5							<5	ug/kg	TM36/PM12
Benzene #	-	-	-	<5							<5	ug/kg	TM36/PM12
Toluene #	-	-	-	<5							<5	ug/kg	TM36/PM12
Ethylbenzene #	-	-	-	<5							<5	ug/kg	TM36/PM12
m/p-Xylene #	-	-	-	<5							<5	ug/kg	TM36/PM12
o-Xylene #	-	-	-	<5							<5	ug/kg	TM36/PM12
Total Phenols HPLC	-	-	-	<0.15							<0.15	mg/kg	TM26/PM21B
Natural Moisture Content	30.3	18.8	20.1	23.8							<0.1	%	PM4/PM0
Hexavalent Chromium #	-	-	-	<0.3							<0.3	mg/kg	TM38/PM20
Ortho Phosphate as PO4	<0.3	<0.3	<0.3	-							<0.3	mg/kg	TM38/PM20
Sulphate as SO4 (2:1 Ext) #	-	-	-	0.0087							<0.0015	g/l	TM38/PM20
Total Organic Carbon #	-	-	-	8.12							<0.02	%	TM21/PM24
Nitrocellulose Colour*	-	-	-	-ve								None	Subcontracted
Nitrocellulose Colourimetric*	-	-	-	<5000								mg/kg	Subcontracted
Cyclotetramethylene Tetranitramine (HMX)*	-	-	-	<2								mg/kg	Subcontracted
Cyclo-1,3,5-Trimethylene-2,4,6-Trinitramine (RDX)*	-	-	-	<2								mg/kg	Subcontracted
Ethylene Glycol Dinitrate (EGDN)*	-	-	-	<1								mg/kg	Subcontracted
2,4,6-Trinitro-Phenylmethyl Nitramine (Tetryl)*	-	-	-	<1								mg/kg	Subcontracted
Glycerol Trinitrate (NG)*	-	-	-	<1								mg/kg	Subcontracted
2,4,6-Trinitrotoluene (TNT)*	-	-	-	<0.1								mg/kg	Subcontracted
2,6-Dinitrotoluene*	-	-	-	<1								mg/kg	Subcontracted
2,4-Dinitrotoluene*	-	-	-	<1								mg/kg	Subcontracted
Hexanitro-Stilbene (HNS)*	-	-	-	<0.5								mg/kg	Subcontracted
Pentaerythritol Tetranitrate (PETN)*	-	-	-	<5								mg/kg	Subcontracted
Nitroguanidine (Picrite)*	-	-	-	<0.25								mg/kg	Subcontracted
2,4,6-Trinitro Phenol (Picric Acid)*	-	-	-	<0.1								mg/kg	Subcontracted

Element Materials Technology

Client Name: Tier Environmental
Reference: TE1749
Location: Bryn Lane Outline
Contact: Adrian Read
EMT Job No: 23/9033

Report : Solid

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

[illegible]

Note:

The LOQ of the Asbestos Quantification is 0.001% dry fibre of dry mass of sample.

Where the sample is not taken by a Element Materials Technology consultant, Element Materials Technology cannot be responsible for inaccurate or unrepresentative sampling.

Where trace asbestos is reported the amount of asbestos will be <0.1%.

[illegible]

Client Name: Tier Environmental

Reference: TE1749

Location: Bryn Lane Outline

Contact: Adrian Read

[illegible]

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

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

EMT Job No.: 23/9033

SOILS and ASH

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

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

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

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary. Asbestos samples are retained for 6 months.

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

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

All analysis is reported on a dry weight basis unless stated otherwise. Limits of detection for analyses carried out on as received samples are not moisture content corrected. Results are not surrogate corrected. Samples are dried at 35°C ±5°C unless otherwise stated. Moisture content for CEN Leachate tests are dried at 105°C ±5°C. Ash samples are dried at 37°C ±5°C.

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

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

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

Sufficient amount of sample must be received to carry out the testing specified. Where an insufficient amount of sample has been received the testing may not meet the requirements of our accredited methods, as such accreditation may be removed.

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

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

WATERS

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

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

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

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

STACK EMISSIONS

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation for Dioxins and Furans and Dioxin like PCBs has been performed on XAD-2 Resin, only samples which use this resin will be within our MCERTS scope.

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

DEVIATING SAMPLES

All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. The temperature of sample receipt is recorded on the confirmation schedules in order that the client can make an informed decision as to whether testing should still be undertaken.

SURROGATES

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

DILUTIONS

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

BLANKS

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

NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a requirement of our Accreditation Body for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.

Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation.

Laboratory records are kept for a period of no less than 6 years.

REPORTS FROM THE SOUTH AFRICA LABORATORY

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

Measurement Uncertainty

Measurement uncertainty defines the range of values that could reasonably be attributed to the measured quantity. This range of values has not been included within the reported results. Uncertainty expressed as a percentage can be provided upon request.

Customer Provided Information

Sample ID and depth is information provided by the customer.

ABBREVIATIONS and ACRONYMS USED

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

HWOL ACRONYMS AND OPERATORS USED

HS	Headspace Analysis.
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent.
CU	Clean-up - e.g. by florisil, silica gel.
1D	GC - Single coil gas chromatography.
Total	Aliphatics & Aromatics.
AL	Aliphatics only.
AR	Aromatics only.
2D	GC-GC - Double coil gas chromatography.
#1	EH_Total but with humics mathematically subtracted
#2	EU_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +).
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total
MS	Mass Spectrometry.

EMT Job No: 23/9033

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465:1993(E) and BS1377-2:1990.	PM0	No preparation is required.			AR	
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.			AR	Yes
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.	Yes		AR	Yes
TM5/TM36	please refer to TM5 and TM36 for method details	PM8/PM12/PM16	please refer to PM8/PM16 and PM12 for method details			AR	Yes
TM21	Modified BS 7755-3:1995, ISO10694:1995 Determination of Total Organic Carbon or Total Carbon by combustion in an Eltra TOC furnace/analyser in the presence of oxygen. The CO2 generated is quantified using infra-red detection. Organic Matter (SOM) calculated as per EA MCERTS Chemical Testing of Soil, March 2012 v4.	PM24	Preparation of Soil and Marine Sediment Samples for Total Organic Carbon.	Yes		AD	Yes
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM21B	As Received samples are extracted in Methanol: Water (60:40) by reciprocal shaker.			AR	Yes
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	PM15	Acid digestion of dried and ground solid samples using Aqua Regia refluxed at 112.5 °C. Samples containing asbestos are not dried and ground.	Yes		AD	Yes
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes

EMT Job No: 23/9033

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GC/FID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All anions comparable to BS ISO 15923-1: 2013	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.			AD	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All anions comparable to BS ISO 15923-1: 2013	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes		AD	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All anions comparable to BS ISO 15923-1: 2013	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes		AR	Yes
TM42	Modified US EPA method 8270D v5:2014. Pesticides and herbicides by GC-MS	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM50	Acid soluble sulphate (Total Sulphate) analysed by ICP-OES	PM29	A hot hydrochloric acid digest is performed on a dried and ground sample, and the resulting liquor is analysed.	Yes		AD	Yes
TM65	Asbestos Bulk Identification method based on HSG 248 Second edition (2021)	PM42	Modified SCA Blue Book V.12 draft 2017 and WM3 1st Edition v1.1:2018. Solid samples undergo a thorough visual inspection for asbestos fibres prior to asbestos identification using TM065.	Yes		AR	
TM73	Modified US EPA methods 150.1 (1982) and 9045D Rev. 4 - 2004) and BS1377-3:1990. Determination of pH by Metrohm automated probe analyser.	PM11	Extraction of as received solid samples using one part solid to 2.5 parts deionised water.	Yes		AR	No
Subcontracted	See attached subcontractor report for accreditation status and provider.					AD	Yes

Tier Environmental
Suite 414, Chadwick House
Warrington Rd
Birchwood
Warrington
United Kingdom
WA3 6AE



4225



Attention : Adrian Read

Date : 27th June, 2023

Your reference : TE1749

Our reference : Test Report 23/9816 Batch 1

Location : Bryn Lane Outline

Date samples received : 16th June, 2023

Status : Final Report

Issue : 1

Four samples were received for analysis on 16th June, 2023 of which two were scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.

All analysis is carried out on as received samples and reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected.

Authorised By:



Liza Klebe

Project Co-ordinator

Please include all sections of this report if it is reproduced

Element Materials Technology

Client Name: Tier Environmental
Reference: TE1749
Location: Bryn Lane Outline
Contact: Adrian Read
EMT Job No: 23/9816

Report : Solid

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

EMT Sample No.	6-8	12-14											
Sample ID	WS10	WS12											
Depth	1.50	0.80											
COC No / misc													
Containers	V J	V J											
Sample Date	16/06/2023	16/06/2023											
Sample Type	Soil	Soil											
Batch Number	1	1											
Date of Receipt	16/06/2023	16/06/2023											
											Please see attached notes for all abbreviations and acronyms		
											LOD/LOR	Units	Method No.
Arsenic #	15.0	13.3									<0.5	mg/kg	TM30/PM15
Cadmium #	<0.1	<0.1									<0.1	mg/kg	TM30/PM15
Chromium #	51.5	59.1									<0.5	mg/kg	TM30/PM15
Copper #	29	31									<1	mg/kg	TM30/PM15
Lead #	14	16									<5	mg/kg	TM30/PM15
Mercury #	<0.1	<0.1									<0.1	mg/kg	TM30/PM15
Nickel #	50.1	58.5									<0.7	mg/kg	TM30/PM15
Selenium #	<1	<1									<1	mg/kg	TM30/PM15
Total Sulphate as SO4 #	456	538									<50	mg/kg	TM50/PM29
Zinc #	89	86									<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	<0.04	<0.04									<0.04	mg/kg	TM4/PM8
Acenaphthylene	<0.03	<0.03									<0.03	mg/kg	TM4/PM8
Acenaphthene #	<0.05	<0.05									<0.05	mg/kg	TM4/PM8
Fluorene #	<0.04	<0.04									<0.04	mg/kg	TM4/PM8
Phenanthrene #	<0.03	<0.03									<0.03	mg/kg	TM4/PM8
Anthracene #	<0.04	<0.04									<0.04	mg/kg	TM4/PM8
Fluoranthene #	<0.03	<0.03									<0.03	mg/kg	TM4/PM8
Pyrene #	<0.03	<0.03									<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	<0.06	<0.06									<0.06	mg/kg	TM4/PM8
Chrysene #	<0.02	<0.02									<0.02	mg/kg	TM4/PM8
Benzo(b)fluoranthene #	<0.07	<0.07									<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	<0.04	<0.04									<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	<0.04	<0.04									<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	<0.04	<0.04									<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	<0.04	<0.04									<0.04	mg/kg	TM4/PM8
PAH 16 Total	<0.6	<0.6									<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	<0.05	<0.05									<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	<0.02	<0.02									<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	76	83									<0	%	TM4/PM8
TPH CWG													
Aliphatics													
>C5-C6 (HS_1D_AL) #	<0.1	<0.1									<0.1	mg/kg	TM36/PM12
>C6-C8 (HS_1D_AL) #	<0.1	<0.1									<0.1	mg/kg	TM36/PM12
>C8-C10 (HS_1D_AL)	<0.1	<0.1									<0.1	mg/kg	TM36/PM12
>C10-C12 (EH_CU_1D_AL) #	<0.2	<0.2									<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 (EH_CU_1D_AL) #	<4	<4									<4	mg/kg	TM5/PM8/PM16
>C16-C21 (EH_CU_1D_AL) #	<7	<7									<7	mg/kg	TM5/PM8/PM16
>C21-C35 (EH_CU_1D_AL) #	<7	<7									<7	mg/kg	TM5/PM8/PM16
>C35-C40 (EH_CU_1D_AL)	<7	<7									<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-40 (EH+HS_CU_1D_AL)	<26	<26									<26	mg/kg	TM5/PM8/PM16/PM12/PM15

Element Materials Technology

Client Name: Tier Environmental
Reference: TE1749
Location: Bryn Lane Outline
Contact: Adrian Read
EMT Job No: 23/9816

Report : Solid

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

EMT Sample No.	6-8	12-14									Please see attached notes for all abbreviations and acronyms		
Sample ID	WS10	WS12											
Depth	1.50	0.80											
COC No / misc													
Containers	V J	V J											
Sample Date	16/06/2023	16/06/2023											
Sample Type	Soil	Soil											
Batch Number	1	1											
Date of Receipt	16/06/2023	16/06/2023									LOD/LOR	Units	Method No.
TPH CWG													
Aromatics													
>C5-EC7 (HS_1D_AR) #	<0.1	<0.1									<0.1	mg/kg	TM36/PM12
>EC7-EC8 (HS_1D_AR) #	<0.1	<0.1									<0.1	mg/kg	TM36/PM12
>EC8-EC10 (HS_1D_AR) #	<0.1	<0.1									<0.1	mg/kg	TM36/PM12
>EC10-EC12 (EH_CU_1D_AR) #	<0.2	<0.2									<0.2	mg/kg	TM5/PM8/PM12
>EC12-EC16 (EH_CU_1D_AR) #	<4	<4									<4	mg/kg	TM5/PM8/PM12
>EC16-EC21 (EH_CU_1D_AR) #	<7	<7									<7	mg/kg	TM5/PM8/PM12
>EC21-EC35 (EH_CU_1D_AR) #	<7	<7									<7	mg/kg	TM5/PM8/PM12
>EC35-EC40 (EH_CU_1D_AR)	<7	<7									<7	mg/kg	TM5/PM8/PM12
Total aromatics C5-40 (EH+HS_CU_1D_AR)	<26	<26									<26	mg/kg	TM5/PM8/PM12
Total aliphatics and aromatics(C5-40) (EH+HS_CU_1D_Total)	<52	<52									<52	mg/kg	TM5/PM8/PM12
Phenols													
MTBE #	<5	<5									<5	ug/kg	TM36/PM12
Benzene #	<5	<5									<5	ug/kg	TM36/PM12
Toluene #	<5	<5									<5	ug/kg	TM36/PM12
Ethylbenzene #	<5	<5									<5	ug/kg	TM36/PM12
m/p-Xylene #	<5	<5									<5	ug/kg	TM36/PM12
o-Xylene #	<5	<5									<5	ug/kg	TM36/PM12
Total Phenols HPLC	<0.15	<0.15									<0.15	mg/kg	TM26/PM21B
Natural Moisture Content	18.5	21.2									<0.1	%	PM4/PM0
Hexavalent Chromium #	<0.3	<0.3									<0.3	mg/kg	TM38/PM20
Sulphate as SO4 (2:1 Ext) #	0.0935	0.1584									<0.0015	g/l	TM38/PM20
Total Organic Carbon #	0.24	0.29									<0.02	%	TM21/PM24
pH #	8.78	8.17									<0.01	pH units	TM73/PM11

Client Name: Tier Environmental

Reference: TE1749

Location: Bryn Lane Outline

Contact: Adrian Read

[illegible]

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

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

EMT Job No.: 23/9816

SOILS and ASH

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

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

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

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary. Asbestos samples are retained for 6 months.

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

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

All analysis is reported on a dry weight basis unless stated otherwise. Limits of detection for analyses carried out on as received samples are not moisture content corrected. Results are not surrogate corrected. Samples are dried at 35°C ±5°C unless otherwise stated. Moisture content for CEN Leachate tests are dried at 105°C ±5°C. Ash samples are dried at 37°C ±5°C.

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

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

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

Sufficient amount of sample must be received to carry out the testing specified. Where an insufficient amount of sample has been received the testing may not meet the requirements of our accredited methods, as such accreditation may be removed.

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

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

WATERS

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

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

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

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

STACK EMISSIONS

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation for Dioxins and Furans and Dioxin like PCBs has been performed on XAD-2 Resin, only samples which use this resin will be within our MCERTS scope.

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

DEVIATING SAMPLES

All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. The temperature of sample receipt is recorded on the confirmation schedules in order that the client can make an informed decision as to whether testing should still be undertaken.

SURROGATES

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

DILUTIONS

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

BLANKS

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

NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a requirement of our Accreditation Body for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.

Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation.

Laboratory records are kept for a period of no less than 6 years.

REPORTS FROM THE SOUTH AFRICA LABORATORY

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

Measurement Uncertainty

Measurement uncertainty defines the range of values that could reasonably be attributed to the measured quantity. This range of values has not been included within the reported results. Uncertainty expressed as a percentage can be provided upon request.

Customer Provided Information

Sample ID and depth is information provided by the customer.

ABBREVIATIONS and ACRONYMS USED

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

HWOL ACRONYMS AND OPERATORS USED

HS	Headspace Analysis.
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent.
CU	Clean-up - e.g. by florisil, silica gel.
1D	GC - Single coil gas chromatography.
Total	Aliphatics & Aromatics.
AL	Aliphatics only.
AR	Aromatics only.
2D	GC-GC - Double coil gas chromatography.
#1	EH_Total but with humics mathematically subtracted
#2	EU_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +).
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total
MS	Mass Spectrometry.

EMT Job No: 23/9816

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465:1993(E) and BS1377-2:1990.	PM0	No preparation is required.			AR	
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.			AR	Yes
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.	Yes		AR	Yes
TM5/TM36	please refer to TM5 and TM36 for method details	PM8/PM12/PM16	please refer to PM8/PM16 and PM12 for method details			AR	Yes
TM21	Modified BS 7755-3:1995, ISO10694:1995 Determination of Total Organic Carbon or Total Carbon by combustion in an Eltra TOC furnace/analyser in the presence of oxygen. The CO2 generated is quantified using infra-red detection. Organic Matter (SOM) calculated as per EA MCERTS Chemical Testing of Soil, March 2012 v4.	PM24	Preparation of Soil and Marine Sediment Samples for Total Organic Carbon.	Yes		AD	Yes
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM21B	As Received samples are extracted in Methanol: Water (60:40) by reciprocal shaker.			AR	Yes
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	PM15	Acid digestion of dried and ground solid samples using Aqua Regia refluxed at 112.5 °C. Samples containing asbestos are not dried and ground.	Yes		AD	Yes
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes

EMT Job No: 23/9816

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GC/FID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All anions comparable to BS ISO 15923-1: 2013I	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes		AD	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All anions comparable to BS ISO 15923-1: 2013I	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes		AR	Yes
TM50	Acid soluble sulphate (Total Sulphate) analysed by ICP-OES	PM29	A hot hydrochloric acid digest is performed on a dried and ground sample, and the resulting liquor is analysed.	Yes		AD	Yes
TM73	Modified US EPA methods 150.1 (1982) and 9045D Rev. 4 - 2004) and BS1377-3:1990. Determination of pH by Metrohm automated probe analyser.	PM11	Extraction of as received solid samples using one part solid to 2.5 parts deionised water.	Yes		AR	No



The Testing Lab PLC
James Road, Adwick le Street
Doncaster, DN6 7HH
TEL: 08001 777 264

E-mail: info@thetestinglab.eu Web: www.thetestinglab.eu



7758

CERTIFICATE OF ANALYSIS OF ASBESTOS IN SOILS

JOB NO: 094034/1/1

CLIENT DETAILS:

Client: Element For the attention of:
Client Address: Unit 3 Deeside Point, Zone 3 Deeside Industrial Parrk, Deeside, CH5 2UA
Site Address: Element

SAMPLE DETAILS:

TTL Reference: 23-9033 Del 14-06-23 No. Samples Reported: 13
Date of Sample Receipt: 16 Jun 2023 Date of Analysis: 20 Jun 2023
Sample Taken By: Client

LABORATORY RESULTS:

Aslab ID	Client Sample Reference	Qualitative	Quantitative	Soil Matrix
94034/01	23-9033-4	NAD	-	Soil
94034/02	23-9033-44	NAD	-	Soil
94034/03	23-9033-68	NAD	-	Soil
94034/04	23-9033-96	NAD	-	Soil
94034/05	23-9033-116	NAD	-	Soil
94034/06	23-9033-132	NAD	-	Soil
94034/07	23-9033-144	NAD	-	Soil
94034/08	23-9033-152	NAD	-	Soil
94034/09	23-9033-156	NAD	-	Soil
94034/10	23-9033-160	NAD	-	Soil
94034/11	23-9033-168	NAD	-	Soil
94034/12	23-9033-180	NAD	-	Soil
94034/13	23-9033-204	NAD	-	Soil

CONTINUED...

Report Issue Date: 20 June 2023

Page 1 of 1

Key: NAD - No Asbestos Detected in this sample

Method: Samples of materials, referenced as shown above, have been analysed qualitatively and or quantitatively subject to Customer requirements to determine the presence of asbestos fibres. Fibres in the sample were identified using a stereo microscope, polarised light and dispersion staining in accordance with in-house Procedure MQP118 based on Appendix 2 of HSG 248 'Asbestos: The analyst's guide'.
Disclaimer: Opinions and interpretations, including the description of material type, are outside the scope of our UKAS accreditation. Results apply only to the sample(s) listed in the table above. No responsibility is accepted for errors which may have arisen during sampling or transportation and responsibility cannot be taken for the accuracy, representative nature and location of samples taken by external customers. This test report shall not be reproduced except in full without our prior written approval. Records shall be held securely and electronically for a minimum of 6 years and samples retained for a minimum of 6 months.

Analyst(s):	JAMES MULLEN	Analyst Signature(s):	
Analyst(s):	SUE SPENCE	Analyst Signature(s):	
Analyst(s):	ALISA EGLITE	Analyst Signature(s):	
Analyst(s):	CONNOR BAXTER	Analyst Signature(s):	

Approved by: (Approval should be from Laboratory Manager or other authorised personnel)

Name:	SUE SPENCE	Authorised Signature:	
Position:	LABORATORY ANALYST		



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)



XMYE9-XNLPN-J1933

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

Job name

EMT-23-9033-Batch-1-202306210645

Description/Comments

Project

TE1749

Site

Bryn Lane, Wrexham Outline Planning

Classified by

Name: **Adrian Read**
Date: **03 Jul 2023 06:44 GMT**
Telephone: **01925 818388**

Company: **Tier Environmental**
Suite 414
Chadwick House
Warrington
WA3 6AE

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:**CERTIFIED****Course**

Hazardous Waste Classification

Date

03 Dec 2020

Next 3 year Refresher due by Dec 2023

Purpose of classification

2 - Material Characterisation

Address of the waste

Bryn Lane Wrexham

Post Code **LL13 9XW**

SIC for the process giving rise to the waste

Description of industry/producer giving rise to the waste

Proposed redevelopment of land

Description of the specific process, sub-process and/or activity that created the waste

Waste created during excavation of soils during development

Description of the waste

Made ground and/or natural soils



Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	TP01-05/06/2023-0.40m		Non Hazardous		3
2	TP03-05/06/2023-0.25m		Non Hazardous		6
3	TP03-05/06/2023-1.40m		Non Hazardous		8

Related documents

#	Name	Description
1	EMT-23-9033-Batch-1-202306210645.HWOL	Element .hwol file used to populate the Job
2	Example waste stream template for contaminated soils	waste stream template used to create this Job

Report

Created by: Adrian Read

Created date: 03 Jul 2023 06:44 GMT

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

Classification of sample: TP01-05/06/2023-0.40m

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

Sample details

Sample name:	LoW Code:
TP01-05/06/2023-0.40m	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
24.7%	Entry:
(dry weight correction)	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 24.7% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
1	arsenic { arsenic trioxide }				11.6	mg/kg	1.32	12.282	mg/kg	0.00123 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
2	cadmium { cadmium oxide }				<0.1	mg/kg	1.142	<0.114	mg/kg	<0.0000114 %		<LOD
	048-002-00-0	215-146-2	1306-19-0									
3	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				51.9	mg/kg	2.27	94.477	mg/kg	0.00945 %	✓	
	024-017-00-8											
4	copper { dicopper oxide; copper (I) oxide }				19	mg/kg	1.126	17.155	mg/kg	0.00172 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
5	lead { lead chromate }			1	48	mg/kg	1.56	60.041	mg/kg	0.00385 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
6	mercury { mercury dichloride }				0.2	mg/kg	1.353	0.217	mg/kg	0.0000217 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
7	nickel { nickel chromate }				35.3	mg/kg	2.976	84.252	mg/kg	0.00843 %	✓	
	028-035-00-7	238-766-5	14721-18-7									
8	selenium { nickel selenate }				1	mg/kg	2.554	2.048	mg/kg	0.000205 %	✓	
	028-031-00-5	239-125-2	15060-62-5									
9	zinc { zinc chromate }				83	mg/kg	2.774	184.646	mg/kg	0.0185 %	✓	
	024-007-00-3	236-878-9	13530-65-9									
10	TPH (C6 to C40) petroleum group				<52	mg/kg		<52	mg/kg	<0.0052 %		<LOD
			TPH									
11	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4									
12	benzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2									
13	toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3									
14	ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4									
15	xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<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]									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	pH		PH		7.26 pH		7.26 pH	7.26 pH		
17	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
18	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
19	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
20	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
21	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
22	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
23	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
24	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
25	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
26	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
27	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
28	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
29	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
30	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
31	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
32	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
33	dichlorvos (ISO); 2,2-dichlorovinyl dimethyl phosphate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-019-00-X	200-547-7	62-73-7							
34	azinphos-ethyl (ISO); O,O-diethyl 4-oxobenzotriazin-3-ylmethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-056-00-1	220-147-6	2642-71-9							
35	azinphos-methyl (ISO); O,O-dimethyl-4-oxobenzotriazin-3-ylmethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-039-00-9	201-676-1	86-50-0							
36	carbophenothion (ISO); 4-chlorophenylthiomethyl O,O-diethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-044-00-6	212-324-1	786-19-6							
37	chlorfenvinphos (ISO); 2-chloro-1-(2,4 dichlorophenyl) vinyl diethyl phosphate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-071-00-3	207-432-0	470-90-6							
38	chlorpyrifos (ISO); O,O-diethyl O-3,5,6-trichloro-2-pyridyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-084-00-4	220-864-4	2921-88-2							
39	chlorpyrifos-methyl (ISO);, O, O-dimethyl O-3,5,6-trichloro-2-pyridyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-186-00-9	227-011-5	5598-13-0							
40	diazinon (ISO); O,O-diethyl O-2-isopropyl-6-methylpyrimidin-4-yl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-040-00-4	206-373-8	333-41-5							
41	dimethoate (ISO); O,O-dimethyl methylcarbamoylmethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-051-00-4	200-480-3	60-51-5							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
42	ethion (ISO); O,O,O',O'-tetraethyl S,S'-methylenedi (phosphorodithioate); diethion				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-047-00-2	209-242-3	563-12-2							
43	parathion (ISO); O,O-diethyl O-4-nitrophenyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-034-00-1	200-271-7	56-38-2							
44	etrimfos (ISO); O-6-ethoxy-2-ethylpyrimidin-4-yl O,O-dimethylphosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-122-00-X	253-855-9	38260-54-7							
45	fenitrothion (ISO); O,O-dimethyl O-4-nitro-m-tolyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-054-00-0	204-524-2	122-14-5							
46	fenthion (ISO); O,O-dimethyl-O-(4-methylthion-m-tolyl) phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-048-00-8	200-231-9	55-38-9							
47	malathion (ISO); 1,2-bis(ethoxycarbonyl)ethyl O,O-dimethyl phosphorodithioate; [containing £ 0.03 % isomalathion]				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-041-00-X	204-497-7	121-75-5							
48	parathion - methyl (ISO); O,O-dimethyl O-4-nitrophenyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-035-00-7	206-050-1	298-00-0							
49	mevinphos (ISO); 2-methoxycarbonyl-1-methylvinyl dimethyl phosphate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-020-00-5	232-095-1	7786-34-7							
50	phosalone (ISO); S-(6-chloro-2-oxobenzoxazolin-3-ylmethyl) O,O-diethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-067-00-1	218-996-2	2310-17-0							
51	pirimiphos-methyl (ISO); O-[2-(diethylamino)-6-methylpyrimidin-4-yl] O,O-dimethyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-134-00-5	249-528-5	29232-93-7							
52	trans-isopropyl-3-[[[(ethylamino)methoxyfosfinothioyl]oxy]crotonate; isopropyl 3-[[[(ethylamino)methoxyphosphinothioyl]oxy]isocrotonate; propetamphos (ISO)				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-136-00-6	250-517-2	31218-83-4							
53	triazophos (ISO); O,O-diethyl-O-1-phenyl-1H-1,2,4-triazol-3-yl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-140-00-8	245-986-5	24017-47-8							
54	disulfoton (ISO); O,O-diethyl 2-ethylthioethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-060-00-3	206-054-3	298-04-4							
Total:								0.0487 %		

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)
	Speciated Determinand - 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

Classification of sample: TP03-05/06/2023-0.25m



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

Sample details

Sample name:	LoW Code:
TP03-05/06/2023-0.25m	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
24.2% (dry weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 24.2% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
1	dichlorvos (ISO); 2,2-dichlorovinyl dimethyl phosphate				<0.01 mg/kg		<0.01 mg/kg		<0.000001 %		<LOD
	015-019-00-X	200-547-7	62-73-7								
2	azinphos-ethyl (ISO); O,O-diethyl 4-oxobenzotriazin-3-ylmethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg		<0.000001 %		<LOD
	015-056-00-1	220-147-6	2642-71-9								
3	azinphos-methyl (ISO); O,O-dimethyl-4-oxobenzotriazin-3-ylmethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg		<0.000001 %		<LOD
	015-039-00-9	201-676-1	86-50-0								
4	carbophenothion (ISO); 4-chlorophenylthiomethyl O,O-diethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg		<0.000001 %		<LOD
	015-044-00-6	212-324-1	786-19-6								
5	chlorfenvinphos (ISO); 2-chloro-1-(2,4 dichlorophenyl) vinyl diethyl phosphate				<0.01 mg/kg		<0.01 mg/kg		<0.000001 %		<LOD
	015-071-00-3	207-432-0	470-90-6								
6	chlorpyrifos (ISO); O,O-diethyl O-3,5,6-trichloro-2-pyridyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg		<0.000001 %		<LOD
	015-084-00-4	220-864-4	2921-88-2								
7	chlorpyrifos-methyl (ISO); O, O-dimethyl O-3,5,6-trichloro-2-pyridyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg		<0.000001 %		<LOD
	015-186-00-9	227-011-5	5598-13-0								
8	diazinon (ISO); O,O-diethyl O-2-isopropyl-6-methylpyrimidin-4-yl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg		<0.000001 %		<LOD
	015-040-00-4	206-373-8	333-41-5								
9	dimethoate (ISO); O,O-dimethyl methylcarbamoylmethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg		<0.000001 %		<LOD
	015-051-00-4	200-480-3	60-51-5								
10	ethion (ISO); O,O,O',O'-tetraethyl S,S'-methylenedi (phosphorodithioate); diethion				<0.01 mg/kg		<0.01 mg/kg		<0.000001 %		<LOD
	015-047-00-2	209-242-3	563-12-2								
11	parathion (ISO); O,O-diethyl O-4-nitrophenyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg		<0.000001 %		<LOD
	015-034-00-1	200-271-7	56-38-2								
12	etrimfos (ISO); O-6-ethoxy-2-ethylpyrimidin-4-yl O,O-dimethylphosphorothioate				<0.01 mg/kg		<0.01 mg/kg		<0.000001 %		<LOD
	015-122-00-X	253-855-9	38260-54-7								



#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
13	fenitrothion (ISO); O,O-dimethyl O-4-nitro-m-tolyl phosphorothioate					<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
	015-054-00-0	204-524-2	122-14-5										
14	fenthion (ISO); O,O-dimethyl-O-(4-methylthion-m-tolyl) phosphorothioate					<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
	015-048-00-8	200-231-9	55-38-9										
15	malathion (ISO); 1,2-bis(ethoxycarbonyl)ethyl O,O-dimethyl phosphorodithioate; [containing £ 0.03 % isomalathion]					<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
	015-041-00-X	204-497-7	121-75-5										
16	parathion - methyl (ISO); O,O-dimethyl O-4-nitrophenyl phosphorothioate					<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
	015-035-00-7	206-050-1	298-00-0										
17	mevinphos (ISO); 2-methoxycarbonyl-1-methylvinyl dimethyl phosphate					<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
	015-020-00-5	232-095-1	7786-34-7										
18	phosalone (ISO); S-(6-chloro-2-oxobenzoxazolin-3-ylmethyl) O,O-diethyl phosphorodithioate					<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
	015-067-00-1	218-996-2	2310-17-0										
19	pirimiphos-methyl (ISO); O-[2-(diethylamino)-6-methylpyrimidin-4-yl] O,O-dimethyl phosphorothioate					<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
	015-134-00-5	249-528-5	29232-93-7										
20	trans-isopropyl-3-[[[(ethylamino)methoxyfosfinothioyl]oxy]crotonate; isopropyl 3-[[[(ethylamino)methoxyphosphinothioyl]oxy]isocrotonate; propetamphos (ISO)					<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
	015-136-00-6	250-517-2	31218-83-4										
21	triazophos (ISO); O,O-diethyl-O-1-phenyl-1H-1,2,4-triazol-3-yl phosphorothioate					<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
	015-140-00-8	245-986-5	24017-47-8										
22	disulfoton (ISO); O,O-diethyl 2-ethylthioethyl phosphorodithioate					<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
	015-060-00-3	206-054-3	298-04-4										
Total:												0.00002 %	

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
<LOD	Below limit of detection

Classification of sample: TP03-05/06/2023-1.40m

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

Sample details

Sample name:	LoW Code:
TP03-05/06/2023-1.40m	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
18.2% (dry weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 18.2% Dry Weight Moisture Correction applied (MC)

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
1		arsenic { arsenic trioxide }				10.1 mg/kg	1.32	11.282 mg/kg	0.00113 %	✓	
		033-003-00-0	215-481-4	1327-53-3							
2		cadmium { cadmium oxide }									
		048-002-00-0	215-146-2	1306-19-0							
3		chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				52.1 mg/kg	2.27	100.057 mg/kg	0.01 %	✓	
		024-017-00-8									
4		copper { dicopper oxide; copper (I) oxide }									
		029-002-00-X	215-270-7	1317-39-1							
5		lead { lead chromate }				0.1 mg/kg	1.353	0.115 mg/kg	0.0000115 %	✓	
		082-004-00-2	231-846-0	7758-97-6							
6		mercury { mercury dichloride }									
		080-010-00-X	231-299-8	7487-94-7							
7		nickel { nickel chromate }				2	2.554	4.321 mg/kg	0.000432 %	✓	
		028-035-00-7	238-766-5	14721-18-7							
8		selenium { nickel selenate }									
		028-031-00-5	239-125-2	15060-62-5							
9		zinc { zinc chromate }				8.51 pH		8.51 pH	8.51 pH		
		024-007-00-3	236-878-9	13530-65-9							
10		pH		PH							
11		naphthalene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3							
12		acenaphthylene									
			205-917-1	208-96-8							
13		acenaphthene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
			201-469-6	83-32-9							
14		fluorene									
			201-695-5	86-73-7							
15		phenanthrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
			201-581-5	85-01-8							
16		anthracene									
			204-371-1	120-12-7							
17		fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
			205-912-4	206-44-0							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
18	pyrene	204-927-3	129-00-0		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
19	benzo[a]anthracene	601-033-00-9	200-280-6		<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
20	chrysene	601-048-00-0	205-923-4		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
21	benzo[b]fluoranthene	601-034-00-4	205-911-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
22	benzo[k]fluoranthene	601-036-00-5	205-916-6		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
23	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
24	indeno[123-cd]pyrene	205-893-2	193-39-5		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
25	dibenz[a,h]anthracene	601-041-00-2	200-181-8		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
26	benzo[ghi]perylene	205-883-8	191-24-2		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
Total:								0.0444 %		

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)
	Speciated Determinand - 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

Appendix A: Classifier defined and non GB MCL determinands

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

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

GB MCL index number: 601-023-00-4

Description/Comments:

Additional Hazard Statement(s): Carc. 2; H351

Reason for additional Hazards Statement(s):

20 Nov 2021 - Carc. 2; H351 hazard statement sourced from: IARC Group 2B (77) 2000

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

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. Industrial sources include: smelting; main precursor to other arsenic compounds (edit as required)

cadmium {cadmium oxide}

Reasonable case CLP species based on hazard statements/molecular weight, very low solubility in water. Industrial sources include: electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments and nematocides. (edit as required) 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 (edit as required)

chromium in chromium(VI) compounds {chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex}

Worst case species based on hazard statements/molecular weight (edit as required)

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. (edit as required) Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected. (edit as required)

lead {lead chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

mercury {mercury dichloride}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

nickel {nickel chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

selenium {nickel selenate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

zinc {zinc chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.2.GB - Oct 2021

HazWasteOnline Classification Engine Version: 2023.178.5649.10417 (27 Jun 2023)

HazWasteOnline Database: 2023.178.5649.10417 (27 Jun 2023)



This classification utilises the following guidance and legislation:

WM3 v1.2.GB - Waste Classification - 1st Edition v1.2.GB - Oct 2021

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 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

GB MCL List - version 1.1 of 09 June 2021



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)



0737Z-ASC8U-AU4TC

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

Job name

EMT-23-9033-Batch-2-202306210644

Description/Comments

Project

TE1749

Site

Bryn Lane, Wrexham Outline Planning

Classified by

Name: **Adrian Read**
Date: **03 Jul 2023 06:46 GMT**
Telephone: **01925 818388**

Company: **Tier Environmental**
Suite 414
Chadwick House
Warrington
WA3 6AE

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:**CERTIFIED****Course**

Hazardous Waste Classification

Date

03 Dec 2020

Next 3 year Refresher due by Dec 2023

Purpose of classification

2 - Material Characterisation

Address of the waste

Bryn Lane Wrexham

Post Code **LL13 9XW**

SIC for the process giving rise to the waste

Description of industry/producer giving rise to the waste

Proposed redevelopment of land

Description of the specific process, sub-process and/or activity that created the waste

Waste created during excavation of soils during development

Description of the waste

Made ground and/or natural soils



Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	TP04-06/06/2023-0.20m		Non Hazardous		3
2	TP06-07/06/2023-0.20m		Non Hazardous		4
3	TP08-07/06/2023-0.20m		Non Hazardous		7
4	TP10-07/06/2023-0.25m		Non Hazardous		10
5	TP12-07/06/2023-0.25m		Non Hazardous		13

Related documents

#	Name	Description
1	EMT-23-9033-Batch-2-202306210644.HWOL	Element .hwol file used to populate the Job
2	Example waste stream template for contaminated soils	waste stream template used to create this Job

Report

Created by: Adrian Read

Created date: 03 Jul 2023 06:46 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	16
Appendix B: Rationale for selection of metal species	17
Appendix C: Version	17

Classification of sample: TP04-06/06/2023-0.20m

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

Sample details

Sample name:	LoW Code:
TP04-06/06/2023-0.20m	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
22.6% (dry weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 22.6% Dry Weight Moisture Correction applied (MC)

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
1	●	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
				TPH							
2		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		603-181-00-X	216-653-1	1634-04-4							
3		benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		601-020-00-8	200-753-7	71-43-2							
4		toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		601-021-00-3	203-625-9	108-88-3							
5	●	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		601-023-00-4	202-849-4	100-41-4							
6		xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1]	95-47-6 [1]							
			203-396-5 [2]	106-42-3 [2]							
			203-576-3 [3]	108-38-3 [3]							
			215-535-7 [4]	1330-20-7 [4]							
Total:									0.0052 %		

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)
<LOD	Below limit of detection

Classification of sample: TP06-07/06/2023-0.20m

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

Sample details

Sample name:	LoW Code:
TP06-07/06/2023-0.20m	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
16.4% (dry weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 16.4% Dry Weight Moisture Correction applied (MC)

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number								
1		arsenic { arsenic trioxide }				10.7 mg/kg	1.32	12.137 mg/kg	0.00121 %	✓		
		033-003-00-0	215-481-4	1327-53-3								
2		cadmium { cadmium oxide }				<0.1 mg/kg	1.142	<0.114 mg/kg	<0.0000114 %		<LOD	
		048-002-00-0	215-146-2	1306-19-0								
3		chromium in chromium(VI) compounds { chromium (VI) compounds , with the exception of barium chromate and of compounds specified elsewhere in this Annex }				55.8 mg/kg	2.27	108.82 mg/kg	0.0109 %	✓		
		024-017-00-8										
4		copper { dicopper oxide ; copper (I) oxide }				22 mg/kg	1.126	21.28 mg/kg	0.00213 %	✓		
		029-002-00-X	215-270-7	1317-39-1								
5		lead { lead chromate }			1	57 mg/kg	1.56	76.383 mg/kg	0.0049 %	✓		
		082-004-00-2	231-846-0	7758-97-6								
6		mercury { mercury dichloride }				0.2 mg/kg	1.353	0.233 mg/kg	0.0000233 %	✓		
		080-010-00-X	231-299-8	7487-94-7								
7		nickel { nickel chromate }				30.5 mg/kg	2.976	77.986 mg/kg	0.0078 %	✓		
		028-035-00-7	238-766-5	14721-18-7								
8		selenium { nickel selenate }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD	
		028-031-00-5	239-125-2	15060-62-5								
9		zinc { zinc chromate }				113 mg/kg	2.774	269.311 mg/kg	0.0269 %	✓		
		024-007-00-3	236-878-9	13530-65-9								
10		TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD	
				TPH								
11		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD	
		603-181-00-X	216-653-1	1634-04-4								
12		benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD	
		601-020-00-8	200-753-7	71-43-2								
13		toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD	
		601-021-00-3	203-625-9	108-88-3								
14		ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD	
		601-023-00-4	202-849-4	100-41-4								
15		xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<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]								



#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
16	pH		PH		7.52	pH		7.52	pH	7.52 pH		
17	naphthalene	601-052-00-2	202-049-5	91-20-3	<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
18	acenaphthylene		205-917-1	208-96-8	<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
19	acenaphthene		201-469-6	83-32-9	<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
20	fluorene		201-695-5	86-73-7	<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
21	phenanthrene		201-581-5	85-01-8	<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
22	anthracene		204-371-1	120-12-7	<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
23	fluoranthene		205-912-4	206-44-0	0.06	mg/kg		0.0515	mg/kg	0.00000515 %	✓	
24	pyrene		204-927-3	129-00-0	0.05	mg/kg		0.043	mg/kg	0.0000043 %	✓	
25	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
26	chrysene	601-048-00-0	205-923-4	218-01-9	<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
27	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
28	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
29	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
30	indeno[123-cd]pyrene		205-893-2	193-39-5	<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
31	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
32	benzo[ghi]perylene		205-883-8	191-24-2	<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
33	dichlorvos (ISO); 2,2-dichlorovinyl dimethyl phosphate	015-019-00-X	200-547-7	62-73-7	<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
34	azinphos-ethyl (ISO); O,O-diethyl 4-oxobenzotriazin-3-ylmethyl phosphorodithioate	015-056-00-1	220-147-6	2642-71-9	<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
35	azinphos-methyl (ISO); O,O-dimethyl-4-oxobenzotriazin-3-ylmethyl phosphorodithioate	015-039-00-9	201-676-1	86-50-0	<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
36	carbophenothion (ISO); 4-chlorophenylthiomethyl O,O-diethyl phosphorodithioate	015-044-00-6	212-324-1	786-19-6	<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
37	chlorfenvinphos (ISO); 2-chloro-1-(2,4 dichlorophenyl) vinyl diethyl phosphate	015-071-00-3	207-432-0	470-90-6	<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
38	chlorpyrifos (ISO); O,O-diethyl O-3,5,6-trichloro-2-pyridyl phosphorothioate	015-084-00-4	220-864-4	2921-88-2	<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
39	chlorpyrifos-methyl (ISO); O, O-dimethyl O-3,5,6-trichloro-2-pyridyl phosphorothioate	015-186-00-9	227-011-5	5598-13-0	<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
40	diazinon (ISO); O,O-diethyl O-2-isopropyl-6-methylpyrimidin-4-yl phosphorothioate	015-040-00-4	206-373-8	333-41-5	<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
41	dimethoate (ISO); O,O-dimethyl methylcarbamoylmethyl phosphorodithioate	015-051-00-4	200-480-3	60-51-5	<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
42	ethion (ISO); O,O,O',O'-tetraethyl S,S'-methylenedi (phosphorodithioate); diethion				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-047-00-2	209-242-3	563-12-2							
43	parathion (ISO); O,O-diethyl O-4-nitrophenyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-034-00-1	200-271-7	56-38-2							
44	etrimfos (ISO); O-6-ethoxy-2-ethylpyrimidin-4-yl O,O-dimethylphosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-122-00-X	253-855-9	38260-54-7							
45	fenitrothion (ISO); O,O-dimethyl O-4-nitro-m-tolyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-054-00-0	204-524-2	122-14-5							
46	fenthion (ISO); O,O-dimethyl-O-(4-methylthion-m-tolyl) phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-048-00-8	200-231-9	55-38-9							
47	malathion (ISO); 1,2-bis(ethoxycarbonyl)ethyl O,O-dimethyl phosphorodithioate; [containing £ 0.03 % isomalathion]				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-041-00-X	204-497-7	121-75-5							
48	parathion - methyl (ISO); O,O-dimethyl O-4-nitrophenyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-035-00-7	206-050-1	298-00-0							
49	mevinphos (ISO); 2-methoxycarbonyl-1-methylvinyl dimethyl phosphate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-020-00-5	232-095-1	7786-34-7							
50	phosalone (ISO); S-(6-chloro-2-oxobenzoxazolin-3-ylmethyl) O,O-diethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-067-00-1	218-996-2	2310-17-0							
51	pirimiphos-methyl (ISO); O-[2-(diethylamino)-6-methylpyrimidin-4-yl] O,O-dimethyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-134-00-5	249-528-5	29232-93-7							
52	trans-isopropyl-3-[[[(ethylamino)methoxyfosfinothioyl]oxy]crotonate; isopropyl 3-[[[(ethylamino)methoxyphosphinothioyl]oxy]isocrotonate; propetamphos (ISO)				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-136-00-6	250-517-2	31218-83-4							
53	triazophos (ISO); O,O-diethyl-O-1-phenyl-1H-1,2,4-triazol-3-yl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-140-00-8	245-986-5	24017-47-8							
54	disulfoton (ISO); O,O-diethyl 2-ethylthioethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-060-00-3	206-054-3	298-04-4							
Total:								0.0594 %		

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)
	Speciated Determinand - 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

Classification of sample: TP08-07/06/2023-0.20m

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

Sample details

Sample name:	LoW Code:
TP08-07/06/2023-0.20m	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
13.8%	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
(dry weight correction)	Entry:

