BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 42.2 AHD
EASTING: 335771
NORTHING: 6248807
DIP/AZIMUTH: 90°/--

BORE No: C5
PROJECT No: 86276.00
DATE: 19/4/2018
SHEET 2 OF 3

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
32		SAND: medium dense, brown, sand, fine to medium grained, with a trace of clay, moist *(continued)*		S	10.0		18,18,16 N = 34		
					10.45				
	10.8	CLAYEY SAND: medium dense, light grey, red-brown and orange-brown, fine to medium grained							
31	11			S	11.5		5,5,5 N = 10		11
		12.0 m: becoming medium dense to dense			11.95				
30	12								12
	13			S	13.0		7,13,16 N = 29		13
29					13.45				
28	14			S	14.5		4,6,9 N = 15		14
	15				14.95				15
27									Backfill
	15.7	SANDSTONE: extremely low and very low strength, highly weathered, slightly fractured and unbroken, red-brown, medium grained sandstone, some low to medium strength bands			15.7				
	16			C					16
26	16.15				16.85		PL(A) = 0.23		
	17				17.1				17
25	17.22	SANDSTONE: medium then high strength, moderately then slightly weathered, slightly fractured and unbroken, orange brown and grey brown, thickly bedded, medium grained sandstone							
	18				17.9		PL(A) = 0.68		18
24				C					
	19				18.85		PL(A) = 1.41		19
23					19.6		PL(A) = 3.52		

RIG: NDD/DT250 **DRILLER:** Vac Group/GM **LOGGED:** SI/LS **CASING:** HW to 7.5 m, HQ to 15.7 m

TYPE OF BORING: Non-destructive drilling to 3.0 m, solid flight auger to 7.5 m, rotary to 15.7 m, NMLC-coring to 21.8 m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS: Standpipe installed to 9.0 m (screen 3.0 m to 9.0 m, blank GL to 3.0 m, gravel 3.0 to 9.0 m, bentonite 2.7 m to 3.0 m, backfill to GL, gatic cover); *'orange' duplicate sample

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 42.2 AHD
EASTING: 335771
NORTHING: 6248807
DIP/AZIMUTH: 90°/--

BORE No: C5
PROJECT No: 86276.00
DATE: 19/4/2018
SHEET 3 OF 3

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
22	20.09	SANDSTONE: medium then high strength, moderately then slightly weathered, slightly fractured and unbroken, orange brown and grey brown, thickly bedded, medium grained sandstone (continued)		C	20.22				
21	21			C	20.95		PL(A) = 1.69		21
					21.35		PL(A) = 1.54		
	21.8	Bore discontinued at 21.8m - Target depth reached			21.8				
20	22								22
	23								23
19	24								24
18	25								25
17	26								26
16	27								27
15	28								28
14	29								29
13									

RIG: NDD/DT250 **DRILLER:** Vac Group/GM **LOGGED:** SI/LS **CASING:** HW to 7.5 m, HQ to 15.7 m

TYPE OF BORING: Non-destructive drilling to 3.0 m, solid flight auger to 7.5 m, rotary to 15.7 m, NMLC-coring to 21.8 m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS: Standpipe installed to 9.0 m (screen 3.0 m to 9.0 m, blank GL to 3.0 m, gravel 3.0 to 9.0 m, bentonite 2.7 m to 3.0 m, backfill to GL, gatic cover); *'orange' duplicate sample

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 46.9 AHD
EASTING: 335820
NORTHING: 6248798
DIP/AZIMUTH: 90°/--

BORE No: C6
PROJECT No: 86276.00
DATE: 11/4/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
46	0.05	ASPHALT							
		FILLING: brown, sandy gravel filling, angular to sub-angular, roadbase gravel, medium to coarse sand, trace of clay		A/E	0.12 0.13		PID<5		
	0.28	FILLING: grey-brown, clayey sand filling, medium to coarse grained, slightly gravelly, roadbase and sandstone gravel (4-100 mm)		A/E	0.4 0.5		PID<5		
		0.5 m: brick inclusion (70 mm)							
	1			A/E	0.9 1.0		PID<5		1
		1.3 m: concrete and brick inclusions 80-100 mm							
	1.4	FILLING: yellow-brown, sandstone and concrete cobble filling, some sandy clay, trace of ash		A/E	1.4 1.5		PID<5		
45	1.8	Bore discontinued at 1.8m - Refusal on sandstone cobble							
	2								2
44	3								3
43	4								4
42									

RIG: NDD **DRILLER:** Vac Group **LOGGED:** LS **CASING:** uncased

TYPE OF BORING: Non-destructive drilling to 1.8m

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 47.0 AHD
EASTING: 335836
NORTHING: 6248820
DIP/AZIMUTH: 90°/--

BORE No: C7
PROJECT No: 86276.00
DATE: 16/4/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
47	0.03	ASPHALT		A/E	0.05 0.1		PID<5		
	0.14	FILLING: brown, sandy gravel, angular to sub-angular roadbase gravel, medium to coarse grained sand, trace of silt and clay, moist							
		FILLING: light brown, sandstone and gravel filling (10-20 mm), some clayey sand, moist (ripped sandstone)							
	0.75	FILLING: dark brown, sand filling, medium to coarse grained, some concrete fragments (10-30 mm), trace of clay and brick fragments (2-4 mm) and ash, moist		A/E	0.9 1.0		PID<5		
46	1								1
	1.45	Bore discontinued at 1.45m - Non-destructive drilling refusal on concrete							
45	2								2
44	3								3
43	4								4

RIG: NDD **DRILLER:** Vac Group **LOGGED:** LS **CASING:** uncased

TYPE OF BORING: Non-destructive drilling to 1.45 m

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Hand auger refusal @0.5 m, unable to sample

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 47.4 AHD
EASTING: 335972
NORTHING: 6248801
DIP/AZIMUTH: 90°/--

BORE No: C8
PROJECT No: 86276.00
DATE: 6/4/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
47	0.1	ASPHALT							
		FILLING: brown, sandy gravel, coarse sand, angular to sub-angular, roadbase gravel, some silt, damp		A/E	0.1 0.11		PID<5		
	0.25	FILLING: brown, sand filling, medium to coarse grained, some clay, trace of roadbase gravel (5-10 mm), concrete inclusions (5-10 mm), moist		A/E	0.4 0.5		PID<5		
		0.9 m: brick fragments (5-20 mm)		A/E	0.9 1.0		PID<5		
46	1.3	FILLING: red-brown and light-grey, clay filling, some fine sand and ironstone gravel (10-20 mm), moist		S	1.45		3,8,6 N = 14		
				A/E	1.65 1.75		PID<5		
	1.8	FILLING: red-brown, sand filling, medium grained, some ironstone gravel (10-20 mm) and clay, moist		A/E	1.9 2.0		PID<5		
45	2.1	SAND: medium dense, brown, fine to medium grained sand, trace of clay, moist 2.2 m: becoming light grey brown							
		2.4 m: rootlet observed		A/E	2.4 2.5		PID<5		
				S	3.0		3,4,7 N = 11		
44	3.45	Bore discontinued at 3.45m - Target depth reached			3.45				

RIG: DT250 **DRILLER:** GM **LOGGED:** LS **CASING:** uncased

TYPE OF BORING: Solid flight auger to 3.45 m

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 46.6 AHD
EASTING: 335805
NORTHING: 6248790
DIP/AZIMUTH: 90°/--

BORE No: C9
PROJECT No: 86276.00
DATE: 16/4/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
46	0.05	ASPHALT		A/E	0.07		PID<5		
		FILLING: brown, sandy gravel filling, angular to sub-angular roadbase gravel (10-20 mm), medium to coarse grained sand, trace of silt and clay			0.1				
	0.25	FILLING: light brown, sandstone gravel and cobble filling (20-100 mm) with some coarse grained sand, trace of clay, moist		A/E	0.4		PID<5		
		0.6 m: sandstone boulder			0.5				
	0.9	Bore discontinued at 0.9m - Refusal on sandstone boulders							
	1								1
45									
	2								2
44									
	3								3
43									
	4								4
42									

RIG: NDD **DRILLER:** Vac Group **LOGGED:** LS **CASING:** uncased

TYPE OF BORING: Non-destructive drilling to 0.9 m

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 39.0 AHD
EASTING: 335857
NORTHING: 6248783
DIP/AZIMUTH: 90°/--

BORE No: C10
PROJECT No: 86276.00
DATE: 7/5/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
39	0.05	TOPSOIL: light grey and brown, topsoil, fine to medium grained sand, trace of silt		A/E	0.01 0.05		PID<5		
		FILLING: brown, medium to coarse grained sand filling, trace of silt, moist							
	0.4	FILLING: dark grey, angular to sub-angular igneous gravel (5-10mm), trace of sand, moist							
	0.5			A/E	0.5		PID<5		
		FILLING: brown, medium to coarse grained sand filling, some clay, trace of shale, brick and sandstone gravel (3-10 mm), moist		A/E	0.8		PID<5		
	0.85	SAND: yellow-brown, fine to medium grained sand, trace of silt, moist			0.85				
38	1			A/E	1.4		PID<5		1
	1.5	Bore discontinued at 1.5m - Target depth reached			1.5				
37	2								2
36	3								3
35	4								4

RIG: Hand auger **DRILLER:** LS **LOGGED:** LS **CASING:** uncased

TYPE OF BORING: 100 mm dia. hand-auger to 1.5 m

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 39.2 AHD
EASTING: 335884
NORTHING: 6248783
DIP/AZIMUTH: 90°/--

BORE No: C11
PROJECT No: 86276.00
DATE: 7/5/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
39	0.075	TOPSOIL: light grey and dark brown topsoil, fine to medium grained sand, some silt, moist							
		FILLING: brown, medium to coarse grained sand filling, trace of silt, moist to wet		A/E	0.3 0.4		PID<5		
	0.5								
	0.6	FILLING: dark grey, angular to sub-angular, igneous gravel (5-10mm) with some medium grained sand, moist to wet		A/E	0.7		PID<5		
	0.8	FILLING: dark brown, medium to coarse grained sand filling, some silt, moist			0.8				
38	1	SAND: yellow brown, fine to medium grained sand, trace of silt, moist							1
				A/E	1.4		PID<5		
	1.5	Bore discontinued at 1.5m - Target depth reached			1.5				
37	2								2
36	3								3
35	4								4

RIG: Hand auger **DRILLER:** LS **LOGGED:** LS **CASING:** uncased
TYPE OF BORING: 100 mm dia. hand-auger to 1.5 m
WATER OBSERVATIONS: No free groundwater observed
REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 39.1 AHD
EASTING: 335928
NORTHING: 6248783
DIP/AZIMUTH: 90°/--

BORE No: C12
PROJECT No: 86276.00
DATE: 7/5/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
39	0.06	TOPSOIL: light grey and dark brown topsoil, fine to medium grained sand, some silt, moist							
	0.3	FILLING: brown, medium to coarse grained sand filling, trace of silt, moist		A/E	0.2 0.3		PID<5		
		FILLING: dark grey, angular to sub-angular, igneous gravel (10-15 mm), trace of fine grained sand, moist to wet		A/E	0.4 0.5		PID<5		
	0.8	SAND: yellow-brown, fine to medium grained sand, trace of silt, moist		A/E	0.9 1.0		PID<5		
38	1			A/E	1.3		PID<5		1
	1.4	Bore discontinued at 1.4m - Target depth reached			1.4				
	2								2
37									
	3								3
36									
	4								4
35									

RIG: Hand auger **DRILLER:** LS **LOGGED:** LS **CASING:** uncased
TYPE OF BORING: 100 mm dia. hand-auger to 1.4 m
WATER OBSERVATIONS: No free groundwater observed
REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 46.4 AHD
EASTING: 335993
NORTHING: 6248777
DIP/AZIMUTH: 90°/--

BORE No: C13
PROJECT No: 86276.00
DATE: 6/4/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
46	0.1	ASPHALT							
	0.2	FILLING: brown, gravelly sand, medium to coarse grained sand, angular to sub-angular, roadbase gravel, moist		A/E	0.1 0.11		PID<5		
		FILLING: dark brown, sand filling, medium to coarse grained, some clay, brick fragments (2-10 mm) and ash, moist		A/E	0.4 0.5		PID<5		
	0.85	FILLING: brown, sand filling, medium to coarse grained, some clay, trace of sandstone and ironstone gravel (5-10 mm), moist		A/E	0.9 1.0		PID<5		
1				S			13,20,23 N = 43		1
45	1.3	SAND: dense, grey-brown, medium grained, some clay, moist			1.45				
				A/E	1.5 1.6		PID<5		
				A/E	1.9		PID<5		
2	2.0	Bore discontinued at 2.0m - Target depth reached			2.0				2
44									
3									3
43									
4									4
42									

RIG: DT250 **DRILLER:** GM **LOGGED:** LS **CASING:** uncased

TYPE OF BORING: 100 mm dia. hand-auger to 2.0 m

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 43.4 AHD
EASTING: 335779
NORTHING: 6248743
DIP/AZIMUTH: 90°/--

BORE No: C14
PROJECT No: 86276.00
DATE: 10/4/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
43	0.05	ASPHALT		A/E	0.05 0.06		PID<5		
	0.25	FILLING: gravelly sand filling, medium to coarse grained sand, angular to sub-angular gravel, moist							
		FILLING: yellow-brown and light grey, sandstone cobbles and boulders, some sandy clay, moist							
				A/E	0.9		PID<5		
42	1.0	Bore discontinued at 1.0m - Refusal on sandstone boulders			1.0				
41									
40									
39									

RIG: NDD **DRILLER:** Vac Group **LOGGED:** LS **CASING:** uncased

TYPE OF BORING: Non-destructive drilling to 1.0 m

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 39.1 AHD
EASTING: 335857
NORTHING: 6248744
DIP/AZIMUTH: 90°/--

BORE No: C15
PROJECT No: 86276.00
DATE: 7/5/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
39	0.07	TOPSOIL: light grey and brwon, topsoil, fine to medium grained sand, some silt							
		FILLING: brown, medium to coarse grained sand filling, trace of silt, moist to wet		A/E	0.3		PID<5		
	0.35	FILLING: dark grey, angular to sub-angular, igneous gravel (5-10 mm), some fine grained sand, moist			0.35				
	0.5	FILLING: brown, medium to coarse grained sand filling with some silt and ash, moist 0.6 m: timber inclusion 50 mm		A/E	0.7 0.8		PID<5		
38	0.9	SAND: yellow-brown, fine to medium grained sand, trace of silt, moist		A/E	1.4		PID<5		
	1.5	Bore discontinued at 1.5m - Target depth reached			1.5				
37	2								
36	3								
35	4								

RIG: Hand auger **DRILLER:** LS **LOGGED:** LS **CASING:** uncased
TYPE OF BORING: 100 mm dia. hand-auger to 1.5 m
WATER OBSERVATIONS: No free groundwater observed
REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 39.2 AHD
EASTING: 335871
NORTHING: 6248763
DIP/AZIMUTH: 90°/--

BORE No: C16
PROJECT No: 86276.00
DATE: 8/5/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
39	0.07	TOPSOIL: brown, sand topsoil, fine to medium grained, some silt, moist		A/E	0.07 0.1		PID<5		
		FILLING: brown, medium to coarse grained sand filling, trace of silt, moist							
		0.5-0.55 m: with some igneous gravel (5-10 mm)		A/E	0.5 0.6		PID<5		
	0.6	FILLING: light yellow, fine to medium grained sand filling, trace of clay, moist		A/E	0.65 0.75		PID<5		
	0.7	FILLING: grey, sand filling, fine to coarse grained, slightly clayey, some sandstone gravel (4-40 mm), clay, trace of brick fragments (3-10 mm), tile (10 mm) and ash, moist to wet		A/E	0.9 1.0		PID<5		
38	1								1
				A/E	1.4 1.5		PID<5		
	1.7	Bore discontinued at 1.7m - Refusal on sandstone							
	2								2
37									
	3								3
36									
	4								4
35									

RIG: Hand auger **DRILLER:** LS **LOGGED:** LS **CASING:** uncased
TYPE OF BORING: 100 mm dia. hand-auger to 1.7 m
WATER OBSERVATIONS: No free groundwater observed
REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 39.1 AHD
EASTING: 335928
NORTHING: 6248755
DIP/AZIMUTH: 90°/--

BORE No: C17
PROJECT No: 86276.00
DATE: 8/5/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
39	0.06	TOPSOIL: yellow-brown and brown, sand topsoil, fine to medium grained with some silt, wet							
		FILLING: brown, sand filling, medium to coarse grained with a trace of silt and fine grained sand, wet		A/E*	0.25 0.35		PID<5		
	0.45	0.4-1.0 m: orange-brown with some clay							
	0.5	FILLING: dark grey, angular to sub-angular, igneous gravel (5-10 mm), wet		A/E	0.5 0.55		PID<5		
	0.66	FILLING: brown, sand filling, medium to coarse grained, some igneous and ironstone gravels (5-10 mm), trace of silt, wet		A/E	0.65 0.75		PID<5		
38	1	SAND: yellow-brown, fine to medium grained sand, trace of silt, wet		A/E	1.0		PID<5		1
	1.2	Bore discontinued at 1.2m - Target depth reached			1.2				
37	2								2
36	3								3
35	4								4

RIG: Hand auger **DRILLER:** LS **LOGGED:** LS **CASING:** uncased
TYPE OF BORING: 100 mm dia. hand-auger to 1.2 m
WATER OBSERVATIONS: No free groundwater observed
REMARKS: *'B' duplicate sample

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 45.9 AHD
EASTING: 336005
NORTHING: 6248741
DIP/AZIMUTH: 90°/--

BORE No: C18
PROJECT No: 86276.00
DATE: 12/4/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
45	0.05	ASPHALT		A/E	0.05–0.06		PID<5		
	0.35	FILLING: brown sandy gravel filling, angular to sub-angular roadbase gravel, medium to coarse sand, with a trace of clay		A/E	0.4–0.5		PID<5		
	0.8	FILLING: brown sand filling, medium to fine grained, some sandstone gravel and cobbles (20-200 mm) and ash, wet		A/E	0.9–1.0		PID<5		
		FILLING: grey brown clayey sand filling, medium to fine grained with some sandstone and roadbase gravels (10-20 mm)		A/E	1.4–1.5		PID<5		
44	1.9	SANDSTONE: very low strength, yellow-brown, fine grained sandstone							
	2.4	SANDSTONE: medium strength, moderately weathered, unbroken, orange-brown, fine to medium grained sandstone			2.4				
				C	2.55		PL(A) = 0.5		
43					3.5		PL(A) = 0.4		
42					4.08				
					4.7		PL(A) = 0.7		
41				C	5.22		PL(A) = 0.8		
40									
39					6.76		PL(A) = 0.8		
	7.0	SANDSTONE: high strength, slightly weathered, slightly fractured, light grey and red-brown, medium grained sandstone			7.0				
				C	7.55		PL(A) = 1.97		
38					8.04		PL(A) = 1.52		
					8.27		PL(A) = 1.1		
	8.4	Bore discontinued at 8.4m - Target depth reached			8.4				
37									
36									

RIG: NDD/DT250 **DRILLER:** Vac Group/GM **LOGGED:** LS/SI **CASING:** HQ to 2.4 m

TYPE OF BORING: Non-destructive drilling to 2.4 m, NMLC-coring to 8.4 m

WATER OBSERVATIONS: No free groundwater observed whilst non-destructive drilling

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 47.1 AHD
EASTING: 336017
NORTHING: 6248726
DIP/AZIMUTH: 90°/--

BORE No: C19
PROJECT No: 86276.00
DATE: 18/4/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
47	0.07	ASPHALT							
		FILLING: brown, sandy gravel filling, angular to sub-angular, road base gravel, medium to coarse grained sand, trace of silt and clay, damp, (possibly stabilised)							
	0.45	Bore discontinued at 0.45m - Refusal on roadbase							
46	1								1
45	2								2
44	3								3
43	4								4

RIG: NDD **DRILLER:** Vac Group **LOGGED:** LS **CASING:** uncased

TYPE OF BORING: Non-destructive drilling to 0.45 m

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 40.4 AHD
EASTING: 335720
NORTHING: 6248715
DIP/AZIMUTH: 90°/--

BORE No: C20
PROJECT No: 86276.00
DATE: 9/4/2018
SHEET 1 OF 3

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
40	0.05	ASPHALT		A/E	0.05		PID<5		
		FILLING: brown, sandy gravel filling, fine to coarse sand, angular to sub angular roadbase gravel, some clay and ash, humid			0.1				
		0.25 m: brick inclusions (100x200 mm)		A/E	0.6		PID<5		
	1				0.7				1
	1.2			A/E*	1.1		PID<5		
39		SAND: aparently medium dense, orange-brown, medium grained sand, with a trace of clay			1.2				
				A/E	1.6		PID<5		
	2				1.7				2
38									
				S	2.75		Terminated		
	3				3.0				3
37									
		3.8 m: becoming light yellow-brown							
	4			S	4.0		7,9,11 N = 20		4
36					4.45				
	5								5
35									
		5.55 m: becoming dense and brown		S	5.5		14,17,20 N = 37		
	6				5.95				6
34									
	7	7.0 m: becoming medium dense, light brown and wet		S	7.0		6,9,13 N = 22		7
33					7.45				
	8	8.0 m: becoming dense, light grey							8
32				S	8.5		16,22,16 N = 38		
	9				8.95				9
31									

RIG: NDD/Scout 1 **DRILLER:** Vac Group/GM **LOGGED:** LS/SI **CASING:** HW to 7.5 m, HQ to 15.7 m

TYPE OF BORING: Solid flight auger to 1.0 m, non-destructive drilling to 3.0 m, solid flight auger to 7.0 m, rotary to 15.7 m, NMLC-coring to 21.68 m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS: *08042018-1-2 duplicate sample

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 40.4 AHD
EASTING: 335720
NORTHING: 6248715
DIP/AZIMUTH: 90°/--

BORE No: C20
PROJECT No: 86276.00
DATE: 9/4/2018
SHEET 2 OF 3

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
30		SAND: aparently medium dense, orange-brown, medium grained sand, with a trace of clay *(continued)*		S	10.0		7,9,10 N = 19		
					10.45				
29	11								11
	12	12.0 m: becoming light grey, slightly clayey							12
28				S	13.0		4,4,9 N = 13		
	13				13.45				13
27	13.4	SANDY CLAY: stiff, light grey, sandy clay, fine to medium sand							
	14								14
26				S	14.5		10,7,6 N = 13		
	15	15.0 SANDSTONE: extremely to very low strength, light grey-brown, fine grained sandstone		S	14.95		0 refusal		15
					15.0				
25					15.01				
		15.7			15.7				
	16	SANDSTONE: low to medium then medium strength, highly and moderately weathered then fresh-stained, slightly fractured and unbroken, orange-brown and light grey, medium to coarse grained sandstone			15.87		PL(A) = 0.26		16
24					16.67		PL(A) = 0.58		
	17			C	17.2		PL(A) = 0.59		17
23									
	18				18.2		PL(A) = 0.62		18
22					18.8				
	19	19.0 SANDSTONE: low strength, fresh stained, unbroken, light grey and orange-brown, medium to coarse grained sandstone with very low strength bands		C					19
21					19.75		PL(A) = 0.2		

RIG: NDD/Scout 1 **DRILLER:** Vac Group/GM **LOGGED:** LS/SI **CASING:** HW to 7.5 m, HQ to 15.7 m

