



TP04



Arisings from TP04



TP05



Arisings from TP05



TP06



Arisings from TP06



TP07



Arisings from TP07



TP08



Arisings from TP08



Arisings from WS01



Arisings from WS02



Arisings from WS04



Arisings from WS05



Arisings from WS06



Arisings from WS07

APPENDIX D -- Exploratory Logs

Exploratory Logs

Leap Environmental Ltd The Atrium, Curtis Road Dorking, Surrey RH4 1XA Tel: 01306 646510 www.leapenvironmental.com				Trial Pit Log				Trialpit No TP01 Sheet 1 of 1	
Project Name: Land North of Lee's Yard				Project No. LP2616		Co-ords: - Level:		Date 09/08/2021	
Location: Lidsey Road, Woodgate, West Sussex, PO20 3SU						Dimensions (m): 1.8 		Scale 1:25	
Client: Thakeham Partnerships Ltd						Depth 1.50		Logged LS	

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
	0.15	ES	N=6	0.20			Grass over brown silty slightly sandy clay TOPSOIL with occasional fine sub-rounded to sub-angular flint gravel and rootlets.
	0.40	ES					Firm light brown and orange silty slightly sandy CLAY with occasional fine sub-rounded flint gravel and rootlets. <u>Hand Pan at 0.4m = 145kPa</u>
	0.70 - 1.00	B		0.65			Light brown and orange very clayey silty slightly sandy GRAVEL of fine to coarse sub-rounded flint.
	1.10 - 1.50	B		1.10			Loose orange and light brown silty fine SAND.
				1.50			End of pit at 1.50 m

Remarks: Trial pit terminated at 1.5m to allow for soakage test in gravel. Trial pit dry.	
Stability: Stable	

Leap Environmental Ltd The Atrium, Curtis Road Dorking, Surrey RH4 1XA Tel: 01306 646510 www.leapenvironmental.com				Trial Pit Log				Trialpit No TP02 Sheet 1 of 1			
Project Name: Land North of Lee's Yard				Project No. LP2616		Co-ords: - Level:		Date 09/08/2021			
Location: Lidsey Road, Woodgate, West Sussex, PO20 3SU						Dimensions (m): 1.8 		Scale 1:25			
Client: Thakeham Partnerships Ltd						Depth 1.20		Logged LS			
Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description				
	Depth	Type	Results								
	0.10	ES	N=5	0.20		 	Grass over greyish brown silty slightly sandy clay TOPSOIL with occasional fine sub-rounded flint gravels and rootlets. Firm orange and light brown silty sandy slightly gravelly CLAY with rootlets and occasional roots. Gravel is fine to medium sub-rounded of flint. <u>Hand Pen at 0.3m = 205kPa</u> Loose orange and grey slightly silty gravelly fine to coarse SAND with occasional cobbles. Gravel is fine to coarse sub-rounded of flint.			1	
	0.50	D		0.60							
	0.80 - 1.20	B		1.20							
	End of pit at 1.20 m									2	
										3	
										4	
										5	
Remarks: Trial pit terminated at 1.2m to allow soakage test in sand. Groundwater seepage from 1.2m bgl. Trial pit collapsing from base of pit up to 0.7m bgl.											
Stability: Unstable											

Leap Environmental Ltd The Atrium, Curtis Road Dorking, Surrey RH4 1XA Tel: 01306 646510 www.leapenvironmental.com				Trial Pit Log				Trialpit No TP03 Sheet 1 of 1	
Project Name: Land North of Lee's Yard				Project No. LP2616		Co-ords: - Level:		Date 09/08/2021	
Location: Lidsey Road, Woodgate, West Sussex, PO20 3SU						Dimensions (m): 1.8 		Scale 1:25	
Client: Thakeham Partnerships Ltd						Depth 1.80		Logged LS	

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.10	ES		0.25			Grass over brown silty sandy clay TOPSOIL with occasional fine sub-rounded flint gravels and rootlets.	
	0.50 - 0.80	D					Firm to stiff orange, light brown and grey mottled silty slightly sandy CLAY with occasional fine to medium sub-rounded flint gravels. <i>Hand Pen at 0.3m = 155kPa</i> <i>Hand Pen at 0.5m = 225kPa</i>	
	1.10 - 1.40	D	N=16	1.00			Firm orange and grey mottled silty very sandy CLAY with occasional fine sub-rounded flint gravels.	1
	1.60 - 1.80	B		1.50			Medium dense orange, dark orange and grey slightly silty fine SAND.	
				1.80		End of pit at 1.80 m		2
								3
								4
								5

Remarks: Trial pit terminated at 1.8m to allow for soakage test in sand. Groundwater seepage at 1.8m.	
Stability: Stable	

Leap Environmental Ltd The Atrium, Curtis Road Dorking, Surrey RH4 1XA Tel: 01306 646510 www.leapenvironmental.com				Trial Pit Log				Trialpit No TP04 Sheet 1 of 1	
Project Name: Land North of Lee's Yard				Project No. LP2616		Co-ords: - Level:		Date 09/08/2021	
Location: Lidsey Road, Woodgate, West Sussex, PO20 3SU						Dimensions (m): 1.8 		Scale 1:25	
Client: Thakeham Partnerships Ltd						Depth 2.80		Logged LS	
Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
	Depth	Type	Results						
				0.20			Grass over greyish brown silty sandy clay TOPSOIL with rare fine sub-rounded flint gravels, roots and rootlets.		
	0.40	ES					Firm light brown and orange silty sandy slightly gravelly CLAY with occasional rootlets. Gravel is fine to medium sub-rounded of flint. <i>Hand Pen at 0.4m = 175kPa</i> <i>From 0.5m: Becoming gravelly and dark grey and orange in colour.</i> <i>Hand Pen at 0.6m = 115kPa</i>		
	0.70 - 1.00	D					Loose orange, dark orange and grey silty fine SAND.		
	1.00 - 1.50	B		1.00					
	1.80 - 2.20	B		1.80			Orange and brown silty very gravelly slightly cobbly fine to coarse SAND. Gravel is fine to coarse rounded to sub-angular of flint.		
	2.50 - 2.80	D		2.40			Firm dark purpleish grey silty CLAY. <i>At 2.4m: Remnant roots present.</i> <i>Hand Pen at 2.5m = 145kPa</i>		
				2.80			At 2.7m Band of dark grey fine to coarse sand. End of pit at 2.80 m		
Remarks: Groundwater seepage from 1.1m bgl. Trial pit collapsing from base of pit up to 1.0m bgl.									
Stability: Unstable									



 Leap Environmental Ltd The Atrium, Curtis Road Dorking, Surrey RH4 1XA Tel: 01306 646510 www.leapenvironmental.com				Trial Pit Log				Trialpit No TP05 Sheet 1 of 1	
Project Name: Land North of Lee's Yard				Project No. LP2616		Co-ords: - Level:		Date 09/08/2021	
Location: Lidsey Road, Woodgate, West Sussex, PO20 3SU						Dimensions (m): 1.8		Scale 1:25	
Client: Thakeham Partnerships Ltd						Depth 2.80		Logged LS	
Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
	Depth	Type	Results						
	0.20	ES		0.25			Grass over greyish brown silty sandy clay TOPSOIL with rare fine sub-rounded flint gravels, roots and rootlets.		
	0.70 - 1.00	B		0.70			Firm greyish brown and orange silty very sandy slightly gravelly CLAY. Gravel is fine to medium sub-rounded of flint and occasionally fine to coarse sub-angular of chalk.		
							Orange and brown silty fine SAND.		
	1.50 - 1.80	B		1.50			Orange and grey silty very gravelly slightly cobbly fine to coarse SAND.		
	2.20 - 2.50	D		1.90			Firm to stiff dark purpleish grey silty CLAY.		
				2.80			Hand Pen at 2m = 80kPa Hand Pen at 2.3m = 185kPa Hand Pen at 2.6m = 195kPa End of pit at 2.80 m		
Remarks: Groundwater seepage from 1.2m bgl. Trial pit collapsing from base of pit up to 0.5m bgl.									
Stability: Unstable									



Leap Environmental Ltd The Atrium, Curtis Road Dorking, Surrey RH4 1XA Tel: 01306 646510 www.leapenvironmental.com				Trial Pit Log				Trialpit No TP06 Sheet 1 of 1	
Project Name: Land North of Lee's Yard				Project No. LP2616		Co-ords: - Level:		Date 09/08/2021	
Location: Lidsey Road, Woodgate, West Sussex, PO20 3SU						Dimensions (m): 1.8		Scale 1:25	
Client: Thakeham Partnerships Ltd						Depth 3.00		Logged LS	

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.10	ES					Cut grass over greyish brown silty sandy clay TOPSOIL with roots, rootlets and occasional fine sub-rounded flint gravels.	1 2 3 4 5
	0.40	ES		0.35			Stiff yellowish brown silty sandy CLAY with rare fine sub-rounded flint gravel and rootlets. <i>Hand Pen at 0.4m = 335kPa</i>	
	0.70	D		0.65			Firm orange and brown mottled silty very sandy slightly gravelly CLAY. Gravel is fine to medium sub-rounded of flint and occasionally fine to coarse sub-angular of chalk. <i>Hand Pen at 0.6m = 115kPa</i>	
	1.20 - 1.50	B		1.00			Orange and greyish brown slightly silty very gravelly fine to coarse SAND with occasional cobbles. Gravel is fine to coarse sub-rounded to sub-angular of flint.	
	1.80	D		1.50			Firm grey and orangeish brown mottled silty slightly gravelly CLAY with occasional rootlets. Gravel is fine to medium sub-rounded of flint. <i>Hand Pen at 1.6m = 145kPa</i> <i>From 1.8m: Becoming less gravelly with depth.</i>	
	2.50	D		2.30			Firm to stiff dark grey silty CLAY. <i>Hand Pen at 2.4m = 250kPa</i> <i>Hand Pen at 2.5m = 250kPa</i> <i>Hand Pen at 2.8m = 230kPa</i>	
				3.00			End of pit at 3.00 m	

Remarks:	Groundwater seepage from 1.3m bgl. Trial pit collapsing from base of pit up to 0.5m bgl.	
Stability:	Unstable	

Leap Environmental Ltd The Atrium, Curtis Road Dorking, Surrey RH4 1XA Tel: 01306 646510 www.leapenvironmental.com				Trial Pit Log				Trialpit No TP07 Sheet 1 of 1	
Project Name: Land North of Lee's Yard				Project No. LP2616		Co-ords: - Level:		Date 09/08/2021	
Location: Lidsey Road, Woodgate, West Sussex, PO20 3SU				Dimensions (m): 1.8		Scale 1:25			
Client: Thakeham Partnerships Ltd				Depth 2.50		Logged LS			

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	Scale
	Depth	Type	Results					
				0.25			Grass over brown silty sandy clay TOPSOIL with occasional fine sub-rounded flint gravels and rootlets.	1 2 3 4 5
	0.35	ES		0.45			Firm light yellowish brown silty slightly sandy CLAY with rare fine sub-rounded flint gravels.	
	0.50	D					Firm to stiff orange and grey mottled silty sandy CLAY with occasional fine to medium sub-rounded flint gravels and rootlets. <i>Hand Pen at 0.6m = 205kPa</i> <i>Hand Pen at 0.8m = 235kPa</i> <i>At 1.1m: Band of very gravelly clay</i>	
			N=14	1.30			Medium dense orange and grey slightly silty fine SAND.	
	1.40 - 1.80	B		2.50		End of pit at 2.50 m		

Remarks:	Groundwater seepage from 1.8m bgl. Trial pit collapsing from base of pit up to 0.3m bgl.	
Stability:	Unstable	

Leap Environmental Ltd The Atrium, Curtis Road Dorking, Surrey RH4 1XA Tel: 01306 646510 www.leapenvironmental.com				Trial Pit Log				Trialpit No TP08 Sheet 1 of 1	
Project Name: Land North of Lee's Yard				Project No. LP2616		Co-ords: - Level:		Date 09/08/2021	
Location: Lidsey Road, Woodgate, West Sussex, PO20 3SU						Dimensions (m): 1.8		Scale 1:25	
Client: Thakeham Partnerships Ltd						Depth 2.80		Logged LS	

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.10	ES		0.20			Grass over greyish brown silty sandy clay TOPSOIL with occasional fine to medium sub-rounded flint gravels, roots and rootlets.	1
				0.45			Light brown clayey silty fine SAND with occasional fine to medium sub-rounded flint gravels and occasional rootlets.	
	0.70	D					Stiff orange and grey mottled silty slightly sandy slightly gravelly CLAY. Gravel is fine to medium sub-rounded of flint.	
			N=10				Hand Pen at 0.7m = 235kPa	
							Hand Pen at 0.9m = 265kPa	
	1.60 - 2.00	B		1.35			Medium dense light orange and grey silty fine SAND.	2
	2.50 - 2.80	B		2.50			Medium dense orange and purpleish grey silty gravelly medium to coarse SAND with occasional cobbles. Gravel is fine to coarse sub-rounded of flint.	3
				2.80		End of pit at 2.80 m		
								4
								5

Remarks:	Groundwater seepage at 1.5m bgl. Trial pit collapsing from base of pit up to 1.2m bgl.
Stability:	Unstable

 Leap Environmental Ltd The Atrium, Curtis Road Dorking, Surrey RH4 1XA Tel: 01306 546510 www.leapenvironmental.com		Borehole Log			Borehole No. WS01 Sheet 1 of 1	
Project Name: Land North of Lee's Yard		Project No. LP2616		Co-ords: -		Hole Type WS
Location: Lidsey Road, Woodgate, West Sussex, PO20 3SU				Level:		Scale 1:20
Client: Thakeham Partnerships Ltd				Dates: 27/08/2021 - 27/08/2021		Logged By LS

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.10	ES		0.25		Grass over brown silty sand TOPSOIL with rootlets and occasional roots.	1	
		0.40	ES						Yellowish brown very clayey silty fine SAND with occasional rootlets and rare fine sub angular flint.
		0.80	D		0.70		Firm orange and grey silty fine sandy CLAY with rare fine sub angular flint. <i>Hand Pen at 0.7m =170kPa</i> <i>Hand Pen at 0.9m =170kPa</i>		
		1.00		N=2 (2,2/1,0,1,0)			<i>Flint gravel becoming more frequent below 1m.</i>		
					1.20		Loose orangish brown slightly clayey sandy GRAVEL of fine to coarse sub rounded to sub angular flint.		
					1.80		Firm dark grey silty CLAY with fine selenite crystals. <i>Hand Pen at 1.9m =120kPa</i> <i>Hand Pen at 2.1m =150kPa</i> <i>Hand Pen at 2.3m =130kPa</i>		2
		2.00	D	N=12 (1,2/3,3,3,3)					
		3.00	D		3.00		<i>Hand Pen at 2.8m =250kPa</i> <i>Hand Pen at 3m =250kPa</i> <i>Hand Pen at 3.3m =230kPa</i> <i>Hand Pen at 3.7m =430kPa</i>		3
		3.00		N=12 (1,2/3,2,3,4)					
	3.90	D		4.00			4		
	4.00		N=11 (2,2/2,3,3,3)			End of borehole at 4.00 m			

Remarks Borehole collapsing below 2mbgl. Monitoring well installed to 2mbgl, with 1m plain pipe with bentonite surround and 1m slotted with gravel surround.	
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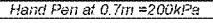
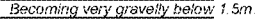
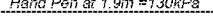
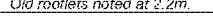
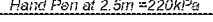
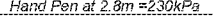
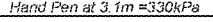
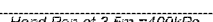
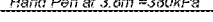
 Leap Environmental Ltd The Atrium, Curtis Road Dorking, Surrey RH4 1XA Tel: 01306 646510 www.leapenvironmental.com		Borehole Log			Borehole No. WS02 Sheet 1 of 1	
Project Name: Land North of Lee's Yard		Project No. LP2616		Co-ords: -		Hole Type WS
Location: Lidsey Road, Woodgate, West Sussex, PO20 3SU				Level:		Scale 1:20
Client: Thakeham Partnerships Ltd				Dates: 27/08/2021 - 27/08/2021		Logged By LS

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.10	ES				Grass over brown silty sand TOPSOIL with rootlets and rare fine to medium sub angular flint.		
					0.30				
		0.60	D				Stiff yellowish brown silty sandy CLAY with occasional rootlets and rare fine to medium sub angular flint. <i>Hand Pen at 0.4m =240kPa</i> <i>Becoming orange mottled orange below 0.5m</i> <i>Hand Pen at 0.6m =240kPa</i> <i>Thin band (1-2mm) of fine to medium grained sand at 0.7m.</i>		
		0.90 - 1.50	B		0.85		Loose yellowish brown silty fine to medium SAND with rare fine to medium sub angular flint.	1	
		1.00		N=6 (1,2/2,1,2,1)					
					1.70				
		2.00		N=6 (2,3/3,2,1,0)			Loose orangish brown silty fine to coarse sandy GRAVEL of fine to coarse rounded to sub angular flint. <i>Becoming sandy below 2m</i>	2	
					2.30				
		2.80	D				Firm to stiff dark grey silty CLAY with selenite crystals. <i>Hand Pen at 2.7m =200kPa</i>		
		3.00		N=13 (2,2/2,3,3,5)				3	
		3.80	D				<i>Hand Pen at 3.3m =250kPa</i> <i>Hand Pen at 3.6m =400kPa</i>		
	4.00		N=12 (3,3/3,3,3,3)	4.00			End of borehole at 4.00 m	4	

Remarks
 Borehole remained stable, with a groundwater strike at 1.5mbgl. Monitoring well installed to 3mbgl, with 1m plain pipe with bentonite surround and 2m slotted pipe with gravel surround.

