BGS Borehole or well Record

BGS Reference	**SP50NW51 — OXFORD RELIEF ROAD SCHEME D56**
British National Grid	**450820, 205730**
Depth:	**18.3m.**

Continued

2/2 SP 50 NW/51 5082.0573

WM. COULSON LTD.,

BOREHOLE LOG

Work for Oxford City Council Location Scheme D.
B.H. No. B56 Type of boring Shell and Auger
Date(s) 19 & 20-11-69 Dia. of boring 0·20 m
Ground Level Lining tubes to 6·40 m
Scale 50 : 1 C185

Description of Strata	Reduced Level	Legend	Thickness	Depth	SAMPLES Type	SAMPLES Depth	NOTES
					B	10·06 – 10·67	
					(95)	10·97 – 11·43	
OXFORD CLAY Stiff becoming hard bluish grey calcareous, shaly clay with selenite, iron pyrites and fossils.					B	11·59 – 12·20	
					(98)	12·50 – 12·96	
			12·29		B	13·11 – 13·72	
					(93)	14·17 – 14·63	
					B	15·24	
					(97)	15·69 – 16·15	
					B	16·46 – 17·07	
					(89)	17·22 – 17·68	
					B	18·30	
				18·30			
Borehole Completed.							Water level:– 1st.day. 1st.encountered 2·74m. p.m. 2·13m. 2nd.day. Cut off by casing.

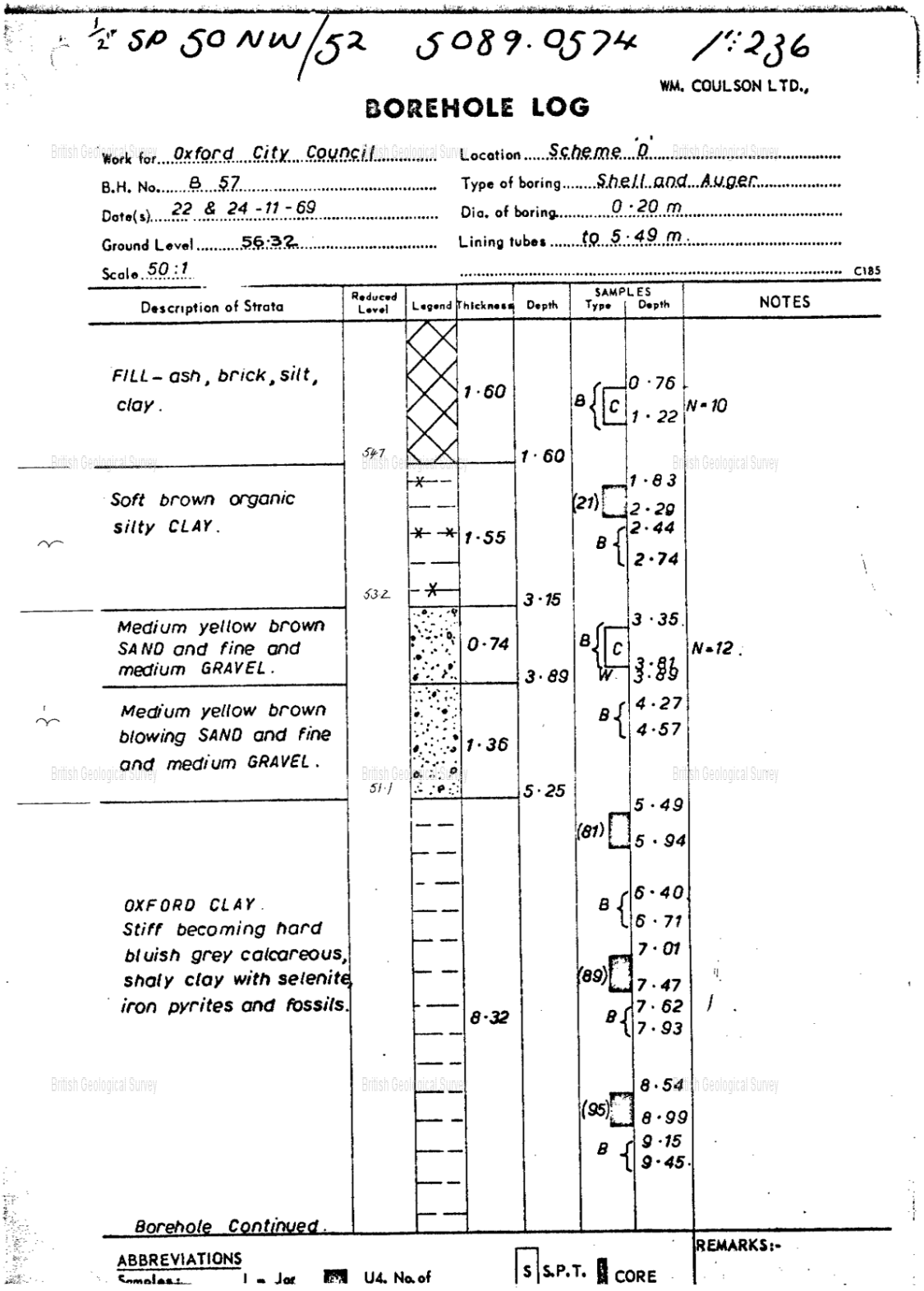
ABBREVIATIONS U4 No of S S.P.T. CORE

REMARKS:- S.W.L. 2·93 m.

BGS Borehole or well Record

BGS Reference	**SP50NW52 — OXFORD RELIEF ROAD SCHEME D57**
British National Grid	**450890, 205740**
Depth:	**13.57m.**

Page 1



½" SP 50 NW/52 5089.0574 1:236

WM. COULSON LTD.,

BOREHOLE LOG

Work for Oxford City Council — Location Scheme 'D'

B.H. No. B 57 — Type of boring Shell and Auger

Date(s) 22 & 24-11-69 — Dia. of boring 0·20 m

Ground Level 56·32 — Lining tubes to 5·49 m.

Scale 50:1 — C185

Description of Strata	Reduced Level	Legend	Thickness	Depth	SAMPLES Type	SAMPLES Depth	NOTES
FILL – ash, brick, silt, clay.			1·60	1·60	B C	0·76 1·22	N=10
	54.7						
Soft brown organic silty CLAY.			1·55		(21) B	1·83 2·29 2·44 2·74	
	53.2			3·15			
Medium yellow brown SAND and fine and medium GRAVEL.			0·74		B C W	3·35 3·81 3·89	N=12
				3·89			
Medium yellow brown blowing SAND and fine and medium GRAVEL.	51.1		1·36	5·25	B	4·27 4·57	
OXFORD CLAY. Stiff becoming hard bluish grey calcareous, shaly clay with selenite, iron pyrites and fossils.			8·32		(81) B (89) B	5·49 5·94 6·40 6·71 7·01 7·47 7·62 7·93	
					(95) B	8·54 8·99 9·15 9·45	
Borehole Continued.							

REMARKS:-

ABBREVIATIONS Samples:- J = Jar U4. No. of S S.P.T. CORE

BGS Borehole or well Record

BGS Reference	**SP50NW52 — OXFORD RELIEF ROAD SCHEME D57**
British National Grid	**450890, 205740**
Depth:	**13.57m.**

Continued

2/2

SP 50 NW/52 5089. 0574.