TYPE OF BORING: Solid flight auger to 1.0 m, non-destructive drilling to 3.0 m, solid flight auger to 7.0 m, rotary to 15.7 m, NMLC-coring to 21.68 m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS: *08042018-1-2 duplicate sample

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 40.4 AHD
EASTING: 335720
NORTHING: 6248715
DIP/AZIMUTH: 90°/--

BORE No: C20
PROJECT No: 86276.00
DATE: 9/4/2018
SHEET 3 OF 3

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
20	21	SANDSTONE: low strength, fresh stained, unbroken, light grey and orange-brown, medium to coarse grained sandstone with very low strength bands *(continued)*		C					
19	21.68	Bore discontinued at 21.68m - Target depth reached			21.68				
18	22								
17	23								
16	24								
15	25								
14	26								
13	27								
12	28								
11	29								

RIG: NDD/Scout 1 **DRILLER:** Vac Group/GM **LOGGED:** LS/SI **CASING:** HW to 7.5 m, HQ to 15.7 m

TYPE OF BORING: Solid flight auger to 1.0 m, non-destructive drilling to 3.0 m, solid flight auger to 7.0 m, rotary to 15.7 m, NMLC-coring to 21.68 m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS: *08042018-1-2 duplicate sample

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 42.5 AHD
EASTING: 335778
NORTHING: 6248714
DIP/AZIMUTH: 90°/--

BORE No: C21
PROJECT No: 86276.00
DATE: 9 - 11/4/2018
SHEET 1 OF 4

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
42	0.06	ASPHALT							Gatic Cover/Top Cap
	0.15			A/E	0.15 0.18		PID<5		
	0.3	CONCRETE							
		FILLING: dark brown, sandy gravel, medium to coarse grained sand, angular to sub-angular roadbase gravel, some clay		A/E	0.4 0.5		PID<5		
1		FILLING: grey brown, sand filling, fine to medium grained, some sandstone gravel and cobbles, (10-200 mm), and clay							1
	1.3			A/E	1.4 1.5		PID<5		Casing/Backfill
41	1.6	FILLING: brown, sand filling, medium grained, some sandstone gravel, (5-10 mm)							
		FILLING: dark grey, silty clay filling, some sandstone gravel, (2.5-5 mm), trace of fine sand, ash and rootlets		A/E	1.9 2.0		PID<5		
2	2.1	FILLING: brown, sand filling, medium grained with some sandstone gravel (2-30 mm), and a trace of ash							2
40									
3									Bentonite 3
39									
4				S	4.0 4.45		1,3,4 N = 7		4
38									
5									5
37	5.5	SAND: medium dense, pale grey-brown, fine to medium grained sand, moist		A/E S	5.4 5.5 5.95		PID<5 3,7,7 N = 14		
6									6 Machine slotted PVC screen 3.0-9.0m/Gravel
36									
7	7.0	SAND: dense, pale grey, fine grained sand with some silt, moist		S	7.0 7.45		8,14,25 N = 39		7
35									
8									8
34				S	8.5 8.95		8,14,24 N = 38		
9									9 End cap
33									

RIG: NDD/DT250 **DRILLER:** Vac Group/GM **LOGGED:** LS/SI **CASING:** HW to 7.5 m, HQ to 27.0 m

TYPE OF BORING: Non-destructive drilling to 3.0 m, solid flight auger to 7.5 m, rotary to 27.0 m, NMLC-coring to 34.0 m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS: Standpipe installed to 9.0 m (screen 3.0 m to 9.0 m, blank GL to 3.0 m, gravel 3.0 to 9.0 m, bentonite 2.7 m to 3.0 m, backfill to GL, gatic cover)

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 42.5 AHD
EASTING: 335778
NORTHING: 6248714
DIP/AZIMUTH: 90°/--

BORE No: C21
PROJECT No: 86276.00
DATE: 9 - 11/4/2018
SHEET 2 OF 4

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
		SAND: dense, pale grey, fine grained sand with some silt, moist *(continued)*		S	10.0		8,14,19 N = 33		
					10.45				
				S	11.5		8,14,16 N = 30		
					11.95				
				S	13.0		18,23,27 N = 50		
		13.5 m: becoming cemented, dense to very dense sand			13.45				
	14.0	SAND: medium dense, pale yellow-brown, fine to medium grained sand, slightly silty		S	14.5		7,9,11 N = 20		
					14.95				
				S	16.0		5,7,7 N = 14		
					16.45				
				S	17.0		7,7,12 N = 19		
					17.95				
				S	19.0		5,8,11 N = 19		
					19.45				

RIG: NDD/DT250 **DRILLER:** Vac Group/GM **LOGGED:** LS/SI **CASING:** HW to 7.5 m, HQ to 27.0 m

TYPE OF BORING: Non-destructive drilling to 3.0 m, solid flight auger to 7.5 m, rotary to 27.0 m, NMLC-coring to 34.0 m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS: Standpipe installed to 9.0 m (screen 3.0 m to 9.0 m, blank GL to 3.0 m, gravel 3.0 to 9.0 m, bentonite 2.7 m to 3.0 m, backfill to GL, gatic cover)

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 42.5 AHD
EASTING: 335778
NORTHING: 6248714
DIP/AZIMUTH: 90°/--

BORE No: C21
PROJECT No: 86276.00
DATE: 9 - 11/4/2018
SHEET 3 OF 4

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
		SAND: medium dense, pale yellow-brown, fine to medium grained sand, slightly silty *(continued)*							
				S	20.5		5,9,12 N = 21		
					20.95				
									Backfill
				S	22.0		9,10,15 N = 25		
					22.45				
	23.0	CLAYEY SAND: dense, brown, medium grained clayey sand							
				S	23.5		10,14,18 N = 32		
					23.95				
				S	24.0		11,13,15 N = 28		
					24.45				
	25.0	SANDSTONE: extemely to very low strength, pale grey-brown, fine grained sandstone		S	25.5		25/145 refusal		
					25.64				
	26.8				26.8		PL(A) = 1.37		
		SANDSTONE: high then medium strength, highly and highly to moderately weathered, slightly fractured, red-brown then brown, medium grained sandstone with some very low strength bands		C	27.53		PL(A) = 0.71		
	28.17				28.17				
	28.25	SANDSTONE: low and low to medium strength, highly to moderately weathered, slightly fractured, pale grey brown, medium grained sandstone, with some very low strength bands			28.51		PL(A) = 0.4		
				C					
					29.52		PL(A) = 0.3		

RIG: NDD/DT250 **DRILLER:** Vac Group/GM **LOGGED:** LS/SI **CASING:** HW to 7.5 m, HQ to 27.0 m

TYPE OF BORING: Non-destructive drilling to 3.0 m, solid flight auger to 7.5 m, rotary to 27.0 m, NMLC-coring to 34.0 m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS: Standpipe installed to 9.0 m (screen 3.0 m to 9.0 m, blank GL to 3.0 m, gravel 3.0 to 9.0 m, bentonite 2.7 m to 3.0 m, backfill to GL, gatic cover)

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 42.5 AHD
EASTING: 335778
NORTHING: 6248714
DIP/AZIMUTH: 90°/--

BORE No: C21
PROJECT No: 86276.00
DATE: 9 - 11/4/2018
SHEET 4 OF 4

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
		SANDSTONE (continued)			30.21		PL(A) = 0.1		
12	30.45	SANDSTONE: high strength, fresh, slightly fractured and unbroken, pale grey medium grained sandstone		C	30.55		PL(A) = 1.47		
	31				31.1				
11					31.49		PL(A) = 1.66		
	32								
10				C					
					32.78		PL(A) = 2.21		
	33				33.2		PL(A) = 1.56		
9	34 34.0	Bore discontinued at 34.0m - Target depth reached			34.0				
8	35								
7	36								
6	37								
5	38								
4	39								
3									

RIG: NDD/DT250 **DRILLER:** Vac Group/GM **LOGGED:** LS/SI **CASING:** HW to 7.5 m, HQ to 27.0 m

TYPE OF BORING: Non-destructive drilling to 3.0 m, solid flight auger to 7.5 m, rotary to 27.0 m, NMLC-coring to 34.0 m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS: Standpipe installed to 9.0 m (screen 3.0 m to 9.0 m, blank GL to 3.0 m, gravel 3.0 to 9.0 m, bentonite 2.7 m to 3.0 m, backfill to GL, gatic cover)

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 39.1 AHD
EASTING: 335860
NORTHING: 6248711
DIP/AZIMUTH: 90°/--

BORE No: C22
PROJECT No: 86276.00
DATE: 7/5/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
39	0.06	TOPSOIL: light grey and brown, topsoil, fine to medium grained sand, some silt, trace of rootlets, moist							
		FILLING: brown, medium to coarse grained sand filling, trace of silt, moist to wet		A/E	0.2 0.3		PID<5		
	0.4	FILLING: dark grey, angular to sub-angular, ingeous gravel (5-10 mm), some coarse grained sand, moist to wet		A/E	0.4 0.5		PID<5		
	0.55	FILLING: brown, medium to coarse grained sand, some silt, trace of sandstone and ironstone gravel (10-30 mm) and ash, moist to wet		A/E	0.7 0.8		PID<5		
38	0.8	SAND: yellow-brown, fine to medium grained sand, trace of clay, moist							
	1			A/E	1.4		PID<5		1
	1.5	Bore discontinued at 1.5m - Target depth reached			1.5				
	2								2
37									
	3								3
36									
	4								4
35									

RIG: Hand auger **DRILLER:** LS **LOGGED:** LS **CASING:** uncased
TYPE OF BORING: 100 mm dia. hand-auger to 1.5 m
WATER OBSERVATIONS: No free groundwater observed
REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 39.2 AHD
EASTING: 335871
NORTHING: 6248732
DIP/AZIMUTH: 90°/--

BORE No: C23
PROJECT No: 86276.00
DATE: 9/5/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
39	0.065	TOPSOIL: brown, sand topsoil, fine to medium grained, some silt, moist		A/E*	0.07 0.1		PID<5		
		FILLING: brown, medium to coarse grained sand, trace of silt, moist							
	0.4	FILLING: dark grey, igneous gravel (5-10 mm), wet		A/E	0.4 0.5		PID<5		
	0.55								
	0.6	FILLING: dark grey, mottled light grey, clay filling, some brick fragments, and sandstone gravel (10-20 mm), moist to wet		A/E	0.6 0.7		PID<5		
	0.9	FILLING: brown, fine to medium grained sand filling, trace of silt, sandstone gravel (10-20 mm) and brick fragments (10-20 mm), moist to wet							
38	1	SAND: light yellow-brown, fine to medium grained sand, trace of silt, moist to wet		A/E	1.0 1.1		PID<5		1
				A/E	1.4		PID<5		
	1.5	Bore discontinued at 1.5m - Target depth reached			1.5				
	2								2
37									
	3								3
36									
	4								4
35									

RIG: Hand auger **DRILLER:** LS **LOGGED:** LS **CASING:** uncased

TYPE OF BORING: 100 mm dia. hand-auger to 1.5 m

WATER OBSERVATIONS: No free groundwater observed

REMARKS: *'F' duplicate sample

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 39.1 AHD
EASTING: 335929
NORTHING: 6248735
DIP/AZIMUTH: 90°/--

BORE No: C24
PROJECT No: 86276.00
DATE: 8/5/2018
SHEET 1 OF 2

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
39	0.05	TOPSOIL/FILLING: yellow-brown and brown, sand topsoil filling, fine to medium grained, some silt, wet		A/E	0.2		PID<5		
	0.4	FILLING: brown, medium to coarse, sand filling, trace of silt, wet		A/E	0.3 0.4		PID<5		
	0.5				0.5				
	0.65	FILLING: dark grey, angular to sub-angular, igneous gravel filling (5-10 mm), some medium to coarse sand, wet		A/E*	0.7 0.8		PID<5		
38	1	FILLING: grey-brown, fine to medium grained sand, some igneous gravel (20-40 mm), trace silt, moist 0.6 m: brick inclusion (100 mm)		A/E	1.4 1.5		PID<5		1
37	2	SAND: medium dense to dense, yellow-brown, fine to medium grained sand, trace of silt, moist to wet		S	2.5 2.95		3,6,10 N = 16		2
36	3	3.6 m: some silt, moist							3
35	4 4.0	SAND: dense then very dense, pale brown, fine to medium grained sand with some silt		S	4.0 4.45		10,16,25 N = 41		4
34	5			S	5.5 5.95		13,25/145 refusal		5
33	6								6
32	7 7.0	SANDSTONE: extremely low to very low strength, red-brown, medium grained sandstone		S	7.0 7.45		12,12,25/140 refusal		7
	7.6	SANDSTONE: low to medium strength, highly weathered, slightly fractured then unbroken, red-brown, medium to coarse grained sandstone		C	7.6 7.7		PL(A) = 0.35		
31	8 8.15	SANDSTONE: medium strength, moderately weathered then fresh, slightly fractured and unbroken, red-brown then pale grey, medium to coarse grained sandstone			8.6		PL(A) = 0.84		8
30	9				9.5		PL(A) = 0.88		9

RIG: Hand auger/Scout 1 **DRILLER:** LS/GM **LOGGED:** SI/LS **CASING:** HW to 2.0 m, HQ to 7.6 m

TYPE OF BORING: Hand auger to 1.4 m, solid flight auger to 2.0 m, rotary to 7.6 m, NMLC-coring to 13.35 m

WATER OBSERVATIONS: Free groundwater observed at 1.8 m

REMARKS: *'A' duplicate sample

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 39.1 AHD
EASTING: 335929
NORTHING: 6248735
DIP/AZIMUTH: 90°/--

BORE No: C24
PROJECT No: 86276.00
DATE: 8/5/2018
SHEET 2 OF 2

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
29		SANDSTONE: medium strength, moderately weathered then fresh, slightly fractured and unbroken, red-brown then pale grey, medium to coarse grained sandstone *(continued)*		C	10.45		PL(A) = 0.77		
28	11				11.0		PL(A) = 0.83		11
	11.7	SANDSTONE: high strength, fresh, slightly fractured, pale grey, medium grained sandstone		C					
27	12				12.35		PL(A) = 1.87		12
26	13				13.15		PL(A) = 1.1		13
	13.35	Bore discontinued at 13.35m - Target depth reached			13.35				
25	14								14
24	15								15
23	16								16
22	17								17
21	18								18
20	19								19

RIG: Hand auger/Scout 1 **DRILLER:** LS/GM **LOGGED:** SI/LS **CASING:** HW to 2.0 m, HQ to 7.6 m

TYPE OF BORING: Hand auger to 1.4 m, solid flight auger to 2.0 m, rotary to 7.6 m, NMLC-coring to 13.35 m

WATER OBSERVATIONS: Free groundwater observed at 1.8 m

REMARKS: *'A' duplicate sample

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 45.1 AHD
EASTING: 336010
NORTHING: 6248705
DIP/AZIMUTH: 90°/--

BORE No: C25
PROJECT No: 86276.00
DATE: 12/4/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
45	0.05	ASPHALT							Gatic Cover/Top Cap
		FILLING: light grey, sandy gravel filling, fine to medium grained sand, angular to sub-angular gravel (10-20 mm), with some concrete and brick fragments (10-40 mm), trace of clay and silt							
	0.4	FILLING: yellow brown, sand filling, fine to medium grained, slightly clayey		A/E	0.4 0.5		PID<5		Casing/Backfill
		0.5 m: with some brick, concrete and sandstone inclusions (20-50 mm)							
44	1.0	SAND: yellow brown, sand, fine to medium grained, some clay		A/E	1.0 1.1		PID<5		Bentonite
				A/E	1.4 1.5		PID<5		
43	2			A/E	2.0 2.1		PID<5		
42	3								Machine slotted PVC screen 1.5-4.5m/Gravel
41	4.0	SANDSTONE: very low strength, red-brown and yellow-brown sandstone		A/E	4.0 4.1				End cap
	4.5	Bore discontinued at 4.5m - Target depth reached							

RIG: NDD/Scout 1 **DRILLER:** Vac Group/GM **LOGGED:** LS **CASING:** uncased

TYPE OF BORING: Non-destructive drilling to 3.0 m, solid flight auger to 4.5 m

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Standpipe installed to 4.5 m (screen 1.5 m to 4.5 m, blank GL to 1.5 m, gravel 1.5 to 4.5 m, bentonite 1.0 m to 1.5 m, backfill to GL, gatic cover)

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 42.1 AHD
EASTING: 335778
NORTHING: 6248695
DIP/AZIMUTH: 90°/--

BORE No: C26
PROJECT No: 86276.00
DATE: 8/4/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
42	0.1	ASPHALT							
		FILLING: brown sandy gravel filling, medium to coarse grained, angular to sub-angular roadbase gravel with some clay and ash, moist		A/E*	0.15 0.18		PID<5		
	0.3	FILLING: grey-brown brick and sandstone cobble filling with clayey sand, moist 0.5m: tree root (20mm), wire (5mm) 0.6m: glass inclusion (40mm)		A/E	0.4 0.5		PID<5		
				A/E	0.9 1.0		PID<5		
41	1	1.0m: brick fragment, sandstone gravel (20-50mm) and sandy clay							1
				A/E	1.4 1.5		PID<5		
	1.6	FILLING: dark brown clay filling with some coarse sand and sandstone gravel (20-40mm), moist							
	2	1.9m: plastic inclusion (40mm)		A/E	1.9 2.0		PID<5		2
40	2.1	Bore discontinued at 2.1m - Refusal on sandstone gravel							
	3								3
39									
	4								4
38									

RIG: NDD **DRILLER:** Vac Group **LOGGED:** LS **CASING:** Uncased

TYPE OF BORING: Non-destructive drilling to 2.1 m

WATER OBSERVATIONS: No free groundwater observed

REMARKS: *09042018-3-3 duplicate sample

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 39.1 AHD
EASTING: 335860
NORTHING: 6248686
DIP/AZIMUTH: 90°/--

BORE No: C27
PROJECT No: 86276.00
DATE: 7/5/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
39	0.05	TOPSOIL: light grey and brown topsoil, fine to medium grained sand, some silt, moist							
		FILLING: brown, medium to coarse grained sand filling, trace of silt, moist to wet							
	0.4				0.4				
		FILLING: dark grey, angular to sub-angular, igneous gravel filling (5-10 mm), some medium to coarse grained sand and ash, moist		A/E			PID<5		
	0.5				0.5				
		Bore discontinued at 0.5m - Refusal on sandstone boulder							
38	1								1
37	2								2
36	3								3
35	4								4

RIG: Hand auger **DRILLER:** LS **LOGGED:** LS **CASING:** uncased
TYPE OF BORING: 100 mm dia. hand-auger to 0.5 m
WATER OBSERVATIONS: No free groundwater observed
REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 39.2 AHD
EASTING: 335871
NORTHING: 6248702
DIP/AZIMUTH: 90°/--

BORE No: C28
PROJECT No: 86276.00
DATE: 9/5/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
39	0.06	TOPSOIL: brown, sand topsoil, fine to medium grained, some silt, moist to wet		A/E*	0.06 - 0.1		PID<5		
	0.16	FILLING: brown, medium to coarse grained sand filling, trace of silt, moist							
		FILLING: dark brown, sand filling, medium to coarse grained sand, trace of silt, brick (5-30 mm), clay, sandstone gravel (5-30 mm) and ash, moist		A/E	0.55 - 0.65		PID<5		
				A/E	0.7 - 0.8		PID<5		
				A/E	0.9 - 1.0		PID<5		
38	1	0.95 m: becoming light brown							1
		1.1 m: tile fragments (20mm)		A/E	1.2 - 1.3		PID<5		
		1.4 m: saturated		A/E	1.5 - 1.6		PID<5		
	1.65	Bore discontinued at 1.65m - Refusal on unknown object							
	2								2
37									
	3								3
36									
	4								4
35									

RIG: Hand auger **DRILLER:** LS **LOGGED:** LS **CASING:** uncased

TYPE OF BORING: 100 mm dia. hand-auger to 1.65 m

WATER OBSERVATIONS: Water observed at 1.4 m (after 10 minutes)

REMARKS: *'E' duplicate sample

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 39.1 AHD
EASTING: 335930
NORTHING: 6248700
DIP/AZIMUTH: 90°/--

BORE No: C29
PROJECT No: 86276.00
DATE: 8/5/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
39	0.07	TOPSOIL: brown, sand topsoil, fine to medium grained, some silt, moist							
		FILLING: brown, medium to coarse grained sand filling, trace of silt, moist		A/E	0.1 0.2		PID<5		
		0.5 m: some igneous gravel (5-10 mm)		A/E	0.4 0.5		PID<5		
	0.6	Bore discontinued at 0.6m - Refusal on sandstone boulders							
38	1								1
37	2								2
36	3								3
35	4								4

RIG: Hand auger **DRILLER:** LS **LOGGED:** LS **CASING:** uncased
TYPE OF BORING: 100 mm dia. hand-auger to 0.6 m
WATER OBSERVATIONS: No free groundwater observed
REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 44.7 AHD
EASTING: 336005
NORTHING: 6248697
DIP/AZIMUTH: 90°/--

BORE No: C30
PROJECT No: 86276.00
DATE: 12/4/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
44	0.03	ASPHALT		A/E	0.03 0.05		PID<5		
		FILLING: brown, sandy gravel filling, angular to sub-angular roadbase gravel, medium to coarse grained sand, trace of tile fragments, silt and clay, humid							
	0.4	0.3 m: sandstone and concrete path		A/E	0.4 0.5		PID<5		
		FILLING: brown, sandy gravel filling, sandstone and roadbase gravel (20-40 mm), fine to medium sand, some brick, tile and glass inclusions (10-40 mm), wet							
	0.7	FILLING: dark brown, sand filling, fine to medium grained sand with some clay, sandstone and roadbase gravel (2-10 mm) and ash, moist		A/E	0.9 1.0		PID<5		
43	1.4	SAND: brown, fine to medium grained sand, some clay, saturated		A/E	1.4 1.5		PID<5		
				A/E	1.9 2.0		PID<5		
42				A/E	2.5 2.6		PID<5		
	3.0	Bore discontinued at 3.0m - Target depth reached							
41									
40									

RIG: NDD **DRILLER:** Vac Group **LOGGED:** LS **CASING:** uncased

TYPE OF BORING: Non-destructive drilling to 3.0 m

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 40.8 AHD
EASTING: 335782
NORTHING: 6248668
DIP/AZIMUTH: 90°/--

BORE No: C31
PROJECT No: 86276.00
DATE: 10 - 28/4/2018
SHEET 1 OF 4

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
40	0.11	ASPHALT		A/E	0.11 - 0.12		PID<5		
	0.32 - 0.35	FILLING: brown, sandy gravel filling, angular to sub-angular roadbase gravel, trace of clay		A/E	0.4 - 0.5		PID<5		
	0.7	ASPHALT							
1		FILLING: dark grey, roadbase and sandstone gravel, (2.5-30 mm), some coarse sand, brick inclusions, (30-80 mm), trace of clay		A/E	0.9 - 1.0		PID<5		1
		FILLING: dark grey, sand filling, medium to coarse grained, some clay , trace of sandstone gravel, (15-20 mm) and ash		A/E	1.4 - 1.5		PID<5		
39				A/E	1.9 - 2.0		PID<5		
2	2.2	SAND: medium dense, light grey, fine to medium grained sand, trace of clay							2
38									
3		3.4-5.8 m: brown							3
37									
4				S	4.0 - 4.45		8,8,13 N = 21		4
36									
5									5
35		5.8-7.3 m: light yellow-brown							
6									6
34									
7				S	7.0 - 7.45		22,3,6 N = 9		7
33									
8									8
32									
9		9.2 m: becoming light grey and light yellow-brown clayey sand							9
31									