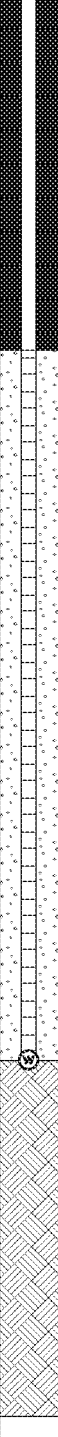


 Leap Environmental Ltd The Atrium, Curtis Road Dorking, Surrey RH4 1XA Tel: 01306 546510 www.leapenvironmental.com		Borehole Log			Borehole No. WS03 Sheet 1 of 1	
Project Name: Land North of Lee's Yard		Project No. LP2616		Co-ords: -		Hole Type WS
Location: Lidsey Road, Woodgate, West Sussex, PO20 3SU				Level:		Scale 1:20
Client: Thakeham Partnerships Ltd				Dates: 27/08/2021 - 27/08/2021		Logged By LS

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.10	ES		0.25		Grass over dark greyish brown silty slightly gravelly sand TOPSOIL with rootlets and rare wood. Gravel is fine to medium sub angular flint and rare fine chalk fragments.		
	0.40	ES					Stiff orangish and yellowish brown silty sandy CLAY with occasional fine sub angular flint and rootlets. <i>Clay is desiccated from 0.25 to 0.7m.</i>		
	0.80	D		0.95					
	1.00 1.00 - 1.50	B	N=9 (2,3/2,3,2,2)			Loose yellowish brown slightly silty gravelly medium to coarse SAND.			
	2.00 2.10	D	N=13 (1,2/3,3,3,4)	1.70					
	3.00		N=13 (1,2/3,3,3,4)						
	3.50	D							
	4.00		N=12 (2,3/2,3,3,4)						
					4.00				End of borehole at 4.00 m

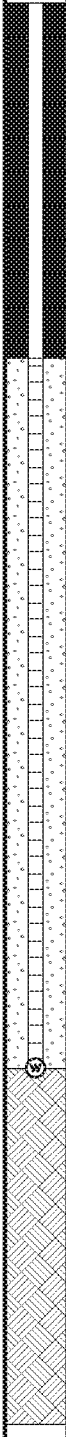
Remarks Borehole remained dry and stable. Monitoring well installed to 3mbgl, with 1m plain pipe with bentonite surround and 2m slotted pipe with gravel surround.	
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 Leap Environmental Ltd The Atrium, Curtis Road Dorking, Surrey RH4 1XA Tel: 01306 546510 www.leapenvironmental.com		Borehole Log			Borehole No. WS04 Sheet 1 of 1	
Project Name: Land North of Lee's Yard		Project No. LP2616		Co-ords: -		Hole Type WS
Location: Lidsey Road, Woodgate, West Sussex, PO20 3SU				Level:		Scale 1:20
Client: Thakeham Partnerships Ltd				Dates: 27/08/2021 - 27/08/2021		Logged By LS

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.10	ES		0.25		Grass over brown slightly silty sandy TOPSOIL with rootlets.		
		0.45	ES		0.50		Yellowish brown slightly silty slightly gravelly SAND. Gravel is fine to medium sub angular flint with rare fine sub angular chalk fragments.		
		0.80	D		0.95		Stiff orangish brown mottled brown silty sandy CLAY with rare fine sub angular flint and rootlets. <i>Hand Pen at 0.6m =240kPa</i> <i>Becoming very gravelly below 0.7m.</i>		
		1.00		N=6 (2,2/2,1,2,1)			Loose to medium dense orangish brown and yellowish brown fine to medium SAND.	1	
		1.20 - 2.00	B						
		2.00		N=11 (2,1/2,3,3,3)			<i>Becoming greyish brown in colour and generally coarser 2.4m.</i>	2	
					2.70		Loose orangish brown sandy GRAVEL of fine to coarse sub angular flint.		
		3.00		N=9 (2,1/2,2,3,2)	3.00		Firm to stiff dark grey silty CLAY with selenite crystals. <i>Hand Pen at 3.1m =210kPa</i>	3	
		3.50	D				<i>Hand Pen at 3.4m =220kPa</i> <i>Hand Pen at 3.7m =280kPa</i>		
		4.00		N=15 (2,2/2,4,4,5)	4.00		End of borehole at 4.00 m	4	

Remarks Borehole remained stable, with a groundwater strike at 2mbgl. Monitoring well installed to 3mbgl, with 1m plain pipe with bentonite surround and 2m slotted pipe with gravel surround.	
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 Leap Environmental Ltd The Atrium, Curtis Road Dorking, Surrey RH4 1XA Tel: 01306 546510 www.leapenvironmental.com		Borehole Log			Borehole No. WS05 Sheet 1 of 1	
Project Name: Land North of Lee's Yard		Project No. LP2616		Co-ords: -		Hole Type WS
Location: Lidsey Road, Woodgate, West Sussex, PO20 3SU				Level:		Scale 1:20
Client: Thakeham Partnerships Ltd				Dates: 27/08/2021 - 27/08/2021		Logged By LS

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.15	ES		0.25		Grass over brown slightly silty sand TOPSOIL with rootlets.	1 2 3 4	
		0.40	ES						Stiff yellow, orange and greyish brown silty sandy CLAY with occasional rootlets.
		0.80	D						Hand Pen at 0.8m = 340kPa
		1.00		N=13 (2,2/2,3,4,4)	1.40		Becoming grey and slightly gravelly with fine to medium sub angular flints from 1m.		
		1.20	D						Becoming very sandy below 1.3m.
		1.50 - 2.50	B						Very loose light brown fine SAND.
		2.00		N=2 (0,0/1,0,1,0)	2.75				
			3.00		N=6 (5,3/2,2,1,1)	3.50			Loose light brown slightly gravelly medium to coarse SAND. Gravel is fine to medium sub angular flint with shell fragments. Becoming grey and very gravelly below 3m.
					4.00		Firm dark grey silty CLAY with fine selenite crystals. Hand Pen at 3.6m = 120kPa		
		4.00		N=13 (5,4/3,4,3,3)			End of borehole at 4.00 m		

Remarks Borehole remained stable, with a groundwater strike at 1.8mbgl. Monitoring well installed to 3mbgl, with 1m plain pipe with bentonite surround and 2m slotted pipe with gravel surround.	
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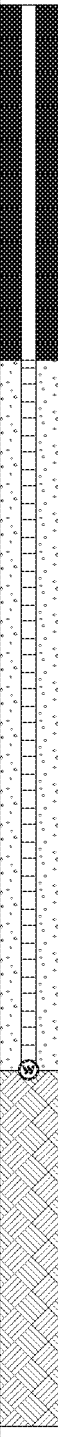
 Leap Environmental Ltd The Atrium, Curtis Road Dorking, Surrey RH4 1XA Tel: 01306 546510 www.leapenvironmental.com				Borehole Log				Borehole No. WS06 Sheet 1 of 1	
Project Name: Land North of Lee's Yard				Project No. LP2616		Co-ords: -		Hole Type WS	
Location: Lidsey Road, Woodgate, West Sussex, PO20 3SU				Level:		Scale 1:20			
Client: Thakeham Partnerships Ltd				Dates: 27/08/2021 - 27/08/2021		Logged By LS			

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.15	ES		0.30		Grass over brown silty sand TOPSOIL with rootlets and rare fine sub angular flint.		
							Stiff light brown silty sandy CLAY with rare fine sub angular flint and occasional rootlets.		
							Hand Pen at 0.5m =330kPa		
							Becoming slightly more gravelly below 0.6m.		
							Becoming very sandy below 0.8m.		
		1.00 1.00	D	N=7 (1,2/2,1,2,2)	1.30		Hand Pen at 1.1m =100kPa	1	
		1.50 - 2.00	B				Medium dense orangish brown mottled yellowish brown slightly silty fine SAND.		
		2.00		N=14 (1,2/2,4,4,4)	2.50			2	
		3.00 3.00	D	N=5 (2,1/1,2,1,1)	3.80		Loose orangish brown and light brown slightly gravelly medium to coarse SAND. Gravel is fine to coarse sub rounded to sub angular flint.	3	
		4.00		N=8 (2,2/2,2,2,2)	4.00		Stiff dark grey slightly silty CLAY.	4	
						Hand Pen at 3.9m =230kPa			
						End of borehole at 4.00 m			

Remarks
 Borehole remained stable, with a groundwater strike at 2.1mbgl. Monitoring well installed to 3mbgl, with 1m plain pipe with bentonite surround and 2m slotted pipe with gravel surround.



 Leap Environmental Ltd The Atrium, Curtis Road Dorking, Surrey RH4 1XA Tel: 01306 646510 www.leapenvironmental.com				Borehole Log				Borehole No. WS07 Sheet 1 of 1	
Project Name: Land North of Lee's Yard				Project No. LP2616		Co-ords: -		Hole Type WS	
Location: Lidsey Road, Woodgate, West Sussex, PO20 3SU				Level:		Scale 1:20			
Client: Thakeham Partnerships Ltd				Dates: 27/08/2021 - 27/08/2021		Logged By LS			

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.05		Grass over brown gravelly sand TOPSOIL with abundant rootlets and gravel of fine to medium sub angular flint.		
		0.20	ES			0.30	Brown fine sandy gravel MADE GROUND with fragments of concrete, brick and gravel of fine to coarse rounded to sub angular flint.		
		0.40	ES				Very stiff yellowish brown silty very sandy CLAY with rare fine to medium sub angular flint.		
		0.60	D				Hand Pen at 0.5m =240kPa		
							Hand Pen at 0.8m =210kPa		
		1.00		N=6 (1,2/2,1,2,1)	1.00		Loose to medium dense orangish brown mottled yellowish brown slightly silty fine SAND.	1	
		1.00 - 1.50	B						
		2.00		N=20 (10,12/5,5,5,5)			Sand is becoming coarser below 2m.	2	
		2.30							
	2.50 - 3.00	B				Loose orangish brown and orange gravelly medium to coarse SAND with gravel of fine to coarse sub rounded to sub angular flint.			
	3.00		N=10 (2,1/2,2,3,3)	3.00		Firm to stiff dark grey slightly silty CLAY with fine selenite crystals.	3		
						Hand Pen at 3.2m =210kPa			
	3.50	D				Hand Pen at 3.5m =310kPa			
						Hand Pen at 3.8m =360kPa			
	4.00		N=11 (1,1/2,3,3,3)	4.00		End of borehole at 4.00 m	4		

Remarks Borehole remained dry and stable. Monitoring well installed to 3mbgl, with 1m plain pipe with bentonite surround and 2m slotted pipe with gravel surround.	
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APPENDIX E – Geotechnical Field Test Results

Geotechnical Field Test Results

Dynamic Cone CBR Test

Nr Blows	S Blows	Penetration mm	S Pen. mm
0	0	50	50
1	1	50	100
2	2	50	150
3	3	50	200
4	4	50	250
5	5	50	300
6	6	50	350
7	7	50	400
8	8	50	450
9	9	50	500
10	10	50	550
11	11	50	600
12	12	50	650
13	13	50	700
14	14	50	750
15	15	50	800

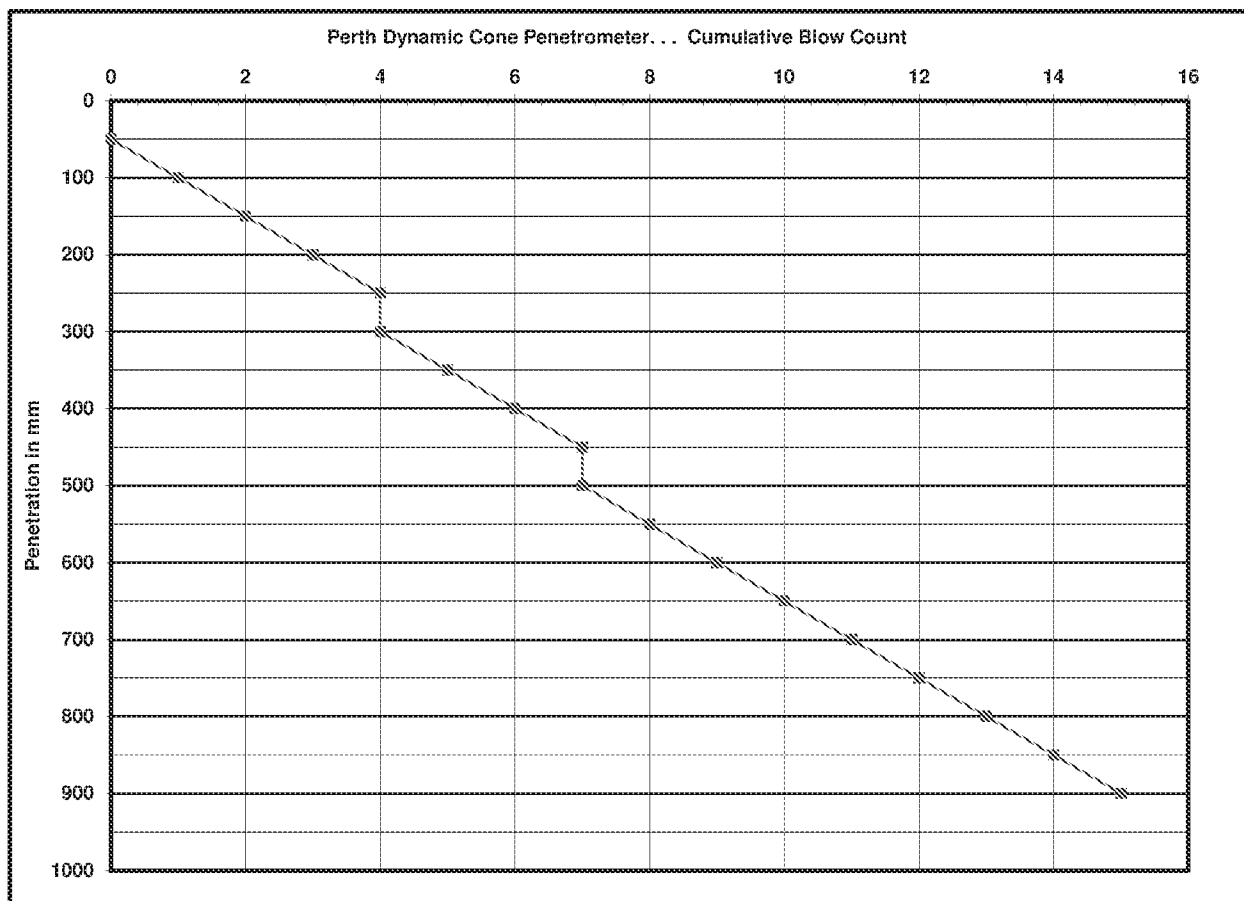
Land North of Lee's Yard Test Reference: - DCP01

Job Nr LP2616

Date 01-Oct-21

CBR VALUE CALCULATIONS

Initial S Pen mm	Final S Pen mm	Initial S Blows	Final S Blows	Pen/Blow mm	CBR TRRL	CBR KVH	CBR Value (%)
100	250	1	4	50.0	4.8	2.9	2.9
300	450	4	7	50.0	4.8	2.9	2.9
500	900	7	15	50.0	4.8	2.9	2.9



Tested by	LS	Checked		Approved	
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Site: Land North of Lee's Yard

Client: Thakeham Partnerships Ltd

Date: 01/10/2021

Job No: LP2616

Test No: DCP01

Dynamic Cone CBR Test

Nr Blows	S Blows	Penetration mm	S Pen. mm
1	1	50	50
1	2	50	100
1	3	50	150
0	3	50	200
1	4	50	250
1	5	50	300
1	6	50	350
0	6	50	400
1	7	50	450
1	8	50	500
1	9	50	550
1	10	50	600
1	11	50	650
1	12	50	700
1	13	50	750
1	14	50	800
1	15	50	850
2	17	50	900

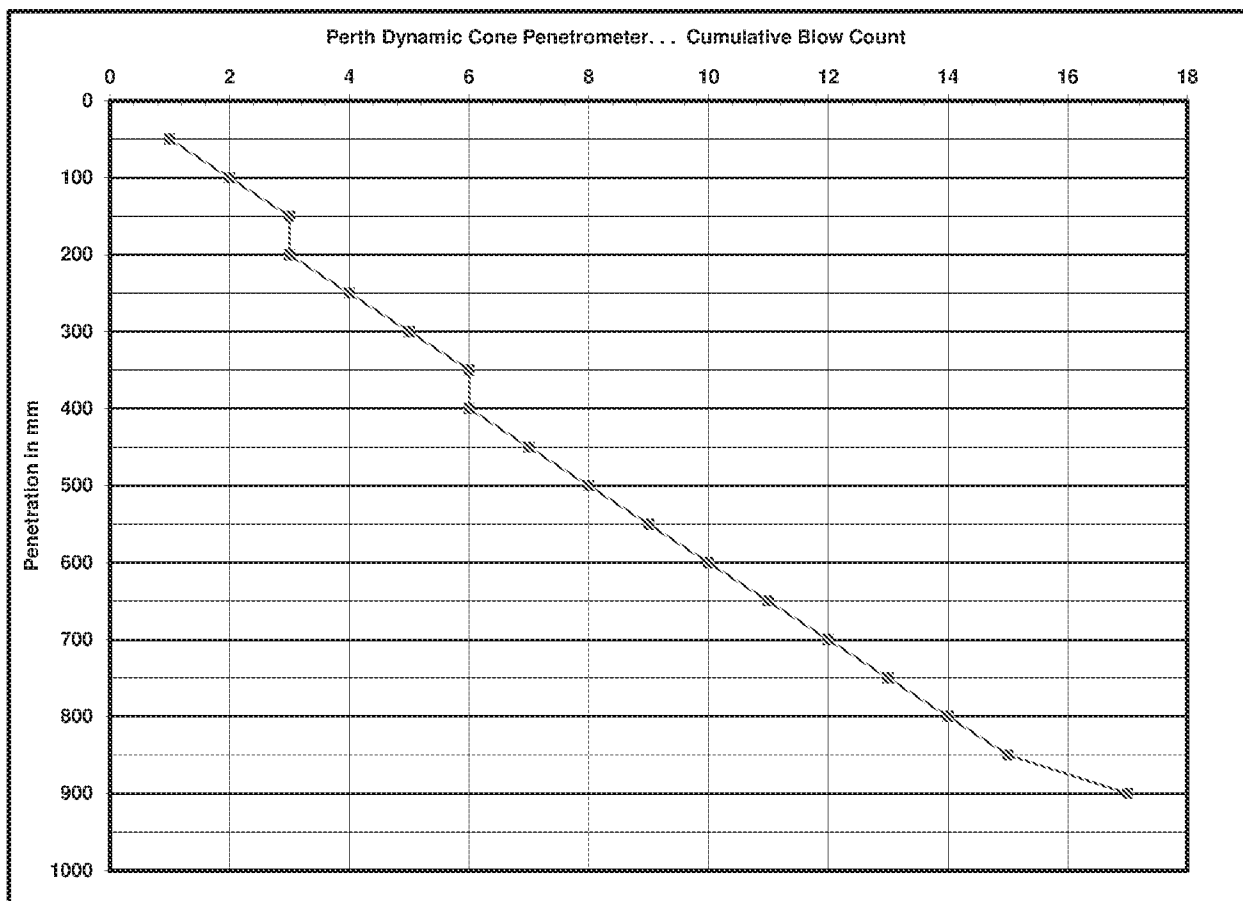
Land North of Lee's Yard Test Reference: - DCP02