Hazard properties

None identified

Determinands

Moisture content: 13.8% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
1	arsenic { arsenic trioxide }				10.3	mg/kg	1.32	11.95	mg/kg	0.0012 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
2	cadmium { cadmium oxide }				<0.1	mg/kg	1.142	<0.114	mg/kg	<0.0000114 %		<LOD
	048-002-00-0	215-146-2	1306-19-0									
3	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				50.9	mg/kg	2.27	101.532	mg/kg	0.0102 %	✓	
	024-017-00-8											
4	copper { dicopper oxide; copper (I) oxide }				9	mg/kg	1.126	8.904	mg/kg	0.00089 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
5	lead { lead chromate }			1	56	mg/kg	1.56	76.757	mg/kg	0.00492 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
6	mercury { mercury dichloride }				0.2	mg/kg	1.353	0.238	mg/kg	0.0000238 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
7	nickel { nickel chromate }				28	mg/kg	2.976	73.23	mg/kg	0.00732 %	✓	
	028-035-00-7	238-766-5	14721-18-7									
8	selenium { nickel selenate }				2	mg/kg	2.554	4.488	mg/kg	0.000449 %	✓	
	028-031-00-5	239-125-2	15060-62-5									
9	zinc { zinc chromate }				89	mg/kg	2.774	216.959	mg/kg	0.0217 %	✓	
	024-007-00-3	236-878-9	13530-65-9									
10	TPH (C6 to C40) petroleum group				<52	mg/kg		<52	mg/kg	<0.0052 %		<LOD
			TPH									
11	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4									
12	benzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2									
13	toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3									
14	ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4									
15	xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<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]									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	pH		PH		7.73 pH		7.73 pH	7.73 pH		
17	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
18	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
19	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
20	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
21	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
22	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
23	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
24	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
25	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
26	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
27	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
28	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
29	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
30	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
31	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
32	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
33	dichlorvos (ISO); 2,2-dichlorovinyl dimethyl phosphate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-019-00-X	200-547-7	62-73-7							
34	azinphos-ethyl (ISO); O,O-diethyl 4-oxobenzotriazin-3-ylmethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-056-00-1	220-147-6	2642-71-9							
35	azinphos-methyl (ISO); O,O-dimethyl-4-oxobenzotriazin-3-ylmethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-039-00-9	201-676-1	86-50-0							
36	carbophenothion (ISO); 4-chlorophenylthiomethyl O,O-diethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-044-00-6	212-324-1	786-19-6							
37	chlorfenvinphos (ISO); 2-chloro-1-(2,4 dichlorophenyl) vinyl diethyl phosphate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-071-00-3	207-432-0	470-90-6							
38	chlorpyrifos (ISO); O,O-diethyl O-3,5,6-trichloro-2-pyridyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-084-00-4	220-864-4	2921-88-2							
39	chlorpyrifos-methyl (ISO);, O, O-dimethyl O-3,5,6-trichloro-2-pyridyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-186-00-9	227-011-5	5598-13-0							
40	diazinon (ISO); O,O-diethyl O-2-isopropyl-6-methylpyrimidin-4-yl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-040-00-4	206-373-8	333-41-5							
41	dimethoate (ISO); O,O-dimethyl methylcarbamoylmethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-051-00-4	200-480-3	60-51-5							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
42	ethion (ISO); O,O,O',O'-tetraethyl S,S'-methylenedi (phosphorodithioate); diethion				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-047-00-2	209-242-3	563-12-2							
43	parathion (ISO); O,O-diethyl O-4-nitrophenyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-034-00-1	200-271-7	56-38-2							
44	etrimfos (ISO); O-6-ethoxy-2-ethylpyrimidin-4-yl O,O-dimethylphosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-122-00-X	253-855-9	38260-54-7							
45	fenitrothion (ISO); O,O-dimethyl O-4-nitro-m-tolyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-054-00-0	204-524-2	122-14-5							
46	fenthion (ISO); O,O-dimethyl-O-(4-methylthion-m-tolyl) phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-048-00-8	200-231-9	55-38-9							
47	malathion (ISO); 1,2-bis(ethoxycarbonyl)ethyl O,O-dimethyl phosphorodithioate; [containing £ 0.03 % isomalathion]				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-041-00-X	204-497-7	121-75-5							
48	parathion - methyl (ISO); O,O-dimethyl O-4-nitrophenyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-035-00-7	206-050-1	298-00-0							
49	mevinphos (ISO); 2-methoxycarbonyl-1-methylvinyl dimethyl phosphate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-020-00-5	232-095-1	7786-34-7							
50	phosalone (ISO); S-(6-chloro-2-oxobenzoxazolin-3-ylmethyl) O,O-diethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-067-00-1	218-996-2	2310-17-0							
51	pirimiphos-methyl (ISO); O-[2-(diethylamino)-6-methylpyrimidin-4-yl] O,O-dimethyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-134-00-5	249-528-5	29232-93-7							
52	trans-isopropyl-3-[[[(ethylamino)methoxyfosfinothioyl]oxy]crotonate; isopropyl 3-[[[(ethylamino)methoxyphosphinothioyl]oxy]isocrotonate; propetamphos (ISO)				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-136-00-6	250-517-2	31218-83-4							
53	triazophos (ISO); O,O-diethyl-O-1-phenyl-1H-1,2,4-triazol-3-yl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-140-00-8	245-986-5	24017-47-8							
54	disulfoton (ISO); O,O-diethyl 2-ethylthioethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-060-00-3	206-054-3	298-04-4							
Total:								0.0519 %		

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)
	Speciated Determinand - 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

Classification of sample: TP10-07/06/2023-0.25m

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

Sample details

Sample name:	LoW Code:
TP10-07/06/2023-0.25m	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
14.9%	Entry:
(dry weight correction)	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 14.9% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
1	arsenic { arsenic trioxide }				10.6	mg/kg	1.32	12.181	mg/kg	0.00122 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
2	cadmium { cadmium oxide }				<0.1	mg/kg	1.142	<0.114	mg/kg	<0.0000114 %		<LOD
	048-002-00-0	215-146-2	1306-19-0									
3	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				53.5	mg/kg	2.27	105.696	mg/kg	0.0106 %	✓	
	024-017-00-8											
4	copper { dicopper oxide; copper (I) oxide }				22	mg/kg	1.126	21.557	mg/kg	0.00216 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
5	lead { lead chromate }			1	55	mg/kg	1.56	74.665	mg/kg	0.00479 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
6	mercury { mercury dichloride }				0.2	mg/kg	1.353	0.236	mg/kg	0.0000236 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
7	nickel { nickel chromate }				28.9	mg/kg	2.976	74.86	mg/kg	0.00749 %	✓	
	028-035-00-7	238-766-5	14721-18-7									
8	selenium { nickel selenate }				1	mg/kg	2.554	2.223	mg/kg	0.000222 %	✓	
	028-031-00-5	239-125-2	15060-62-5									
9	zinc { zinc chromate }				108	mg/kg	2.774	260.755	mg/kg	0.0261 %	✓	
	024-007-00-3	236-878-9	13530-65-9									
10	TPH (C6 to C40) petroleum group				<52	mg/kg		<52	mg/kg	<0.0052 %		<LOD
			TPH									
11	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4									
12	benzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2									
13	toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3									
14	ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4									
15	xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<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]									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	pH		PH		7.11 pH		7.11 pH	7.11 pH		
17	naphthalene	601-052-00-2	202-049-5	91-20-3	<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
18	acenaphthylene		205-917-1	208-96-8	<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
19	acenaphthene		201-469-6	83-32-9	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
20	fluorene		201-695-5	86-73-7	<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
21	phenanthrene		201-581-5	85-01-8	<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
22	anthracene		204-371-1	120-12-7	<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
23	fluoranthene		205-912-4	206-44-0	0.06 mg/kg		0.0522 mg/kg	0.00000522 %	✓	
24	pyrene		204-927-3	129-00-0	0.05 mg/kg		0.0435 mg/kg	0.00000435 %	✓	
25	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
26	chrysene	601-048-00-0	205-923-4	218-01-9	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
27	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
28	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
29	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
30	indeno[123-cd]pyrene		205-893-2	193-39-5	<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
31	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
32	benzo[ghi]perylene		205-883-8	191-24-2	<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
33	dichlorvos (ISO); 2,2-dichlorovinyl dimethyl phosphate	015-019-00-X	200-547-7	62-73-7	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
34	azinphos-ethyl (ISO); O,O-diethyl 4-oxobenzotriazin-3-ylmethyl phosphorodithioate	015-056-00-1	220-147-6	2642-71-9	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
35	azinphos-methyl (ISO); O,O-dimethyl-4-oxobenzotriazin-3-ylmethyl phosphorodithioate	015-039-00-9	201-676-1	86-50-0	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
36	carbophenothion (ISO); 4-chlorophenylthiomethyl O,O-diethyl phosphorodithioate	015-044-00-6	212-324-1	786-19-6	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
37	chlorfenvinphos (ISO); 2-chloro-1-(2,4 dichlorophenyl) vinyl diethyl phosphate	015-071-00-3	207-432-0	470-90-6	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
38	chlorpyrifos (ISO); O,O-diethyl O-3,5,6-trichloro-2-pyridyl phosphorothioate	015-084-00-4	220-864-4	2921-88-2	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
39	chlorpyrifos-methyl (ISO); O, O-dimethyl O-3,5,6-trichloro-2-pyridyl phosphorothioate	015-186-00-9	227-011-5	5598-13-0	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
40	diazinon (ISO); O,O-diethyl O-2-isopropyl-6-methylpyrimidin-4-yl phosphorothioate	015-040-00-4	206-373-8	333-41-5	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
41	dimethoate (ISO); O,O-dimethyl methylcarbamoylmethyl phosphorodithioate	015-051-00-4	200-480-3	60-51-5	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
42	ethion (ISO); O,O,O',O'-tetraethyl S,S'-methylenedi (phosphorodithioate); diethion 015-047-00-2	209-242-3	563-12-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
43	parathion (ISO); O,O-diethyl O-4-nitrophenyl phosphorothioate 015-034-00-1	200-271-7	56-38-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
44	etrimfos (ISO); O-6-ethoxy-2-ethylpyrimidin-4-yl O,O-dimethylphosphorothioate 015-122-00-X	253-855-9	38260-54-7		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
45	fenitrothion (ISO); O,O-dimethyl O-4-nitro-m-tolyl phosphorothioate 015-054-00-0	204-524-2	122-14-5		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
46	fenthion (ISO); O,O-dimethyl-O-(4-methylthion-m-tolyl) phosphorothioate 015-048-00-8	200-231-9	55-38-9		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
47	malathion (ISO); 1,2-bis(ethoxycarbonyl)ethyl O,O-dimethyl phosphorodithioate; [containing £ 0.03 % isomalathion] 015-041-00-X	204-497-7	121-75-5		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
48	parathion - methyl (ISO); O,O-dimethyl O-4-nitrophenyl phosphorothioate 015-035-00-7	206-050-1	298-00-0		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
49	mevinphos (ISO); 2-methoxycarbonyl-1-methylvinyl dimethyl phosphate 015-020-00-5	232-095-1	7786-34-7		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
50	phosalone (ISO); S-(6-chloro-2-oxobenzoxazolin-3-ylmethyl) O,O-diethyl phosphorodithioate 015-067-00-1	218-996-2	2310-17-0		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
51	pirimiphos-methyl (ISO); O-[2-(diethylamino)-6-methylpyrimidin-4-yl] O,O-dimethyl phosphorothioate 015-134-00-5	249-528-5	29232-93-7		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
52	trans-isopropyl-3-[[[(ethylamino)methoxyfosfinothioyl]oxy]crotonate; isopropyl 3-[[[(ethylamino)methoxyphosphinothioyl]oxy]isocrotonate; propetamphos (ISO) 015-136-00-6	250-517-2	31218-83-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
53	triazophos (ISO); O,O-diethyl-O-1-phenyl-1H-1,2,4-triazol-3-yl phosphorothioate 015-140-00-8	245-986-5	24017-47-8		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
54	disulfoton (ISO); O,O-diethyl 2-ethylthioethyl phosphorodithioate 015-060-00-3	206-054-3	298-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
Total:								0.0578 %		

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)
	Speciated Determinand - 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

Classification of sample: TP12-07/06/2023-0.25m

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

Sample details

Sample name:	LoW Code:
TP12-07/06/2023-0.25m	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
18.6% (dry weight correction)	Entry:
	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 18.6% Dry Weight Moisture Correction applied (MC)

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number								
1		arsenic { arsenic trioxide }				9.8 mg/kg	1.32	10.91 mg/kg	0.00109 %	✓		
		033-003-00-0	215-481-4	1327-53-3								
2		cadmium { cadmium oxide }				<0.1 mg/kg	1.142	<0.114 mg/kg	<0.0000114 %		<LOD	
		048-002-00-0	215-146-2	1306-19-0								
3		chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				51.6 mg/kg	2.27	98.762 mg/kg	0.00988 %	✓		
		024-017-00-8										
4		copper { dicopper oxide; copper (I) oxide }				23 mg/kg	1.126	21.834 mg/kg	0.00218 %	✓		
		029-002-00-X	215-270-7	1317-39-1								
5		lead { lead chromate }			1	13 mg/kg	1.56	17.097 mg/kg	0.0011 %	✓		
		082-004-00-2	231-846-0	7758-97-6								
6		mercury { mercury dichloride }				0.2 mg/kg	1.353	0.228 mg/kg	0.0000228 %	✓		
		080-010-00-X	231-299-8	7487-94-7								
7		nickel { nickel chromate }				44.5 mg/kg	2.976	111.673 mg/kg	0.0112 %	✓		
		028-035-00-7	238-766-5	14721-18-7								
8		selenium { nickel selenate }				2 mg/kg	2.554	4.307 mg/kg	0.000431 %	✓		
		028-031-00-5	239-125-2	15060-62-5								
9		zinc { zinc chromate }				75 mg/kg	2.774	175.431 mg/kg	0.0175 %	✓		
		024-007-00-3	236-878-9	13530-65-9								
10		TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD	
				TPH								
11		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD	
		603-181-00-X	216-653-1	1634-04-4								
12		benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD	
		601-020-00-8	200-753-7	71-43-2								
13		toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD	
		601-021-00-3	203-625-9	108-88-3								
14		ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD	
		601-023-00-4	202-849-4	100-41-4								
15		xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<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]								



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	pH		PH		7.69 pH		7.69 pH	7.69 pH		
17	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
18	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
19	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
20	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
21	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
22	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
23	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
24	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
25	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
26	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
27	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
28	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
29	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
30	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
31	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
32	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
33	dichlorvos (ISO); 2,2-dichlorovinyl dimethyl phosphate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-019-00-X	200-547-7	62-73-7							
34	azinphos-ethyl (ISO); O,O-diethyl 4-oxobenzotriazin-3-ylmethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-056-00-1	220-147-6	2642-71-9							
35	azinphos-methyl (ISO); O,O-dimethyl-4-oxobenzotriazin-3-ylmethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-039-00-9	201-676-1	86-50-0							
36	carbophenothion (ISO); 4-chlorophenylthiomethyl O,O-diethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-044-00-6	212-324-1	786-19-6							
37	chlorfenvinphos (ISO); 2-chloro-1-(2,4 dichlorophenyl) vinyl diethyl phosphate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-071-00-3	207-432-0	470-90-6							
38	chlorpyrifos (ISO); O,O-diethyl O-3,5,6-trichloro-2-pyridyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-084-00-4	220-864-4	2921-88-2							
39	chlorpyrifos-methyl (ISO);, O, O-dimethyl O-3,5,6-trichloro-2-pyridyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-186-00-9	227-011-5	5598-13-0							
40	diazinon (ISO); O,O-diethyl O-2-isopropyl-6-methylpyrimidin-4-yl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-040-00-4	206-373-8	333-41-5							
41	dimethoate (ISO); O,O-dimethyl methylcarbamoylmethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-051-00-4	200-480-3	60-51-5							

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
42	ethion (ISO); O,O,O',O'-tetraethyl S,S'-methylenedi (phosphorodithioate); diethion				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-047-00-2	209-242-3	563-12-2							
43	parathion (ISO); O,O-diethyl O-4-nitrophenyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-034-00-1	200-271-7	56-38-2							
44	etrimfos (ISO); O-6-ethoxy-2-ethylpyrimidin-4-yl O,O-dimethylphosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-122-00-X	253-855-9	38260-54-7							
45	fenitrothion (ISO); O,O-dimethyl O-4-nitro-m-tolyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-054-00-0	204-524-2	122-14-5							
46	fenthion (ISO); O,O-dimethyl-O-(4-methylthion-m-tolyl) phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-048-00-8	200-231-9	55-38-9							
47	malathion (ISO); 1,2-bis(ethoxycarbonyl)ethyl O,O-dimethyl phosphorodithioate; [containing £ 0.03 % isomalathion]				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-041-00-X	204-497-7	121-75-5							
48	parathion - methyl (ISO); O,O-dimethyl O-4-nitrophenyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-035-00-7	206-050-1	298-00-0							
49	mevinphos (ISO); 2-methoxycarbonyl-1-methylvinyl dimethyl phosphate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-020-00-5	232-095-1	7786-34-7							
50	phosalone (ISO); S-(6-chloro-2-oxobenzoxazolin-3-ylmethyl) O,O-diethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-067-00-1	218-996-2	2310-17-0							
51	pirimiphos-methyl (ISO); O-[2-(diethylamino)-6-methylpyrimidin-4-yl] O,O-dimethyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-134-00-5	249-528-5	29232-93-7							
52	trans-isopropyl-3-[[[(ethylamino)methoxyfosfinothioyl]oxy]crotonate; isopropyl 3-[[[(ethylamino)methoxyphosphinothioyl]oxy]isocrotonate; propetamphos (ISO)				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-136-00-6	250-517-2	31218-83-4							
53	triazophos (ISO); O,O-diethyl-O-1-phenyl-1H-1,2,4-triazol-3-yl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-140-00-8	245-986-5	24017-47-8							
54	disulfoton (ISO); O,O-diethyl 2-ethylthioethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-060-00-3	206-054-3	298-04-4							
Total:								0.0487 %		

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)
	Speciated Determinand - 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

Appendix A: Classifier defined and non GB MCL determinands

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

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

GB MCL index number: 601-023-00-4

Description/Comments:

Additional Hazard Statement(s): Carc. 2; H351

Reason for additional Hazards Statement(s):

20 Nov 2021 - Carc. 2; H351 hazard statement sourced from: IARC Group 2B (77) 2000

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

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. Industrial sources include: smelting; main precursor to other arsenic compounds (edit as required)

cadmium {cadmium oxide}

Reasonable case CLP species based on hazard statements/molecular weight, very low solubility in water. Industrial sources include: electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments and nematocides. (edit as required) 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 (edit as required)

chromium in chromium(VI) compounds {chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex}

Worst case species based on hazard statements/molecular weight (edit as required)

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. (edit as required) Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected. (edit as required)

lead {lead chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

mercury {mercury dichloride}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

nickel {nickel chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

selenium {nickel selenate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

zinc {zinc chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.2.GB - Oct 2021

HazWasteOnline Classification Engine Version: 2023.178.5649.10417 (27 Jun 2023)

HazWasteOnline Database: 2023.178.5649.10417 (27 Jun 2023)



This classification utilises the following guidance and legislation:

WM3 v1.2.GB - Waste Classification - 1st Edition v1.2.GB - Oct 2021

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 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

GB MCL List - version 1.1 of 09 June 2021



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)



J3XCP-3XKTS-U31YR

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

Job name

EMT-23-9033-Batch-3-202306210643

Description/Comments

Project

TE1750

Site

Bryn Lane, Wrexham Detailed Planning

Classified by

Name: **Adrian Read**
Date: **03 Jul 2023 06:59 GMT**
Telephone: **01925 818388**

Company: **Tier Environmental**
Suite 414
Chadwick House
Warrington
WA3 6AE

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:**CERTIFIED****Course**

Hazardous Waste Classification

Date

03 Dec 2020

Next 3 year Refresher due by Dec 2023

Purpose of classification

2 - Material Characterisation

Address of the waste

Bryn Lane Wrexham

Post Code **LL13 9XW**

SIC for the process giving rise to the waste

Description of industry/producer giving rise to the waste

Proposed redevelopment of land

Description of the specific process, sub-process and/or activity that created the waste

Waste created during excavation of soils during development

Description of the waste

Made ground and/or natural soils



Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	TP13-09/06/2023-0.70m		Non Hazardous		3
2	TP13-09/06/2023-1.45m		Non Hazardous		6
3	TP14-09/06/2023-0.40m		Non Hazardous		8
4	TP14-09/06/2023-1.10m		Non Hazardous		11
5	TP16-09/06/2023-0.35m		Non Hazardous		13
6	TP17-09/06/2023-1.00m		Non Hazardous		15

Related documents

#	Name	Description
1	EMT-23-9033-Batch-3-202306210643.HWOL	Element .hwol file used to populate the Job
2	Example waste stream template for contaminated soils	waste stream template used to create this Job

Report

Created by: Adrian Read

Created date: 03 Jul 2023 06:59 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	18
Appendix B: Rationale for selection of metal species	19
Appendix C: Version	19

Classification of sample: TP13-09/06/2023-0.70m

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

Sample details

Sample name:	LoW Code:
TP13-09/06/2023-0.70m	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
16.9% (dry weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 16.9% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
1	arsenic { arsenic trioxide }				11.4	mg/kg	1.32	12.876	mg/kg	0.00129 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
2	cadmium { cadmium oxide }				<0.1	mg/kg	1.142	<0.114	mg/kg	<0.0000114 %		<LOD
	048-002-00-0	215-146-2	1306-19-0									
3	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				48.3	mg/kg	2.27	93.79	mg/kg	0.00938 %	✓	
	024-017-00-8											
4	copper { dicopper oxide; copper (I) oxide }				24	mg/kg	1.126	23.115	mg/kg	0.00231 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
5	lead { lead chromate }			1	12	mg/kg	1.56	16.012	mg/kg	0.00103 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
6	mercury { mercury dichloride }				<0.1	mg/kg	1.353	<0.135	mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
7	nickel { nickel chromate }				44.9	mg/kg	2.976	114.315	mg/kg	0.0114 %	✓	
	028-035-00-7	238-766-5	14721-18-7									
8	selenium { nickel selenate }				1	mg/kg	2.554	2.185	mg/kg	0.000218 %	✓	
	028-031-00-5	239-125-2	15060-62-5									
9	zinc { zinc chromate }				78	mg/kg	2.774	185.101	mg/kg	0.0185 %	✓	
	024-007-00-3	236-878-9	13530-65-9									
10	TPH (C6 to C40) petroleum group				<52	mg/kg		<52	mg/kg	<0.0052 %		<LOD
			TPH									
11	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4									
12	benzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2									
13	toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3									
14	ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4									
15	xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<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]									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	pH		PH		8.63 pH		8.63 pH	8.63 pH		
17	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
18	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
19	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
20	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
21	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
22	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
23	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
24	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
25	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
26	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
27	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
28	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
29	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
30	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
31	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
32	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
33	dichlorvos (ISO); 2,2-dichlorovinyl dimethyl phosphate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-019-00-X	200-547-7	62-73-7							
34	azinphos-ethyl (ISO); O,O-diethyl 4-oxobenzotriazin-3-ylmethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-056-00-1	220-147-6	2642-71-9							
35	azinphos-methyl (ISO); O,O-dimethyl-4-oxobenzotriazin-3-ylmethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-039-00-9	201-676-1	86-50-0							
36	carbophenothion (ISO); 4-chlorophenylthiomethyl O,O-diethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-044-00-6	212-324-1	786-19-6							
37	chlorfenvinphos (ISO); 2-chloro-1-(2,4 dichlorophenyl) vinyl diethyl phosphate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-071-00-3	207-432-0	470-90-6							
38	chlorpyrifos (ISO); O,O-diethyl O-3,5,6-trichloro-2-pyridyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-084-00-4	220-864-4	2921-88-2							
39	chlorpyrifos-methyl (ISO);, O, O-dimethyl O-3,5,6-trichloro-2-pyridyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-186-00-9	227-011-5	5598-13-0							
40	diazinon (ISO); O,O-diethyl O-2-isopropyl-6-methylpyrimidin-4-yl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-040-00-4	206-373-8	333-41-5							
41	dimethoate (ISO); O,O-dimethyl methylcarbamoylmethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-051-00-4	200-480-3	60-51-5							

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
42	ethion (ISO); O,O,O',O'-tetraethyl S,S'-methylenedi (phosphorodithioate); diethion				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-047-00-2	209-242-3	563-12-2							
43	parathion (ISO); O,O-diethyl O-4-nitrophenyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-034-00-1	200-271-7	56-38-2							
44	etrimfos (ISO); O-6-ethoxy-2-ethylpyrimidin-4-yl O,O-dimethylphosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-122-00-X	253-855-9	38260-54-7							
45	fenitrothion (ISO); O,O-dimethyl O-4-nitro-m-tolyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-054-00-0	204-524-2	122-14-5							
46	fenthion (ISO); O,O-dimethyl-O-(4-methylthion-m-tolyl) phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-048-00-8	200-231-9	55-38-9							
47	malathion (ISO); 1,2-bis(ethoxycarbonyl)ethyl O,O-dimethyl phosphorodithioate; [containing £ 0.03 % isomalathion]				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-041-00-X	204-497-7	121-75-5							
48	parathion - methyl (ISO); O,O-dimethyl O-4-nitrophenyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-035-00-7	206-050-1	298-00-0							
49	mevinphos (ISO); 2-methoxycarbonyl-1-methylvinyl dimethyl phosphate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-020-00-5	232-095-1	7786-34-7							
50	phosalone (ISO); S-(6-chloro-2-oxobenzoxazolin-3-ylmethyl) O,O-diethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-067-00-1	218-996-2	2310-17-0							
51	pirimiphos-methyl (ISO); O-[2-(diethylamino)-6-methylpyrimidin-4-yl] O,O-dimethyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-134-00-5	249-528-5	29232-93-7							
52	trans-isopropyl-3-[[[(ethylamino)methoxyfosfinothioyl]oxy]crotonate; isopropyl 3-[[[(ethylamino)methoxyphosphinothioyl]oxy]isocrotonate; propetamphos (ISO)				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-136-00-6	250-517-2	31218-83-4							
53	triazophos (ISO); O,O-diethyl-O-1-phenyl-1H-1,2,4-triazol-3-yl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-140-00-8	245-986-5	24017-47-8							
54	disulfoton (ISO); O,O-diethyl 2-ethylthioethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-060-00-3	206-054-3	298-04-4							
Total:								0.0495 %		

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)
	Speciated Determinand - 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

Classification of sample: TP13-09/06/2023-1.45m

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

Sample details

Sample name:	LoW Code:
TP13-09/06/2023-1.45m	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
42.1% (dry weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 42.1% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
1	arsenic { arsenic trioxide }				9.7 mg/kg	1.32	9.013 mg/kg	0.000901 %	✓		
	033-003-00-0	215-481-4	1327-53-3								
2	cadmium { cadmium oxide }				<0.1 mg/kg	1.142	<0.114 mg/kg	<0.0000114 %			<LOD
	048-002-00-0	215-146-2	1306-19-0								
3	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				51.7 mg/kg	2.27	82.589 mg/kg	0.00826 %	✓		
	024-017-00-8										
4	copper { dicopper oxide; copper (I) oxide }				20 mg/kg	1.126	15.846 mg/kg	0.00158 %	✓		
	029-002-00-X	215-270-7	1317-39-1								
5	lead { lead chromate }			1	29 mg/kg	1.56	31.833 mg/kg	0.00204 %	✓		
	082-004-00-2	231-846-0	7758-97-6								
6	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %			<LOD
	080-010-00-X	231-299-8	7487-94-7								
7	nickel { nickel chromate }				32.7 mg/kg	2.976	68.49 mg/kg	0.00685 %	✓		
	028-035-00-7	238-766-5	14721-18-7								
8	selenium { nickel selenate }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %			<LOD
	028-031-00-5	239-125-2	15060-62-5								
9	zinc { zinc chromate }				92 mg/kg	2.774	179.607 mg/kg	0.018 %	✓		
	024-007-00-3	236-878-9	13530-65-9								
10	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %			<LOD
			TPH								
11	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
	603-181-00-X	216-653-1	1634-04-4								
12	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
	601-020-00-8	200-753-7	71-43-2								
13	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
	601-021-00-3	203-625-9	108-88-3								
14	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
	601-023-00-4	202-849-4	100-41-4								
15	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %			<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]								



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	• pH				7.86 pH		7.86 pH	7.86 pH		
17	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
18	• acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
19	• acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
20	• fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
21	• phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
22	• anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
23	• fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
24	• pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
25	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
26	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
27	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
28	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
29	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
30	• indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
31	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
32	• benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
Total:								0.0431 %		

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)
•	Speciated Determinand - 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

Classification of sample: TP14-09/06/2023-0.40m

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

Sample details

Sample name:	LoW Code:
TP14-09/06/2023-0.40m	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
19.6% (dry weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 19.6% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
1	arsenic { arsenic trioxide }				7.9 mg/kg	1.32	8.721 mg/kg	0.000872 %	✓		
	033-003-00-0	215-481-4	1327-53-3								
2	cadmium { cadmium oxide }				<0.1 mg/kg	1.142	<0.114 mg/kg	<0.0000114 %			<LOD
	048-002-00-0	215-146-2	1306-19-0								
3	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				38.9 mg/kg	2.27	73.832 mg/kg	0.00738 %	✓		
	024-017-00-8										
4	copper { dicopper oxide; copper (I) oxide }				23 mg/kg	1.126	21.652 mg/kg	0.00217 %	✓		
	029-002-00-X	215-270-7	1317-39-1								
5	lead { lead chromate }			1	35 mg/kg	1.56	45.647 mg/kg	0.00293 %	✓		
	082-004-00-2	231-846-0	7758-97-6								
6	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %			<LOD
	080-010-00-X	231-299-8	7487-94-7								
7	nickel { nickel chromate }				28 mg/kg	2.976	69.678 mg/kg	0.00697 %	✓		
	028-035-00-7	238-766-5	14721-18-7								
8	selenium { nickel selenate }				2 mg/kg	2.554	4.271 mg/kg	0.000427 %	✓		
	028-031-00-5	239-125-2	15060-62-5								
9	zinc { zinc chromate }				89 mg/kg	2.774	206.437 mg/kg	0.0206 %	✓		
	024-007-00-3	236-878-9	13530-65-9								
10	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %			<LOD
			TPH								
11	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
	603-181-00-X	216-653-1	1634-04-4								
12	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
	601-020-00-8	200-753-7	71-43-2								
13	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
	601-021-00-3	203-625-9	108-88-3								
14	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
	601-023-00-4	202-849-4	100-41-4								
15	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %			<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]								



#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
16	pH		PH		8.22	pH		8.22	pH	8.22 pH		
17	naphthalene	601-052-00-2	202-049-5	91-20-3	<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
18	acenaphthylene		205-917-1	208-96-8	<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
19	acenaphthene		201-469-6	83-32-9	<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
20	fluorene		201-695-5	86-73-7	<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
21	phenanthrene		201-581-5	85-01-8	0.05	mg/kg		0.0418	mg/kg	0.00000418 %	✓	
22	anthracene		204-371-1	120-12-7	<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
23	fluoranthene		205-912-4	206-44-0	0.08	mg/kg		0.0669	mg/kg	0.00000669 %	✓	
24	pyrene		204-927-3	129-00-0	0.07	mg/kg		0.0585	mg/kg	0.00000585 %	✓	
25	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
26	chrysene	601-048-00-0	205-923-4	218-01-9	0.06	mg/kg		0.0502	mg/kg	0.00000502 %	✓	
27	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	0.08	mg/kg		0.0669	mg/kg	0.00000669 %	✓	
28	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	0.03	mg/kg		0.0251	mg/kg	0.00000251 %	✓	
29	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	0.06	mg/kg		0.0502	mg/kg	0.00000502 %	✓	
30	indeno[123-cd]pyrene		205-893-2	193-39-5	<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
31	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
32	benzo[ghi]perylene		205-883-8	191-24-2	<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
33	dichlorvos (ISO); 2,2-dichlorovinyl dimethyl phosphate	015-019-00-X	200-547-7	62-73-7	<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
34	azinphos-ethyl (ISO); O,O-diethyl 4-oxobenzotriazin-3-ylmethyl phosphorodithioate	015-056-00-1	220-147-6	2642-71-9	<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
35	azinphos-methyl (ISO); O,O-dimethyl-4-oxobenzotriazin-3-ylmethyl phosphorodithioate	015-039-00-9	201-676-1	86-50-0	<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
36	carbophenothion (ISO); 4-chlorophenylthiomethyl O,O-diethyl phosphorodithioate	015-044-00-6	212-324-1	786-19-6	<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
37	chlorfenvinphos (ISO); 2-chloro-1-(2,4 dichlorophenyl) vinyl diethyl phosphate	015-071-00-3	207-432-0	470-90-6	<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
38	chlorpyrifos (ISO); O,O-diethyl O-3,5,6-trichloro-2-pyridyl phosphorothioate	015-084-00-4	220-864-4	2921-88-2	<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
39	chlorpyrifos-methyl (ISO); O, O-dimethyl O-3,5,6-trichloro-2-pyridyl phosphorothioate	015-186-00-9	227-011-5	5598-13-0	<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
40	diazinon (ISO); O,O-diethyl O-2-isopropyl-6-methylpyrimidin-4-yl phosphorothioate	015-040-00-4	206-373-8	333-41-5	<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
41	dimethoate (ISO); O,O-dimethyl methylcarbamoylmethyl phosphorodithioate	015-051-00-4	200-480-3	60-51-5	<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
42	ethion (ISO); O,O,O',O'-tetraethyl S,S'-methylenedi (phosphorodithioate); diethion 015-047-00-2	209-242-3	563-12-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
43	parathion (ISO); O,O-diethyl O-4-nitrophenyl phosphorothioate 015-034-00-1	200-271-7	56-38-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
44	etrimfos (ISO); O-6-ethoxy-2-ethylpyrimidin-4-yl O,O-dimethylphosphorothioate 015-122-00-X	253-855-9	38260-54-7		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
45	fenitrothion (ISO); O,O-dimethyl O-4-nitro-m-tolyl phosphorothioate 015-054-00-0	204-524-2	122-14-5		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
46	fenthion (ISO); O,O-dimethyl-O-(4-methylthion-m-tolyl) phosphorothioate 015-048-00-8	200-231-9	55-38-9		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
47	malathion (ISO); 1,2-bis(ethoxycarbonyl)ethyl O,O-dimethyl phosphorodithioate; [containing £ 0.03 % isomalathion] 015-041-00-X	204-497-7	121-75-5		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
48	parathion - methyl (ISO); O,O-dimethyl O-4-nitrophenyl phosphorothioate 015-035-00-7	206-050-1	298-00-0		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
49	mevinphos (ISO); 2-methoxycarbonyl-1-methylvinyl dimethyl phosphate 015-020-00-5	232-095-1	7786-34-7		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
50	phosalone (ISO); S-(6-chloro-2-oxobenzoxazolin-3-ylmethyl) O,O-diethyl phosphorodithioate 015-067-00-1	218-996-2	2310-17-0		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
51	pirimiphos-methyl (ISO); O-[2-(diethylamino)-6-methylpyrimidin-4-yl] O,O-dimethyl phosphorothioate 015-134-00-5	249-528-5	29232-93-7		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
52	trans-isopropyl-3-[[[(ethylamino)methoxyfosfinothioyl]oxy]crotonate; isopropyl 3-[[[(ethylamino)methoxyphosphinothioyl]oxy]isocrotonate; propetamphos (ISO) 015-136-00-6	250-517-2	31218-83-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
53	triazophos (ISO); O,O-diethyl-O-1-phenyl-1H-1,2,4-triazol-3-yl phosphorothioate 015-140-00-8	245-986-5	24017-47-8		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
54	disulfoton (ISO); O,O-diethyl 2-ethylthioethyl phosphorodithioate 015-060-00-3	206-054-3	298-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
Total:								0.0467 %		

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)
	Speciated Determinand - 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

Classification of sample: TP14-09/06/2023-1.10m

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

Sample details

Sample name:	LoW Code:
TP14-09/06/2023-1.10m	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
77% (dry weight correction)	Entry:
	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 77% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
1	arsenic { arsenic trioxide }				9.4	mg/kg	1.32	7.012	mg/kg	0.000701 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
2	cadmium { cadmium oxide }				<0.1	mg/kg	1.142	<0.114	mg/kg	<0.0000114 %		<LOD
	048-002-00-0	215-146-2	1306-19-0									
3	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				71.6	mg/kg	2.27	91.826	mg/kg	0.00918 %	✓	
	024-017-00-8											
4	copper { dicopper oxide; copper (I) oxide }				22	mg/kg	1.126	13.994	mg/kg	0.0014 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
5	lead { lead chromate }			1	18	mg/kg	1.56	15.863	mg/kg	0.00102 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
6	mercury { mercury dichloride }				0.2	mg/kg	1.353	0.153	mg/kg	0.0000153 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
7	nickel { nickel chromate }				52.5	mg/kg	2.976	88.279	mg/kg	0.00883 %	✓	
	028-035-00-7	238-766-5	14721-18-7									
8	selenium { nickel selenate }				1	mg/kg	2.554	1.443	mg/kg	0.000144 %	✓	
	028-031-00-5	239-125-2	15060-62-5									
9	zinc { zinc chromate }				115	mg/kg	2.774	180.241	mg/kg	0.018 %	✓	
	024-007-00-3	236-878-9	13530-65-9									
10	pH				7.26	pH		7.26	pH	7.26 pH		
11	naphthalene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3									
12	acenaphthylene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8									
13	acenaphthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9									
14	fluorene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7									
15	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8									
16	anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7									
17	fluoranthene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
18	pyrene	204-927-3	129-00-0		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
19	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
20	chrysene	601-048-00-0	205-923-4	218-01-9	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
21	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
22	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
23	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
24	indeno[123-cd]pyrene	205-893-2	193-39-5		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
25	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
26	benzo[ghi]perylene	205-883-8	191-24-2		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
Total:								0.0394 %		

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)
	Speciated Determinand - 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

Classification of sample: TP16-09/06/2023-0.35m

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

Sample details

Sample name:	LoW Code:
TP16-09/06/2023-0.35m	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
23.5%	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
(dry weight correction)	Entry:

Hazard properties

None identified

Determinands

Moisture content: 23.5% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
1	arsenic { arsenic trioxide }				10 mg/kg	1.32	10.691	mg/kg	0.00107 %	✓	
	033-003-00-0	215-481-4	1327-53-3								
2	cadmium { cadmium oxide }				<0.1 mg/kg	1.142	<0.114	mg/kg	<0.0000114 %		<LOD
	048-002-00-0	215-146-2	1306-19-0								
3	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				43.6 mg/kg	2.27	80.139	mg/kg	0.00801 %	✓	
	024-017-00-8										
4	copper { dicopper oxide; copper (I) oxide }				14 mg/kg	1.126	12.763	mg/kg	0.00128 %	✓	
	029-002-00-X	215-270-7	1317-39-1								
5	lead { lead chromate }			1	50 mg/kg	1.56	63.15	mg/kg	0.00405 %	✓	
	082-004-00-2	231-846-0	7758-97-6								
6	mercury { mercury dichloride }				0.2 mg/kg	1.353	0.219	mg/kg	0.0000219 %	✓	
	080-010-00-X	231-299-8	7487-94-7								
7	nickel { nickel chromate }				27.7 mg/kg	2.976	66.755	mg/kg	0.00668 %	✓	
	028-035-00-7	238-766-5	14721-18-7								
8	selenium { nickel selenate }				1 mg/kg	2.554	2.068	mg/kg	0.000207 %	✓	
	028-031-00-5	239-125-2	15060-62-5								
9	zinc { zinc chromate }				74 mg/kg	2.774	166.224	mg/kg	0.0166 %	✓	
	024-007-00-3	236-878-9	13530-65-9								
10	TPH (C6 to C40) petroleum group				<52 mg/kg		<52	mg/kg	<0.0052 %		<LOD
			TPH								
11	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4								
12	benzene				<0.005 mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2								
13	toluene				<0.005 mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3								
14	ethylbenzene				<0.005 mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4								
15	xylene				<0.01 mg/kg		<0.01	mg/kg	<0.000001 %		<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]								



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	● pH				7.96 pH		7.96 pH	7.96 pH		
17	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
18	● acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
19	● acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
20	● fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
21	● phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
22	● anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
23	● fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
24	● pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
25	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
26	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
27	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
28	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
29	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
30	● indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
31	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
32	● benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
Total:								0.0432 %		

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)
●	Speciated Determinand - 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

Classification of sample: TP17-09/06/2023-1.00m

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

Sample details

Sample name:	LoW Code:
TP17-09/06/2023-1.00m	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
17.6% (dry weight correction)	Entry:
	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 17.6% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
1	arsenic { arsenic trioxide }				13.2	mg/kg	1.32	14.82	mg/kg	0.00148 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
2	cadmium { cadmium oxide }				<0.1	mg/kg	1.142	<0.114	mg/kg	<0.0000114 %		<LOD
	048-002-00-0	215-146-2	1306-19-0									
3	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				49.9	mg/kg	2.27	96.321	mg/kg	0.00963 %	✓	
	024-017-00-8											
4	copper { dicopper oxide; copper (I) oxide }				25	mg/kg	1.126	23.935	mg/kg	0.00239 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
5	lead { lead chromate }			1	13	mg/kg	1.56	17.243	mg/kg	0.00111 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
6	mercury { mercury dichloride }				<0.1	mg/kg	1.353	<0.135	mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
7	nickel { nickel chromate }				45.7	mg/kg	2.976	115.659	mg/kg	0.0116 %	✓	
	028-035-00-7	238-766-5	14721-18-7									
8	selenium { nickel selenate }				1	mg/kg	2.554	2.172	mg/kg	0.000217 %	✓	
	028-031-00-5	239-125-2	15060-62-5									
9	zinc { zinc chromate }				78	mg/kg	2.774	184	mg/kg	0.0184 %	✓	
	024-007-00-3	236-878-9	13530-65-9									
10	TPH (C6 to C40) petroleum group				<52	mg/kg		<52	mg/kg	<0.0052 %		<LOD
			TPH									
11	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4									
12	benzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2									
13	toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3									
14	ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4									
15	xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<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]									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	pH		PH		8.84 pH		8.84 pH	8.84 pH		
17	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
18	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
19	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
20	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
21	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
22	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
23	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
24	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
25	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
26	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
27	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
28	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
29	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
30	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
31	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
32	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
33	dichlorvos (ISO); 2,2-dichlorovinyl dimethyl phosphate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-019-00-X	200-547-7	62-73-7							
34	azinphos-ethyl (ISO); O,O-diethyl 4-oxobenzotriazin-3-ylmethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-056-00-1	220-147-6	2642-71-9							
35	azinphos-methyl (ISO); O,O-dimethyl-4-oxobenzotriazin-3-ylmethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-039-00-9	201-676-1	86-50-0							
36	carbophenothion (ISO); 4-chlorophenylthiomethyl O,O-diethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-044-00-6	212-324-1	786-19-6							
37	chlorfenvinphos (ISO); 2-chloro-1-(2,4 dichlorophenyl) vinyl diethyl phosphate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-071-00-3	207-432-0	470-90-6							
38	chlorpyrifos (ISO); O,O-diethyl O-3,5,6-trichloro-2-pyridyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-084-00-4	220-864-4	2921-88-2							
39	chlorpyrifos-methyl (ISO);, O, O-dimethyl O-3,5,6-trichloro-2-pyridyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-186-00-9	227-011-5	5598-13-0							
40	diazinon (ISO); O,O-diethyl O-2-isopropyl-6-methylpyrimidin-4-yl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-040-00-4	206-373-8	333-41-5							
41	dimethoate (ISO); O,O-dimethyl methylcarbamoylmethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-051-00-4	200-480-3	60-51-5							

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
42	ethion (ISO); O,O,O',O'-tetraethyl S,S'-methylenedi (phosphorodithioate); diethion				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-047-00-2	209-242-3	563-12-2							
43	parathion (ISO); O,O-diethyl O-4-nitrophenyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-034-00-1	200-271-7	56-38-2							
44	etrimfos (ISO); O-6-ethoxy-2-ethylpyrimidin-4-yl O,O-dimethylphosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-122-00-X	253-855-9	38260-54-7							
45	fenitrothion (ISO); O,O-dimethyl O-4-nitro-m-tolyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-054-00-0	204-524-2	122-14-5							
46	fenthion (ISO); O,O-dimethyl-O-(4-methylthion-m-tolyl) phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-048-00-8	200-231-9	55-38-9							
47	malathion (ISO); 1,2-bis(ethoxycarbonyl)ethyl O,O-dimethyl phosphorodithioate; [containing £ 0.03 % isomalathion]				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-041-00-X	204-497-7	121-75-5							
48	parathion - methyl (ISO); O,O-dimethyl O-4-nitrophenyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-035-00-7	206-050-1	298-00-0							
49	mevinphos (ISO); 2-methoxycarbonyl-1-methylvinyl dimethyl phosphate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-020-00-5	232-095-1	7786-34-7							
50	phosalone (ISO); S-(6-chloro-2-oxobenzoxazolin-3-ylmethyl) O,O-diethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-067-00-1	218-996-2	2310-17-0							
51	pirimiphos-methyl (ISO); O-[2-(diethylamino)-6-methylpyrimidin-4-yl] O,O-dimethyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-134-00-5	249-528-5	29232-93-7							
52	trans-isopropyl-3-[[[(ethylamino)methoxyfosfinothioyl]oxy]crotonate; isopropyl 3-[[[(ethylamino)methoxyphosphinothioyl]oxy]isocrotonate; propetamphos (ISO)				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-136-00-6	250-517-2	31218-83-4							
53	triazophos (ISO); O,O-diethyl-O-1-phenyl-1H-1,2,4-triazol-3-yl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-140-00-8	245-986-5	24017-47-8							
54	disulfoton (ISO); O,O-diethyl 2-ethylthioethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-060-00-3	206-054-3	298-04-4							
Total:								0.0501 %		

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)
	Speciated Determinand - 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

Appendix A: Classifier defined and non GB MCL determinands

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

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

GB MCL index number: 601-023-00-4

Description/Comments:

Additional Hazard Statement(s): Carc. 2; H351

Reason for additional Hazards Statement(s):

20 Nov 2021 - Carc. 2; H351 hazard statement sourced from: IARC Group 2B (77) 2000

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

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. Industrial sources include: smelting; main precursor to other arsenic compounds (edit as required)

cadmium {cadmium oxide}

Reasonable case CLP species based on hazard statements/molecular weight, very low solubility in water. Industrial sources include: electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments and nematocides. (edit as required) 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 (edit as required)

chromium in chromium(VI) compounds {chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex}

Worst case species based on hazard statements/molecular weight (edit as required)

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. (edit as required) Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected. (edit as required)

lead {lead chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

mercury {mercury dichloride}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

nickel {nickel chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

selenium {nickel selenate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

zinc {zinc chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.2.GB - Oct 2021

HazWasteOnline Classification Engine Version: 2023.178.5649.10417 (27 Jun 2023)

HazWasteOnline Database: 2023.178.5649.10417 (27 Jun 2023)



This classification utilises the following guidance and legislation:

WM3 v1.2.GB - Waste Classification - 1st Edition v1.2.GB - Oct 2021

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 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

GB MCL List - version 1.1 of 09 June 2021



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)



4J62S-1F9Q9-XG9IJ

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

Job name

EMT-23-9033-Batch-4-202306271614

Description/Comments

Project

TE1749

Site

Bryn Lane, Wrexham Outline Planning

Classified by

Name: **Adrian Read**
Date: **03 Jul 2023 06:48 GMT**
Telephone: **01925 818388**

Company: **Tier Environmental**
Suite 414
Chadwick House
Warrington
WA3 6AE

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:**CERTIFIED****Course**

Hazardous Waste Classification

Date

03 Dec 2020

Next 3 year Refresher due by Dec 2023

Purpose of classification

2 - Material Characterisation

Address of the waste

Bryn Lane Wrexham

Post Code LL13 9XW

SIC for the process giving rise to the waste

Description of industry/producer giving rise to the waste

Proposed redevelopment of land

Description of the specific process, sub-process and/or activity that created the waste

Waste created during excavation of soils during development

Description of the waste

Made ground and/or natural soils



Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	WS01-13/06/2023-1.20m		Non Hazardous		3
2	WS02-13/06/2023-3.00m		Non Hazardous		4
3	WS03-13/06/2023-2.00m		Non Hazardous		5
4	WS05-15/06/2023-1.20 SPTm		Non Hazardous		6
5	WS07-15/06/2023-4.00m		Non Hazardous		7
6	WS08-15/06/2023-2.00 SPTm		Non Hazardous		8
7	WS10-16/06/2023-2.00m		Non Hazardous		9
8	WS11-16/06/2023-1.20m		Non Hazardous		10
9	WS12-16/06/2023-3.00 SPTm		Non Hazardous		11

Related documents

#	Name	Description
1	EMT-23-9033-Batch-4-202306271614.HWOL	Element .hwol file used to populate the Job
2	Example waste stream template for contaminated soils	waste stream template used to create this Job

Report

Created by: Adrian Read

Created date: 03 Jul 2023 06:48 GMT

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Appendix B: Rationale for selection of metal species	12
Appendix C: Version	12

Classification of sample: WS01-13/06/2023-1.20m

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

Sample details

Sample name:	LoW Code:
WS01-13/06/2023-1.20m	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
17.9% (dry weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 17.9% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	 pH				8.57 pH		8.57 pH	8.57 pH		
2	 sulfur { sulfur }				400 mg/kg		339.271 mg/kg	0.0339 %	✓	
	016-094-00-1	231-722-6	7704-34-9							
Total:								0.0339 %		

Key

	User supplied data
	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



Classification of sample: WS02-13/06/2023-3.00m



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

Sample details

Sample name:	LoW Code:
WS02-13/06/2023-3.00m	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
24.7% (dry weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 24.7% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
1	pH		PH		8.76 pH		8.76	pH	8.76 pH		
2	sulfur { sulfur }				300 mg/kg		240.577	mg/kg	0.0241 %	✓	
	016-094-00-1	231-722-6	7704-34-9								
Total:									0.0241 %		

Key

- User supplied data
- 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

Classification of sample: WS03-13/06/2023-2.00m

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

Sample details

Sample name:	LoW Code:
WS03-13/06/2023-2.00m	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
20.7%	Entry:
(dry weight correction)	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 20.7% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
1	 pH				8.45 pH		8.45	pH	8.45 pH		
2	 sulfur { sulfur }				400 mg/kg		331.4	mg/kg	0.0331 %	✓	
	016-094-00-1	231-722-6	7704-34-9								
Total:									0.0331 %		

Key

	User supplied data
	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



Classification of sample: WS05-15/06/2023-1.20 SPTm



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

Sample details

Sample name:	LoW Code:
WS05-15/06/2023-1.20 SPTm	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
17.3% (dry weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 17.3% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
1	pH		PH		8.36 pH		8.36	pH	8.36 pH		
2	sulfur { sulfur }				200 mg/kg		170.503	mg/kg	0.0171 %	✓	
	016-094-00-1	231-722-6	7704-34-9								
Total:									0.0171 %		

Key

	User supplied data
●	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

Classification of sample: WS07-15/06/2023-4.00m

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

Sample details

Sample name:	LoW Code:
WS07-15/06/2023-4.00m	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
20.5%	Entry:
(dry weight correction)	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 20.5% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	 pH				8.6 pH		8.6 pH	8.6 pH		
2	 sulfur { sulfur }				300 mg/kg		248.963 mg/kg	0.0249 %	✓	
	016-094-00-1	231-722-6	7704-34-9							
Total:								0.0249 %		

Key

	User supplied data
	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

Classification of sample: WS08-15/06/2023-2.00 SPTm



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

Sample details

Sample name:	LoW Code:
WS08-15/06/2023-2.00 SPTm	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
18.6% (dry weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 18.6% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
1	pH		PH		8.26 pH		8.26	pH	8.26 pH		
2	sulfur { sulfur }				300 mg/kg		252.951	mg/kg	0.0253 %	✓	
	016-094-00-1	231-722-6	7704-34-9								
Total:									0.0253 %		

Key

	User supplied data
●	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

Classification of sample: WS10-16/06/2023-2.00m

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

Sample details

Sample name:	LoW Code:
WS10-16/06/2023-2.00m	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
18.9% (dry weight correction)	Entry:
	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 18.9% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	 sulfur { sulfur }				200 mg/kg		168.209 mg/kg	0.0168 %	✓	
	016-094-00-1	231-722-6	7704-34-9							
Total:								0.0168 %		

Key

 User supplied data
 Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration



Classification of sample: WS11-16/06/2023-1.20m



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

Sample details

Sample name: **WS11-16/06/2023-1.20m** LoW Code: **17: Construction and Demolition Wastes (including excavated soil from contaminated sites)**
Moisture content: **16.5%** Chapter: **17 05 04 (Soil and stones other than those mentioned in 17 05 03)**
(dry weight correction) Entry:

Hazard properties

None identified

Determinands

Moisture content: 16.5% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
1	pH		PH		8.54 pH		8.54	pH	8.54 pH		
2	sulfur { sulfur }				200 mg/kg		171.674	mg/kg	0.0172 %	✓	
	016-094-00-1	231-722-6	7704-34-9								
Total:									0.0172 %		

Key

- User supplied data
- 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

Classification of sample: **WS12-16/06/2023-3.00 SPTm**

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

Sample details

Sample name:	LoW Code:	
WS12-16/06/2023-3.00 SPTm	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
19.7% (dry weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 19.7% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
1	 pH				8.38 pH		8.38	pH	8.38 pH		
2	 sulfur { sulfur }				300 mg/kg		250.627	mg/kg	0.0251 %	✓	
	016-094-00-1	231-722-6	7704-34-9								
Total:									0.0251 %		

Key

	User supplied data
	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



Appendix A: Classifier defined and non GB MCL determinands

■ pH (CAS Number: PH)

Description/Comments: Appendix C4

Data source: WM3 1st Edition 2015

Data source date: 25 May 2015

Hazard Statements: None.