RIG: NDD/Scout 1 **DRILLER:** Vac Group/GM **LOGGED:** LS/SI **CASING:** HW to 7.5 m, HQ to 31.2 m

TYPE OF BORING: Non-destructive drilling to 3.0 m, solid flight auger to 7.5 m, rotary to 31.2 m, NMLC-coring to 36.2 m

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 40.8 AHD
EASTING: 335782
NORTHING: 6248668
DIP/AZIMUTH: 90°/--

BORE No: C31
PROJECT No: 86276.00
DATE: 10 - 28/4/2018
SHEET 2 OF 4

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
30	11	SAND: medium dense, light grey, fine to medium grained sand, trace of clay *(continued)*		S	10.0 10.45		4,8,12 N = 20		11
29	11.9 12	SAND: very dense, light grey-brown, fine to medium grained sand							12
28	13	13.0 m: becoming light yellow-brown, some clay		S	13.0 13.13		25/130 refusal		13
27	14								14
26	15	15.5 m: becoming red-brown clayey sand							15
25	16			S	16.0 16.45		6,7,6 N = 13		16
24	16.9 17	SILTY CLAY: very stiff, red-brown mottled light grey, silty clay, some fine sand		S	17.5		6,11,13 N = 24		17
23	18	18.0-22.0 m: slightly sandy			17.95				18
22	19			S	19.0 19.45		6,10,17 N = 27		19
21									

RIG: NDD/Scout 1 **DRILLER:** Vac Group/GM **LOGGED:** LS/SI **CASING:** HW to 7.5 m, HQ to 31.2 m

TYPE OF BORING: Non-destructive drilling to 3.0 m, solid flight auger to 7.5 m, rotary to 31.2 m, NMLC-coring to 36.2 m

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 40.8 AHD
EASTING: 335782
NORTHING: 6248668
DIP/AZIMUTH: 90°/--

BORE No: C31
PROJECT No: 86276.00
DATE: 10 - 28/4/2018
SHEET 3 OF 4

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
		SILTY CLAY: very stiff, red-brown mottled light grey, silty clay, some fine sand *(continued)*							
				S	20.5		4,6,10 N = 16		
					20.95				
				S	22.0		4,7,11 N = 18		
					22.45				
					23.5				
	23.6	SANDY CLAY: very stiff, light grey, sandy clay, fine to medium grained sand		S			6,10,12 N = 22		
		23.7 m: red-brown mottled orange-brown and light grey			23.95				
	25.0	CLAYEY SAND: medium dense, light grey, clayey sand, fine to medium sand		S	25.0		7,13,13 N = 26		
					25.45				
				S	26.0		7,11,14 N = 25		
	26.5	CLAY: very stiff, light grey, clay, some fine to medium sand			26.45				

RIG: NDD/Scout 1 **DRILLER:** Vac Group/GM **LOGGED:** LS/SI **CASING:** HW to 7.5 m, HQ to 31.2 m

TYPE OF BORING: Non-destructive drilling to 3.0 m, solid flight auger to 7.5 m, rotary to 31.2 m, NMLC-coring to 36.2 m

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 40.8 AHD
EASTING: 335782
NORTHING: 6248668
DIP/AZIMUTH: 90°/--

BORE No: C31
PROJECT No: 86276.00
DATE: 10 - 28/4/2018
SHEET 4 OF 4

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
		CLAY: very stiff, light grey, clay, some fine to medium sand *(continued)*							
	31								31
	31.2	SANDSTONE: very low strength, highly weathered, slightly fractured, pale grey-brown, fine to medium grainded sandstone			31.2				
					31.35		PL(A) = 0.1		
	32 31.96				32.14		PL(A) = 0.1		32
	32.4	SANDSTONE: high strength, fresh, slightly fractured, pale grey, medium grained sandstone with some siltstone flakes		C					
	33				32.93		PL(A) = 1.1		33
					33.9		PL(A) = 1.1		
	34 34.0	SANDSTONE: medium strength, fresh, fractured and slightly fractured, pale grey, medium grained sandstone with some clay bands			34.2				34
					34.75		PL(A) = 0.58		
	35			C					35
					35.7		PL(A) = 0.56		
	36				36.0		PL(A) = 0.61		36
	36.2	Bore discontinued at 36.2m - Target depth reached			36.2				
	37								37
	38								38
	39								39

RIG: NDD/Scout 1 **DRILLER:** Vac Group/GM **LOGGED:** LS/SI **CASING:** HW to 7.5 m, HQ to 31.2 m

TYPE OF BORING: Non-destructive drilling to 3.0 m, solid flight auger to 7.5 m, rotary to 31.2 m, NMLC-coring to 36.2 m

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 39.1 AHD
EASTING: 335861
NORTHING: 6248655
DIP/AZIMUTH: 90°/--

BORE No: C32
PROJECT No: 86276.00
DATE: 7/5/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
39	0.08	TOPSOIL: light grey and brown topsoil, fine to medium grained sand, trace of silt and rootlets, moist							
		FILLING: brown, medium to coarse grained sand, some silt, moist							
	0.4	0.35 m: brick inclusions (50-100 mm)			0.45				
	0.5	FILLING: dark grey, angular to sub-angular igneous gravel (5-10 mm), some fine to medium grained sand, wet		A/E			PID<5		
		FILLING: brown, medium to coarse grained sand filling, trace of silt, wet			0.6				
	0.9	SAND: yellow-brown, fine to medium grained sand, trace of silt, moist		A/E	0.9		PID<5		
38	1				1.0				1
					1.4				
	1.5			A/E			PID<5		
		Bore discontinued at 1.5m - Target depth reached			1.5				
	2								2
37									
	3								3
36									
	4								4
35									

RIG: Hand auger **DRILLER:** LS **LOGGED:** LS **CASING:** uncased
TYPE OF BORING: 100 mm dia. hand-auger to 1.5 m
WATER OBSERVATIONS: No free groundwater observed
REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 39.2 AHD
EASTING: 335884
NORTHING: 6248655
DIP/AZIMUTH: 90°/--

BORE No: C33
PROJECT No: 86276.00
DATE: 9/5/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
39	0.05	TOPSOIL: brown, sand topsoil, fine to medium grained, some silt, moist		A/E	0.05 0.09		PID<5		
	0.25	FILLING: brown, medium to coarse grained sand filling, trace of silt, moist							
		FILLING: brown, sandy gravel filling, angular to sub-angular, roadbase gravel (10-20 mm), fine to coarse grained sand with some silt, moist		A/E	0.4 0.5		PID<5		
	0.5	FILLING: dark grey, igneous gravel (5-10 mm), some ash, moist to wet		A/E	0.7 0.8		PID<5		
	0.8	SAND: light yellow-brown and brown, fine to medium grained sand, trace of silt, moist		A/E	0.9 1.0		PID<5		
38	1								1
				A/E	1.4		PID<5		
	1.5	Bore discontinued at 1.5m - Target depth reached			1.5				
37	2								2
36	3								3
35	4								4

RIG: Hand auger **DRILLER:** LS **LOGGED:** LS **CASING:** uncased
TYPE OF BORING: 100 mm dia. hand-auger to 1.5 m
WATER OBSERVATIONS: No free groundwater observed
REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 39.1 AHD
EASTING: 335923
NORTHING: 6248656
DIP/AZIMUTH: 90°/--

BORE No: C34
PROJECT No: 86276.00
DATE: 9/5/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
39	0.04	TOPSOIL: light brown, sand topsoil, fine to medium grained, some silt, moist		A/E	0.05 0.09		PID<5		
		FILLING: brown, medium to coarse grained sand, trace of silt and ash, moist		A/E	0.3		PID<5		
		0.4 m: dark grey with some clay and beds of brown medium to coarse sand		A/E	0.4 0.5		PID<5		
	0.6	0.5 m: brick inclusion 70 mm		A/E	0.6 0.7		PID<5		
		SAND: light yellow-brown, fine to medium grained sand, trace of silt, moist							
38	1			A/E	1.0 1.1		PID<5		1
	1.15	Bore discontinued at 1.15m - Target depth reached							
37	2								2
36	3								3
35	4								4

RIG: Hand auger **DRILLER:** LS **LOGGED:** LS **CASING:** uncased
TYPE OF BORING: 100 mm dia. hand-auger to 1.15 m
WATER OBSERVATIONS: No free groundwater observed
REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 42.1 AHD
EASTING: 335983
NORTHING: 6248652
DIP/AZIMUTH: 90°/--

BORE No: C35
PROJECT No: 86276.00
DATE: 12/4/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
42	0.05	ASPHALT							Gatic Cover/Top Cap
		FILLING: sandy gravel, angular to sub-angular gravel, medium to coarse grained sand, some clay and silt		A/E*	0.1 0.15		PID<5		
	0.4	FILLING: yellow brown, sandstone boulders (250 mm), some sandy clay and ash							Casing/Backfill
				A/E**	0.8 0.9		PID<5		
41	1.0	SAND: light grey brown, fine to medium grained sand with a trace of clay							Bentonite
		1.6 m: becoming brown		A/E	1.7 1.8		PID<5		
40	2			A/E	2.2 2.3		PID<5		
39	3								Machine slotted PVC screen 1.5-4.5m/Gravel
38	4								
	4.5	Bore discontinued at 4.5m - Target depth reached							End cap

RIG: NDD **DRILLER:** Vac Group **LOGGED:** LS **CASING:** uncased

TYPE OF BORING: Non-destructive drilling to 4.5 m

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Standpipe installed to 4.5 m (screen 1.5 m to 4.5 m, blank GL to 1.5 m, gravel 1.5 to 4.5 m, bentonite 1.0 m to 1.5 m, backfill to GL, gatic cover); *'apple' duplicate sample; **'banana' duplicate sample

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 41.4 AHD
EASTING: 335971
NORTHING: 6248635
DIP/AZIMUTH: 90°/--

BORE No: C36
PROJECT No: 86276.00
DATE: 13 - 17/4/2018
SHEET 1 OF 3

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
41	0.05	ASPHALT							
	0.54	FILLING: brown, sandy gravel filling, angular to sub-angular roadbase gravel, medium to coarse grained sand, some silt and clay		A/E	0.4 0.45		PID<5		
	0.9	FILLING: brown sand filling, fine to medium grained, some sandstone gravels (40-60 mm), trace of clay with some brick fragments (2-3 mm)		A/E	0.9 1.0		PID<5		
40		SAND: medium dense, grey brown, sand, fine to medium grained, trace of clay		A/E	1.4 1.5		PID<5		
39									
38				S	3.0 3.45		7,10,11 N = 21		
37	4.0	SAND: dense then very dense, light grey, fine to medium grained sand, slightly cemented							
36				S	5.5 5.95		9,13,18 N = 31		
35									
34				S	7.0 7.45		11,15,17 N = 32	30-05-18	
33		8.0 m: becoming very dense		S	8.5 8.95		14,27/100 refusal		
32									

RIG: NDD/DT250 **DRILLER:** Vac Group/GM **LOGGED:** LS/SI **CASING:** HQ to 15.65 m

TYPE OF BORING: Non-destructive drilling to 3.0 m, rotary to 15.65 m, NMLC-coring to 21.6 m

WATER OBSERVATIONS: No free groundwater observed whilst NDD

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 41.4 AHD
EASTING: 335971
NORTHING: 6248635
DIP/AZIMUTH: 90°/--

BORE No: C36
PROJECT No: 86276.00
DATE: 13 - 17/4/2018
SHEET 2 OF 3

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
31		SAND: dense then very dense, light grey, fine to medium grained sand, slightly cemented *(continued)*		S	10.0 10.2		23,25/50 refusal		
	11.0	CLAYEY SAND: loose to medium dense, grey-brown, fine clayey sand							
30				S	11.5 11.95		5,3,5 N = 8		
29				S	13.0 13.45		7,9,3 N = 12		
28				S	14.5 14.95		2,3,5 N = 8		
27									
26	15.5								
	15.65	SANDSTONE: extremely low strength, light grey-brown, fine grained sandstone			15.65				
25		SANDSTONE: very low to low and low strength, extremely to highly weathered, unbroken, red-brown orange-brown and light grey, fine grained sandstone		C	17.5		PL(A) = 0.13		
24	18.24								
23		SANDSTONE: medium then high strength, fresh stained then fresh, slightly fractured and unbroken, grey-brown, medium grained sandstone, thickly bedded			18.4 18.62		PL(A) = 0.65		
22				C	19.6		PL(A) = 0.93		

RIG: NDD/DT250 **DRILLER:** Vac Group/GM **LOGGED:** LS/SI **CASING:** HQ to 15.65 m

TYPE OF BORING: Non-destructive drilling to 3.0 m, rotary to 15.65 m, NMLC-coring to 21.6 m

WATER OBSERVATIONS: No free groundwater observed whilst NDD

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 41.4 AHD
EASTING: 335971
NORTHING: 6248635
DIP/AZIMUTH: 90°/--

BORE No: C36
PROJECT No: 86276.00
DATE: 13 - 17/4/2018
SHEET 3 OF 3

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
21	20.48	SANDSTONE: high strength, fresh, slightly fractured and unbroken, grey-brown, medium grained sandstone, thickly bedded		C	20.6				
				C	20.75		PL(A) = 1.1		
					21.3		PL(A) = 1.17		
20	21.6	Bore discontinued at 21.6m - Target depth reached			21.6				
19	22								
18	23								
17	24								
16	25								
15	26								
14	27								
13	28								
12	29								

RIG: NDD/DT250 **DRILLER:** Vac Group/GM **LOGGED:** LS/SI **CASING:** HQ to 15.65 m

TYPE OF BORING: Non-destructive drilling to 3.0 m, rotary to 15.65 m, NMLC-coring to 21.6 m

WATER OBSERVATIONS: No free groundwater observed whilst NDD

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 38.6 AHD
EASTING: 335791
NORTHING: 6248581
DIP/AZIMUTH: 90°/--

BORE No: C37
PROJECT No: 86276.00
DATE: 17 - 20/4/2018
SHEET 1 OF 4

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
38	0.02	ASPHALT							Gatic Cover/Top Cap
	0.15	FILLING: brown, sandy gravel filling, angular to sub-angular roadbase gravel, medium to coarse grained sand with some clay and silt, damp		A/E	0.4 0.5		PID<5		
	0.9	FILLING: brown, clay filling, some coarse sand and gravel, ironstone sandstone gravel and concrete fragments (20-100 mm) and ash		A/E	0.9 1.0		PID<5		
37		SAND: medium dense, light grey, fine to medium sand with a trace of clay, moist		A/E	1.4 1.5		PID<5		Casing/Backfill
		1.3-1.4 m: clayey sand							
36				A	2.9 3.0				Bentonite
35				S	4.0 4.45		5,7,9 N = 16		
34		4.7 m: light yellow-brown and light grey							
		4.8 m: becoming wet		S	5.5 5.95		4,5,5 N = 10	30-05-18	Machine slotted PVC screen 3.0-9.0m/Gravel
32		7.0 m: with some clay		S	7.0 7.45		6,6,6 N = 12		
31	8.0	SAND: dense, light grey, fine to medium grained sand with some silt and clay		S	8.5 8.95		12,17,26 N = 43		End cap
30									
29									

RIG: NDD/Geo305 **DRILLER:** Vac Group/LC **LOGGED:** SI/LS **CASING:** HW to 5.5 m

TYPE OF BORING: Non-destructive drilling to 3.0 m, solid flight auger to 5.5 m, rotary to 31.0 m, NMLC-coring to 38.08 m

WATER OBSERVATIONS: Groundwater encountered at 4.6 m whilst augering

REMARKS: Standpipe installed to 9.0 m (screen 3.0 m to 9.0 m, blank GL to 3.0 m, gravel 3.0 to 9.0 m, bentonite 2.7 m to 3.0 m, backfill to GL, gatic cover)

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 38.6 AHD
EASTING: 335791
NORTHING: 6248581
DIP/AZIMUTH: 90°/--

BORE No: C37
PROJECT No: 86276.00
DATE: 17 - 20/4/2018
SHEET 2 OF 4

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
28	11	SAND: dense, light grey, fine to medium grained sand with some silt and clay *(continued)*							
				S	11.5		9,13,18 N = 31		
27	12				11.95				
26		12.5 m: becoming very dense sand							
	13			S	13.0		20,31,37 N = 68		
25	13.6				13.45				
		SANDY CLAY: firm to stiff, grey, sandy clay, fine to medium grained sand							
24	14			S	14.5		0,0,3 N = 3		
	15				14.95				
23		15.5 m: becoming stiff							
	16			S	16.0		2,5,6 N = 11		
22					16.45				
	17								
21				S	17.5		3,4,6 N = 10		
	18	18.0			17.95				
20		SAND: medium dense, light grey and red-brown, sand, medium to coarse grained, slightly clayey							
	19			S	19.0		11,13,14 N = 27		
19					19.45				
		20.0							

RIG: NDD/Geo305 **DRILLER:** Vac Group/LC **LOGGED:** SI/LS **CASING:** HW to 5.5 m

TYPE OF BORING: Non-destructive drilling to 3.0 m, solid flight auger to 5.5 m, rotary to 31.0 m, NMLC-coring to 38.08 m

WATER OBSERVATIONS: Groundwater encountered at 4.6 m whilst augering

REMARKS: Standpipe installed to 9.0 m (screen 3.0 m to 9.0 m, blank GL to 3.0 m, gravel 3.0 to 9.0 m, bentonite 2.7 m to 3.0 m, backfill to GL, gatic cover)

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 38.6 AHD
EASTING: 335791
NORTHING: 6248581
DIP/AZIMUTH: 90°/--

BORE No: C37
PROJECT No: 86276.00
DATE: 17 - 20/4/2018
SHEET 3 OF 4

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
18	21	CLAY: stiff, light grey mottled red-brown clay, with some fine to medium grained sand		S	20.5		3,4,6 N = 10		21
					20.95				
17	22			S	22.0		0,3,7 N = 10		22
					22.45				
16	23	23.0 m: becoming very stiff, red-brown mottled light grey, sandy clay							23
15				S	23.5		4,7,11 N = 18		Backfill
	24				23.95				24
14	25			S	25.0		5,9,5 N = 14		25
					25.45				
13	26			S	26.0		2,7,19 N = 26		26
12	26.7	SAND: dense, red-brown, medium to coarse grained sand, slightly clayey							
	27				26.95				27
11	28			S	28.0		11,18,25 N = 43		28
					28.45				
10	29	29.0 m: becoming loose sand							29
9				S	29.5		9,5,3 N = 8 No recovery		
					29.95				

RIG: NDD/Geo305 **DRILLER:** Vac Group/LC **LOGGED:** SI/LS **CASING:** HW to 5.5 m

TYPE OF BORING: Non-destructive drilling to 3.0 m, solid flight auger to 5.5 m, rotary to 31.0 m, NMLC-coring to 38.08 m

WATER OBSERVATIONS: Groundwater encountered at 4.6 m whilst augering

REMARKS: Standpipe installed to 9.0 m (screen 3.0 m to 9.0 m, blank GL to 3.0 m, gravel 3.0 to 9.0 m, bentonite 2.7 m to 3.0 m, backfill to GL, gatic cover)

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 38.6 AHD
EASTING: 335791
NORTHING: 6248581
DIP/AZIMUTH: 90°/--

BORE No: C37
PROJECT No: 86276.00
DATE: 17 - 20/4/2018
SHEET 4 OF 4

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
		SAND: dense, red-brown, medium to coarse grained sand, slightly clayey *(continued)*							
	30.5	SANDSTONE: extremely low strength, orange-brown and red-brown, fine to medium grained sandstone							
	31				31.0				
	31.18	SANDSTONE: extremely low and very low strength, extremely and highly weathered, slightly fractured, red-brown, fine grained sandstone with low strength bands		C					
	31.68	SANDSTONE: medium and high strength, fresh stained, slightly fractured and unbroken, light grey, medium grained sandstone, thickly bedded			31.95		PL(A) = 0.87		
	32				32.2				
	33				32.95		PL(A) = 1.29		
				C					
	34				33.8		PL(A) = 0.86		
					34.8		PL(A) = 1.08		
	35				35.13				
	35.75	SANDSTONE: high strength, fresh stained then fresh, slightly fractured and unbroken, pale grey, medium grained sandstone							
	36				35.95		PL(A) = 1.24		
				C					
	37				36.95		PL(A) = 1.51		
	38				37.95		PL(A) = 2.95		
	38.08	Bore discontinued at 38.08m - Target depth reached			38.08				
	39								

RIG: NDD/Geo305 **DRILLER:** Vac Group/LC **LOGGED:** SI/LS **CASING:** HW to 5.5 m

TYPE OF BORING: Non-destructive drilling to 3.0 m, solid flight auger to 5.5 m, rotary to 31.0 m, NMLC-coring to 38.08 m

WATER OBSERVATIONS: Groundwater encountered at 4.6 m whilst augering

REMARKS: Standpipe installed to 9.0 m (screen 3.0 m to 9.0 m, blank GL to 3.0 m, gravel 3.0 to 9.0 m, bentonite 2.7 m to 3.0 m, backfill to GL, gatic cover)

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 40.2 AHD
EASTING: 335868
NORTHING: 6248615
DIP/AZIMUTH: 90°/--

BORE No: C38
PROJECT No: 86276.00
DATE: 18/4/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
40	0.04	ASPHALT							
		FILLING: brown, sand filling, coarse grained, some brick, sandstone and roadbase gravel (20-30 mm) and ash, humid		A/E	0.1 0.15		PID<5		
	0.3	Bore discontinued at 0.3m - Hand auger refusal on gravel							
	1								1
39									
	2								2
38									
	3								3
37									
	4								4
36									

RIG: Hand auger **DRILLER:** LS **LOGGED:** LS **CASING:** uncased
TYPE OF BORING: 100 mm dia. hand-auger to 0.3 m
WATER OBSERVATIONS: No free groundwater observed
REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 40.7 AHD
EASTING: 335937
NORTHING: 6248620
DIP/AZIMUTH: 90°/--

BORE No: C39
PROJECT No: 86276.00
DATE: 13/4/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
40	0.05	ASPHALT							
		FILLING: brown, sandy gravel filling, angular to sub-angular roadbase gravel, medium to coarse grained sand, damp		A/E	0.1 0.15		PID<5		
	0.25	FILLING: light brown, sand filling, fine to medium grained with some sandstone gravel (40-60 mm), moist		A/E	0.5 0.6		PID<5		
	0.8	FILLING: dark brown, sand filling, fine to medium grained with a trace of clay, moist		A/E	0.9 1.0		PID<5		
39	1.2	SAND: light grey brown, sand, fine to medium grained, trace of clay, moist		A/E	1.4 1.5		PID<5		
	1.9	Bore discontinued at 1.9m - Target depth reached		A/E	1.8 1.9		PID<5		
38									
37									
36									

RIG: NDD **DRILLER:** Vac Group **LOGGED:** LS **CASING:** uncased

TYPE OF BORING: Non-destructive drilling to 1.9 m

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Infrastructure NSW
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park Road, MOORE PARK

SURFACE LEVEL: 40.3 AHD
EASTING: 335946
NORTHING: 6248616
DIP/AZIMUTH: 90°/--

BORE No: C40
PROJECT No: 86276.00
DATE: 3/4/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
40	0.04	ASPHALT		A/E	0.05 0.1		PID<5		
	0.3	FILLING: brown, sandy gravel filling, angular to sub-angular, roadbase gravel, medium to coarse grained sand, some clay, moist							
	0.5	FILLING: light brown, sandy clay filling, fine to medium grained, some sandstone gravel (20-50 mm) 0.4 m: brick inclusion (250 mm) Bore discontinued at 0.5m - Refusal on brick and concrete							
39	1								1
38	2								2
37	3								3
36	4								4

RIG: NDD **DRILLER:** Vac Group **LOGGED:** LS **CASING:** uncased

TYPE OF BORING: Non-destructive drilling to 0.5 m

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 45.4 AHD
EASTING: 335790
NORTHING: 6248773
DIP/AZIMUTH: 90°/--

BORE No: BH101
PROJECT No: 86529.00
DATE: 26/2/2019
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
45	0.25	ASPHALT		E	0.25		PID < 1ppm		
	0.5	ROADBASE GRAVEL		E*	0.5		Triplicate BT10A,BT10B		
	0.8	FILLING: light brown sand filling with sandstone gravel							
44	1	FILLING: variably compacted, dark grey sand filling with brick fragments, sandstone, gravel and ash		E	1.0		PID < 1ppm		
				S			19,20,25 N = 45		
				E	1.45 1.5				
43	2			E	2.0		PID < 1ppm		
				S	2.5		9,9,12 N = 21		
42	3			E	2.95 3.0				
	3.0	FILLING: variably compacted, dark brown sand filling with some clay, and trace sandstone gravel, igneous gravel, and brick, humid							
	4			E	4.0				
41				S			11,11,12 N = 23		
		at 5.0m becoming clayey and damp			4.45				
	5								
40					5.5				
	5.8			S			14,17,19 N = 36		
	6	SAND: yellow brown, fine to medium grained sand, humid (possibly filling)			5.95				
39	7								
	7.0	Bore discontinued at 7.0m Termination of hole due to obstruction							
38									
37	8								
	9								
36									

RIG: 140 Explora **DRILLER:** JS **LOGGED:** CN/SB **CASING:** HW to 5.5m

TYPE OF BORING: Solid flight auger to 7.0m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS: SPT at 5.5m bent, hole collapse following auger to 7.0m, obstruction at 5.5m prevented further drilling.