Job Nr LP2616

Date 01-Oct-21

CBR VALUE CALCULATIONS

Initial S Pen mm	Final S Pen mm	Initial S Blows	Final S Blows	Pen/Blow mm	CBR TRRL	CBR KVH	CBR Value (%)
50	350	1	6	60.0	4.0	2.3	2.3
400	900	6	17	45.5	5.3	3.2	3.2



Tested by	LS	Checked		Approved	
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Site: Land North of Lee's Yard

Client: Thakeham Partnerships Ltd

Date: 01/10/2021

Job No: LP2616

Test No: DCP02

Dynamic Cone CBR Test

Nr Blows	S Blows	Penetration mm	S Pen. mm
2	2	50	50
2	4	50	100
3	7	50	150
3	10	50	200
2	12	50	250
2	14	50	300
2	16	50	350
2	18	50	400
1	19	50	450
2	21	50	500
1	22	50	550
2	24	50	600
1	25	50	650
2	27	50	700
2	29	50	750
1	30	50	800
3	33	50	850
1	34	50	900

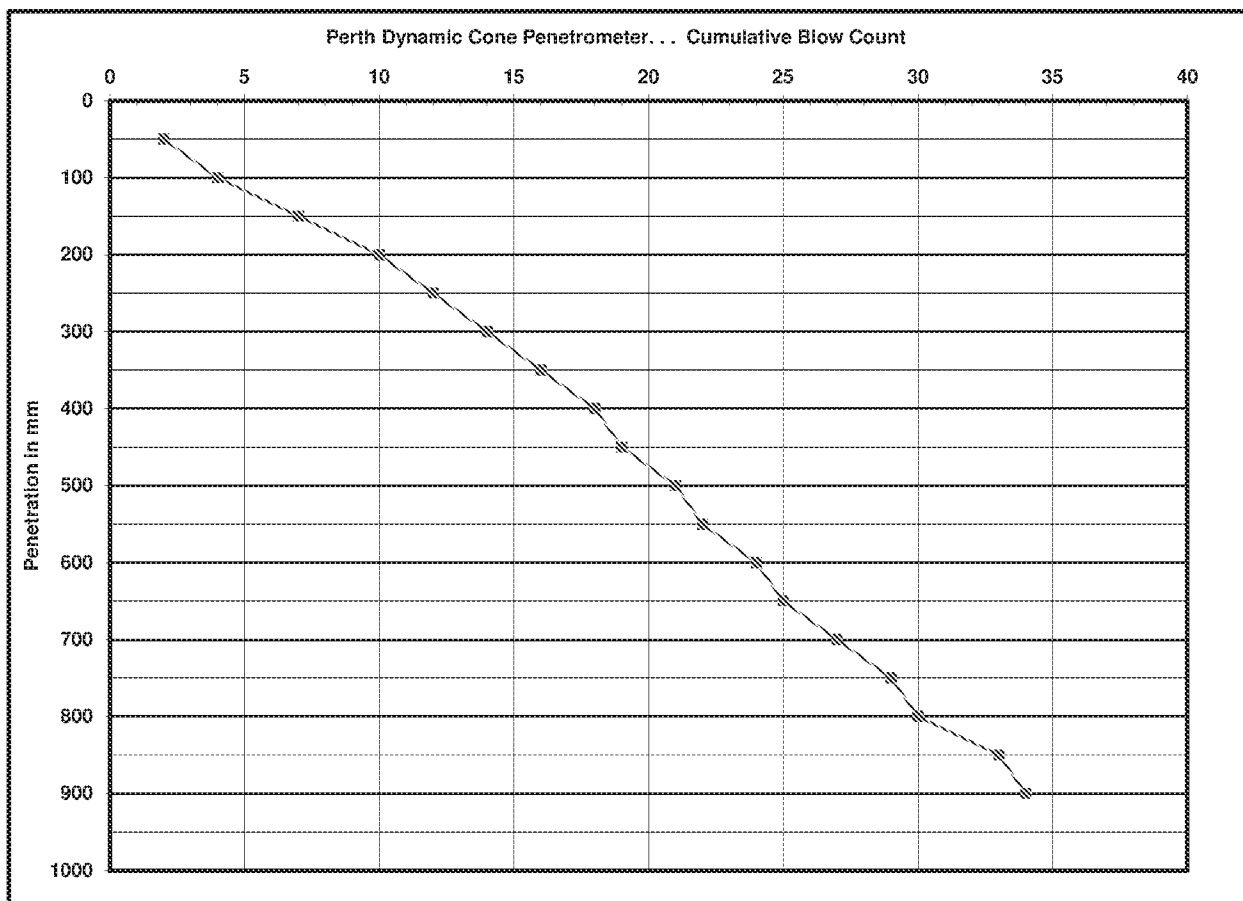
Land North of Lee's Yard Test Reference: - DCP03

Job Nr LP2616

Date 01-Oct-21

CBR VALUE CALCULATIONS

Initial S Pen mm	Final S Pen mm	Initial S Blows	Final S Blows	Pen/Blow mm	CBR TRRL	CBR KVH	CBR Value (%)
50	200	2	10	18.8	13.6	10.1	10.1
200	400	10	18	25.0	10.1	7.0	7.0
400	900	18	34	31.3	7.9	5.2	5.2



Tested by	LS	Checked		Approved	
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Site: Land North of Lee's Yard

Client: Thakeham Partnerships Ltd

Date: 01/10/2021

Job No: LP2616

Test No: DCP03

Dynamic Cone CBR Test

Nr Blows	S Blows	Penetration mm	S Pen. mm
1	1	50	50
2	3	50	100
3	6	50	150
4	7	50	200
5	8	50	250
6	9	50	300
7	10	50	350
8	11	50	400
9	12	50	450
10	13	50	500
11	14	50	550
12	15	50	600
13	16	50	650
14	16	50	700
15	17	50	750
16	18	50	800
17	19	50	850
18	20	50	900
19			
20			

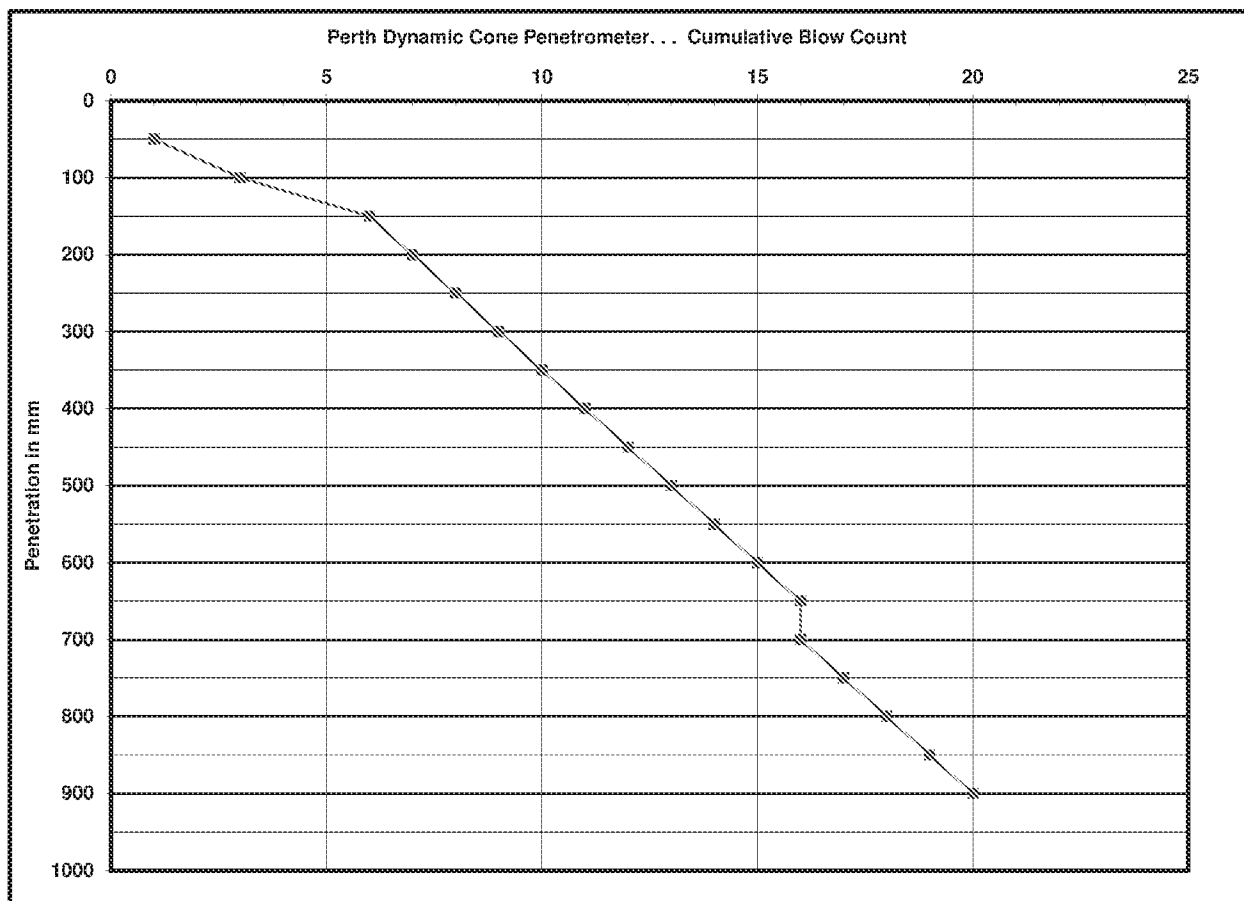
Land North of Lee's Yard Test Reference: - DCP04

Job Nr LP2616

Date 01-Oct-21

CBR VALUE CALCULATIONS

Initial S Pen mm	Final S Pen mm	Initial S Blows	Final S Blows	Pen/Blow mm	CBR TRRL	CBR KVH	CBR Value (%)
50	150	1	6	20.0	12.7	9.3	9.3
150	650	6	16	50.0	4.8	2.9	2.9
700	900	16	20	50.0	4.8	2.9	2.9



Tested by	LS	Checked		Approved	
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Site: Land North of Lee's Yard

Client: Thakeham Partnerships Ltd

Date: 01/10/2021

Job No: LP2616

Test No: DCP04

Dynamic Cone CBR Test

Nr Blows	S Blows	Penetration mm	S Pen. mm
1	1	50	50
1	2	50	100
1	3	50	150
1	4	50	200
2	6	50	250
1	7	50	300
1	8	50	350
1	9	50	400
1	10	50	450
2	12	50	500
1	13	50	550
1	14	50	600
2	16	50	650
1	17	50	700
1	18	50	750
1	19	50	800
2	21	50	850
2	23	50	900

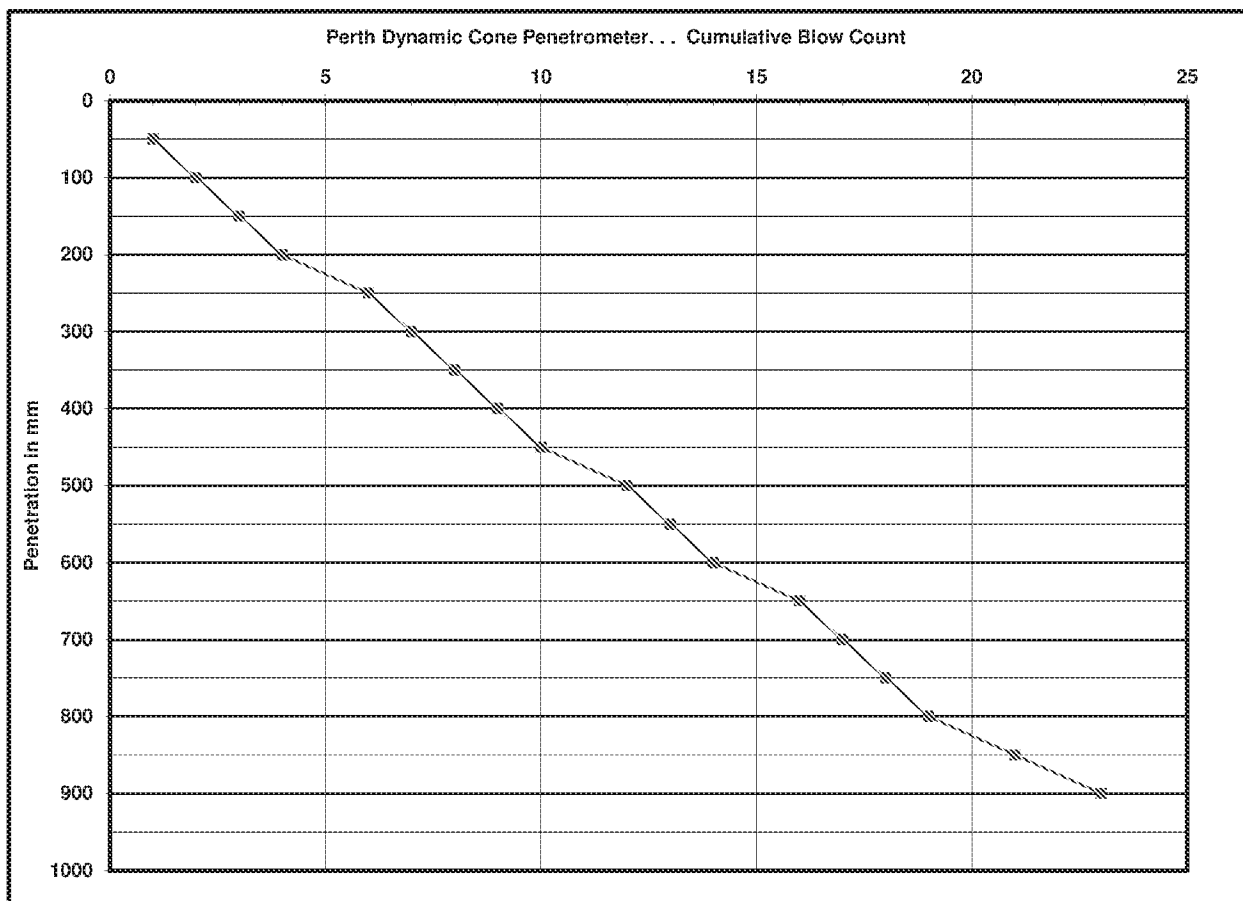
Land North of Lee's Yard Test Reference: - DCP05

Job Nr LP2616

Date 01-Oct-21

CBR VALUE CALCULATIONS

Initial S Pen mm	Final S Pen mm	Initial S Blows	Final S Blows	Pen/Blow mm	CBR TRRL	CBR KVH	CBR Value (%)
50	450	1	10	44.4	5.5	3.3	3.3
450	900	10	23	34.6	7.1	4.6	4.6



Tested by	LS	Checked		Approved	
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Site: Land North of Lee's Yard

Client: Thakeham Partnerships Ltd

Date: 01/10/2021

Job No: LP2616

Test No: DCP05

Dynamic Cone CBR Test

Nr Blows	S Blows	Penetration mm	S Pen. mm
1	1	50	50
1	2	50	100
2	4	50	150
1	5	50	200
2	7	50	250
1	8	50	300
1	9	50	350
3	12	50	400
4	16	50	450
1	17	50	500
1	18	50	550
1	19	50	600
1	20	50	650
1	21	50	700
1	22	50	750
2	24	50	800
2	26	50	850
2	28	50	900