Appendix B: Rationale for selection of metal species

sulfur {sulfur}

Worse case compound.

Appendix C: Version

HazWasteOnline Classification Engine: **WM3 1st Edition v1.2.GB - Oct 2021**

HazWasteOnline Classification Engine Version: 2023.178.5649.10417 (27 Jun 2023)

HazWasteOnline Database: 2023.178.5649.10417 (27 Jun 2023)

This classification utilises the following guidance and legislation:

WM3 v1.2.GB - Waste Classification - 1st Edition v1.2.GB - Oct 2021

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 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

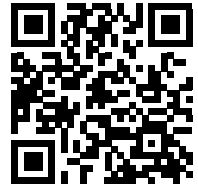
GB MCL List - version 1.1 of 09 June 2021



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)



TQM-QJ-6DZSM-B043J

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

Job name

EMT-23-9033-Batch-5-202306301302

Description/Comments

Project

TE1749

Site

Bryn Lane, Wrexham Outline Planning

Classified by

Name: **Adrian Read**
Date: **03 Jul 2023 08:51 GMT**
Telephone: **01925 818388**

Company: **Tier Environmental**
Suite 414
Chadwick House
Warrington
WA3 6AE

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:**CERTIFIED****Course**

Hazardous Waste Classification

Date

03 Dec 2020

Next 3 year Refresher due by Dec 2023

Purpose of classification

2 - Material Characterisation

Address of the waste

Bryn Lane Wrexham

Post Code **LL13 9XW**

SIC for the process giving rise to the waste

Description of industry/producer giving rise to the waste

Proposed redevelopment of land

Description of the specific process, sub-process and/or activity that created the waste

Waste created during excavation of soils during development

Description of the waste

Made ground and/or natural soils



Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	HDP01-20/06/2023-0.20m		Non Hazardous		3
2	HDP02-20/06/2023-0.50m		Non Hazardous		5
3	HDP04-20/06/2023-0.90m		Non Hazardous		7
4	HDP07-20/06/2023-0.10m		Potentially Hazardous	HP 3(i)	9

Related documents

#	Name	Description
1	EMT-23-9033-Batch-5-202306301302.HWOL	Element .hwol file used to populate the Job
2	Example waste stream template for contaminated soils	waste stream template used to create this Job

Report

Created by: Adrian Read

Created date: 03 Jul 2023 08:51 GMT

Appendices

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Classification of sample: HDP01-20/06/2023-0.20m

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

Sample details

Sample name:	LoW Code:
HDP01-20/06/2023-0.20m	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
30.3%	Entry:
(dry weight correction)	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 30.3% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	dichlorvos (ISO); 2,2-dichlorovinyl dimethyl phosphate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-019-00-X	200-547-7	62-73-7							
2	azinphos-ethyl (ISO); O,O-diethyl 4-oxobenzotriazin-3-ylmethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-056-00-1	220-147-6	2642-71-9							
3	azinphos-methyl (ISO); O,O-dimethyl-4-oxobenzotriazin-3-ylmethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-039-00-9	201-676-1	86-50-0							
4	carbophenothion (ISO); 4-chlorophenylthiomethyl O,O-diethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-044-00-6	212-324-1	786-19-6							
5	chlorfenvinphos (ISO); 2-chloro-1-(2,4 dichlorophenyl) vinyl diethyl phosphate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-071-00-3	207-432-0	470-90-6							
6	chlorpyrifos (ISO); O,O-diethyl O-3,5,6-trichloro-2-pyridyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-084-00-4	220-864-4	2921-88-2							
7	chlorpyrifos-methyl (ISO); O, O-dimethyl O-3,5,6-trichloro-2-pyridyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-186-00-9	227-011-5	5598-13-0							
8	diazinon (ISO); O,O-diethyl O-2-isopropyl-6-methylpyrimidin-4-yl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-040-00-4	206-373-8	333-41-5							
9	dimethoate (ISO); O,O-dimethyl methylcarbamoylmethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-051-00-4	200-480-3	60-51-5							
10	ethion (ISO); O,O,O',O'-tetraethyl S,S'-methylenedi (phosphorodithioate); diethion				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-047-00-2	209-242-3	563-12-2							
11	parathion (ISO); O,O-diethyl O-4-nitrophenyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-034-00-1	200-271-7	56-38-2							
12	etrimfos (ISO); O-6-ethoxy-2-ethylpyrimidin-4-yl O,O-dimethylphosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-122-00-X	253-855-9	38260-54-7							



#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
13		fenitrothion (ISO); O,O-dimethyl O-4-nitro-m-tolyl phosphorothioate				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		015-054-00-0	204-524-2	122-14-5									
14		fenthion (ISO); O,O-dimethyl-O-(4-methylthion-m-tolyl) phosphorothioate				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		015-048-00-8	200-231-9	55-38-9									
15		malathion (ISO); 1,2-bis(ethoxycarbonyl)ethyl O,O-dimethyl phosphorodithioate; [containing £ 0.03 % isomalathion]				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		015-041-00-X	204-497-7	121-75-5									
16		parathion - methyl (ISO); O,O-dimethyl O-4-nitrophenyl phosphorothioate				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		015-035-00-7	206-050-1	298-00-0									
17		mevinphos (ISO); 2-methoxycarbonyl-1-methylvinyl dimethyl phosphate				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		015-020-00-5	232-095-1	7786-34-7									
18		phosalone (ISO); S-(6-chloro-2-oxobenzoxazolin-3-ylmethyl) O,O-diethyl phosphorodithioate				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		015-067-00-1	218-996-2	2310-17-0									
19		pirimiphos-methyl (ISO); O-[2-(diethylamino)-6-methylpyrimidin-4-yl] O,O-dimethyl phosphorothioate				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		015-134-00-5	249-528-5	29232-93-7									
20		trans-isopropyl-3-[[[(ethylamino)methoxyfosfinothioyl]oxy]crotonate; isopropyl 3-[[[(ethylamino)methoxyphosphinothioyl]oxy]isocrotonate; propetamphos (ISO)				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		015-136-00-6	250-517-2	31218-83-4									
21		triazophos (ISO); O,O-diethyl-O-1-phenyl-1H-1,2,4-triazol-3-yl phosphorothioate				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		015-140-00-8	245-986-5	24017-47-8									
22		disulfoton (ISO); O,O-diethyl 2-ethylthioethyl phosphorodithioate				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		015-060-00-3	206-054-3	298-04-4									
Total:									0.00002 %				

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
<LOD	Below limit of detection

Classification of sample: HDP02-20/06/2023-0.50m

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

Sample details

Sample name:	LoW Code:
HDP02-20/06/2023-0.50m	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
18.8%	Entry:
(dry weight correction)	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 18.8% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	dichlorvos (ISO); 2,2-dichlorovinyl dimethyl phosphate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-019-00-X	200-547-7	62-73-7							
2	azinphos-ethyl (ISO); O,O-diethyl 4-oxobenzotriazin-3-ylmethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-056-00-1	220-147-6	2642-71-9							
3	azinphos-methyl (ISO); O,O-dimethyl-4-oxobenzotriazin-3-ylmethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-039-00-9	201-676-1	86-50-0							
4	carbophenothion (ISO); 4-chlorophenylthiomethyl O,O-diethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-044-00-6	212-324-1	786-19-6							
5	chlorfenvinphos (ISO); 2-chloro-1-(2,4 dichlorophenyl) vinyl diethyl phosphate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-071-00-3	207-432-0	470-90-6							
6	chlorpyrifos (ISO); O,O-diethyl O-3,5,6-trichloro-2-pyridyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-084-00-4	220-864-4	2921-88-2							
7	chlorpyrifos-methyl (ISO); O, O-dimethyl O-3,5,6-trichloro-2-pyridyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-186-00-9	227-011-5	5598-13-0							
8	diazinon (ISO); O,O-diethyl O-2-isopropyl-6-methylpyrimidin-4-yl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-040-00-4	206-373-8	333-41-5							
9	dimethoate (ISO); O,O-dimethyl methylcarbamoylmethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-051-00-4	200-480-3	60-51-5							
10	ethion (ISO); O,O,O',O'-tetraethyl S,S'-methylenedi (phosphorodithioate); diethion				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-047-00-2	209-242-3	563-12-2							
11	parathion (ISO); O,O-diethyl O-4-nitrophenyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-034-00-1	200-271-7	56-38-2							
12	etrimfos (ISO); O-6-ethoxy-2-ethylpyrimidin-4-yl O,O-dimethylphosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-122-00-X	253-855-9	38260-54-7							



#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value		MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number										
13		fenitrothion (ISO); O,O-dimethyl O-4-nitro-m-tolyl phosphorothioate				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD	
		015-054-00-0	204-524-2	122-14-5										
14		fenthion (ISO); O,O-dimethyl-O-(4-methylthion-m-tolyl) phosphorothioate				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD	
		015-048-00-8	200-231-9	55-38-9										
15		malathion (ISO); 1,2-bis(ethoxycarbonyl)ethyl O,O-dimethyl phosphorodithioate; [containing £ 0.03 % isomalathion]				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD	
		015-041-00-X	204-497-7	121-75-5										
16		parathion - methyl (ISO); O,O-dimethyl O-4-nitrophenyl phosphorothioate				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD	
		015-035-00-7	206-050-1	298-00-0										
17		mevinphos (ISO); 2-methoxycarbonyl-1-methylvinyl dimethyl phosphate				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD	
		015-020-00-5	232-095-1	7786-34-7										
18		phosalone (ISO); S-(6-chloro-2-oxobenzoxazolin-3-ylmethyl) O,O-diethyl phosphorodithioate				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD	
		015-067-00-1	218-996-2	2310-17-0										
19		pirimiphos-methyl (ISO); O-[2-(diethylamino)-6-methylpyrimidin-4-yl] O,O-dimethyl phosphorothioate				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD	
		015-134-00-5	249-528-5	29232-93-7										
20		trans-isopropyl-3-[[[(ethylamino)methoxyfosfinothioyl]oxy]crotonate; isopropyl 3-[[[(ethylamino)methoxyphosphinothioyl]oxy]isocrotonate; propetamphos (ISO)				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD	
		015-136-00-6	250-517-2	31218-83-4										
21		triazophos (ISO); O,O-diethyl-O-1-phenyl-1H-1,2,4-triazol-3-yl phosphorothioate				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD	
		015-140-00-8	245-986-5	24017-47-8										
22		disulfoton (ISO); O,O-diethyl 2-ethylthioethyl phosphorodithioate				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD	
		015-060-00-3	206-054-3	298-04-4										
Total:									0.00002 %					

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
<LOD	Below limit of detection

Classification of sample: HDP04-20/06/2023-0.90m

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

Sample details

Sample name:	LoW Code:
HDP04-20/06/2023-0.90m	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
20.1%	Entry:
(dry weight correction)	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 20.1% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	dichlorvos (ISO); 2,2-dichlorovinyl dimethyl phosphate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-019-00-X	200-547-7	62-73-7							
2	azinphos-ethyl (ISO); O,O-diethyl 4-oxobenzotriazin-3-ylmethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-056-00-1	220-147-6	2642-71-9							
3	azinphos-methyl (ISO); O,O-dimethyl-4-oxobenzotriazin-3-ylmethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-039-00-9	201-676-1	86-50-0							
4	carbophenothion (ISO); 4-chlorophenylthiomethyl O,O-diethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-044-00-6	212-324-1	786-19-6							
5	chlorfenvinphos (ISO); 2-chloro-1-(2,4 dichlorophenyl) vinyl diethyl phosphate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-071-00-3	207-432-0	470-90-6							
6	chlorpyrifos (ISO); O,O-diethyl O-3,5,6-trichloro-2-pyridyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-084-00-4	220-864-4	2921-88-2							
7	chlorpyrifos-methyl (ISO); O, O-dimethyl O-3,5,6-trichloro-2-pyridyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-186-00-9	227-011-5	5598-13-0							
8	diazinon (ISO); O,O-diethyl O-2-isopropyl-6-methylpyrimidin-4-yl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-040-00-4	206-373-8	333-41-5							
9	dimethoate (ISO); O,O-dimethyl methylcarbamoylmethyl phosphorodithioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-051-00-4	200-480-3	60-51-5							
10	ethion (ISO); O,O,O',O'-tetraethyl S,S'-methylenedi (phosphorodithioate); diethion				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-047-00-2	209-242-3	563-12-2							
11	parathion (ISO); O,O-diethyl O-4-nitrophenyl phosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-034-00-1	200-271-7	56-38-2							
12	etrimfos (ISO); O-6-ethoxy-2-ethylpyrimidin-4-yl O,O-dimethylphosphorothioate				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	015-122-00-X	253-855-9	38260-54-7							



#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
13		fenitrothion (ISO); O,O-dimethyl O-4-nitro-m-tolyl phosphorothioate				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		015-054-00-0	204-524-2	122-14-5									
14		fenthion (ISO); O,O-dimethyl-O-(4-methylthion-m-tolyl) phosphorothioate				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		015-048-00-8	200-231-9	55-38-9									
15		malathion (ISO); 1,2-bis(ethoxycarbonyl)ethyl O,O-dimethyl phosphorodithioate; [containing £ 0.03 % isomalathion]				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		015-041-00-X	204-497-7	121-75-5									
16		parathion - methyl (ISO); O,O-dimethyl O-4-nitrophenyl phosphorothioate				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		015-035-00-7	206-050-1	298-00-0									
17		mevinphos (ISO); 2-methoxycarbonyl-1-methylvinyl dimethyl phosphate				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		015-020-00-5	232-095-1	7786-34-7									
18		phosalone (ISO); S-(6-chloro-2-oxobenzoxazolin-3-ylmethyl) O,O-diethyl phosphorodithioate				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		015-067-00-1	218-996-2	2310-17-0									
19		pirimiphos-methyl (ISO); O-[2-(diethylamino)-6-methylpyrimidin-4-yl] O,O-dimethyl phosphorothioate				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		015-134-00-5	249-528-5	29232-93-7									
20		trans-isopropyl-3-[[[(ethylamino)methoxyfosfinothioyl]oxy]crotonate; isopropyl 3-[[[(ethylamino)methoxyphosphinothioyl]oxy]isocrotonate; propetamphos (ISO)				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		015-136-00-6	250-517-2	31218-83-4									
21		triazophos (ISO); O,O-diethyl-O-1-phenyl-1H-1,2,4-triazol-3-yl phosphorothioate				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		015-140-00-8	245-986-5	24017-47-8									
22		disulfoton (ISO); O,O-diethyl 2-ethylthioethyl phosphorodithioate				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		015-060-00-3	206-054-3	298-04-4									
Total:									0.00002 %				

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
<LOD	Below limit of detection

Classification of sample: HDP07-20/06/2023-0.10m

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

Sample details

Sample name:	LoW Code:
HDP07-20/06/2023-0.10m	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	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)
23.8% (dry weight correction)	

Hazard properties (substances considered hazardous until shown otherwise)

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"

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00897%)

Determinands

Moisture content: 23.8% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	arsenic { arsenic trioxide }				9.2 mg/kg	1.32	9.812 mg/kg	0.000981 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
2	cadmium { cadmium oxide }				<0.1 mg/kg	1.142	<0.114 mg/kg	<0.0000114 %		<LOD
	048-002-00-0	215-146-2	1306-19-0							
3	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				48.7 mg/kg	2.27	89.296 mg/kg	0.00893 %	✓	
	024-017-00-8									
4	copper { dicopper oxide; copper (I) oxide }				33 mg/kg	1.126	30.012 mg/kg	0.003 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
5	lead { lead chromate }			1	117 mg/kg	1.56	147.414 mg/kg	0.00945 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
6	mercury { mercury dichloride }				0.2 mg/kg	1.353	0.219 mg/kg	0.0000219 %	✓	
	080-010-00-X	231-299-8	7487-94-7							
7	nickel { nickel chromate }				22.8 mg/kg	2.976	54.813 mg/kg	0.00548 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
8	selenium { nickel selenate }				1 mg/kg	2.554	2.063 mg/kg	0.000206 %	✓	
	028-031-00-5	239-125-2	15060-62-5							
9	zinc { zinc chromate }				154 mg/kg	2.774	345.088 mg/kg	0.0345 %	✓	
	024-007-00-3	236-878-9	13530-65-9							
10	TPH (C6 to C40) petroleum group		TPH		111 mg/kg		89.661 mg/kg	0.00897 %	✓	
11	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							
12	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<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
	EU CLP index number	EC Number	CAS Number							
13	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
14	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
15	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<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]							
16	pH		PH		7.45 pH		7.45 pH	7.45 pH		
17	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
18	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
19	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
20	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
21	phenanthrene				0.21 mg/kg		0.17 mg/kg	0.000017 %	✓	
		201-581-5	85-01-8							
22	anthracene				0.06 mg/kg		0.0485 mg/kg	0.00000485 %	✓	
		204-371-1	120-12-7							
23	fluoranthene				0.74 mg/kg		0.598 mg/kg	0.0000598 %	✓	
		205-912-4	206-44-0							
24	pyrene				0.66 mg/kg		0.533 mg/kg	0.0000533 %	✓	
		204-927-3	129-00-0							
25	benzo[a]anthracene				0.47 mg/kg		0.38 mg/kg	0.000038 %	✓	
	601-033-00-9	200-280-6	56-55-3							
26	chrysene				0.42 mg/kg		0.339 mg/kg	0.0000339 %	✓	
	601-048-00-0	205-923-4	218-01-9							
27	benzo[b]fluoranthene				0.59 mg/kg		0.477 mg/kg	0.0000477 %	✓	
	601-034-00-4	205-911-9	205-99-2							
28	benzo[k]fluoranthene				0.23 mg/kg		0.186 mg/kg	0.0000186 %	✓	
	601-036-00-5	205-916-6	207-08-9							
29	benzo[a]pyrene; benzo[def]chrysene				0.51 mg/kg		0.412 mg/kg	0.0000412 %	✓	
	601-032-00-3	200-028-5	50-32-8							
30	indeno[123-cd]pyrene				0.36 mg/kg		0.291 mg/kg	0.0000291 %	✓	
		205-893-2	193-39-5							
31	dibenz[a,h]anthracene				0.09 mg/kg		0.0727 mg/kg	0.00000727 %	✓	
	601-041-00-2	200-181-8	53-70-3							
32	benzo[ghi]perylene				0.35 mg/kg		0.283 mg/kg	0.0000283 %	✓	
		205-883-8	191-24-2							
33	ethylene dinitrate; ethylene glycol dinitrate				<		<	<		ND
	603-032-00-9	211-063-0	628-96-6							
34	N-methyl-N-2,4,6-tetranitroaniline; tetryl				<		<	<		ND
	612-017-00-6	207-531-9	479-45-8							
35	glycerol trinitrate; nitroglycerine				<		<	<		ND
	603-034-00-X	200-240-8	55-63-0							
36	2,4,6-trinitrotoluene; TNT				<		<	<		ND
	609-008-00-4	204-289-6	118-96-7							
37	2,6-dinitrotoluene				<		<	<		ND
	609-049-00-8	210-106-0	606-20-2							
38	2,4-dinitrotoluene; [1] dinitrotoluene [2]				<		<	<		ND
	609-007-00-9	204-450-0 [1] 246-836-1 [2]	121-14-2 [1] 25321-14-6 [2]							
39	pentaerythritol tetranitrate; pentaerythrite tetranitrate; P.E.T.N.				<		<	<		ND
	603-035-00-5	201-084-3	78-11-5							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
40	2,4,6-trinitrophenol; picric acid				<		<	<		ND
	609-009-00-X	201-865-9	88-89-1							
Total:								0.072 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Potentially 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

Appendix A: Classifier defined and non GB MCL determinands

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

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

GB MCL index number: 601-023-00-4

Description/Comments:

Additional Hazard Statement(s): Carc. 2; H351

Reason for additional Hazards Statement(s):

20 Nov 2021 - Carc. 2; H351 hazard statement sourced from: IARC Group 2B (77) 2000

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

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. Industrial sources include: smelting; main precursor to other arsenic compounds (edit as required)

cadmium {cadmium oxide}

Reasonable case CLP species based on hazard statements/molecular weight, very low solubility in water. Industrial sources include: electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments and nematocides. (edit as required) 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 (edit as required)

chromium in chromium(VI) compounds {chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex}

Worst case species based on hazard statements/molecular weight (edit as required)

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. (edit as required) Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected. (edit as required)

lead {lead chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

mercury {mercury dichloride}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

nickel {nickel chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

selenium {nickel selenate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

zinc {zinc chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.2.GB - Oct 2021

HazWasteOnline Classification Engine Version: 2023.178.5649.10417 (27 Jun 2023)

HazWasteOnline Database: 2023.178.5649.10417 (27 Jun 2023)



This classification utilises the following guidance and legislation:

WM3 v1.2.GB - Waste Classification - 1st Edition v1.2.GB - Oct 2021

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 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

GB MCL List - version 1.1 of 09 June 2021



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)



T7IAH-JWQ5R-UD715

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

Job name

EMT-23-9816-Batch-1-202306271557

Description/Comments

Project

TE1749

Site

Bryn Lane, Wrexham Outline Planning

Classified by

Name: **Adrian Read**
Date: **03 Jul 2023 06:52 GMT**
Telephone: **01925 818388**

Company: **Tier Environmental**
Suite 414
Chadwick House
Warrington
WA3 6AE

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:**CERTIFIED****Course**

Hazardous Waste Classification

Date

03 Dec 2020

Next 3 year Refresher due by Dec 2023

Purpose of classification

2 - Material Characterisation

Address of the waste

Bryn Lane Wrexham

Post Code **LL13 9XW**

SIC for the process giving rise to the waste

Description of industry/producer giving rise to the waste

Proposed redevelopment of land

Description of the specific process, sub-process and/or activity that created the waste

Waste created during excavation of soils during development

Description of the waste

Made ground and/or natural soils



Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	WS10-16/06/2023-1.50m		Non Hazardous		3
2	WS12-16/06/2023-0.80m		Non Hazardous		5

Related documents

#	Name	Description
1	EMT-23-9816-Batch-1-202306271557.HWOL	Element .hwol file used to populate the Job
2	Example waste stream template for contaminated soils	waste stream template used to create this Job

Report

Created by: Adrian Read

Created date: 03 Jul 2023 06:52 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	7
Appendix B: Rationale for selection of metal species	8
Appendix C: Version	8

Classification of sample: WS10-16/06/2023-1.50m

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

Sample details

Sample name:	LoW Code:
WS10-16/06/2023-1.50m	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
18.5%	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
(dry weight correction)	Entry:

Hazard properties

None identified

Determinands

Moisture content: 18.5% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
1	arsenic { arsenic trioxide }				15 mg/kg	1.32	16.713	mg/kg	0.00167 %	✓	
	033-003-00-0	215-481-4	1327-53-3								
2	cadmium { cadmium oxide }				<0.1 mg/kg	1.142	<0.114	mg/kg	<0.0000114 %		<LOD
	048-002-00-0	215-146-2	1306-19-0								
3	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				51.5 mg/kg	2.27	98.654	mg/kg	0.00987 %	✓	
	024-017-00-8										
4	copper { dicopper oxide; copper (I) oxide }				29 mg/kg	1.126	27.553	mg/kg	0.00276 %	✓	
	029-002-00-X	215-270-7	1317-39-1								
5	lead { lead chromate }			1	14 mg/kg	1.56	18.428	mg/kg	0.00118 %	✓	
	082-004-00-2	231-846-0	7758-97-6								
6	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135	mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7								
7	nickel { nickel chromate }				50.1 mg/kg	2.976	125.832	mg/kg	0.0126 %	✓	
	028-035-00-7	238-766-5	14721-18-7								
8	selenium { nickel selenate }				<1 mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	028-031-00-5	239-125-2	15060-62-5								
9	zinc { zinc chromate }				89 mg/kg	2.774	208.354	mg/kg	0.0208 %	✓	
	024-007-00-3	236-878-9	13530-65-9								
10	TPH (C6 to C40) petroleum group				<52 mg/kg		<52	mg/kg	<0.0052 %		<LOD
			TPH								
11	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4								
12	benzene				<0.005 mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2								
13	toluene				<0.005 mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3								
14	ethylbenzene				<0.005 mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4								
15	xylene				<0.01 mg/kg		<0.01	mg/kg	<0.000001 %		<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]								



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	• pH		PH		8.78 pH		8.78 pH	8.78 pH		
17	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
18	• acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
19	• acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
20	• fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
21	• phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
22	• anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
23	• fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
24	• pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
25	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
26	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
27	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
28	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
29	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
30	• indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
31	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
32	• benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
Total:								0.0544 %		

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)
•	Speciated Determinand - 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

Classification of sample: **WS12-16/06/2023-0.80m**

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

Sample details

Sample name:	LoW Code:
WS12-16/06/2023-0.80m	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
21.2%	Entry:
(dry weight correction)	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 21.2% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
1	arsenic { arsenic trioxide }				13.3	mg/kg	1.32	14.489	mg/kg	0.00145 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
2	cadmium { cadmium oxide }				<0.1	mg/kg	1.142	<0.114	mg/kg	<0.0000114 %		<LOD
	048-002-00-0	215-146-2	1306-19-0									
3	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				59.1	mg/kg	2.27	110.691	mg/kg	0.0111 %	✓	
	024-017-00-8											
4	copper { dicopper oxide; copper (I) oxide }				31	mg/kg	1.126	28.797	mg/kg	0.00288 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
5	lead { lead chromate }			1	16	mg/kg	1.56	20.592	mg/kg	0.00132 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
6	mercury { mercury dichloride }				<0.1	mg/kg	1.353	<0.135	mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
7	nickel { nickel chromate }				58.5	mg/kg	2.976	143.656	mg/kg	0.0144 %	✓	
	028-035-00-7	238-766-5	14721-18-7									
8	selenium { nickel selenate }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	028-031-00-5	239-125-2	15060-62-5									
9	zinc { zinc chromate }				86	mg/kg	2.774	196.845	mg/kg	0.0197 %	✓	
	024-007-00-3	236-878-9	13530-65-9									
10	TPH (C6 to C40) petroleum group				<52	mg/kg		<52	mg/kg	<0.0052 %		<LOD
			TPH									
11	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4									
12	benzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2									
13	toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3									
14	ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4									
15	xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<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]									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	● pH				8.17 pH		8.17 pH	8.17 pH		
17	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
18	● acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
19	● acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
20	● fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
21	● phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
22	● anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
23	● fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
24	● pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
25	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
26	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
27	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
28	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
29	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
30	● indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
31	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
32	● benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
Total:								0.0563 %		

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)
●	Speciated Determinand - 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

Appendix A: Classifier defined and non GB MCL determinands

• **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

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

GB MCL index number: 601-023-00-4

Description/Comments:

Additional Hazard Statement(s): Carc. 2; H351

Reason for additional Hazards Statement(s):

20 Nov 2021 - Carc. 2; H351 hazard statement sourced from: IARC Group 2B (77) 2000

• **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

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. Industrial sources include: smelting; main precursor to other arsenic compounds (edit as required)

cadmium {cadmium oxide}

Reasonable case CLP species based on hazard statements/molecular weight, very low solubility in water. Industrial sources include: electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments and nematocides. (edit as required) 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 (edit as required)

chromium in chromium(VI) compounds {chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex}

Worst case species based on hazard statements/molecular weight (edit as required)

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. (edit as required) Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected. (edit as required)

lead {lead chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

mercury {mercury dichloride}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

nickel {nickel chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

selenium {nickel selenate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

zinc {zinc chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

Appendix C: Version

HazWasteOnline Classification Engine: **WM3 1st Edition v1.2.GB - Oct 2021**
HazWasteOnline Classification Engine Version: 2023.178.5649.10417 (27 Jun 2023)
HazWasteOnline Database: 2023.178.5649.10417 (27 Jun 2023)



This classification utilises the following guidance and legislation:

WM3 v1.2.GB - Waste Classification - 1st Edition v1.2.GB - Oct 2021

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 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

GB MCL List - version 1.1 of 09 June 2021

APPENDIX D - GEOENVIRONMENTAL GROUNDWATER LABORATORY RESULTS

Tier Environmental
Suite 414, Chadwick House
Warrington Rd
Birchwood
Warrington
United Kingdom
WA3 6AE



4225



Attention : Adrian Read
Date : 4th August, 2023
Your reference : TE1749
Our reference : Test Report 23/9033 Batch 7
Location : Bryn Lane Outline
Date samples received : 18th July, 2023
Status : Final Report
Issue : 1

One sample was received for analysis on 18th July, 2023 and was scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.

All analysis is carried out on as received samples and reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected.

Authorised By:



Bruce Leslie
Project Manager

Please include all sections of this report if it is reproduced

Element Materials Technology

Client Name: Tier Environmental
Reference: TE1749
Location: Bryn Lane Outline
Contact: Adrian Read
EMT Job No: 23/9033

Report : Liquid

Liquids/products: V=40ml vial, G=glass bottle, P=plastic bottle
 H=H₂SO₄, Z=ZnAc, N=NaOH, HN=HN0₃

EMT Sample No.	256-263												
Sample ID	WS04												
Depth													
COC No / misc													
Containers	V H H N N P G												
Sample Date	17/07/2023												
Sample Type	Surface Water												
Batch Number	7												
Date of Receipt	18/07/2023												
											LOD/LOR	Units	Method No.
Dissolved Arsenic #	9.4										<2.5	ug/l	TM30/PM14
Dissolved Cadmium #	<0.5										<0.5	ug/l	TM30/PM14
Total Dissolved Chromium #	<1.5										<1.5	ug/l	TM30/PM14
Dissolved Copper #	10										<7	ug/l	TM30/PM14
Total Dissolved Iron #	20										<20	ug/l	TM30/PM14
Dissolved Mercury #	<1										<1	ug/l	TM30/PM14
Dissolved Nickel #	8										<2	ug/l	TM30/PM14
Dissolved Selenium #	<3										<3	ug/l	TM30/PM14
Dissolved Zinc #	22										<3	ug/l	TM30/PM14
Total Hardness Dissolved (as CaCO ₃)	1328 ^{AA}										<1	mg/l	TM30/PM14
PAH MS													
Naphthalene #	<0.1										<0.1	ug/l	TM4/PM30
Acenaphthylene #	<0.005										<0.005	ug/l	TM4/PM30
Acenaphthene #	0.016										<0.005	ug/l	TM4/PM30
Fluorene #	<0.005										<0.005	ug/l	TM4/PM30
Phenanthrene #	0.009										<0.005	ug/l	TM4/PM30
Anthracene #	<0.005										<0.005	ug/l	TM4/PM30
Fluoranthene #	0.034										<0.005	ug/l	TM4/PM30
Pyrene #	0.034										<0.005	ug/l	TM4/PM30
Benzo(a)anthracene #	0.015										<0.005	ug/l	TM4/PM30
Chrysene #	0.015										<0.005	ug/l	TM4/PM30
Benzo(bk)fluoranthene #	0.033										<0.008	ug/l	TM4/PM30
Benzo(a)pyrene #	0.018										<0.005	ug/l	TM4/PM30
Indeno(123cd)pyrene #	0.014										<0.005	ug/l	TM4/PM30
Dibenzo(ah)anthracene #	<0.005										<0.005	ug/l	TM4/PM30
Benzo(ghi)perylene #	0.015										<0.005	ug/l	TM4/PM30
PAH 16 Total #	0.203										<0.173	ug/l	TM4/PM30
Benzo(b)fluoranthene	0.024										<0.008	ug/l	TM4/PM30
Benzo(k)fluoranthene	0.009										<0.008	ug/l	TM4/PM30
PAH Surrogate % Recovery	94										<0	%	TM4/PM30

Please see attached notes for all abbreviations and acronyms

Element Materials Technology

Client Name: Tier Environmental
Reference: TE1749
Location: Bryn Lane Outline
Contact: Adrian Read
EMT Job No: 23/9033

Report : Liquid

Liquids/products: V=40ml vial, G=glass bottle, P=plastic bottle
 H=H₂SO₄, Z=ZnAc, N=NaOH, HN=HN0₃

EMT Sample No.	256-263												
Sample ID	WS04												
Depth													
COC No / misc													
Containers	V H H N N P G												
Sample Date	17/07/2023												
Sample Type	Surface Water												
Batch Number	7												
Date of Receipt	18/07/2023												
Please see attached notes for all abbreviations and acronyms													
											LOD/LOR	Units	Method No.
Pesticides													
Organophosphorus Pesticides													
Azinphos ethyl	<0.01										<0.01	ug/l	TM149/PM30
Azinphos methyl	<0.01										<0.01	ug/l	TM149/PM30
Carbophenothion	<0.01										<0.01	ug/l	TM149/PM30
Chlorfenvinphos	<0.01										<0.01	ug/l	TM149/PM30
Chlorpyrifos	<0.01										<0.01	ug/l	TM149/PM30
Chlorpyrifos-methyl	<0.01										<0.01	ug/l	TM149/PM30
Diazinon	<0.01										<0.01	ug/l	TM149/PM30
Dichlorvos	<0.01										<0.01	ug/l	TM149/PM30
Disulfoton	<0.01										<0.01	ug/l	TM149/PM30
Dimethoate	<0.01										<0.01	ug/l	TM149/PM30
Ethion	<0.01										<0.01	ug/l	TM149/PM30
Ethyl Parathion (Parathion)	<0.01										<0.01	ug/l	TM149/PM30
Etrimphos	<0.01										<0.01	ug/l	TM149/PM30
Fenitrothion	<0.01										<0.01	ug/l	TM149/PM30
Fenthion	<0.01										<0.01	ug/l	TM149/PM30
Malathion	<0.01										<0.01	ug/l	TM149/PM30
Methyl Parathion	<0.01										<0.01	ug/l	TM149/PM30
Mevinphos	<0.01										<0.01	ug/l	TM149/PM30
Phosalone	<0.01										<0.01	ug/l	TM149/PM30
Pirimiphos Methyl	<0.01										<0.01	ug/l	TM149/PM30
Propetamphos	<0.01										<0.01	ug/l	TM149/PM30
Triazophos	<0.01										<0.01	ug/l	TM149/PM30
MTBE #													
MTBE #	<5										<5	ug/l	TM36/PM12
Benzene #	<5										<5	ug/l	TM36/PM12
Toluene #	<5										<5	ug/l	TM36/PM12
Ethylbenzene #	<5										<5	ug/l	TM36/PM12
m/p-Xylene #	<5										<5	ug/l	TM36/PM12
o-Xylene #	<5										<5	ug/l	TM36/PM12
TPH CWG													
Aliphatics													
>C5-C6 #	<10										<10	ug/l	TM36/PM12
>C6-C8 #	<10										<10	ug/l	TM36/PM12
>C8-C10 #	<10										<10	ug/l	TM36/PM12
>C10-C12 #	<5										<5	ug/l	TM5/PM16/PM30
>C12-C16 #	<10										<10	ug/l	TM5/PM16/PM30
>C16-C21 #	<10										<10	ug/l	TM5/PM16/PM30
>C21-C35 #	<10										<10	ug/l	TM5/PM16/PM30
>C35-C40	<10										<10	ug/l	TM5/PM16/PM30
Total aliphatics C5-40	<10										<10	ug/l	TM5/PM16/PM30

Element Materials Technology

Client Name: Tier Environmental
Reference: TE1749
Location: Bryn Lane Outline
Contact: Adrian Read
EMT Job No: 23/9033

Report : Liquid

Liquids/products: V=40ml vial, G=glass bottle, P=plastic bottle
 H=H₂SO₄, Z=ZnAc, N=NaOH, HN=HNO₃

EMT Sample No.	256-263										Please see attached notes for all abbreviations and acronyms	
Sample ID	WS04											
Depth												
COC No / misc												
Containers	V H H N N P G											
Sample Date	17/07/2023											
Sample Type	Surface Water											
Batch Number	7											
Date of Receipt	18/07/2023									LOD/LOR	Units	Method No.
TPH CWG												
Aromatics												
>C5-EC7 #	<10									<10	ug/l	TM36/PM12
>EC7-EC8 #	<10									<10	ug/l	TM36/PM12
>EC8-EC10 #	<10									<10	ug/l	TM36/PM12
>EC10-EC12 #	<5									<5	ug/l	TM5/PM16/PM3
>EC12-EC16 #	<10									<10	ug/l	TM5/PM16/PM3
>EC16-EC21 #	<10									<10	ug/l	TM5/PM16/PM3
>EC21-EC35 #	<10									<10	ug/l	TM5/PM16/PM3
>EC35-EC40	<10									<10	ug/l	TM5/PM16/PM3
Total aromatics C5-40	<10									<10	ug/l	TM5/PM16/PM3
Total aliphatics and aromatics(C5-40)	<10									<10	ug/l	TM5/PM16/PM3
Total Phenols HPLC										<0.15	mg/l	TM26/PM0
Sulphate as SO4 #	461.8									<0.5	mg/l	TM38/PM0
Ortho Phosphate as PO4	<0.03									<0.03	mg/l	TM38/PM0
Total Ammonia as N #	2.44									<0.03	mg/l	TM38/PM0
Electrical Conductivity @25C #	2079									<2	uS/cm	TM76/PM0
pH #	7.33									<0.01	pH units	TM73/PM0
												</

Please see attached notes for all abbreviations and acronyms

Client Name: Tier Environmental

Matrix : Liquid

Reference: TE1749

Location: Bryn Lane Outline

Contact: Adrian Read

[illegible]

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

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

EMT Job No.: 23/9033

SOILS and ASH

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

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

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

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary. Asbestos samples are retained for 6 months.

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

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

All analysis is reported on a dry weight basis unless stated otherwise. Limits of detection for analyses carried out on as received samples are not moisture content corrected. Results are not surrogate corrected. Samples are dried at 35°C ±5°C unless otherwise stated. Moisture content for CEN Leachate tests are dried at 105°C ±5°C. Ash samples are dried at 37°C ±5°C.

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

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

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

Sufficient amount of sample must be received to carry out the testing specified. Where an insufficient amount of sample has been received the testing may not meet the requirements of our accredited methods, as such accreditation may be removed.

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

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

WATERS

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

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

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

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

STACK EMISSIONS

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation for Dioxins and Furans and Dioxin like PCBs has been performed on XAD-2 Resin, only samples which use this resin will be within our MCERTS scope.

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

DEVIATING SAMPLES

All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. The temperature of sample receipt is recorded on the confirmation schedules in order that the client can make an informed decision as to whether testing should still be undertaken.

SURROGATES

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

DILUTIONS

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

BLANKS

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

NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a requirement of our Accreditation Body for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.

Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation.

Laboratory records are kept for a period of no less than 6 years.

REPORTS FROM THE SOUTH AFRICA LABORATORY

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

Measurement Uncertainty

Measurement uncertainty defines the range of values that could reasonably be attributed to the measured quantity. This range of values has not been included within the reported results. Uncertainty expressed as a percentage can be provided upon request.

Customer Provided Information

Sample ID and depth is information provided by the customer.

ABBREVIATIONS and ACRONYMS USED

#	ISO17025 (UKAS Ref No. 4225) accredited - UK.
SA	ISO17025 (SANAS Ref No.T0729) accredited - South Africa
B	Indicates analyte found in associated method blank.
DR	Dilution required.
M	MCERTS accredited.
NA	Not applicable
NAD	No Asbestos Detected.
ND	None Detected (usually refers to VOC and/SVOC TICs).
NDP	No Determination Possible
SS	Calibrated against a single substance
SV	Surrogate recovery outside performance criteria. This may be due to a matrix effect.
W	Results expressed on as received basis.
+	AQC failure, accreditation has been removed from this result, if appropriate, see 'Note' on previous page.
>>	Results above quantitative calibration range. The result should be considered the minimum value and is indicative only. The actual result could be significantly higher.
*	Analysis subcontracted to an Element Materials Technology approved laboratory.
AD	Samples are dried at 35°C ±5°C
CO	Suspected carry over
LOD/LOR	Limit of Detection (Limit of Reporting) in line with ISO 17025 and MCERTS
ME	Matrix Effect
NFD	No Fibres Detected
BS	AQC Sample
LB	Blank Sample
N	Client Sample
TB	Trip Blank Sample
OC	Outside Calibration Range
AA	x5 Dilution

HWOL ACRONYMS AND OPERATORS USED

HS	Headspace Analysis.
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent.
CU	Clean-up - e.g. by florisil, silica gel.
1D	GC - Single coil gas chromatography.
Total	Aliphatics & Aromatics.
AL	Aliphatics only.
AR	Aromatics only.
2D	GC-GC - Double coil gas chromatography.
#1	EH_Total but with humics mathematically subtracted
#2	EU_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +).
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total
MS	Mass Spectrometry.

EMT Job No: 23/9033

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM30	Water samples are extracted with solvent using a magnetic stirrer to create a vortex.				
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM30	Water samples are extracted with solvent using a magnetic stirrer to create a vortex.	Yes			
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM16/PM30	Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE/Water samples are extracted with solvent using a magnetic stirrer to create a vortex.				
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM16/PM30	Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE/Water samples are extracted with solvent using a magnetic stirrer to create a vortex.	Yes			
TM5/TM36	please refer to TM5 and TM36 for method details	PM12/PM16/PM30	please refer to PM16/PM30 and PM12 for method details				
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM0	No preparation is required.				
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	PM14	Preparation of waters and leachates for metals by ICP OES/ICP MS. Samples are filtered for Dissolved metals, and remain unfiltered for Total metals then acidified				
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	PM14	Preparation of waters and leachates for metals by ICP OES/ICP MS. Samples are filtered for Dissolved metals, and remain unfiltered for Total metals then acidified	Yes			
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.	Yes			
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All anions comparable to BS ISO 15923-1: 2013	PM0	No preparation is required.				

EMT Job No: 23/9033

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All anions comparable to BS ISO 15923-1: 2013	PM0	No preparation is required.	Yes			
TM73	Modified US EPA methods 150.1 (1982) and 9045D Rev. 4 - 2004) and BS1377-3:1990. Determination of pH by Metrohm automated probe analyser.	PM0	No preparation is required.	Yes			
TM76	Modified US EPA method 120.1 (1982). Determination of Specific Conductance by Metrohm automated probe analyser.	PM0	No preparation is required.	Yes			
TM149	Determination of Pesticides by Large Volume Injection on GC Triple Quad MS, based upon USEPA method 8270D v5:2014	PM30	Water samples are extracted with solvent using a magnetic stirrer to create a vortex.				

Tier Environmental
Suite 414, Chadwick House
Warrington Rd
Birchwood
Warrington
United Kingdom
WA3 6AE



Attention : Adrian Read
Date : 3rd August, 2023
Your reference : TE1749
Our reference : Test Report 23/11332 Batch 1
Location : Bryn Lane
Date samples received : 11th July, 2023
Status : Final report
Issue : 1

Two samples were received for analysis on 11th July, 2023 of which two were scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.

All analysis is carried out on as received samples and reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected.