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 45.5 AHD
EASTING: 335795
NORTHING: 6248775
DIP/AZIMUTH: 90°/--

BORE No: BH101A
PROJECT No: 86529.00
DATE: 26/2/2019
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
45	0.25	ASPHALT							
	0.5	ROADBASE GRAVEL							
	0.8	FILLING: light brown sand filling with sandstone gravel							
44	1	FILLING: dark grey sand filling with trace brick fragments, sandstone, gravel and ash							
43	2								
42	3								
	3.0	FILLING: dark brown sand filling with some clay, and trace sandstone gravel, igneous gravel, and brick, humid							
41	4								
		at 5.0m becoming clayey and damp							
40	5								
	5.5	FILLING: dark brown clayey sand with trace gravel, damp		S	5.5		13,13,12 N = 25		
	5.65								
	5.75	CLAY: grey, soft, slightly sandy clay. MC > PL (possibly filling)							
39	6								
	5.95	SAND: medium dense, yellow brown, fine to medium grained sand, humid (possibly filling)			5.95				
		Bore discontinued at 5.95m Termination of hole due to obstruction							
38	7								
37	8								
36	9								

RIG: 140 Explora **DRILLER:** JS **LOGGED:** SB **CASING:** HW to 5.5m

TYPE OF BORING: Solid flight auger to 5.5m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS: Could not advance casing past 5.5m.

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 45.4 AHD
EASTING: 335787
NORTHING: 6248772
DIP/AZIMUTH: 90°/--

BORE No: BH101B
PROJECT No: 86529.00
DATE: 27/2/2019
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
45	0.25	ASPHALT							
	0.5	ROADBASE GRAVEL							
	1.0	FILLING: light brown sand filling with sandstone gravel							
44	1.3	CONCRETE: with conduit							
		Bore discontinued at 1.3m Termination of hole due to obstruction							
43									
42									
41									
40									
39									
38									
37									
36									

RIG: 140 Explora **DRILLER:** JS **LOGGED:** SB **CASING:** Uncased

TYPE OF BORING: Solid flight auger to 1.3m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS: Auger deflected due to obstruciton.

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 46.3 AHD
EASTING: 335803
NORTHING: 6248790
DIP/AZIMUTH: 90°/--

BORE No: BH101C
PROJECT No: 86529.00
DATE: 28/2/2019
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
46	0.03	ASPHALT		E	0.1		PID < 1ppm		
	0.2	FILLING: dark grey, gravelly fine to medium sand filling, humid, gravel igneous		E	0.5		PID < 1ppm		
	0.6	FILLING: pale grey, fine to medium sand filling, with some fine to medium sandtone gravel, humid		E	0.9		PID < 1ppm		
45	1.0	FILLING: orange-grey, fine to medium sand filling, with some fine sandstone gravel, humid							
		Bore discontinued at 1.0m Termination of hole due to obstruction							
44	2								
43	3								
42	4								
41	5								
40	6								
39	7								
38	8								
37	9								

RIG: 140 Explora **DRILLER:** JS **LOGGED:** AH **CASING:** Uncased

TYPE OF BORING: Solid flight auger to 1.0m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 46.3 AHD
EASTING: 335801
NORTHING: 6248794
DIP/AZIMUTH: 90°/--

BORE No: BH101D
PROJECT No: 86529.00
DATE: 4 - 5/3/2019
SHEET 1 OF 4

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
46	0.1	ASPHALT							Gatic Cover
		FILLING: dark brown gravelly sand filling with some sandstone boulders, humid							
45	1			A/E	1.5		PID < 1ppm		
		1.5m: trace clay							
44	2			A/E	2.4		PID < 1ppm		
	2.5	FILLING: dark brown sandy clay filling with some sandstone gravel and cobbles, humid			2.5				
				S			5,8,12 N = 20		
43	3			A/E	2.95 3.0		PID < 1ppm		
		3.5m: clayey sand and sandy clay							
42	4			A/E	4.0		PID < 1ppm		Bentonite 3.5-5m
		4.3m: trace roadbase gravel		S			10,15,13 N = 28		
					4.45				
41	5			A/E	5.0		PID < 1ppm		
					5.5				
				S			8,11,15 N = 26		
40	6			A/E	5.95		PID < 1ppm		
	6.0	SAND: medium dense, yellow-brown, fine to medium grained sand, trace silt, humid			6.0				
39	7			A/E	7.0		PID < 1ppm		Gravel 5.0-24.0m
				S			3,4,8 N = 12		
					7.45				
38	8	8.0m: becoming yellow-brown							
					8.5				
				S			8,8,19 N = 27		
37	9				8.95				

RIG: Scout 4 **DRILLER:** SS **LOGGED:** RK/SI **CASING:** HW to 7.6m, HQ to 24.8m

TYPE OF BORING: NDD to 1.0m, Solid flight auger to 7.5m, Rotary to 24.8m, NMLC to 30.8m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 46.3 AHD
EASTING: 335801
NORTHING: 6248794
DIP/AZIMUTH: 90°/--

BORE No: BH101D
PROJECT No: 86529.00
DATE: 4 - 5/3/2019
SHEET 2 OF 4

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
36		SAND: medium dense, yellow-brown, fine to medium grained sand, trace silt, humid *(continued)*		S	10.0		5,8,13 N = 21		
		10.0m: trace clay			10.45				
	11								11
35					11.5				
		11.5m: becoming yellow-orange with some clay		S			10,13,15 N = 28		
	12				11.95				12
34									
	13 13.0	SAND: dense, pale grey-brown, fine to medium grained sand with trace clay			13.0				13
				S			10,17,22 N = 39		
33					13.45				
	14								14
32					14.5				Machine slotted PVC screen 5.5-23.5m
				S			13,19,22 N = 41		
	15				14.95				15
31	15.5								
		SANDY CLAY: stiff to very stiff, pale grey with red-brown mottling, fine sandy clay							
	16				16.0				16
30				S			6,7,8 N = 15		
					16.45				
	17								17
29					17.5				
		17.5m: very stiff to hard		S			7,14,16 N = 30		
	18				17.95				18
28									
	19				19.0				19
		19.0m: becoming red-brown and pale grey		S			5,9,13 N = 22		
27					19.45				

RIG: Scout 4 **DRILLER:** SS **LOGGED:** RK/SI **CASING:** HW to 7.6m, HQ to 24.8m

TYPE OF BORING: NDD to 1.0m, Solid flight auger to 7.5m, Rotary to 24.8m, NMLC to 30.8m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 46.3 AHD
EASTING: 335801
NORTHING: 6248794
DIP/AZIMUTH: 90°/--

BORE No: BH101D
PROJECT No: 86529.00
DATE: 4 - 5/3/2019
SHEET 3 OF 4

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
		SANDY CLAY: stiff to very stiff, pale grey with red-brown mottling, fine sandy clay *(continued)*			20.5				
				S			5,8,10 N = 18		
					20.95				
		22.0m: firm, sandy clay			22.0				
				S			3,4,4 N = 8		
					22.45				
	23.8	SANDSTONE: extremely then very low strength, red-brown, fine to medium grained sandstone			23.8				
				S			13,17,29 N = 46		
					24.25				
	24.8	SANDSTONE: medium strength, moderately weathered then fresh, slightly fractured, brown-orange, fine to medium grained sandstone			24.8				Bentonite 24.0-25.5m
					24.95		PL(A) = 0.33		
					25.73		PL(A) = 0.84		
	26.0	SANDSTONE: medium to high strength, fresh, slightly fractured to unbroken, pale grey, medium grained sandstone		C					
					26.78		PL(A) = 1		
					27.76		PL(A) = 1		
					27.85				
	28.3	SANDSTONE: high strength, fresh, slightly fractured and unbroken, pale grey, medium grained sandstone			28.58		PL(A) = 1.38		
				C					
					29.63		PL(A) = 1.43		

RIG: Scout 4 **DRILLER:** SS **LOGGED:** RK/SI **CASING:** HW to 7.6m, HQ to 24.8m

TYPE OF BORING: NDD to 1.0m, Solid flight auger to 7.5m, Rotary to 24.8m, NMLC to 30.8m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 46.3 AHD
EASTING: 335801
NORTHING: 6248794
DIP/AZIMUTH: 90°/--

BORE No: BH101D
PROJECT No: 86529.00
DATE: 4 - 5/3/2019
SHEET 4 OF 4

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
16	30.32			C	30.15		PL(A) = 1.2		
		LAMINITE: medium strength, slightly weathered, fractured to slightly fractured, pale grey to grey laminite with approximately 25% fine grained sandstone laminations			30.7		PL(A) = 0.59		End cap
	30.8	Bore discontinued at 30.8m			30.8				
15	31								
14	32								
13	33								
12	34								
11	35								
10	36								
9	37								
8	38								
7	39								

RIG: Scout 4 **DRILLER:** SS **LOGGED:** RK/SI **CASING:** HW to 7.6m, HQ to 24.8m

TYPE OF BORING: NDD to 1.0m, Solid flight auger to 7.5m, Rotary to 24.8m, NMLC to 30.8m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 47.0 AHD
EASTING: 335834
NORTHING: 6248817
DIP/AZIMUTH: 90°/--

BORE No: BH102
PROJECT No: 86529.00
DATE: 20 - 21/2/2019
SHEET 1 OF 3

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
47	0.08	ASPHALT		A/E*	0.1 0.2		Triplicate BT1A, BT1B		
		FILLING: variably compacted, dark brown, clayey, gravelly sand filling, trace building rubble (broken bricks and clay tiles), and ripped sandstone fragments, ash, humid		A/E	0.5				
46	1			A/E	0.9 1.0				1
				S	1.45		14,11,19 N = 30		
45	2			E	2.0 2.1		PID < 1ppm		2
				S	2.5		10,8,7 N = 15		
44	3			E	2.95 3.0		PID < 1ppm		3
		4.0m: becoming brown, clay content reduced		E	3.9				
43	4			S	4.0 4.45		13,15,22 N = 37		4
42	5			E	5.0				5
				S	5.5 5.95		4,5,7 N = 12		
41	6								6
40	7	7.0 SAND: medium dense, yellow-brown, fine to medium grained sand with some silt and clay		E	7.0				7
				S	7.45		5,6,6 N = 12		
39	8			E	8.5				8
				S	8.95		12,13,15 N = 28		
38	9								9

RIG: Scout 4 **DRILLER:** RKE **LOGGED:** RK/SI **CASING:** HW to 8.5m, HQ to 20.6m

TYPE OF BORING: Solid flight auger to 5.95m, Rotary to 20.6m, NMLC to 26.6m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS: Hole collapse at 5.95m

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 47.0 AHD
EASTING: 335834
NORTHING: 6248817
DIP/AZIMUTH: 90°/--

BORE No: BH102
PROJECT No: 86529.00
DATE: 20 - 21/2/2019
SHEET 2 OF 3

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
37		SAND: medium dense, yellow-brown, fine to medium grained sand with some silt and clay *(continued)*		S	10.0 10.45		8,8,9 N = 17		
		10.0m: becoming orange-brown							
36	11	11.0m: becoming pale grey		S	11.5 11.95		6,7,10 N = 17		
35	12								
	12.5	SAND: dense, orange-brown, fine to medium grained sand		S	13.0 13.45		11,19,22 N = 41		
34	13								
33	14 14.0	CLAYEY SAND: medium dense, pale grey fine to medium grained clayey sand with some silt		S	14.5 14.95		6,6,7 N = 13		
32	15								
31	16	16.0m: pale grey with red-brown mottling		S	16.0 16.45		5,13,16 N = 29		
30	17			S	17.5 17.95		5,9,11 N = 20		
29	18								
28	19	19.0m: red-brown with some medium pale grey sandstone fragments		S	19.0 19.45		6,8,12 N = 20		

RIG: Scout 4 **DRILLER:** RKE **LOGGED:** RK/SI **CASING:** HW to 8.5m, HQ to 20.6m

TYPE OF BORING: Solid flight auger to 5.95m, Rotary to 20.6m, NMLC to 26.6m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS: Hole collapse at 5.95m

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 47.0 AHD
EASTING: 335834
NORTHING: 6248817
DIP/AZIMUTH: 90°/--

BORE No: BH102
PROJECT No: 86529.00
DATE: 20 - 21/2/2019
SHEET 3 OF 3

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
27	20.06	SANDSTONE: very low strength, pale brown, fine to medium grained sandstone		S	20.5 20.55		5/50 refusal Refusal		
	20.75				20.6				
26	21	SANDSTONE: low strength, highly weathered, slightly fractured, red-brown, medium grained sandstone			20.9		PL(A) = 0.21		21
					21.5		PL(A) = 0.21		
25	22 22.0	SANDSTONE: very low strength, highly weathered, slightly fractured, orange-brown, fine to medium grained sandstone		C	22.2		PL(A) = 0.11		22
	22.8								
24	23	SANDSTONE: high then medium strength, moderately weathered then fresh, slightly fractured, brown then pale grey, medium grained sandstone with some low strength bands			23.25		PL(A) = 1.27		23
					23.6				
23	24 24.0				24.15		PL(A) = 0.86		24
22	25 25.0	SANDSTONE: high strength, fresh, unbroken, pale grey, medium grained sandstone		C	25.2		PL(A) = 1.59		25
21	26								26
					26.35		PL(A) = 1.77		
	26.6				26.6				
20	27	Bore discontinued at 26.6m							27
19	28								28
18	29								29

RIG: Scout 4 **DRILLER:** RKE **LOGGED:** RK/SI **CASING:** HW to 8.5m, HQ to 20.6m

TYPE OF BORING: Solid flight auger to 5.95m, Rotary to 20.6m, NMLC to 26.6m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS: Hole collapse at 5.95m

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 39.3 AHD
EASTING: 335883
NORTHING: 6248785
DIP/AZIMUTH: 90°/--

BORE No: BH103
PROJECT No: 86529.00
DATE: 22/2/2019
SHEET 1 OF 2

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
39		FILLING: dark brown, gravelly sand filling with some silt, trace rootlets and ash, humid		A/E	0.0		PID < 1ppm		Gatic Cover
		0.5m: sand filling		A/E	0.5 0.6		PID < 1ppm		
	1	1.0m: becoming yellow brown		A/E	0.9 1.0		PID < 1ppm		
38				S			6,8,6 N = 14		
					1.45				
	2 2.0	SAND: medium dense, yellow-orange, fine to medium grained sand, trace silt, humid		E	2.0		PID < 1ppm		Bentonite 1-2.5m
37				S	2.5		7,14,15 N = 29		
	3			E	2.95 3.0 3.1		Triplicate BT3A, BT3B, PID < 1ppm		
36									
	4			S	4.0		6,7,7 N = 14		
35	4.5	CLAYEY SAND: medium dense, pale grey, fine to medium grained clayey sand with some silt, moist			4.45				
	5			S	5.0 5.17		25 refusal 2/20 bouncing		
34	5.2	SANDSTONE: extremely low strength, red-brown, fine to medium grained sandstone							
	6 6.0				6.0				
33	6.04	SANDSTONE: medium strength, moderately then slightly weathered, slightly fractured, red-brown, medium grained sandstone			6.25		PL(A) = 0.36		
	7			C	7.4		PL(A) = 0.57		Gravel 2.5-11.34m Machine slotted PVC screen 3-11.34m
32									
	8				8.08		PL(A) = 1.05		
31									
	9				9.0				
	9.11				9.2		PL(A) = 0.61		
30				C					
	10.0								

RIG: Scout 4 **DRILLER:** RKE **LOGGED:** RK/SI **CASING:** HW to 5.5m, HQ to 6.6m

TYPE OF BORING: Solid flight auger to 5.2m, Rotary to 6.0m, NMLC to 17.34m

WATER OBSERVATIONS: Free groundwater encountered at 4.2m

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 39.3 AHD
EASTING: 335883
NORTHING: 6248785
DIP/AZIMUTH: 90°/--

BORE No: BH103
PROJECT No: 86529.00
DATE: 22/2/2019
SHEET 2 OF 2

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
29		SANDSTONE: low to medium strength, highly and moderately weathered, slightly fractured, pale grey brown, medium to coarsed sandstone with some extremely and very low strength bands			10.3		PL(A) = 0.3		
	11			C	11.1		PL(A) = 0.31		11 End cap
28									
	12				12.0				12
27	12.7								
	13								13
	13.15	SANDSTONE: high strength, highly and moderately weathered, fractured and slightly fractured, pale grey brown, medium to coarsed sandstone with very low strength at 14.3m		C	13.2		PL(A) = 1.38		
26									
	14								14
25					14.6		PL(A) = 0.98		
	14.7	Inferred void partially filled with sand			14.7				
	15								15
24									
	16	16.0 SANDSTONE: medium strength, slightly weathered, slightly fractured, pale grey, fine to medium grained sandstone		C	16.4		PL(A) = 1		16
23									
	17								17
22	17.34				17.2		PL(A) = 0.5		
		Bore discontinued at 17.34m			17.34				
	18								18
21									
	19								19
20									

RIG: Scout 4 **DRILLER:** RKE **LOGGED:** RK/SI **CASING:** HW to 5.5m, HQ to 6.6m

TYPE OF BORING: Solid flight auger to 5.2m, Rotary to 6.0m, NMLC to 17.34m

WATER OBSERVATIONS: Free groundwater encountered at 4.2m

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 39.3 AHD
EASTING: 335926
NORTHING: 6248785
DIP/AZIMUTH: 90°/--

BORE No: BH104
PROJECT No: 86529.00
DATE: 23/2/2019
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
39	0.0	FILLING: dark brown, gravelly sand filling with some silt, trace rootlets, moist to humid		A/E	0.0		PID < 1ppm		
				A/E	0.5		PID < 1ppm		
	0.6	SAND: medium dense, yellow-brown, fine to medium grained sand, with some silt, humid			0.6				
38	1			A/E	0.9		PID < 1ppm		1
		0.9m: yellow-pale grey			1.0				
				S			3,8,12 N = 20		
					1.45				
37	2			A/E	1.7		PID < 1ppm		2
					2.5				
	2.6	SANDY CLAY: very stiff, pale grey, medium plasticity, humid		S			5,9,11 N = 20		
36	3				2.95				3
	3.5	SANDSTONE: extremely low to very low strength, red-brown, fine to medium grained sandstone, humid		A	3.5				
					3.6				
	4			S	4.0		11 refusal bouncing		4
	4.15	SANDSTONE: medium then high strength, moderately weathered and slightly weathered, slightly fractured, red-brown and pale grey, medium grained sandstone, with some clay bands			4.15				
35					4.35		PL(A) = 0.63		
	5			C					5
34					5.65		PL(A) = 1.24		
	5.9				5.9				
	6	Bore discontinued at 5.9m Termination of hole due to obstruction							6
33									
	7								7
32									
	8								8
31									
	9								9
30									

RIG: Scout 4 **DRILLER:** RKE **LOGGED:** RK/SI **CASING:** HW to 4.15m

TYPE OF BORING: Solid flight auger to 4.15m, NMLC to 5.9m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 39.3 AHD
EASTING: 335918
NORTHING: 6248780
DIP/AZIMUTH: 90°/--

BORE No: BH104A
PROJECT No: 86529.00
DATE: 26/2/2019
SHEET 1 OF 2

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
39		FILLING: dark brown sand filling, trace silt, humid		A/E	0.0		PID < 1ppm		
		0.8m: orange-pale grey		A/E	0.5		PID < 1ppm		
				A/E	0.9		PID < 1ppm		
38	1.0	SAND: medium dense, yellow-pale grey, fine to medium sand, trace silt, humid		S	1.0		5,6,11 N = 17		
		2.5m: dense			1.45				
		3.0m: orange-brown, trace clay and medium sandstone fragments		A/E	2.0		PID < 1ppm		
37					2.5				
				S			11,19,22 N = 41		
36	3.0	SAND: dense, orange-brown, fine to medium sand, trace clay and sandstone gravel			2.95				
				A	3.1				
	3.5	SANDY CLAY: very stiff to hard, yellow-brown with pale grey mottling, sandy clay with some medium sandstone fragments, humid			3.2				
				S	4.0		14,10/10 refusal bouncing		
35	4.2				4.16				
	4.28	SANDSTONE: high then medium strength, moderately to slightly weathered, slightly fractured, light grey-brown and red-brown, medium to coarse grained sandstone			4.2				
					4.4		PL(A) = 1.38		
34					5.1		PL(A) = 0.38		
	5.45	5.3m: extremely low to very low							
		SANDSTONE: high strength, moderately to slightly weathered and unbroken, slightly fractured, pale grey and brown, medium grained sandstone		C					
33					6.2		PL(A) = 1.16		
					7.0				
32					7.15		PL(A) = 1.48		
31					8.25		PL(A) = 1.91		
				C					
30					9.4		PL(A) = 1.37		
	9.55	SANDSTONE: medium strength, moderately to slightly weathered, slightly fractured, pale grey and brown, medium grained sandstone							

RIG: Scout 4 **DRILLER:** RKE **LOGGED:** RK/SI **CASING:** HW to 4.0m, HQ to 4.2m