WM. COULSON LTD.,

BOREHOLE LOG

Work for Oxford City Council Location Scheme 'D'

B.H. No. B 57 Type of boring Shell and Auger

Date(s) 22 & 24 - 11 - 69 Dia. of boring 0·20 m

Ground Level ..... Lining tubes to 5·49 m.

Scale 50 : 1 C185

Description of Strata	Reduced Level	Legend	Thickness	Depth	SAMPLES Type	SAMPLES Depth	NOTES
					(103)	10·06	
						10·52	
OXFORD CLAY.					B	10·67	
Stiff becoming hard						10·98	
bluish grey calcareous,							
shaly clay with selenite,			8·32			11·59	
iron pyrites and fossils.					(105)	12·04	
					B	12·50	
						12·80	
						13·11	
				13·57	(110)	13·56	
Borehole Completed.							Water level :- 1st. day. 1st. encountered 3·84 m. p.m. nil. 2nd. day. nil.

ABBREVIATIONS J - Jar U4. No. of S S.P.T. CORE

REMARKS:- S.W.L. 1·94 m.

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email: consulting@merebrook.co.uk

Plant:

Co-ords: -

Trialpit No
MTP101
Sheet 1 of 1

Project Name
Oxpens Lane

Project No.
18605

Dimensions (m): -

Date
15/04/2014

Location: Oxford

Depth (m)
3.00

Scale
1:25

Client: Lambert Smith Hampton

Logged By
MSG

Samples & In Situ Testing			Depth in metres (thickness)	Legend	Stratum Description
Depth (m)	Type	Results			
0.20	D,J		(0.40)		Grass over dark brown soft clayey TOPSOIL.
			0.40		
0.50	D,J		(0.60)		Very soft grey mottled orange CLAY.
1.00	D,J		1.00		Wet yellowish brown SAND AND GRAVEL. Sands were coarse to fine. Gravels comprised coarse to fine, sub angular to rounded.
			(2.00)		
			3.00		Trialpit Complete at 3.00 m

1
2
3
4

Remarks:

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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Plant:

Co-ords: -

Trialpit No
MTP102
Sheet 1 of 1

Project Name
Oxpens Lane

Project No.
18605

Dimensions (m): -

Date
15/04/2014

Location: Oxford

Depth (m)
3.00

Scale
1:25

Client: Lambert Smith Hampton

Logged By
MSG

Samples & In Situ Testing			Depth in metres (thickness)	Legend	Stratum Description
Depth (m)	Type	Results			
0.20	D,J		(0.40)		Grass over dark brown soft clayey TOPSOIL.
			0.40		
0.50	D,J				Very soft grey mottled orange CLAY.
			(0.60)		
1.00	D,J		1.00		Wet yellowish brown SAND AND GRAVEL. Sands were coarse to fine. Gravels comprised coarse to fine, sub angular to rounded.
			(2.00)		
			3.00		Trialpit Complete at 3.00 m

1
2
3
4

Remarks:

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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Equipment and Methods

Window Sample No
MWS101
Sheet 1 of 1

Project Name	**Project No.**	**Co-ords**	**Hole Type**
Oxpens Lane	18605	-	WLS
Location: Oxford		**Level** -	**Scale** 1:25
Client: Lambert Smith Hampton		**Dates:** 16/04/2014	**Logged By** MSG

Well	Water Strike	Samples & In Situ Testing: Depth (m)	Type	Results	Depth in metres (thickness)	Legend	Stratum Description
		0.20	D,J		(0.50)		Grass over firm dark brown sitly sandy MADE GROUND with gravels. Gravels comprised coarse to fine, sub angular to angular bricks and glass.
		0.50	D,J		0.50		Very soft grey mottled orange CLAY.
		1.00	CPT	N=9	(0.50) 1.00		Yellowish brown clayey SAND AND GRAVEL. Comprised course sand and coarse to fine, subangular to angular flint gravels.
		1.00	D,J	(0,1,1,2,2,4)	(1.00)		
					2.00		Yellowish brown sandy GRAVEL.
		3.00	CPT	N=37 (14,10,11,10,8,8)	(3.00)		
		4.00	CPT	N=14 (11,4,2,3,4,5)			
			Type	Results			End of Window Sample at 5.00 m

1 2 3 4

Remarks:

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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Equipment and Methods

Window Sample No
MWS102
Sheet 1 of 1

Project Name	**Project No.**	**Co-ords**	**Hole Type**
Oxpens Lane	18605	-	WLS
Location: Oxford		**Level** -	**Scale** 1:25
Client: Lambert Smith Hampton		**Dates:** 16/04/2014	**Logged By** MSG

Well	Water Strike	Samples & In Situ Testing: Depth (m)	Type	Results	Depth in metres (thickness)	Legend	Stratum Description
		0.60	D,J		(1.60)		Grass over firm dark brown sitly sandy MADE GROUND with gravels. Gravels comprised coarse to fine, sub angular to angular bricks and glass.
		1.60	D,J		1.60 (0.40)		Reddish brown coarse SAND.
		2.00 2.00	CPT D,J	N=8 (2,2,2,2,2,2)	2.00 (0.60)		Black silty SAND
		2.60	D,J		2.60 (1.20)		Soft black mottled grey CLAY.
		4.00	CPT	N=29 (7,8,7,8,6,8)	3.80 4.00		Orange brown SAND AND GRAVEL. End of Window Sample at 4.00 m
			Type	Results			

1 2 3 4

Remarks:

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

Cable Percussive Borehole Log

Borehole No. BH 03

Project Location: Site adjacent to & including Oxford Ice Rink, Oxpens Rd, Oxford, OX1 1RX

Co-ords: 450673E - 205813N

Level: 58.00 mAOD

Dates: 20-10-2020

Project Number: 20.10.004a

Logged By: Ben Lee to BS 5930:2015

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Result				
		0.50	D					MADE GROUND Grey brown locally clayey gravelly SAND. Gravel is fine to coarse sub-angular red brick, granite and clinker
		1.00	D					
		1.20 - 2.00	B		1.20	56.80		
		1.20	SPT(C)	N=11 (6/3,3,2,3)				
		1.50	D					MADE GROUND Very soft and soft, dark brown and brown and locally black, sandy gravelly CLAY. Gravel is fine to coarse sub-angular concrete,
		2.00	D					
		2.50	D					
		2.50	SPT(C)	N=16 (7/4,4,4,4)	2.75	55.25		
	▼	3.00	D					ALLUVIUM Very Soft brown silty slightly gravelly CLAY. Gravel is fine to medium sub-angular flint and quartzite
		3.50	D					
		3.50	SPT(C)	N=22 (7/5,5,6,6)				
		4.00	D					
	▽	4.50 - 5.00	B		4.30	53.70		NORTHMOOR SAND AND GRAVEL MEMBER Medium dense light brown slightly sandy fine to coarse sub-angular to sub-rounded quartzite, siltstone and chalk GRAVEL
		4.50	SPT(C)	N=28 (7/6,6,8,8)				
		5.00	D					
		5.50	D					
		5.50	SPT(C)	N=26 (8/6,6,7,7)				
		6.00	D					
		6.50	D					
		6.50	SPT(C)	N=27 (9/6,6,8,7)				
		7.00	D					
		7.50	D					
		7.50 - 8.00	B		7.70	50.30		
		7.50	SPT(C)	N=24 (9/6,6,6,6)				
		8.00	D					OXFORD CLAY FORMATION Stiff and very stiff grey CLAY with extremely thinly bedded silt lenses
		8.50	D					
		8.50 - 8.95	U	Ublows= 90				
		9.00	D					*siltstone between 8.8m and 9.2m depth*
		9.50	D					
		9.50	SPT(C)	50 for 95mm (22/17,33 for 20mm)				