Authorised By:



Phil Sommerton BSc

Senior Project Manager

Please include all sections of this report if it is reproduced

Client Name: Tier Environmental
Reference: TE1749
Location: Bryn Lane
Contact: Adrian Read
EMT Job No: 23/11332

Liquids/products: V=40ml vial, G=glass bottle, P=plastic bottle
H=H₂SO₄, Z=ZnAc, N=NaOH, HN=HNO₃

Please see attached notes for all abbreviations and acronyms

Element Materials Technology

Client Name: Tier Environmental
Reference: TE1749
Location: Bryn Lane
Contact: Adrian Read
EMT Job No: 23/11332

Report : Liquid

Liquids/products: V=40ml vial, G=glass bottle, P=plastic bottle
 H=H₂SO₄, Z=ZnAc, N=NaOH, HN=HNO₃

EMT Sample No.	14-19	20-22									Please see attached notes for all abbreviations and acronyms		
Sample ID	WS02	WS03											
Depth	2.00	GRAB											
COC No / misc													
Containers	V H H N P G	V H N G											
Sample Date	07/07/2023	07/07/2023											
Sample Type	Liquid	Liquid											
Batch Number	1	1											
Date of Receipt	11/07/2023	11/07/2023											
Pesticides													
Organophosphorus Pesticides													
Azinphos ethyl	<0.01	<0.30 _{AB}									<0.01	ug/l	TM149/PM30
Azinphos methyl	<0.05 _{AA}	<1.50 _{AC}									<0.01	ug/l	TM149/PM30
Carbophenothion	<0.01	<0.30 _{AB}									<0.01	ug/l	TM149/PM30
Chlorfenvinphos	<0.01	<0.30 _{AB}									<0.01	ug/l	TM149/PM30
Chlorpyrifos	<0.01	<0.30 _{AB}									<0.01	ug/l	TM149/PM30
Chlorpyrifos-methyl	<0.01	<0.30 _{AB}									<0.01	ug/l	TM149/PM30
Diazinon	<0.01	<0.30 _{AB}									<0.01	ug/l	TM149/PM30
Dichlorvos	<0.01	<0.30 _{AB}									<0.01	ug/l	TM149/PM30
Disulfoton	<0.01	<0.30 _{AB}									<0.01	ug/l	TM149/PM30
Dimethoate	<0.01	<0.30 _{AB}									<0.01	ug/l	TM149/PM30
Ethion	<0.01	<0.30 _{AB}									<0.01	ug/l	TM149/PM30
Ethyl Parathion (Parathion)	<0.01	<0.30 _{AB}									<0.01	ug/l	TM149/PM30
Etrimphos	<0.01	<0.30 _{AB}									<0.01	ug/l	TM149/PM30
Fenitrothion	<0.01	<0.30 _{AB}									<0.01	ug/l	TM149/PM30
Fenthion	<0.01	<0.30 _{AB}									<0.01	ug/l	TM149/PM30
Malathion	<0.01	<0.30 _{AB}									<0.01	ug/l	TM149/PM30
Methyl Parathion	<0.01	<0.30 _{AB}									<0.01	ug/l	TM149/PM30
Mevinphos	<0.01	<0.30 _{AB}									<0.01	ug/l	TM149/PM30
Phosalone	<0.01	<0.30 _{AB}									<0.01	ug/l	TM149/PM30
Pirimiphos Methyl	<0.01	<0.30 _{AB}									<0.01	ug/l	TM149/PM30
Propetamphos	<0.01	<0.30 _{AB}									<0.01	ug/l	TM149/PM30
Triazophos	<0.01	<0.30 _{AB}									<0.01	ug/l	TM149/PM30
MTBE	<5	<5									<5	ug/l	TM36/PM12
Benzene	<5	<5									<5	ug/l	TM36/PM12
Toluene	<5	<5									<5	ug/l	TM36/PM12
Ethylbenzene	<5	<5									<5	ug/l	TM36/PM12
m/p-Xylene	<5	<5									<5	ug/l	TM36/PM12
o-Xylene	<5	<5									<5	ug/l	TM36/PM12
TPH CWG													
Aliphatics													
>C5-C6	<10	<10									<10	ug/l	TM36/PM12
>C6-C8	<10	<10									<10	ug/l	TM36/PM12
>C8-C10	<10	<10									<10	ug/l	TM36/PM12
>C10-C12	<5	<5									<5	ug/l	TM5/PM16/PM30
>C12-C16	<10	<10									<10	ug/l	TM5/PM16/PM30
>C16-C21	<10	<10									<10	ug/l	TM5/PM16/PM30
>C21-C35	<10	<10									<10	ug/l	TM5/PM16/PM30
>C35-C40	<10	<10									<10	ug/l	TM5/PM16/PM30
Total aliphatics C5-40	<10	<10									<10	ug/l	TM5/PM16/PM12/PM6/PM30

Element Materials Technology

Client Name: Tier Environmental
Reference: TE1749
Location: Bryn Lane
Contact: Adrian Read
EMT Job No: 23/11332

Report : Liquid

Liquids/products: V=40ml vial, G=glass bottle, P=plastic bottle
 H=H₂SO₄, Z=ZnAc, N=NaOH, HN=HNO₃

EMT Sample No.	14-19	20-22									Please see attached notes for all abbreviations and acronyms		
Sample ID	WS02	WS03											
Depth	2.00	GRAB											
COC No / misc													
Containers	V H H N P G	V H N G											
Sample Date	07/07/2023	07/07/2023											
Sample Type	Liquid	Liquid											
Batch Number	1	1											
Date of Receipt	11/07/2023	11/07/2023											
TPH CWG													
Aromatics													
>C5-EC7	<10	<10									<10	ug/l	TM36/PM12
>EC7-EC8	<10	<10									<10	ug/l	TM36/PM12
>EC8-EC10	<10	<10									<10	ug/l	TM36/PM12
>EC10-EC12	<5	<5									<5	ug/l	TM5/PM16/PM30
>EC12-EC16	<10	<10									<10	ug/l	TM5/PM16/PM30
>EC16-EC21	<10	<10									<10	ug/l	TM5/PM16/PM30
>EC21-EC35	<10	<10									<10	ug/l	TM5/PM16/PM30
>EC35-EC40	<10	<10									<10	ug/l	TM5/PM16/PM30
Total aromatics C5-40	<10	<10									<10	ug/l	TM5/PM16/PM30/PM30
Total aliphatics and aromatics(C5-40)	<10	<10									<10	ug/l	TM5/PM16/PM30/PM30
Total Phenols HPLC	<0.15	<0.15									<0.15	mg/l	TM26/PM0
Sulphate as SO4	396.0	NDP									<0.5	mg/l	TM38/PM0
Ortho Phosphate as PO4	<0.06	0.50									<0.06	mg/l	TM38/PM0
Ortho Phosphate as PO4	0.04	0.62									<0.03	mg/l	TM38/PM0
Total Ammonia as N	2.69	NDP									<0.03	mg/l	TM38/PM0
Electrical Conductivity @25C	1964	NDP									<2	uS/cm	TM76/PM0
pH	7.23	NDP									<0.01	pH units	TM73/PM0
									</				

Matrix : Liquid

5 of 11

Client Name: Tier Environmental

Reference: TE1749

Location: Bryn Lane

Contact: Adrian Read

[illegible]

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

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

EMT Job No.: 23/11332

SOILS and ASH

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

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

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

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary. Asbestos samples are retained for 6 months.

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

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

All analysis is reported on a dry weight basis unless stated otherwise. Limits of detection for analyses carried out on as received samples are not moisture content corrected. Results are not surrogate corrected. Samples are dried at 35°C ±5°C unless otherwise stated. Moisture content for CEN Leachate tests are dried at 105°C ±5°C. Ash samples are dried at 37°C ±5°C.

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

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

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

Sufficient amount of sample must be received to carry out the testing specified. Where an insufficient amount of sample has been received the testing may not meet the requirements of our accredited methods, as such accreditation may be removed.

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

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

WATERS

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

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

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

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

STACK EMISSIONS

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation for Dioxins and Furans and Dioxin like PCBs has been performed on XAD-2 Resin, only samples which use this resin will be within our MCERTS scope.

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

DEVIATING SAMPLES

All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. The temperature of sample receipt is recorded on the confirmation schedules in order that the client can make an informed decision as to whether testing should still be undertaken.

SURROGATES

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

DILUTIONS

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

BLANKS

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

NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a requirement of our Accreditation Body for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.

Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation.

Laboratory records are kept for a period of no less than 6 years.

REPORTS FROM THE SOUTH AFRICA LABORATORY

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

Measurement Uncertainty

Measurement uncertainty defines the range of values that could reasonably be attributed to the measured quantity. This range of values has not been included within the reported results. Uncertainty expressed as a percentage can be provided upon request.

Customer Provided Information

Sample ID and depth is information provided by the customer.

ABBREVIATIONS and ACRONYMS USED

#	ISO17025 (UKAS Ref No. 4225) accredited - UK.
SA	ISO17025 (SANAS Ref No.T0729) accredited - South Africa
B	Indicates analyte found in associated method blank.
DR	Dilution required.
M	MCERTS accredited.
NA	Not applicable
NAD	No Asbestos Detected.
ND	None Detected (usually refers to VOC and/SVOC TICs).
NDP	No Determination Possible
SS	Calibrated against a single substance
SV	Surrogate recovery outside performance criteria. This may be due to a matrix effect.
W	Results expressed on as received basis.
+	AQC failure, accreditation has been removed from this result, if appropriate, see 'Note' on previous page.
>>	Results above quantitative calibration range. The result should be considered the minimum value and is indicative only. The actual result could be significantly higher.
*	Analysis subcontracted to an Element Materials Technology approved laboratory.
AD	Samples are dried at 35°C ±5°C
CO	Suspected carry over
LOD/LOR	Limit of Detection (Limit of Reporting) in line with ISO 17025 and MCERTS
ME	Matrix Effect
NFD	No Fibres Detected
BS	AQC Sample
LB	Blank Sample
N	Client Sample
TB	Trip Blank Sample
OC	Outside Calibration Range
AA	x5 Dilution
AB	x30 Dilution
AC	x150 Dilution

HWOL ACRONYMS AND OPERATORS USED

HS	Headspace Analysis.
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent.
CU	Clean-up - e.g. by florisil, silica gel.
1D	GC - Single coil gas chromatography.
Total	Aliphatics & Aromatics.
AL	Aliphatics only.
AR	Aromatics only.
2D	GC-GC - Double coil gas chromatography.
#1	EH_Total but with humics mathematically subtracted
#2	EU_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +).
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total
MS	Mass Spectrometry.

EMT Job No: 23/11332

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM30	Water samples are extracted with solvent using a magnetic stirrer to create a vortex.				
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM16/PM30	Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE/Water samples are extracted with solvent using a magnetic stirrer to create a vortex.				
TM5/TM36	please refer to TM5 and TM36 for method details	PM12/PM16/PM30	please refer to PM16/PM30 and PM12 for method details				
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM0	No preparation is required.				
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	PM14	Preparation of waters and leachates for metals by ICP OES/ICP MS. Samples are filtered for Dissolved metals, and remain unfiltered for Total metals then acidified				
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.				
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All anions comparable to BS ISO 15923-1: 2013I	PM0	No preparation is required.				
TM73	Modified US EPA methods 150.1 (1982) and 9045D Rev. 4 - 2004) and BS1377-3:1990. Determination of pH by Metrohm automated probe analyser.	PM0	No preparation is required.				
TM76	Modified US EPA method 120.1 (1982). Determination of Specific Conductance by Metrohm automated probe analyser.	PM0	No preparation is required.				
TM149	Determination of Pesticides by Large Volume Injection on GC Triple Quad MS, based upon USEPA method 8270D v5:2014	PM30	Water samples are extracted with solvent using a magnetic stirrer to create a vortex.				

Tier Environmental
Suite 414, Chadwick House
Warrington Rd
Birchwood
Warrington
United Kingdom
WA3 6AE



Attention :	Adrian Read
Date :	8th August, 2023
Your reference :	TE1749
Our reference :	Test Report 23/11409 Batch 1
Location :	Bryn Lane
Date samples received :	12th July, 2023
Status :	Final report
Issue :	1

Three samples were received for analysis on 12th July, 2023 of which three were scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.

All analysis is carried out on as received samples and reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected.

Authorised By:



Phil Sommerton BSc

Senior Project Manager

Please include all sections of this report if it is reproduced

Client Name: Tier Environmental
Reference: TE1749
Location: Bryn Lane
Contact: Adrian Read
EMT Job No: 23/11409

Liquids/products: V=40ml vial, G=glass bottle, P=plastic bottle
H=H₂SO₄, Z=ZnAc, N=NaOH, HN=HNO₃

Please see attached notes for all abbreviations and acronyms

Element Materials Technology

Client Name: Tier Environmental
Reference: TE1749
Location: Bryn Lane
Contact: Adrian Read
EMT Job No: 23/11409

Report : Liquid

Liquids/products: V=40ml vial, G=glass bottle, P=plastic bottle
 H=H₂SO₄, Z=ZnAc, N=NaOH, HN=HN₃

EMT Sample No.	1-6	7-12	19-24								Please see attached notes for all abbreviations and acronyms		
Sample ID	WS06	WS05	WS07										
Depth	3.50	3.00	3.50										
COC No / misc													
Containers	V H H N P G	V H H N P G	V H H N P G										
Sample Date	11/07/2023	12/07/2023	11/07/2023										
Sample Type	Liquid	Liquid	Liquid										
Batch Number	1	1	1										
Date of Receipt	12/07/2023	12/07/2023	12/07/2023								LOD/LOR	Units	Method No.
Pesticides													
Organophosphorus Pesticides													
Azinphos ethyl	<0.01	<0.01	<0.01								<0.01	ug/l	TM149/PM30
Azinphos methyl	<0.05 ^{AA}	<0.05 ^{AA}	<0.05 ^{AA}								<0.01	ug/l	TM149/PM30
Carbophenothion	<0.01	<0.01	<0.01								<0.01	ug/l	TM149/PM30
Chlorfenvinphos	<0.01	<0.01	<0.01								<0.01	ug/l	TM149/PM30
Chlorpyrifos	<0.01	<0.01	<0.01								<0.01	ug/l	TM149/PM30
Chlorpyrifos-methyl	<0.01	<0.01	<0.01								<0.01	ug/l	TM149/PM30
Diazinon	<0.01	<0.01	<0.01								<0.01	ug/l	TM149/PM30
Dichlorvos	<0.01	<0.01	<0.01								<0.01	ug/l	TM149/PM30
Disulfoton	<0.01	<0.01	<0.01								<0.01	ug/l	TM149/PM30
Dimethoate	<0.01	<0.01	<0.01								<0.01	ug/l	TM149/PM30
Ethion	<0.01	<0.01	<0.01								<0.01	ug/l	TM149/PM30
Ethyl Parathion (Parathion)	<0.01	<0.01	<0.01								<0.01	ug/l	TM149/PM30
Etrimphos	<0.01	<0.01	<0.01								<0.01	ug/l	TM149/PM30
Fenitrothion	<0.01	<0.01	<0.01								<0.01	ug/l	TM149/PM30
Fenthion	<0.01	<0.01	<0.01								<0.01	ug/l	TM149/PM30
Malathion	<0.01	<0.01	<0.01								<0.01	ug/l	TM149/PM30
Methyl Parathion	<0.01	<0.01	<0.01								<0.01	ug/l	TM149/PM30
Mevinphos	<0.01	<0.01	<0.01								<0.01	ug/l	TM149/PM30
Phosalone	<0.01	<0.01	<0.01								<0.01	ug/l	TM149/PM30
Pirimiphos Methyl	<0.01	<0.01	<0.01								<0.01	ug/l	TM149/PM30
Propetamphos	<0.01	<0.01	<0.01								<0.01	ug/l	TM149/PM30
Triazophos	<0.01	<0.01	<0.01								<0.01	ug/l	TM149/PM30
MTBE	<5	<5	<5								<5	ug/l	TM36/PM12
Benzene	<5	<5	<5								<5	ug/l	TM36/PM12
Toluene	<5	<5	<5								<5	ug/l	TM36/PM12
Ethylbenzene	<5	<5	<5								<5	ug/l	TM36/PM12
m/p-Xylene	<5	<5	<5								<5	ug/l	TM36/PM12
o-Xylene	<5	<5	<5								<5	ug/l	TM36/PM12
TPH CWG													
Aliphatics													
>C5-C6	<10	<10	<10								<10	ug/l	TM36/PM12
>C6-C8	<10	<10	<10								<10	ug/l	TM36/PM12
>C8-C10	<10	<10	<10								<10	ug/l	TM36/PM12
>C10-C12	<5	<5	<5								<5	ug/l	TM5/PM16/PM30
>C12-C16	<10	<10	<10								<10	ug/l	TM5/PM16/PM30
>C16-C21	<10	<10	<10								<10	ug/l	TM5/PM16/PM30
>C21-C35	<10	<10	<10								<10	ug/l	TM5/PM16/PM30
>C35-C40	<10	<10	<10								<10	ug/l	TM5/PM16/PM30
Total aliphatics C5-40	<10	<10	<10								<10	ug/l	TM5/PM16/PM30/PM30

Client Name: Tier Environmental

Reference: TE1749

Location: Bryn Lane

Contact: Adrian Read

[illegible]

Please note that only samples that are deviating are mentioned in this report. If no samples are listed it is because none were deviating.

Only analyses which are accredited are recorded as deviating if set criteria are not met.

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

EMT Job No.: 23/11409

SOILS and ASH

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

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

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

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary. Asbestos samples are retained for 6 months.

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

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

All analysis is reported on a dry weight basis unless stated otherwise. Limits of detection for analyses carried out on as received samples are not moisture content corrected. Results are not surrogate corrected. Samples are dried at 35°C ±5°C unless otherwise stated. Moisture content for CEN Leachate tests are dried at 105°C ±5°C. Ash samples are dried at 37°C ±5°C.

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

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

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

Sufficient amount of sample must be received to carry out the testing specified. Where an insufficient amount of sample has been received the testing may not meet the requirements of our accredited methods, as such accreditation may be removed.

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

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

WATERS

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

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

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

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

STACK EMISSIONS

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation for Dioxins and Furans and Dioxin like PCBs has been performed on XAD-2 Resin, only samples which use this resin will be within our MCERTS scope.

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

DEVIATING SAMPLES

All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. The temperature of sample receipt is recorded on the confirmation schedules in order that the client can make an informed decision as to whether testing should still be undertaken.

SURROGATES

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

DILUTIONS

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

BLANKS

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

NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a requirement of our Accreditation Body for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.

Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation.

Laboratory records are kept for a period of no less than 6 years.

REPORTS FROM THE SOUTH AFRICA LABORATORY

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

Measurement Uncertainty

Measurement uncertainty defines the range of values that could reasonably be attributed to the measured quantity. This range of values has not been included within the reported results. Uncertainty expressed as a percentage can be provided upon request.

Customer Provided Information

Sample ID and depth is information provided by the customer.

ABBREVIATIONS and ACRONYMS USED

#	ISO17025 (UKAS Ref No. 4225) accredited - UK.
SA	ISO17025 (SANAS Ref No.T0729) accredited - South Africa
B	Indicates analyte found in associated method blank.
DR	Dilution required.
M	MCERTS accredited.
NA	Not applicable
NAD	No Asbestos Detected.
ND	None Detected (usually refers to VOC and/SVOC TICs).
NDP	No Determination Possible
SS	Calibrated against a single substance
SV	Surrogate recovery outside performance criteria. This may be due to a matrix effect.
W	Results expressed on as received basis.
+	AQC failure, accreditation has been removed from this result, if appropriate, see 'Note' on previous page.
>>	Results above quantitative calibration range. The result should be considered the minimum value and is indicative only. The actual result could be significantly higher.
*	Analysis subcontracted to an Element Materials Technology approved laboratory.
AD	Samples are dried at 35°C ±5°C
CO	Suspected carry over
LOD/LOR	Limit of Detection (Limit of Reporting) in line with ISO 17025 and MCERTS
ME	Matrix Effect
NFD	No Fibres Detected
BS	AQC Sample
LB	Blank Sample
N	Client Sample
TB	Trip Blank Sample
OC	Outside Calibration Range
AA	x5 Dilution

HWOL ACRONYMS AND OPERATORS USED

HS	Headspace Analysis.
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent.
CU	Clean-up - e.g. by florisil, silica gel.
1D	GC - Single coil gas chromatography.
Total	Aliphatics & Aromatics.
AL	Aliphatics only.
AR	Aromatics only.
2D	GC-GC - Double coil gas chromatography.
#1	EH_Total but with humics mathematically subtracted
#2	EU_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +).
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total
MS	Mass Spectrometry.

EMT Job No: 23/11409

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM30	Water samples are extracted with solvent using a magnetic stirrer to create a vortex.				
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM16/PM30	Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE/Water samples are extracted with solvent using a magnetic stirrer to create a vortex.				
TM5/TM36	please refer to TM5 and TM36 for method details	PM12/PM16/PM30	please refer to PM16/PM30 and PM12 for method details				
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM0	No preparation is required.				
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	PM14	Preparation of waters and leachates for metals by ICP OES/ICP MS. Samples are filtered for Dissolved metals, and remain unfiltered for Total metals then acidified				
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.				
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All anions comparable to BS ISO 15923-1: 2013I	PM0	No preparation is required.				
TM73	Modified US EPA methods 150.1 (1982) and 9045D Rev. 4 - 2004) and BS1377-3:1990. Determination of pH by Metrohm automated probe analyser.	PM0	No preparation is required.				
TM76	Modified US EPA method 120.1 (1982). Determination of Specific Conductance by Metrohm automated probe analyser.	PM0	No preparation is required.				
TM149	Determination of Pesticides by Large Volume Injection on GC Triple Quad MS, based upon USEPA method 8270D v5:2014	PM30	Water samples are extracted with solvent using a magnetic stirrer to create a vortex.				

APPENDIX E - GEOTECHNICAL IN SITU FIELDWORK AND LABORATORY RESULTS

TEST REPORT

Client Tier Environmental Ltd

Address Suite 513
Chadwick House
Warrington Road
Birchwood
WA3 6AE

Contract TE1749 -
Bryn Lane Outline Planning

Job Number MRN 4625/32A
Replaces report no. MRN 4625/32

Date of Issue 17 August 2023

Page 1 of 19

Approved Signatories

S J Hutchings, O P Davies

Notes

- 1 All remaining samples and remnants from this contract will be disposed 28 days from the date of this report unless you notify us to the contrary.
- 2 Result certificates, in this report, not bearing a UKAS mark, are not included in our UKAS accreditation schedule.
- 3 Opinions and interpretations expressed herein are outside the scope of our UKAS accreditation.
- 4 Certified that the samples have been examined and tested in accordance with the terms of the contract/order and unless otherwise stated conform to the standards/specifications quoted.
- 5 The results included within the report are representative of the samples submitted for analysis.
- 6 This certificate should not be reproduced, except in full, without the express permission of the laboratory.



Andrew House, Hadfield Street, Dukinfield, Cheshire SK16 4QX Tel: 0161 475 0870
Email: enquiries@murrayrix.com Website: www.murrayrix.com

Also at: London: 020 8523 1999

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TEST CERTIFICATE
PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4:2016

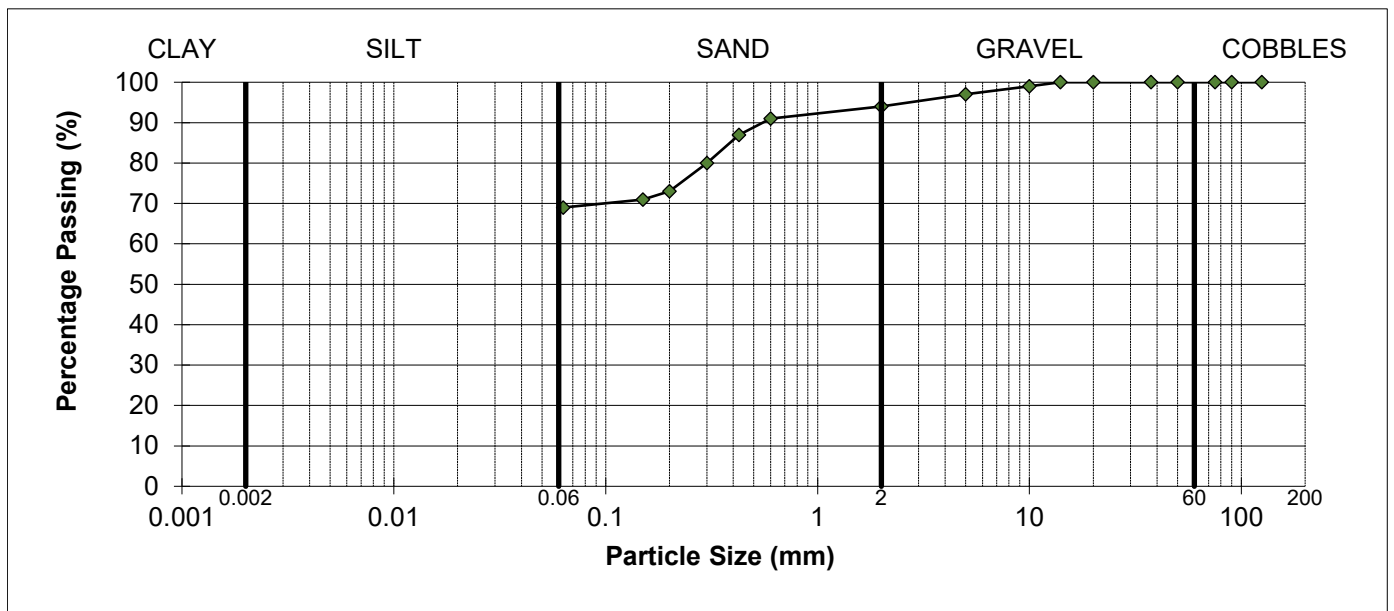
Determination of Water Content in accordance with BS EN ISO 17892-1:2014+A1:2022 (Oven Dry)

CLIENT	Tier Environmental Ltd
SITE	TE1749 - Bryn Lane Outline Planning
JOB NUMBER	MRN 4625/32A

SAMPLE LABEL	TP04 0.8 B	DATE SAMPLED	Not advised
LAB SAMPLE No	126557	DATE RECEIVED	08-Jun-23
DATE TESTED	07-Jul-23	SAMPLED BY	Client

MATERIAL	Brown silty slightly sandy slightly gravelly CLAY
ADVISED SOURCE	Site Investigation Sample

Sieve Size (mm)	% Passing (%)	Specification (%)	Sieve Size (mm)	% Passing (%)	Specification (%)
125	100		5	97	
90	100		2	94	
75	100		0.6	91	
50	100		0.425	87	
37.5	100		0.3	80	
20	100		0.2	73	
14	100		0.15	71	
10	99		0.063	69	



REMARKS

SIGNED



NAME

O.P. Davies BA (Hons)
(Laboratory Manager)

DATE

17-Aug-23

TEST CERTIFICATE
PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4:2016

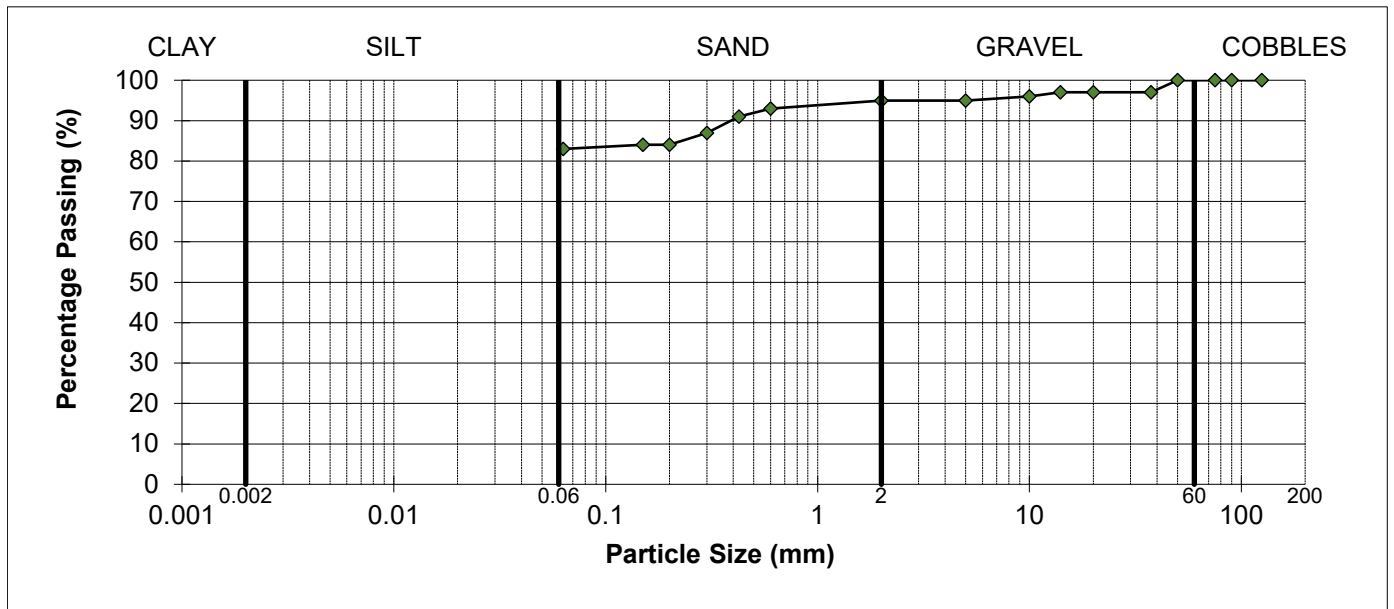
Determination of Water Content in accordance with BS EN ISO 17892-1:2014+A1:2022 (Oven Dry)

CLIENT	Tier Environmental Ltd
SITE	TE1749 - Bryn Lane Outline Planning
JOB NUMBER	MRN 4625/32A

SAMPLE LABEL	TP05 0.4 B	DATE SAMPLED	Not advised
LAB SAMPLE No	126881	DATE RECEIVED	16-Jun-23
DATE TESTED	07-Jul-23	SAMPLED BY	Client

MATERIAL	Brown silty slightly sandy slightly gravelly CLAY
ADVISED SOURCE	Site Investigation Sample

Sieve Size (mm)	% Passing (%)	Specification (%)	Sieve Size (mm)	% Passing (%)	Specification (%)
125	100		5	95	
90	100		2	95	
75	100		0.6	93	
50	100		0.425	91	
37.5	97		0.3	87	
20	97		0.2	84	
14	97		0.15	84	
10	96		0.063	83	



REMARKS

SIGNED



NAME

O.P. Davies BA (Hons)
(Laboratory Manager)

DATE

17-Aug-23

TEST CERTIFICATE
PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4:2016

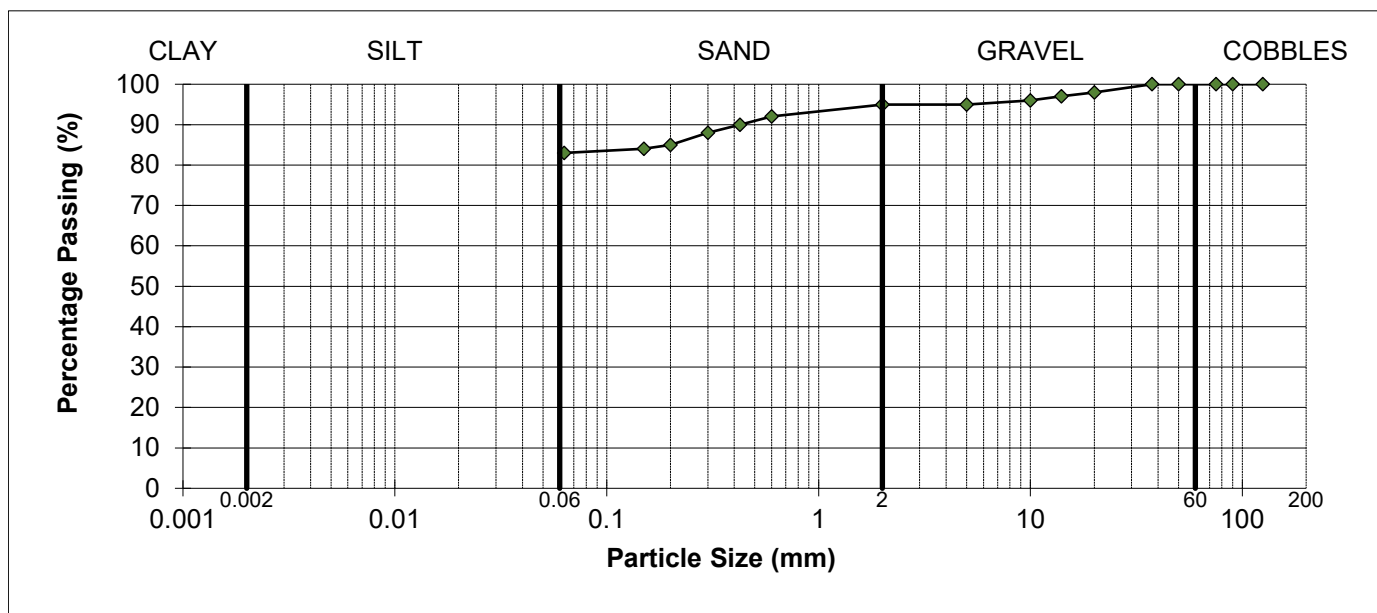
Determination of Water Content in accordance with BS EN ISO 17892-1:2014+A1:2022 (Oven Dry)

CLIENT	Tier Environmental Ltd
SITE	TE1749 - Bryn Lane Outline Planning
JOB NUMBER	MRN 4625/32A

SAMPLE LABEL	TP16 1.5 B	DATE SAMPLED	Not advised
LAB SAMPLE No	126912	DATE RECEIVED	16-Jun-23
DATE TESTED	07-Jul-23	SAMPLED BY	Client

MATERIAL	Brown silty slightly sandy slightly gravelly CLAY
ADVISED SOURCE	Site Investigation Sample

Sieve Size (mm)	% Passing (%)	Specification (%)	Sieve Size (mm)	% Passing (%)	Specification (%)
125	100		5	95	
90	100		2	95	
75	100		0.6	92	
50	100		0.425	90	
37.5	100		0.3	88	
20	98		0.2	85	
14	97		0.15	84	
10	96		0.063	83	



REMARKS

SIGNED



NAME

O.P. Davies BA (Hons)
(Laboratory Manager)

DATE

17-Aug-23

TEST CERTIFICATE
PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4:2016

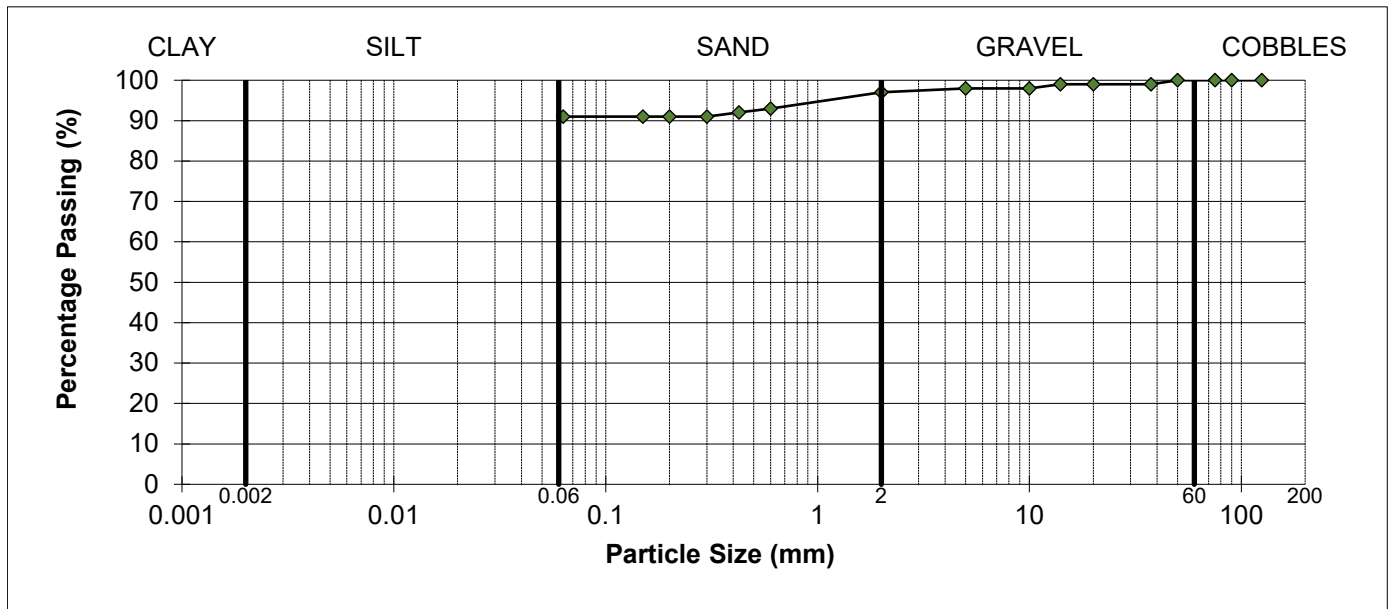
Determination of Water Content in accordance with BS EN ISO 17892-1:2014+A1:2022 (Oven Dry)

CLIENT	Tier Environmental Ltd
SITE	TE1749 - Bryn Lane Outline Planning
JOB NUMBER	MRN 4625/32A

SAMPLE LABEL	TP07 2.7 B	DATE SAMPLED	Not advised
LAB SAMPLE No	126886	DATE RECEIVED	16-Jun-23
DATE TESTED	07-Jul-23	SAMPLED BY	Client

MATERIAL	Brown silty slightly sandy slightly gravelly CLAY
ADVISED SOURCE	Site Investigation Sample

Sieve Size (mm)	% Passing (%)	Specification (%)	Sieve Size (mm)	% Passing (%)	Specification (%)
125	100		5	98	
90	100		2	97	
75	100		0.6	93	
50	100		0.425	92	
37.5	99		0.3	91	
20	99		0.2	91	
14	99		0.15	91	
10	98		0.063	91	



REMARKS

SIGNED



NAME

O.P. Davies BA (Hons)
(Laboratory Manager)

DATE

17-Aug-23

TEST CERTIFICATE
PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4:2016

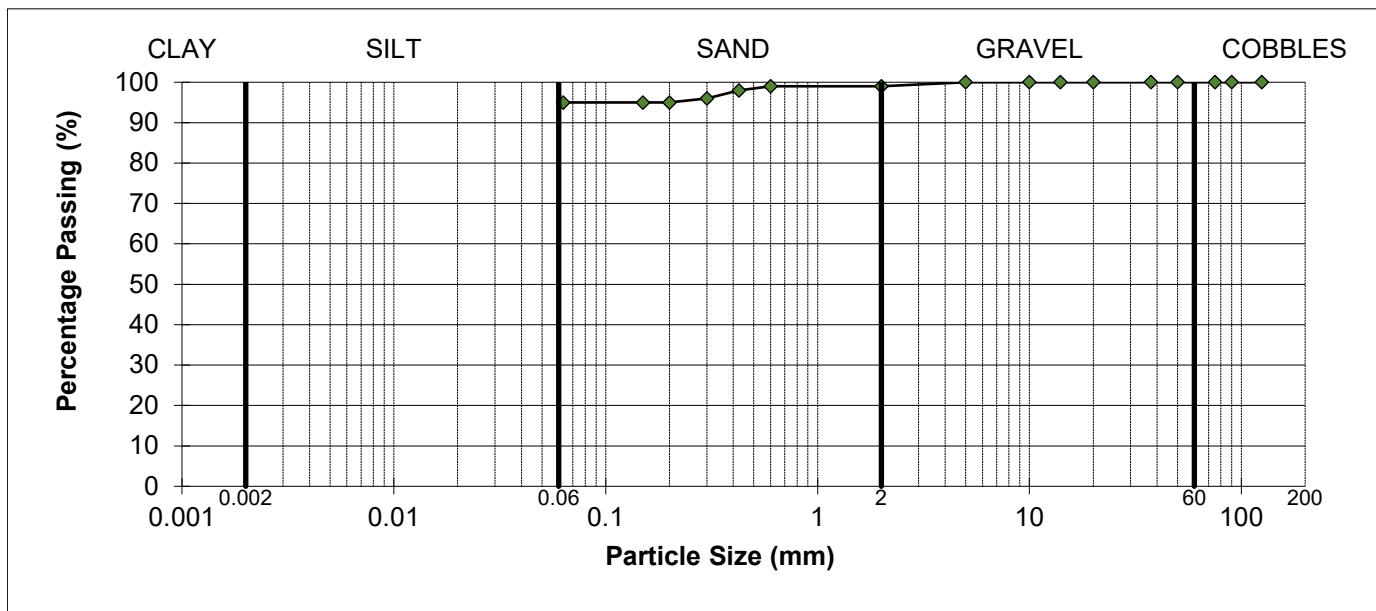
Determination of Water Content in accordance with BS EN ISO 17892-1:2014+A1:2022 (Oven Dry)

CLIENT	Tier Environmental Ltd
SITE	TE1749 - Bryn Lane Outline Planning
JOB NUMBER	MRN 4625/32A

SAMPLE LABEL	TP17 2 B	DATE SAMPLED	Not advised
LAB SAMPLE No	126893	DATE RECEIVED	16-Jun-23
DATE TESTED	07-Jul-23	SAMPLED BY	Client

MATERIAL	Brown silty slightly sandy slightly gravelly CLAY
ADVISED SOURCE	Site Investigation Sample

Sieve Size (mm)	% Passing (%)	Specification (%)	Sieve Size (mm)	% Passing (%)	Specification (%)
125	100		5	100	
90	100		2	99	
75	100		0.6	99	
50	100		0.425	98	
37.5	100		0.3	96	
20	100		0.2	95	
14	100		0.15	95	
10	100		0.063	95	



REMARKS

SIGNED



NAME

O.P. Davies BA (Hons)
(Laboratory Manager)

DATE

17-Aug-23

TEST CERTIFICATE
PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4:2016

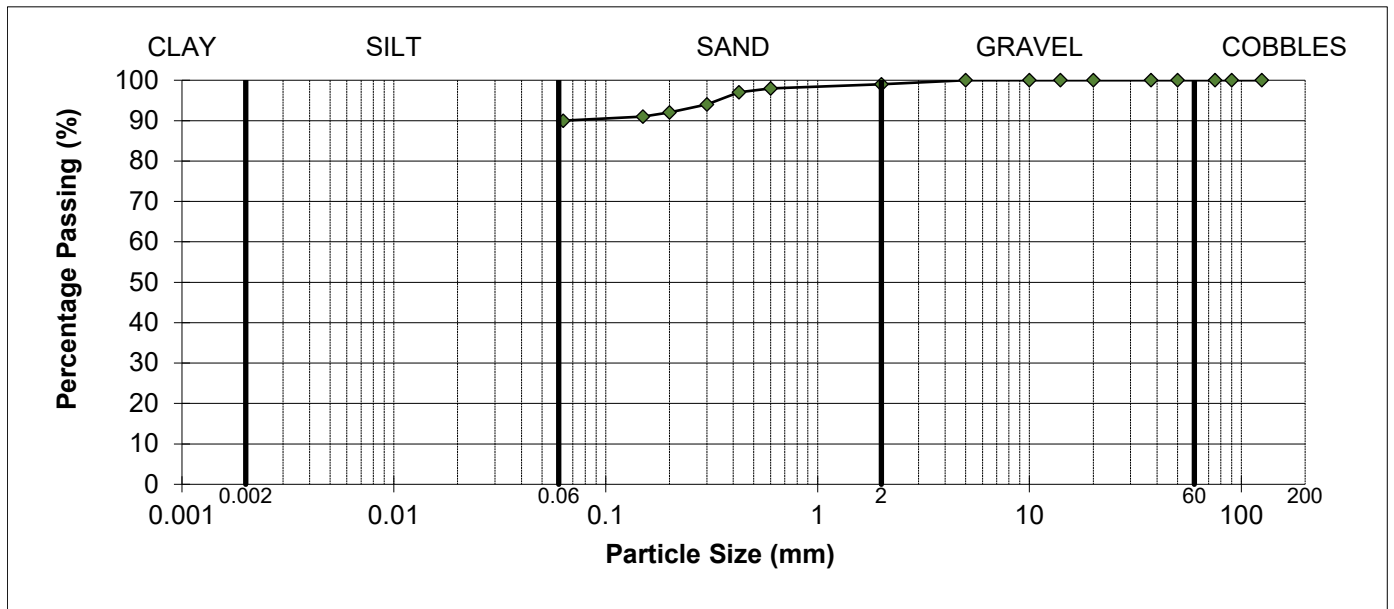
Determination of Water Content in accordance with BS EN ISO 17892-1:2014+A1:2022 (Oven Dry)

CLIENT	Tier Environmental Ltd
SITE	TE1749 - Bryn Lane Outline Planning
JOB NUMBER	MRN 4625/32A

SAMPLE LABEL	TP102 0.5-0.7 B	DATE SAMPLED	Not advised
LAB SAMPLE No	126551	DATE RECEIVED	08-Jun-23
DATE TESTED	07-Jul-23	SAMPLED BY	Client

MATERIAL	Brown silty slightly sandy slightly gravelly CLAY
ADVISED SOURCE	Site Investigation Sample

Sieve Size (mm)	% Passing (%)	Specification (%)	Sieve Size (mm)	% Passing (%)	Specification (%)
125	100		5	100	
90	100		2	99	
75	100		0.6	98	
50	100		0.425	97	
37.5	100		0.3	94	
20	100		0.2	92	
14	100		0.15	91	
10	100		0.063	90	



REMARKS

SIGNED



NAME

O.P. Davies BA (Hons)
(Laboratory Manager)

DATE

17-Aug-23

MURRAY RIX

ANDREW HOUSE, HADFIELD STREET,
DUKINFIELD, CHESHIRE SK16 4QX
TEL 0161 475 0870



TEST CERTIFICATE

DRY DENSITY/WATER CONTENT RELATIONSHIP 2.5kg RAMMER

BS 1377-2:2022 Cl.11

PARTICLE DENSITY METHOD BS 1377-2:2022 Cl.9.2

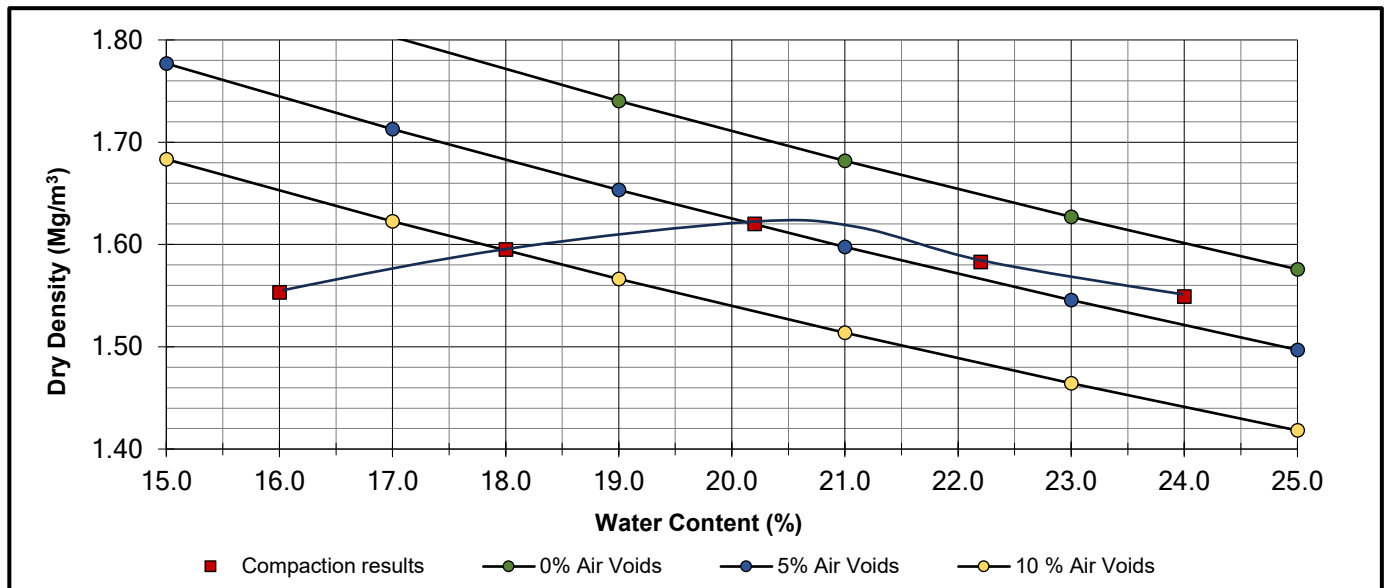
CLIENT	Tier Environmental Ltd
SITE	TE1749 - Bryn Lane Outline Planning
JOB NUMBER	MRN 4625/32A

SAMPLE LABEL	TP04 0.8 B	DATE SAMPLED	Not advised
SAMPLE NUMBER	126557	DATE RECEIVED	08-Jun-23
DATE TESTED	07-Jul-23	SAMPLED BY	Client