TYPE OF BORING: Solid flight auger to 4.0m, Rotary to 4.2m, NMLC to 13.06m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 39.3 AHD
EASTING: 335918
NORTHING: 6248780
DIP/AZIMUTH: 90°/--

BORE No: BH104A
PROJECT No: 86529.00
DATE: 26/2/2019
SHEET 2 OF 2

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
29	11	SANDSTONE: medium strength, moderately to slightly weathered, slightly fractured, pale grey and brown, medium grained sandstone *(continued)*			10.05				
					10.55		PL(A) = 0.61		
28	11.48	SANDSTONE: high strength, fresh, unbroken, pale grey, medium sandstone		C	11.6		PL(A) = 0.94		
27	12				12.5		PL(A) = 1.12		
26	13.06	Bore discontinued at 13.06m			13.06				
25	14								
24	15								
23	16								
22	17								
21	18								
20	19								

RIG: Scout 4 **DRILLER:** RKE **LOGGED:** RK/SI **CASING:** HW to 4.0m, HQ to 4.2m

TYPE OF BORING: Solid flight auger to 4.0m, Rotary to 4.2m, NMLC to 13.06m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 46.9 AHD
EASTING: 335967
NORTHING: 6248724
DIP/AZIMUTH: 90°/--

BORE No: BH105
PROJECT No: 86529.00
DATE: 1 - 4/3/2019
SHEET 1 OF 2

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
46	0.13	CONCRETE		A/E	0.15		PID <1ppm		
	0.3	FILLING: dark grey, medium to coarse igneous gravel filling with some sand, humid		A/E	0.5				
		FILLING: yellow-brown sand filling, trace igneous gravel, silt, and ash, humid							
	1	1.0m: trace sandstone fragments		A/E	1.0				
				E	1.5				
45	2			E	2.0				
				A/E	2.7				
44	3								
		3.5-4.0m: grey-dark brown, hydrocarbon odour		A/E	3.7		PID = 1 ppm		
43	4	4.0m: pale grey and dark grey, slight hydrocarbon odour							
	4.5	SAND: pale grey, fine to medium grained sand, trace silt, humid		A/E	4.4		PID < 1ppm		
42	5								
				A/E	5.5		PID < 1ppm		
41	6								
	6.0	CLAYEY SAND: yellow-brown clayey sand, trace sandstone fragments, humid							
40	7								
39	8			A	8.0				
	8.4	SANDSTONE: very low to low strength, red-brown, medium grained sandstone							
	8.76	SANDSTONE: low then low to medium strength, slightly weathered, unbroken, pale-grey brown, medium grained sandstone			8.76 8.85		PL(A) = 0.15		
38	9			C	9.5		PL(A) = 0.31		
37	9.9								

RIG: DT250 **DRILLER:** JE **LOGGED:** WW/SI **CASING:** HW to 8.1m, HQ to 8.76m

TYPE OF BORING: Diacore to 0.13m, Solid flight auger to 8.7m, Rotary to 8.76m, NMLC to 16.07m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 46.9 AHD
EASTING: 335967
NORTHING: 6248724
DIP/AZIMUTH: 90°/--

BORE No: BH105
PROJECT No: 86529.00
DATE: 1 - 4/3/2019
SHEET 2 OF 2

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
36	11	SANDSTONE: very low strength, extremely and highly weathered, slightly fractured, pale-grey brown, medium grained sandstone, with high strength iron band *(continued)*		C	10.07 10.8		PL(A) = 0.11		11
	11.2	SANDSTONE: high strength, moderately weathered, slightly fractured and unbroken, pale-grey brown then brown, medium to coarse grained sandstone			11.39 11.4		PL(A) = 1.5		
35	12	12.54-23.85m: very low strength bands		C	12.35		PL(A) = 1.54		12
	12.68	SANDSTONE: high strength, moderately weathered, slightly fractured and unbroken, pale-grey brown then brown, medium to coarse grained sandstone			12.94				
34	13	12.68-12.85m: very low strength			13.4		PL(A) = 1.33		13
33	14			C	14.3		PL(A) = 1.56		14
					14.53				
32	15			C	15.25		PL(A) = 1.84		15
31	16				16.0		PL(A) = 1.85		16
	16.07	Bore discontinued at 16.07m			16.07				
30	17								17
29	18								18
28	19								19
27									

RIG: DT250 **DRILLER:** JE **LOGGED:** WW/SI **CASING:** HW to 8.1m, HQ to 8.76m

TYPE OF BORING: Diacore to 0.13m, Solid flight auger to 8.7m, Rotary to 8.76m, NMLC to 16.07m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 39.4 AHD
EASTING: 335927
NORTHING: 6248666
DIP/AZIMUTH: 90°/--

BORE No: BH106
PROJECT No: 86529.00
DATE: 25/2/2019
SHEET 1 OF 3

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
39		FILLING: dark brown to brown sand with some igneous gravel filling, trace silt, moist to humid		A/E	0.0		PID < 1ppm		
		0.6-0.8m: gravelly (road base) sand, trace building rubble (broken clay tiles) and ash		A/E	0.5		PID < 1ppm		
	0.8			A/E	0.7 0.8		PID < 1ppm		
	1	SAND: medium dense, yellow-brown, fine to medium grained sand, trace silt, humid		S	1.0		6,9,10 N = 19		
38				E	1.45 1.55		Triplicate BT4A,BT4B PID < 1ppm		
		1.8m: yellow-orange							
	2			S	2.5		6,9,11 N = 20		
37									
	3	3.5m: yellow-pale grey			2.95				
36									
	4	4.0 SAND: dense, pale grey brown, fine to medium grained sand, moist		S	4.0		10,17,19 N = 36		
35					4.45				
	5								
34		5.5m: becoming wet		S	5.5		11,16,18 N = 34		
	6				5.95				
33									
	7			S	7.0		10,22,25 N = 47		
32					7.45				
	8								
31				S	8.5		16,18,20 N = 38		
	9				8.95				
30		9.5 SANDY CLAY: very stiff, red-brown with pale grey mottling sandy clay, iron cemented gravel							

RIG: Scout 4 **DRILLER:** RKE **LOGGED:** RK/SI **CASING:** HW to 8.5m, HQ to 17.54m

TYPE OF BORING: Solid flight auger to 8.5m, Rotary to 17.54m, NMLC to 24.48m

WATER OBSERVATIONS: Free groundwater encountered at 5.5m

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 39.4 AHD
EASTING: 335927
NORTHING: 6248666
DIP/AZIMUTH: 90°/--

BORE No: BH106
PROJECT No: 86529.00
DATE: 25/2/2019
SHEET 2 OF 3

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
29		SANDY CLAY: very stiff, red-brown with pale grey mottling sandy clay, iron cemented gravel *(continued)*		S	10.0		10,10,11 N = 21		
					10.45				
	11								11
28				S	11.5		6,8,13 N = 21		
	12				11.95				12
27									
	13 13.0	CLAY: hard, red-brown and pale grey clay with some red-brown iron-cemented bands		S	13.0		20,23,29 N = 52		13
26					13.45				
	14	14.5: sandstone fragments increased							14
25				S	14.5		20,28,30/130 refusal		
	14.9 15	SANDSTONE: extremely to very low strength sandstone			14.92				15
24									
	16			S	16.0		22,30/120 refusal		16
23					16.27				
	17								17
22				S	17.5		10,10/40 refusal		
	17.69	SANDSTONE: medium then high strength, fresh to moderately weathered, slightly fractured, pale grey and brown, medium to coarse grained sandstone			17.69				
	18				17.85		PL(A) = 0.74		18
21				C	18.4		PL(A) = 2.34		
	19								19
					19.3				
20				C	19.6		PL(A) = 2.42		

RIG: Scout 4 **DRILLER:** RKE **LOGGED:** RK/SI **CASING:** HW to 8.5m, HQ to 17.54m

TYPE OF BORING: Solid flight auger to 8.5m, Rotary to 17.54m, NMLC to 24.48m

WATER OBSERVATIONS: Free groundwater encountered at 5.5m

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 39.4 AHD
EASTING: 335927
NORTHING: 6248666
DIP/AZIMUTH: 90°/--

BORE No: BH106
PROJECT No: 86529.00
DATE: 25/2/2019
SHEET 3 OF 3

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
19	20.24 20.28	SANDSTONE: high strength, fresh to moderately weathered and fresh, slightly fractured, pale grey and brown, medium to coarse grained sandstone		C	20.7		PL(A) = 2.52		
18	21	21.5m: pale grey			21.43				
					21.75		PL(A) = 2.77		
17	22				22.3		PL(A) = 2.51		
16	23			C					
	24				23.45		PL(A) = 2.71		
15	24.48				24.45		PL(A) = 1.22		
		Bore discontinued at 24.48m			24.48				
14	25								
13	26								
12	27								
11	28								
10	29								

RIG: Scout 4 **DRILLER:** RKE **LOGGED:** RK/SI **CASING:** HW to 8.5m, HQ to 17.54m

TYPE OF BORING: Solid flight auger to 8.5m, Rotary to 17.54m, NMLC to 24.48m

WATER OBSERVATIONS: Free groundwater encountered at 5.5m

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 40.5 AHD
EASTING: 335912
NORTHING: 6248614
DIP/AZIMUTH: 90°/--

BORE No: BH107
PROJECT No: 86529.00
DATE: 27 - 28/2/2019
SHEET 1 OF 3

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
40	0.1	ASPHALT							Gatic Cover
		FILLING: brown to dark brown, fine to medium grained sand filling, clay filling with trace brick and tile fragment, ash, damp							
		0.7m: plastic conduit							
39	1.8	SAND: light grey, fine to medium grained sand, damp		E	1.5				Bentonite 0.8-2.3m
				E	2.0				
38	2.1	SAND: medium dense, black mottled brown, fine to medium sand with some silt, damp		A	2.5				
		3m: interbedded with light grey, fine to medium grained sand		S	2.95		6,10,12 N = 22		
37				A	3.5				
				S	4.0		5,9,10 N = 19		
36	4.35	SAND: medium dense, yellow-orange, fine to medium sand with trace clay, damp		A	4.45				
				A	5.0				
35				S	5.5		6,7,11 N = 18		
					5.95				Gravel 2.3-17.2m
34	6.5	SAND: very dense, yellow, fine to medium sand, damp		S	7.0		12,20,25/120 refusal		
		7.2m: becoming wet			7.42				Machine slotted PVC screen 2.8-16.7m
32				S	8.6		11,22,27 N = 49		
					9.05				
31				S	9.65		17,30 refusal		
	10.0				9.95				

RIG: 140 Explora **DRILLER:** JS **LOGGED:** WW/RK **CASING:** HW to 4.0m, HQ to 19.17m

TYPE OF BORING: NDD to 1.2m, Solid flight auger to 8.5m, Rotary to 19.17m, NMLC to 25.96m

WATER OBSERVATIONS: Free groundwater encountered at 8.0m

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 40.5 AHD
EASTING: 335912
NORTHING: 6248614
DIP/AZIMUTH: 90°/--

BORE No: BH107
PROJECT No: 86529.00
DATE: 27 - 28/2/2019
SHEET 2 OF 3

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
30	11	SAND: very dense, yellow, fine to medium sand, wet		S	11.15		17,25/120 refusal		11
29	12				11.42				12
28	12.3	SANDY CLAY: soft to firm orange mottled pale grey, fine to medium sandy clay		S	12.65		1,1,3 N = 4		13
27	13				13.05				
26	14			S	14.15		3,3,4 N = 7		14
25	15				14.6				15
24	15.5	SANDY CLAY: very stiff then stiff, pale grey-brown, fine sandy clay		S	15.65		4,7,9 N = 16		16
23	16	16.5m: becoming stiff			16.1				
22	17			S	17.15		4,4,6 N = 10		17
	18	18.0 SANDSTONE: extremely low strength, pale grey, fine to medium grained sandstone			17.6				Bentonite 17.2-18.2m 18
21	19	19.17 SANDSTONE: extremely to very low strength, extremely to highly weathered, slightly fractured, pale grey-brown, fine grained sandstone		C	19.17				19
		19.5			19.85		PL(A) = 1.21		

RIG: 140 Explora **DRILLER:** JS **LOGGED:** WW/RK **CASING:** HW to 4.0m, HQ to 19.17m

TYPE OF BORING: NDD to 1.2m, Solid flight auger to 8.5m, Rotary to 19.17m, NMLC to 25.96m

WATER OBSERVATIONS: Free groundwater encountered at 8.0m

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 40.5 AHD
EASTING: 335912
NORTHING: 6248614
DIP/AZIMUTH: 90°/--

BORE No: BH107
PROJECT No: 86529.00
DATE: 27 - 28/2/2019
SHEET 3 OF 3

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
		19.9m: moderately to slightly weathered SANDSTONE: medium and high strength, moderately to slightly weathered, slightly fractured, red- brown and pale grey, medium to coarse grained sandstone *(continued)*		C	20.9		PL(A) = 1.8		
					21.83				
					21.91		PL(A) = 0.9		
					22.57		PL(A) = 2		
				C					
					23.45		PL(A) = 2.14		
					23.94				
	24.4	SANDSTONE: high strength, fresh, slightly fractured, pale grey, grained sandstone			24.67		PL(A) = 2.22		
				C					
					25.36		PL(A) = 1.64		
	25.96	Bore discontinued at 25.96m			25.96				End cap

RIG: 140 Explora **DRILLER:** JS **LOGGED:** WW/RK **CASING:** HW to 4.0m, HQ to 19.17m

TYPE OF BORING: NDD to 1.2m, Solid flight auger to 8.5m, Rotary to 19.17m, NMLC to 25.96m

WATER OBSERVATIONS: Free groundwater encountered at 8.0m

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 40.0 AHD
EASTING: 335852
NORTHING: 6248620
DIP/AZIMUTH: 90°/--

BORE No: BH108
PROJECT No: 86529.00
DATE: 5 - 6/3/2019
SHEET 1 OF 4

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
40	0.1	ASPHALT		E	0.1		PID < 1ppm		
		FILLING: dark brown, gravelly sand filling, humid, (igneous, sandstone and asphalt gravel)							
		0.4m: timber & brick fragments observed							
39	1			E	1.0		PID < 1ppm		
	1.1	FILLING: dark brown, gravelly sandy clay, (igneous gravel), trace ash			1.1				
				E	1.5		PID < 1ppm		
	1.8	FILLING: brown-grey sand filling with some gravel, humid							
38	2			E	2.0		PID < 1ppm		
		2.2m: becoming dark grey							
				E	2.5		PID < 1ppm		
				S			4,5,6 N = 11		
	2.8	SAND: medium dense, yellow-brown, fine to medium grained sand with trace silt, damp			2.95				
37	3	2.2m: becoming dark grey		E	3.5		PID < 1ppm		
				E	3.9				
36	4				4.0		7,9,10 N = 19 PID < 1ppm		
				S					
					4.45				
35	5								
	5.5	SAND: dense, grey, fine to medium grained sand with trace silt, damp			5.5				
				S			9,12,18 N = 30		
34	6				5.95				
33	7				7.0				
		7.0m: dense to very dense, becoming yellow-grey		S			11,20,30 N = 50		
					7.45				
32	8	8.0 SAND: dense, yellow-brown, fine to medium grained sand with trace ironstone gravel and silt							
					8.5				
				S			14,20,24 N = 44		
31	9				8.95				

RIG: DT250 **DRILLER:** JE **LOGGED:** RK/WW/SI **CASING:** HW to 4.5, HQ to 20.15

TYPE OF BORING: NDD to 0.9m, Solid flight auger to 4.5m, Rotary to 20.15m, NMLC to 30.44m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 40.0 AHD
EASTING: 335852
NORTHING: 6248620
DIP/AZIMUTH: 90°/--

BORE No: BH108
PROJECT No: 86529.00
DATE: 5 - 6/3/2019
SHEET 2 OF 4

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
30		SAND: dense, yellow-brown, fine to medium grained sand with trace ironstone gravel and silt *(continued)*		S	10.0		17,24,24 N = 48		
					10.45				
29	11								11
		11.5m: becoming yellow-orange and brown		S	11.5		22,30/131 refusal		
28	12				11.78				12
27	13 13.0	CLAYEY SAND: medium dense, orange, fine to medium grained clayey sand		S	13.0		10,6,7 N = 13		13
					13.45				
26	14								14
	14.5	SANDY CLAY: firm, grey sandy clay with trace of ironstone gravel		S	14.5		2,2,3 N = 5		
25	15				14.95				15
24	16 16.0	CLAYEY SAND: medium dense to dense, orange-red clayey, fine to medium grained sand		S	16.0		12,14,15 N = 29		16
					16.45				
23	17								17
	17.5	SANDY CLAY: very stiff, orange-red brown sandy clay		S	17.5		9,10,16 N = 26		
22	18				17.95				18
21	19				19.0		6,11,21 N = 32		19
	19.3	SANDSTONE: extremely low strength, extremely weathered, grey motted orange, fine to medium grained sandstone		S	19.45				

RIG: DT250 **DRILLER:** JE **LOGGED:** RK/WW/SI **CASING:** HW to 4.5, HQ to 20.15

TYPE OF BORING: NDD to 0.9m, Solid flight auger to 4.5m, Rotary to 20.15m, NMLC to 30.44m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 40.0 AHD
EASTING: 335852
NORTHING: 6248620
DIP/AZIMUTH: 90°/--

BORE No: BH108
PROJECT No: 86529.00
DATE: 5 - 6/3/2019
SHEET 3 OF 4

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
	20.15				20.15				
	20.17	SANDSTONE: very low strength, highly weathered, fractured brown, medium grained sandstone							
	20.3	SANDSTONE: medium strength, highly to moderately weathered, factured to slightly factured, orange-brown, medium grained sandstone			20.7		PL(A) = 0.75		
19	21	21.0m: becoming high strength		C					21
					21.55		PL(A) = 1.57		
18	22				21.9				22
					22.61		PL(A) = 0.61		
	22.88								
17	23	SANDSTONE: high strength, moderately weathered, slightly fractured, brown, medium grained sandstone		C	23.47		PL(A) = 2.47		23
16	24				24.24		PL(A) = 2.05		24
	24.5	SANDSTONE: medium and high strength, fresh, slightly fractured, pale grey, medium grained sandstone with some very low strength band and siltstone clasts			24.9				
15	25	25.0-25.34m: 5-10% siltstone flecks 25.5-25.85m: very low strength siltstone band							25
					25.91		PL(A) = 2.07		
14	26			C					26
					26.78		PL(A) = 0.59		
13	27								27
	27.18								
	27.34	SANDSTONE: high strength, fresh, slightly fractured and unbroken, pale grey, medium grained sandstone			27.44				
					27.63		PL(A) = 1.58		
12	28								28
					28.6		PL(A) = 1.1		
				C					
11	29				29.0		PL(A) = 1.2		29

RIG: DT250 **DRILLER:** JE **LOGGED:** RK/WW/SI **CASING:** HW to 4.5, HQ to 20.15

TYPE OF BORING: NDD to 0.9m, Solid flight auger to 4.5m, Rotary to 20.15m, NMLC to 30.44m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 40.0 AHD
EASTING: 335852
NORTHING: 6248620
DIP/AZIMUTH: 90°/--

BORE No: BH108
PROJECT No: 86529.00
DATE: 5 - 6/3/2019
SHEET 4 OF 4

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
10		SANDSTONE: high strength, fresh, slightly fractured and unbroken, pale grey, medium grained sandstone *(continued)*		C	30.05		PL(A) = 1.23		
	30.44	Bore discontinued at 30.44m			30.44				
9	31								31
8	32								32
7	33								33
6	34								34
5	35								35
4	36								36
3	37								37
2	38								38
1	39								39

RIG: DT250 **DRILLER:** JE **LOGGED:** RK/WW/SI **CASING:** HW to 4.5, HQ to 20.15

TYPE OF BORING: NDD to 0.9m, Solid flight auger to 4.5m, Rotary to 20.15m, NMLC to 30.44m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 47.1 AHD
EASTING: 335905
NORTHING: 6248830
DIP/AZIMUTH: 90°/--

BORE No: BH201
PROJECT No: 86529.00
DATE: 5/3/2019
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
47	0.2	ASPHALT							
		FILLING: dark-brown gravelly sand filling with some clay, trace building rubble (tile fragments, steel reinforcement, terracotta fragments), and ash, humid							
46	1	1.0m: trace sandstone fragments		E	1.0		PID < 1ppm		
45	2	2.0m: sand with some gravel		E	2.0		PID < 1ppm		
44	3			E	3.0		PID < 1ppm		
				E	3.3		PID < 1ppm		
	3.4	Bore discontinued at 3.4m Termination of hole due to refusal on concrete							
43	4								
42	5								
41	6								
40	7								
39	8								
38	9								

RIG: Scout 4 **DRILLER:** SS **LOGGED:** RK/CLN **CASING:** Nil

TYPE OF BORING: NDD to 1.0m, Solid flight auger to 3.4m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 47.1 AHD
EASTING: 335926
NORTHING: 6248824
DIP/AZIMUTH: 90°/--

BORE No: BH202
PROJECT No: 86529.00
DATE: 27/2/2019
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
47	0.1	ASPHALT		E	0.1		PID < 1ppm		
		FILLING: dark brown gravelly sand filling with some clay, trace ash, humid		E	0.5 0.6		PID < 1ppm		
		0.8m: clayey sand		E	0.9		PID < 1ppm		
46	1								1
	1.5	FILLING: dark brown gravelly clay filling with some sand, trace sandstone fragments and ash, humid		E	1.8		PID < 1ppm		
45	2								2
				E*	2.7 2.8		Triplicate BT6A, BT6B; PID = 3 ppm		
44	3	3.5m: clayey sand, trace building rubble (broken glass and bricks)							3
				E	3.7		PID < 1ppm		
43	4	4.3m: yellow-brown							4
				E	4.5		PID < 1ppm		
	4.6	SAND: yellow-brown, fine to medium sand, trace silt, humid to moist							
42	5								5
				E	5.6 5.7		PID < 1ppm		
	5.7	Bore discontinued at 5.7m							
41	6								6
40	7								7
39	8								8
38	9								9

RIG: Scout 4 **DRILLER:** RKE **LOGGED:** RK/WW **CASING:** Nil

TYPE OF BORING: Solid flight auger to 5.7m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 40.1 AHD
EASTING: 335864
NORTHING: 6248801
DIP/AZIMUTH: 90°/--

BORE No: BH203
PROJECT No: 86529.00
DATE: 26/2/2019
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
40		CONCRETE							
	0.66	FILLING: dark brown, clayey sand filling with some sandstone and igneous gravel and trace ash		E	0.7		PID < 1ppm		
39	0.85 1	SAND: dark yellow orange, fine to medium sand		*E	1.0		PID < 1ppm Triplicate BT11A,BT11B		1
		1.7m: becoming light yellow							
38	2.0 2	Bore discontinued at 2.0m		E	2.0		PID < 1ppm		2
37	3								3
36	4								4
35	5								5
34	6								6
33	7								7
32	8								8
31	9								9

RIG: DT250 **DRILLER:** JE **LOGGED:** CLN **CASING:** Nil

TYPE OF BORING: Diacore to 0.66m, Solid flight auger to 2.0m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 39.9 AHD
EASTING: 335895
NORTHING: 6248800
DIP/AZIMUTH: 90°/--