Borehole Diameter: Hand excavated to 1.2m depth; 150mm thereafter **Casing Depth:** 8.00m

Chiselling: 8.80m to 9.20m (0.5 hr) and 16.70m to 17.10m (1 hr)

Instrumentation: Bentonite backfill GL to 8m depth; backfilled with arising 8m to 25m depth.

Groundwater: Groundwater struck at 4.60m; rising to 3.14m after 20 minutes monitoring

Remarks: Co-ords and level extrapolated from client provided survey.

Cable Percussive Borehole Log

Borehole No. BH 03

Project Location: Site adjacent to & including Oxford Ice Rink, Oxpens Rd, Oxford, OX1 1RX

Co-ords: 450673E - 205813N

Level: 58.00 mAOD

Dates: 20-10-2020

Project Number: 20.10.004a

Logged By: Ben Lee to BS 5930:2015

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Result				
		10.00	D					OXFORD CLAY FORMATION Stiff and very stiff grey CLAY with extremely thinly bedded silt lenses
		10.50 - 10.95	U	Ublows= 100				
		11.00	D					
		12.00	D					
		12.50	SPT(C)	N=42 (16/9,10,11,12)				
		13.00	D					
		13.50 - 13.95	U	Ublows= 100				
		14.00	D					
		15.00	D					
		15.50 - 15.95	D					
		15.50	SPT(C)	N=40 (16/9,9,10,12)				
		16.00	D					
		16.50 - 16.70	U	Ublows= 100				
								siltstone between 16.7m and 17.1m depth
		17.00	D					
		18.00	D					
		18.50	D					
		18.50	SPT(C)	N=45 (16/10,11,12,12)				
		19.00	D					
		19.50 - 19.95	U	Ublows= 100				
		20.00	D					

Borehole Diameter: Hand excavated to 1.2m depth; 150mm thereafter **Casing Depth:** 8.00m

Chiselling: 8.80m to 9.20m (0.5 hr) and 16.70m to 17.10m (1 hr)

Instrumentation: Bentonite backfill GL to 8m depth; backfilled with arising 8m to 25m depth.

Groundwater: Groundwater struck at 4.60m; rising to 3.14m after 20 minutes monitoring

Remarks: Co-ords and level extrapolated from client provided survey.

Cable Percussive Borehole Log

Borehole No. BH 03

Project Location: Site adjacent to & including Oxford Ice Rink, Oxpens Rd, Oxford, OX1 1RX

Co-ords: 450673E - 205813N

Level: 58.00 mAOD

Dates: 20-10-2020

Project Number: 20.10.004a

Logged By: Ben Lee to BS 5930:2015

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Result				
								OXFORD CLAY FORMATION Stiff and very stiff grey CLAY with extremely thinly bedded silt lenses
		21.00	D					
		21.50	SPT(C)	N=50 (17/10,13,13,14)				
		22.00	D					
		22.50 - 22.95	U	Ublows= 100				
		23.00	D					
		24.00	D					
		24.50	D					
		24.50 - 24.95	D					
		24.50	SPT(C)	N=47 (17/10,12,12,13)	25.00	33.00		
		25.00	D					End of Borehole at 25.00m

21 22 23 24 25 26 27 28 29 30

Borehole Diameter: Hand excavated to 1.2m depth; 150mm thereafter **Casing Depth:** 8.00m

Chiselling: 8.80m to 9.20m (0.5 hr) and 16.70m to 17.10m (1 hr)

Instrumentation: Bentonite backfill GL to 8m depth; backfilled with arising 8m to 25m depth.

Groundwater: Groundwater struck at 4.60m; rising to 3.14m after 20 minutes monitoring

Remarks: Co-ords and level extrapolated from client provided survey.

Cable Percussive Borehole Log

Borehole No. BH 04

Project Location: Site adjacent to & including Oxford Ice Rink, Oxpens Rd, Oxford, OX1 1RX

Co-ords: 450759E - 205822N

Level: 57.28 mAOD

Dates: 19-10-2020

Project Number: 20.10.004a

Logged By: Ben Lee to BS 5930:2015

Well	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Result	Depth (m)	Level (m)	Legend	Stratum Description
					0.10	57.18		FILL Asphalt
	▼	0.50 - 0.60	D		0.40	56.88		FILL Concrete
		1.00 - 1.10	D					MADE GROUND Loose dark brown clayey sandy fine to coarse sub-angular siltstone, sandstone, concrete and less commonly clinker GRAVEL with occasional re-bar and pockets of dark brown slightly organic clay
		1.20 - 1.60	D					
	▼	1.20	SPT(C)	N=4 (4/1,1,1,1)				
		1.50 - 1.60	D		1.70	55.58		ALLUVIUM Very soft and soft brown mottled black and grey slightly sandy slightly gravelly CLAY. Gravel is fine to medium sub-angular flint, quartzite, siltstone, sandstone and chalk
		2.00 - 2.45	D					
		2.00	SPT(C)	N=6 (4/1,1,2,2)				
		2.50 - 2.60	D					
	▽	3.00 - 3.45	D		3.10	54.18		NORTHMOOR SAND AND GRAVEL MEMBER Medium dense light brown sandy fine to coarse sub-angular to sub-rounded quartzite, siltstone and chalk GRAVEL
		3.00 - 3.50	B					
		3.00	SPT(C)	N=16 (5/3,4,4,5)				
		3.50 - 3.60	D					
		4.00 - 4.45	D					
		4.00	SPT(C)	N=16 (6/3,4,4,5)				
		4.50 - 4.60	D					
		5.00 - 5.45	D					
		5.00	SPT(C)	N=18 (7/4,4,5,5)				
		5.50 - 5.60	D					
		6.00 - 6.45	D					
		6.00	SPT(C)	N=20 (7/4,5,5,6)				
		6.50 - 6.60	D					
		7.00 - 7.45	D					
		7.00	SPT(C)	N=25 (9/5,6,7,7)				
		7.50 - 7.60	D		7.50	49.78		OXFORD CLAY FORMATION Firm, becoming stiff below 9m depth, grey CLAY with extremely thinly bedded silt lenses
		8.00 - 8.45	D					
		8.00	SPT(S)	N=23 (9/5,5,6,7)				
		8.50 - 8.60	D					
		9.00 - 9.50	U	Ublows= 65				
		9.50 - 9.60	D					
		10.00 - 10.45	D					

Borehole Diameter: Hand excavated to 1.2m depth; 150mm thereafter **Casing Depth:** 9.00m

Chiselling: 14.00m to 14.50m (1 hr) and 17.10m to 17.50m (1 hr)

Instrumentation: Finished with 300mm of asphalt over 200mm concrete at surface. Bentonite backfill 0.50 to 8.5m depth; backfilled with arising 8.5m to 25m depth.