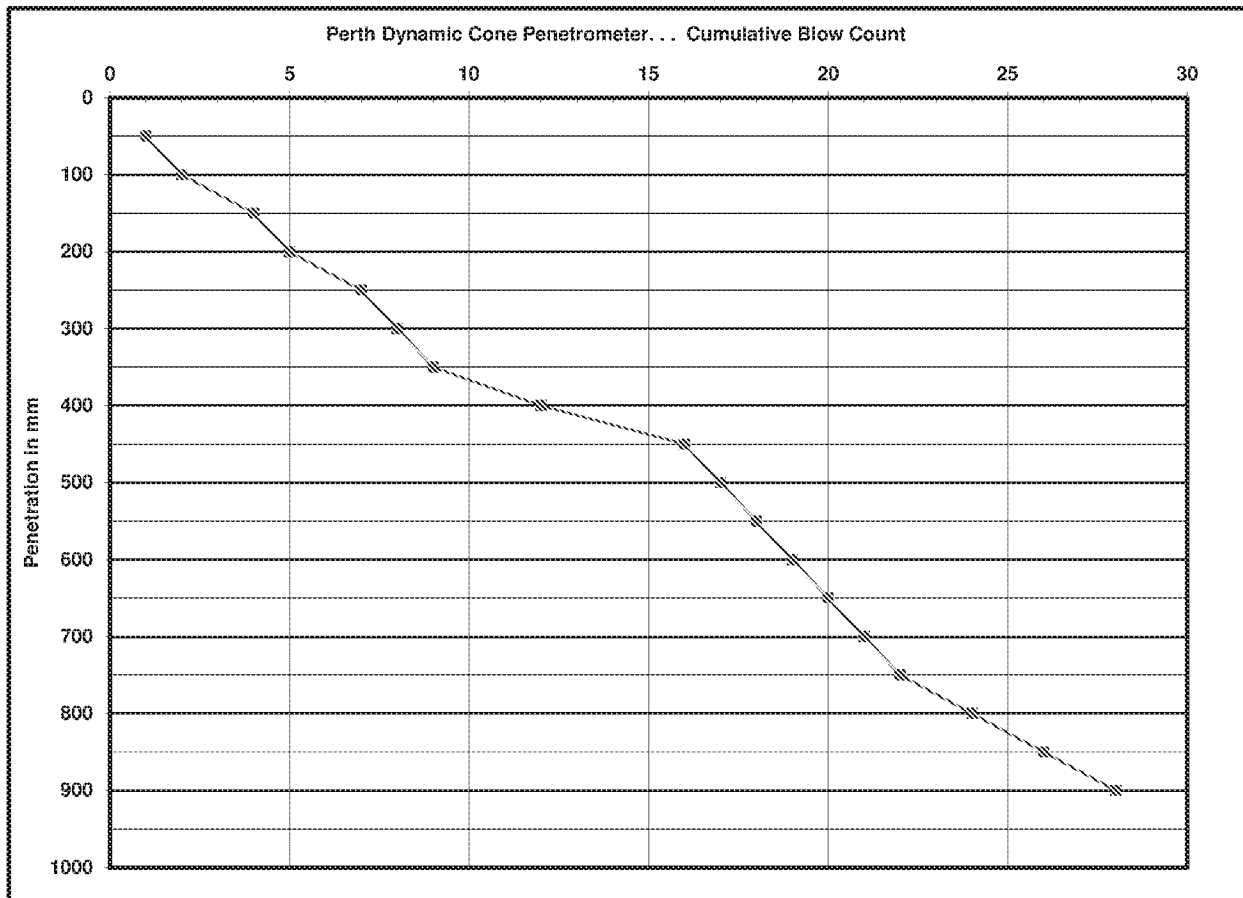
Land North of Lee's Yard Test Reference: - DCP06

Job Nr LP2616

Date 01-Oct-21

CBR VALUE CALCULATIONS

Initial S Pen mm	Final S Pen mm	Initial S Blows	Final S Blows	Pen/Blow mm	CBR TRRL	CBR KVH	CBR Value (%)
50	350	1	9	37.5	6.6	4.1	4.1
350	450	9	16	14.3	18.2	14.2	14.2
450	750	16	22	50.0	4.8	2.9	2.9
750	900	22	28	25.0	10.1	7.0	7.0



Tested by	LS	Checked		Approved	
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Site: Land North of Lee's Yard

Client: Thakeham Partnerships Ltd

Date: 01/10/2021

Job No: LP2616

Test No: DCP06

Dynamic Cone CBR Test

Nr Blows	S Blows	Penetration mm	S Pen. mm
1	1	50	50
2	3	50	100
2	5	50	150
1	6	50	200
2	8	50	250
2	10	50	300
1	11	50	350
1	12	50	400
1	13	50	450
1	14	50	500
1	15	50	550
1	16	50	600
1	17	50	650
2	19	50	700
1	20	50	750
1	21	50	800
1	22	50	850
1	23	50	900

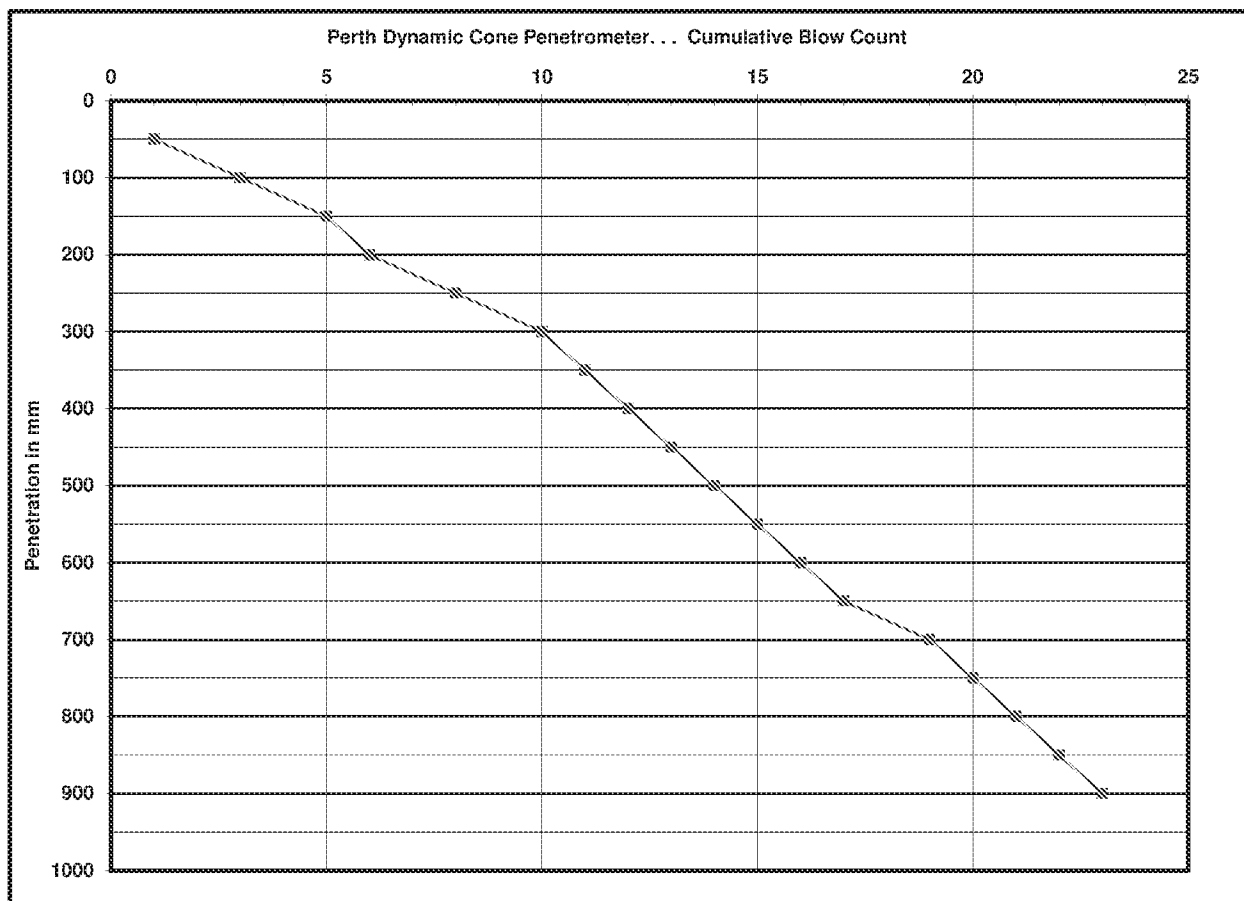
Land North of Lee's Yard Test Reference: - DCP07

Job Nr LP2616

Date 01-Oct-21

CBR VALUE CALCULATIONS

Initial S Pen mm	Final S Pen mm	Initial S Blows	Final S Blows	Pen/Blow mm	CBR TRRL	CBR KVH	CBR Value (%)
50	300	1	10	27.8	9.0	6.1	6.1
300	600	10	16	50.0	4.8	2.9	2.9
600	900	16	23	42.9	5.7	3.5	3.5



Tested by	LS	Checked		Approved	
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Site: Land North of Lee's Yard

Client: Thakeham Partnerships Ltd

Date: 01/10/2021

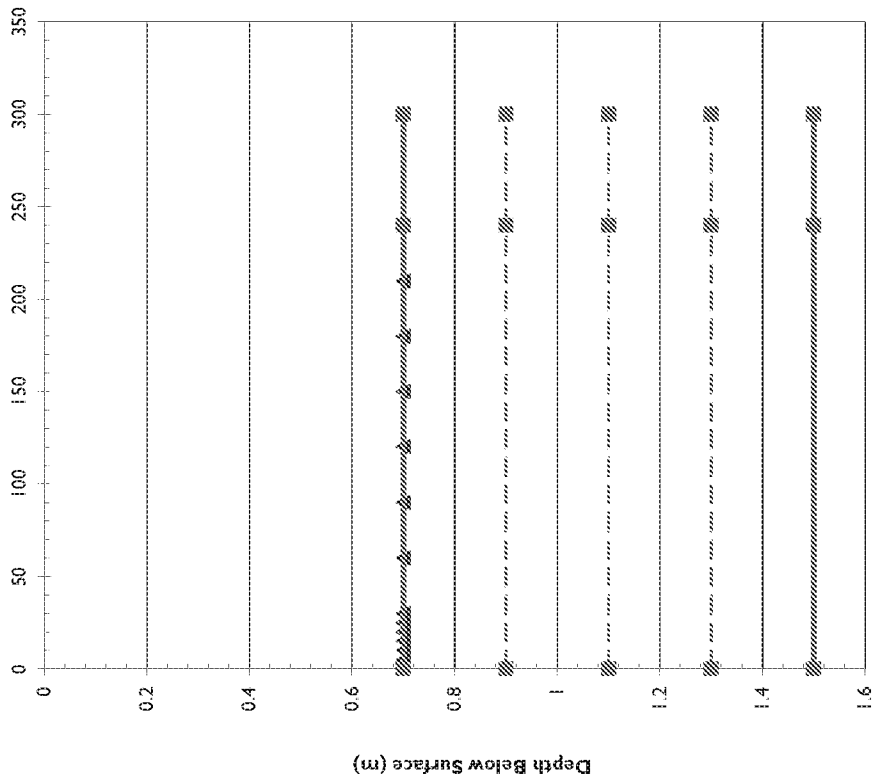
Job No: LP2616

Test No: DCP07

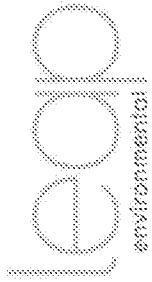
BRE Digest 365 - Soakage Test

initial)

Filling to Max Water Depth (min)



Test Hole No: TP01
Test No: Test No I



Pit Length (m)	1.8
Pit Width (m)	0.7
Depth to Pit Base (m)	1.5
Depth to Top of Permeable Soils (m)	
Depth to Groundwater Surface (m)	
Depth to Top of Granular Fill (m)	
Voids Assumed for Granular Fill (%)	
Depth of Water at Start of Test (m)	0.7
Max Water Dropdown during Test (m)	0
Total Soakage Test Time (min)	300
Mean Internal Discharge Area (m2)	5.26
Discharge Rate (litre/min)	0
Soakage Rate (litre/m2/min)	0
BRE Soil Infiltration Rate (m/sec)	0

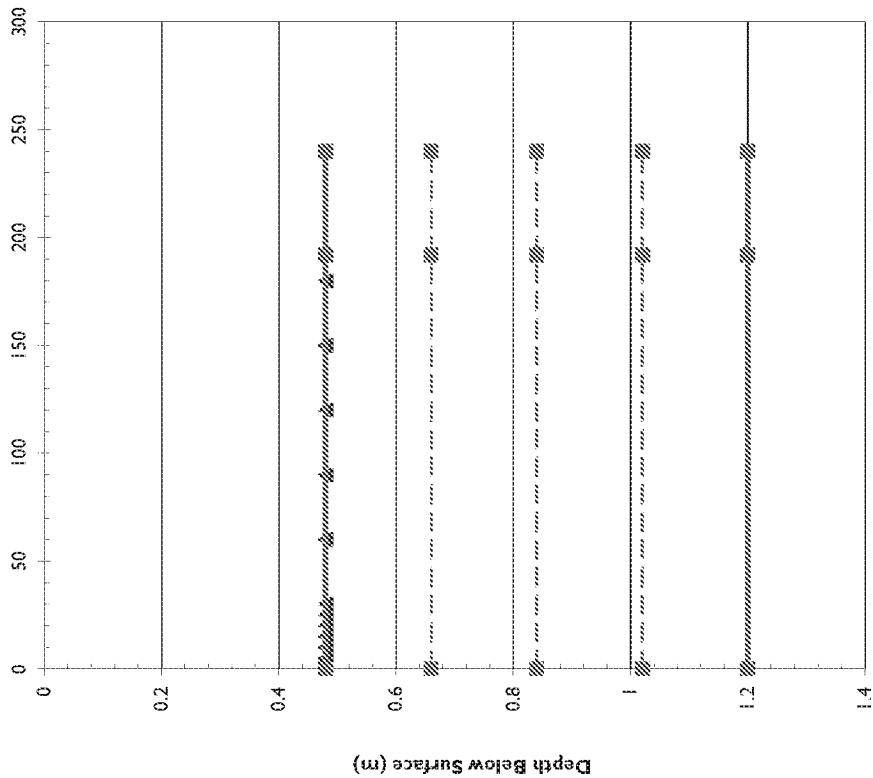
Comments:	Water level did not fall to 75% max water depth, calc Result not compliant with BRE365 requirement since
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Client:	Thakeham Partnerships Ltd
Site:	Land North of Lee's Yard
Tested By:	Oakland SI
Test Date:	01/10/21

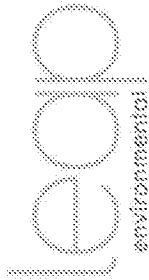
BRE Digest 365 - Soakage Test

initial)

Filling to Max Water Depth (min)



Test Hole No: TP02
Test No: Test No I



Pit Length (m)	1.8
Pit Width (m)	0.6
Depth to Pit Base (m)	1.2
Depth to Top of Permeable Soils (m)	1.2
Depth to Groundwater Surface (m)	
Depth to Top of Granular Fill (m)	
Void Assumed for Granular Fill (%)	
Depth of Water at Start of Test (m)	0.48
Max Water Dropdown during Test (m)	0
Total Soakage Test Time (min)	240
Mean Internal Discharge Area (m2)	4.536
Discharge Rate (litre/min)	0
Soakage Rate (litre/m2/min)	0
BRE Soil Infiltration Rate (m/sec)	0

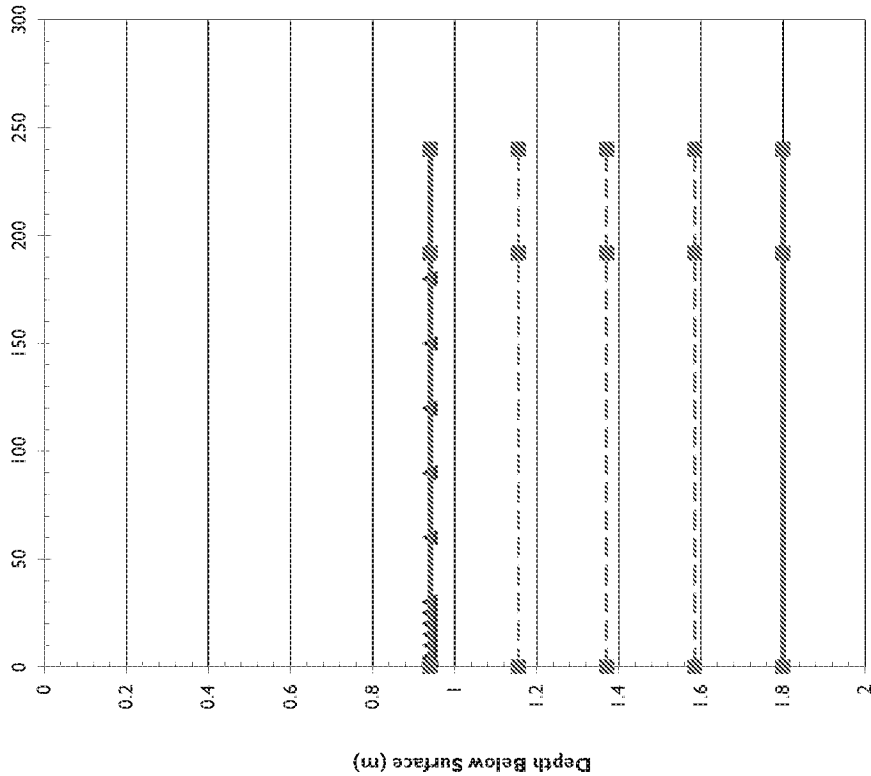
Comments:	Water level did not fall to 75% max water depth, calc Result not compliant with BRE365 requirement since
-----------	--

Client:	Thakeham Partnerships Ltd
Site:	Land North of Lee's Yard
Tested By:	Oakland SI
Test Date:	01/10/21

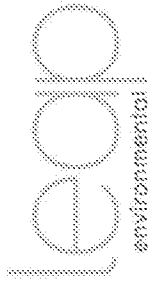
BRE Digest 365 - Soakage Test

initial)

Filling to Max Water Depth (min)



Test Hole No: TP03
Test No: Test No I



Pit Length (m)	1.8
Pit Width (m)	0.6
Depth to Pit Base (m)	1.8
Depth to Top of Permeable Soils (m)	
Depth to Groundwater Surface (m)	
Depth to Top of Granular Fill (m)	
Void Assumed for Granular Fill (%)	
Depth of Water at Start of Test (m)	0.94
Max Water Dropdown during Test (m)	0
Total Soakage Test Time (min)	240
Mean Internal Discharge Area (m2)	5.208
Discharge Rate (litre/min)	0
Soakage Rate (litre/m2/min)	0
BRE Soil Infiltration Rate (m/sec)	0