MATERIAL	Brown silty slightly sandy slightly gravelly CLAY
ADVISED SOURCE	Site Investigation Sample
PRE TREATMENT	Air Dried / Single Sample

RETAINED 37.5mm	0 %	GRADING ZONE	Zone 4
RETAINED 20mm	0 %	PARTICLE DENSITY	2.60 Mg/m3 (Assumed)

POINT NUMBER	WATER CONTENT (%)	DRY DENSITY (Mg/m ³)
1	16.0	1.553
2	18.0	1.595
3	20.2	1.620
4	22.2	1.583
5	24.0	1.549



OPTIMUM WATER CONTENT	21 (%)
MAXIMUM DRY DENSITY	1.62 (Mg/m ³)

REMARKS

As received water content = 16.9%

NAME O.P. Davies BA (Hons)
(Laboratory Manager)

SIGNED

DATE 17-Aug-23

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DRY DENSITY/WATER CONTENT RELATIONSHIP 2.5kg RAMMER

BS 1377-2:2022 Cl.11

PARTICLE DENSITY METHOD BS 1377-2:2022 Cl.9.2

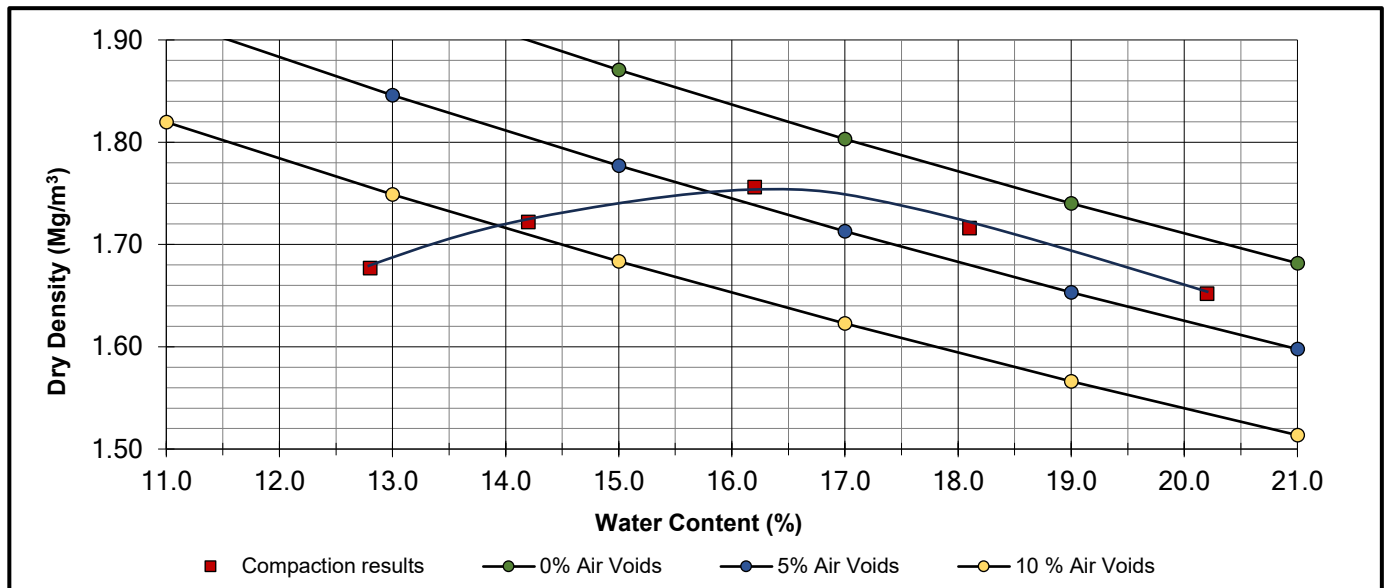
CLIENT	Tier Environmental Ltd
SITE	TE1749 - Bryn Lane Outline Planning
JOB NUMBER	MRN 4625/32A

SAMPLE LABEL	TP05 0.4 B	DATE SAMPLED	Not advised
SAMPLE NUMBER	126881	DATE RECEIVED	16-Jun-23
DATE TESTED	07-Jul-23	SAMPLED BY	Client

MATERIAL	Brown silty slightly sandy slightly gravelly CLAY
ADVISED SOURCE	Site Investigation Sample
PRE TREATMENT	Air Dried / Single Sample

RETAINED 37.5mm	3 %	GRADING ZONE	Zone 4
RETAINED 20mm	3 %	PARTICLE DENSITY	2.60 Mg/m ³ (Assumed)

POINT NUMBER	WATER CONTENT (%)	DRY DENSITY (Mg/m ³)
1	12.8	1.677
2	14.2	1.722
3	16.2	1.756
4	18.1	1.716
5	20.2	1.652



OPTIMUM WATER CONTENT	16 (%)
MAXIMUM DRY DENSITY	1.75 (Mg/m ³)

REMARKS

As received water content = 17.6%

NAME O.P. Davies BA (Hons)
(Laboratory Manager)

SIGNED

DATE 17-Aug-23

MURRAY RIX

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TEST CERTIFICATE

DRY DENSITY/WATER CONTENT RELATIONSHIP 2.5kg RAMMER

BS 1377-2:2022 Cl.11

PARTICLE DENSITY METHOD BS 1377-2:2022 Cl.9.2

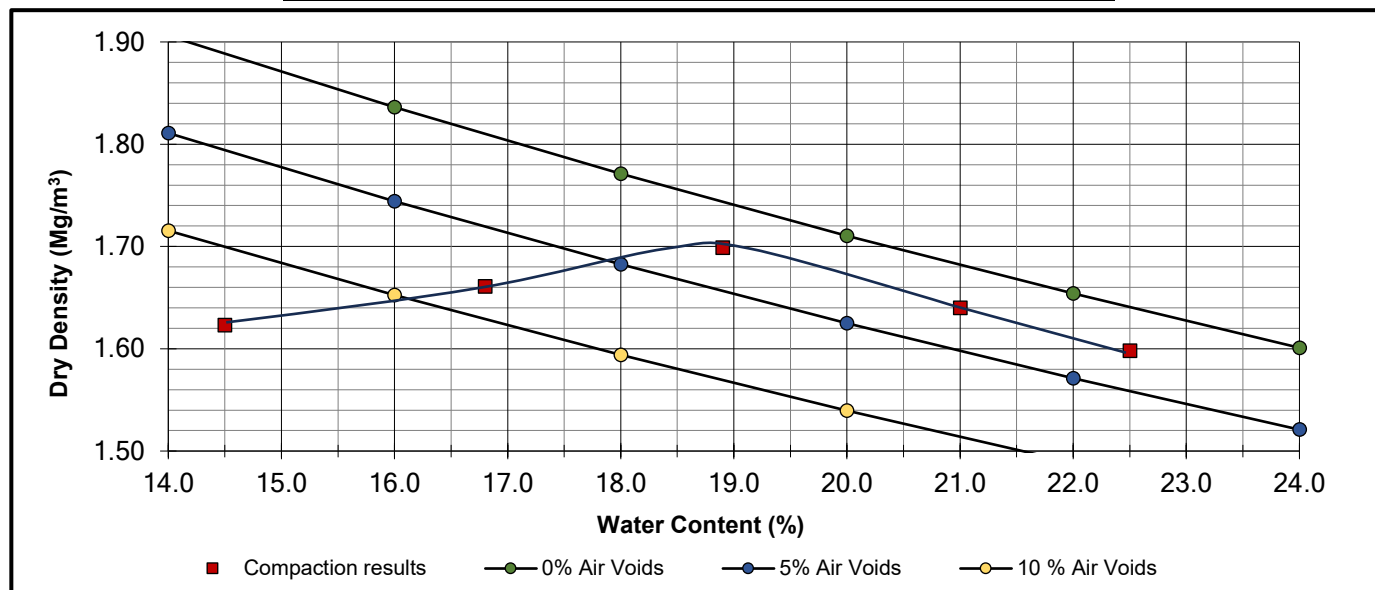
CLIENT	Tier Environmental Ltd		
SITE	TE1749 - Bryn Lane Outline Planning		
JOB NUMBER	MRN 4625/32A		

SAMPLE LABEL	TP16 1.5 B	DATE SAMPLED	Not advised
SAMPLE NUMBER	126912	DATE RECEIVED	16-Jun-23
DATE TESTED	07-Jul-23	SAMPLED BY	Client

MATERIAL	Brown silty slightly sandy slightly gravelly CLAY		
ADVISED SOURCE	Site Investigation Sample		
PRE TREATMENT	Air Dried / Single Sample		

RETAINED 37.5mm	0 %	GRADING ZONE	Zone 2
RETAINED 20mm	2 %	PARTICLE DENSITY	2.60 Mg/m3 (Assumed)

POINT NUMBER	WATER CONTENT (%)	DRY DENSITY (Mg/m ³)
1	14.5	1.623
2	16.8	1.661
3	18.9	1.699
4	21.0	1.640
5	22.5	1.598



OPTIMUM WATER CONTENT	19 (%)
MAXIMUM DRY DENSITY	1.70 (Mg/m ³)

REMARKS

As received water content = 38.9%

NAME O.P. Davies BA (Hons)
(Laboratory Manager)

SIGNED

DATE 17-Aug-23

MURRAY RIX

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DUKINFIELD, CHESHIRE SK16 4QX
TEL 0161 475 0870



TEST CERTIFICATE

DRY DENSITY/WATER CONTENT RELATIONSHIP 2.5kg RAMMER

BS 1377-2:2022 Cl.11

PARTICLE DENSITY METHOD BS 1377-2:2022 Cl.9.2

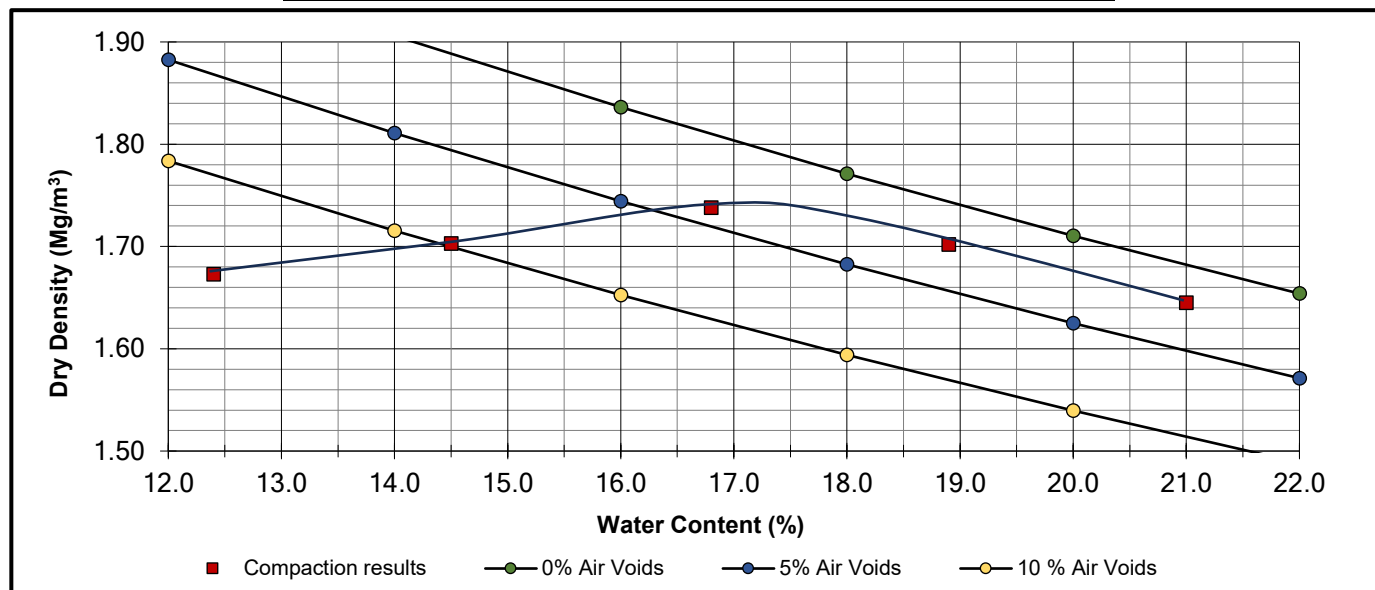
CLIENT	Tier Environmental Ltd
SITE	TE1749 - Bryn Lane Outline Planning
JOB NUMBER	MRN 4625/32A

SAMPLE LABEL	TP07 2.7 B	DATE SAMPLED	Not advised
SAMPLE NUMBER	126886	DATE RECEIVED	16-Jun-23
DATE TESTED	07-Jul-23	SAMPLED BY	Client

MATERIAL	Brown silty slightly sandy slightly gravelly CLAY
ADVISED SOURCE	Site Investigation Sample
PRE TREATMENT	Air Dried / Single Sample

RETAINED 37.5mm	1 %	GRADING ZONE	Zone 4
RETAINED 20mm	1 %	PARTICLE DENSITY	2.60 Mg/m3 (Assumed)

POINT NUMBER	WATER CONTENT (%)	DRY DENSITY (Mg/m ³)
1	12.4	1.673
2	14.5	1.703
3	16.8	1.738
4	18.9	1.702
5	21.0	1.645



OPTIMUM WATER CONTENT	17 (%)
MAXIMUM DRY DENSITY	1.74 (Mg/m ³)

REMARKS

As received water content = 19.9%

NAME O.P. Davies BA (Hons)
(Laboratory Manager)

SIGNED

DATE 17-Aug-23

MURRAY RIX

ANDREW HOUSE, HADFIELD STREET,
DUKINFIELD, CHESHIRE SK16 4QX
TEL 0161 475 0870



TEST CERTIFICATE

DRY DENSITY/WATER CONTENT RELATIONSHIP 2.5kg RAMMER

BS 1377-2:2022 Cl.11

PARTICLE DENSITY METHOD BS 1377-2:2022 Cl.9.2

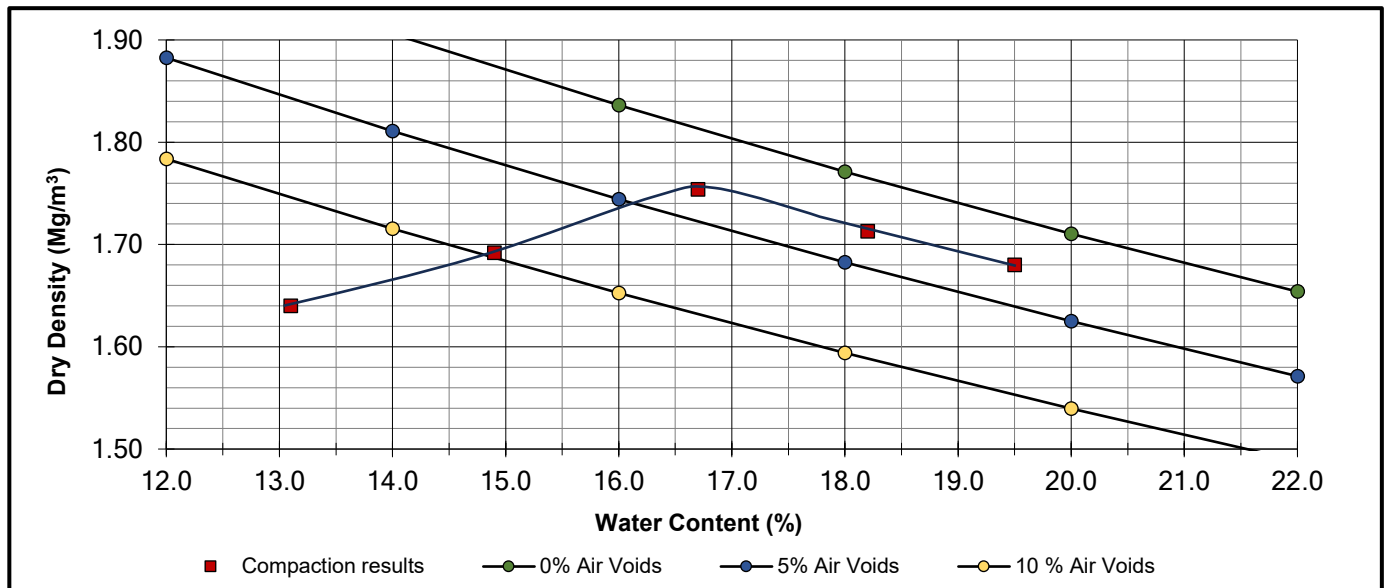
CLIENT	Tier Environmental Ltd		
SITE	TE1749 - Bryn Lane Outline Planning		
JOB NUMBER	MRN 4625/32A		

SAMPLE LABEL	TP17 2 B	DATE SAMPLED	Not advised
SAMPLE NUMBER	126893	DATE RECEIVED	16-Jun-23
DATE TESTED	07-Jul-23	SAMPLED BY	Client

MATERIAL	Brown silty slightly sandy slightly gravelly CLAY		
ADVISED SOURCE	Site Investigation Sample		
PRE TREATMENT	Air Dried / Single Sample		

RETAINED 37.5mm	0	%	GRADING ZONE	Zone 1	
RETAINED 20mm	0	%	PARTICLE DENSITY	2.60	Mg/m ³ (Assumed)

POINT NUMBER	WATER CONTENT (%)	DRY DENSITY (Mg/m ³)
1	13.1	1.640
2	14.9	1.692
3	16.7	1.754
4	18.2	1.713
5	19.5	1.680



OPTIMUM WATER CONTENT	17	(%)
MAXIMUM DRY DENSITY	1.75	(Mg/m ³)

REMARKS

As received water content = 19.1%

NAME O.P. Davies BA (Hons)
(Laboratory Manager)

SIGNED

DATE 17-Aug-23

MURRAY RIX

ANDREW HOUSE, HADFIELD STREET,
DUKINFIELD, CHESHIRE SK16 4QX
TEL 0161 475 0870



TEST CERTIFICATE

DRY DENSITY/WATER CONTENT RELATIONSHIP 2.5kg RAMMER

BS 1377-2:2022 Cl.11

PARTICLE DENSITY METHOD BS 1377-2:2022 Cl.9.2

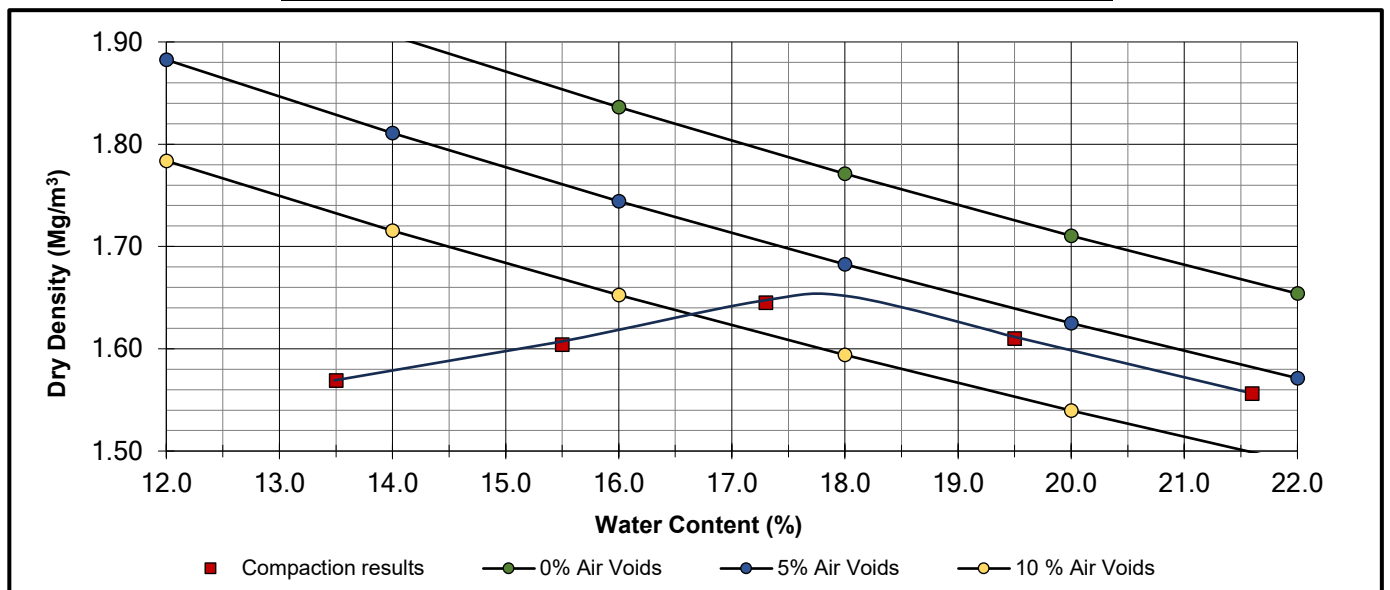
CLIENT	Tier Environmental Ltd		
SITE	TE1749 - Bryn Lane Outline Planning		
JOB NUMBER	MRN 4625/32A		

SAMPLE LABEL	TP102 0.5-0.7 B	DATE SAMPLED	Not advised
SAMPLE NUMBER	126551	DATE RECEIVED	08-Jun-23
DATE TESTED	07-Jul-23	SAMPLED BY	Client

MATERIAL	Brown silty slightly sandy slightly gravelly CLAY		
ADVISED SOURCE	Site Investigation Sample		
PRE TREATMENT	Air Dried / Single Sample		

RETAINED 37.5mm	0	%	GRADING ZONE	Zone 1	
RETAINED 20mm	0	%	PARTICLE DENSITY	2.60	Mg/m ³ (Assumed)

POINT NUMBER	WATER CONTENT (%)	DRY DENSITY (Mg/m ³)
1	13.5	1.569
2	15.5	1.604
3	17.3	1.645
4	19.5	1.610
5	21.6	1.556



OPTIMUM WATER CONTENT	18	(%)
MAXIMUM DRY DENSITY	1.65	(Mg/m ³)

REMARKS

As received water content = 24.8%

NAME O.P. Davies BA (Hons)
(Laboratory Manager)

SIGNED

DATE 17-Aug-23

MURRAY RIX

ANDREW HOUSE, HADFIELD STREET,
DUKINFIELD, CHESHIRE SK16 4QX
TEL 0161 475 0870



TEST CERTIFICATE

LIQUID LIMIT BS EN ISO 17892-12:2018+A2:2022 Clause 5.3 (30° FALL CONE) 1 POINT METHOD

PLASTIC LIMIT BS EN ISO 17892-12:2018+A2:2022 Clause 5.5

WATER CONTENT METHOD BS EN ISO 17892-1:2014+A1:2022

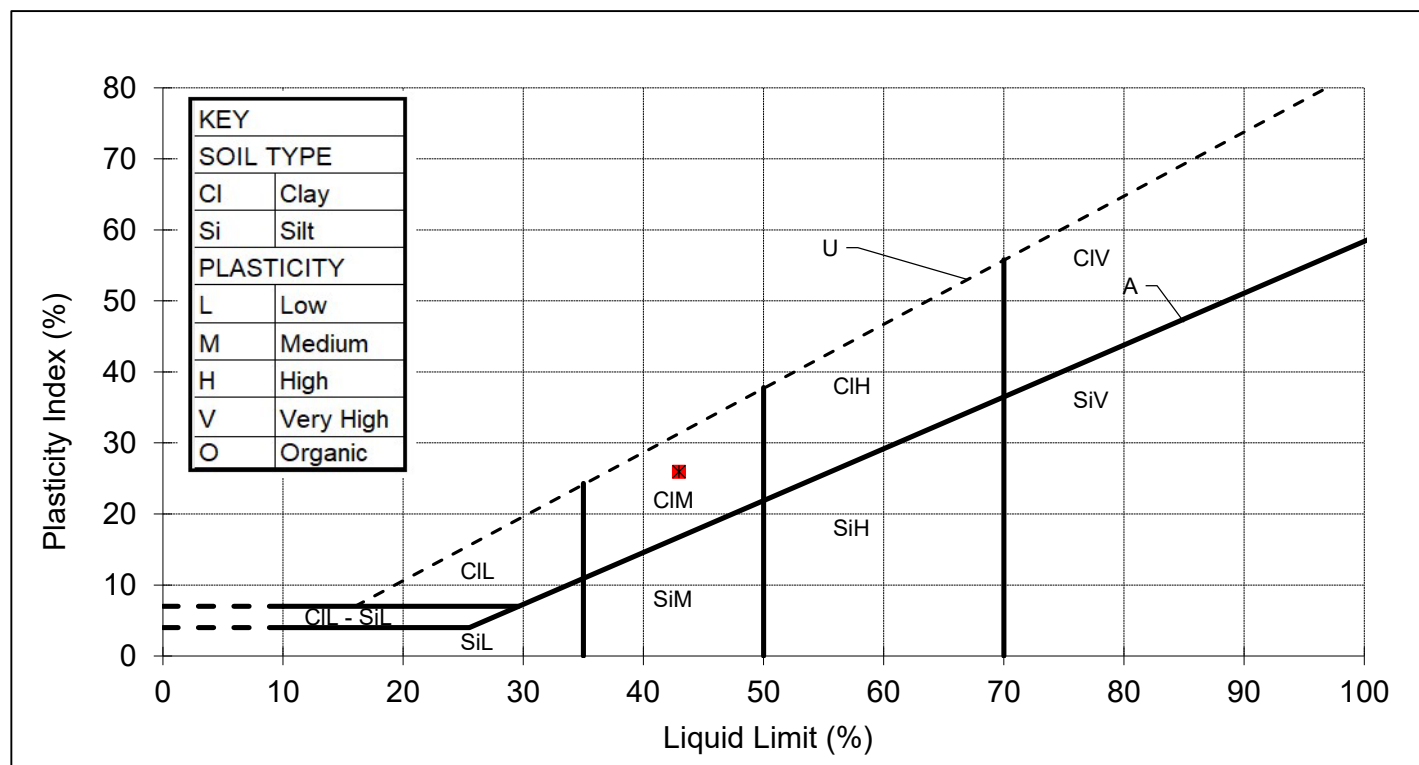
CLIENT	Tier Environmental Ltd
SITE	TE1749 - Bryn Lane Outline Planning
JOB NUMBER	MRN 4625/32A

SAMPLE LABEL	TP12 2.25 B	DATE SAMPLED	Not advised
SAMPLE No.	126892	DATE RECEIVED	16-Jun-23
DATE TESTED	08-Jul-23	SAMPLED BY	Client

MATERIAL	Brown silty slightly sandy slightly gravelly CLAY		
ADVISED SOURCE	Site Investigation Sample	WATER CONTENT	Increasing
SAMPLE HISTORY	Natural State	% RET. 425um BY	Wet Sieved

Test Readings mm (average)		Moisture Content %	Correction Factor	Correction factor from Clayton and Jukes 1978
Determination 1 (avg)	19.1	42.2	1.019	
Determination 2 (avg)	19.0	42.1		

Natural Moisture Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	Passing 425 micron (%)
18.8	43	17	26	91



REMARKS

SIGNED

NAME

O.P. Davies BA (Hons)
(Laboratory Manager)

DATE

17-Aug-23

MURRAY RIX

ANDREW HOUSE, HADFIELD STREET,
DUKINFIELD, CHESHIRE SK16 4QX
TEL 0161 475 0870



TEST CERTIFICATE

LIQUID LIMIT BS EN ISO 17892-12:2018+A2:2022 Clause 5.3 (30° FALL CONE) 1 POINT METHOD

PLASTIC LIMIT BS EN ISO 17892-12:2018+A2:2022 Clause 5.5

WATER CONTENT METHOD BS EN ISO 17892-1:2014+A1:2022

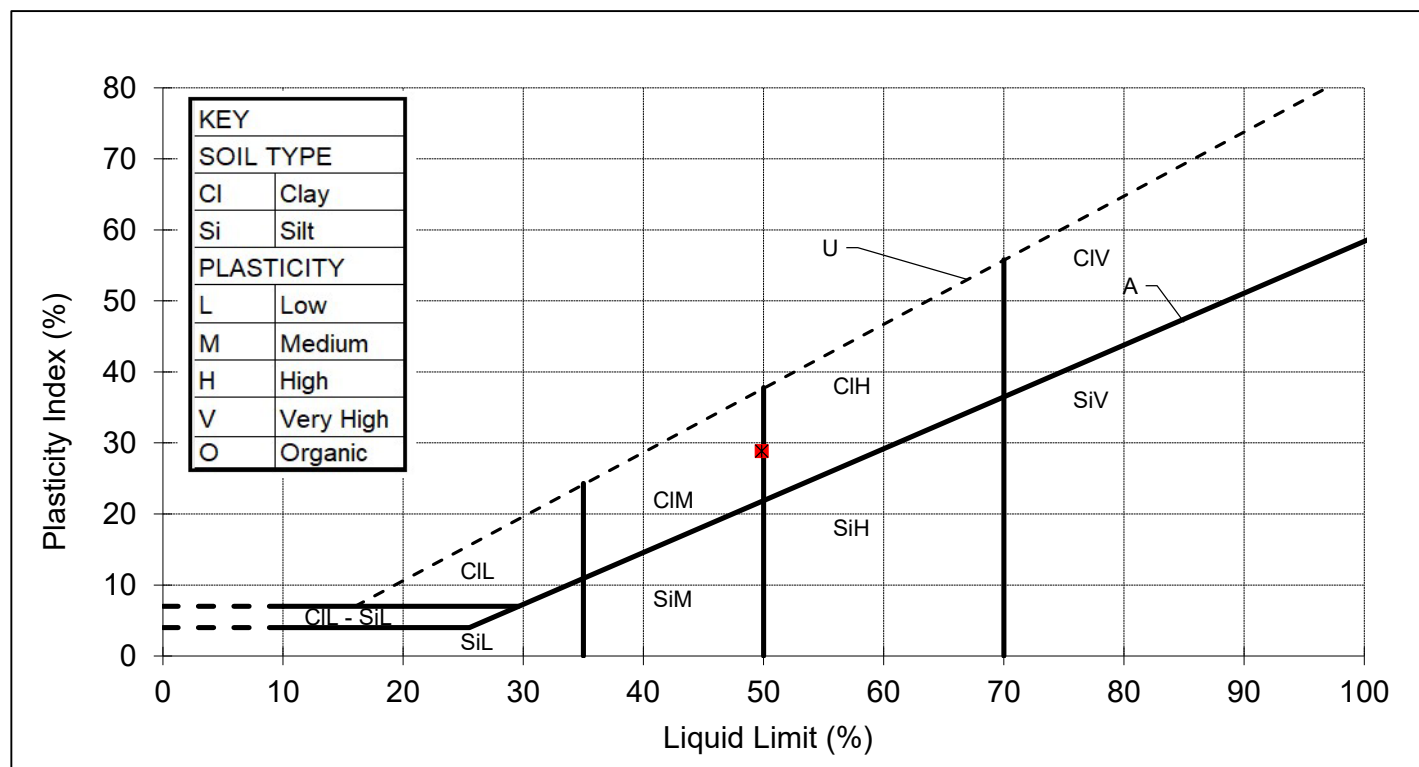
CLIENT	Tier Environmental Ltd
SITE	TE1749 - Bryn Lane Outline Planning
JOB NUMBER	MRN 4625/32A

SAMPLE LABEL	TP14 0.8 B	DATE SAMPLED	Not advised
SAMPLE No.	126910	DATE RECEIVED	16-Jun-23
DATE TESTED	08-Jul-23	SAMPLED BY	Client

MATERIAL	Brown silty slightly sandy slightly gravelly CLAY		
ADVISED SOURCE	Site Investigation Sample	WATER CONTENT	Increasing
SAMPLE HISTORY	Natural State	% RET. 425um BY	Wet Sieved

Test Readings mm (average)		Moisture Content %	Correction Factor	Correction factor from Clayton and Jukes 1978
Determination 1 (avg)	19.9	49.6	1.002	
Determination 2 (avg)	19.9	49.9		

Natural Moisture Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	Passing 425 micron (%)
44.0	50	21	29	98



REMARKS

SIGNED

NAME

O.P. Davies BA (Hons)
(Laboratory Manager)

DATE

17-Aug-23

MURRAY RIX

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DUKINFIELD, CHESHIRE SK16 4QX
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TEST CERTIFICATE

LIQUID LIMIT BS EN ISO 17892-12:2018+A2:2022 Clause 5.3 (30° FALL CONE) 1 POINT METHOD

PLASTIC LIMIT BS EN ISO 17892-12:2018+A2:2022 Clause 5.5

WATER CONTENT METHOD BS EN ISO 17892-1:2014+A1:2022

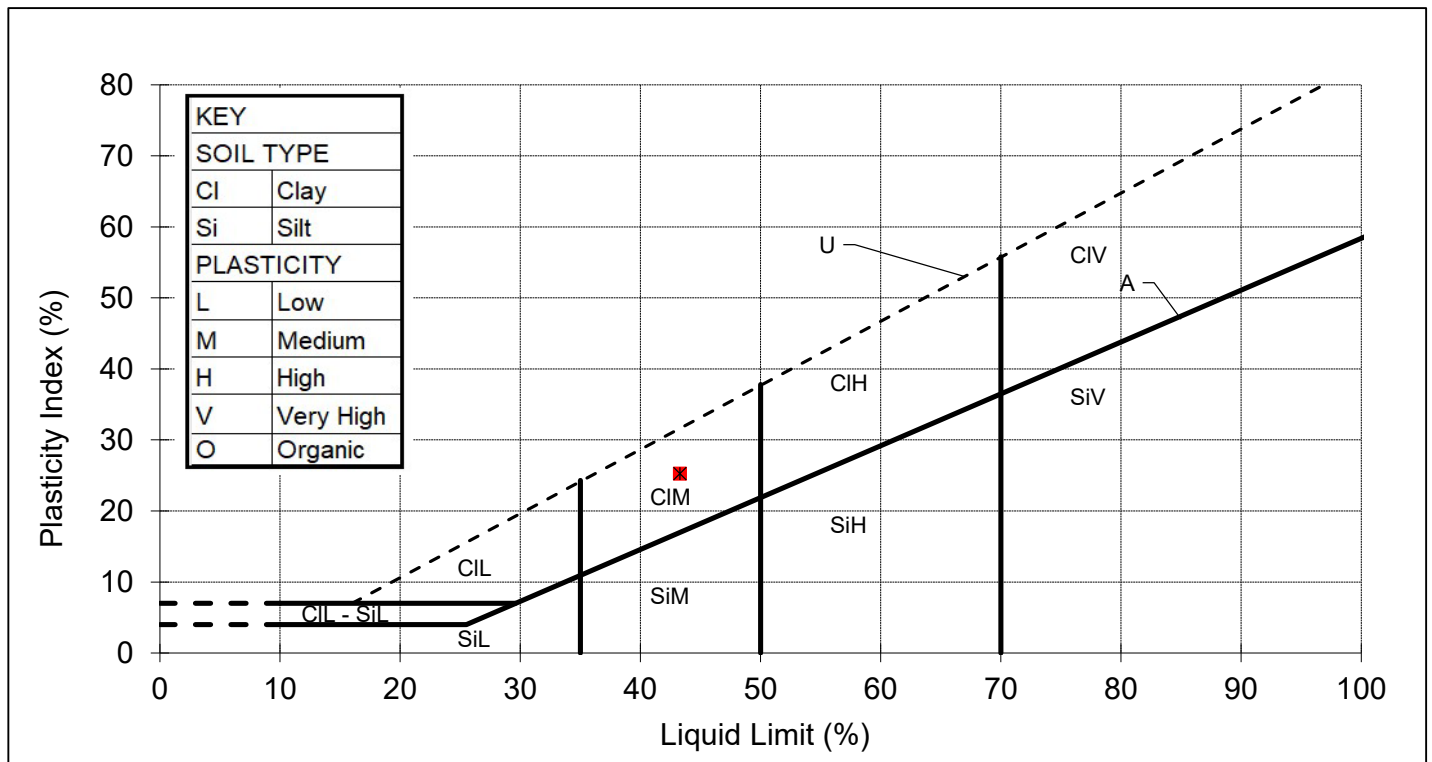
CLIENT	Tier Environmental Ltd		
SITE	TE1749 - Bryn Lane Outline Planning		
JOB NUMBER	MRN 4625/32A		

SAMPLE LABEL	TP01 1.5 B	DATE SAMPLED	Not advised
SAMPLE No.	126549	DATE RECEIVED	08-Jun-23
DATE TESTED	08-Jul-23	SAMPLED BY	Client

MATERIAL	Brown silty slightly sandy slightly gravelly CLAY		
ADVISED SOURCE	Site Investigation Sample	WATER CONTENT	Increasing
SAMPLE HISTORY	Natural State	% RET. 425um BY	Wet Sieved

Test Readings mm (average)		Moisture Content %	Correction Factor	Correction factor from Clayton and Jukes 1978
Determination 1 (avg)	20.8	43.8	0.988	
Determination 2 (avg)	20.7	43.8		

Natural Moisture Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	Passing 425 micron (%)
22.8	43	18	25	98



REMARKS

SIGNED

NAME

O.P. Davies BA (Hons)
(Laboratory Manager)

DATE

17-Aug-23

MURRAY RIX

ANDREW HOUSE, HADFIELD STREET,
DUKINFIELD, CHESHIRE SK16 4QX
TEL 0161 475 0870



TEST CERTIFICATE

LIQUID LIMIT BS EN ISO 17892-12:2018+A2:2022 Clause 5.3 (30° FALL CONE) 1 POINT METHOD

PLASTIC LIMIT BS EN ISO 17892-12:2018+A2:2022 Clause 5.5

WATER CONTENT METHOD BS EN ISO 17892-1:2014+A1:2022

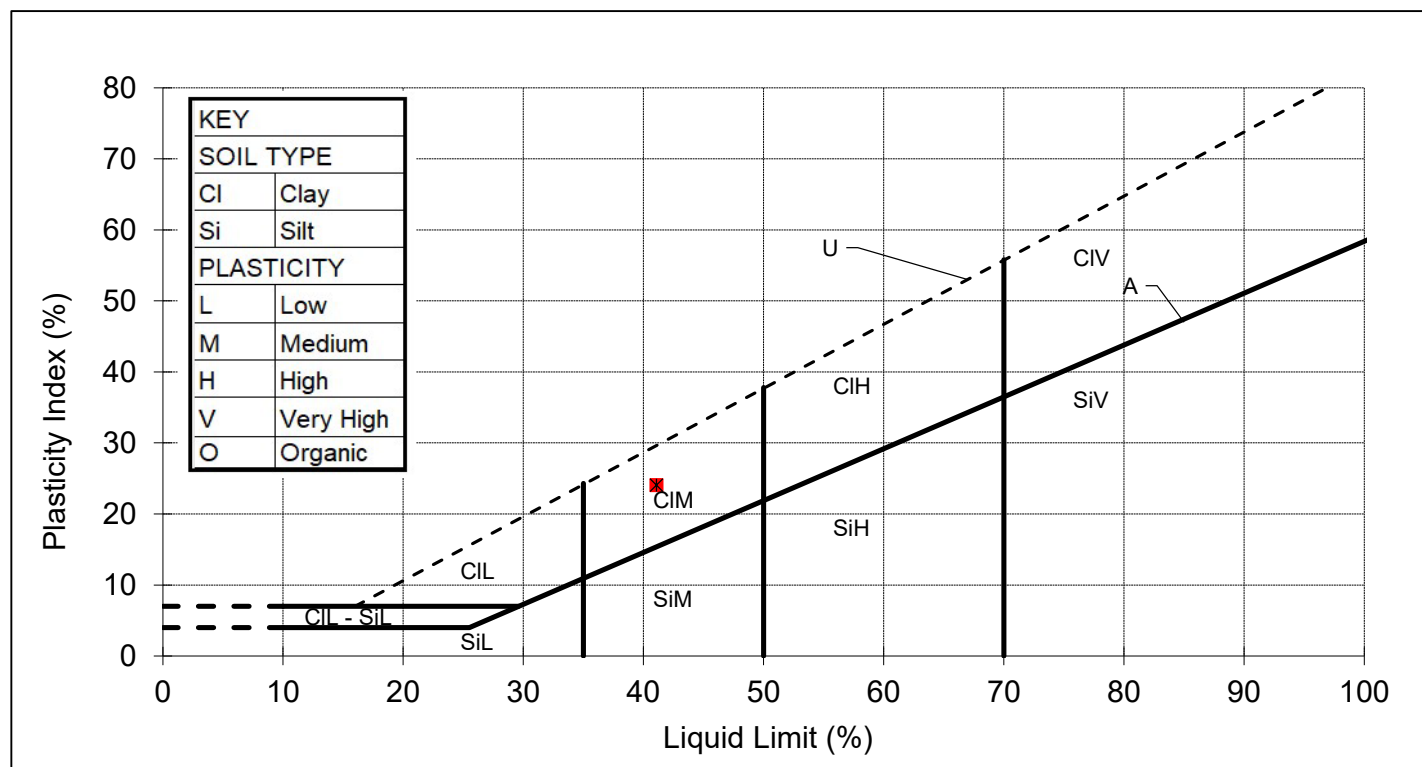
CLIENT	Tier Environmental Ltd
SITE	TE1749 - Bryn Lane Outline Planning
JOB NUMBER	MRN 4625/32A

SAMPLE LABEL	TP10 2.3 B	DATE SAMPLED	Not advised
SAMPLE No.	126890	DATE RECEIVED	16-Jun-23
DATE TESTED	08-Jul-23	SAMPLED BY	Client

MATERIAL	Brown silty slightly sandy slightly gravelly CLAY		
ADVISED SOURCE	Site Investigation Sample	WATER CONTENT	Increasing
SAMPLE HISTORY	Natural State	% RET. 425um BY	Wet Sieved

Test Readings mm (average)		Moisture Content %	Correction Factor	Correction factor from Clayton and Jukes 1978
Determination 1 (avg)	19.9	41.0	1.002	
Determination 2 (avg)	19.9	41.0		

Natural Moisture Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	Passing 425 micron (%)
18.0	41	17	24	96



REMARKS

SIGNED

NAME

O.P. Davies BA (Hons)
(Laboratory Manager)

DATE

17-Aug-23

MURRAY RIX

ANDREW HOUSE, HADFIELD STREET,
DUKINFIELD, CHESHIRE SK16 4QX
TEL 0161 475 0870



TEST CERTIFICATE

LIQUID LIMIT BS EN ISO 17892-12:2018+A2:2022 Clause 5.3 (30° FALL CONE) 1 POINT METHOD

PLASTIC LIMIT BS EN ISO 17892-12:2018+A2:2022 Clause 5.5

WATER CONTENT METHOD BS EN ISO 17892-1:2014+A1:2022

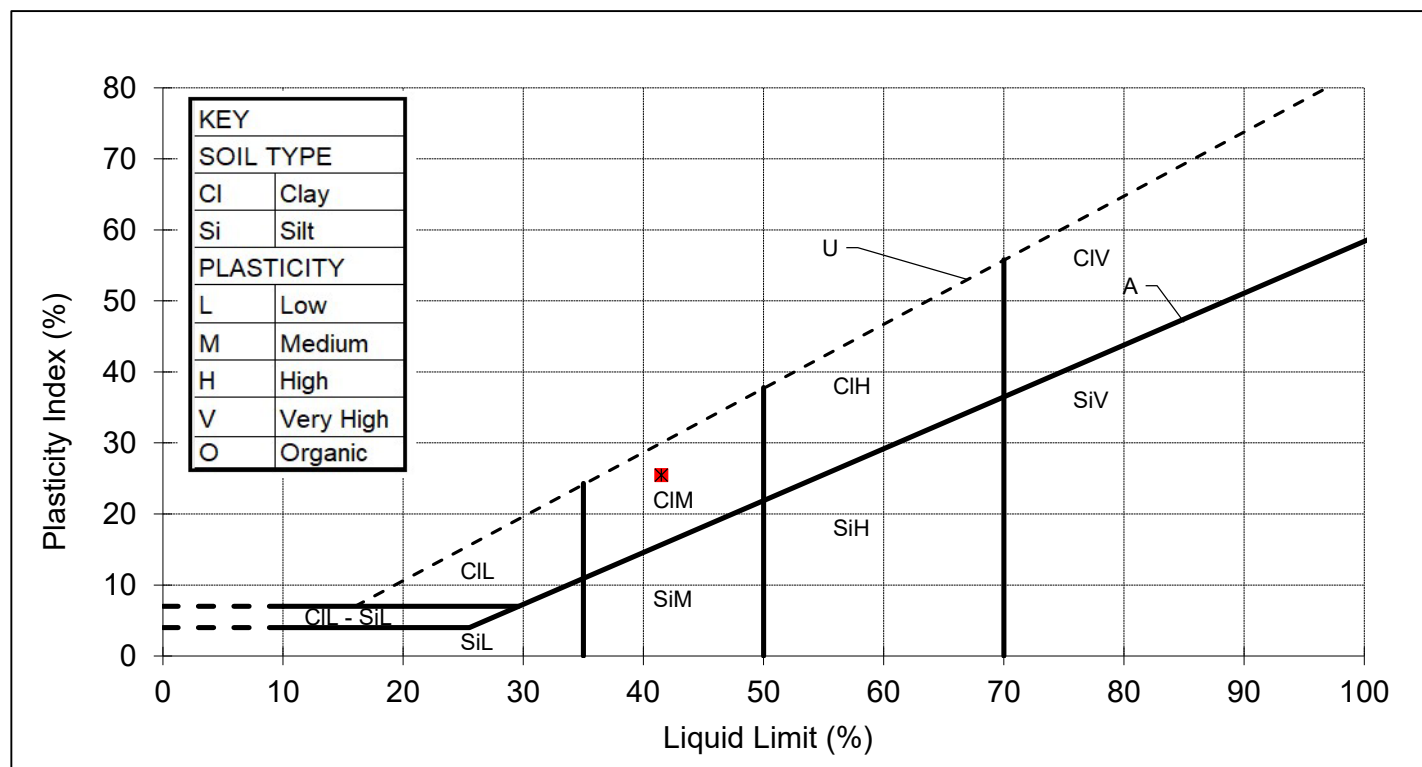
CLIENT	Tier Environmental Ltd
SITE	TE1749 - Bryn Lane Outline Planning
JOB NUMBER	MRN 4625/32A

SAMPLE LABEL	TP09 0.7 B	DATE SAMPLED	Not advised
SAMPLE No.	126888	DATE RECEIVED	16-Jun-23
DATE TESTED	08-Jul-23	SAMPLED BY	Client

MATERIAL	Brown silty slightly sandy slightly gravelly CLAY		
ADVISED SOURCE	Site Investigation Sample	WATER CONTENT	Increasing
SAMPLE HISTORY	Natural State	% RET. 425um BY	Wet Sieved

Test Readings mm (average)		Moisture Content %	Correction Factor	Correction factor from Clayton and Jukes 1978
Determination 1 (avg)	17.8	40.0	1.036	
Determination 2 (avg)	17.8	40.1		

Natural Moisture Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	Passing 425 micron (%)
17.2	41	16	25	90



REMARKS

SIGNED

NAME

O.P. Davies BA (Hons)
(Laboratory Manager)