Groundwater: Groundwater struck at 0.40m; standing at 0.40m after 20 minutes monitoring. Inflows at 3.00m; standing at 1.50m after 20 minutes monitoring

Remarks: Co-ords and level extrapolated from client provided survey.

Cable Percussive Borehole Log

Borehole No. BH 04

Project Location: Site adjacent to & including Oxford Ice Rink, Oxpens Rd, Oxford, OX1 1RX

Co-ords: 450759E - 205822N

Level: 57.28 mAOD

Dates: 19-10-2020

Project Number: 20.10.004a

Logged By: Ben Lee to BS 5930:2015

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Result				
		10.00	SPT(S)	N=29 (11/6,7,8,8)				OXFORD CLAY FORMATION Firm, becoming stiff below 9m depth, grey CLAY with extremely thinly bedded silt lenses
		10.50 - 10.60	D					
		11.50 - 11.95	U	Ublows= 82				
		12.00 - 12.10	D					
		13.00 - 13.45	D					
		13.00	SPT(S)	N=35 (11/8,8,9,10)				
		14.00 - 14.10	D					*siltstone between 14m and 14.5m depth*
		14.50 - 14.95	U	Ublows= 90				
		15.50 - 15.60	D					
		16.00 - 16.45	D		16.00	41.28		OXFORD CLAY FORMATION Stiff grey CLAY with extremely thinly bedded silt lenses
		16.00	SPT(S)	N=38 (13/8,9,10,11)				
		17.00 - 17.10	D					*siltstone between 17.1m and 17.5m depth*
		18.50 - 18.60	D					
		19.00 - 19.45	D					
		19.00	SPT(S)	N=49 (16/10,11,13,15)				
		20.00 - 20.10	D					

Borehole Diameter: Hand excavated to 1.2m depth; 150mm thereafter **Casing Depth:** 9.00m

Chiselling: 14.00m to 14.50m (1 hr) and 17.10m to 17.50m (1 hr)

Instrumentation: Finished with 300mm of asphalt over 200mm concrete at surface. Bentonite backfill 0.50 to 8.5m depth; backfilled with arising 8.5m to 25m depth.

Groundwater: Groundwater struck at 0.40m; standing at 0.40m after 20 minutes monitoring. Inflows at 3.00m; standing at 1.50m after 20 minutes monitoring

Remarks: Co-ords and level extrapolated from client provided survey.

Cable Percussive Borehole Log

Borehole No. BH 04

Project Location: Site adjacent to & including Oxford Ice Rink, Oxpens Rd, Oxford, OX1 1RX

Co-ords: 450759E - 205822N

Level: 57.28 mAOD

Dates: 19-10-2020

Project Number: 20.10.004a

Logged By: Ben Lee to BS 5930:2015

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Result				
		20.50 - 20.90	U	Ublows= 100				OXFORD CLAY FORMATION Stiff grey CLAY with extremely thinly bedded silt lenses
		21.50 - 21.60	D					
		22.00 - 22.38 22.00	D SPT(S)	50 for 225mm (18/12,14,16,8 for 0mm)	22.00	35.28		OXFORD CLAY FORMATION Hard grey CLAY with extremely thinly bedded silt lenses
		23.00 - 23.10	D					
		23.50 - 23.70	U	Ublows= 100				
		24.50 - 24.60	D					
		25.00 - 25.35 25.00	D SPT(S)	52 for 200mm (21/15,19,18 for 50mm)	25.00	32.28		End of Borehole at 25.00m

21 22 23 24 25 26 27 28 29 30

Borehole Diameter: Hand excavated to 1.2m depth; 150mm thereafter **Casing Depth:** 9.00m

Chiselling: 14.00m to 14.50m (1 hr) and 17.10m to 17.50m (1 hr)

Instrumentation: Finished with 300mm of asphalt over 200mm concrete at surface. Bentonite backfill 0.50 to 8.5m depth; backfilled with arising 8.5m to 25m depth.

Groundwater: Groundwater struck at 0.40m; standing at 0.40m after 20 minutes monitoring. Inflows at 3.00m; standing at 1.50m after 20 minutes monitoring

Remarks: Co-ords and level extrapolated from client provided survey.

Cable Percussive Borehole Log

Borehole No. BH 05

Project Location: Site adjacent to & including Oxford Ice Rink, Oxpens Rd, Oxford, OX1 1RX

Co-ords: 450795E - 205714N

Level: 57.00 mAOD

Dates: 15-10-2020 to 16-10-2020

Project Number: 20.10.004a

Logged By: Ben Lee

to BS 5930:2015

Well	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Result	Depth (m)	Level (m)	Legend	Stratum Description
					0.30	56.70		FILL Multicoloured medium sub-angular to angular red brick, flint, concrete, ceramic tile, and granite GRAVEL over a fabric membrane
		0.50	D					
					0.80	56.20		MADE GROUND Brown clayey sandy fine to coarse red brick and concrete GRAVEL with low red brick and concrete cobble content
	▼	1.00	D					
		1.20	SPT(S)	N=0 (1/0,0,0,0)				
		1.50	D					MADE GROUND Soft dark brown mottled grey silty sandy gravelly CLAY. Gravel is fine to medium sub-angular quartzite, limestone and less commonly coal ash and clinker
	▽	2.00	D					
		2.00	SPT(S)	N=3 (1/0,1,1,1)	2.20	54.80		
		2.50	D					ALLUVIUM Very soft grey brown mottled greenish grey and black slightly gravelly silty CLAY. Gravel is fine to coarse sub-angular flint
		3.00	D					
		3.00	SPT(S)	N=27 (6/5,7,7,8)	3.20	53.80		
		3.50	D					NORTHMOOR SAND AND GRAVEL MEMBER Medium dense light brown slightly clayey sandy fine to coarse sub-angular to sub-rounded quartzite and chalk GRAVEL
		4.00	D					
		4.00	SPT(C)	N=30 (10/6,7,8,9)				
		4.50	D					
		5.00	D					
		5.00	SPT(C)	N=25 (11/6,4,7,8)				
		5.50	D					
		6.00	D					
		6.00	SPT(C)	N=24 (8/6,7,5,6)				
		6.50	D					
		7.00	D		7.00	50.00		
		7.00	SPT(S)	N=21 (7/4,5,6,6)				OXFORD CLAY FORMATION Stiff grey CLAY with extremely thinly bedded silt lenses
		7.50	D					
		8.00	D					
		8.00	SPT(S)	N=22 (8/5,5,5,7)				
		8.50	D					
		9.00	D					
		9.00 - 9.45	U	Ublows= 80				
		9.50	D					
		10.00	D					

Borehole Diameter: Hand excavated to 1.2m depth; 150mm thereafter **Casing Depth:** 8.00m

Chiselling:

Instrumentation: Bentonite backfill GL to 8m depth; backfilled with arising 8m to 25m depth.