Comments:	Water level did not fall to 75% max water depth, calc Result not compliant with BRE365 requirement since
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Client:	Thakeham Partnerships Ltd
Site:	Land North of Lee's Yard
Tested By:	Oakland SI
Test Date:	01/10/21

APPENDIX F -- Groundwater and Ground Gas Monitoring Records

Groundwater and
Ground Gas Monitoring
Records

Continuous Gas Monitoring Record								
Date	20/09/2021	Engineer	SH					
Project No	LP2616	Temp °C	21					
Site	Lees Yard	Ambient Pressure	1023					
WS01		Time	Flow (l/h)	CH ₄ (%)	CO ₂ (%)	O ₂ (%)	CO (ppm)	H ₂ S (ppm)
		00:00	0.0	0.2	0.0	20.7	2	0
Hole ID		00:15	0.0	0.2	2.5	19.3	2	0
VOC peak (ppm)	Not Measured	00:30	0.0	0.2	2.5	19.1	2	0
		01:00	0.0	0.2	2.5	19.0	1	0
VOC steady (ppm)	Not Measured	01:30	0.0	0.2	2.5	19.1	1	0
		02:00	0.0	0.2	2.5	19.1	2	0
Borehole Depth (mbgl)	1.84	02:30	0.0	0.2	2.5	19.1	2	0
		03:00	0.0	0.2	2.5	19.1	1	0
Water level (mbgl)	1.2	03:30	0.0	0.2	2.5	19.1	1	0
		04:00	0.0	0.2	2.5	19.1	1	0
Borehole Pressure (mb)	1023	04:30	0.0	0.2	2.4	19.2	1	0
		05:00	0.0	0.2	2.3	19.3	1	0
		05:30	0.0	0.2	2.2	19.4	2	0
		06:00	0.0	0.2	2.1	19.5	2	0
		06:30	0.0	0.2	2.0	19.6	1	0
		07:00	0.0	0.2	1.9	19.7	1	0
		07:30	0.0	0.2	1.8	19.8	2	0
		08:00	0.0	0.2	1.7	19.8	2	0
		08:30	0.0	0.2	1.6	19.9	2	0
		09:00	0.0	0.2	1.5	20.0	1	0
		09:30	0.0	0.2	1.4	20.0	1	0
		10:00	0.0	0.2	1.4	20.0	1	0

Continuous Gas Monitoring Record								
Date	20/09/2021	Engineer	SH					
Project No	LP2616	Temp °C	21					
Site	Lees Yard	Ambient Pressure	1023					
WS03		Time	Flow (f/h)	CH ⁴ (%)	CO ² (%)	O ² (%)	CO (ppm)	H ² S (ppm)
		00:00	0.0	0.1	0.1	20.4	1	0
Hole ID		00:15	0.0	0.2	0.1	20.0	2	0
VOC peak (ppm)	Not Measured	00:30	0.0	0.2	1.3	19.7	2	0
		01:00	0.0	0.2	1.4	19.7	2	0
VOC steady (ppm)	Not Measured	01:30	0.0	0.2	1.5	19.6	1	0
		02:00	0.0	0.2	1.6	19.6	1	0
Borehole Depth (mbgl)	3.06	02:30	0.0	0.2	1.7	19.5	1	0
		03:00	0.0	0.2	1.9	19.5	1	0
Water level (mbgl)	1.57	03:30	0.0	0.2	2.0	19.4	1	0
		04:00	0.0	0.2	2.1	19.3	1	0
Borehole Pressure (mb)	1023	04:30	0.0	0.2	2.2	19.3	1	0
		05:00	0.0	0.2	2.3	19.2	1	0
		05:30	0.0	0.2	2.4	19.2	1	0
		06:00	0.0	0.2	2.5	19.1	1	0
		06:30	0.0	0.2	2.5	19.1	1	0
		07:00	0.0	0.2	2.5	19.1	1	0
		07:30	0.0	0.2	2.5	19.1	1	0
		08:00	0.0	0.2	2.5	19.1	1	0
		08:30	0.0	0.2	2.5	19.1	1	0
		09:00	0.0	0.2	2.5	19.1	1	0
		09:30	0.0	0.2	2.5	19.1	1	0
		10:00	0.0	0.2	2.5	19.1	1	0

Continuous Gas Monitoring Record								
Date	20/09/2021	Engineer	SH					
Project No	LP2616	Temp °C	21					
Site	Lees Yard	Ambient Pressure	1023					
WS04		Time	Flow (f/h)	CH ⁴ (%)	CO ² (%)	O ² (%)	CO (ppm)	H ² S (ppm)
		00:00	0.0	0.2	0.1	20.9	2	0
Hole ID		00:15	0.0	0.2	0.1	21.0	4	0
VOC peak (ppm)		00:30	0.0	0.2	1.4	20.1	6	0
VOC steady (ppm)		01:00	0.0	0.2	1.4	20.0	2	0
Not Measured		01:30	0.0	0.2	1.4	20.0	2	0
Not Measured		02:00	0.0	0.2	1.4	20.1	2	0
Borehole Depth (mbgl)		02:30	0.0	0.2	1.4	20.1	2	0
1.96		03:00	0.0	0.2	1.4	20.1	2	0
Water level (mbgl)		03:30	0.0	0.2	1.4	20.1	2	0
1.42		04:00	0.0	0.2	1.4	20.1	2	0
Borehole Pressure (mb)		04:30	0.0	0.2	1.4	20.1	2	0
1023		05:00	0.0	0.2	1.4	20.1	2	0
		05:30	0.0	0.2	1.4	20.2	1	0
		06:00	0.0	0.2	1.4	20.2	2	0
		06:30						
		07:00						
		07:30						
		08:00						
		08:30						
		09:00						
		09:30						
		10:00						

Continuous Gas Monitoring Record								
Date	20/09/2021	Engineer	SH					
Project No	LP2616	Temp °C	21					
Site	Lees Yard	Ambient Pressure	1023					
WS05		Time	Flow (f/h)	CH ⁴ (%)	CO ² (%)	O ² (%)	CO (ppm)	H ² S (ppm)
		00:00	0.0	0.2	0.0	21.1	2	0
Hole ID		00:15	0.0	0.2	1.3	20.1	6	0
VOC peak (ppm)	Not Measured	00:30	0.0	0.2	1.4	19.9	5	0
		01:00	0.0	0.2	1.4	19.8	2	0
VOC steady (ppm)	Not Measured	01:30	0.0	0.2	1.4	19.8	2	0
		02:00	0.0	0.2	1.4	19.8	2	0
Borehole Depth (mbgl)	2.05	02:30	0.0	0.2	1.4	19.8	2	0
		03:00	0.0	0.2	1.4	19.8	2	0
Water level (mbgl)	1.60	03:30	0.0	0.2	1.4	19.9	2	0
		04:00	0.0	0.2	1.4	19.9	2	0
Borehole Pressure (mb)	1026	04:30	0.0	0.2	1.4	19.9	2	0
		05:00	0.0	0.2	1.4	19.9	2	0
		05:30	0.0	0.2	1.3	19.9	2	0
		06:00	0.0	0.2	1.3	19.9	2	0
		06:30	0.0	0.2	1.3	20.0	2	0
		07:00	0.0	0.2	1.3	20.0	2	0
		07:30	0.0	0.2	1.2	20.0	2	0
		08:00	0.0	0.2	1.2	20.1	4	0
		08:30	0.0	0.2	1.1	20.1	2	0
		09:00	0.0	0.2	1.1	20.2	2	0
		09:30	0.0	0.2	1.0	20.3	2	0
		10:00	0.0	0.2	1.0	20.3	2	0

Continuous Gas Monitoring Record								
Date	20/09/2021	Engineer	SH					
Project No	LP2616	Temp °C	21					
Site	Lees Yard	Ambient Pressure	1023					
								
WS07 Hole ID		Time	Flow (l/h)	CH ₄ (%)	CO ₂ (%)	O ₂ (%)	CO (ppm)	H ₂ S (ppm)
		00:00	0.0	0.1	0.0	20.9	2	0
VOC peak (ppm) Not Measured		00:15	0.0	0.1	1.8	20.8	4	0
		00:30	0.0	0.1	1.8	20.8	2	0
VOC steady (ppm) Not Measured		01:00	0.0	0.1	1.8	19.5	2	0
		01:30	0.0	0.1	1.8	19.5	1	0
Borehole Depth (mbgl) 2.40		02:00	0.0	0.1	1.8	19.5	1	0
		02:30	0.0	0.1	1.8	19.4	1	0
Water level (mbgl) 1.58		03:00	0.0	0.1	1.8	19.4	1	0
		03:30	0.0	0.2	1.9	19.4	0	0
Borehole Pressure (mb) 1023		04:00	0.0	0.1	1.8	19.4	0	0
		04:30	0.0	0.1	1.9	19.4	1	0
		05:00	0.0	0.1	1.9	19.4	1	0
		05:30	0.0	0.1	1.9	19.4	1	0
		06:00	0.0	0.1	1.8	19.4	1	0
		06:30	0.0	0.1	1.8	19.4	1	0
		07:00	0.0	0.1	1.8	19.4	1	0
		07:30	0.0	0.1	1.8	19.4	1	0
		08:00	0.0	0.1	1.8	19.4	1	0
		08:30	0.0	0.1	1.7	19.6	1	0
		09:00	0.0	0.1	1.6	19.6	1	0
		09:30	0.0	0.1	1.5	19.7	1	0
		10:00	0.0	0.1	1.4	19.8	1	0

APPENDIX G – Geotechnical Laboratory Test Results

Geotechnical Laboratory Test Results

SUMMARY OF GEOTECHNICAL TESTING

Sample details																		Classification Tests					Density Tests		Undrained Triaxial Compression				Chemical Tests			Other tests and comments
Location	Depth (m)	Sample Ref	Type	Description	WC %	LL %	PL %	PI %	<425 µm %	Bulk Mg/m²	Dry Mg/m²	Cell Pressure kPa	Deviator Stress kPa	Shear Stress kPa	pH	2:1 W/S SO4 g/L	W/S Mg mg/L															
TP03	1.10-1.40		D	Light grey mottled yellowish brown slightly gravelly sandy silty CLAY. Gravel is fine to medium and includes chalk and sand is fine.	19.5	39	15	24	97																							
TP04	2.40-2.80		D	Dark grey very slightly gravelly slightly sandy silty CLAY with chalk. Gravel is fine to medium.	29.7	50	21	29	98																							
TP06	0.70		D	Orangish brown and greyish brown mottled sandy gravelly silty CLAY. Gravel is fine to medium.	24.4	47	19	28	97																							
TP08	0.70		D	Orangish brown mottled greyish brown gravelly sandy silty CLAY with rootlets. Gravel is fine to medium and sand is fine.	20.2	40	18	22	97																							
WS01	0.80		D															Chemical														
WS01	3.00		D															Chemical														
WS02	0.60		D	Yellowish brown, orangish brown and grey mottled gravelly sandy silty CLAY with rootlets. Gravel is fine to medium and sand is fine.	22.0	43	18	25	99																							
WS03	2.10		D															Chemical														
WS04	1.20-2.00		B	Yellowish brown silty fine SAND.														Particle Size Distribution														
WS05	1.20		D															Chemical														

Sample type B (Bulk disturb.) BLK (Bulk) C (Core) D (Disturbed) LB (Large Bulk dist.) U (Undisturbed)

NP=Non Plastic

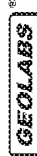
Checked and Approved by

Project Number:

Project Name:

GEO / 33854

LAND NORTH OF LEE'S YARD
LP2616



24/09/2021

SUMMARY OF GEOTECHNICAL TESTING

ID/RES	Sample details				Classification Tests				Density Tests		Undrained Triaxial Compression				Chemical Tests			Other tests and comments		
	Location	Depth (m)	Sample Ref	Type	Description	WC %	LL %	PL %	PI %	<425 µm %	Bulk Mg/m²	Dry Mg/m²	Condition	Cell Pressure kPa	Deviator Stress kPa	Shear Stress kPa	pH		2:1 W/S SO4 g/L	W/S Mg mg/L
	WS06	3.00		D	Yellowish brown slightly clayey silty gravelly SAND. Sand is fine.	13.5		NP		55										
	WS07	3.50		D																Chemical

Sample type B (Bulk disturb.) BLK (Bulk) C (Core) D (Disturbed) LB (Large Bulk dist.) U (Undisturbed)

NP=Non Plastic

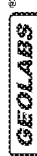
Checked and Approved by

Project Number:

Project Name:

GEO / 33854

LAND NORTH OF LEE'S YARD
LP2616



24/09/2021

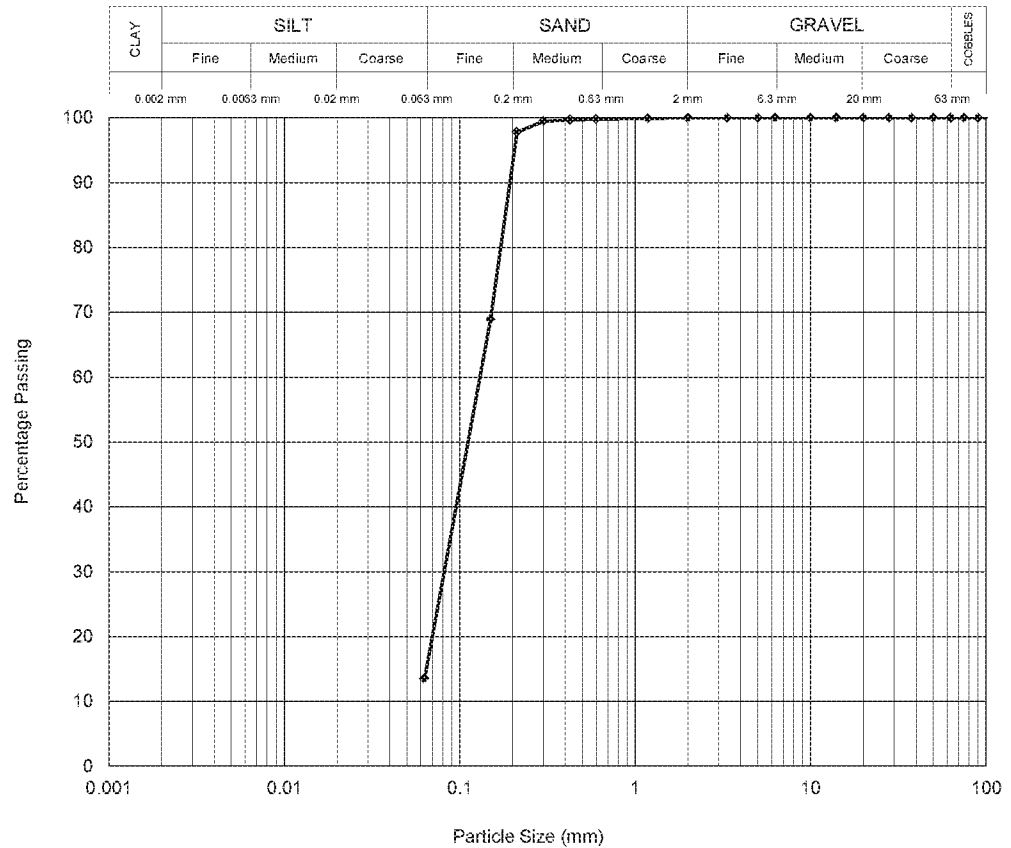
Tested by Chemtest Ltd : MCERTS / UKAS No 2183

GEO LABS

Page 1 of 1
(Ref 1632498618)

Description	Yellowish brown silty fine SAND.
-------------	----------------------------------

Sieve	
Size	% Pass
200.0 mm	100
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	100
28.0 mm	100
20.0 mm	100
14.0 mm	100
10.0 mm	100
6.30 mm	100
5.00 mm	100
3.35 mm	100
2.00 mm	100
1.18 mm	100
600 μ m	100
425 μ m	100
300 μ m	99
212 μ m	98
150 μ m	69
63 μ m	13



Particle Proportions	
Cobbles	0.0
Gravel	0.0
Sand	86.5
Silt & Clay	13.5



Page 1 of 1
(Ref 1632498620)

APPENDIX H-- Analytical Summary and Quantitative Risk Assessment Tables

Analytical Summary and
Quantitative Risk
Assessment Tables

LP2616 Land North of Lee's Yard
Table G1: Soil Analytical Results and Human Health QRA