BORE No: BH204
PROJECT No: 86529.00
DATE: 26/2/2019
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
39	0.85	CONCRETE							
	1.0	FILLING: brown sand filling with some clay and igneous gravel, trace ash		E	1.0		PID < 1ppm		
		FILLING: orange brown sand filling (possibly natural)		E	1.5		PID < 1ppm		
38	1.8	SAND: light yellow brown, fine to medium sand							
	2.5	Bore discontinued at 2.5m		E	2.5		PID < 1ppm		

RIG: DT250 **DRILLER:** JE **LOGGED:** CLN **CASING:** Nil

TYPE OF BORING: Diacore to 0.85 m, Solid flight auger to 2.5m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 40.0 AHD
EASTING: 335930
NORTHING: 6248801
DIP/AZIMUTH: 90°/--

BORE No: BH205
PROJECT No: 86529.00
DATE: 26/2/2019
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
40		CONCRETE							
	0.65	FILLING: light yellow brown sand filling with trace gravel		E	0.65		PID < 1ppm		
39	1 1.0			E	1.0		PID < 1ppm		1
	1.1	FILLING: light brown sand filling with some silt (possibly natural)							
		SAND: yellow brown, fine to medium sand		E	1.5		PID < 1ppm		
		1.8m: becoming pale yellow brown							
38	2 2.0	Bore discontinued at 2.0m		E	2.0		PID < 1ppm		2
37	3								3
36	4								4
35	5								5
34	6								6
33	7								7
32	8								8
31	9								9

RIG: DT250 **DRILLER:** JE **LOGGED:** CLN **CASING:** Nil

TYPE OF BORING: Diacore to 0.65m, Solid flight auger to 2.0m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 40.5 AHD
EASTING: 335848
NORTHING: 6248778
DIP/AZIMUTH: 90°/--

BORE No: BH206
PROJECT No: 86529.00
DATE: 26/2/2019
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
40	0.52	CONCRETE							
		FILLING: dark yellow orange sand filling with trace gravel, slightly silty (possibly natural)		E	1.0		PID <1ppm		
	1.3	SAND: light yellow, fine to medium sand		E	1.5		PID <1ppm		
39		1.5m - trace ironstone gravel							
38				E	2.5		PID <1ppm		
		2.7m: becoming brown with grey bands							
37				E	3.5		PID <1ppm		
36		4.9m: becoming light yellow brown							
35	5.5	Bore discontinued at 5.5m							
34									
33									
32									
31									

RIG: DT250 **DRILLER:** JE **LOGGED:** CLN **CASING:** Nil

TYPE OF BORING: Diacore to 0.52m, Solid flight auger to 5.5m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 40.4 AHD
EASTING: 335938
NORTHING: 6248781
DIP/AZIMUTH: 90°/--

BORE No: BH207
PROJECT No: 86529.00
DATE: 26/2/2019
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
40	0.49	CONCRETE							
	0.65	FILLING: yellow brown sand filling with trace igneous gravel and ash		E	0.5		PID <1ppm		
39	1	SAND: yellow, fine to medium sand with trace clay		E	1.0		PID <1ppm		
				E	1.5		PID <1ppm		
38	1.75	SAND: orange brown sand with some clay							
	2.5	Bore discontinued at 2.5m		E	2.5		PID <1ppm		
37	3								
36	4								
35	5								
34	6								
33	7								
32	8								
31	9								

RIG: DT250 **DRILLER:** JE **LOGGED:** CLN **CASING:** Nil

TYPE OF BORING: Diacore to 0.49m, Solid flight auger to 2.5m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 46.8 AHD
EASTING: 335982
NORTHING: 6248785
DIP/AZIMUTH: 90°/--

BORE No: BH208
PROJECT No: 86529.00
DATE: 27/2/2019
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
46	0.1	ASPHALT		E	0.1		PID < 1ppm		
		FILLING: dark-brown and yellow sand filling, trace sandstone fragments, igneous gravel and ash, humid		E	0.5		PID < 1ppm		
	1	0.7m: becoming dark-brown		E	0.9 1.0		PID < 1ppm		
45		1.5m: becoming yellow-brown		E	1.5		PID < 1ppm		
	2	2.1 FILLING: dark grey sand filling, trace sandstone gravel and silt, humid		E	2.1		PID < 1ppm		
44		2.4 - 2.5m: broken glass							
	3	2.8m: gravelly sand, moist		E	2.8		PID < 1ppm		
		3.3 SANDSTONE: red-brown and pale grey, low strength sandstone		A	3.3		PID < 1ppm		
43	4	3.6 Bore discontinued at 3.6m Termination of hole due to refusal on sandstone							
42	5								
41	6								
40	7								
39	8								
38	9								
37									

RIG: Scout 4 **DRILLER:** RKE **LOGGED:** RK **CASING:** Nil

TYPE OF BORING: Soild flight auger to 3.6m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 46.9 AHD
EASTING: 335817
NORTHING: 6248758
DIP/AZIMUTH: 90°/--

BORE No: BH209
PROJECT No: 86529.00
DATE: 27/2/2019
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
46	0.14	CONCRETE							
		FILLING: dark brown to brown, fine to medium grained clayey sand filling, trace fine to medium grained sandstone, iron gravel, igneous gravel, clay, brick and ash fragements, damp to moist		E	0.2		PID < 1ppm		
				E	0.5		PID < 1ppm		
	1			E*	1.0		BT21A/BT21B, PID < 1ppm		1
45	2			E	2.0		PID < 1ppm		2
44	3			E	3.0		PID < 1ppm		3
43	4			E	4.0		PID < 1ppm		4
42	5			E	5.0		PID < 1ppm		5
41	6			E	6.0		PID < 1ppm		6
	6.4	Bore discontinued at 6.4m Termination of hole due to refusal on inferred concrete							
40	7								7
39	8								8
38	9								9
37									

RIG: GEO205 **DRILLER:** SS **LOGGED:** AH **CASING:** Nil

TYPE OF BORING: Diacore to 0.14, Solid flight auger to 6.4m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 40.3 AHD
EASTING: 335846
NORTHING: 6248752
DIP/AZIMUTH: 90°/--

BORE No: BH210
PROJECT No: 86529.00
DATE: 27/2/2019
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
40	0.47	CONCRETE							
		FILLING: dark brown orange sand filling with trace gravel and some clay		E	0.7		PID < 1ppm		
	0.9								
39	1	FILLING: orange yellow sand filling, slightly clayey (possibly natural)		*E	1.0		PID <1 ppm BT12A, BT12B		
		1.5 m - orange yellow sand filling with trace gravel		E	1.5		PID <1 ppm		
38	2								
	2.2	SAND: orange yellow, fine to medium sand		E	2.5		PID <1 ppm		
37	3	3 - 3.4m: brown sand band							
				E	3.5		PID <1 ppm		
36	4								
	4.0	Bore discontinued at 4.0m							
35	5								
34	6								
33	7								
32	8								
31	9								

RIG: DT250 **DRILLER:** JE **LOGGED:** CLN **CASING:** Nil

TYPE OF BORING: Diacore to 0.47m, Solid flight auger to 4.0m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 40.3 AHD
EASTING: 335941
NORTHING: 6248748
DIP/AZIMUTH: 90°/--

BORE No: BH211
PROJECT No: 86529.00
DATE: 26/2/2019
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
40		CONCRETE							
	0.48			E	0.5		PID < 1ppm		
	0.65	FILLING: brown sand filling with trace clay and gravel sized pieces of concrete and ironstone, ash							
39	1	SAND: yellow brown, fine to medium sand with trace clay		*E	1.0		PID < 1ppm BT13A, BT13B		
	2	2.0 1.9m: becoming orange with some clay		E	1.9		PID < 1ppm		
38		Bore discontinued at 2.0m							
37	3								
36	4								
35	5								
34	6								
33	7								
32	8								
31	9								

RIG: DT250 **DRILLER:** JE **LOGGED:** CLN **CASING:** Nil

TYPE OF BORING: Diacore to 0.48m, Solid flight auger to 2.0m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 46.9 AHD
EASTING: 335965
NORTHING: 6248766
DIP/AZIMUTH: 90°/--

BORE No: BH212
PROJECT No: 86529.00
DATE: 1/3/2019
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
46.9	0.15	CONCRETE		E	0.15		PID < 1ppm		
46.8	0.3	FILLING: dark brown, medium to coarse igneous gravel filling with some sand		E	0.6		PID < 1ppm		
		FILLING: dark brown to brown, gravelly sand filling with some sandstone fragments, ash, hydrocarbon odour, humid							
46	1	0.8m: sand filling with some gravel, no hydrocarbon odour		E	1.1		PID < 1ppm		1
		1.5m: becoming yellow-brown, trace gravel		E	1.6		PID < 1ppm		
45	2	1.8m: becoming dark grey		E	1.8		PID < 1ppm		2
		2.1m: trace building rubble (broken bricks, clay tiles and glass)		E	2.3		PID < 1ppm		
44	3								3
				E	3.4		PID < 1ppm		
43	4	4.0m: becoming dark grey-brown, hydrocarbon odour		E*	4.0		BT15A, BT15B, PID < 1ppm		4
				E	4.5		PID < 1ppm		
42.1	4.8	SANDSTONE: very low to low stregnth, yellow - pale grey, fine to medium grained sandstone							
42	5			A	5.2		PID < 1ppm		5
41.5	5.4	Bore discontinued at 5.4m Termination of hole due to refusal on sandstone							
41	6								6
40	7								7
39	8								8
38	9								9
37									

RIG: DT250 **DRILLER:** JE **LOGGED:** RK **CASING:** Nil

TYPE OF BORING: Diacore to 0.15m, Solid flight auger to 5.4m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 42.8 AHD
EASTING: 335783
NORTHING: 6248719
DIP/AZIMUTH: 90°/--

BORE No: BH213
PROJECT No: 86529.00
DATE: 22/2/2019
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
42	0.1	ASPHALT		E	0.1		PID < 1ppm		
		FILLING: dark brown gravelly sand filling, trace building rubble (broken bricks and clay tiles) and ash, humid		E	0.5		PID < 1ppm		
		0.5m: sand with trace gravel			0.6				
	1	0.8m: becoming yellow-brown		E	0.9		PID < 1ppm		
41	2	2.0m: becoming dark brown		E	2.0		PID < 1ppm		
	2.5	FILLING: pale grey clay and dark brown sand filling, trace gravel, humid		E	2.5		PID < 1ppm		
40	3			E	3.6		PID < 1ppm		
39	4	4.0 SAND: yellow-orange, fine to medium grained sand, humid		E	4.5		PID < 1ppm		
38	5								
	5.5	Bore discontinued at 5.5m		E*	5.5		Triplicate BT2A, BT2B, PID < 1ppm		
37	6								
36	7								
35	8								
34	9								
33									

RIG: Scout 4 **DRILLER:** RKE **LOGGED:** RK **CASING:** Nil

TYPE OF BORING: Solid flight auger to 5.5m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 41.6 AHD
EASTING: 335827
NORTHING: 6248720
DIP/AZIMUTH: 90°/--

BORE No: BH214
PROJECT No: 86529.00
DATE: 28/2/2019
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
	0.0	CONCRETE							
41	0.3	FILLING: dark-brown gravelly sand filling with trace silt and ash, damp		E	0.5		PID < 1ppm		
	1	0.8m: with some gravel		E	0.9 1.0		PID < 1ppm		
		1.2m: with trace gravel		E	1.3		PID < 1ppm		
40	1.7	FILLING: pale-dark grey, fine to medium grained sand filling with trace silt, humid		E	1.8		PID < 1ppm		
	2	2.2m: becoming to dark brown, damp		E	2.4		PID < 1ppm		
39	2.7	SAND: brown-yellow, fine to medium grained sand with trace clay, damp		E	2.9		PID < 1ppm		
	3	3.1 SAND: yellow, fine to medium grained sand with trace silt, moist		E	3.5				
38									
	4								
37				E*	4.5		Triplicate TB7A, TB7B, PID < 1ppm		
	5	5.0 Bore discontinued at 5.0m							
36									
	6								
35									
	7								
34									
	8								
33									
	9								
32									

RIG: GEO205 **DRILLER:** SS **LOGGED:** WW **CASING:** Nil

TYPE OF BORING: Diacore to 0.3m, Solid flight auger to 5.0m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 39.4 AHD
EASTING: 335846
NORTHING: 6248721
DIP/AZIMUTH: 90°/--

BORE No: BH215
PROJECT No: 86529.00
DATE: 28/2/2019
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
39	0.3	CONCRETE							
		FILLING: dark-brown gravelly sand filling with trace clay and ash		E	0.5 0.6		PID < 1ppm		
	0.7	SAND: yellow-brown, fine to medium grained sand with trace silt, damp		E	0.9		PID < 1ppm		
38	1	1.1m: becoming yellow		E	1.4		PID < 1ppm		
37	2	2.3m: becoming yellow-brown, moist		E	2.4		PID < 1ppm		
	3	3.0 Bore discontinued at 3.0m							
36	4								
35	5								
34	6								
33	7								
32	8								
31	9								
30									

RIG: GEO205 **DRILLER:** SS **LOGGED:** WW **CASING:** Nil

TYPE OF BORING: Diacore to 0.3m, Solid flight auger to 3.0m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 40.3 AHD
EASTING: 335942
NORTHING: 6248721
DIP/AZIMUTH: 90°/--

BORE No: BH216
PROJECT No: 86529.00
DATE: 27/2/2019
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
40	0.49	CONCRETE							
		FILLING: grey brown sand filling with some igneous gravel and trace orange sandy clay, ash		E	0.5		PID < 1ppm		
	0.8	FILLING: orange-brown sand filling with some clay, ash		E	0.9		PID < 1ppm		
39	1.1	SAND: orange, fine to medium sand with trace silt		E	1.5		PID < 1ppm		
		1.5m: becoming slightly clayey							
38		2m: bands of yellow sand							
	2.5	Bore discontinued at 2.5m		E	2.5		PID < 1ppm		
37									
36									
35									
34									
33									
32									
31									

RIG: DT250 **DRILLER:** JE **LOGGED:** CLN **CASING:** Nil

TYPE OF BORING: Diacore to 0.49m, Solid flight auger to 2.5m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 45.8 AHD
EASTING: 336004
NORTHING: 6248719
DIP/AZIMUTH: 90°/--

BORE No: BH217
PROJECT No: 86529.00
DATE: 26/2/2019
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
45	0.1	CONCRETE		E	0.1		PID < 1ppm		
		FILLING: dark brown sand filling, trace silt and building rubble (broken bricks), humid		E	0.5		PID < 1ppm		
	1			E	0.9		PID < 1ppm		1
	1.4	FILLING: black coal wash/ash, humid		E	1.4 1.5		PID < 1ppm		
44		1.8m: black coal wash/ash with some sand							
	2			E	2.0		PID < 1ppm		2
	2.1	FILLING: grey-brown sand filling with trace silt, humid		E E	2.3 2.4		PID < 1ppm PID < 1ppm		
43	2.8	SANDSTONE: very low to low strength, red-brown to pale grey sandstone		A	3.0		PID < 1ppm		
	3								3
	3.5	Bore discontinued at 3.5m							
42	4								4
41	5								5
40	6								6
39	7								7
38	8								8
37	9								9
36									

RIG: Scout 4 **DRILLER:** RKE **LOGGED:** RK **CASING:** Nil

TYPE OF BORING: Diacore to 0.1m, Solid flight auger to 3.5m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 46.9 AHD
EASTING: 335822
NORTHING: 6248691
DIP/AZIMUTH: 90°/--

BORE No: BH218
PROJECT No: 86529.00
DATE: 27/2/2019
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
46.9	0.3	CONCRETE							
		Bore discontinued at 0.3m Termination of hole due to void below concrete							

RIG: GEO205 **DRILLER:** SS **LOGGED:** AH **CASING:** Nil

TYPE OF BORING: Diacore to 0.3m

WATER OBSERVATIONS:

REMARKS: Void below slab to approximately 3.8m below surface level

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 40.6 AHD
EASTING: 335847
NORTHING: 6248687
DIP/AZIMUTH: 90°/--

BORE No: BH219
PROJECT No: 86529.00
DATE: 28/2/2019
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
40.6	0.0	CONCRETE							
40.2	0.4	FILLING: brown gravelly sand filling, damp		E	0.5		PID < 1ppm		
39.8	0.8	FILLING: grey sand filling with trace silt, damp		E	0.9		PID < 1ppm		
38.9	1.7	SAND: yellow-brown, fine to medium grained sand with trace silt, damp (possibly filling)		E	1.9		PID < 1ppm		
				E	2.8 2.9				
36.6	4.0			E	3.8		PID < 1ppm		
		Bore discontinued at 4.0m							

RIG: GEO205 **DRILLER:** SS **LOGGED:** WW **CASING:** Nil

TYPE OF BORING: Diacore to 0.4m, Solid flight auger to 4.0m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 40.5 AHD
EASTING: 335942
NORTHING: 6248690
DIP/AZIMUTH: 90°/--

BORE No: BH220
PROJECT No: 86529.00
DATE: 28/2/2019
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
40	0.43	CONCRETE							
		FILLING: brown sand filling with trace gravel, silt and ash		E	0.5 0.6		PID < 1ppm		
	1			E	0.9		PID < 1ppm		1
39	1.4	SAND: yellow, fine to medium grained sand with trace silt, damp							
	2			E	1.8		PID < 1ppm		2
38		2.6m: becoming yellow-orange		E*	2.8		Triplicate TB8A, TB8B, PID < 1ppm		
	3	3.0 Bore discontinued at 3.0m							3
37	4								4
36	5								5
35	6								6
34	7								7
33	8								8
32	9								9
31									

RIG: GEO205 **DRILLER:** SS **LOGGED:** WW **CASING:** Nil

TYPE OF BORING: Diacore to 0.43m, Solid flight auger to 3.0m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 46.9 AHD
EASTING: 335968
NORTHING: 6248697
DIP/AZIMUTH: 90°/--

BORE No: BH221
PROJECT No: 86529.00
DATE: 28/2/2019
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
46	0.13	CONCRETE		E	0.2		PID < 1ppm		
	0.25	FILLING: dark brown clayey and slightly gravelly sand filling, gravel is igneous		E	0.5		PID < 1ppm		
		FILLING: dark brown sand filling with some gravel							
	1	0.5m: becoming slightly gravelly (igneous, sandstone and concrete gravel)		E	1.0		PID < 1ppm		1
	1.1	0.6m: becoming light brown / red							
		FILLING: dark brown sand filling							
	1.51	1.3m: with some terracotta and tile fragments		E	1.5		PID < 1ppm		
45		FILLING: orange-brown sand filling							
	2			E	2.0		PID = 1 ppm		2
		2.1m: becoming slightly clayey with trace ash							
		2.4m: dark staining with slight hydrocarbon odour and ash		E	2.5		PID = 2 ppm		
44		2.7m: orange and brown sand filling with trace gravel							
	3								3
43	4								4
	4.2	FILLING: orange sand filling							
				E	4.5		PID < 1ppm		
42	5	4.8m: becoming dark brown with trace glass fragments							5
		5.2m: becoming grey		E	5.5		PID < 1ppm		
41	6								6
	6.5	SAND: orange, fine to medium sand		E	6.5		PID < 1ppm		
40	7	7.0m: becoming brown							7
39	8								8
38	9	9.0							9
		Bore discontinued at 9.0m							
37									

RIG: DT250 **DRILLER:** JE **LOGGED:** CLN **CASING:** Nil

TYPE OF BORING: Diacore to 0.13m, Solid flight auger to 9.0m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 40.8 AHD
EASTING: 335796
NORTHING: 6248671
DIP/AZIMUTH: 90°/--

BORE No: BH222
PROJECT No: 86529.00
DATE: 26/2/2019
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
40	0.25	ASPHALT		E	0.25		PID <1 ppm		
	0.5	ROADBASE: dark grey brown slightly gravelly sand filling with igneous gravel		E	0.5		PID <1 ppm		
	1	FILLING: dark brown orange sand filling with some clay and gravel (igneous and concrete gravel), trace ash 1m: some timber and yellow orange sand		E	1.0		PID <1 ppm		
39	1.4	SAND: yellow brown, fine to medium sand with some clay							
	2			E	2.0		PID <1 ppm		
	2.5	2.4m: becoming dark brown orange sandy clay (indurated sand)		E	2.4		PID <1 ppm		
38	3	Bore discontinued at 2.5m							
37	4								
36	5								
35	6								
34	7								
33	8								
32	9								
31									

RIG: 140 Explorer **DRILLER:** JE **LOGGED:** CLN **CASING:** Nil

TYPE OF BORING: Solid flight auger to 2.5m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 40.5 AHD
EASTING: 335850
NORTHING: 6248661
DIP/AZIMUTH: 90°/--

BORE No: BH223
PROJECT No: 86529.00
DATE: 28/2/2019
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
40.5	0.0	CONCRETE							
40	0.42	FILLING: dark brown, slightly clayey sand filling with some gravel		E	0.5		PID < 1ppm		
		0.6m: becoming dark grey with trace ash							
	1	1.0m: with some tile fragments		E	1.0		PID < 1ppm		1
		1.2m: becoming brown orange with grey clay		E	1.2		PID < 1ppm		
39	1.5	FILLING: light grey sand filling (possibly natural)							
	2			E	2.0		PID < 1ppm		2
38	2.3	FILLING: dark brown sand filling with trace ironstone gravel (possibly natural)							
	2.5	SAND: yellow brown, fine to medium sand							
	3			E	3.0		PID < 1ppm		3
37				E	3.5		PID < 1ppm		
36.5	4.0	Bore discontinued at 4.0m							4
36	5								5
35	6								6
34	7								7
33	8								8
32	9								9
31									

RIG: DT250 **DRILLER:** GM **LOGGED:** CLN **CASING:** Nil

TYPE OF BORING: Diacore to 0.42m, Solid flight auger to 4.0m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 40.2 AHD
EASTING: 335867
NORTHING: 6248641
DIP/AZIMUTH: 90°/--

BORE No: BH224
PROJECT No: 86529.00
DATE: 28/2/2019
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
40		CONCRETE							
	0.71								
	1	FILLING: dark brown, grey red, slightly gravelly clay filling, gravel igneous		E	1.0		PID < 1ppm		1
39	1.2	FILLING: dark brown sand filling with some gravel and ash		E	1.5		PID < 1ppm		
	1.6	FILLING: light grey sand filling (possibly natural)							
	1.8			E	1.8		PID < 1ppm		
	2	FILLING: orange dark brown clayey sand filling (possibly natural)		E	2.0		PID < 1ppm		2
38	2.1	SAND: yellow orange, fine to medium sand with trace ironstone gravel							
	3			E	3.0		PID < 1ppm		3
	3.0	Bore discontinued at 3.0m							
37									
	4								4
36									
	5								5
35									
	6								6
34									
	7								7
33									
	8								8
32									
	9								9
31									

RIG: DT250 **DRILLER:** GM **LOGGED:** CLN **CASING:** Nil

TYPE OF BORING: Diacore to 0.71m, Solid flight auger to 3.0m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 40.2 AHD
EASTING: 335894
NORTHING: 6248641
DIP/AZIMUTH: 90°/--

BORE No: BH225
PROJECT No: 86529.00
DATE: 28/2/2019
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
40		CONCRETE							
	0.61	FILLING: dark brown gravelly sand filling with concrete gravel/cobbles and some clay, ash		*E	0.6		Triplicate BT14A,BT14B, PID < 1ppm		
39	1.1	FILLING: dark brown, slightly gravelly sand filling with some red-grey clay and ash			1.0				
	1.6	FILLING: light grey sand filling (possibly natural)		E	1.5		PID < 1ppm		
38		1.7m: becoming dark brown		E	2.0		PID < 1ppm		
	2.5	SAND: yellow brown, fine to medium sand							
37	3.0	Bore discontinued at 3.0m		E	3.0		PID < 1ppm		
36									
35									
34									
33									
32									
31									