Groundwater: Groundwater struck at 2.00m; standing at 1.00m after 20 minutes monitoring

Remarks: Co-ords and level extrapolated from client provided survey.

Cable Percussive Borehole Log

Borehole No. BH 05

Project Location: Site adjacent to & including Oxford Ice Rink, Oxpens Rd, Oxford, OX1 1RX

Co-ords: 450795E - 205714N

Level: 57.00 mAOD

Dates: 15-10-2020 to 16-10-2020

Project Number: 20.10.004a

Logged By: Ben Lee

to BS 5930:2015

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Result					
		10.00	SPT(S)	N=29 (11/6,7,8,8)				OXFORD CLAY FORMATION Stiff grey CLAY with extremely thinly bedded silt lenses	
		10.50	D						
		11.00	D		11.00	46.00		OXFORD CLAY FORMATION Very stiff grey CLAY with extremely thinly bedded silt lenses	11
		11.50 - 11.95	U	Ublows= 90					
		12.00	D						12
		12.50	D						
		13.00	SPT(S)	N=34 (12/7,8,9,10)					13
		13.50	D						
		14.00	D						14
		14.50 - 14.95	U	Ublows= 110					
		15.00	D						15
		15.50	D						
		16.00	SPT(S)	N=44 (15/10,10,11,13)					16
		16.50	D						
		17.00	D						17
		17.50 - 17.95	U	Ublows= 115					
		18.00	D						18
		18.50	D						
		19.00	SPT(S)	N=46 (15/10,10,12,14)					19
		19.50	D						
		20.00	D						20

Borehole Diameter: Hand excavated to 1.2m depth; 150mm thereafter **Casing Depth:** 8.00m

Chiselling:

Instrumentation: Bentonite backfill GL to 8m depth; backfilled with arising 8m to 25m depth.

Groundwater: Groundwater struck at 2.00m; standing at 1.00m after 20 minutes monitoring

Remarks: Co-ords and level extrapolated from client provided survey.

Cable Percussive Borehole Log

Borehole No. BH 05

Project Location: Site adjacent to & including Oxford Ice Rink, Oxpens Rd, Oxford, OX1 1RX

Co-ords: 450795E - 205714N

Level: 57.00 mAOD

Dates: 15-10-2020 to 16-10-2020

Project Number: 20.10.004a

Logged By: Ben Lee

to BS 5930:2015

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Result				
		20.00 - 20.50	U	Ublows= 120				OXFORD CLAY FORMATION Very stiff grey CLAY with extremely thinly bedded silt lenses
		21.00	D					
		21.50	D					
		22.00	SPT(S)	50 for 265mm (16/10,12,15,13 for 40mm)	22.00	35.00		OXFORD CLAY FORMATION Hard grey CLAY with extremely thinly bedded silt lenses
		22.50	D					
		23.00	D					
		24.00	D					
		24.50	D					
		25.00	D		25.00	32.00		End of Borehole at 25.00m
		25.00	SPT(S)	50 for 195mm (24/15,18,17 for 45mm)				

21 22 23 24 25 26 27 28 29 30

Borehole Diameter: Hand excavated to 1.2m depth; 150mm thereafter **Casing Depth:** 8.00m

Chiselling:

Instrumentation: Bentonite backfill GL to 8m depth; backfilled with arising 8m to 25m depth.

Groundwater: Groundwater struck at 2.00m; standing at 1.00m after 20 minutes monitoring

Remarks: Co-ords and level extrapolated from client provided survey.

Cable Percussive Borehole Log

Borehole No. BH 06

Project Location: Site adjacent to & including Oxford Ice Rink, Oxpens Rd, Oxford, OX1 1RX

Co-ords: 450866E - 205709N

Level: 56.20 mAOD

Dates: 19-10-2020

Project Number: 20.10.004a

Logged By: Ben Lee to BS 5930:2015

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Result				
		0.00	D					TOPSOIL
		0.20	D		0.30	55.90		Grass over dark brown sandy slightly organic CLAY with rootlets
		0.70	D					ALLUVIUM Soft grey brown silty CLAY
		1.30	D		1.25	54.95		
	▼	1.30	SPT					ALLUVIUM Very soft grey brown mottled black organic silty CLAY
		1.30 - 1.50	B					
		1.30	SPT(S)	N=4 (2/1,1,1,1)				
	▽	1.80	D		2.10	54.10		
		2.20	D					NORTHMOOR SAND AND GRAVEL MEMBER Medium dense buff brown sandy fine to coarse sub-angular to sub-rounded quartzite, flint and chalk GRAVEL
		2.50	SPT(C)	N=16 (5/4,4,4,4)				
		2.70	D					
		3.00 - 3.50	B					
		3.50	SPT(C)	N=16 (6/4,4,4,4)				
		3.70	D					
		4.20	D					
		4.50	SPT(C)	N=18 (7/4,5,5,4)				
		4.70	D					
		5.20	D					
		5.50	SPT(C)	N=20 (7/5,5,5,5)				
		5.70	D					
		6.20	D					
		6.50	SPT(C)	N=18 (7/5,4,4,5)				
		6.70	D		6.65	49.55		
		7.00 - 7.50	B					OXFORD CLAY FORMATION Firm, becoming stiff below 8m depth, grey CLAY with extremely thinly bedded silt lenses
		7.20	D					
		7.50 - 7.95	U	Ublows= 80				
		8.20	D					
		8.50 - 8.95	D					
		8.50	SPT(C)	N=24 (7/5,6,6,7)				
		8.70	D					
		9.20	D					
		9.70	D					
		10.00	SPT(C)	N=0 (25/0,0,0,0)				

Borehole Diameter: Hand excavated to 1.2m depth; 150mm thereafter **Casing Depth:** 7.00m

Chiselling: 10.00m to 10.45m (0.5 hr) and 16.30m to 16.60m (1 hr)

Instrumentation: Bentonite backfill GL to 8m depth; backfilled with arising 8m to 25m depth.

Groundwater: Groundwater struck at 2.10m; rising to 1.51m after 20 minutes monitoring

Remarks: Co-ords and level extrapolated from client provided survey.