Determinand	Units	LOD	Assessment Criteria Value	Source	Sample Location		Date Sampled: 09/08/2021										W620		
					Depth (m)	Matrix	TP01		TP03		TP05		TP07		W603			W605	
							Topsoil	Topsoil	Topsoil	Topsoil	Topsoil	Topsoil	Native	Native	Topsoil	Topsoil		Native	Native
					Maximum Detected											27/08/2021			
Miscellaneous																			
pH	pH units	0.1	n.v.	n.a.	9.1		7.9	6.3	6.6	7.2	9.1	8.5	7.8	8.4					
Total Organic Carbon	%	0.1	n.v.	n.a.	1.9		1.3	1.8	1.9	0.24	0.35	1.8	0.33	1.6					
Soil Organic Matter (calculated)**	%	-	n.v.	n.a.	3.268		2.24	3.10	3.27	0.41	0.60	3.10	0.57	2.75					
Metals																			
Arsenic	mg/kg	2	37	C4SL	11.1		8.7	8.3	9.5	10.2	8.7	11.1	10.7	11.1					
Cadmium	mg/kg	0.1	22	C4SL	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5					
Chromium	mg/kg	0.5	910	S4UL	34.8		29.1	25.3	27.7	31.3	27.1	31	31.3	34.8					
Chromium VI	mg/kg	1	21	C4SL	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5					
Copper	mg/kg	2	2,400	S4UL	20.8		10.1	11.3	11.7	9.7	6.5	20.8	5.9	8.8					
Lead	mg/kg	2	200	C4SL	30.6		23.4	30.3	30.6	13.7	17.1	30.6	14.3	30.4					
Mercury	mg/kg	1	40	S4UL	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5					
Nickel	mg/kg	0.5	130	S4UL	18.2		15.4	12.2	14.7	16.3	17.1	17.4	15.1	18.2					
Selenium	mg/kg	3	250	S4UL	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0					
Zinc	mg/kg	2	3,700	S4UL	151		45	49	49.5	41.2	48.7	151	48.7	60.2					
Asbestos																			
Asbestos Identification	-	-	Presence	n.a.	n.a.		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5					
Polycyclic Aromatic Hydrocarbons (USEPA 16)																			
Benzo(a)pyrene	mg/kg	0.1	5.0	C4SL	0.2		<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
Naphthalene	mg/kg	0.1	2.3 / 5.6*	S4UL	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
Acenaphthylene	mg/kg	0.1	n.v.	n.a.	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
Acenaphthene	mg/kg	0.1	n.v.	n.a.	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
Fluorene	mg/kg	0.1	n.v.	n.a.	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
Phenanthrene	mg/kg	0.1	n.v.	n.a.	<0.1		<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
Anthracene	mg/kg	0.1	n.v.	n.a.	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
Fluoranthene	mg/kg	0.1	n.v.	n.a.	<0.1		0.1	0.3	0.1	<0.1	<0.1	0.2	<0.1	<0.1					
Pyrene	mg/kg	0.1	n.v.	n.a.	0.3		<0.1	0.3	0.1	<0.1	<0.1	0.2	<0.1	<0.1					
Benzo(a)anthracene	mg/kg	0.1	n.v.	n.a.	0.2		<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
Chrysene	mg/kg	0.1	n.v.	n.a.	0.2		<0.1	0.2	<0.1	<0.1	<0.1	0.1	<0.1	<0.1					
Benzo(b)fluoranthene	mg/kg	0.1	n.v.	n.a.	0.2		<0.1	0.2	<0.1	0.1	<0.1	<0.1	<0.1	<0.1					
Benzo(k)fluoranthene	mg/kg	0.1	n.v.	n.a.	0.2		<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	n.v.	n.a.	0.2		<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
Dibenzo(ah)anthracene	mg/kg	0.1	n.v.	n.a.	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
Benzo(ghi)perylene	mg/kg	0.1	n.v.	n.a.	0.1		<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
Total PAH (16)	mg/kg	0.1	n.v.	n.a.	2		<1.4	2	<0.4	<0.4	<0.4	0.6	<0.4	<0.4					

* 1% SOM / 2.5% SOM
** Soil Organic Matter = Total Organic Carbon x 1.72

NAD = No asbestos detected
MG = Made ground
- = not tested
n.a = not applicable
n.v = no published value available

- Exceedances of residential with homegrown produce GAC

APPENDIX I-- Geoenvironmental Analytical Laboratory Certificates

Geoenvironmental
Analytical Laboratory
Certificates



Unit A2
Windmill Road
Ponswood Industrial Estate
St Leonards on Sea
East Sussex
TN38 9BY
Telephone: (01424) 718618

cs@elab-uk.co.uk
info@elab-uk.co.uk

THE ENVIRONMENTAL LABORATORY LTD

Analytical Report Number: 21-35367

Issue: 1

Date of Issue: 17/08/2021

Contact: Lauren Stillwell

Customer Details: Leap Environmental Ltd
Book House
Glebelands Centre
Dorking
Surrey RH4 3HW

Quotation No: Q14-00063

Order No: LPO4230

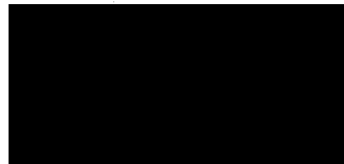
Customer Reference: LP2616

Date Received: 11/08/2021

Date Approved: 17/08/2021

Details: Land North of Lee's Yard

Approved by:



Mike Varley, Technical Manager

Any comments, opinions or interpretations expressed herein are outside the scope of UKAS accreditation (Accreditation Number 2683)

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Sample Summary

Report No.: 21-35367, issue number 1

Elab No.	Client's Ref.	Date Sampled	Date Scheduled	Description	Deviations
247612	TP01 0.15	09/08/2021	11/08/2021	Silty loam	
247613	TP01 0.40	09/08/2021	11/08/2021		
247614	TP02 0.10	09/08/2021	11/08/2021		
247615	TP03 0.10	09/08/2021	11/08/2021	Silty loam	
247616	TP04 0.40	09/08/2021	11/08/2021		
247617	TP05 0.20	09/08/2021	11/08/2021	Silty loam	
247618	TP06 0.10	09/08/2021	11/08/2021		
247619	TP06 0.40	09/08/2021	11/08/2021		
247620	TP07 0.35	09/08/2021	11/08/2021	Silty clayey loam	
247621	TP08 0.10	09/08/2021	11/08/2021		



Results Summary

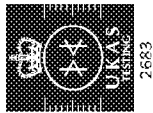
Report No.: 21-35367, issue number 1

ELAB Reference				247612	247615	247617	247620
Customer Reference							
Sample ID							
Sample Type				SOIL	SOIL	SOIL	SOIL
Sample Location				TP01	TP03	TP05	TP07
Sample Depth (m)				0.15	0.10	0.20	0.35
Sampling Date				09/08/2021	09/08/2021	09/08/2021	09/08/2021
Determinand	Codes	Units	LOD				
Soil sample preparation parameters							
Material removed	N	%	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Description of Inert material removed	N		0	None	None	None	None
Metals							
Arsenic	M	mg/kg	1	8.7	8.3	9.5	10.2
Cadmium	M	mg/kg	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chromium	M	mg/kg	5	29.1	25.3	27.7	31.3
Copper	M	mg/kg	5	10.1	11.3	11.7	9.7
Lead	M	mg/kg	5	23.4	30.3	30.6	13.7
Mercury	M	mg/kg	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Nickel	M	mg/kg	5	15.4	12.2	14.7	16.3
Selenium	M	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0
Zinc	M	mg/kg	5	45.0	49.0	49.5	41.2
Inorganics							
Hexavalent Chromium	N	mg/kg	0.8	< 0.8	< 0.8	< 0.8	< 0.8
Miscellaneous							
pH	M	pH units	0.1	7.9	6.3	6.6	7.2
Total Organic Carbon	N	%	0.01	1.3	1.8	1.9	0.24
Polyaromatic hydrocarbons							
Naphthalene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Phenanthrene	M	mg/kg	0.1	< 0.1	0.1	< 0.1	< 0.1
Anthracene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluoranthene	M	mg/kg	0.1	0.1	0.3	0.1	< 0.1
Pyrene	M	mg/kg	0.1	< 0.1	0.3	0.1	< 0.1
Benzo(a)anthracene	M	mg/kg	0.1	< 0.1	0.2	< 0.1	< 0.1
Chrysene	M	mg/kg	0.1	< 0.1	0.2	< 0.1	< 0.1
Benzo(b)fluoranthene	M	mg/kg	0.1	< 0.1	0.2	< 0.1	0.1
Benzo(k)fluoranthene	M	mg/kg	0.1	< 0.1	0.2	< 0.1	< 0.1
Benzo(a)pyrene	M	mg/kg	0.1	< 0.1	0.2	< 0.1	< 0.1
Indeno(1,2,3-cd)pyrene	M	mg/kg	0.1	< 0.1	0.2	< 0.1	< 0.1
Dibenzo(a,h)anthracene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(g,h,i)perylene	M	mg/kg	0.1	< 0.1	0.1	< 0.1	< 0.1
Total PAH(16)	M	mg/kg	0.4	< 0.4	2.0	< 0.4	< 0.4

Tests marked N are not UKAS accredited.

The Environmental Laboratory Ltd. Reg. No. 3882193

Page 3 of 6



2683

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards on Sea, East Sussex, TN38 9BY
Tel: +44 (0)1424 718618, Email: info@elab-uk.co.uk, Web: www.elab-uk.co.uk

Results Summary

Report No.: 21-35367, issue number 1

Asbestos Results

Analytical result only applies to the sample as submitted by the client. Any comments, opinions or interpretations (marked #) in this report are outside UKAS accreditation (Accreditation No2683). They are subjective comments only which must be verified by the client.

Elab No	Depth (m)	Clients Reference	Description of Sample Matrix #	Asbestos Identification	Gravimetric Analysis Total (%)	Gravimetric Analysis by ACM Type (%)	Free Fibre Analysis (%)	Total Asbestos (%)
247612	0.15	TP01	Brown sandy soil, stones, chalk, organics	No asbestos detected	n/t	n/t	n/t	n/t
247615	0.10	TP03	Brown soil, stones, organics	No asbestos detected	n/t	n/t	n/t	n/t
247617	0.20	TP05	Brown sandy soil, stones, clinker, organics	No asbestos detected	n/t	n/t	n/t	n/t
247620	0.35	TP07	Brown sandy soil, stones	No asbestos detected	n/t	n/t	n/t	n/t



Method Summary

Report No.: 21-35367, issue number 1

Parameter	Codes	Analysis Undertaken On	Date Tested	Method Number	Technique
Soil					
Hexavalent chromium	N	As submitted sample	13/08/2021	110	Colorimetry
pH	M	Air dried sample	13/08/2021	113	Electromeric
PAH (GC-FID)	M	As submitted sample	13/08/2021	133	GC-FID
Total organic carbon/Total sulphur	N	Air dried sample	16/08/2021	210	IR
Asbestos identification	U	Air dried sample	17/08/2021	280	Microscopy
Aqua regia extractable metals	M	Air dried sample	13/08/2021	300	ICPMS

Tests marked N are not UKAS accredited



Report Information

Report No.: 21-35367, issue number 1

Key

U	hold UKAS accreditation
M	hold MCERTS and UKAS accreditation
N	do not currently hold UKAS accreditation
^	MCERTS accreditation not applicable for sample matrix
*	UKAS accreditation not applicable for sample matrix
S	Subcontracted to approved laboratory UKAS Accredited for the test
SM	Subcontracted to approved laboratory MCERTS/UKAS Accredited for the test
NS	Subcontracted to approved laboratory. UKAS accreditation is not applicable.
I/S	Insufficient Sample
U/S	Unsuitable sample
n/t	Not tested
<	means "less than"
>	means "greater than"
LOD	LOD refers to limit of detection, except in the case of pH soils and pH waters where it means limit of discrimination. Soil sample results are expressed on an air dried basis (dried at < 30°C), and are uncorrected for inert material removed. ELAB are unable to provide an interpretation or opinion on the content of this report. The results relate only to the sample received. PCB congener results may include any coeluting PCBs Uncertainty of measurement for the determinands tested are available upon request Unless otherwise stated, sample information has been provided by the client. This may affect the validity of the results.

Deviation Codes

-
- | | |
|---|--|
| a | No date of sampling supplied |
| b | No time of sampling supplied (Waters Only) |
| c | Sample not received in appropriate containers |
| d | Sample not received in cooled condition |
| e | The container has been incorrectly filled |
| f | Sample age exceeds stability time (sampling to receipt) |
| g | Sample age exceeds stability time (sampling to analysis) |

Where a sample has a deviation code, the applicable test result may be invalid.

Sample Retention and Disposal

All soil samples will be retained for a period of one month

All water samples will be retained for 7 days following the date of the test report

Charges may apply to extended sample storage



Unit A2
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Ponswood Industrial Estate
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East Sussex
TN38 9BY
Telephone: (01424) 718618

cs@elab-uk.co.uk
info@elab-uk.co.uk

THE ENVIRONMENTAL LABORATORY LTD

Analytical Report Number: 21-35727

Issue: 1

Date of Issue: 08/09/2021

Contact: Lauren Stillwell

Customer Details: Leap Environmental Ltd
Book House
Glebelands Centre
Dorking
Surrey RH4 3HW

Quotation No: Q14-00063

Order No: LPO-4318

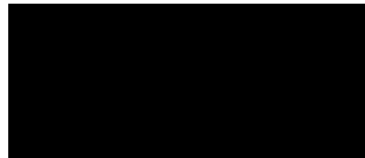
Customer Reference: LP2616

Date Received: 01/09/2021

Date Approved: 08/09/2021

Details: Land North of Lee's Yard

Approved by:



Mike Varley, Technical Manager

Any comments, opinions or interpretations expressed herein are outside the scope of UKAS accreditation (Accreditation Number 2683)

This report may only be reproduced in full

Sample Summary

Report No.: 21-35727, issue number 1

Elab No.	Client's Ref.	Date Sampled	Date Scheduled	Description	Deviations
249478	WS07 0.40	27/08/2021	01/09/2021	Silty clayey loam	
249479	WS03 0.10	27/08/2021	01/09/2021	Silty loam	
249480	WS05 0.40	27/08/2021	01/09/2021	Silty clayey loam	
249481	WS01 0.10	27/08/2021	01/09/2021	Silty loam	
249482	WS01 0.40	27/08/2021	01/09/2021		
249483	WS02 0.10	27/08/2021	01/09/2021		
249484	WS03 0.40	27/08/2021	01/09/2021		
249485	WS04 0.10	27/08/2021	01/09/2021		
249486	WS04 0.45	27/08/2021	01/09/2021		
249487	WS05 0.15	27/08/2021	01/09/2021		
249488	WS05 0.15	27/08/2021	01/09/2021		
249489	WS07 0.20	27/08/2021	01/09/2021		



Results Summary

Report No.: 21-35727, issue number 1

ELAB Reference				249478	249479	249480	249481
Customer Reference							
Sample ID							
Sample Type				SOIL	SOIL	SOIL	SOIL
Sample Location				WS07	WS03	WS05	WS01
Sample Depth (m)				0.40	0.10	0.40	0.10
Sampling Date				27/08/2021	27/08/2021	27/08/2021	27/08/2021
Determinand	Codes	Units	LOD				
Soil sample preparation parameters							
Material removed	N	%	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Description of Inert material removed	N		0	None	None	None	None
Metals							
Arsenic	M	mg/kg	1	8.7	11.1	10.7	11.1
Cadmium	M	mg/kg	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chromium	M	mg/kg	5	27.1	31.0	31.3	34.8
Copper	M	mg/kg	5	6.5	20.8	5.9	8.8
Lead	M	mg/kg	5	17.1	30.6	14.3	30.4
Mercury	M	mg/kg	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Nickel	M	mg/kg	5	17.1	17.4	15.1	18.2
Selenium	M	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0
Zinc	M	mg/kg	5	48.7	151	48.7	60.2
Inorganics							
Hexavalent Chromium	N	mg/kg	0.8	< 0.8	< 0.8	< 0.8	< 0.8
Miscellaneous							
pH	M	pH units	0.1	9.1	8.5	7.8	8.4
Total Organic Carbon	N	%	0.01	0.35	1.8	0.33	1.6
Polyaromatic hydrocarbons							
Naphthalene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Phenanthrene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Anthracene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluoranthene	M	mg/kg	0.1	< 0.1	0.2	< 0.1	< 0.1
Pyrene	M	mg/kg	0.1	< 0.1	0.2	< 0.1	< 0.1
Benzo(a)anthracene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Chrysene	M	mg/kg	0.1	< 0.1	0.1	< 0.1	< 0.1
Benzo(b)fluoranthene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(k)fluoranthene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(a)pyrene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Indeno(1,2,3-cd)pyrene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Dibenzo(a,h)anthracene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(g,h,i)perylene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Total PAH(16)	M	mg/kg	0.4	< 0.4	0.6	< 0.4	< 0.4

Tests marked N are not UKAS accredited.

The Environmental Laboratory Ltd. Reg. No. 3882193

Page 3 of 6

Results Summary

Report No.: 21-35727, issue number 1

Asbestos Results

Analytical result only applies to the sample as submitted by the client. Any comments, opinions or interpretations (marked #)
in this report are outside UKAS accreditation (Accreditation No2683). They are subjective comments only which must be verified by the client.

Elab No	Depth (m)	Clients Reference	Description of Sample	Matrix #	Asbestos Identification	Gravimetric Analysis Total (%)	Gravimetric Analysis by ACM Type (%)	Free Fibre Analysis (%)	Total Asbestos (%)
249478	0.40	WS07	Brown Soil, Stones		No asbestos detected	n/t	n/t	n/t	n/t
249479	0.10	WS03	Brown Soil, Stones, Root		No asbestos detected	n/t	n/t	n/t	n/t
249480	0.40	WS05	Brown Soil		No asbestos detected	n/t	n/t	n/t	n/t
249481	0.10	WS01	Brown soil, Stones		No asbestos detected	n/t	n/t	n/t	n/t



Method Summary

Report No.: 21-35727, issue number 1

Parameter	Codes	Analysis Undertaken On	Date Tested	Method Number	Technique
Soil					
Hexavalent chromium	N	As submitted sample	03/09/2021	110	Colorimetry
pH	M	Air dried sample	08/09/2021	113	Electromeric
PAH (GC-FID)	M	As submitted sample	03/09/2021	133	GC-FID
Total organic carbon/Total sulphur	N	Air dried sample	06/09/2021	210	IR
Asbestos identification	U	Air dried sample	07/09/2021	280	Microscopy
Aqua regia extractable metals	M	Air dried sample	03/09/2021	300	ICPMS

Tests marked N are not UKAS accredited



Report Information

Report No.: 21-35727, issue number 1

Key

U	hold UKAS accreditation
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N	do not currently hold UKAS accreditation
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NS	Subcontracted to approved laboratory. UKAS accreditation is not applicable.
I/S	Insufficient Sample
U/S	Unsuitable sample
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<	means "less than"
>	means "greater than"
LOD	LOD refers to limit of detection, except in the case of pH soils and pH waters where it means limit of discrimination. Soil sample results are expressed on an air dried basis (dried at < 30°C), and are uncorrected for inert material removed. ELAB are unable to provide an interpretation or opinion on the content of this report. The results relate only to the sample received. PCB congener results may include any coeluting PCBs Uncertainty of measurement for the determinands tested are available upon request Unless otherwise stated, sample information has been provided by the client. This may affect the validity of the results.