RIG: DT250 **DRILLER:** GM **LOGGED:** CLN **CASING:** Nil

TYPE OF BORING: Diacore to 0.61m, Solid flight auger to 3.0m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 40.2 AHD
EASTING: 335923
NORTHING: 6248641
DIP/AZIMUTH: 90°/--

BORE No: BH226
PROJECT No: 86529.00
DATE: 28/2/2019
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
40		CONCRETE							
	0.8								
39	1.0	FILLING: grey sand filling with some gravel (trace igneous gravel) and ash		E	0.9		PID < 1ppm		
		SAND: pale grey, fine to medium grained sand							
	1.6			E	1.5		PID < 1ppm		
38		SAND: dark-brown sand with trace sandstone and ironstone gravel							
	2.1			E	2.0		PID < 1ppm		
		SAND: yellow, fine to medium grained with trace ironstone gravel							
37	2.5	Bore discontinued at 2.5m		E	2.5		PID < 1ppm		
36									
35									
34									
33									
32									
31									

RIG: DT250 **DRILLER:** GM **LOGGED:** CLN **CASING:** Nil

TYPE OF BORING: Diacore to 0.8m, Solid flight auger to 2.5m

WATER OBSERVATIONS:

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 40.5 AHD
EASTING: 335942
NORTHING: 6248656
DIP/AZIMUTH: 90°/--

BORE No: BH227
PROJECT No: 86529.00
DATE: 1/3/2019
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
40	0.42	CONCRETE							
		FILLING: dark brown, fine to medium grained sand with trace gravel and ash		E	0.5 0.6		PID < 1ppm		
	1	0.8m: with some gravel		E	1.0		PID < 1ppm		1
39	1.7	SAND: yellow-brown, fine to medium grained sand with trace silt, damp		E	2.0		PID < 1ppm		
	2	2.6m: becoming yellow		E	2.8		PID < 1ppm		2
38	3.0	Bore discontinued at 3.0m							
	3								3
37	4								4
	5								5
36	6								6
35	7								7
	8								8
34	9								9
33									
32									
31									

RIG: GEO205 **DRILLER:** SS **LOGGED:** WW **CASING:** Nil

TYPE OF BORING: Diacore to 0.42m, Solid flight auger to 3.0m

WATER OBSERVATIONS:

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 44.1 AHD
EASTING: 335999
NORTHING: 6248689
DIP/AZIMUTH: 90°/--

BORE No: BH228
PROJECT No: 86529.00
DATE: 27/2/2019
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
44	0.1	ASPHALT		E	0.1		PID < 1ppm		
		FILLING: dark brown sand filling with trace silt, gravel and ash, humid		E	0.5		PID < 1ppm		
43	1			E	0.9 1.0		PID < 1ppm		1
	1.3	FILLING: dark grey-brown sand filling with some gravel and trace silt, humid		E	1.2		PID < 1ppm		
	1.7	FILLING: yellow-brown sand filling with trace silt and gravel, humid		E	1.9		PID < 1ppm		
42	2								2
41	3			E	3.0		PID < 1ppm		3
				E*	3.7		Triplicate BT5A,BT5B, PID < 1ppm		
40	4								4
	4.2	SAND: yellow, fine to medium grained sand, humid		E	4.3 4.4		PID < 1ppm		
	4.7	SAND: yellow-orange sand with trace clay, humid							
39	5			E	5.2				5
	5.5	Bore discontinued at 5.5m							
38	6								6
37	7								7
36	8								8
35	9								9

RIG: Scout 4 **DRILLER:** RKE **LOGGED:** WW **CASING:** Nil

TYPE OF BORING: Solid flight auger to 5.5m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Lendlease Building Pty Ltd
PROJECT: Sydney Football Stadium Redevelopment
LOCATION: Moore Park

SURFACE LEVEL: 40.6 AHD
EASTING: 335935
NORTHING: 6248624
DIP/AZIMUTH: 90°/--

BORE No: BH229
PROJECT No: 86529.00
DATE: 7/3/2019
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
40	0.2	ASPHALT							
		FILLING: yellow sand filling, humid (NDD backfill)							
	1.2	FILLING: brown-dark brown sand filling, trace sandstone fragments and ash, humid		E	1.5		PID = 2 ppm		
39		1.5m: trace roots							
				E	2.0		PID < 1ppm		
38	2.7	2.6m: becoming yellow-brown		E	2.7		PID < 1ppm		
		SAND: yellow-pale grey, fine to medium grained sand, humid							
37	3.7	Bore discontinued at 3.7m		E	3.7		PID < 1ppm		
36									
35									
34									
33									
32									
31									

RIG: DT250 **DRILLER:** JE **LOGGED:** RK **CASING:** Nil

TYPE OF BORING: NDD to 1.2m, Solid flight auger to 3.7m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS: NDD and backfill by others (not logged)

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Groundwater Field Sheet

Bore Volume = casing volume + filter pack volume
= πh d² 4 + nπh d² 4
Where: π = 3.14
n = porosity (0.3 for most filter pack material)
h = height of water column
d = diameter of annulus
h = length of filter pack
d = diameter of casing
Bore Vol Normally: 7.2*h

Project and Bore Installation Details	
Bore / Standpipe ID:	101
Project Name:	SFS
Project Number:	
Site Location:	Moore Park
Bore GPS Co-ord:	
Installation Date:	
GW Level (during drilling):	- m bgl
Well Depth:	m bgl
Screened Interval:	m bgl
Contaminants/Comments:	-

Bore Development Details	
Date/Time:	
Purged By:	
GW Level (pre-purge):	m bgl
GW Level (post-purge):	m bgl
PSH observed:	Yes / No (interface / visual). Thickness if observed:
Observed Well Depth:	m bgl
Estimated Bore Volume:	L
Total Volume Purged:	(target: no drill mud, min 3 well vol. or dry)
Equipment:	

Micropurge and Sampling Details	
Date/Time:	23/03/19
Sampled By:	Sam Balian
Weather Conditions:	Fine
GW Level (pre-purge):	12.04 m bgl
GW Level (post sample):	12.04 m bgl
PSH observed:	Yes / (No) interface / visual). Thickness if observed:
Observed Well Depth:	29.2 m bgl
Estimated Bore Volume:	L
Total Volume Purged:	L
Equipment:	Bladder Pump. PPM / PID meter

Water Quality Parameters

Time / Volume	Temp (°C)	~~DO (mg/L)~~	EC (µS or mS/cm)	pH	Turbidity	Redox (mV)
Stabilisation Criteria (3 readings)	**0.1°C**	**+/- 0.3 mg/L**	**+/- 3%**	**+/- 0.1**	**+/- 10%**	**+/- 10 mV**
	23.2		5			
	22					
	20.6	~~3.6~~ 0.1PM	5125	5.94	645NTU	-151

Additional Readings Following stabilisation:	DO % Sat	SPC	TDS

Sample Details

Sampling Depth (rationale):	2 m bgl. below gw surface.
Sample Appearance (e.g. colour, siltiness, odour):	cloudy ~~appearance~~
Sample ID:	
QA/QC Samples:	BD 1
Sampling Containers and filtration:	2x Brown glass 1x purple plastic 1x orange filtered 1x green plastic 4x purple glass vial
Comments / Observations:	

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Groundwater Field Sheet

Bore Volume = casing volume + filter pack volume
$= \pi r_1^2 h_1 + \pi r_1^2 h_2 n$
Where: $\pi = 3.14$
n = porosity (0.3 for most filter pack material)
h_1 = height of water column
d_1 = diameter of annulus
h_2 = length of filter pack
d_2 = diameter of casing
Bore Vol Normally: 7.2"h

Project and Bore Installation Details	
Bore / Standpipe ID:	107
Project Name:	86527
Project Number:	
Site Location:	
Bore GPS Co-ord:	
Installation Date:	
GW Level (during drilling):	- m bgl
Well Depth:	m bgl
Screened Interval:	m bgl
Contaminants/Comments:	-

Bore Development Details	
Date/Time:	
Purged By:	
GW Level (pre-purge):	m bgl
GW Level (post-purge):	m bgl
PSH observed:	Yes / No (interface / visual). Thickness if observed:
Observed Well Depth:	m bgl
Estimated Bore Volume:	L
Total Volume Purged:	(target: no drill mud, min 3 well vol. or dry)
Equipment:	

Micropurge and Sampling Details	
Date/Time:	27/3/19 12:30
Sampled By:	
Weather Conditions:	
GW Level (pre-purge):	7.26 m bgl
GW Level (post sample):	7.26 m bgl
PSH observed:	Yes / (No) (interface / visual). Thickness if observed:
Observed Well Depth:	23.35 m bgl
Estimated Bore Volume:	L
Total Volume Purged:	L
Equipment:	Ner: pump / dip meter

Water Quality Parameters

Time / Volume	Temp (°C)	DO (mg/L)	EC (µS or mS/cm)	pH	Turbidity	Redox (mV)
Stabilisation Criteria (3 readings)	**0.1° C**	**+/- 0.3 mg/L**	**+/- 3%**	**+/- 0.1**	**+/- 10%**	**+/- 10 mV**
	20.4	0.7	66345	6.36	~~6635NTU~~ 67NTU	-124

Additional Readings Following stabilisation:	DO % Sat	SPC	TDS

Sample Details

Sampling Depth (rationale):	2 m bgl, below gw surface level
Sample Appearance (e.g. colour, siltiness, odour):	Cloudy ~~Rotten~~ slight 'rotten egg' odour.
Sample ID:	DH107
QA/QC Samples:	N.1
Sampling Containers and filtration:	~~As above~~ same as others
Comments / Observations:	

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Groundwater Field Sheet

Bore Volume = casing volume + filter pack volume
= $\pi h_c d_c^2/4 + n\pi h_f d_f^2/4$
Where: $\pi = 3.14$
n = porosity (0.3 for sand filter pack material)
h_c = height of water column
d_c = diameter of annulus
h_f = length of filter pack
d_c = diameter of casing
Bore Vol Normally: 7.2*h

Project and Bore Installation Details	
Bore / Standpipe ID:	C37
Project Name:	
Project Number:	
Site Location:	
Bore GPS Co-ord:	
Installation Date:	
GW Level (during drilling):	- m bgl
Well Depth:	m bgl
Screened Interval:	m bgl
Contaminants/Comments:	-
Bore Development Details	
Date/Time:	
Purged By:	
GW Level (pre-purge):	m bgl
GW Level (post-purge):	m bgl
PSH observed:	Yes / No (interface / visual). Thickness if observed:
Observed Well Depth:	m bgl
Estimated Bore Volume:	L
Total Volume Purged:	(target: no drill mud, min 3 well vol. or dry)
Equipment:	
Micropurge and Sampling Details	
Date/Time:	27/3/19 11:15
Sampled By:	SB
Weather Conditions:	Fine
GW Level (pre-purge):	5.98 m bgl
GW Level (post sample):	5.98 m bgl
PSH observed:	Yes / No (interface / visual). Thickness if observed:
Observed Well Depth:	8.2 m bgl
Estimated Bore Volume:	L
Total Volume Purged:	L
Equipment:	Peri pump, dip meter.

Water Quality Parameters

Time / Volume	Temp (°C)	DO (mg/L)	EC (µS or mS/cm)	pH	Turbidity	Redox (mV)
Stabilisation Criteria (3 readings)	**0.1° C**	**+/- 0.3 mg/L**	**+/- 3%**	**+/- 0.1**	**+/- 10%**	**+/- 10 mV**
	23.1	0.79ppm	240.4uS	5.85	35NTU	109mV
Additional Readings Following stabilisation:	DO % Sat	SPC	TDS			

Sample Details

Sampling Depth (rationale):	1m ~~m bgl~~ below gw surface
Sample Appearance (e.g. colour, siltiness, odour):	clear
Sample ID:	C37
QA/QC Samples:	Nil
Sampling Containers and filtration:	2x glass 1x green plastic 4x glass vials 1x purple plastic
Comments / Observations:	1x SLG grounds, 1x orange plastic filtered

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No Sampling Wells

Groundwater Field Sheet

Bore Volume = casing volume + filter pack volume
= $\pi h_c d_c^2/4 + n\pi h_f d_f^2/4$
Where: $\pi = 3.14$
n = porosity (0.3 for most filter pack material)
h_c = height of water column
d_c = diameter of annulus
h_f = length of filter pack
d_f = diameter of casing
Bore Vol Normally: 7.2*h

Project and Bore Installation Details	
Bore / Standpipe ID:	C25
Project Name:	86529.00
Project Number:	
Site Location:	
Bore GPS Co-ord:	
Installation Date:	
GW Level (during drilling):	- m bgl
Well Depth:	m bgl
Screened Interval:	m bgl
Contaminants/Comments:	-

Bore Development Details	
Date/Time:	
Purged By:	
GW Level (pre-purge):	m bgl
GW Level (post-purge):	m bgl
PSH observed:	Yes / No (interface / visual). Thickness if observed:
Observed Well Depth:	m bgl
Estimated Bore Volume:	L
Total Volume Purged:	(target: no drill mud, min 3 well vol. or dry)
Equipment:	

Micropurge and Sampling Details		C35
Date/Time:	23/3/19 10:30AM	22/3/19 11:00 AM
Sampled By:	SB	SB
Weather Conditions:	DRY	Dry.
GW Level (pre-purge):	m bgl	
GW Level (post sample):	m bgl	
PSH observed:	Yes / No (interface / visual). Thickness if observed:	
Observed Well Depth:	4.2M m bgl	3m.
Estimated Bore Volume:	L	
Total Volume Purged:	L	
Equipment:		Note logger pulled out from below that depth but hard to pull due to weight

Water Quality Parameters

Time / Volume	Temp (°C)	DO (mg/L)	EC (µS or mS/cm)	pH	Turbidity	Redox (mV)
Stabilisation Criteria (3 readings)	**0.1° C**	**+/- 0.3 mg/L**	**+/- 3%**	**+/- 0.1**	**+/- 10%**	**+/- 10 mV**
Additional Readings Following stabilisation:	DO % Sat	SPC	TDS			

Sample Details

Sampling Depth (rationale):	m bgl,
Sample Appearance (e.g. colour, siltiness, odour):	
Sample ID:	
QA/QC Samples:	
Sampling Containers and filtration:	
Comments / Observations:	Data logger sitting at bottom of well at approx 4.2m bgL

C1 Dry bottom of well 5.65m
C5 Could not open cap

Appendix G

Summary of Laboratory Test Results

Table G1: Contaminant Concentrations in Filling

Sample/ Depth (m)	B	T	E	X	F1	F2	+PAH	B.TEQ	B(a)P	+OCP	+OPP	+PCB	Phenol	Asbestos	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	(Y/N)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
C1/0.3-0.4	<0.2	<0.5	<1	<3	<25	<50	21	3	2	NIL	NIL	NIL	<5	N	<4	<0.4	9	26	130	0.3	4	65
C1/1.9-2.0	<0.2	<0.5	<1	<3	<25	<50	45	4.7	3.1	NIL	NIL	NIL	<5	N	6	<0.4	10	24	92	0.3	4	69
C2/0.4-0.5	<0.2	<0.5	<1	<3	<25	<50	19	2.4	1.6	NIL	NIL	NIL	<5	N	7	<0.4	11	26	140	0.3	6	71
C3/0.5-0.6	<0.2	<0.5	<1	<3	<25	<50	0.77	<0.5	0.1	NIL	NIL	NIL	<5	N	<4	<0.4	7	5	16	<0.1	3	18
C4/0.4-0.5	<0.2	<0.5	<1	<3	<25	<50	<0.05	<0.5	<0.05	NIL	NIL	NIL	<5	N	4	<0.4	8	10	20	<0.1	8	59
C5/0.4-0.5	<0.2	<0.5	<1	<3	<25	<50	150	21	14	NIL	NIL	NIL	<5	N	10	<0.4	21	53	130	0.3	7	250
C6/1.4-1.5	<0.2	<0.5	<1	<3	<25	<50	35	4.4	3	NIL	NIL	NIL	<5	N	5	<0.4	10	43	240	0.5	5	120
C7/0.9-1.0	<0.2	<0.5	<1	<3	<25	<50	22	2.6	1.7	NIL	NIL	NIL	<5	N	<4	<0.4	7	20	90	0.3	3	55
C8/0.9-1.0	<0.2	<0.5	<1	<3	<25	<50	13	1.8	1.2	NIL	NIL	NIL	<5	N	<4	<0.4	8	27	120	0.1	7	150
C9/0.4-0.5	<0.2	<0.5	<1	<3	<25	<50	<0.05	<0.5	<0.05	NIL	NIL	NIL	<5	N	<4	<0.4	4	7	26	<0.1	1	22
C10/0.4-0.5	<0.2	<0.5	<1	<3	<25	<50	<0.05	<0.5	<0.05	NIL	NIL	NIL	<5	N	<4	<0.4	3	1	2	<0.1	2	11
C11/0.7-0.8	<0.2	<0.5	<1	<3	<25	<50	6.7	0.8	0.62	NIL	NIL	NIL	<5	N	<4	<0.4	4	14	41	<0.1	19	30
C12/0.2-0.3	<0.2	<0.5	<1	<3	<25	<50	<0.05	<0.5	<0.05	NIL	NIL	NIL	<5	N	<4	<0.4	16	6	2	<0.1	23	21
C13/0.4-0.5	<0.2	<0.5	<1	<3	<25	<50	57	7.8	5.2	NIL	NIL	NIL	<5	N	<4	<0.4	4	14	76	0.1	3	150
C13/1.9-2.0	<0.2	<0.5	<1	<3	<25	<50	51	5.9	4.1	NIL	NIL	NIL	<5	N	<4	<0.4	4	19	71	<0.1	8	88
C14/0.9-1.0	<0.2	<0.5	<1	<3	<25	<50	4.8	0.7	0.5	NIL	NIL	NIL	<5	N	<4	<0.4	4	10	54	0.1	2	30
C15/0.7-0.8	<0.2	<0.5	<1	<3	<25	<50	9.2	1.2	0.84	NIL	NIL	NIL	<5	N	<4	<0.4	5	9	33	<0.1	2	25
C16/0.9-1.0	<0.2	<0.5	<1	<3	<25	<50	22	3.2	2.2	NIL	NIL	NIL	<5	N	<4	<0.4	7	23	92	0.2	4	58
C17/0.25-0.35	<0.2	<0.5	<1	<3	<25	<50	<0.05	<0.5	<0.05	NIL	NIL	NIL	<5	N	<4	<0.4	3	2	2	<0.1	2	9
C18/0.4-0.5	<0.2	<0.5	<1	<3	<25	<50	22	2.8	1.9	NIL	NIL	NIL	<5	N	<4	<0.4	5	14	43	<0.1	12	31
C20/0.6-0.7	<0.2	<0.5	<1	<3	<25	<50	160	26	17	NIL	NIL	NIL	<5	N	9	<0.4	13	76	180	0.5	8	150
C20/1.1-1.2	<0.2	<0.5	<1	<3	<25	<50	40	5.4	3.7	NIL	NIL	NIL	<5	N	<4	<0.4	4	3	5	<0.1	2	5
C21/1.9-2.0	<0.2	<0.5	<1	<3	<25	<50	190	24	16	NIL	NIL	NIL	<5	N	<4	<0.4	56	34	650	0.9	26	190
C21/5.4-5.5	<0.2	<0.5	<1	<3	<25	<50	19	2.2	1.5	NIL	NIL	NIL	<5	N	<4	<0.4	5	9	48	0.2	2	36
C22/0.7-0.8	<0.2	<0.5	<1	<3	<25	<50	11	1.6	1.1	NIL	NIL	NIL	<5	N	<4	<0.4	5	12	40	0.1	4	30
C23/0.07-0.1	<0.2	<0.5	<1	<3	<25	<50	<0.05	<0.5	<0.05	NIL	NIL	NIL	<5	N	<4	<0.4	3	3	3	<0.1	<1	6
C24/0.4-0.5	<0.2	<0.5	<1	<3	<25	<50	<0.05	<0.5	<0.05	NIL	NIL	NIL	<5	N	<4	<0.4	41	12	4	<0.1	43	26
C25/0.4-0.5	<0.2	<0.5	<1	<3	<25	<50	0.4	<0.5	<0.05	NIL	NIL	NIL	<5	N	12	<0.4	10	3	10	<0.1	3	31
C26/0.15-0.18	<0.2	<0.5	<1	<3	<25	<50	14	1.7	1.2	NIL	NIL	NIL	<5	N	<4	<0.4	37	46	50	0.2	47	58
C27/0.4-0.5	<0.2	<0.5	<1	<3	<25	<50	10	1.4	0.99	NIL	NIL	NIL	<5	N	<4	<0.4	8	19	67	0.2	12	55

Notes: B = Benzene; T = Toluene; E = Ethylbenzene; X = Xylene; Napth. = Naphthalene; F1 = (C_6 – C_{10}) – BTEX; F2 = (C_{11} – C_{16}) – Naphthalene; +PAH = Positive polycyclic aromatic hydrocarbons; B.TEQ = Carcinogenic PAHs (as B(a)P TEQ); B(a)P = Benzo(a)pyrene
OCP = Organochlorine pesticides; OPP = Organophosphorus pesticides; PCB = Polychlorinated biphenyls; As = Arsenic; Cd = Cadmium; Cr = Chromium; Cu = Copper; Pb = Lead; Hg = Mercury; Ni = Nickel; Zn = Zinc; NIL = below detection limits

Table G1: Contaminant Concentrations in Filling (Continued)