Cable Percussive Borehole Log

Borehole No. BH 06

Project Location: Site adjacent to & including Oxford Ice Rink, Oxpens Rd, Oxford, OX1 1RX

Co-ords: 450866E - 205709N

Level: 56.20 mAOD

Dates: 19-10-2020

Project Number: 20.10.004a

Logged By: Ben Lee to BS 5930:2015

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Result				
		10.50	D					OXFORD CLAY FORMATION Firm, becoming stiff below 8m depth, grey CLAY with extremely thinly bedded silt lenses *siltstone between 10m and 10.45m depth*
		10.50 - 10.95	U	Ublows= 100				
		11.50	D					
		12.00 - 12.45	D					
		12.00	SPT(S)	N=28 (9/6,7,7,8)				
		12.50	D					
					13.00	43.20		OXFORD CLAY FORMATION Very stiff grey CLAY with extremely thinly bedded silt lenses
		13.50	D					
		13.50 - 13.95	U	Ublows= 100				
		14.50	D					
		15.00	SPT(S)	N=31 (9/7,7,8,9)				
		16.50	D					*siltstone between 16.3m and 16.6m depth*
		16.50	SPT(C)	50 for 105mm (19/17,33 for 30mm)				
		17.50	D					
		18.00 - 18.45	U	Ublows= 100				
		18.50	D					
		19.50	D					
		19.50 - 19.95	SPT					
		19.50	SPT(S)	N=45 (19/11,11,11,12)				

Borehole Diameter: Hand excavated to 1.2m depth; 150mm thereafter **Casing Depth:** 7.00m

Chiselling: 10.00m to 10.45m (0.5 hr) and 16.30m to 16.60m (1 hr)

Instrumentation: Bentonite backfill GL to 8m depth; backfilled with arising 8m to 25m depth.

Groundwater: Groundwater struck at 2.10m; rising to 1.51m after 20 minutes monitoring

Remarks: Co-ords and level extrapolated from client provided survey.

Cable Percussive Borehole Log

Borehole No. BH 06

Project Location: Site adjacent to & including Oxford Ice Rink, Oxpens Rd, Oxford, OX1 1RX

Co-ords: 450866E - 205709N

Level: 56.20 mAOD

Dates: 19-10-2020

Project Number: 20.10.004a

Logged By: Ben Lee to BS 5930:2015

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Result				
		20.50	D					OXFORD CLAY FORMATION Very stiff grey CLAY with extremely thinly bedded silt lenses
		21.00 - 21.50	U	Ublows= 110				
		21.50	D					
					22.00	34.20		
		22.50	D					OXFORD CLAY FORMATION Hard grey CLAY with extremely thinly bedded silt lenses
		22.50 - 22.95	D					
		22.50	SPT(S)	N=51 (19/12,12,13,14)				
		23.50	D					
		24.00 - 24.45	U	Ublows= 110				
		24.50	D					
		25.00	D		25.00	31.20		End of Borehole at 25.00m
		25.00	SPT(S)	50 for 190mm (19/13,15,22 for 40mm)				

21 22 23 24 25 26 27 28 29 30

Borehole Diameter: Hand excavated to 1.2m depth; 150mm thereafter **Casing Depth:** 7.00m

Chiselling: 10.00m to 10.45m (0.5 hr) and 16.30m to 16.60m (1 hr)

Instrumentation: Bentonite backfill GL to 8m depth; backfilled with arising 8m to 25m depth.

Groundwater: Groundwater struck at 2.10m; rising to 1.51m after 20 minutes monitoring

Remarks: Co-ords and level extrapolated from client provided survey.

Trial Pit Log

Trial Pit No. TP 03

Project Location: Site adjacent to & including Oxford Ice Rink, Oxpens Rd, Oxford, OX1 1RX

Co-ords: 450785E - 205749N

Level: 57.10 mAOD

Dates: 15-10-2020

Project Number: 20.10.004a

Logged By: Ben Lee to BS 5930:2015

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth (m)	Type	Result				
	0.20 - 0.80	D		0.10	57.00		FILL Multicoloured medium sub-angular to angular red brick, flint, concrete, ceramic tile, and granite GRAVEL over a fabric membrane
							MADE GROUND Brown clayey sandy fine to coarse red brick and concrete GRAVEL with low red brick and concrete cobble content
							less cobbles with depth
				0.70	56.40		MADE GROUND Black and brown gravelly SAND with low occasional glass bottles and ceramic pots. Gravel is fine to coarse sub-angular slag and flint
	1.00 - 1.50	D					
▽							
▼	1.80 - 2.30	D		1.80	55.30		ALLUVIUM Very soft olive grey mottled light brown and orange brown silty CLAY with rare fine sandstone gravel and shell debris
				2.60	54.50		End of Trial Pit at 2.60m

Method of excavation: JCB 3CX **Dimensions:** 0.60m x 1.80m x 2.60m

Stability: Spalling sides throughout

Groundwater: Seepages form 1.50m depth - standing at 1.95m depth after 4hrs monitoring

Remarks: Co-ords and level extrapolated from client provided survey.
Backfilled with arisings on completion.

Trial Pit Log

Trial Pit No. TP 04

Project Location: Site adjacent to & including Oxford Ice Rink, Oxpens Rd, Oxford, OX1 1RX

Co-ords: 450846E - 205729N

Level: 56.60 mAOD

Dates: 15-10-2020

Project Number: 20.10.004a

Logged By: Ben Lee to BS 5930:2015

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth (m)	Type	Result				
	0.05	D		0.10	56.50		TOPSOIL Grass over dark brown sandy slightly organic CLAY with rootlets
	0.50	D					ALLUVIUM Orange brown clayey gravelly SAND. Gravel is fine to medium sub-angular flint, sandstone and chalk
				0.60	56.00		ALLUVIUM Soft grey brown sandy slightly gravelly CLAY with occasional localised pockets of decaying matter. Gravel is fine sub-angular sandstone
	1.00	D					
	1.50	D					
▽				1.60	55.00		ALLUVIUM Very soft dark grey sandy clayey SILT with rare fine shell debris
	2.00	D					
				2.20	54.40		End of Trial Pit at 2.20m

1 2 3 4

Method of excavation: JCB 3CX

Dimensions: 0.60m x 1.80m x 2.60m

Stability: Slightly spalling sides throughout

Groundwater: Seepages at 1.60m depth

Remarks: Co-ords and level extrapolated from client provided survey. Backfilled with arisings on completion.