DATE

17-Aug-23

MURRAY RIX

ANDREW HOUSE, HADFIELD STREET,
DUKINFIELD, CHESHIRE SK16 4QX
TEL 0161 475 0870



TEST CERTIFICATE

LIQUID LIMIT BS EN ISO 17892-12:2018+A2:2022 Clause 5.3 (30° FALL CONE) 1 POINT METHOD

PLASTIC LIMIT BS EN ISO 17892-12:2018+A2:2022 Clause 5.5

WATER CONTENT METHOD BS EN ISO 17892-1:2014+A1:2022

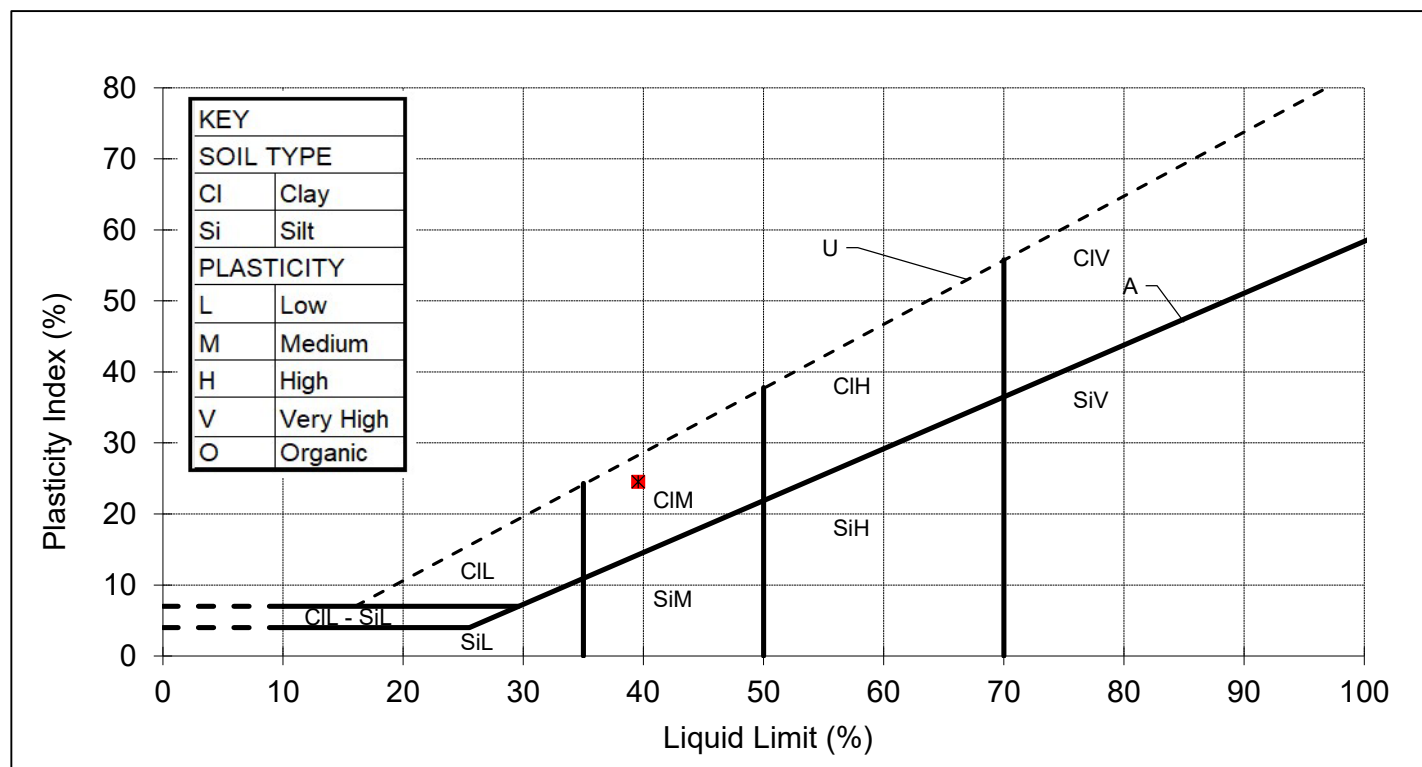
CLIENT	Tier Environmental Ltd
SITE	TE1749 - Bryn Lane Outline Planning
JOB NUMBER	MRN 4625/32A

SAMPLE LABEL	TP15 3 B	DATE SAMPLED	Not advised
SAMPLE No.	126911	DATE RECEIVED	16-Jun-23
DATE TESTED	08-Jul-23	SAMPLED BY	Client

MATERIAL	Brown silty slightly sandy slightly gravelly CLAY		
ADVISED SOURCE	Site Investigation Sample	WATER CONTENT	Increasing
SAMPLE HISTORY	Natural State	% RET. 425um BY	Wet Sieved

Test Readings mm (average)		Moisture Content %	Correction Factor	Correction factor from Clayton and Jukes 1978
Determination 1 (avg)	18.6	38.5	1.022	
Determination 2 (avg)	18.8	38.9		

Natural Moisture Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	Passing 425 micron (%)
19.8	40	15	25	93



REMARKS

SIGNED

NAME

O.P. Davies BA (Hons)
(Laboratory Manager)

DATE

17-Aug-23

APPENDIX F - GROUNDWATER AND GAS MONITORING RESULTS

Job No:	TE1749		
Visit No:	1	of	2
Operator:	HC		
Project Manager:	SL		

O ₂	21.4
----------------	------

	Snow
	Strong
	Overcast
	Heavy
1014	After
	Rising

☐ Frozen

Pressure Trend

[illegible]

Job No:	TE1749		
Visit No:	2	of	2
Operator:	SW AND LH		
Project Manager:	SL		

O_2	20.8
-------	------

	Snow
	Strong
	Overcast
	Heavy
1016	After
X	Rising

☐ Frozen

Pressure Trend

[illegible]

APPENDIX G - PHOTOGRAPHS

Project Name Bryn Lane, Wrexham		Photographic Record	Borehole ID
Project No. TE1749			TP01
Engineer Eve Rowland			
Client Net World Sports			
			Pit
			Spoil
Photographed By		Date	
ER		05.06.2023	

Project Name Bryn Lane, Wrexham		Photographic Record	Borehole ID
Project No. TE1749			TP02
Engineer Eve Rowland			
Client Net World Sports			
		Pit	
		Spoil	
Photographed By		Date	
ER		05.06.2023	

Project Name Bryn Lane, Wrexham		Photographic Record	Borehole ID TP03
Project No. TE1749			
Engineer Eve Rowland			
Client Net World Sports			
		Pit	
		Spoil	
Photographed By		Date	
ER		05.06.2023	

Project Name Bryn Lane, Wrexham		Photographic Record	Borehole ID TP04
Project No. TE1749			
Engineer Eve Rowland			
Client Net World Sports			
			Pit
			Spoil
Photographed By		Date	
ER		05.06.2023	

Project Name Bryn Lane, Wrexham		Photographic Record	Borehole ID TP05
Project No. TE1749			
Engineer Eve Rowland			
Client Net World Sports			
			
	Pit		
			
	Spoil		
Photographed By		Date	
ER		05.06.2023	

Project Name Bryn Lane, Wrexham		Photographic Record	Borehole ID TP06
Project No. TE1749			
Engineer Eve Rowland			
Client Net World Sports			
			Pit
			Spoil
Photographed By		Date	
ER		05.06.2023	

Project Name Bryn Lane, Wrexham		Photographic Record	Borehole ID TP07
Project No. TE1749			
Engineer Eve Rowland			
Client Net World Sports			
		Pit	
			Spoil
Photographed By			Date
ER		05.06.2023	

Project Name Bryn Lane, Wrexham		Photographic Record	Borehole ID
Project No. TE1749			TP08
Engineer Eve Rowland			
Client Net World Sports			
			Pit
			Spoil
Photographed By		Date	
ER		05.06.2023	

Project Name Bryn Lane, Wrexham		Photographic Record	Borehole ID TP09
Project No. TE1749			
Engineer Eve Rowland			
Client Net World Sports			
			
		Pit	
			
		Spoil	
Photographed By		Date	
ER		05.06.2023	

Project Name Bryn Lane, Wrexham		Photographic Record	Borehole ID TP10
Project No. TE1749			
Engineer Eve Rowland			
Client Net World Sports			
			Pit
			Spoil
Photographed By		Date	
ER		05.06.2023	

Project Name Bryn Lane, Wrexham		Photographic Record	Borehole ID TP11
Project No. TE1749			
Engineer Eve Rowland			
Client Net World Sports			
		Pit	
		Spoil	
Photographed By		Date	
ER		05.06.2023	

Project Name Bryn Lane, Wrexham		Photographic Record	Borehole ID
Project No. TE1749			TP12
Engineer Eve Rowland			
Client Net World Sports			
			Pit
			Spoil
Photographed By		Date	
ER		05.06.2023	

Project Name	Bryn Lane, Wrexham	Photographic Record	Borehole ID
Project No.	TE1749		TP13
Engineer	Eve Rowland		
Client	Net World Sports		
			Pit
			Spoil
Photographed By		Date	
ER		05.06.2023	

Project Name Bryn Lane, Wrexham		Photographic Record	Borehole ID TP14
Project No. TE1749			
Engineer Eve Rowland			
Client Net World Sports			
			Pit
			Spoil
Photographed By		Date	
ER		05.06.2023	

Project Name	Bryn Lane, Wrexham	Photographic Record	Borehole ID
Project No.	TE1749		TP15
Engineer	Eve Rowland		
Client	Net World Sports		
		Pit	
		Spoil	
Photographed By		Date	
ER		05.06.2023	

Project Name Bryn Lane, Wrexham		Photographic Record	Borehole ID
Project No. TE1749			TP16
Engineer Eve Rowland			
Client Net World Sports			
			
		Pit	
			
		Spoil	
Photographed By		Date	
ER		05.06.2023	

Project Name Bryn Lane, Wrexham		Photographic Record	Borehole ID TP17
Project No. TE1749			
Engineer Eve Rowland			
Client Net World Sports			
			Pit
			Spoil
Photographed By		Date	
ER		05.06.2023	

APPENDIX H - GROUNDSURE REPORT (AVAILABLE AS A SEPARATE DOCUMENT)

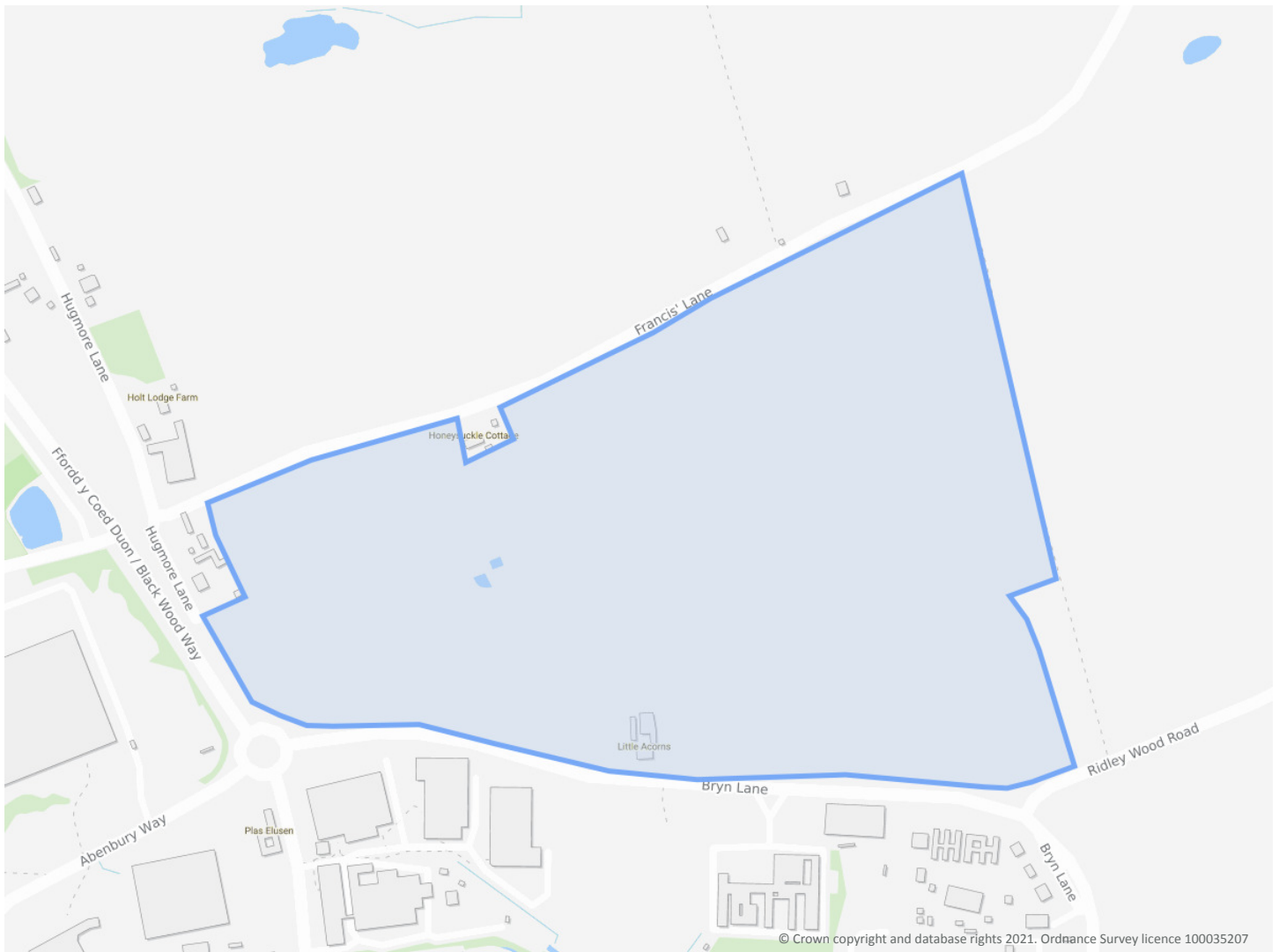
LAND NORTH OF BRYN LANE, WREXHAM INDUSTRIAL ESTATE, WREXHAM, LL13 9UT

Order Details

Date: 25/10/2021
Your ref: 1779_TE1624
Our Ref: GS-8287503
Client: Tier Environmental

Site Details

Location: 338541 351126
Area: 38.93 ha
Authority: [Wrexham - Wrexham County Borough Council](#)



Summary of findings

p. 2

Aerial image

p. 8

OS MasterMap site plan

N/A: >10ha

groundsure.com/insightuserguide

Contact us with any questions at:

info@groundsure.com

08444 159 000

Summary of findings

Page	Section	Past land use	On site	0-50m	50-250m	250-500m	500-2000m
13	1.1	Historical industrial land uses	0	0	7	9	-
14	1.2	Historical tanks	0	0	16	14	-
16	1.3	Historical energy features	0	0	0	12	-
16	1.4	Historical petrol stations	0	0	0	0	-
17	1.5	Historical garages	0	0	0	0	-
17	1.6	Historical military land	0	0	1	0	-
Page	Section	Past land use - un-grouped	On site	0-50m	50-250m	250-500m	500-2000m
18	2.1	Historical industrial land uses	0	0	12	16	-
20	2.2	Historical tanks	0	0	61	31	-
23	2.3	Historical energy features	0	0	0	33	-
25	2.4	Historical petrol stations	0	0	0	0	-
25	2.5	Historical garages	0	0	0	0	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
26	3.1	Active or recent landfill	0	0	0	0	-
26	3.2	Historical landfill (BGS records)	0	0	0	0	-
27	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
27	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
27	3.5	Historical waste sites	0	0	0	0	-
27	3.6	Licensed waste sites	0	0	10	7	-
32	3.7	Waste exemptions	0	0	4	7	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
34	4.1	Recent industrial land uses	0	1	23	-	-
36	4.2	Current or recent petrol stations	0	0	0	1	-
36	4.3	Electricity cables	0	0	0	0	-
37	4.4	Gas pipelines	0	0	0	0	-
37	4.5	Sites determined as Contaminated Land	0	0	0	0	-



37	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
37	4.7	Regulated explosive sites	0	0	0	0	-
37	4.8	Hazardous substance storage/usage	0	0	0	0	-
38	4.9	<u>Historical licensed industrial activities (IPC)</u>	0	0	0	5	-
38	4.10	<u>Licensed industrial activities (Part A(1))</u>	0	0	4	30	-
44	4.11	<u>Licensed pollutant release (Part A(2)/B)</u>	0	0	1	9	-
46	4.12	Radioactive Substance Authorisations	0	0	0	0	-
46	4.13	<u>Licensed Discharges to controlled waters</u>	0	0	0	9	-
47	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
47	4.15	Pollutant release to public sewer	0	0	0	0	-
48	4.16	List 1 Dangerous Substances	0	0	0	0	-
48	4.17	<u>List 2 Dangerous Substances</u>	0	0	0	1	-
48	4.18	<u>Pollution Incidents (EA/NRW)</u>	0	0	2	3	-
49	4.19	Pollution inventory substances	0	0	0	0	-
49	4.20	Pollution inventory waste transfers	0	0	0	0	-
49	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
50	5.1	<u>Superficial aquifer</u>	Identified (within 500m)				
51	5.2	<u>Bedrock aquifer</u>	Identified (within 500m)				
53	5.3	<u>Groundwater vulnerability</u>	Identified (within 50m)				
55	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
55	5.5	Groundwater vulnerability- local information	None (within 0m)				
56	5.6	<u>Groundwater abstractions</u>	0	0	1	0	15
60	5.7	<u>Surface water abstractions</u>	0	0	0	0	1
60	5.8	Potable abstractions	0	0	0	0	0
61	5.9	<u>Source Protection Zones</u>	2	0	0	0	-
61	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
62	6.1	<u>Water Network (OS MasterMap)</u>	0	0	11	-	-



63	6.2	<u>Surface water features</u>	1	0	9	-	-
64	6.3	<u>WFD Surface water body catchments</u>	1	-	-	-	-
64	6.4	<u>WFD Surface water bodies</u>	0	0	0	-	-
65	6.5	<u>WFD Groundwater bodies</u>	2	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
66	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
66	7.2	Historical Flood Events	0	0	0	-	-
66	7.3	Flood Defences	0	0	0	-	-
67	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
67	7.5	Flood Storage Areas	0	0	0	-	-
68	7.6	Flood Zone 2	None (within 50m)				
68	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding					
69	8.1	<u>Surface water flooding</u>	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding					
71	9.1	<u>Groundwater flooding</u>	Low (within 50m)				
Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
72	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
73	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
73	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
73	10.4	Special Protection Areas (SPA)	0	0	0	0	0
73	10.5	National Nature Reserves (NNR)	0	0	0	0	0
74	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
74	10.7	<u>Designated Ancient Woodland</u>	0	0	0	0	14
75	10.8	Biosphere Reserves	0	0	0	0	0
75	10.9	Forest Parks	0	0	0	0	0
75	10.10	Marine Conservation Zones	0	0	0	0	0
75	10.11	Green Belt	0	0	0	0	0
75	10.12	Proposed Ramsar sites	0	0	0	0	0



76	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
76	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
76	10.15	Nitrate Sensitive Areas	0	0	0	0	0
76	10.16	Nitrate Vulnerable Zones	0	0	0	0	0
77	<u>10.17</u>	<u>SSSI Impact Risk Zones</u>	2	-	-	-	-
78	10.18	SSSI Units	0	0	0	0	0
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
79	11.1	World Heritage Sites	0	0	0	-	-
80	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
80	11.3	National Parks	0	0	0	-	-
80	<u>11.4</u>	<u>Listed Buildings</u>	0	0	1	-	-
81	11.5	Conservation Areas	0	0	0	-	-
81	11.6	Scheduled Ancient Monuments	0	0	0	-	-
81	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
82	<u>12.1</u>	<u>Agricultural Land Classification</u>	Grade 3a (within 250m)				
83	12.2	Open Access Land	0	0	0	-	-
83	12.3	Tree Felling Licences	0	0	0	-	-
83	12.4	Environmental Stewardship Schemes	0	0	0	-	-
83	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
84	13.1	Priority Habitat Inventory	0	0	0	-	-
84	13.2	Habitat Networks	0	0	0	-	-
84	13.3	Open Mosaic Habitat	0	0	0	-	-
84	13.4	Limestone Pavement Orders	0	0	0	-	-
Page	Section	Geology 1:10,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
85	<u>14.1</u>	<u>10k Availability</u>	Identified (within 500m)				
86	<u>14.2</u>	<u>Artificial and made ground (10k)</u>	0	1	1	1	-
87	<u>14.3</u>	<u>Superficial geology (10k)</u>	1	0	0	0	-

88	14.4	Landslip (10k)	0	0	0	0	-
89	14.5	<u>Bedrock geology (10k)</u>	2	0	1	0	-
90	14.6	<u>Bedrock faults and other linear features (10k)</u>	1	0	1	0	-
Page	Section	Geology 1:50,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
91	15.1	<u>50k Availability</u>	Identified (within 500m)				
92	15.2	<u>Artificial and made ground (50k)</u>	1	0	0	1	-
93	15.3	<u>Artificial ground permeability (50k)</u>	1	0	-	-	-
94	15.4	<u>Superficial geology (50k)</u>	2	0	0	0	-
95	15.5	<u>Superficial permeability (50k)</u>	Identified (within 50m)				
95	15.6	Landslip (50k)	0	0	0	0	-
95	15.7	Landslip permeability (50k)	None (within 50m)				
96	15.8	<u>Bedrock geology (50k)</u>	4	0	1	0	-
97	15.9	<u>Bedrock permeability (50k)</u>	Identified (within 50m)				
97	15.10	<u>Bedrock faults and other linear features (50k)</u>	2	0	1	0	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
98	16.1	<u>BGS Boreholes</u>	0	5	25	-	-
Page	Section	Natural ground subsidence					
101	17.1	<u>Shrink swell clays</u>	Very low (within 50m)				
102	17.2	<u>Running sands</u>	Very low (within 50m)				
104	17.3	<u>Compressible deposits</u>	Negligible (within 50m)				
105	17.4	<u>Collapsible deposits</u>	Very low (within 50m)				
106	17.5	<u>Landslides</u>	Very low (within 50m)				
107	17.6	<u>Ground dissolution of soluble rocks</u>	Negligible (within 50m)				
Page	Section	Mining, ground workings and natural cavities	On site	0-50m	50-250m	250-500m	500-2000m
109	18.1	Natural cavities	0	0	0	0	-
110	18.2	BritPits	0	0	0	0	-
110	18.3	<u>Surface ground workings</u>	29	6	37	-	-
113	18.4	Underground workings	0	0	0	0	0
113	18.5	Historical Mineral Planning Areas	0	0	0	0	-



113	18.6	Non-coal mining	0	0	0	0	0
113	18.7	Mining cavities	0	0	0	0	0
113	18.8	JPB mining areas	None (within 0m)				
114	18.9	<u>Coal mining</u>	Identified (within 0m)				
114	18.10	Brine areas	None (within 0m)				
114	18.11	Gypsum areas	None (within 0m)				
114	18.12	Tin mining	None (within 0m)				
114	18.13	Clay mining	None (within 0m)				
Page	Section	Radon					
115	19.1	<u>Radon</u>	Less than 1% (within 0m)				
Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
116	20.1	<u>BGS Estimated Background Soil Chemistry</u>	11	2	-	-	-
117	20.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
117	20.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
118	21.1	Underground railways (London)	0	0	0	-	-
118	21.2	Underground railways (Non-London)	0	0	0	-	-
119	21.3	Railway tunnels	0	0	0	-	-
119	21.4	<u>Historical railway and tunnel features</u>	0	0	4	-	-
119	21.5	Royal Mail tunnels	0	0	0	-	-
120	21.6	Historical railways	0	0	0	-	-
120	21.7	Railways	0	0	0	-	-
120	21.8	Crossrail 1	0	0	0	0	-
120	21.9	Crossrail 2	0	0	0	0	-
120	21.10	HS2	0	0	0	0	-

Recent aerial photograph



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Capture Date: 10/04/2020

Site Area: 38.93ha

Recent site history - 2017 aerial photograph



Capture Date: 07/05/2017

Site Area: 38.93ha



Recent site history - 2009 aerial photograph



Capture Date: 11/05/2009

Site Area: 38.93ha



Recent site history - 2003 aerial photograph



Capture Date: 04/08/2003

Site Area: 38.93ha



Recent site history - 2000 aerial photograph



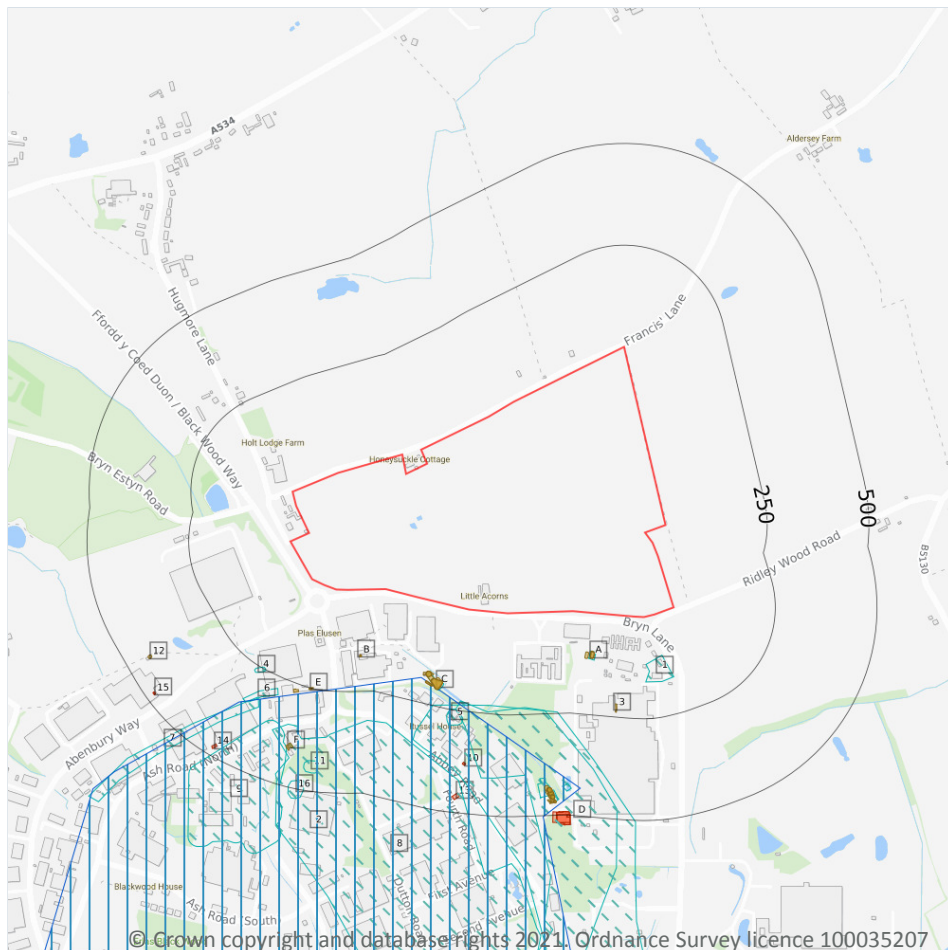
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Capture Date: 04/09/2000

Site Area: 38.93ha



1 Past land use



- Site Outline
- Search buffers in metres (m)
- Historical industrial land uses
- Historical tanks
- Historical energy features
- Historical military land

1.1 Historical industrial land uses

Records within 500m

16

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 1:10,560 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 13**

ID	Location	Land use	Dates present	Group ID
A	94m S	Unspecified Tanks	1982 - 1992	966840



ID	Location	Land use	Dates present	Group ID
1	102m S	Telecomm Exchange	1982 - 1992	933845
C	173m S	Unspecified Tanks	1982 - 1992	875572
D	225m S	Railway Sidings	1960 - 1968	935833
D	230m S	Railway Sidings	1949	880775
4	246m SW	Unspecified Tanks	1949	814860
5	247m S	Unspecified Heap	1960 - 1968	958224
6	279m SW	Railway Sidings	1949	870067
7	318m SW	Railway Sidings	1960 - 1968	945208
8	318m S	Industrial Estate	1982	844626
9	356m S	Unspecified Commercial/Industrial	1949	796408
D	408m S	Railway Buildings	1960 - 1968	984437
D	423m S	Railway Building	1960 - 1968	913474
11	425m S	Unspecified Pit	1960 - 1982	914267
D	438m S	Unspecified Tanks	1992	814864
16	479m S	Unspecified Heap	1960 - 1982	900352

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m

30

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 13**

ID	Location	Land use	Dates present	Group ID
A	94m S	Tanks	1982 - 1991	125438
A	95m S	Tanks	1993 - 1995	128131
A	97m S	Tanks	1989	104984



ID	Location	Land use	Dates present	Group ID
B	160m S	Unspecified Tank	1982 - 1990	146089
B	160m S	Unspecified Tank	1974 - 1991	132233
B	161m S	Unspecified Tank	1993 - 1995	127145
C	170m S	Tanks	1982 - 1990	128028
C	170m S	Tanks	1993 - 1995	138886
C	171m S	Unspecified Tank	1974 - 1991	122911
C	180m S	Tanks	1982 - 1990	138225
C	185m S	Tanks	1991	126604
C	195m S	Tanks	1993 - 1995	127752
C	195m S	Tanks	1982 - 1991	144889
3	218m S	Tanks	1987	104983
E	248m S	Unspecified Tank	1974 - 1991	130673
E	249m S	Unspecified Tank	1993 - 1995	136940
E	263m S	Tanks	1989	140200
F	394m S	Tanks	1960	104982
F	400m S	Tanks	1960	104981
D	426m S	Tanks	1987 - 1989	138288
D	431m S	Tanks	1989 - 1990	148016
D	432m S	Tanks	1991	148576
D	432m S	Tanks	1993 - 1995	146317
12	436m SW	Unspecified Tank	1982 - 1999	147396
D	442m S	Tanks	1991	147597
D	450m S	Tanks	1991	128946
D	463m S	Unspecified Tank	1982	110678
D	463m S	Tanks	1993 - 1995	124731
D	464m S	Tanks	1991	142622
D	465m S	Tanks	1993 - 1995	136561

This data is sourced from Ordnance Survey / Groundsure.



1.3 Historical energy features

Records within 500m

12

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 13**

ID	Location	Land use	Dates present	Group ID
10	375m S	Electricity Substation	1991 - 1995	84681
13	452m S	Electricity Substation	1974 - 1995	68827
14	469m SW	Electricity Substation	1982 - 1988	81255
15	476m SW	Electricity Substation	1982 - 1999	67486
D	491m S	Electricity Substation	1989	78303
D	492m S	Electricity Substation	1990	67055
D	492m S	Electricity Substation	1990	74971
D	492m S	Electricity Substation	1989	76207
D	498m S	Electricity Substation	1982 - 1987	66128
D	498m S	Electricity Substation	1993	67655
D	498m S	Electricity Substation	1995	75403
D	498m S	Electricity Substation	1994	83333

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m

0

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.



1.5 Historical garages

Records within 500m

0

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m

1

Areas of military land digitised from multiple sources including the National Archives, local records, MOD records and verified other sources, intelligently grouped into contiguous features.

Features are displayed on the Past land use map on **page 13**

ID	Location	Site Name	Date of Operation	Activities
2	190m S	ROF Wrexham	c.1938 - 1988	c. WW2: Produced cordite;; post WW2: Cordite production ceased in 1945 and the area was used as an industrial estate by the Welsh Development Agency to boost the local economy; Explosives Factory

This data is sourced from Ordnance Survey / Groundsure / other sources.



2 Past land use - un-grouped



- Site Outline
- Search buffers in metres (m)
- Historical industrial land uses
- Historical tanks
- Historical energy features

2.1 Historical industrial land uses

Records within 500m

28

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 10,560 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 18**

ID	Location	Land Use	Date	Group ID
A	94m S	Unspecified Tanks	1992	966840
A	94m S	Unspecified Tanks	1982	966840
B	102m S	Telecomm Exchange	1992	933845



ID	Location	Land Use	Date	Group ID
B	102m S	Telecomm Exchange	1982	933845
D	173m S	Unspecified Tanks	1992	875572
D	173m S	Unspecified Tanks	1982	875572
E	225m S	Railway Sidings	1960	935833
E	225m S	Railway Sidings	1968	935833
E	230m S	Railway Sidings	1949	880775
2	246m SW	Unspecified Tanks	1949	814860
F	247m S	Unspecified Heap	1960	958224
F	247m S	Unspecified Heap	1968	958224
3	279m SW	Railway Sidings	1949	870067
H	318m SW	Railway Sidings	1960	945208
H	318m SW	Railway Sidings	1968	945208
4	318m S	Industrial Estate	1982	844626
5	356m S	Unspecified Commercial/Industrial	1949	796408
E	408m S	Railway Buildings	1960	984437
E	408m S	Railway Buildings	1968	984437
E	423m S	Railway Building	1960	913474
E	423m S	Railway Building	1968	913474
K	425m S	Unspecified Pit	1982	914267
K	425m S	Unspecified Pit	1960	914267
K	425m S	Unspecified Pit	1968	914267
E	438m S	Unspecified Tanks	1992	814864
P	479m S	Unspecified Heap	1982	900352
P	479m S	Unspecified Heap	1960	900352
P	479m S	Unspecified Heap	1968	900352

This data is sourced from Ordnance Survey / Groundsure.



2.2 Historical tanks

Records within 500m

92

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 18**

ID	Location	Land Use	Date	Group ID
A	94m S	Tanks	1982	125438
A	94m S	Tanks	1987	125438
A	94m S	Tanks	1989	125438
A	94m S	Tanks	1990	125438
A	94m S	Tanks	1990	125438
A	95m S	Tanks	1991	125438
A	95m S	Tanks	1993	128131
A	95m S	Tanks	1995	128131
A	95m S	Tanks	1994	128131
A	97m S	Tanks	1989	104984
C	160m S	Unspecified Tank	1982	146089
C	160m S	Unspecified Tank	1987	146089
C	160m S	Unspecified Tank	1989	146089
C	160m S	Unspecified Tank	1989	146089
C	160m S	Unspecified Tank	1990	146089
C	160m S	Unspecified Tank	1990	146089
C	160m S	Unspecified Tank	1991	132233
C	160m S	Unspecified Tank	1974	132233
C	161m S	Unspecified Tank	1993	127145
C	161m S	Unspecified Tank	1995	127145
C	161m S	Unspecified Tank	1994	127145
D	170m S	Tanks	1982	128028
D	170m S	Tanks	1987	128028



ID	Location	Land Use	Date	Group ID
D	170m S	Tanks	1989	128028
D	170m S	Tanks	1989	128028
D	170m S	Tanks	1990	128028
D	170m S	Tanks	1990	128028
D	170m S	Tanks	1993	138886
D	170m S	Tanks	1995	138886
D	170m S	Tanks	1994	138886
D	171m S	Unspecified Tank	1991	122911
D	171m S	Unspecified Tank	1974	122911
D	180m S	Tanks	1982	138225
D	180m S	Tanks	1987	138225
D	180m S	Tanks	1989	138225
D	180m S	Tanks	1989	138225
D	180m S	Tanks	1990	138225
D	180m S	Tanks	1990	138225
D	185m S	Tanks	1991	126604
D	195m S	Tanks	1993	127752
D	195m S	Tanks	1995	127752
D	195m S	Tanks	1994	127752
D	195m S	Tanks	1982	144889
D	195m S	Tanks	1987	144889
D	195m S	Tanks	1989	144889
D	195m S	Tanks	1989	144889
D	195m S	Tanks	1990	144889
D	195m S	Tanks	1990	144889
D	196m S	Tanks	1991	144889
1	218m S	Tanks	1987	104983
G	248m S	Unspecified Tank	1982	130673

ID	Location	Land Use	Date	Group ID
G	248m S	Unspecified Tank	1987	130673
G	248m S	Unspecified Tank	1989	130673
G	248m S	Unspecified Tank	1989	130673
G	248m S	Unspecified Tank	1990	130673
G	248m S	Unspecified Tank	1990	130673
G	249m S	Unspecified Tank	1991	130673
G	249m S	Unspecified Tank	1974	130673
G	249m S	Unspecified Tank	1993	136940
G	249m S	Unspecified Tank	1995	136940
G	249m S	Unspecified Tank	1994	136940
G	263m S	Tanks	1989	140200
G	263m S	Tanks	1989	140200
J	394m S	Tanks	1960	104982
J	400m S	Tanks	1960	104981
E	426m S	Tanks	1987	138288
E	426m S	Tanks	1989	138288
E	431m S	Tanks	1989	148016
E	431m S	Tanks	1990	148016
E	431m S	Tanks	1990	148016
E	432m S	Tanks	1991	148576
E	432m S	Tanks	1993	146317
E	432m S	Tanks	1995	146317
E	432m S	Tanks	1994	146317
L	436m SW	Unspecified Tank	1994	147396
L	436m SW	Unspecified Tank	1999	147396
L	436m SW	Unspecified Tank	1995	147396
L	436m SW	Unspecified Tank	1995	147396
L	437m SW	Unspecified Tank	1982	147396

ID	Location	Land Use	Date	Group ID
L	437m SW	Unspecified Tank	1988	147396
L	437m SW	Unspecified Tank	1990	147396
L	437m SW	Unspecified Tank	1990	147396
E	442m S	Tanks	1991	147597
E	450m S	Tanks	1991	128946
E	463m S	Unspecified Tank	1982	110678
E	463m S	Tanks	1993	124731
E	463m S	Tanks	1995	124731
E	463m S	Tanks	1994	124731
E	464m S	Tanks	1991	142622
E	465m S	Tanks	1993	136561
E	465m S	Tanks	1995	136561
E	465m S	Tanks	1994	136561

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m

33

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 18**

ID	Location	Land Use	Date	Group ID
I	375m S	Electricity Substation	1991	84681
I	376m S	Electricity Substation	1993	84681
I	376m S	Electricity Substation	1995	84681
I	376m S	Electricity Substation	1994	84681
M	452m S	Electricity Substation	1993	68827
M	452m S	Electricity Substation	1995	68827
M	452m S	Electricity Substation	1994	68827



ID	Location	Land Use	Date	Group ID
M	452m S	Electricity Substation	1991	68827
M	452m S	Electricity Substation	1974	68827
M	453m S	Electricity Substation	1982	68827
M	453m S	Electricity Substation	1987	68827
M	453m S	Electricity Substation	1989	68827
M	453m S	Electricity Substation	1989	68827
M	453m S	Electricity Substation	1990	68827
N	469m SW	Electricity Substation	1982	81255
N	469m SW	Electricity Substation	1988	81255
O	476m SW	Electricity Substation	1994	67486
O	476m SW	Electricity Substation	1999	67486
O	476m SW	Electricity Substation	1995	67486
O	476m SW	Electricity Substation	1995	67486
O	478m SW	Electricity Substation	1982	67486
O	478m SW	Electricity Substation	1988	67486
O	478m SW	Electricity Substation	1990	67486
O	478m SW	Electricity Substation	1990	67486
E	491m S	Electricity Substation	1989	78303
E	492m S	Electricity Substation	1989	76207
E	492m S	Electricity Substation	1990	74971
E	492m S	Electricity Substation	1990	67055
E	498m S	Electricity Substation	1982	66128
E	498m S	Electricity Substation	1987	66128
E	498m S	Electricity Substation	1993	67655
E	498m S	Electricity Substation	1995	75403
E	498m S	Electricity Substation	1994	83333

This data is sourced from Ordnance Survey / Groundsure.



2.4 Historical petrol stations

Records within 500m**0**

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

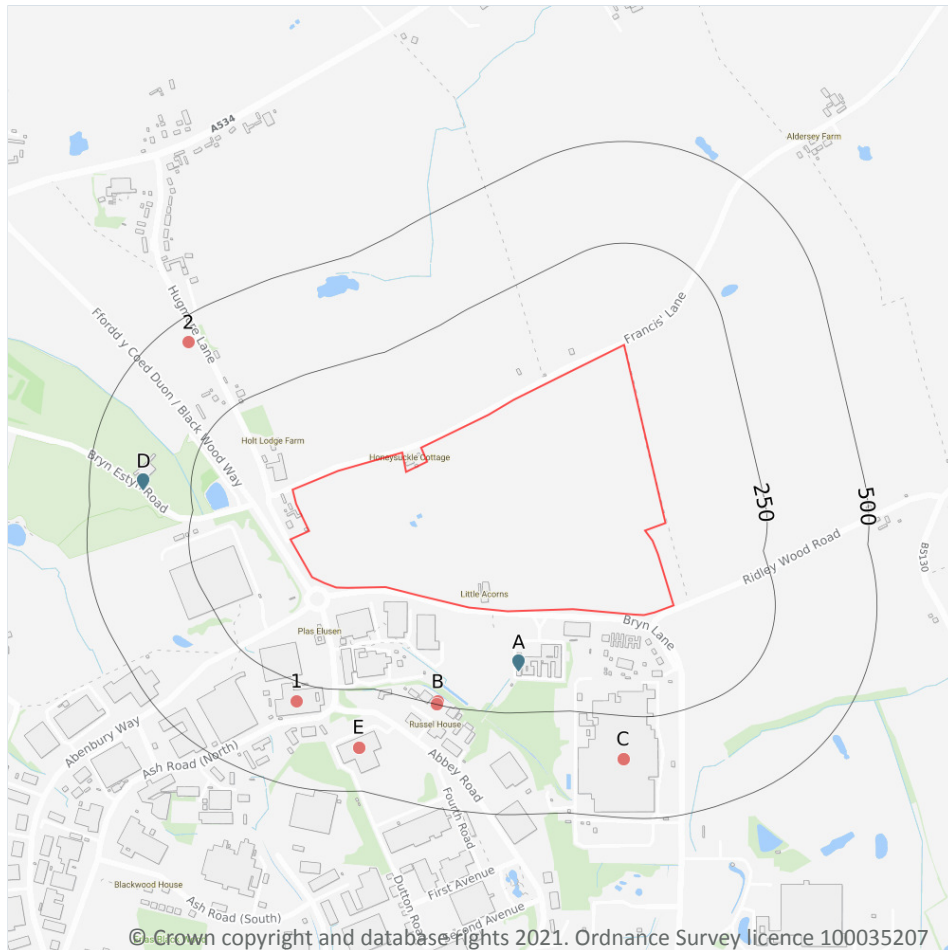
2.5 Historical garages

Records within 500m**0**

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

3 Waste and landfill



- Site Outline
- Search buffers in metres (m)
- Licensed waste sites
- Waste exemptions

3.1 Active or recent landfill

Records within 500m

0

Active or recently closed landfill sites under Environment Agency/Natural Resources Wales regulation.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.2 Historical landfill (BGS records)

Records within 500m

0

Landfill sites identified on a survey carried out on behalf of the DoE in 1973. These sites may have been closed or operational at this time.

This data is sourced from the British Geological Survey.



3.3 Historical landfill (LA/mapping records)

Records within 500m

0

Landfill sites identified from Local Authority records and high detail historical mapping.

This data is sourced from the Ordnance Survey/Groundsure and Local Authority records.

3.4 Historical landfill (EA/NRW records)

Records within 500m

0

Known historical (closed) landfill sites (e.g. sites where there is no PPC permit or waste management licence currently in force). This includes sites that existed before the waste licensing regime and sites that have been licensed in the past but where a licence has been revoked, ceased to exist or surrendered and a certificate of completion has been issued.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.5 Historical waste sites

Records within 500m

0

Waste site records derived from Local Authority planning records and high detail historical mapping.

This data is sourced from Ordnance Survey/Groundsure and Local Authority records.

3.6 Licensed waste sites

Records within 500m

17

Active or recently closed waste sites under Environment Agency/Natural Resources Wales regulation.

Features are displayed on the Waste and landfill map on **page 26**

ID	Location	Details		
A	127m S	Site Name: Bryn Lane Composting Facility Site Address: Bryn Lane Composting Facility, Bryn Lane, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9UT Correspondence Address: -	Type of Site: Composting Facility Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WAS023 EPR reference: ZP3795ER/V002 Operator: F C C Recycling (U K) Limited Waste Management licence No: 100079 Annual Tonnage: 81444	Issue Date: 27/11/2007 Effective Date: - Modified: 22/08/2012 Surrendered Date: 0 Expiry Date: 0 Cancelled Date: 0 Status: Modified

ID	Location	Details		
A	128m S	Site Name: Bryn Lane Waste Recycling And Composting Facility Site Address: Land/ Premises At, Bryn Lane, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9UT Correspondence Address: -	Type of Site: Material Recycling Treatment Facility Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WAS023 EPR reference: EA/EPR/ZP3795ER/V004 Operator: Waste Recycling Ltd Waste Management licence No: 100079 Annual Tonnage: 81444	Issue Date: 27/11/2007 Effective Date: - Modified: 05/05/2011 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified
A	128m S	Site Name: - Site Address: Bryn Lane Composting Facility, Bryn Lane, Wrexham Industrial Estate, Wrexham, Wrexham, LL13 9UT Correspondence Address: -	Type of Site: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: ZP3795ER EPR reference: - Operator: F C C Recycling (U K) Limited Waste Management licence No: 0 Annual Tonnage: 81444	Issue Date: 27/11/2007 Effective Date: 27/11/2007 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective
A	128m S	Site Name: Bryn Lane Waste Recycling And Composting Facility Site Address: Land/ Premises At, Bryn Lane, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9UT Correspondence Address: -	Type of Site: Material Recycling Treatment Facility Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WAS023 EPR reference: ZP3795ER/V002 Operator: Waste Recycling Group Ltd Waste Management licence No: 100079 Annual Tonnage: 0	Issue Date: 27/11/2007 Effective Date: - Modified: 16/04/2009 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified
A	128m S	Site Name: Bryn Lane Composting Facility Site Address: Bryn Lane Composting Facility, Bryn Lane, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9UT Correspondence Address: -	Type of Site: Material Recycling Treatment Facility Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WAS023 EPR reference: ZP3795ER/V002 Operator: F C C Recycling (U K) Limited Waste Management licence No: 100079 Annual Tonnage: 81444	Issue Date: 27/11/2007 Effective Date: - Modified: 22/08/2012 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified



ID	Location	Details		
A	128m S	Site Name: Bryn Lane Composting Facility Site Address: Bryn Lane Composting Facility, Bryn Lane, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9UT Correspondence Address: -	Type of Site: Material Recycling Treatment Facility Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WAS023 EPR reference: EA/EPR/ZP3795ER/V002 Operator: F C C Recycling (U K) Limited Waste Management licence No: 100079 Annual Tonnage: 81444	Issue Date: 27/11/2007 Effective Date: - Modified: 22/08/2012 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified
A	128m S	Site Name: - Site Address: Bryn Lane Composting Facility, Bryn Lane, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9UT Correspondence Address: -	Type of Site: Material Recycling Treatment Facility Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: ZP3795ER EPR reference: - Operator: - Waste Management licence No: 100079 Annual Tonnage: 81444	Issue Date: 27/11/2007 Effective Date: 27/11/2007 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective
A	128m S	Site Name: - Site Address: Bryn Lane Composting Facility, Bryn Lane, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9UT Correspondence Address: -	Type of Site: Material Recycling Treatment Facility Size: - Environmental Permitting Regulations (Waste) Licence Number: ZP3795ER EPR reference: - Operator: F C C Recycling (U K) Limited Waste Management licence No: 100079 Annual Tonnage: -	Issue Date: 27/11/2007 Effective Date: 27/11/2007 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective
A	128m S	Site Name: - Site Address: Bryn Lane Composting Facility, Bryn Lane, Wrexham Industrial Estate, Clwyd, Wrexham, Wrexham, LL13 9UT Correspondence Address: -	Type of Site: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: ZP3795ER EPR reference: - Operator: F C C Recycling (U K) Limited Waste Management licence No: 100079 Annual Tonnage: 81444	Issue Date: 27/11/2007 Effective Date: 27/11/2007 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective



ID	Location	Details		
A	128m S	Site Name: - Site Address: Bryn Lane Composting Facility, Bryn Lane, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9UT Correspondence Address: -	Type of Site: Material Recycling Treatment Facility Size: - Environmental Permitting Regulations (Waste) Licence Number: ZP3795ER EPR reference: - Operator: F C C Recycling (U K) Limited Waste Management licence No: 100079 Annual Tonnage: 81444	Issue Date: 27/11/2007 Effective Date: 27/11/2007 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective
D	367m W	Site Name: Clays Site Site Address: Clays Site, Bryn Estyn Road, Llan -y- Pwll, Wrexham, Clwyd, LL13 9UB Correspondence Address: -	Type of Site: Use of waste in construction 100,000 tps Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: LEW037 EPR reference: XP3691EG/A001 Operator: Clays Farm Golf Centre Limited Waste Management licence No: 102738 Annual Tonnage: 0	Issue Date: 05/10/2011 Effective Date: - Modified: - Surrendered Date: 0 Expiry Date: 0 Cancelled Date: 0 Status: Issued
D	367m W	Site Name: Clays Site Site Address: Clays Site, Bryn Estyn Road, Llan -y- Pwll, Wrexham, Clwyd, LL13 9UB Correspondence Address: -	Type of Site: Use of waste in construction 100,000 tps Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: LEW037 EPR reference: EA/EPR/XP3691EG/A001 Operator: Clays Farm Golf Centre Limited Waste Management licence No: 102738 Annual Tonnage: 99999	Issue Date: 05/10/2011 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
D	367m W	Site Name: - Site Address: Clays Site, Llan -y- Pwll, Wrexham, Wrexham, LL13 9UB Correspondence Address: -	Type of Site: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: XP3691EG EPR reference: - Operator: Clays Farm Golf Centre Limited Waste Management licence No: 0 Annual Tonnage: 99999	Issue Date: 05/10/2011 Effective Date: 05/10/2011 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective



ID	Location	Details		
D	367m W	Site Name: - Site Address: Clays Site, Llan -y- Pwll, Wrexham, Clwyd, LL13 9UB Correspondence Address: -	Type of Site: Use of waste in construction 100,000 tps Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: XP3691EG EPR reference: - Operator: - Waste Management licence No: 102738 Annual Tonnage: 99999	Issue Date: 05/01/2018 Effective Date: 05/01/2018 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective
D	367m W	Site Name: - Site Address: Clays Site, Bryn Estyn Rd, Llan -y- Pwll, Wrexham, Clwyd, LL13 9UB Correspondence Address: -	Type of Site: Deposit of waste to land as a recovery operation Size: - Environmental Permitting Regulations (Waste) Licence Number: XP3691EG EPR reference: - Operator: William Lewis Waste Management licence No: 102738 Annual Tonnage: -	Issue Date: 21/02/2019 Effective Date: 21/02/2019 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective
D	367m W	Site Name: - Site Address: Clays Site, Llan -y- Pwll, Clwyd, Wrexham, Wrexham, LL13 9UB Correspondence Address: -	Type of Site: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: XP3691EG EPR reference: - Operator: William Lewis Waste Management licence No: 102738 Annual Tonnage: 99999	Issue Date: 05/01/2018 Effective Date: 05/01/2018 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective
D	367m W	Site Name: - Site Address: Clays Site, Llan -y- Pwll, Wrexham, Clwyd, LL13 9UB Correspondence Address: -	Type of Site: Use of waste in construction 100,000 tps Size: - Environmental Permitting Regulations (Waste) Licence Number: XP3691EG EPR reference: - Operator: William Lewis Waste Management licence No: 102738 Annual Tonnage: 99999	Issue Date: 05/01/2018 Effective Date: 05/01/2018 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective

This data is sourced from the Environment Agency and Natural Resources Wales.