Deviation Codes

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- | | |
|---|--|
| a | No date of sampling supplied |
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| c | Sample not received in appropriate containers |
| d | Sample not received in cooled condition |
| e | The container has been incorrectly filled |
| f | Sample age exceeds stability time (sampling to receipt) |
| g | Sample age exceeds stability time (sampling to analysis) |

Where a sample has a deviation code, the applicable test result may be invalid.

Sample Retention and Disposal

All soil samples will be retained for a period of one month

All water samples will be retained for 7 days following the date of the test report

Charges may apply to extended sample storage

APPENDIX J – Approach to the Selection of Generic Assessment Criteria

Approach to the
Selection of Generic
Assessment Criteria

LEAP APPROACH TO THE SELECTION OF GENERIC ASSESSMENT CRITERIA

Chronic Risks to Human Health

Defra and the EA have published a limited number of Soil Guideline Values (SGVs)¹⁹ that represent minimal chronic risk to human health. CL:AIRE has published a limited number of Category Four Screening Levels (C4SLs)²⁰ which represent a low but still strongly precautionary level of chronic risk to human health. Both the SGVs and C4SLs have both been derived for a Soil Organic Matter (SOM) content of 6%, which is not always representative of the low SOM that are encountered within Made Ground on brownfield sites.

Land Quality Management Ltd. (LQM) responded to the demand for a more comprehensive set of screening values and for a wider range of SOM by producing Suitable for Use Levels (S4ULs)²¹ which are a hybrid of SGVs and C4SLs. The S4ULs have been endorsed by the Chartered Institute of Environmental Health (CIEH).

A smaller set of 35 GACs was published by CL:AIRE in association with AGS and EIC in 2010. These were based on the exposure scenarios that were used to derive the SGVs. These exposure scenarios have since been superseded, in part, by the publication of the C4SLs and the S4ULs. A second phase of C4SLs is currently under development.

LEAP uses C4SLs where they are available as generic assessment criteria to quantitatively assess the potential chronic risks to human health. Where C4SLs are not available, the S4ULs or CL:AIRE GACs are used. It is noted that S4ULs are not equivalent to C4SLs in all their exposure assumptions but are generally more conservative. To ensure the greatest possible consistency in LEAP's human health GQRAs, the physicochemical and toxicological input parameters that were used to derive the CL:AIRE GACs have been re-modelled using the exposure parameters selected by LQM to derive the S4ULs.

For the organic compounds benzene and benzo(a)pyrene) for which C4SLs are available for a SOM of 6% only, LEAP has calculated equivalent C4SLs for 1% and 2.5% SOM. SOM does not affect the inorganic contaminants.

¹⁹ Environment Agency Science Report SC050021 series.

²⁰ CL:AIRE Final Project Report. 'SP1010 – Development of Category 4 Screening Levels for assessment of land affected by contamination'. CL:AIRE, December 2013

²¹ 'The LQM/CIEH S4ULs for Human Health Risk Assessment', Nathaniel P et al, 2015. Copyright Land Quality Management Ltd, reproduced with permission: Publication Number S4UL3509.

In accordance with current Public Health England (PHE) guidance²², LEAP carries out the assessment of PAHs using a surrogate marker approach, whereby the assessment of risk from benzo(a)pyrene also captures potential risks from other carcinogenic PAHs that may be present. The alternative S4ULs for PAHs using the Toxic Equivalent Factor (TEF) approach are not used because this approach is likely to under predict the true carcinogenicity of PAHs and is not advocated by PHE. The threshold PAHs have been assessed similarly, by using naphthalene as a marker compound due to its high volatility relative to other PAHs.

Total phenols are assessed by LEAP against the S4UL for phenol and total chromium is assessed against the S4UL for trivalent chromium.

LEAP does not consider the theoretical soil saturations in the evaluation of organic compounds and as such, some of the S4ULs for the less sensitive exposure scenarios are lower than their more sensitive equivalents.

Risks to human health from inhalation of vapours derived from groundwater are evaluated by LEAP using the SoBRA groundwater GAC_{gw vap}²³.

Acute Risks to Human Health

Cyanide has not been modelled using CLEA because it has high acute toxicity and CLEA is designed to evaluate chronic risks. Assuming an acute risk and based on a single dose of 3 g of soil, an assessment criterion of 33 mgkg⁻¹ free inorganic cyanide and 544 mgkg⁻¹ complex cyanide has been calculated by LEAP. At this stage LEAP has chosen to adopt a conservative screening value of 20 mgkg⁻¹ for total cyanide (essentially the sum of free and complex cyanides) to highlight any potential risks to human health.

Risks to Controlled Waters

RTM (2006)²⁴ requires receptor-specific Water Quality Standards (WQS) to be used to determine potentially unacceptable risks to water bodies in England and Wales. It requires appropriate criteria to be taken from a hierarchy of sources, where they are available as follows:

²² HPA 'Contaminated Land Information Sheet. Risk Assessment Approaches for Polycyclic Aromatic Hydrocarbons (PAHs)'. Public Health England, 2017.

²³ Society of Brownfield Risk Assessment (SoBRA) 'Development of Generic Assessment Criteria for Assessing Vapour Risks to Human Health from Volatile Contaminants in Groundwater' Version 1.0. February 2017.

²⁴ EA 'Remedial Targets Methodology: Hydrogeological Risk Assessment for Land Contamination' 2006.

1. UK published values
2. EU published values
3. WHO published values

Drinking Water Resources

For groundwater and surface waters that are abstracted for potable supply LEAP uses:

- UK Drinking Water Quality Standards (DWS) from *The Water Supply (Water Quality) Regulations 2016* (England).
- *The Water Supply (Water Quality) Regulations 2010* (Wales) as amended in 2016.
- World Health Organisation *Guidelines for Drinking Water Quality*, Fourth Edition, Volume I, (2011).

■ Where the groundwater is not abstracted for potable supply, this is a precautionary approach which protects the potential future exploitation of the groundwater.

Surface Water (Ecological) Receptors

For surface waters as ecological receptors, LEAP uses the Environmental Quality Standards (EQS) from *The Water Framework Directive (Standards and Classification) Directions* (England and Wales) 2015. There are no appropriate EU or WHO standards available.

Petroleum Hydrocarbons

■ There are no current UK standards available for petroleum hydrocarbons, either for groundwater or surface water receptors, so an initial assessment criterion of 10µg/l, based on the former target concentration for dissolved or emulsified hydrocarbons, is used to represent a conservative preliminary screening value for total petroleum hydrocarbons.

■ Where considered appropriate, LEAP then follows the guidance of CL:AIRE 2017²⁵ for the further assessment of the petroleum hydrocarbon fractions and derivatives. For a drinking water resource, the WHO guidelines are used. For surface waters as ecological receptors, proxy compounds are used to select appropriate EQS based on recommended indicator compounds, as follows:

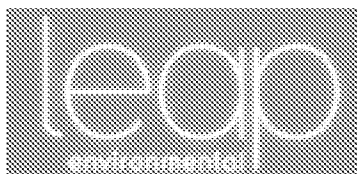
- Aromatic EC5-EC7 – benzene
- Aromatic >EC7-EC8 – toluene

²⁵ CL:AIRE, 2017. 'Petroleum Hydrocarbons in Groundwater: Guidance on assessing petroleum hydrocarbons using existing hydrogeological risk assessment methodologies'. CL:AIRE, London. ISBN 978-1-905046-31-7.

- Aromatic >EC8-EC10 – ethylbenzene
- Aromatic >EC10-EC12 – naphthalene
- Aromatic >EC12-EC16 – no proxy
- Aromatic >EC16-EC21 – anthracene
- Aromatic >EC21-EC35 – benzo(a)pyrene

APPENDIX K -- HazWasteOnline™ Classification Report

HazWasteOnline™
Classification Report



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)



DEED3-XXR6R-Z9UGU

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

Job name

LP2616

Description/Comments**Project****Site****Classified by****Name:**

Martin Weil

Company:

Leap Environmental Ltd

Date:

01 Oct 2021 07:31 GMT

Telephone:

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

HazWasteOnline™ Certification:**Course**

Hazardous Waste Classification

Date**Job summary**

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	TP01	0.15	Non Hazardous		2
2	TP03	0.1	Non Hazardous		4
3	TP05	0.2	Non Hazardous		6
4	TP07	0.35	Non Hazardous		8
5	WS07	0.4	Non Hazardous		10
6	WS03	0.1	Non Hazardous		12
7	WS05	0.4	Non Hazardous		14
8	WS01	0.1	Non Hazardous		16

Related documents

#	Name	Description
1	Leap Standard Classification WM3	waste stream template used to create this Job

Report

Created by: Martin Weil

Created date: 01 Oct 2021 07:31 GMT

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

Classification of sample: TP01

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

Sample details

Sample name: **TP01** LoW Code: Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: **0.15 m** Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

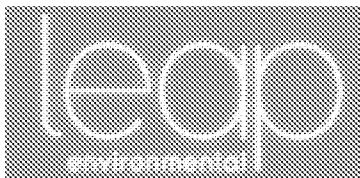
Hazard properties

None identified

Determinands

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

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	⊗ pH				7.9	pH		7.9	pH	7.9 pH		
2	⊗ arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1337-53-3	8.7	mg/kg	1.32	11.487	mg/kg	0.00115 %		
3	⊗ cadmium { cadmium sulfide }	048-010-00-4	215-147-3	1305-23-5	1	<0.5	mg/kg	1.285	<0.643	mg/kg	<0.00005 %	<LOD
4	⊗ chromium { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.8	mg/kg	1.923	<1.538	mg/kg	<0.000154 %	<LOD
5	⊗ copper { dicopper oxide; copper (II) oxide }	029-002-00-X	215-270-7	1317-39-1		10.1	mg/kg	1.126	11.371	mg/kg	0.00114 %	
6	⊗ lead { lead chromate }	082-004-00-2	231-845-0	7753-97-5	1	23.4	mg/kg	1.56	36.5	mg/kg	0.00234 %	
7	⊗ mercury { mercury dichloride }	050-010-00-X	231-293-5	7487-94-7		<0.5	mg/kg	1.353	<0.677	mg/kg	<0.0000677 %	<LOD
8	⊗ nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		15.4	mg/kg	1.579	24.324	mg/kg	0.00243 %	
9	⊗ zinc { zinc chromate }	024-007-00-3	236-875-9	13530-65-9		45	mg/kg	2.774	124.837	mg/kg	0.0125 %	
10	⊗ naphthalene	001-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
11	⊗ acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
12	⊗ acenaphthene		201-469-6	83-32-6		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
13	⊗ fluorene		201-695-5	96-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
14	⊗ phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
15	⊗ anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
16	⊗ fluoranthene		205-912-4	206-44-0		0.1	mg/kg		0.1	mg/kg	0.00001 %	
17	⊗ pyrene		204-927-3	129-00-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
18	⊗ benzo[a]anthracene	001-033-00-0	200-280-6	56-56-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number								
19	chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-048-00-0	205-923-4	218-01-9								
20	benzo[b]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-034-00-4	205-911-9	205-99-2								
21	benzo[k]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-035-00-5	205-916-5	207-06-9								
22	benzo[a]pyrene; benzo[def]chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-032-00-3	200-028-5	50-32-8								
23	indeno[123-cd]pyrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		205-893-2	193-39-5								
24	dibenz[a,h]anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-041-00-2	200-181-3	53-70-3								
25	benzo[ghi]perylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		205-883-8	191-24-2								
26	confirm TPH has NOT arisen from diesel or petrol				☒						
Total:									0.02 %		

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
- ND Not detected
- CLP: Note 1 Only the metal concentration has been used for classification

Classification of sample: TP03

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

Sample details

Sample name:	LoW Code:
TP03	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.1 m	

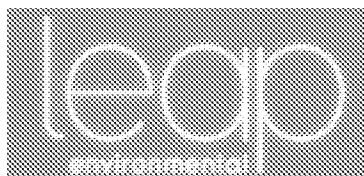
Hazard properties

None identified

Determinands

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

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	⊙ pH				6.3	pH		6.3	pH	6.3 pH		
2	✖ arsenic { arsenic trioxide }	033-063-00-0	215-481-4	1327-53-3	8.3	mg/kg	1.32	10.959	mg/kg	0.0011 %		
3	✖ cadmium { cadmium sulfide }	048-010-00-4	215-147-3	1305-23-5	1	<0.5	mg/kg	1.285	<0.643	mg/kg	<0.00005 %	<LOD
4	✖ chromium { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.8	mg/kg	1.923	<1.538	mg/kg	<0.000154 %	<LOD
5	✖ copper { dicopper oxide; copper (II) oxide }	029-002-00-X	215-270-7	1317-39-1		11.3	mg/kg	1.126	12.723	mg/kg	0.00127 %	
6	✖ lead { lead chromate }	082-004-00-2	231-845-0	7753-97-5	1	30.3	mg/kg	1.56	47.262	mg/kg	0.00303 %	
7	✖ mercury { mercury dichloride }	050-010-00-X	231-293-5	7487-94-7		<0.5	mg/kg	1.353	<0.677	mg/kg	<0.0000677 %	<LOD
8	✖ nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		12.2	mg/kg	1.579	19.27	mg/kg	0.00193 %	
9	✖ zinc { zinc chromate }	024-007-00-3	236-875-9	13530-65-9		49	mg/kg	2.774	135.933	mg/kg	0.0136 %	
10	✖ naphthalene	001-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
11	⊙ acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
12	⊙ acenaphthene		201-469-6	83-32-6		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
13	⊙ fluorene		201-695-5	96-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
14	⊙ phenanthrene		201-581-5	85-01-8		0.1	mg/kg		0.1	mg/kg	0.00001 %	
15	⊙ anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
16	⊙ fluoranthene		205-912-4	205-44-0		0.3	mg/kg		0.3	mg/kg	0.00003 %	
17	⊙ pyrene		204-927-3	129-00-0		0.3	mg/kg		0.3	mg/kg	0.00003 %	
18	✖ benzo[a]anthracene	001-033-00-0	200-280-6	56-56-3		0.2	mg/kg		0.2	mg/kg	0.00002 %	



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number								
19	chrysene				0.2 mg/kg		0.2 mg/kg	0.00002 %			
	601-048-00-0	205-923-4	218-01-9								
20	benzo[b]fluoranthene				0.2 mg/kg		0.2 mg/kg	0.00002 %			
	601-034-00-4	205-911-9	205-99-2								
21	benzo[k]fluoranthene				0.2 mg/kg		0.2 mg/kg	0.00002 %			
	601-035-00-5	205-916-5	207-06-9								
22	benzo[a]pyrene; benzo[def]chrysene				0.2 mg/kg		0.2 mg/kg	0.00002 %			
	601-032-00-3	200-028-5	50-32-8								
23 *	indeno[123-cd]pyrene				0.2 mg/kg		0.2 mg/kg	0.00002 %			
		205-893-2	193-39-5								
24	dibenz[a,h]anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-041-00-2	200-181-3	53-70-3								
25 *	benzo[ghi]perylene				0.1 mg/kg		0.1 mg/kg	0.00001 %			
		205-883-8	191-24-2								
26 *	confirm TPH has NOT arisen from diesel or petrol				☒						
Total:									0.0214 %		

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
- ND Not detected
- CLP: Note 1 Only the metal concentration has been used for classification

Classification of sample: TP05

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

Sample details

Sample name: TP05 LoW Code: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.2 m Chapter: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Entry:

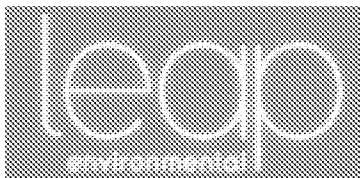
Hazard properties

None identified

Determinands

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

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	⊗ pH				6.6	pH		6.6	pH	6.6 pH		
2	⊗ arsenic { arsenic trioxide }	033-063-00-0	215-481-4	1327-53-3	9.5	mg/kg	1.32	12.543	mg/kg	0.00125 %		
3	⊗ cadmium { cadmium sulfide }	048-010-00-4	215-147-3	1305-23-5	1	<0.5	mg/kg	1.285	<0.643	mg/kg	<0.00005 %	<LOD
4	⊗ chromium { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.8	mg/kg	1.923	<1.538	mg/kg	<0.000154 %	<LOD
5	⊗ copper { dicopper oxide; copper (II) oxide }	029-002-00-X	215-270-7	1317-39-1		11.7	mg/kg	1.126	13.173	mg/kg	0.00132 %	
6	⊗ lead { lead chromate }	082-004-00-2	231-845-0	7753-97-5	1	30.6	mg/kg	1.56	47.73	mg/kg	0.00306 %	
7	⊗ mercury { mercury dichloride }	050-010-00-X	231-293-5	7487-94-7		<0.5	mg/kg	1.353	<0.677	mg/kg	<0.0000677 %	<LOD
8	⊗ nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		14.7	mg/kg	1.579	23.219	mg/kg	0.00232 %	
9	⊗ zinc { zinc chromate }	024-007-00-3	236-875-9	13530-65-9		49.5	mg/kg	2.774	137.32	mg/kg	0.0137 %	
10	⊗ naphthalene	001-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
11	⊗ acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
12	⊗ acenaphthene		201-469-6	83-32-6		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
13	⊗ fluorene		201-695-5	96-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
14	⊗ phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
15	⊗ anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
16	⊗ fluoranthene		205-912-4	206-44-0		0.1	mg/kg		0.1	mg/kg	0.00001 %	
17	⊗ pyrene		204-927-3	129-00-0		0.1	mg/kg		0.1	mg/kg	0.00001 %	
18	⊗ benzo[a]anthracene	001-033-00-8	200-280-8	56-56-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number								
19	chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-048-00-0	205-923-4	218-01-9								
20	benzo[b]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-034-00-4	205-911-9	205-99-2								
21	benzo[k]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-035-00-5	205-916-5	207-06-9								
22	benzo[a]pyrene; benzo[def]chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-032-00-3	200-028-5	50-32-8								
23	indeno[123-cd]pyrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		205-893-2	193-39-5								
24	dibenz[a,h]anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-041-00-2	200-181-3	53-70-3								
25	benzo[ghi]perylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		205-883-8	191-24-2								
26	confirm TPH has NOT arisen from diesel or petrol				☑						
Total:									0.0221 %		