Appendix G Tables of Estimated Risk

Receptor	Receptor Sensitivity ('0' if not present)	Pathway	Present (Y=1, N=0)	EPH & Solvents	PAHs	Inorganics and Metals	Asbestos	Biocides	Permanent Gases	Consequence	Probability/ Likelihood	Estimated Risk
Human Health - On-Site Current Users	4	Ingestion of fruit or vegetable leaf or roots	0	✓	✓	✓	x	✓	x	N/A	N/A	N/A
		Ingestion of contaminated drinking water	0	✓	✓	x	x	✓	x	N/A	Unlikely	N/A
		Ingestion of water / sediments when swimming	1	✓	✓	✓	✓	✓	x	Medium	Low	Moderate
		Ingestion of soil/dust indoors	0	✓	✓	✓	✓	✓	x	N/A	Unlikely	N/A
		Ingestion of soil/dust outdoors	1	✓	✓	✓	✓	✓	x	Medium	Low	Moderate
		Inhalation of particles (dust / soil) indoor and outdoor	1	✓	✓	✓	✓	✓	x	Medium	Low	Moderate
		Inhalation of vapours/gases – outdoor	1	✓	x	x	x	x	✓	Medium	Low	Moderate
		Inhalation of vapours/gases - indoor	0	✓	x	x	x	x	✓	N/A	Unlikely	N/A
		Dermal absorption via direct contact with soil	1	✓	✓	✓	✓	✓	x	Medium	Low	Moderate
		Dermal absorption via waters (swimming / showering)	1	✓	✓	✓	✓	✓	x	Medium	Low	Moderate
Human Health On-Site Future User	4	Ingestion of fruit or vegetable leaf or roots	0	✓	✓	✓	x	✓	x	N/A	Low	N/A
		Ingestion of contaminated drinking water	0	✓	✓	x	x	✓	x	N/A	Low	N/A
		Ingestion of water / sediments when swimming	1	✓	✓	x	x	✓	x	Medium	Low	Moderate
		Ingestion of soil/dust indoors	0	✓	✓	✓	✓	✓	x	N/A	Unlikely	N/A
		Ingestion of soil/dust outdoors	1	✓	✓	✓	✓	✓	x	Medium	Unlikely	Low
		Inhalation of particles (dust / soil) indoor and outdoor	1	✓	✓	✓	✓	✓	x	Medium	Low	Moderate
		Inhalation of vapours – outdoor	1	✓	x	x	x	x	✓	Medium	Unlikely	Low
		Inhalation of vapours - indoor	0	✓	x	x	x	x	✓	N/A	Unlikely	N/A
		Dermal absorption via direct contact with soil	1	✓	✓	✓	✓	✓	x	Medium	Unlikely	Low
		Dermal absorption via waters (swimming / showering)	1	✓	✓	✓	✓	✓	x	Medium	Low	Moderate
Human Health - Neighbours	5	Ingestion of fruit or vegetable leaf or roots	1	✓	✓	✓	x	✓	x	Severe	Unlikely	Low
		Ingestion of contaminated drinking water	1	✓	✓	x	x	✓	x	Severe	Unlikely	Low
		Ingestion of water / sediments when swimming	1	✓	✓	x	x	✓	x	Severe	Low	Moderate
		Ingestion of soil/dust indoors	1	✓	✓	✓	✓	✓	x	Severe	Unlikely	Low
		Ingestion of soil/dust outdoors	1	✓	✓	✓	✓	✓	x	Severe	Unlikely	Low
		Inhalation of particles (dust / soil) indoor and outdoor	1	✓	✓	✓	✓	✓	x	Severe	Unlikely	Low
		Inhalation of vapours – outdoor	1	✓	x	x	x	x	✓	Severe	Unlikely	Low
		Inhalation of vapours - indoor	1	✓	x	x	x	x	✓	Severe	Unlikely	Low
		Dermal absorption via direct contact with soil	1	✓	✓	✓	✓	✓	x	Severe	Unlikely	Low
		Dermal absorption via waters (swimming / showering)	1	✓	✓	✓	✓	✓	x	Severe	Low	Moderate
Human Health - Construction/ Maintenance Workers	4	Ingestion of soil/dust indoors	1	✓	✓	✓	✓	✓	x	Medium	Likely	High
		Ingestion of soil/dust outdoors	1	✓	✓	✓	✓	✓	x	Medium	Likely	High
		Inhalation of particles (dust / soil) outdoor	1	✓	✓	✓	✓	✓	x	Medium	Likely	High
		Inhalation of vapours – outdoor	1	✓	x	x	x	x	✓	Medium	Low	Moderate
		Inhalation of vapours - indoor	0	✓	x	x	x	x	✓	N/A	Low	N/A
		Dermal absorption via direct contact with soil	1	✓	✓	✓	✓	✓	x	Medium	Likely	High
Groundwater (Shallow)	2	Leaching	1	✓	✓	✓	x	✓	x	Mild	High	Moderate
		Migration via natural or anthropogenic	1	✓	✓	✓	x	✓	x	Mild	High	Moderate
Groundwater (Deep)	1	Leaching	1	✓	✓	✓	x	✓	x	Minor	Unlikely	Very Low
		Migration via natural or anthropogenic	1	✓	✓	✓	x	✓	x	Minor	Unlikely	Very Low
Surface Water	3	Direct runoff or discharges from pipes	1	✓	✓	✓	✓	✓	x	Medium	Low	Moderate
		Indirect via recharge from groundwater (hydraulic flow)	1	✓	✓	✓	✓	✓	x	Medium	Low	Moderate
		Deposition of wind blown dust	1	✓	✓	✓	✓	✓	x	Medium	Low	Moderate
Property - Buildings	1	Direct contact	1	✓	✓	✓	x	x	x	Minor	Unlikely	Very Low
		Explosion due to gas migration via natural / anthropogenic	1	✓	x	x	x	x	✓	Minor	Unlikely	Very Low
Ecological Systems	2	Direct deposition of particles / dust - wind blown or flood	1	✓	✓	✓	✓	✓	x	Mild	Low	Low
		Indirect - through watering	1	✓	✓	✓	x	✓	x	Mild	Low	Low
		Inhalation of gases/vapours or particulates/dust by animals	1	✓	✓	✓	✓	✓	✓	Mild	Low	Low
		Ingestion of of vegetation / water / soil by animals	1	✓	✓	✓	✓	✓	x	Mild	Low	Low
Property - Animal/Crop	2	Direct (including deposition via wind or flood)	1	✓	✓	✓	✓	✓	x	Mild	Low	Low
		Indirect (through watering)	1	✓	✓	✓	x	✓	x	Mild	Low	Low
		Inhalation of gas / vapour / particulates / dust by animals	1	✓	✓	✓	✓	✓	✓	Mild	Low	Low
		Ingestion of vegetation / water / soil by animals	1	✓	✓	✓	✓	✓	x	Mild	Low	Low

Risk estimation establishes the magnitude and probability of the possible consequences (what degree of harm might result and how likely).
The criteria for classifying probability and consequence are set out in Tables 4 and 5 of the Stantec methodology.
Green text highlights one or more elements of the Pollutant Linkage are missing and therefore eliminated

EPH = Extractable hydrocarbons
PAHs = Poly Aromatic Hydrocarbons
Note For Metals there is an Inhalation pathway if Mercury is present
Note for PAHs there are Inhalation and/or Solubility pathways for some eg Naphthalene

Stantec
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Client
Oxford City Council

Footpath Upgrade and Oxpens Footbridge, Osney, Oxford [Southern Part]

TABLE SUMMARISING ONSITE POLLUTANT LINKAGES AND RISK ESTIMATION

Date	07/07/2021
A3 Scale	NTS
Drawn By	az
Checked By	

HAZARD CLASSIFICATION	4	THE POTENTIAL CONTAMINANTS OF CONCERN ARE :- EPH & Solvents, PAHs, inorganic and metals, asbestos, permanent gases