3.7 Waste exemptions

Records within 500m

11

Activities involving the storage, treatment, use or disposal of waste that are exempt from needing a permit. Exemptions have specific limits and conditions that must be adhered to.

Features are displayed on the Waste and landfill map on **page 26**

ID	Location	Site	Reference	Category	Sub-Category	Description
B	244m S	DRAGON HYDRAULICS, Unit 3 Abbey Road North, Wrexham Industrial Estate, WREXHAM, LL13 9RX	WEX125151	Storing waste exemption	Not on a farm	Storage of waste in secure containers
B	250m S	-	WEX264851	Storing waste exemption	Not on a farm	Storage of waste in secure containers
B	250m S	Rodens Hall, Isycoed, Wrexham, Wrecsam, LL13 9RX	NRW-WME001936	Using waste exemption	Waste Exemption - Agricultural	Use of waste derived biodiesel as fuel
B	250m S	Rodens Hall, Isycoed, Wrexham, Wrecsam, LL13 9RX	NRW-WME001936	Storing waste exemption	Waste Exemption - Non-Agricultural	Storage of sludge
1	297m S	Trans Continental A C UK Ltd, Ash Road North, Wrexham Industrial Estate, Wrexham, Wrecsam, LL13 9UF	NRW-WME046393	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
C	358m S	Allied Fire Alarms & Escapes Co Ltd, Allied House Bryn Lane, Wrexham Industrial Estate, WREXHAM, Wrexham, LL13 9UT	NRW-WME046506	Storing waste exemption	Not on a farm	Storage of waste in a secure place
C	358m S	Allied Fire Alarms & Escapes Co Ltd, Allied House Bryn Lane, Wrexham Industrial Estate, WREXHAM, Wrexham, LL13 9UT	NRW-WME046506	Storing waste exemption	Not on a farm	Storage of waste in secure containers
E	394m S	AST Plastic Containers UK LLP, Unit 1, Abbey Road, Wrexham Industrial Estate, Wrexham, Wrecsam, LL13 9RF	NRW-WME061390	Storing waste exemption	Waste Exemption - Agricultural and Non-Agricultural	Storage of waste in a secure place

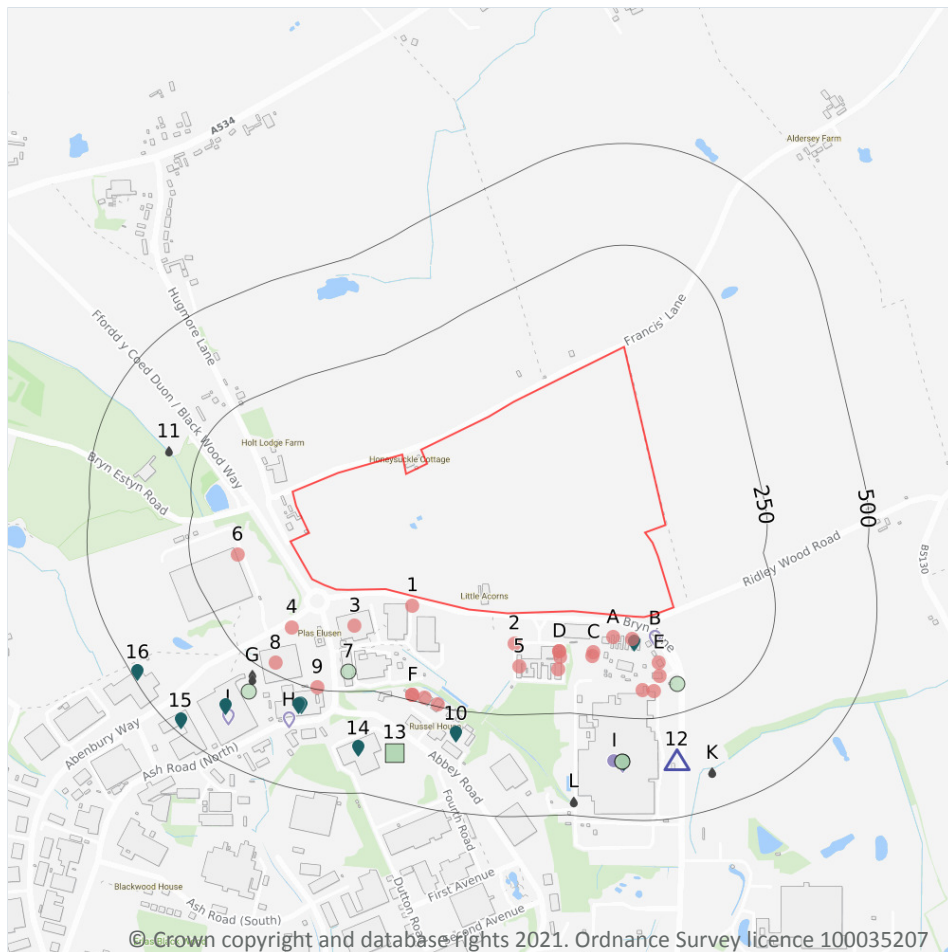


ID	Location	Site	Reference	Category	Sub-Category	Description
E	394m S	AST Plastic Containers UK LLP, Unit 1, Abbey Road, Wrexham Industrial Estate, Wrexham, Wreccsam, LL13 9RF	NRW-WME061390	Treating waste exemption	Waste Exemption - Agricultural and Non-Agricultural	Cleaning, washing, spraying or coating relevant waste
E	394m S	AST Plastic Containers UK LLP, Unit 1, Abbey Road, Wrexham Industrial Estate, Wrexham, Wreccsam, LL13 9RF	NRW-WME061390	Treating waste exemption	Waste Exemption - Agricultural and Non-Agricultural	Preparatory treatments (baling, sorting, shredding etc)
2	443m NW	DCWW, Rodens Hall Farm, Bowling Bank, Wrexham, Wreccsam, LL13 9RS	NRW-WME054232	Storing waste exemption	Not on a farm	Storage of sludge

This data is sourced from the Environment Agency and Natural Resources Wales.



4 Current industrial land use



- Site Outline
- Search buffers in metres (m)
- Recent industrial land uses
- △ Current or recent petrol stations
- Historical licensed industrial activities
- ◇ Part A(1) industrial activities
- Licensed pollutant release (Part A(2)/B)
- Licensed Discharges to controlled waters
- List 2 Dangerous Substances
- Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m

24

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 34**

ID	Location	Company	Address	Activity	Category
1	23m S	Electricity Sub Station	Clwyd, LL13	Electrical Features	Infrastructure and Facilities
A	56m S	Main Man Supplies	Unit 1 Ridley Wood Industrial Complex, Bryn Lane, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9UT	Special Purpose Machinery and Equipment	Industrial Products



ID	Location	Company	Address	Activity	Category
A	56m S	Electromec Ltd	Unit 5 Ridley Wood Industrial Complex, Bryn Lane, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9UT	Electrical and Electronic Engineers	Engineering Services
2	75m S	Bryn Business Centre	Clwyd, LL13	Business Parks and Industrial Estates	Industrial Features
3	89m S	Wockhardt UK Ltd	ASH ROAD NORTH, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9UF	Medical Equipment, Supplies and Pharmaceuticals	Industrial Products
C	96m S	Tank	Clwyd, LL13	Tanks (Generic)	Industrial Features
D	98m S	Aspull Engineering	Kellogs Site Bryn Business Centre, Bryn Lane, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9UT	Industrial Engineers	Engineering Services
D	98m S	Air Covers	Unit E, Bryn Lane, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9UT	Aviation Engineers	Engineering Services
C	105m S	Tank	Clwyd, LL13	Tanks (Generic)	Industrial Features
D	112m S	Wellpecs Ltd	Unit H1 Bryn Business Centre, Bryn Lane, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9UT	Electrical and Electronic Engineers	Engineering Services
E	117m S	Grafters Ltd	Unit 6, Bryn Lane, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9UT	Recycling, Reclamation and Disposal	Recycling Services
4	128m SW	Gas Governor	Clwyd, LL13	Gas Features	Infrastructure and Facilities
5	131m S	Dacta Ltd	Ridley Wood Industrial Complex, Bryn Lane, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9UT	Educational Equipment and Supplies	Industrial Products
6	134m W	Electricity Sub Station	Clwyd, LL13	Electrical Features	Infrastructure and Facilities
D	140m S	A M Industrial Supplies	Unit J2 Bryn Business Centre, Bryn Lane, Wrexham, Clwyd, LL13 9UT	General Purpose Machinery	Industrial Products
E	149m S	Telephone Exchange	Clwyd, LL13	Telecommunications Features	Infrastructure and Facilities
E	179m S	Chimney	Clwyd, LL13	Chimneys	Industrial Features
E	183m S	Chimney	Clwyd, LL13	Chimneys	Industrial Features



ID	Location	Company	Address	Activity	Category
8	225m SW	J C B Drivetrain Systems	Unit 1, Ash Road North, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9JT	Engines	Industrial Products
F	236m S	Relabelled	Abbey Road North, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RX	Office and Shop Equipment	Industrial Products
F	236m S	Kids Direct Ltd	Abbey Road North, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RX	Published Goods	Industrial Products
F	237m S	A & S Jones	Abbey Road North, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RX	General Construction Supplies	Industrial Products
9	244m S	Tank	Clwyd, LL13	Tanks (Generic)	Industrial Features
F	245m S	Jami Q's	Abbey Road North, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RX	Textiles, Fabrics, Silk and Machinery	Industrial Products

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m	1
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Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on **page 34**

ID	Location	Company	Address	LPG	Status
12	359m S	CERTAS ENERGY	Bryn Lane, Wrexham Industrial Estate, Wrexham, Wrexham, LL13 9UT	No	Non-Retail

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m	0
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High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m**0**

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m**0**

Contaminated Land Register of sites designated under Part 2a of the Environmental Protection Act 1990.

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m**0**

Control of Major Accident Hazards (COMAH) sites. This data includes upper and lower tier sites, and includes a historical archive of COMAH sites and Notification of Installations Handling Hazardous Substances (NIHHS) records.

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m**0**

Sites registered and licensed by the Health and Safety Executive under the Manufacture and Storage of Explosives Regulations 2005 (MSER). The last update to this data was in April 2011.

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m**0**

Consents granted for a site to hold certain quantities of hazardous substances at or above defined limits in accordance with the Planning (Hazardous Substances) Regulations 2015.

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m

5

Integrated Pollution Control (IPC) records of substance releases to air, land and water. This data represents a historical archive as the IPC regime has been superseded.

Features are displayed on the Current industrial land use map on **page 34**

ID	Location	Details	
I	357m S	Operator: Owens Corning Fiberglas (gb) Ltd Address: Bryn Lane, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9JU Process: Other Mineral Fibres Permit Number: AG1425	Original Permit Number: IPCAIRAPP Date Approved: 8-4-1993 Effective Date: 8-4-1993 Status: Superseded By Variation
I	357m S	Operator: Owens Corning Fiberglas (gb) Ltd Address: Bryn Lane, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9JU Process: Manufacture And Use Of Organic Chemicals Permit Number: AK5407	Original Permit Number: IPCAPP Date Approved: 18-2-1994 Effective Date: 28-2-1994 Status: Superseded By Variation
I	357m S	Operator: Owens Corning Fiberglas (gb) Ltd Address: Bryn Lane, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9JU Process: Other Mineral Fibres Permit Number: BC5539	Original Permit Number: IPCMINVAR Date Approved: 24-11-1998 Effective Date: 30-11-1998 Status: Superseded By Variation
I	357m S	Operator: Owens Corning Fiberglas (gb) Ltd Address: Bryn Lane, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9JU Process: Manufacture And Use Of Organic Chemicals Permit Number: BC6713	Original Permit Number: IPCMINVAR Date Approved: 24-11-1998 Effective Date: 30-11-1998 Status: Revoked
I	357m S	Operator: Owens Corning Fiberglas (gb) Ltd Address: Bryn Lane, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9JU Process: Other Mineral Fibres Permit Number: BG0342	Original Permit Number: IPCMINVAR Date Approved: 21-9-2001 Effective Date: 15-10-2001 Status: Revoked

This data is sourced from the Environment Agency and Natural Resources Wales.

4.10 Licensed industrial activities (Part A(1))

Records within 500m

34

Records of Part A(1) installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

Features are displayed on the Current industrial land use map on **page 34**



ID	Location	Details	
B	58m S	Operator: KELLOGG COMPANY OF GREAT BRITAIN LTD Installation Name: WREXHAM, BREAKFAST CEREALS Process: ANIMAL VEGETABLE AND FOOD; TREATING ETC VEGETABLE RAW MATERIALS FOR FOOD >300T/D Permit Number: BV8016ID Original Permit Number: BV8016ID	EPR Reference: - Issue Date: 09/11/2005 Effective Date: 09/11/2005 Last date noted as effective: 17/11/2015 Status: SUPERCEDED
B	58m S	Operator: KELLOGG COMPANY OF GREAT BRITAIN LTD Installation Name: WREXHAM, BREAKFAST CEREALS Process: COMBUSTION; ANY FUEL =>50MW Permit Number: BV8016ID Original Permit Number: BV8016ID	EPR Reference: - Issue Date: 09/11/2005 Effective Date: 09/11/2005 Last date noted as effective: 17/11/2015 Status: SUPERCEDED
B	58m S	Operator: KELLOGG COMPANY OF GREAT BRITAIN LTD Installation Name: WREXHAM, BREAKFAST CEREALS Process: OTHER WASTE DISPOSAL; NON-HAZARDOUS WASTE >50T/D BY BIOLOGICAL TREATMENT Permit Number: BV8016ID Original Permit Number: BV8016ID	EPR Reference: - Issue Date: 09/11/2005 Effective Date: 09/11/2005 Last date noted as effective: 17/11/2015 Status: SUPERCEDED
B	58m S	Operator: KELLOGG CO (GB) LTD Installation Name: WREXHAM, BREAKFAST CEREALS Process: OTHER WASTE DISPOSAL; ON SITE EFFLUENT TREATMENT PLANT DISCHARGING =>300 M CUBED PER DAY Permit Number: BV8016ID Original Permit Number: BV8016ID	EPR Reference: - Issue Date: - Effective Date: - Last date noted as effective: 01/04/2005 Status: DETERMINATION
H	341m S	Operator: IPSEN BIOPHARM LTD Installation Name: WREXHAM PHARMACEUTICAL WORKS Process: PRODUCING PLANT HEALTH PRODUCTS OR BIOCIDES Permit Number: SP3030LZ Original Permit Number: JP3038HV	EPR Reference: - Issue Date: 19/12/2012 Effective Date: 19/12/2012 Last date noted as effective: 26/10/2020 Status: EFFECTIVE
H	341m S	Operator: IPSEN BIOPHARM LTD Installation Name: WREXHAM PHARMACEUTICAL WORKS Process: - Permit Number: SP3030LZ Original Permit Number: JP3038HV	EPR Reference: - Issue Date: 19/12/2012 Effective Date: 19/12/2012 Last date noted as effective: 01/12/2016 Status: EFFECTIVE
H	341m S	Operator: IPSEN BIOPHARM LTD Installation Name: WREXHAM PHARMACEUTICAL WORKS Process: PRODUCING PHARMACEUTICAL PRODUCTS Permit Number: SP3030LZ Original Permit Number: JP3038HV	EPR Reference: - Issue Date: 13/02/2019 Effective Date: 13/02/2019 Last date noted as effective: 01/07/2021 Status: EFFECTIVE



ID	Location	Details	
H	341m S	Operator: IPSEN BIOPHARM LTD Installation Name: WREXHAM PHARMACEUTICAL EPR/SP3030LZ Process: PLANT HEALTH AND BIOCIDES; PRODUCING PLANT HEALTH PRODUCTS/BIOCIDES Permit Number: JP3038HV Original Permit Number: SP3030LZ	EPR Reference: - Issue Date: 19/12/2012 Effective Date: 19/12/2012 Last date noted as effective: 17/11/2015 Status: EFFECTIVE
H	341m S	Operator: IPSEN BIOPHARM LTD Installation Name: WREXHAM PHARMACEUTICAL WORKS Process: PLANT HEALTH AND BIOCIDES; PRODUCING PLANT HEALTH PRODUCTS/BIOCIDES Permit Number: SP3030LZ Original Permit Number: SP3030LZ	EPR Reference: - Issue Date: 04/12/2006 Effective Date: 04/12/2006 Last date noted as effective: 17/11/2015 Status: SUPERCEDED
I	365m S	Operator: KELLOGG COMPANY OF GREAT BRITAIN LTD Installation Name: KELLOGGS EPR/BV8016ID Process: ANIMAL VEGETABLE AND FOOD; TREATING ETC VEGETABLE RAW MATERIALS FOR FOOD >300T/D Permit Number: GP3031ZW Original Permit Number: BV8016ID	EPR Reference: - Issue Date: 21/03/2013 Effective Date: 21/03/2013 Last date noted as effective: 17/11/2015 Status: EFFECTIVE
I	365m S	Operator: KELLOGG COMPANY OF GREAT BRITAIN LTD Installation Name: KELLOGGS EPR/BV8016ID Process: COMBUSTION; ANY FUEL =>50MW Permit Number: GP3031ZW Original Permit Number: BV8016ID	EPR Reference: - Issue Date: 21/03/2013 Effective Date: 21/03/2013 Last date noted as effective: 17/11/2015 Status: EFFECTIVE
I	365m S	Operator: KELLOGG COMPANY OF GREAT BRITAIN LTD Installation Name: KELLOGGS EPR/BV8016ID Process: DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING BIOLOGICAL TREATMENT Permit Number: GP3031ZW Original Permit Number: BV8016ID	EPR Reference: - Issue Date: 21/03/2013 Effective Date: 21/03/2013 Last date noted as effective: 17/11/2015 Status: EFFECTIVE
I	365m S	Operator: KELLOGG COMPANY OF GREAT BRITAIN LTD Installation Name: WREXHAM, BREAKFAST CEREALS Process: ANIMAL VEGETABLE AND FOOD; TREATING ETC VEGETABLE RAW MATERIALS FOR FOOD >300T/D Permit Number: KP3135LW Original Permit Number: BV8016ID	EPR Reference: - Issue Date: 05/05/2006 Effective Date: 05/05/2006 Last date noted as effective: 17/11/2015 Status: SUPERCEDED
I	365m S	Operator: KELLOGG COMPANY OF GREAT BRITAIN LTD Installation Name: WREXHAM, BREAKFAST CEREALS Process: COMBUSTION; ANY FUEL =>50MW Permit Number: KP3135LW Original Permit Number: BV8016ID	EPR Reference: - Issue Date: 05/05/2006 Effective Date: 05/05/2006 Last date noted as effective: 17/11/2015 Status: SUPERCEDED



ID	Location	Details	
I	365m S	Operator: KELLOGG COMPANY OF GREAT BRITAIN LTD Installation Name: WREXHAM, BREAKFAST CEREALS Process: OTHER WASTE DISPOSAL; NON-HAZARDOUS WASTE >50T/D BY BIOLOGICAL TREATMENT Permit Number: KP3135LW Original Permit Number: BV8016ID	EPR Reference: - Issue Date: 05/05/2006 Effective Date: 05/05/2006 Last date noted as effective: 17/11/2015 Status: SUPERCEDED
I	365m S	Operator: KELLOGG COMPANY OF GREAT BRITAIN LTD Installation Name: WREXHAM, BREAKFAST CEREALS Process: ANIMAL VEGETABLE AND FOOD; TREATING ETC VEGETABLE RAW MATERIALS FOR FOOD >300T/D Permit Number: VP3832KF Original Permit Number: BV8016ID	EPR Reference: - Issue Date: 23/03/2010 Effective Date: 23/03/2010 Last date noted as effective: 17/11/2015 Status: SUPERCEDED
I	365m S	Operator: KELLOGG COMPANY OF GREAT BRITAIN LTD Installation Name: WREXHAM, BREAKFAST CEREALS Process: COMBUSTION; ANY FUEL =>50MW Permit Number: VP3832KF Original Permit Number: BV8016ID	EPR Reference: - Issue Date: 23/03/2010 Effective Date: 23/03/2010 Last date noted as effective: 17/11/2015 Status: SUPERCEDED
I	365m S	Operator: KELLOGG COMPANY OF GREAT BRITAIN LTD Installation Name: WREXHAM, BREAKFAST CEREALS Process: OTHER WASTE DISPOSAL; NON-HAZARDOUS WASTE >50T/D BY BIOLOGICAL TREATMENT Permit Number: VP3832KF Original Permit Number: BV8016ID	EPR Reference: - Issue Date: 23/03/2010 Effective Date: 23/03/2010 Last date noted as effective: 17/11/2015 Status: SUPERCEDED
I	365m S	Operator: KELLOGG COMPANY OF GREAT BRITAIN LTD Installation Name: WREXHAM, BREAKFAST CEREALS Process: ANIMAL VEGETABLE AND FOOD; TREATING ETC VEGETABLE RAW MATERIALS FOR FOOD >300T/D Permit Number: VP3935CF Original Permit Number: BV8016ID	EPR Reference: - Issue Date: 19/04/2012 Effective Date: 19/04/2012 Last date noted as effective: 17/11/2015 Status: SUPERCEDED
I	365m S	Operator: KELLOGG COMPANY OF GREAT BRITAIN LTD Installation Name: WREXHAM, BREAKFAST CEREALS Process: COMBUSTION; ANY FUEL =>50MW Permit Number: VP3935CF Original Permit Number: BV8016ID	EPR Reference: - Issue Date: 19/04/2012 Effective Date: 19/04/2012 Last date noted as effective: 17/11/2015 Status: SUPERCEDED
I	365m S	Operator: KELLOGG COMPANY OF GREAT BRITAIN LTD Installation Name: WREXHAM, BREAKFAST CEREALS Process: OTHER WASTE DISPOSAL; NON-HAZARDOUS WASTE >50T/D BY BIOLOGICAL TREATMENT Permit Number: VP3935CF Original Permit Number: BV8016ID	EPR Reference: - Issue Date: 19/04/2012 Effective Date: 19/04/2012 Last date noted as effective: 17/11/2015 Status: SUPERCEDED
I	365m S	Operator: KELLOGG COMPANY OF GREAT BRITAIN LTD Installation Name: KELLOGGS EPR/BV8016ID Process: TREATMENT AND PROCESSING, OTHER THAN EXCLUSIVELY PACKAGING, OF THE FOLLOWING RAW... Permit Number: BV8016ID Original Permit Number: GP3031ZW	EPR Reference: - Issue Date: 19/10/2017 Effective Date: 19/10/2017 Last date noted as effective: 01/04/2018 Status: EFFECTIVE

ID	Location	Details	
I	365m S	Operator: KELLOGG COMPANY OF GREAT BRITAIN LTD Installation Name: KELLOGGS EPR/BV8016ID Process: TREATMENT AND PROCESSING, OTHER THAN EXCLUSIVELY PACKAGING, OF THE FOLLOWING RAW... Permit Number: BV8016ID Original Permit Number: GP3031ZW	EPR Reference: - Issue Date: 19/10/2017 Effective Date: 19/10/2017 Last date noted as effective: 01/04/2018 Status: EFFECTIVE
I	365m S	Operator: KELLOGG COMPANY OF GREAT BRITAIN LTD Installation Name: KELLOGGS EPR/BV8016ID Process: TREATMENT AND PROCESSING, OTHER THAN EXCLUSIVELY PACKAGING, OF THE FOLLOWING RAW... Permit Number: BV8016ID Original Permit Number: GP3031ZW	EPR Reference: - Issue Date: 19/10/2017 Effective Date: 19/10/2017 Last date noted as effective: 01/04/2018 Status: EFFECTIVE
I	365m S	Operator: KELLOGG COMPANY OF GREAT BRITAIN LTD Installation Name: WREXHAM, BREAKFAST CEREALS Process: CREATED BY IED - DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING BIOLOGICAL TREATMENT Permit Number: GP3031ZW Original Permit Number: BV8016ID	EPR Reference: - Issue Date: 21/03/2013 Effective Date: 21/03/2013 Last date noted as effective: 01/07/2013 Status: EFFECTIVE
I	365m S	Operator: KELLOGG COMPANY OF GREAT BRITAIN LTD Installation Name: KELLOGGS EPR/BV8016ID Process: DISPOSAL OF NON-HAZARDOUS WASTE WITH A CAPACITY EXCEEDING 50 TONNES PER DAY (OR 100 TONNES PER DAY IF THE ONLY WASTE TREATMENT ACTIVITY IS ANAEROBIC DIGESTION) INVOLVING ONE OR MORE OF THE FOLLOWING ACTIVITIES, AND EXCLUDING ACTIVITIES COVERED BY COUNCIL DIRECTIVE 91/271/EEC CONCERNING URBAN WASTE-WATER TREATMENT(4)?BIOLOGICAL TREATMENT Permit Number: BV8016ID Original Permit Number: GP3031ZW	EPR Reference: - Issue Date: 19/10/2017 Effective Date: 19/10/2017 Last date noted as effective: 01/07/2021 Status: EFFECTIVE
I	365m S	Operator: KELLOGG COMPANY OF GREAT BRITAIN LTD Installation Name: KELLOGGS EPR/BV8016ID Process: - Permit Number: BV8016ID Original Permit Number: -	EPR Reference: - Issue Date: - Effective Date: - Last date noted as effective: 01/04/2017 Status: DULY MADE

ID	Location	Details	
I	365m S	Operator: KELLOGG COMPANY OF GREAT BRITAIN LTD Installation Name: KELLOGGS EPR/BV8016ID Process: TREATMENT AND PROCESSING, OTHER THAN EXCLUSIVELY PACKAGING, OF THE FOLLOWING RAW MATERIALS, WHETHER PREVIOUSLY PROCESSED OR UNPROCESSED, INTENDED FOR THE PRODUCTION OF FOOD OR FEED (WHERE THE WEIGHT OF THE FINISHED PRODUCT EXCLUDES PACKAGING)? ONLY VEGETABLE RAW MATERIALS WITH A FINISHED PRODUCT PRODUCTION CAPACITY GREATER THAN 300 TONNES PER DAY OR 600 TONNES PER DAY WHERE THE INSTALLATION OPERATES FOR A PERIOD OF NO MORE THAN 90 CONSECUTIVE DAYS IN ANY YEAR Permit Number: BV8016ID Original Permit Number: GP3031ZW	EPR Reference: - Issue Date: 19/10/2017 Effective Date: 19/10/2017 Last date noted as effective: 01/07/2021 Status: EFFECTIVE
I	365m S	Operator: KELLOGG COMPANY OF GREAT BRITAIN LTD Installation Name: KELLOGGS EPR/BV8016ID Process: BURNING ANY FUEL IN AN APPLIANCE WITH A RATED THERMAL INPUT OF 50 OR MORE MEGAWATTS Permit Number: BV8016ID Original Permit Number: GP3031ZW	EPR Reference: - Issue Date: 19/10/2017 Effective Date: 19/10/2017 Last date noted as effective: 01/07/2021 Status: EFFECTIVE
J	397m SW	Operator: WREXHAM WIRE LIMITED Installation Name: WREXHAM WIRE LIMITED Process: UNLESS FALLING WITHIN PART A2 OF THIS SECTION, SURFACE TREATING METALS AND PLAST... Permit Number: AB3190FW Original Permit Number: -	EPR Reference: - Issue Date: 06/05/2016 Effective Date: 06/05/2016 Last date noted as effective: 01/04/2018 Status: EFFECTIVE
J	397m SW	Operator: WREXHAM WIRE LIMITED Installation Name: WREXHAM WIRE LIMITED Process: UNLESS FALLING WITHIN PART A2 OF THIS SECTION, SURFACE TREATING METALS AND PLAST... Permit Number: AB3190FW Original Permit Number: -	EPR Reference: - Issue Date: 06/05/2016 Effective Date: 06/05/2016 Last date noted as effective: 01/04/2018 Status: EFFECTIVE
J	397m SW	Operator: WREXHAM WIRE LIMITED Installation Name: WREXHAM WIRE LIMITED Process: - Permit Number: AB3190FW Original Permit Number: -	EPR Reference: - Issue Date: 06/05/2016 Effective Date: 06/05/2016 Last date noted as effective: 01/04/2017 Status: ISSUED



ID	Location	Details	
J	397m SW	Operator: WREXHAM WIRE LIMITED Installation Name: WREXHAM WIRE LIMITED Process: DISPOSAL OF NON-HAZARDOUS WASTE WITH A CAPACITY EXCEEDING 50 TONNES PER DAY (OR 100 TONNES PER DAY IF THE ONLY WASTE TREATMENT ACTIVITY IS ANAEROBIC DIGESTION) INVOLVING ONE OR MORE OF THE FOLLOWING ACTIVITIES, AND EXCLUDING ACTIVITIES COVERED BY COUNCIL DIRECTIVE 91/271/EEC CONCERNING URBAN WASTE-WATER TREATMENT(4)?PHYSICO-CHEMICAL TREATMENT Permit Number: AB3190FW Original Permit Number: -	EPR Reference: - Issue Date: 06/05/2016 Effective Date: 06/05/2016 Last date noted as effective: 01/07/2021 Status: EFFECTIVE
J	397m SW	Operator: WREXHAM WIRE LIMITED Installation Name: WREXHAM WIRE LIMITED Process: UNLESS FALLING WITHIN PART A(2) OF THIS SECTION, SURFACE TREATING METALS AND PLASTIC MATERIALS USING AN ELECTROLYTIC OR CHEMICAL PROCESS WHERE THE AGGREGATED VOLUME OF THE TREATMENT VATS IS MORE THAN 30M3 Permit Number: AB3190FW Original Permit Number: -	EPR Reference: - Issue Date: 06/05/2016 Effective Date: 06/05/2016 Last date noted as effective: 01/07/2021 Status: EFFECTIVE

This data is sourced from the Environment Agency and Natural Resources Wales.

4.11 Licensed pollutant release (Part A(2)/B)

Records within 500m

10

Records of Part A(2) and Part B installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

Features are displayed on the Current industrial land use map on **page 34**

ID	Location	Address	Details	
A	66m S	Orchid Laundry & Dry Cleaning Ltd, Unit 6, Ridley Wood Industrial Complex, Bryn Lane, Wrexham Industrial Estate, Wrexham, LL13 9UT	Process: Dry Cleaning Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified. Date of enforcement: No Enforcement Notified. Comment: No Enforcement Notified.
H	296m S	Coveris, Ash Road North, Wrexham Industrial Estate, Wrexham, LL13 9UF	Process: Coating Processes Status: Current Permit Permit Type: Part B/A2	Enforcement: No Enforcement Notified. Date of enforcement: No Enforcement Notified. Comment: No Enforcement Notified.



ID	Location	Address	Details	
H	298m S	Intelicoat Technologies, Wrexham Industrial Estate, Wrexham, LL13 9UF	Process: Coating Processes Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified. Date of enforcement: No Enforcement Notified. Comment: No Enforcement Notified.
H	300m S	Exopack Advanced Coatings, Ash Road North, Wrexham Industrial Estate, Wrexham, LL13 9UF	Process: Coating Processes Status: Historical Permit Permit Type: Part A2	Enforcement: No Enforcement Notified. Date of enforcement: No Enforcement Notified. Comment: No Enforcement Notified.
10	307m S	Petcor Limited, Unit A4 and A6 Abbey Road, Redwither Buisness Park, Wrexham, LL13 9XG	Process: Animal Feed Compound Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified. Date of enforcement: No Enforcement Notified. Comment: No Enforcement Notified.
I	359m S	Kellogg Company of Great Britain Ltd, Bryn Lane, Wrexham Industrial Estate, Wrexham, LL13 9UT	Process: Combustion & Incineration Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified. Date of enforcement: No Enforcement Notified. Comment: No Enforcement Notified.
J	379m SW	JCB Transmissions, Unit 4, Abenbury Way, Wrexham Industrial Estate, Wrexham, LL13 9UF	Process: Coating Processes Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified. Date of enforcement: No Enforcement Notified. Comment: No Enforcement Notified.
14	390m S	Hoya Lens UK Ltd, Fourth Road, Wrexham Industrial Estate, Wrexham, LL13 9UA	Process: Surface Cleaning Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified. Date of enforcement: No Enforcement Notified. Comment: No Enforcement Notified.
15	476m SW	Caparo Wire Ltd, PO Box 87, Ash Road North, Wrexham Industrial Estate, Wrexham, LL13 9JT	Process: Surface Cleaning Status: Historical Permit Permit Type: Part B	Enforcement: Enforcement Notified Date of enforcement: 30/03/2006 Comment: Wood processing
16	486m SW	Waste Oil Burners, Unit 3 Abenbury Way, Wrexham Industrial Estate, Wrexham, LL13 9US	Process: Timber Manufacture Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified. Date of enforcement: No Enforcement Notified. Comment: No Enforcement Notified.

This data is sourced from Local Authority records.



4.12 Radioactive Substance Authorisations

Records within 500m

0

Records of the storage, use, accumulation and disposal of radioactive substances regulated under the Radioactive Substances Act 1993.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.13 Licensed Discharges to controlled waters

Records within 500m

9

Discharges of treated or untreated effluent to controlled waters under the Water Resources Act 1991.

Features are displayed on the Current industrial land use map on **page 34**

ID	Location	Address	Details	
G	278m SW	JCB TRANSMISSIONS LTD WREXHAM IND E, JCB TRANSMISSIONS LTD WREXHAM IN, WREXHAM IND ESTATE WREXHAM, WREXHAM	Effluent Type: UNSPECIFIED Permit Number: CM0097602 Permit Version: 1 Receiving Water: UN-NAMED TRIB. OF DEE	Status: CONSENT EXPIRED - TIME LIMIT Issue date: 25/07/1984 Effective Date: 25/07/1984 Revocation Date: 14/07/1994
G	287m SW	JCB TRANSMISSIONS LTD WREXHAM IND E, JCB TRANSMISSIONS LTD WREXHAM IN, WREXHAM IND ESTATE WREXHAM, WREXHAM	Effluent Type: UNSPECIFIED Permit Number: CM0097601 Permit Version: 1 Receiving Water: UN-NAMED TRIB. OF DEE	Status: CONSENT EXPIRED - TIME LIMIT Issue date: 25/07/1984 Effective Date: 25/07/1984 Revocation Date: 09/03/1993
11	320m W	BRYN VILLA, HUGMORE LANE, LLANYPWLL, WREXHAM, WALES, LL13 9YE	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: CG0447601 Permit Version: 1 Receiving Water: UNNAMED WATERCOURSE	Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY Issue date: 01/09/2006 Effective Date: 01/12/2006 Revocation Date: -
K	414m S	BRYN ROAD WREXHAM IND EST, WREXHAM IND EST, WREXHAM IN	Effluent Type: TRADE DISCHARGES - UNSPECIFIED Permit Number: CM0083601 Permit Version: 1 Receiving Water: UNNAMED TRIB OF RIVER DEE	Status: REVOKED - UNSPECIFIED Issue date: 08/02/1978 Effective Date: 08/02/1978 Revocation Date: 29/09/1985
K	414m S	BRYN ROAD WREXHAM IND EST, WREXHAM IND EST, WREXHAM IN	Effluent Type: TRADE DISCHARGES - UNSPECIFIED Permit Number: CM0083601 Permit Version: 3 Receiving Water: UNNAMED TRIB OF RIVER DEE	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV Issue date: 06/07/1994 Effective Date: 06/07/1994 Revocation Date: 09/11/2005

ID	Location	Address	Details	
K	414m S	BRYN ROAD WREXHAM IND EST, WREXHAM IND EST, WREXHAM IN	Effluent Type: TRADE DISCHARGES - UNSPECIFIED Permit Number: CM0083601 Permit Version: 2 Receiving Water: UNNAMED TRIB OF RIVER DEE	Status: REVOKED - UNSPECIFIED Issue date: 30/09/1985 Effective Date: 30/09/1985 Revocation Date: 05/07/1994
L	465m S	BRYN ROAD WREXHAM IND EST, WREXHAM IND EST, WREXHAM IN	Effluent Type: UNSPECIFIED Permit Number: CM0097401 Permit Version: 1 Receiving Water: UN-NAMED TRIB. OF DEE	Status: REVOKED - UNSPECIFIED Issue date: 16/05/1984 Effective Date: 16/05/1984 Revocation Date: 29/09/1985
L	465m S	BRYN ROAD WREXHAM IND EST, WREXHAM IND EST, WREXHAM IN	Effluent Type: UNSPECIFIED Permit Number: CM0097401 Permit Version: 2 Receiving Water: UN-NAMED TRIB. OF DEE	Status: REVOKED - UNSPECIFIED Issue date: 16/05/1984 Effective Date: 30/09/1985 Revocation Date: 05/07/1994
L	465m S	BRYN ROAD WREXHAM IND EST, WREXHAM IND EST, WREXHAM IN	Effluent Type: TRADE DISCHARGES - UNSPECIFIED Permit Number: CM0097401 Permit Version: 3 Receiving Water: UN-NAMED TRIB. OF DEE	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV Issue date: 06/07/1994 Effective Date: 06/07/1994 Revocation Date: 09/11/2005

This data is sourced from the Environment Agency and Natural Resources Wales.

4.14 Pollutant release to surface waters (Red List)

Records within 500m

0

Discharges of specified substances under the Environmental Protection (Prescribed Processes and Substances) Regulations 1991.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.15 Pollutant release to public sewer

Records within 500m

0

Discharges of Special Category Effluents to the public sewer.

This data is sourced from the Environment Agency and Natural Resources Wales.



4.16 List 1 Dangerous Substances

Records within 500m

0

Discharges of substances identified on List I of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.17 List 2 Dangerous Substances

Records within 500m

1

Discharges of substances identified on List II of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

Features are displayed on the Current industrial land use map on **page 34**

ID	Location	Name	Status	Receiving Water	Authorised Substances
13	385m S	Hoya Lens Uk Ltd (new Factory) Abbey Road, Wrexham Ind Est	Not Active	-	Chromium, Copper, Lead, Nickel, Zinc

This data is sourced from the Environment Agency and Natural Resources Wales.

4.18 Pollution Incidents (EA/NRW)

Records within 500m

5

Records of substantiated pollution incidents. Since 2006 this data has only included category 1 (major) and 2 (significant) pollution incidents.

Features are displayed on the Current industrial land use map on **page 34**

ID	Location	Details	
E	179m S	Incident Date: 30/04/2015 Incident Identification: 1333634 Pollutant: Oils and Fuel Pollutant Description: Diesel	Water Impact: - Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
7	201m S	Incident Date: 19/12/2013 Incident Identification: 1184930 Pollutant: Inorganic Chemicals/Products Pollutant Description: Other Inorganic Chemical or Product	Water Impact: - Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
G	317m SW	Incident Date: 25/07/2003 Incident Identification: 176604 Pollutant: Oils and Fuel Pollutant Description: Cutting Oils	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

ID	Location	Details	
I	358m S	Incident Date: 08/01/2014 Incident Identification: 1191799 Pollutant: Contaminated Water Pollutant Description: Firefighting Run-Off	Water Impact: - Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
I	358m S	Incident Date: 07/02/2014 Incident Identification: 1202822 Pollutant: Contaminated Water Pollutant Description: Firefighting Run-Off	Water Impact: - Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

This data is sourced from the Environment Agency and Natural Resources Wales.

4.19 Pollution inventory substances

Records within 500m	0
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The pollution inventory (substances) includes reporting on annual emissions of certain regulated substances to air, controlled waters and land. A reporting threshold for each substance is also included. Where emissions fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.20 Pollution inventory waste transfers

Records within 500m	0
----------------------------	----------

The pollution inventory (waste transfers) includes reporting on annual transfers and recovery/disposal of controlled wastes from a site. A reporting threshold for each waste type is also included. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

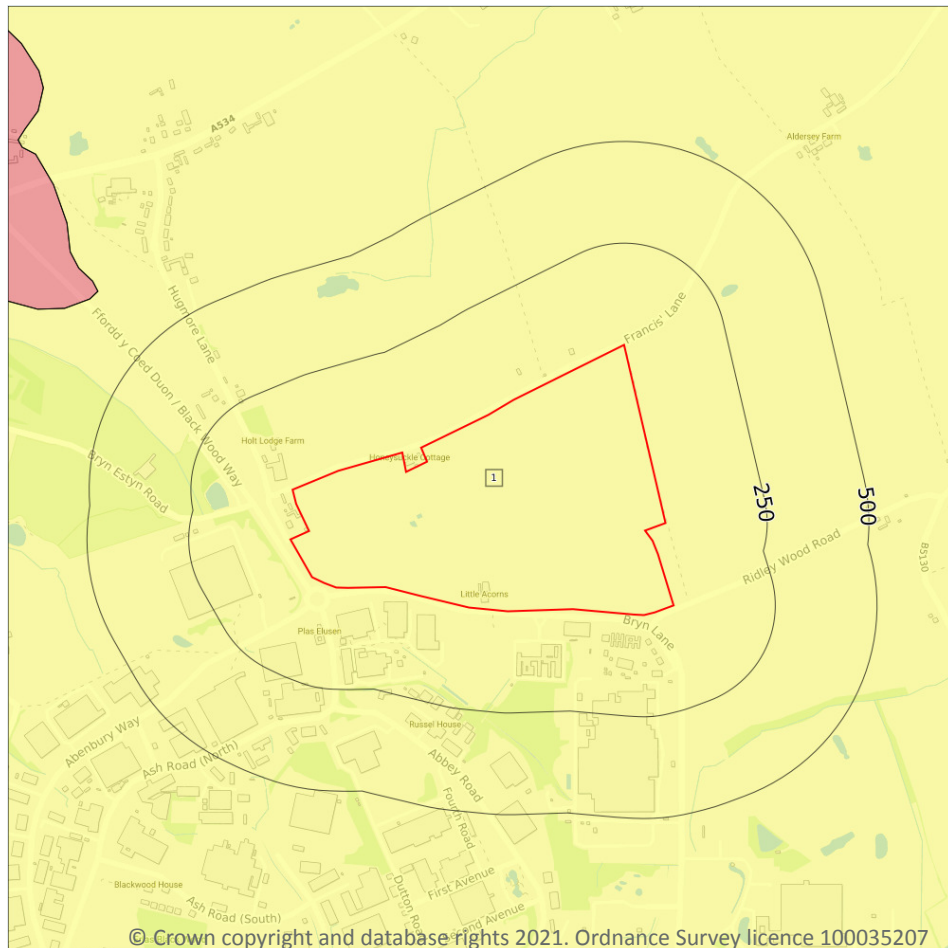
4.21 Pollution inventory radioactive waste

Records within 500m	0
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The pollution inventory (radioactive wastes) includes reporting on annual releases of radioactive substances from a site, including the means of release. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

5 Hydrogeology - Superficial aquifer



- Site Outline
- Search buffers in metres (m)
- Principal
 - Secondary A
 - Secondary B
 - Secondary Undifferentiated
 - Unproductive
 - Unknown

5.1 Superficial aquifer

Records within 500m

1

Aquifer status of groundwater held within superficial geology.

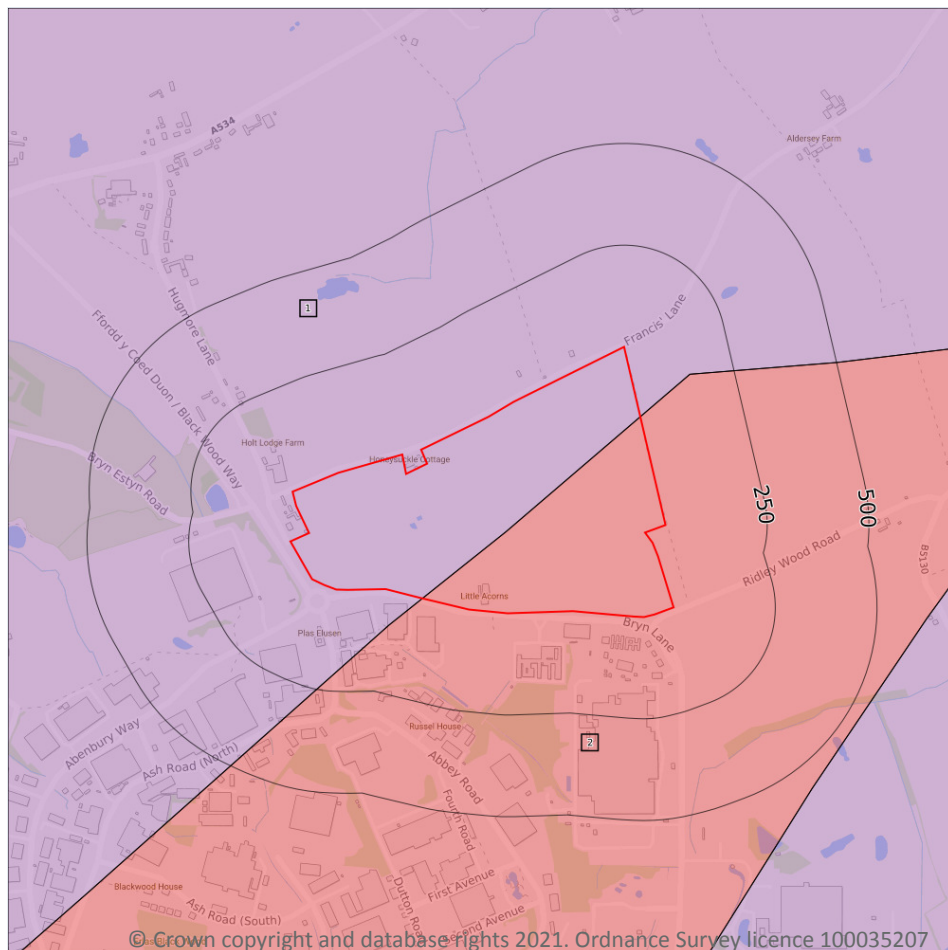
Features are displayed on the Hydrogeology map on **page 50**

ID	Location	Designation	Description
1	On site	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.