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
- ND Not detected
- CLP: Note 1 Only the metal concentration has been used for classification

Classification of sample: TP07

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

Sample details

Sample name:	LoW Code:
TP07	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.35 m	

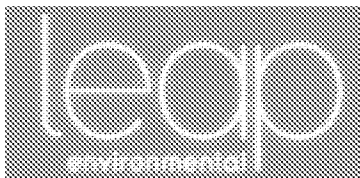
Hazard properties

None identified

Determinands

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

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	⊗ pH				7.2	pH		7.2	pH	7.2 pH		
2	⊗ arsenic { arsenic trioxide }				10.2	mg/kg	1.32	13.467	mg/kg	0.00135 %		
3	⊗ cadmium { cadmium sulfide }			1	<0.5	mg/kg	1.285	<0.643	mg/kg	<0.00005 %		<LOD
4	⊗ chromium { chromium(VI) oxide }				<0.8	mg/kg	1.923	<1.538	mg/kg	<0.000154 %		<LOD
5	⊗ copper { dicopper oxide; copper (II) oxide }				9.7	mg/kg	1.126	10.921	mg/kg	0.00109 %		
6	⊗ lead { lead chromate }			1	13.7	mg/kg	1.56	21.369	mg/kg	0.00137 %		
7	⊗ mercury { mercury dichloride }				<0.5	mg/kg	1.353	<0.677	mg/kg	<0.0000677 %		<LOD
8	⊗ nickel { nickel dihydroxide }				16.3	mg/kg	1.579	25.746	mg/kg	0.00257 %		
9	⊗ zinc { zinc chromate }				41.2	mg/kg	2.774	114.295	mg/kg	0.0114 %		
10	⊗ naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
11	⊗ acenaphthylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
12	⊗ acenaphthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
13	⊗ fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
14	⊗ phenanthrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
15	⊗ anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
16	⊗ fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
17	⊗ pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
18	⊗ benzo[a]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD



#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
19	chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-048-00-0	205-923-4	218-01-9									
20	benzo[b]fluoranthene				0.1	mg/kg		0.1	mg/kg	0.00001 %		
	601-034-00-4	205-911-9	205-99-2									
21	benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-035-00-5	205-916-5	207-06-9									
22	benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-032-00-3	200-028-5	50-32-8									
23	indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		205-893-2	193-39-5									
24	dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-041-00-2	200-181-3	53-70-3									
25	benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		205-883-8	191-24-2									
26	confirm TPH has NOT arisen from diesel or petrol											
Total:										0.0182 %		

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
- ND Not detected
- CLP: Note 1 Only the metal concentration has been used for classification

Classification of sample: WS07

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

Sample details

Sample name:	WS07	LoW Code:	
Sample Depth:	0.4 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
		Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

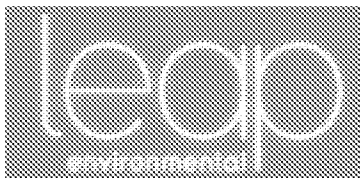
Hazard properties

None identified

Determinands

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

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	☐ pH				9.1	pH		9.1	pH	9.1 pH		
2	☐ arsenic { arsenic trioxide }				8.7	mg/kg	1.32	11.487	mg/kg	0.00115 %		
	033-003-00-0	215-481-4	1327-53-3									
3	☐ cadmium { cadmium sulfide }			1	<0.5	mg/kg	1.285	<0.643	mg/kg	<0.00005 %		<LOD
	048-010-00-4	215-147-3	1305-23-5									
4	☐ chromium { chromium(VI) oxide }				<0.8	mg/kg	1.923	<1.538	mg/kg	<0.000154 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	☐ copper { dicopper oxide; copper (II) oxide }				6.5	mg/kg	1.126	7.318	mg/kg	0.000732 %		
	029-002-00-X	215-270-7	1317-39-1									
6	☐ lead { lead chromate }			1	17.1	mg/kg	1.56	26.673	mg/kg	0.00171 %		
	082-004-00-2	231-845-0	7753-97-5									
7	☐ mercury { mercury dichloride }				<0.5	mg/kg	1.353	<0.677	mg/kg	<0.0000677 %		<LOD
	050-010-00-X	231-293-5	7487-94-7									
8	☐ nickel { nickel dihydroxide }				17.1	mg/kg	1.579	27.009	mg/kg	0.0027 %		
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
9	☐ zinc { zinc chromate }				48.7	mg/kg	2.774	135.101	mg/kg	0.0135 %		
	024-007-00-3	236-875-9	13530-65-9									
10	☐ naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	001-052-00-2	202-049-5	91-20-3									
11	☐ acenaphthylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		205-917-1	208-96-8									
12	☐ acenaphthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		201-469-6	83-32-6									
13	☐ fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		201-695-5	96-73-7									
14	☐ phenanthrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		201-581-5	85-01-8									
15	☐ anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		204-371-1	120-12-7									
16	☐ fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		205-912-4	205-44-0									
17	☐ pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		204-927-3	129-00-0									
18	☐ benzo[a]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	001-033-00-0	200-280-6	56-56-3									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number								
19	chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-048-00-0	205-923-4	218-01-9								
20	benzo[b]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-034-00-4	205-911-9	205-99-2								
21	benzo[k]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-035-00-5	205-916-5	207-06-9								
22	benzo[a]pyrene; benzo[def]chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-032-00-3	200-028-5	50-32-8								
23	indeno[123-cd]pyrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		205-893-2	193-39-5								
24	dibenz[a,h]anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-041-00-2	200-181-3	53-70-3								
25	benzo[ghi]perylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		205-883-8	191-24-2								
26	confirm TPH has NOT arisen from diesel or petrol										
Total:									0.0202 %		

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
- ND Not detected
- CLP: Note 1 Only the metal concentration has been used for classification

Classification of sample: WS03

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

Sample details

Sample name:	WS03	LoW Code:	
Sample Depth:	0.1 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
		Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

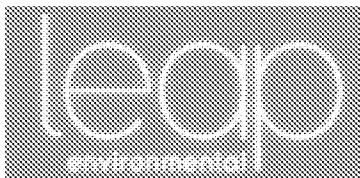
Hazard properties

None identified

Determinands

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

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	⊙ pH				8.5	pH		8.5	pH	8.5 pH		
2	⊙ arsenic { arsenic trioxide }	033-063-00-0	215-481-4	1327-53-3	11.1	mg/kg	1.32	14.656	mg/kg	0.00147 %		
3	⊙ cadmium { cadmium sulfide }	048-010-00-4	215-147-3	1305-23-5	1	<0.5	mg/kg	1.285	<0.643	mg/kg	<0.00005 %	<LOD
4	⊙ chromium { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.8	mg/kg	1.923	<1.538	mg/kg	<0.000154 %	<LOD
5	⊙ copper { dicopper oxide; copper (II) oxide }	029-002-00-X	215-270-7	1317-39-1		20.8	mg/kg	1.126	23.418	mg/kg	0.00234 %	
6	⊙ lead { lead chromate }	082-004-00-2	231-845-0	7753-97-5	1	30.6	mg/kg	1.56	47.73	mg/kg	0.00306 %	
7	⊙ mercury { mercury dichloride }	050-010-00-X	231-293-5	7487-94-7		<0.5	mg/kg	1.353	<0.677	mg/kg	<0.0000677 %	<LOD
8	⊙ nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		17.4	mg/kg	1.579	27.483	mg/kg	0.00275 %	
9	⊙ zinc { zinc chromate }	024-007-00-3	236-875-9	13530-65-9		151	mg/kg	2.774	418.896	mg/kg	0.0419 %	
10	⊙ naphthalene	001-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
11	⊙ acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
12	⊙ acenaphthene		201-469-6	83-32-6		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
13	⊙ fluorene		201-695-5	96-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
14	⊙ phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
15	⊙ anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
16	⊙ fluoranthene		205-912-4	205-44-0		0.2	mg/kg		0.2	mg/kg	0.00002 %	
17	⊙ pyrene		204-927-3	129-00-0		0.2	mg/kg		0.2	mg/kg	0.00002 %	
18	⊙ benzo[a]anthracene	001-033-00-0	200-280-6	56-56-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number								
19	chrysene				0.1 mg/kg		0.1 mg/kg	0.00001 %			
	601-048-00-0	205-923-4	218-01-9								
20	benzo[b]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-034-00-4	205-911-9	205-99-2								
21	benzo[k]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-035-00-5	205-916-5	207-06-9								
22	benzo[a]pyrene; benzo[def]chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-032-00-3	200-028-5	50-32-8								
23	indeno[123-cd]pyrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		205-893-2	193-39-5								
24	dibenz[a,h]anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-041-00-2	200-181-3	53-70-3								
25	benzo[ghi]perylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		205-883-8	191-24-2								
26	confirm TPH has NOT arisen from diesel or petrol				☑						
Total:									0.052 %		

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
- ND Not detected
- CLP: Note 1 Only the metal concentration has been used for classification

Classification of sample: WS05

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

Sample details

Sample name:	WS05	LoW Code:	
Sample Depth:	0.4 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
		Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

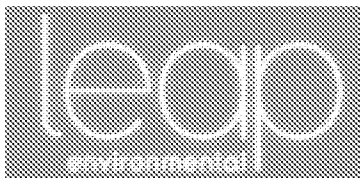
Hazard properties

None identified

Determinands

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

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	⊙ pH				7.8	pH		7.8	pH	7.8 pH		
2	⊙ arsenic { arsenic trioxide }	033-063-00-0	215-481-4	1327-53-3	10.7	mg/kg	1.32	14.127	mg/kg	0.00141 %		
3	⊙ cadmium { cadmium sulfide }	048-010-00-4	215-147-3	1305-23-5	1	<0.5	mg/kg	1.285	<0.643	mg/kg	<0.00005 %	<LOD
4	⊙ chromium { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.8	mg/kg	1.923	<1.538	mg/kg	<0.000154 %	<LOD
5	⊙ copper { dicopper oxide; copper (II) oxide }	029-002-00-X	215-270-7	1317-39-1		5.9	mg/kg	1.126	6.643	mg/kg	0.000664 %	
6	⊙ lead { lead chromate }	082-004-00-2	231-845-0	7753-97-5	1	14.3	mg/kg	1.56	22.305	mg/kg	0.00143 %	
7	⊙ mercury { mercury dichloride }	050-010-00-X	231-293-5	7487-94-7		<0.5	mg/kg	1.353	<0.677	mg/kg	<0.0000677 %	<LOD
8	⊙ nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		15.1	mg/kg	1.579	23.85	mg/kg	0.00239 %	
9	⊙ zinc { zinc chromate }	024-007-00-3	236-875-9	13530-65-9		48.7	mg/kg	2.774	135.101	mg/kg	0.0135 %	
10	⊙ naphthalene	001-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
11	⊙ acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
12	⊙ acenaphthene		201-469-6	83-32-6		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
13	⊙ fluorene		201-695-5	96-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
14	⊙ phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
15	⊙ anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
16	⊙ fluoranthene		205-912-4	205-44-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
17	⊙ pyrene		204-927-3	129-00-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
18	⊙ benzo[a]anthracene	001-033-00-8	200-280-8	56-56-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number								
19	chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-048-00-0	205-923-4	218-01-9								
20	benzo[b]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-034-00-4	205-911-9	205-99-2								
21	benzo[k]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-035-00-5	205-916-5	207-06-9								
22	benzo[a]pyrene; benzo[def]chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-032-00-3	200-028-5	50-32-8								
23	indeno[123-cd]pyrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		205-893-2	193-39-5								
24	dibenz[a,h]anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-041-00-2	200-181-3	53-70-3								
25	benzo[ghi]perylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		205-883-8	191-24-2								
26	confirm TPH has NOT arisen from diesel or petrol				☒						
Total:									0.0198 %		

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
- ND Not detected
- CLP: Note 1 Only the metal concentration has been used for classification

Classification of sample: WS01

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

Sample details

Sample name:	WS01	LoW Code:	
Sample Depth:	0.1 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
		Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

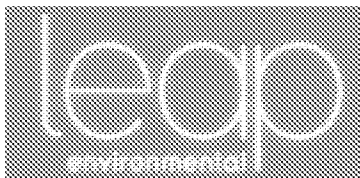
Hazard properties

None identified

Determinands

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

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	☐ pH				8.4	pH		8.4	pH	8.4 pH		
2	☒ arsenic { arsenic trioxide }	033-063-00-0	215-481-4	1327-53-3	11.1	mg/kg	1.32	14.656	mg/kg	0.00147 %		
3	☒ cadmium { cadmium sulfide }	048-010-00-4	215-147-3	1305-23-5	1	<0.5	mg/kg	1.285	<0.643	mg/kg	<0.00005 %	<LOD
4	☒ chromium { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.8	mg/kg	1.923	<1.538	mg/kg	<0.000154 %	<LOD
5	☒ copper { dicopper oxide; copper (II) oxide }	029-002-00-X	215-270-7	1317-39-1		8.8	mg/kg	1.126	9.908	mg/kg	0.000991 %	
6	☒ lead { lead chromate }	082-004-00-2	231-845-0	7753-97-5	1	30.4	mg/kg	1.56	47.418	mg/kg	0.00304 %	
7	☒ mercury { mercury dichloride }	050-010-00-X	231-293-5	7487-94-7		<0.5	mg/kg	1.353	<0.677	mg/kg	<0.0000677 %	<LOD
8	☒ nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		18.2	mg/kg	1.579	28.747	mg/kg	0.00287 %	
9	☒ zinc { zinc chromate }	024-007-00-3	236-875-9	13530-65-9		60.2	mg/kg	2.774	167.004	mg/kg	0.0167 %	
10	☒ naphthalene	001-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
11	☒ acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
12	☒ acenaphthene		201-469-6	83-32-6		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
13	☒ fluorene		201-695-5	96-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
14	☒ phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
15	☒ anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
16	☒ fluoranthene		205-912-4	206-44-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
17	☒ pyrene		204-927-3	129-00-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD
18	☒ benzo[a]anthracene	001-033-00-0	200-280-8	56-56-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %	<LOD



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number								
19	chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-048-00-0	205-923-4	218-01-9								
20	benzo[b]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-034-00-4	205-911-9	205-99-2								
21	benzo[k]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-035-00-5	205-916-5	207-06-9								
22	benzo[a]pyrene; benzo[def]chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-032-00-3	200-028-5	50-32-8								
23 *	indeno[123-cd]pyrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		205-893-2	193-39-5								
24	dibenz[a,h]anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-041-00-2	200-181-3	53-70-3								
25 *	benzo[ghi]perylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		205-883-8	191-24-2								
26 *	confirm TPH has NOT arisen from diesel or petrol				☒						
Total:									0.0255 %		

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
- ND Not detected
- CLP: Note 1 Only the metal concentration has been used for classification

Appendix A: Classifier defined and non CLP determinands

* pH (CAS Number: PH)

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

* 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

* confirm TPH has NOT arisen from diesel or petrol

Description/Comments: Chapter 3, section 4b requires a positive confirmation for benzo[a]pyrene to be used as a marker in evaluating Carc. 1B; H350 (HP 7) and Muta. 1B; H340 (HP 11)
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: None.

Appendix B: Rationale for selection of metal species

arsenic {arsenic trioxide}

Worst case species based on risk phrases

cadmium {cadmium sulfide}

Worst case species based on risk phrases

chromium {chromium(VI) oxide}

Worst case species based on risk phrases

copper {dicopper oxide; copper (I) oxide}

Most likely common species

lead {lead chromate}

Worst case species based on risk phrases

mercury {mercury dichloride}

Worst case species based on risk phrases

nickel {nickel dihydroxide}

Worst case species based on risk phrases

zinc {zinc chromate}

Worst case species based on risk phrases

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.1, May 2018
HazWasteOnline Classification Engine Version: 2021.246.4869.9247 (05 Sep 2021)
HazWasteOnline Database: 2021.246.4869.9247 (05 Sep 2021)

This classification utilises the following guidance and legislation:

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

CLP Regulation - Regulation 1272/2008/EC of 16 December 2008

1st ATP - Regulation 790/2009/EC of 10 August 2009

2nd ATP - Regulation 286/2011/EC of 10 March 2011

3rd ATP - Regulation 618/2012/EU of 10 July 2012

4th ATP - Regulation 487/2013/EU of 8 May 2013

Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013

5th ATP - Regulation 944/2013/EU of 2 October 2013

6th ATP - Regulation 605/2014/EU of 5 June 2014

WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014

Revised List of Waste 2014 - Decision 2014/955/EU of 18 December 2014

7th ATP - Regulation 2015/1221/EU of 24 July 2015

8th ATP - Regulation (EU) 2016/918 of 19 May 2016

9th ATP - Regulation (EU) 2016/1179 of 19 July 2016

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

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

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

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

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

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

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

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

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

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

2020 No. 1540 of 16th December 2020

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