Receptor	Receptor Sensitivity ('0' if not present)	Pathway	Present (Y=1, N=0)	EPH & Solvents	PAHs	Inorganics and Metals	Asbestos	Biocides	Permanent Gases	Consequence	Probability/ Likelihood	Estimated Risk
Human Health - On-Site Current Users	4	Ingestion of fruit or vegetable leaf or roots	0	✓	✓	✓	x	✓	x	N/A	N/A	N/A
		Ingestion of contaminated drinking water	0	✓	✓	x	x	✓	x	N/A	Unlikely	N/A
		Ingestion of water / sediments when swimming	1	✓	✓	✓	✓	✓	x	Medium	Low	Moderate
		Ingestion of soil/dust indoors	0	✓	✓	✓	✓	✓	x	N/A	Unlikely	N/A
		Ingestion of soil/dust outdoors	1	✓	✓	✓	✓	✓	x	Medium	Low	Moderate
		Inhalation of particles (dust / soil) indoor and outdoor	1	✓	✓	✓	✓	✓	x	Medium	Low	Moderate
		Inhalation of vapours/gases – outdoor	1	✓	x	x	x	x	✓	Medium	Low	Moderate
		Inhalation of vapours/gases - indoor	0	✓	x	x	x	x	✓	N/A	Unlikely	N/A
		Dermal absorption via direct contact with soil	1	✓	✓	✓	✓	✓	x	Medium	Low	Moderate
		Dermal absorption via waters (swimming / showering)	1	✓	✓	✓	✓	✓	x	Medium	Low	Moderate
Human Health On-Site Future User	4	Ingestion of fruit or vegetable leaf or roots	0	✓	✓	✓	x	✓	x	N/A	Low	N/A
		Ingestion of contaminated drinking water	0	✓	✓	x	x	✓	x	N/A	Low	N/A
		Ingestion of water / sediments when swimming	1	✓	✓	x	x	✓	x	Medium	Low	Moderate
		Ingestion of soil/dust indoors	0	✓	✓	✓	✓	✓	x	N/A	Unlikely	N/A
		Ingestion of soil/dust outdoors	1	✓	✓	✓	✓	✓	x	Medium	Unlikely	Low
		Inhalation of particles (dust / soil) indoor and outdoor	1	✓	✓	✓	✓	✓	x	Medium	Low	Moderate
		Inhalation of vapours – outdoor	1	✓	x	x	x	x	✓	Medium	Unlikely	Low
		Inhalation of vapours - indoor	0	✓	x	x	x	x	✓	N/A	Unlikely	N/A
		Dermal absorption via direct contact with soil	1	✓	✓	✓	✓	✓	x	Medium	Unlikely	Low
		Dermal absorption via waters (swimming / showering)	1	✓	✓	✓	✓	✓	x	Medium	Low	Moderate
Human Health - Neighbours	5	Ingestion of fruit or vegetable leaf or roots	1	✓	✓	✓	x	✓	x	Medium	Unlikely	Low
		Ingestion of contaminated drinking water	1	✓	✓	x	x	✓	x	Medium	Unlikely	Low
		Ingestion of water / sediments when swimming	1	✓	✓	x	x	✓	x	Medium	Low	Moderate
		Ingestion of soil/dust indoors	1	✓	✓	✓	✓	✓	x	Medium	Unlikely	Low
		Ingestion of soil/dust outdoors	1	✓	✓	✓	✓	✓	x	Medium	Unlikely	Low
		Inhalation of particles (dust / soil) indoor and outdoor	1	✓	✓	✓	✓	✓	x	Medium	Unlikely	Low
		Inhalation of vapours – outdoor	1	✓	x	x	x	x	✓	Medium	Unlikely	Low
		Inhalation of vapours - indoor	1	✓	x	x	x	x	✓	Medium	Unlikely	Low
		Dermal absorption via direct contact with soil	1	✓	✓	✓	✓	✓	x	Medium	Unlikely	Low
		Dermal absorption via waters (swimming / showering)	1	✓	✓	✓	✓	✓	x	Medium	Low	Moderate
Human Health - Construction/ Maintenance Workers	4	Ingestion of soil/dust indoors	1	✓	✓	✓	✓	✓	x	Medium	Likely	High
		Ingestion of soil/dust outdoors	1	✓	✓	✓	✓	✓	x	Medium	Likely	High
		Inhalation of particles (dust / soil) outdoor	1	✓	✓	✓	✓	✓	x	Medium	Likely	High
		Inhalation of vapours – outdoor	1	✓	x	x	x	x	✓	Medium	Low	Moderate
		Inhalation of vapours - indoor	0	✓	x	x	x	x	✓	N/A	Low	N/A
		Dermal absorption via direct contact with soil	1	✓	✓	✓	✓	✓	x	Medium	Likely	High
Groundwater (Shallow)	2	Leaching	1	✓	✓	✓	x	✓	x	Mild	Likely	Moderate
		Migration via natural or anthropogenic	1	✓	✓	✓	x	✓	x	Mild	Likely	Moderate
Groundwater (Deep)	1	Leaching	1	✓	✓	✓	x	✓	x	Minor	Unlikely	Very Low
		Migration via natural or anthropogenic	1	✓	✓	✓	x	✓	x	Minor	Unlikely	Very Low
Surface Water	3	Direct runoff or discharges from pipes	1	✓	✓	✓	✓	✓	x	Mild	Low	Low
		Indirect via recharge from groundwater (hydraulic flow)	1	✓	✓	✓	✓	✓	x	Mild	Low	Low
		Deposition of wind blown dust	1	✓	✓	✓	✓	✓	x	Mild	Low	Low
Property - Buildings	1	Direct contact	1	✓	✓	✓	x	x	x	Minor	Unlikely	Very Low
		Explosion due to gas migration via natural / anthropogenic	1	✓	x	x	x	x	✓	Minor	Unlikely	Very Low
Ecological Systems	2	Direct deposition of particles / dust - wind blown or flood	1	✓	✓	✓	✓	✓	x	Mild	Low	Low
		Indirect - through watering	1	✓	✓	✓	x	✓	x	Mild	Low	Low
		Inhalation of gases/vapours or particulates/dust by animals	1	✓	✓	✓	✓	✓	✓	Mild	Low	Low
		Ingestion of of vegetation / water / soil by animals	1	✓	✓	✓	✓	✓	x	Mild	Low	Low
Property - Animal/Crop	2	Direct (including deposition via wind or flood)	1	✓	✓	✓	✓	✓	x	Mild	Low	Low
		Indirect (through watering)	1	✓	✓	✓	x	✓	x	Mild	Low	Low
		Inhalation of gas / vapour / particulates / dust by animals	1	✓	✓	✓	✓	✓	✓	Mild	Low	Low
		Ingestion of vegetation / water / soil by animals	1	✓	✓	✓	✓	✓	x	Mild	Low	Low

Risk estimation establishes the magnitude and probability of the possible consequences (what degree of harm might result and how likely).
The criteria for classifying probability and consequence are set out in Tables 4 and 5 of the Stantec methodology.
Green text highlights one or more elements of the Pollutant Linkage are missing and therefore eliminated

EPH = Extractable hydrocarbons
PAHs = Poly Aromatic Hydrocarbons
Note For Metals there is an Inhalation pathway if Mercury is present
Note for PAHs there are Inhalation and/or Solubility pathways for some eg Naphthalene

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Client: Oxford City Council

Footpath Upgrade and Oxpens Footbridge, Osney, Oxford [Northern Part]

TABLE SUMMARISING ONSITE POLLUTANT LINKAGES AND RISK ESTIMATION

Date	07/07/2021
A3 Scale	NTS
Drawn By	az
Checked By	

HAZARD CLASSIFICATION	3	THE POTENTIAL CONTAMINANTS OF CONCERN ARE :- Agrochemicals, hydrocarbons (TPH & PAH), metals