Bedrock aquifer



- Site Outline
- Search buffers in metres (m)
- Principal
 - Secondary A
 - Secondary B
 - Secondary Undifferentiated
 - Unproductive

5.2 Bedrock aquifer

Records within 500m

2

Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 51**

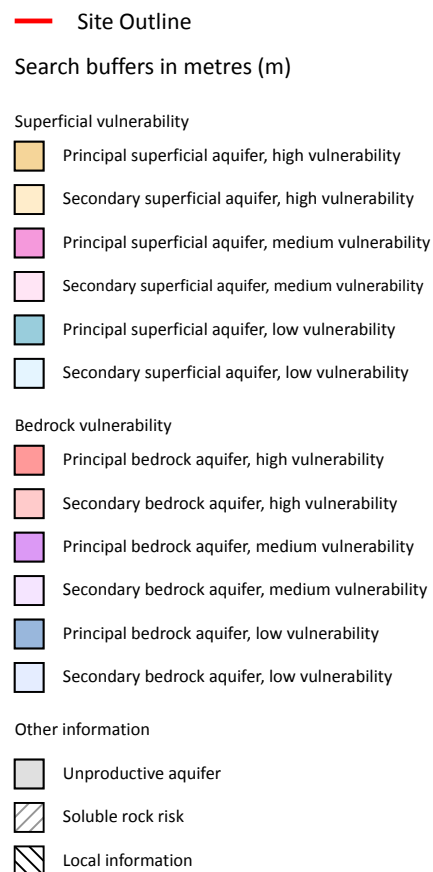
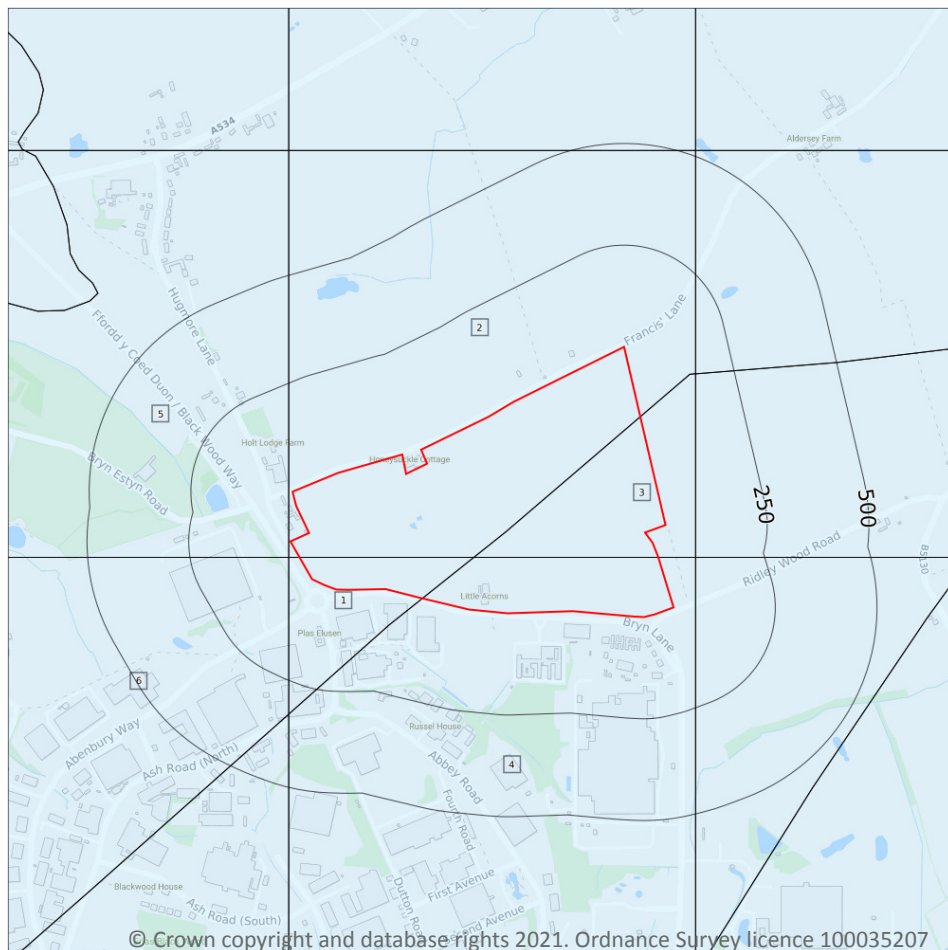
ID	Location	Designation	Description
1	On site	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers
2	On site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers



This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.



Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m

6

An assessment of the vulnerability of groundwater to a pollutant discharged at ground level based on the hydrological, geological, hydrogeological and soil properties within a one kilometre square grid. Groundwater vulnerability is described as High, Medium or Low as follows:

- High - Areas able to easily transmit pollution to groundwater. They are likely to be characterised by high leaching soils and the absence of low permeability superficial deposits.
- Medium - Intermediate between high and low vulnerability.
- Low - Areas that provide the greatest protection from pollution. They are likely to be characterised by low leaching soils and/or the presence of superficial deposits characterised by a low permeability.

Features are displayed on the Groundwater vulnerability map on **page 53**



ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: 300- 550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Low Aquifer type: Principal Flow mechanism: Well connected fractures
2	On site	Summary Classification: Secondary superficial aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: 300- 550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Low Aquifer type: Principal Flow mechanism: Well connected fractures
3	On site	Summary Classification: Secondary superficial aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: 300- 550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Low Aquifer type: Secondary Flow mechanism: Well connected fractures
4	On site	Summary Classification: Secondary superficial aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: 300- 550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Low Aquifer type: Secondary Flow mechanism: Well connected fractures
5	4m W	Summary Classification: Secondary superficial aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: 300- 550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Low Aquifer type: Principal Flow mechanism: Intergranular
6	23m SW	Summary Classification: Secondary superficial aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: 300- 550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Low Aquifer type: Principal Flow mechanism: Well connected fractures

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.



5.4 Groundwater vulnerability- soluble rock risk

Records on site

0

This dataset identifies areas where solution features that enable rapid movement of a pollutant may be present within a 1km grid square.

This data is sourced from the British Geological Survey and the Environment Agency.

5.5 Groundwater vulnerability- local information

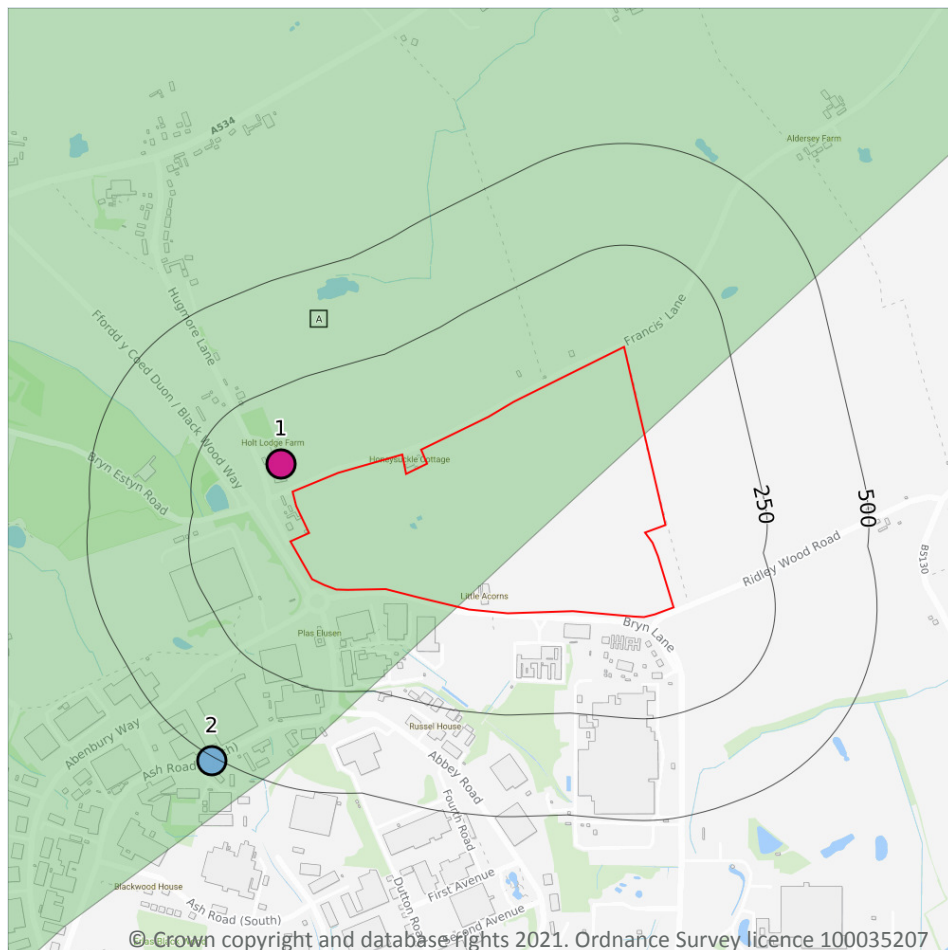
Records on site

0

This dataset identifies areas where additional local information affecting vulnerability is held by the Environment Agency. Further information can be obtained by contacting the Environment Agency local Area groundwater team through the Environment Agency National Customer Call Centre on 03798 506 506 or by email on enquiries@environment-agency.gov.uk.

This data is sourced from the British Geological Survey and the Environment Agency.

Abstractions and Source Protection Zones



- Site Outline
- Search buffers in metres (m)
- Source Protection Zone 1
Inner catchment
- Source Protection Zone 2
Outer catchment
- Source Protection Zone 3
Total catchment
- Source Protection Zone 4
Zone of Special Interest
- Source Protection Zone 1c
Inner catchment - confined aquifer
- Source Protection Zone 2c
Outer catchment - confined aquifer
- Source Protection Zone 3c
Total catchment - confined aquifer
- Drinking water abstraction licences
Point features
- Drinking water abstraction licences
Polygon features
- Drinking water abstraction licences
Linear features
- Groundwater abstraction licence (point)
- Groundwater abstraction licence (area)
- Groundwater abstraction licence (linear)
- Surface Water Abstractions (point)
- Surface Water Abstractions (area)
- Surface Water Abstractions (linear)

5.6 Groundwater abstractions

Records within 2000m

16

Licensed groundwater abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, between two points (line data) or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on **page 56**

ID	Location	Details	
1	74m NW	Status: Historical Licence No: 24/67/9/0130 Details: General Farming & Domestic Direct Source: EAW Groundwater Point: WELL Data Type: Point Name: Taylor Easting: 337980 Northing: 351230	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 14/06/1968 Expiry Date: - Issue No: 100 Version Start Date: 14/06/1968 Version End Date: -
-	1457m NW	Status: Historical Licence No: 24/67/7/0197 Details: Mineral Washing Direct Source: EAW Groundwater Point: BOREHOLE Data Type: Point Name: Lafarge Tarmac Trading Limited Easting: 336870 Northing: 352070	Annual Volume (m ³): 195180 Max Daily Volume (m ³): 533.28 Original Application No: - Original Start Date: 25/08/1982 Expiry Date: - Issue No: 103 Version Start Date: 27/03/2014 Version End Date: -
-	1457m NW	Status: Active Licence No: 24/67/7/0197 Details: Mineral Washing - Low Direct Source: Carboniferous strata at Llan y Pwll, Wrexham Point: - Data Type: Point Name: - Easting: 336870 Northing: 352070	Annual Volume (m ³): 195,180 Max Daily Volume (m ³): 533.28 Original Application No: - Original Start Date: 2019-03-22 00:00:00.0000000 Expiry Date: - Issue No: - Version Start Date: - Version End Date: -
-	1480m E	Status: Historical Licence No: 24/67/7/0171 Details: General Farming & Domestic Direct Source: EAW Groundwater Point: BOREHOLE Data Type: Point Name: Davies Easting: 340410 Northing: 350660	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 10/01/1969 Expiry Date: - Issue No: 100 Version Start Date: 31/01/1994 Version End Date: -
-	1488m E	Status: Historical Licence No: 24/67/7/0107 Details: General Farming & Domestic Direct Source: EAW Groundwater Point: WELL Data Type: Point Name: Evans Easting: 340420 Northing: 350670	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 25/10/1966 Expiry Date: - Issue No: 100 Version Start Date: 25/10/1966 Version End Date: -



ID	Location	Details	
-	1681m S	Status: Historical Licence No: 24/67/7/0213 Details: Process water Direct Source: EAW Groundwater Point: 144 M DEEP, 200MM DIA BH AW2 Data Type: Point Name: Calypso Soft Drinks Ltd Easting: 338360 Northing: 349190	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 10/09/1998 Expiry Date: 10/09/2001 Issue No: 100 Version Start Date: 10/09/1998 Version End Date: -
-	1681m S	Status: Historical Licence No: 24/67/7/0222 Details: Process Water Direct Source: EAW Groundwater Point: 144 M DEEP, 200MM DIA BH AW2 Data Type: Point Name: Calypso Soft Drinks Ltd Easting: 338360 Northing: 349190	Annual Volume (m ³): 131400 Max Daily Volume (m ³): 600 Original Application No: - Original Start Date: 10/09/2001 Expiry Date: 31/03/2012 Issue No: 1 Version Start Date: 10/09/2001 Version End Date: -
-	1692m S	Status: Historical Licence No: WA/067/0007/006 Details: Process Water Direct Source: EAW Groundwater Point: SPECTRUM BUSINESS PARK BOREHOLE AW2 Data Type: Point Name: Calypso Soft Drinks Ltd Easting: 338350 Northing: 349180	Annual Volume (m ³): 131400 Max Daily Volume (m ³): 600 Original Application No: - Original Start Date: 01/04/2012 Expiry Date: 31/03/2022 Issue No: 1 Version Start Date: 01/04/2012 Version End Date: -
-	1793m S	Status: Historical Licence No: 24/67/7/0213 Details: Process water Direct Source: EAW Groundwater Point: 144M DEEP, 150MM DIA., OB1 Data Type: Point Name: Calypso Soft Drinks Ltd Easting: 338240 Northing: 349090	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 10/09/1998 Expiry Date: 10/09/2001 Issue No: 100 Version Start Date: 10/09/1998 Version End Date: -
-	1793m S	Status: Historical Licence No: 24/67/7/0222 Details: Process Water Direct Source: EAW Groundwater Point: 144M DEEP, 150MM DIA., OB1 Data Type: Point Name: Calypso Soft Drinks Ltd Easting: 338240 Northing: 349090	Annual Volume (m ³): 131400 Max Daily Volume (m ³): 600 Original Application No: - Original Start Date: 10/09/2001 Expiry Date: 31/03/2012 Issue No: 1 Version Start Date: 10/09/2001 Version End Date: -

ID	Location	Details	
-	1793m S	Status: Historical Licence No: WA/067/0007/006 Details: Process Water Direct Source: EAW Groundwater Point: 144M DEEP, 150MM DIA., OB1 Data Type: Point Name: Calypso Soft Drinks Ltd Easting: 338240 Northing: 349090	Annual Volume (m ³): 131400 Max Daily Volume (m ³): 600 Original Application No: - Original Start Date: 01/04/2012 Expiry Date: 31/03/2022 Issue No: 1 Version Start Date: 01/04/2012 Version End Date: -
-	1947m E	Status: Historical Licence No: 24/67/7/0095 Details: General Farming & Domestic Direct Source: EAW Groundwater Point: BOREHOLE Data Type: Point Name: Rigby Easting: 340870 Northing: 350580	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 25/10/1966 Expiry Date: - Issue No: 100 Version Start Date: 25/10/1966 Version End Date: -
-	1948m S	Status: Historical Licence No: 24/67/7/0213 Details: Process water Direct Source: EAW Groundwater Point: 144M DEEP, 150MM DIA. BOREHOLE AW1 Data Type: Point Name: Calypso Soft Drinks Ltd Easting: 338190 Northing: 348940	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 10/09/1998 Expiry Date: 10/09/2001 Issue No: 100 Version Start Date: 10/09/1998 Version End Date: -
-	1948m S	Status: Historical Licence No: 24/67/7/0222 Details: Process Water Direct Source: EAW Groundwater Point: 144M DEEP, 150MM DIA. BOREHOLE AW1 Data Type: Point Name: Calypso Soft Drinks Ltd Easting: 338190 Northing: 348940	Annual Volume (m ³): 131400 Max Daily Volume (m ³): 600 Original Application No: - Original Start Date: 10/09/2001 Expiry Date: 31/03/2012 Issue No: 1 Version Start Date: 10/09/2001 Version End Date: -
-	1948m S	Status: Historical Licence No: WA/067/0007/006 Details: Process Water Direct Source: EAW Groundwater Point: 144M DEEP, 150MM DIA. BOREHOLE AW1 Data Type: Point Name: Calypso Soft Drinks Ltd Easting: 338190 Northing: 348940	Annual Volume (m ³): 131400 Max Daily Volume (m ³): 600 Original Application No: - Original Start Date: 01/04/2012 Expiry Date: 31/03/2022 Issue No: 1 Version Start Date: 01/04/2012 Version End Date: -



ID	Location	Details	
-	1948m S	Status: Active Licence No: WA/067/0007/006 Details: Process Water - Medium Direct Source: Underground strata Point: - Data Type: Point Name: - Easting: 338190 Northing: 348940	Annual Volume (m ³): 131,400 Max Daily Volume (m ³): 600 Original Application No: - Original Start Date: 2016-10-02 00:00:00.0000000 Expiry Date: 2027-03-30 00:00:00.0000000 Issue No: - Version Start Date: - Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.7 Surface water abstractions

Records within 2000m	1
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Licensed surface water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on **page 56**

ID	Location	Details	
2	510m SW	Status: Historical Licence No: 24/67/7/0178 Details: Non-Evaporative Cooling Direct Source: EAW Surface Water Point: TRIBUTARY OF REDWITHER BROOK Data Type: Point Name: Caparo Wire Ltd Easting: 337810 Northing: 350500	Annual Volume (m ³): 9955.74 Max Daily Volume (m ³): 27.276 Original Application No: - Original Start Date: 12/05/1972 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2007 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.8 Potable abstractions

Records within 2000m	0
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Licensed potable water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

This data is sourced from the Environment Agency and Natural Resources Wales.

5.9 Source Protection Zones

Records within 500m**2**

Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination. Features are displayed on the Abstractions and Source Protection Zones map on **page 56**

ID	Location	Type	Description
A	On site	3	Total catchment
A	On site	3	Total catchment

This data is sourced from the Environment Agency and Natural Resources Wales.

5.10 Source Protection Zones (confined aquifer)

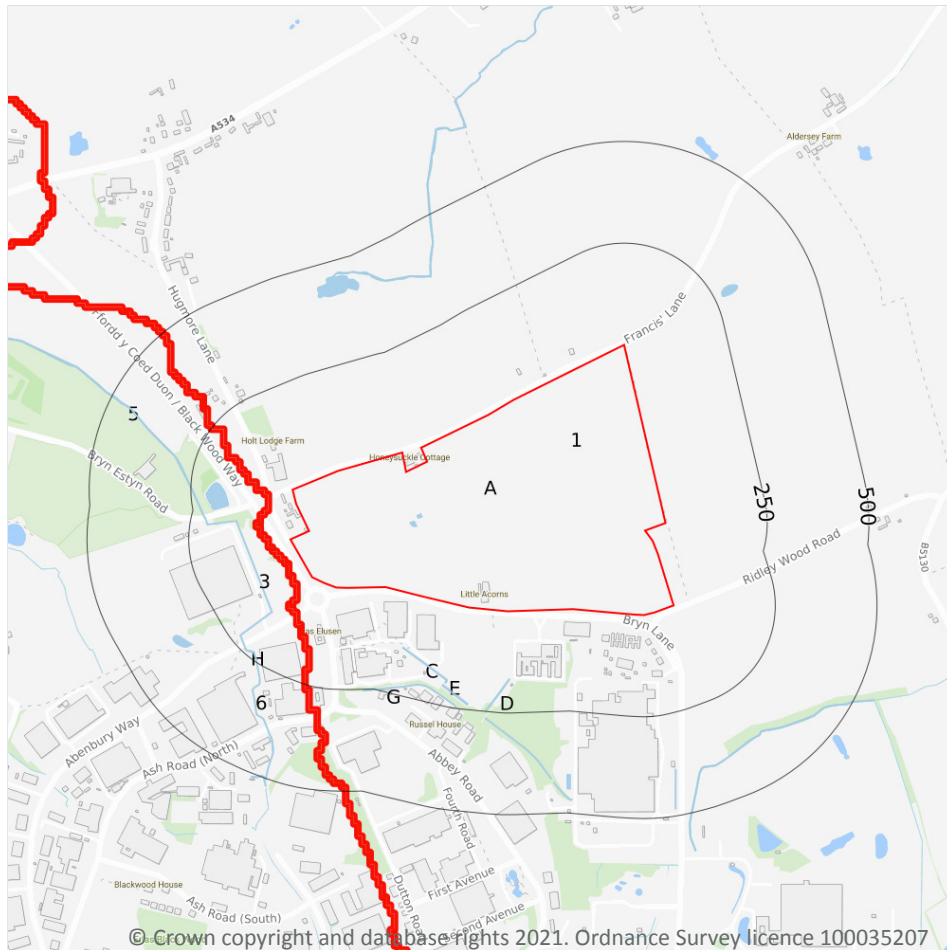
Records within 500m**0**

Source Protection Zones in the confined aquifer define the sensitivity around a deep groundwater abstraction to contamination. A confined aquifer would normally be protected from contamination by overlying geology and is only considered a sensitive resource if deep excavation/drilling is taking place.

This data is sourced from the Environment Agency and Natural Resources Wales.



6 Hydrology



- Site Outline
- Search buffers in metres (m)
- Water Network (OS MasterMap)
- Surface water features (wider than 5m)
- Surface water features (narrower than 5m)
- ⋯ WFD River, canal and surface water transfer water bodies
- WFD Lake water bodies
- WFD Transitional and coastal water bodies
- WFD Surface water body catchments boundaries
- WFD Groundwater body boundaries

6.1 Water Network (OS MasterMap)

Records within 250m

11

Detailed water network of Great Britain showing the flow and precise central course of every river, stream, lake and canal.

Features are displayed on the Hydrology map on **page 62**

ID	Location	Type of water feature	Ground level	Permanence	Name
3	107m W	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-



ID	Location	Type of water feature	Ground level	Permanence	Name
C	133m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	166m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	182m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	212m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	212m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	212m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
5	220m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
G	224m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
H	233m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
6	234m SW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m

10

Covering rivers, streams and lakes (some overlap with OS MasterMap Water Network data in previous section) but additionally covers smaller features such as ponds. Rivers and streams narrower than 5m are represented as a single line. Lakes, ponds and rivers or streams wider than 5m are represented as polygons.

Features are displayed on the Hydrology map on **page 62**



This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site

1

The Water Framework Directive is an EU-led framework for the protection of inland surface waters, estuaries, coastal waters and groundwater through river basin-level management planning. In terms of surface water, these basins are broken down into smaller units known as management, operational and water body catchments.

Features are displayed on the Hydrology map on **page 62**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
1	On site	River WB catchment	Dee - Chester Weir to Ceiriog	GB111067057080	Dee Lower Chester Weir to Ceiriog	Dee

This data is sourced from the Environment Agency and Natural Resources Wales.

6.4 WFD Surface water bodies

Records identified

1

Surface water bodies under the Directive may be rivers, lakes, estuary or coastal. To achieve the purpose of the Directive, environmental objectives have been set and are reported on for each water body. The progress towards delivery of the objectives is then reported on by the relevant competent authorities at the end of each six-year cycle. The river water body directly associated with the catchment listed in the previous section is detailed below, along with any lake, canal, coastal or artificial water body within 250m of the site.

Features are displayed on the Hydrology map on **page 62**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	2756m NE	River	Dee - Chester Weir to Ceiriog	GB111067057080	Moderate	Fail	Moderate	2016

This data is sourced from the Environment Agency and Natural Resources Wales.



6.5 WFD Groundwater bodies

Records on site

2

Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place.

Features are displayed on the Hydrology map on **page 62**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
A	On site	Dee Permo-Triassic Sandstone	GB41101G202400	Good	Good	Good	2015
A	On site	Dee Permo-Triassic Sandstone	GB41101G202400	Good	Good	Good	2016

This data is sourced from the Environment Agency and Natural Resources Wales.



7 River and coastal flooding

7.1 Risk of flooding from rivers and the sea

Records within 50m**0**

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m within the Risk of Flooding from Rivers and Sea (RoFRaS)/Flood Risk Assessment Wales (FRAW) models. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition. The risk categories for RoFRaS for rivers and the sea and FRAW for rivers are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 100 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 100 chance) or High (greater than or equal to 1 in 30 chance). The risk categories for FRAW for the sea are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 200 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 200 chance) or High (greater than or equal to 1 in 30 chance).

This data is sourced from the Environment Agency and Natural Resources Wales.

7.2 Historical Flood Events

Records within 250m**0**

Records of historic flooding from rivers, the sea, groundwater and surface water. Records began in 1946 when predecessor bodies started collecting detailed information about flooding incidents, although limited details may be included on flooding incidents prior to this date. Takes into account the presence of defences, structures, and other infrastructure where they existed at the time of flooding, and includes flood extents that may have been affected by overtopping, breaches or blockages.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.3 Flood Defences

Records within 250m**0**

Records of flood defences owned, managed or inspected by the Environment Agency and Natural Resources Wales. Flood defences can be structures, buildings or parts of buildings. Typically these are earth banks, stone and concrete walls, or sheet-piling that is used to prevent or control the extent of flooding.

This data is sourced from the Environment Agency and Natural Resources Wales.



7.4 Areas Benefiting from Flood Defences

Records within 250m**0**

Areas that would benefit from the presence of flood defences in a 1 in 100 (1%) chance of flooding each year from rivers or 1 in 200 (0.5%) chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.5 Flood Storage Areas

Records within 250m**0**

Areas that act as a balancing reservoir, storage basin or balancing pond to attenuate an incoming flood peak to a flow level that can be accepted by the downstream channel or to delay the timing of a flood peak so that its volume is discharged over a longer period.

This data is sourced from the Environment Agency and Natural Resources Wales.



River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m

0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land between Flood Zone 3 (see next section) and the extent of the flooding from rivers or the sea with a 1 in 1000 (0.1%) chance of flooding each year.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.7 Flood Zone 3

Records within 50m

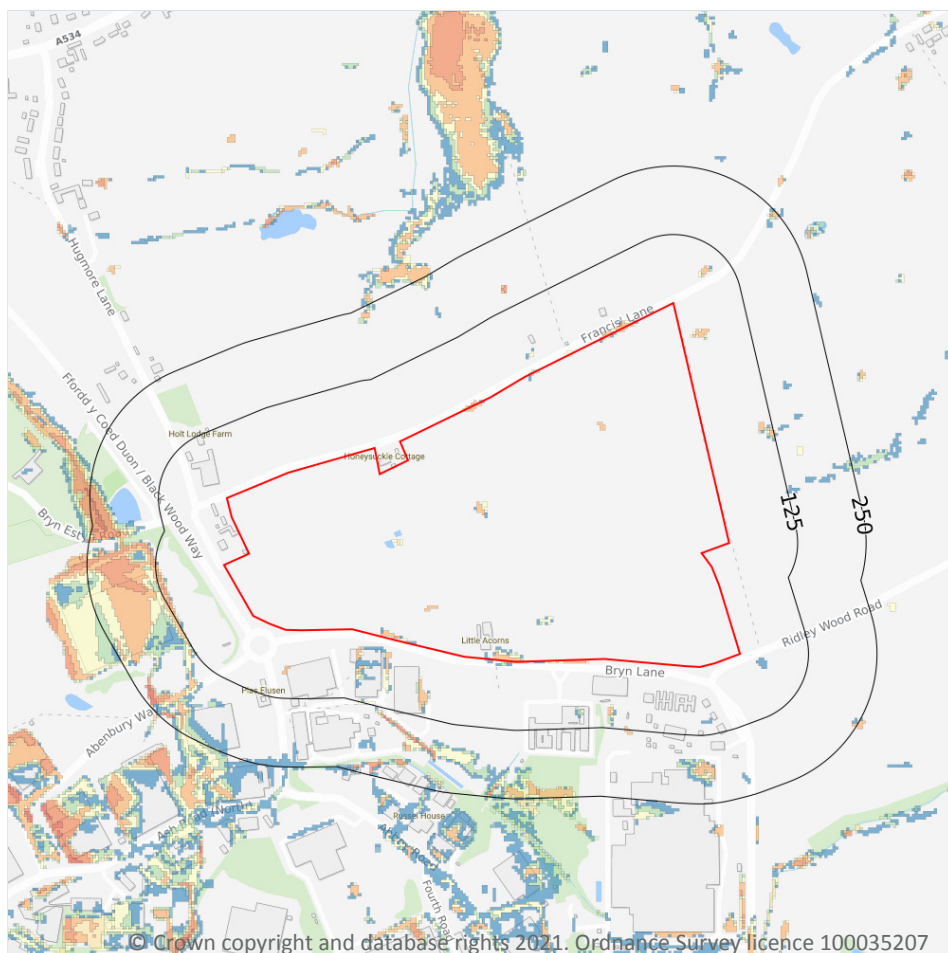
0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.



8 Surface water flooding



— Site Outline

Search buffers in metres (m)

1 in 1000 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 250 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 100 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 30 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

8.1 Surface water flooding

Highest risk on site

1 in 30 year, 0.3m - 1.0m

Highest risk within 50m

1 in 30 year, 0.3m - 1.0m

Ambiental Risk Analytics surface water (pluvial) FloodMap identifies areas likely to flood as a result of extreme rainfall events, i.e. land naturally vulnerable to surface water ponding or flooding. This data set was produced by simulating 1 in 30 year, 1 in 100 year, 1 in 250 year and 1 in 1,000 year rainfall events. Modern urban drainage systems are typically built to cope with rainfall events between 1 in 20 and 1 in 30 years, though some older ones may flood in a 1 in 5 year rainfall event.

Features are displayed on the Surface water flooding map on **page 69**

The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

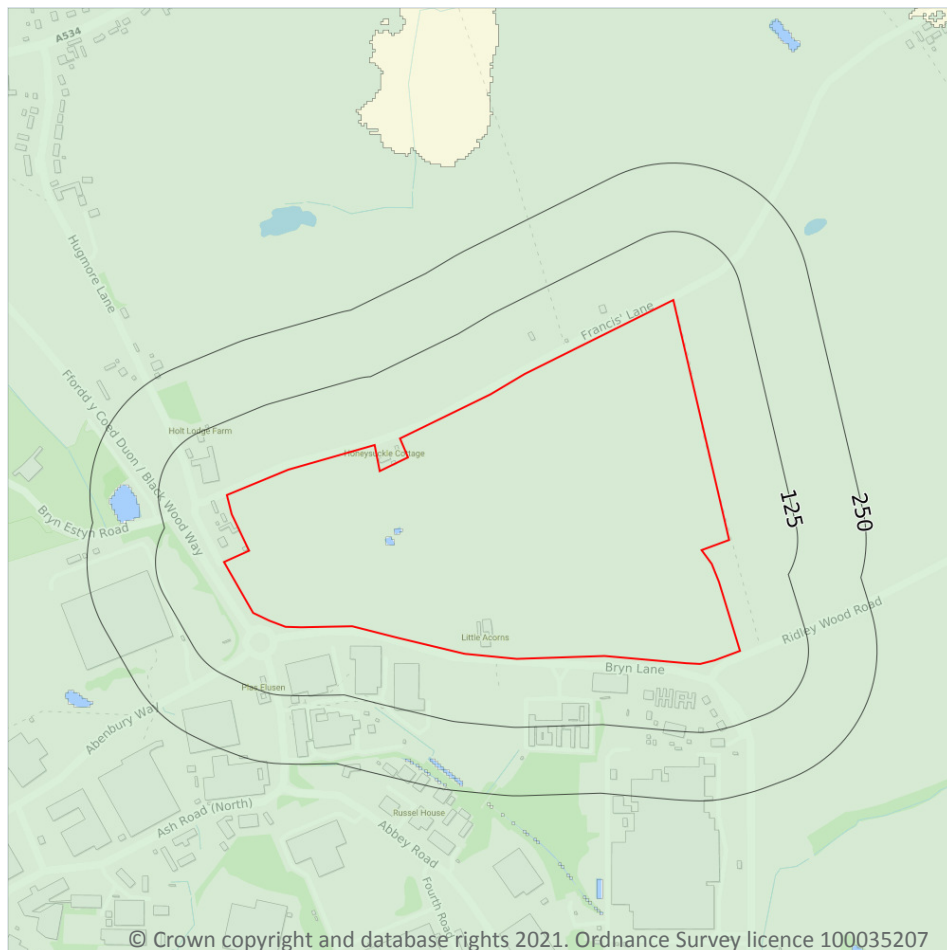
The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Between 0.3m and 1.0m
1 in 250 year	Between 0.3m and 1.0m
1 in 100 year	Between 0.3m and 1.0m
1 in 30 year	Between 0.3m and 1.0m

This data is sourced from Ambiantal Risk Analytics.



9 Groundwater flooding



— Site Outline
Search buffers in metres (m)

- High
- Moderate - High
- Moderate
- Low
- Negligible

9.1 Groundwater flooding

Highest risk on site

Low

Highest risk within 50m

Low

Groundwater flooding is caused by unusually high groundwater levels. It occurs when the water table rises above the ground surface or within underground structures such as basements or cellars. Groundwater flooding tends to exhibit a longer duration than surface water flooding, possibly lasting for weeks or months, and as a result it can cause significant damage to property. This risk assessment is based on a 1 in 100 year return period and a 5m Digital Terrain Model (DTM).

Features are displayed on the Groundwater flooding map on **page 71**

This data is sourced from Ambiantal Risk Analytics.

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m**0**

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. They cover all aspects of wetland conservation and wise use, recognizing wetlands as ecosystems that are extremely important for biodiversity conservation in general and for the well-being of human communities. These sites cover a broad definition of wetland; marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, and even some marine areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.3 Special Areas of Conservation (SAC)

Records within 2000m**0**

Areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.4 Special Protection Areas (SPA)

Records within 2000m**0**

Sites classified by the UK Government under the EC Birds Directive, SPAs are areas of the most important habitat for rare (listed on Annex I to the Directive) and migratory birds within the European Union.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.5 National Nature Reserves (NNR)

Records within 2000m**0**

Sites containing examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. They are managed to conserve their habitats, provide special opportunities for scientific study or to provide public recreation compatible with natural heritage interests.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.6 Local Nature Reserves (LNR)

Records within 2000m

0

Sites managed for nature conservation, and to provide opportunities for research and education, or simply enjoying and having contact with nature. They are declared by local authorities under the National Parks and Access to the Countryside Act 1949 after consultation with the relevant statutory nature conservation agency.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.7 Designated Ancient Woodland

Records within 2000m

14

Ancient woodlands are classified as areas which have been wooded continuously since at least 1600 AD. This includes semi-natural woodland and plantations on ancient woodland sites. 'Wooded continuously' does not mean there is or has previously been continuous tree cover across the whole site, and not all trees within the woodland have to be old.

Features are displayed on the Environmental designations map on **page 72**

ID	Location	Name	Woodland Type
1	826m W	Unknown	Restored Ancient Woodland Site
A	882m S	Unknown	Restored Ancient Woodland Site
A	884m S	Unknown	Restored Ancient Woodland Site
2	1023m W	Unknown	Ancient Semi Natural Woodland
3	1340m N	Unknown	Ancient Semi Natural Woodland
4	1376m SW	Unknown	Ancient Semi Natural Woodland
5	1415m N	Unknown	Ancient Semi Natural Woodland
B	1641m N	Unknown	Ancient Woodland Site of Unknown Category
-	1646m S	Unknown	Ancient Semi Natural Woodland
B	1649m N	Unknown	Ancient Woodland Site of Unknown Category
-	1691m NW	Unknown	Ancient Semi Natural Woodland
-	1755m W	Unknown	Ancient Semi Natural Woodland
9	1761m NW	Unknown	Ancient Semi Natural Woodland
-	1985m SW	Unknown	Ancient Semi Natural Woodland

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.



10.8 Biosphere Reserves

Records within 2000m

0

Biosphere Reserves are internationally recognised by UNESCO as sites of excellence to balance conservation and socioeconomic development between nature and people. They are recognised under the Man and the Biosphere (MAB) Programme with the aim of promoting sustainable development founded on the work of the local community.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.9 Forest Parks

Records within 2000m

0

These are areas managed by the Forestry Commission designated on the basis of recreational, conservation or scenic interest.

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m

0

A type of marine nature reserve in UK waters established under the Marine and Coastal Access Act (2009). They are designated with the aim to protect nationally important, rare or threatened habitats and species.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.11 Green Belt

Records within 2000m

0

Areas designated to prevent urban sprawl by keeping land permanently open.

This data is sourced from the Ministry of Housing, Communities and Local Government.

10.12 Proposed Ramsar sites

Records within 2000m

0

Ramsar sites are areas listed as a Wetland of International Importance under the Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention) 1971. The sites here supplied have a status of 'Proposed' having been identified for potential adoption under the framework.

This data is sourced from Natural England.



10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m**0**

Special Areas of Conservation are areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive. Those sites supplied here are those with a status of 'Possible' having been identified for potential adoption under the framework.

This data is sourced from Natural England and Natural Resources Wales.

10.14 Potential Special Protection Areas (pSPA)

Records within 2000m**0**

Special Protection Areas (SPAs) are areas designated (or 'classified') under the European Union Wild Birds Directive for the protection of nationally and internationally important populations of wild birds. Those sites supplied here are those with a status of 'Potential' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m**0**

Areas where nitrate concentrations in drinking water sources exceeded or was at risk of exceeding the limit of 50 mg/l set by the 1980 EC Drinking Water Directive. Voluntary agricultural measures as a means of reducing the levels of nitrate were introduced by DEFRA as MAFF, with payments being made to farmers who complied. The scheme was started as a pilot in 1990 in ten areas, later implemented within 32 areas. The scheme was closed to further new entrants in 1998, although existing agreements continued for their full term. All Nitrate Sensitive Areas fell within the areas designated as Nitrate Vulnerable Zones (NVZs) in 1996 under the EC Nitrate Directive (91/676/EEC).

This data is sourced from Natural England.

10.16 Nitrate Vulnerable Zones

Records within 2000m**0**

Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

This data is sourced from Natural England and Natural Resources Wales.



SSSI Impact Zones and Units



- Site Outline
- Search buffers in metres (m)
- SSSI Impact Risk Zones
- SSSI Units
- Not recorded
- Favourable
- Unfavourable - Recovering
- Unfavourable - No change
- Unfavourable - Declining
- Partially destroyed
- Destroyed

10.17 SSSI Impact Risk Zones

Records on site

2

Developed to allow rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts.

Features are displayed on the SSSI Impact Zones and Units map on **page 77**

ID	Location	Type of developments requiring consultation
1	On site	Infrastructure - Airports, helipads and other aviation proposals. Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction. Air pollution - Any industrial/agricultural development that could cause AIR POLLUTION (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons > 750m² & manure stores > 3500t) Combustion - General combustion processes >50MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion
2	On site	Infrastructure - Airports, helipads and other aviation proposals. Air pollution - Any industrial/agricultural development that could cause AIR POLLUTION (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons > 750m² & manure stores > 3500t) Combustion - General combustion processes >50MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	0
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Divisions of SSSIs used to record management and condition details. Units are the smallest areas for which Natural England gives a condition assessment, however, the size of units varies greatly depending on the types of management and the conservation interest.

This data is sourced from Natural England and Natural Resources Wales.



11 Visual and cultural designations



- Site Outline
- Search buffers in metres (m)
-  Listed buildings
-  Conservation areas
-  Conservation areas - no data
-  National Parks
-  Areas of Outstanding Natural Beauty
-  Registered parks and gardens
-  Scheduled Monuments
-  World Heritage Sites

11.1 World Heritage Sites

Records within 250m

0

Sites designated for their globally important cultural or natural interest requiring appropriate management and protection measures. World Heritage Sites are designated to meet the UK's commitments under the World Heritage Convention.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.2 Area of Outstanding Natural Beauty

Records within 250m

0

Areas of Outstanding Natural Beauty (AONB) are conservation areas, chosen because they represent 18% of the finest countryside. Each AONB has been designated for special attention because of the quality of their flora, fauna, historical and cultural associations, and/or scenic views. The National Parks and Access to the Countryside Act of 1949 created AONBs and the Countryside and Rights of Way Act, 2000 added further regulation and protection. There are likely to be restrictions to some developments within these areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.3 National Parks

Records within 250m

0

In England and Wales, the purpose of National Parks is to conserve and enhance landscapes within the countryside whilst promoting public enjoyment of them and having regard for the social and economic well-being of those living within them. In Scotland National Parks have the additional purpose of promoting the sustainable use of the natural resources of the area and the sustainable social and economic development of its communities. The National Parks and Access to the Countryside Act 1949 established the National Park designation in England and Wales, and The National Parks (Scotland) Act 2000 in Scotland.

This data is sourced from Natural England, Natural Resources Wales and the Scottish Government.

11.4 Listed Buildings

Records within 250m

1

Buildings listed for their special architectural or historical interest. Building control in the form of 'listed building consent' is required in order to make any changes to that building which might affect its special interest. Listed buildings are graded to indicate their relative importance, however building controls apply to all buildings equally, irrespective of their grade, and apply to the interior and exterior of the building in its entirety, together with any curtilage structures.

Features are displayed on the Visual and cultural designations map on **page 79**

ID	Location	Name	Grade	Reference Number	Listed date
1	120m NW	New Holt Lodge Farm, Situated At Crossroads Where Hugmore Lane Meets Francis' Lane And Brynestyn Road	II	1541	09/06/1952

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.5 Conservation Areas

Records within 250m**0**

Local planning authorities are obliged to designate as conservation areas any parts of their own area that are of special architectural or historic interest, the character and appearance of which it is desirable to preserve or enhance. Designation of a conservation area gives broader protection than the listing of individual buildings. All the features within the area, listed or otherwise, are recognised as part of its character. Conservation area designation is the means of recognising the importance of all factors and of ensuring that planning decisions address the quality of the landscape in its broadest sense.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.6 Scheduled Ancient Monuments

Records within 250m**0**

A scheduled monument is an historic building or site that is included in the Schedule of Monuments kept by the Secretary of State for Digital, Culture, Media and Sport. The regime is set out in the Ancient Monuments and Archaeological Areas Act 1979. The Schedule of Monuments has c.20,000 entries and includes sites such as Roman remains, burial mounds, castles, bridges, earthworks, the remains of deserted villages and industrial sites. Monuments are not graded, but all are, by definition, considered to be of national importance.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

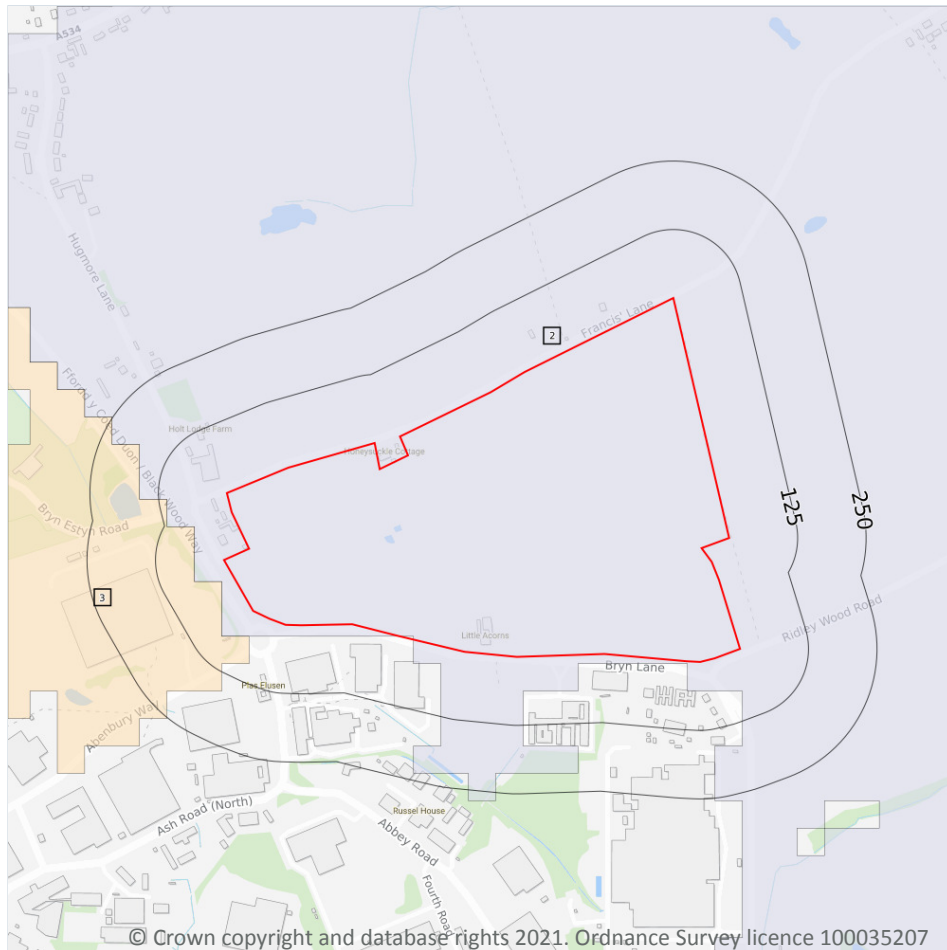
11.7 Registered Parks and Gardens

Records within 250m**0**

Parks and gardens assessed to be of particular interest and of special historic interest. The emphasis being on 'designed' landscapes, rather than on planting or botanical importance. Registration is a 'material consideration' in the planning process, meaning that planning authorities must consider the impact of any proposed development on the special character of the landscape.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

12 Agricultural designations



- Site Outline
- Search buffers in metres (m)
- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 3a - good quality
- Grade 3b - moderate quality
- Grade 4 - poor quality
- Grade 5 - very poor quality
- Timber felling licences
- Open Access land

12.1 Agricultural Land Classification

Records within 250m

2

Classification of the quality of agricultural land taking into consideration multiple factors including climate, physical geography and soil properties. It should be noted that the categories for the grading of agricultural land are not consistent across England, Wales and Scotland.

Features are displayed on the Agricultural designations map on **page 82**

ID	Location	Classification	Description
2	On site	Grade 3b	Moderate quality agricultural land
3	23m SW	Grade 3a	Good to moderate quality agricultural land

This data is sourced from Natural Resources Wales.

12.2 Open Access Land

Records within 250m**0**

The Countryside and Rights of Way Act 2000 (CROW Act) gives a public right of access to land without having to use paths. Access land includes mountains, moors, heaths and downs that are privately owned. It also includes common land registered with the local council and some land around the England Coast Path. Generally permitted activities on access land are walking, running, watching wildlife and climbing.

This data is sourced from Natural England and Natural Resources Wales.

12.3 Tree Felling Licences

Records within 250m**0**

Felling Licence Application (FLA) areas approved by Forestry Commission England. Anyone wishing to fell trees must ensure that a licence or permission under a grant scheme has been issued by the Forestry Commission before any felling is carried out or that one of the exceptions apply.

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m**0**

Environmental Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. The schemes identified may be historical schemes that have now expired, or may still be active.

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m**0**

Countryside Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. Main objectives are to improve the farmed environment for wildlife and to reduce diffuse water pollution.

This data is sourced from Natural England.

13 Habitat designations

13.1 Priority Habitat Inventory

Records within 250m

0

Habitats of principal importance as named under Natural Environment and Rural Communities Act (2006) Section 41.

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m

0

Habitat networks for 18 priority habitat networks (based primarily, but not exclusively, on the priority habitat inventory) and areas suitable for the expansion of networks through restoration and habitat creation.

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m

0

Sites verified as Open Mosaic Habitat. Mosaic habitats are brownfield sites that are identified under the UK Biodiversity Action Plan as a priority habitat due to the habitat variation within a single site, supporting an array of invertebrates.

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

Records within 250m

0

Limestone pavements are outcrops of limestone where the surface has been worn away by natural means over millennia. These rocks have the appearance of paving blocks, hence their name. Not only do they have geological interest, they also provide valuable habitats for wildlife. These habitats are threatened due to their removal for use in gardens and water features. Many limestone pavements have been designated as SSSIs which affords them some protection. In addition, Section 34 of the Wildlife and Countryside Act 1981 gave them additional protection via the creation of Limestone Pavement Orders, which made it a criminal offence to remove any part of the outcrop. The associated Limestone Pavement Priority Habitat is part of the UK Biodiversity Action Plan priority habitat in England.

This data is sourced from Natural England.