Sample/ Depth (m)	B	T	E	X	F1	F2	+PAH	B.TEQ	B(a)P	+OCP	+OPP	+PCB	Phenol	Asbestos	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	(Y/N)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
C28/0.06-0.1	<0.2	<0.5	<1	<3	<25	<50	<0.05	<0.5	<0.05	NIL	NIL	NIL	<5	N	<4	<0.4	4	4	5	<0.1	1	8
C28/1.5-1.6	<0.2	<0.5	<1	<3	<25	<50	100	8.6	5.7	NIL	NIL	NIL	<5	N	<4	<0.4	4	15	81	0.2	2	36
C29/0.4-0.5	<0.2	<0.5	<1	<3	<25	<50	<0.05	<0.5	<0.05	NIL	NIL	NIL	<5	N	<4	<0.4	13	3	3	<0.1	13	22
C30/0.9-1.0	<0.2	<0.5	<1	<3	<25	<50	10	1.4	0.9	NIL	NIL	NIL	<5	N	6	<0.4	9	91	2200	1.4	7	200
C30/1.9-2.0	<0.2	<0.5	<1	<3	<25	<50	<0.05	<0.5	<0.05	NIL	NIL	NIL	<5	N	<4	<0.4	1	2	20	<0.1	<1	160
C31/0.9-1.0	<0.2	<0.5	<1	<3	<25	<50	22	3	2	NIL	NIL	NIL	<5	N	8	<0.4	6	20	160	0.4	4	67
C31/1.4-1.5	<0.2	<0.5	<1	<3	<25	<50	35	4.2	2.8	NIL	NIL	NIL	<5	N	9	<0.4	7	21	82	1	5	66
C32/0.45-0.6	<0.2	<0.5	<1	<3	<25	<50	0.3	<0.5	<0.05	NIL	NIL	NIL	<5	N	<4	<0.4	6	16	5	<0.1	15	19
C33/0.4-0.5	<0.2	<0.5	<1	<3	<25	<50	2.4	<0.5	0.2	NIL	NIL	0.4	<5	N	<4	<0.4	11	28	43	<0.1	7	57
C33/0.7-0.8	<0.2	<0.5	<1	<3	<25	<50	12	1.7	1.2	NIL	NIL	NIL	<5	N	<4	<0.4	6	23	86	0.2	10	55
C34/0.3-0.4	<0.2	<0.5	<1	<3	<25	<50	19	2.7	1.8	NIL	NIL	NIL	<5	N	<4	<0.4	5	14	69	0.1	2	45
C35/0.1-0.15	<0.2	<0.5	<1	<3	<25	<50	0.4	<0.5	0.06	NIL	NIL	NIL	<5	N	<4	<0.4	8	69	3	<0.1	83	32
C35/0.8-0.9	<0.2	<0.5	<1	<3	<25	<50	8.1	1	0.65	NIL	NIL	NIL	<5	N	<4	<0.4	<1	1	2	<0.1	<1	1
C36/0.4-0.45	<0.2	<0.5	<1	<3	<25	<50	<0.05	<0.5	<0.05	NIL	NIL	NIL	<5	N	<4	<0.4	7	72	2	<0.1	81	32
C37/0.4-0.5	<0.2	<0.5	<1	<3	<25	<50	43	5.9	4	NIL	NIL	NIL	<5	N	4	<0.4	8	26	260	0.3	4	230
C38/0.1-0.15	<0.2	<0.5	<1	<3	<25	<50	5.1	0.7	0.5	NIL	NIL	NIL	<5	N	<4	<0.4	9	36	33	<0.1	13	53
C39/0.5-0.6	<0.2	<0.5	<1	<3	<25	<50	15	2.1	1.4	NIL	NIL	NIL	<5	N	<4	<0.4	4	21	82	0.3	2	180
C40/0.05-0.1	<0.2	<0.5	<1	<3	<25	<50	<0.05	<0.5	<0.05	NIL	NIL	NIL	<5	N	<4	<0.4	9	71	6	<0.1	84	38
101/1.5	<0.2	<0.5	<1	<3	<25	<50	29	3.7	<0.05	NIL	NIL	NIL	<5	N	5	<0.4	10	51	290	0.8	8	120
101/3	<0.2	<0.5	<1	<3	<25	<50	130	12	2.6	NIL	NIL	NIL	<5	N	9	<0.4	12	50	220	0.4	6	140
102/0.1-0.2	<0.2	<0.5	<1	<3	<25	<50	1.7	<0.5	8.3	NIL	NIL	NIL	<5	Y	<4	<0.4	7	43	20	<0.1	40	27
102/2-2.1	<0.2	<0.5	<1	<3	<25	<50	28	4	0.2	NIL	NIL	NIL	<5	N	7	<0.4	14	44	250	0.5	5	68
103/0.5-0.6	<0.2	<0.5	<1	<3	<25	<50	<0.05	<0.5	2.8	NIL	NIL	NIL	<5	N	<4	<0.4	3	2	3	<0.1	2	14
104/0.5-0.6	<0.2	<0.5	<1	<3	<25	<50	<0.05	<0.5	<0.05	NIL	NIL	NIL	<5	N	<4	<0.4	24	10	3	<0.1	27	18
105/3.7	<0.2	<0.5	<1	<3	<25	<50	64	8	5.5	NIL	NIL	NIL	<5	N	<4	<0.4	5	17	86	0.2	3	69
106/0.7-0.8	<0.2	<0.5	<1	<3	<25	<50	6.3	0.9	<0.05	NIL	NIL	NIL	<5	N	<4	<0.4	5	12	61	0.1	3	38
107/1.5	<0.2	<0.5	<1	<3	<25	<50	22	3	0.67	NIL	NIL	NIL	<5	N	<4	<0.4	10	38	390	0.4	4	120
108/1-1.1	<0.2	<0.5	<1	<3	<25	<50	35	3.4	2.3	NIL	NIL	NIL	<5	N	4	1	11	43	110	0.2	10	560
201/1	<0.2	<0.5	<1	<3	<25	<50	38	4.2	2.8	NIL	NIL	NIL	<5	N	4	<0.4	9	41	560	0.4	4	71
202/0.5-0.6	<0.2	<0.5	<1	<3	<25	<50	12	1.9	2	NIL	NIL	NIL	<5	N	<4	<0.4	7	21	97	0.2	3	51

Notes: B = Benzene; T = Toluene; E = Ethylbenzene; X = Xylene; Napth. = Naphthalene; F1 = (C_6 – C_{10}) – BTEX; F2 = (C_{11} – C_{16}) – Naphthalene; +PAH = Positive polycyclic aromatic hydrocarbons; B.TEQ = Carcinogenic PAHs (as B(a)P TEQ); B(a)P = Benzo(a)pyrene
OCP = Organochlorine pesticides; OPP = Organophosphorus pesticides; PCB = Polychlorinated biphenyls; As = Arsenic; Cd = Cadmium; Cr = Chromium; Cu = Copper; Pb = Lead; Hg = Mercury; Ni = Nickel; Zn = Zinc; NIL = below detection limits

Table G1: Contaminant Concentrations in Filling (Continued)

Sample/ Depth (m)	B	T	E	X	F1	F2	+PAH	B.TEQ	B(a)P	+OCP	+OPP	+PCB	Phenol	Asbestos	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	(Y/N)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
202/2.7-2.8	<0.2	<0.5	<1	<3	<25	<50	120	13	1.3	NIL	NIL	NIL	<5	N	7	<0.4	13	70	200	0.8	6	120
204/1	<0.2	<0.5	<1	<3	<25	<50	4.8	0.6	9.2	NIL	NIL	NIL	<5	N	<4	<0.4	5	22	16	<0.1	5	17
205/0.65	<0.2	<0.5	<1	<3	<25	<50	<0.05	<0.5	0.5	NIL	NIL	NIL	<5	N	<4	<0.4	3	9	<1	<0.1	1	<1
206/2.5	<0.2	<0.5	<1	<3	<25	<50	<0.05	<0.5	<0.05	NIL	NIL	NIL	<5	N	<4	<0.4	2	<1	<1	<0.1	<1	<1
207/0.5	<0.2	<0.5	<1	<3	<25	<50	2.2	<0.5	0.2	NIL	NIL	NIL	<5	N	<4	<0.4	2	2	8	<0.1	2	4
208/0.9-1.0	<0.2	<0.5	<1	<3	<25	<50	3	<0.5	0.3	NIL	NIL	NIL	<5	N	<4	<0.4	5	12	28	<0.1	5	18
209/1	<0.2	<0.5	<1	<3	<25	<50	58	7.2	4.9	NIL	NIL	NIL	<5	N	5	<0.4	10	41	140	0.6	6	120
210/0.7	<0.2	<0.5	<1	<3	<25	<50	<0.05	<0.5	<0.05	NIL	NIL	NIL	<5	N	<4	<0.4	8	2	4	<0.1	3	3
210/1	<0.2	<0.5	<1	<3	<25	<50	<0.05	<0.5	<0.05	NIL	NIL	NIL	<5	N	<4	<0.4	7	<1	4	<0.1	1	1
211/0.5	<0.2	<0.5	<1	<3	<25	<50	0.96	<0.5	0.1	NIL	NIL	NIL	<5	N	<4	<0.4	3	1	8	<0.1	2	4
212/2.3	<0.2	<0.5	<1	<3	<25	<50	91	10	6.8	NIL	NIL	NIL	<5	N	<4	<0.4	7	27	170	0.5	3	58
212/4	<0.2	<0.5	<1	<3	<25	<50	<0.05	<0.5	<0.05	NIL	NIL	NIL	<5	N	<4	<0.4	<1	<1	<1	<0.1	<1	<1
213/0.5-0.6	<0.2	<0.5	<1	<3	<25	<50	14	1.9	1.3	NIL	NIL	NIL	<5	N	<4	<0.4	7	40	160	0.4	4	62
214/0.9-1.0	<0.2	<0.5	<1	<3	<25	<50	15	1.7	1.2	NIL	NIL	NIL	<5	N	<4	<0.4	6	16	66	0.2	4	40
215/0.5-0.6	<0.2	<0.5	<1	<3	<25	<50	6.7	0.9	0.65	NIL	NIL	NIL	<5	N	<4	<0.4	7	33	65	0.1	19	39
216/0.9	<0.2	<0.5	<1	<3	<25	<50	5	0.7	0.57	NIL	NIL	NIL	<5	N	<4	<0.4	3	2	11	<0.1	<1	4
217/1.4-1.5	<0.2	<0.5	<1	<3	<25	<50	33	3.3	2.2	NIL	NIL	NIL	<5	N	<4	<0.4	7	19	36	<0.1	6	18
219/2.8-2.9	<0.2	<0.5	<1	<3	<25	<50	0.3	<0.5	0.06	NIL	NIL	NIL	<5	N	<4	<0.4	3	<1	4	<0.1	<1	5
220/0.5-0.6	<0.2	<0.5	<1	<3	<25	<50	6.3	0.8	0.63	NIL	NIL	NIL	<5	N	<4	<0.4	5	9	42	<0.1	1	20
221/1.5	<0.2	<0.5	<1	<3	<25	<50	70	9.2	6.3	NIL	NIL	NIL	<5	N	<4	<0.4	8	41	120	0.3	6	76
221/2.5	<0.2	<0.5	<1	<3	<25	120	230	21	14	NIL	NIL	NIL	<5	N	<4	<0.4	7	32	140	0.3	4	73
222/1	<0.2	<0.5	<1	<3	<25	<50	15	2.1	1.5	NIL	NIL	NIL	<5	N	<4	<0.4	4	16	78	0.3	2	46
223/1	<0.2	<0.5	<1	<3	<25	<50	26	3.4	2.4	NIL	NIL	NIL	<5	N	<4	<0.4	5	10	40	<0.1	2	24
224/1.5	<0.2	<0.5	<1	<3	<25	<50	12	1.7	1.2	NIL	NIL	NIL	<5	N	<4	<0.4	6	19	82	0.2	3	53
225/0.6-1.0	<0.2	<0.5	<1	<3	<25	<50	19	2.6	1.8	NIL	NIL	NIL	<5	N	<4	<0.4	7	37	91	0.2	4	61
225/1.5	<0.2	<0.5	<1	<3	<25	<50	18	2.7	1.9	NIL	NIL	NIL	<5	N	<4	<0.4	6	32	94	0.2	4	55
226/0.8-1.0	<0.2	<0.5	<1	<3	<25	<50	<0.05	<0.5	<0.05	NIL	NIL	NIL	<5	N	<4	<0.4	3	3	2	<0.1	8	3
227/0.5-0.6	<0.2	<0.5	<1	<3	<25	<50	28	3.3	2.2	NIL	NIL	NIL	<5	N	<4	<0.4	5	24	88	0.2	3	52
228/0.9-1.0	<0.2	<0.5	<1	<3	<25	<50	62	8.4	5.9	NIL	NIL	NIL	<5	N	<4	<0.4	6	30	82	0.4	4	74
229/1.5	<0.2	<0.5	<1	<3	<25	<50	24	3.1	2.1	NIL	NIL	NIL	<5	N	<4	<0.4	5	17	73	0.2	2	46

Notes: B = Benzene; T = Toluene; E = Ethylbenzene; X = Xylene; Napth. = Naphthalene; F1 = (C_6 – C_{10}) – BTEX; F2 = (C_{11} – C_{16}) – Naphthalene; +PAH = Positive polycyclic aromatic hydrocarbons; B.TEQ = Carcinogenic PAHs (as B(a)P TEQ); B(a)P = Benzo(a)pyrene
OCP = Organochlorine pesticides; OPP = Organophosphorus pesticides; PCB = Polychlorinated biphenyls; As = Arsenic; Cd = Cadmium; Cr = Chromium; Cu = Copper; Pb = Lead; Hg = Mercury; Ni = Nickel; Zn = Zinc; NIL = below detection limits

Table G2: Contaminant Concentrations in Natural Soil

Sample/ Depth (m)	B	T	E	X	F1	F2	+PAH	B.TEQ	B(a)P	+OCP	+OPP	+PCB	Phenol	Asbestos	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	(Y/N)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
C5/2.9-3.0	<0.2	<0.5	<1	<3	<25	<50	1.1	<0.5	0.1	NIL	NIL	NIL	<5	N	<4	<0.4	1	4	21	<0.1	<1	11
C8/2.4-2.5	<0.2	<0.5	<1	<3	<25	<50	<0.05	<0.5	<0.05	NIL	NIL	NIL	<5	N	<4	<0.4	<1	<1	<1	<0.1	<1	<1
C12/1.3-1.4	<0.2	<0.5	<1	<3	<25	<50	<0.05	<0.5	<0.05	NIL	NIL	NIL	<5	N	<4	<0.4	<1	<1	1	<0.1	<1	<1
C17/1.0-1.2	<0.2	<0.5	<1	<3	<25	<50	<0.05	<0.5	<0.05	NIL	NIL	NIL	<5	N	<4	<0.4	2	<1	1	<0.1	<1	<1
C24/0.7-0.8	<0.2	<0.5	<1	<3	<25	<50	<0.05	<0.5	<0.05	NIL	NIL	NIL	<5	N	<4	<0.4	2	<1	5	<0.1	<1	2
102/8.5-8.95	<0.2	<0.5	<1	<3	<25	<50	<0.05	<0.5	<0.05	NIL	NIL	NIL	<5	N	<4	<0.4	3	<1	2	<0.1	1	17
202/5.6-5.7	<0.2	<0.5	<1	<3	<25	<50	1.4	<0.5	0.1	NIL	NIL	NIL	<5	N	<4	<0.4	4	<1	3	<0.1	<1	2
207/1.5	<0.2	<0.5	<1	<3	<25	<50	<0.05	<0.5	<0.05	NIL	NIL	NIL	<5	N	<4	<0.4	1	<1	1	<0.1	<1	<1
223/2	<0.2	<0.5	<1	<3	<25	<50	<0.05	<0.5	<0.05	NIL	NIL	NIL	<5	N	<4	<0.4	<1	<1	4	<0.1	<1	2
225/3	<0.2	<0.5	<1	<3	<25	<50	<0.05	<0.5	<0.05	NIL	NIL	NIL	<5	N	<4	<0.4	3	1	2	<0.1	<1	1
228/4.3-4.4	<0.2	<0.5	<1	<3	<25	<50	<0.05	<0.5	<0.05	NIL	NIL	NIL	<5	N	<4	<0.4	2	<1	1	<0.1	<1	<1

Notes: B = Benzene; T = Toluene; E = Ethylbenzene; X = Xylene; Napth. = Naphthalene; F1 = (C_6 – C_{10}) – BTEX; F2 = (C_{11} – C_{16}) – Naphthalene; +PAH = Positive polycyclic aromatic hydrocarbons; B.TEQ = Carcinogenic PAHs (as B(a)P TEQ); B(a)P = Benzo(a)pyrene
OCP = Organochlorine pesticides; OPP = Organophosphorus pesticides; PCB = Polychlorinated biphenyls; As = Arsenic; Cd = Cadmium; Cr = Chromium; Cu = Copper; Pb = Lead; Hg = Mercury; Ni = Nickel; Zn = Zinc; NIL = below detection limits

Table G3: Statistical Analysis of Contaminant Concentrations in Filling

Sample/ Depth (m)	B	T	E	X	F1	F2	+PAH	B.TEQ	B(a)P	+OCP	+OPP	+PCB	Phenol	Asbestos	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	(Y/N)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Maximum	<0.2	<0.5	<1	<3	<25	120	230	26	17	NIL	NIL	0.4	<5	Y	12	<0.4	56	91	2200	1.4	84	250
Minimum	<0.2	<0.5	<1	<3	<25	<50	<0.05	<0.5	<0.05	NIL	NIL	NIL	<5	N	<4	<0.4	<1	1	2	<0.1	<1	1
Average	NA	NA	NA	NA	NA	NA	NA	3.3	2.2	NA	NA	NA	NA	NA	NA	NA	9.4	23.0	117.1	NA	12.6	67.1
Standard Dev.	NA	NA	NA	NA	NA	NA	NA	5.2	3.4	NA	NA	NA	NA	NA	NA	NA	10.2	21.9	324.4	NA	20.7	63.2
95% UCL	NA	NA	NA	NA	NA	NA	NA	5.6	3.8	NA	NA	NA	NA	NA	NA	NA	15.8	26.5	321.2	NA	25.6	85.6

Notes: NA = not applicable (insufficient detections)

Table G4: Comparative Criteria for Soils

Sample/ Depth (m)	B	T	E	X	F1	F2	+PAH	B.TEQ	B(a)P	+OCP	+OPP	+PCB	Phenol	Asbestos	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	(Y/N)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Adopted Investigation/Screening Levels (mg/kg)																						
Health-Based (D)[1]	3			230	260		4000	40		Various	Various	7	240000		3000	900	3600	240000	1500	730	6000	400000
Ecological[2]	75	135	165	180	215	170			20[4]						160		310	280	1800		290	360
Management Limit[3]					700	1000																

Notes: B = Benzene; T = Toluene; E = Ethylbenzene; X = Xylene; Napth. = Naphthalene; F1 = (C_6 – C_{10}) – BTEX; F2 = (C_{11} – C_{16}) – Naphthalene; +PAH = Positive polycyclic aromatic hydrocarbons; B.TEQ = Carcinogenic PAHs (as B(a)P TEQ); OCP = Organochlorine pesticides; OPP = Organophosphorus pesticides; PCB = Polychlorinated biphenyls; As = Arsenic; Cd = Cadmium; Cr = Chromium; Cu = Copper; Pb = Lead; Hg = Mercury; Ni = Nickel; Zn = Zinc; NIL = below detection limits
[1]Based on NEPM D Sites; [2]Based on NEPM ACL for commercial/industrial; [3]Based on NEPM coarse grained soils; [4]Based on CRC Care Technical Report #39

Table G5: Soil Leachability Test Results

Sample/Depth (m)	Toxicity Characteristics Leaching Procedure			Australian Standard Leaching Procedure	
	Total PAH Detected	Benzo(a)pyrene	Lead	Total PAH Detected	Benzo(a)pyrene
	mg/L	mg/L	mg/L	mg/L	mg/L
101/1.5	N/R	N/R	0.2	N/R	N/R
101/3.0	1.0	<0.001	0.47	NIL	<0.001
102/2.0-2.1	N/R	N/R	0.54	N/R	N/R
105/3.7	NIL	<0.001	N/R	N/R	N/R
107/1.5	N/R	N/R	0.3	N/R	N/R
201/1.0	NIL	<0.001	0.43	N/R	N/R
202/2.7-2.8	1.9	0.16	0.44	NIL	<0.001
209/1.0	0.002	<0.001	0.45	N/R	N/R
212/2.3	3.3	<0.001	0.1	NIL	<0.001
221/1.5	0.25	<0.001	N/R	NIL	<0.001
221/2.5	18	<0.001	N/R	0.008	<0.001
228/0.9-1.0	0.18	<0.001	N/R	NIL	<0.001

Notes: N/R = not requested

Table G5A: Waste Classification Criteria[1]

Sample/ Depth (m)	B	T	E	X	C_6-C_9	C_{10}-C_{36}	+PAH	B.TEQ	B(a)P	+OCP[2]	+OPP[2]	+PCB	Phenol	Asbestos	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	(Y/N)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
General Solid Waste																						
CT1	10	288	600	1000	650	10000	200	N/A	0.8	<50	<50	<50	288	N	100	20	100	N/A	100	4	40	N/A
SCC1	18	518	1080	1800	650	10000	200	N/A	10	<50	<50	<50	518	N	500	100	1900	N/A	1500	50	1050	N/A
TCLP1 (mg/L)	0.5	14.4	30	50	N/A	N/A	N/A	N/A	0.04	N/A	N/A	N/A	14.4	N/A	5	1	5	N/A	5	0.2	2	N/A
Restricted Solid Waste																						
CT2	40	1152	2400	4000	2600	40000	800	N/A	3.2	<50	<50	<50	1152	N	400	80	400	N/A	400	16	160	N/A
SCC2	72	2073	4320	7200	2600	40000	800	N/A	23	<50	<50	<50	2073	N	2000	400	7600	N/A	6000	200	4200	N/A
TCLP2 (mg/L)	2	57.6	120	200	N/A	N/A	N/A	N/A	0.16	N/A	N/A	N/A	57.6	N/A	20	4	20	N/A	20	0.8	8	N/A

Notes: B = Benzene; T = Toluene; E = Ethylbenzene; X = Xylene; $C_6 - C_9$ TRH; $C_{10} - C_{36}$ TRH; +PAH = Positive polycyclic aromatic hydrocarbons; B.TEQ = Carcinogenic PAHs (as B(a)P TEQ); OCP = Organochlorine pesticides; OPP = Organophosphorus pesticides; PCB = Polychlorinated biphenyls; As = Arsenic; Cd = Cadmium; Cr = Chromium; Cu = Copper; Pb = Lead; Hg = Mercury; Ni = Nickel; Zn = Zinc; N/A = not applicable

[1]Based on Waste Classification Guidelines (NSW EPA, 2014); [2]As part of Scheduled Chemicals

Table G6: Contaminant Concentrations in Groundwater

Sample/ Date	B	T	E	X	F1	F2	+PAH	B.TEQ	Napth.	+OCP	+OPP	+PCB	Phenol	Iron	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
C37/060618	<1	<1	<1	<3	<10	<50	NIL	<0.5	<1	NT	NT	NT	NT	470	<1	<0.1	<1	4	<1	<0.05	<1	11
C36/120618	<1	<1	<1	<3	<10	<50	NIL	<0.5	<0.2	NT	NT	NT	NT	16,000	<1	<0.1	<1	<1	<1	<0.05	3	6
101/20190323	<1	<1	<1	<3	<10	<50	NIL	<5	<1	NIL	NIL	NIL	<50	NT	<1	<0.1	<1	<1	<1	<0.05	6	2
107/20190323	<1	<1	<1	<3	<10	<50	NIL	<5	<1	NIL	NIL	NIL	<50	NT	<1	<0.1	<1	<1	<1	<0.05	2	2
C37/20190323	<1	<1	<1	<3	<10	<50	NIL	<5	<1	NIL	NIL	NIL	<50	NT	<1	<0.1	<1	<1	<1	<0.05	<1	2

Notes: B = Benzene; T = Toluene; E = Ethylbenzene; X = Xylene; Napth. = Naphthalene; F1 = (C_6 – C_{10}) – BTEX; F2 = (C_{11} – C_{16}) – Naphthalene; +PAH = Positive polycyclic aromatic hydrocarbons; B.TEQ = Carcinogenic PAHs (as B(a)P TEQ); OCP = Organochlorine pesticides; OPP = Organophosphorus pesticides; PCB = Polychlorinated biphenyls; As = Arsenic; Cd = Cadmium; Cr = Chromium; Cu = Copper; Pb = Lead; Hg = Mercury; Ni = Nickel; Zn = Zinc; NIL = below detection limits; NT = not tested

Table G7: Comparative Criteria for Groundwater

Sample/ Date	B	T	E	X	F1	F2	+PAH	B.TEQ	Napth.	+OCP	+OPP	+PCB	Phenol	Iron	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
NEPM GILs	950			550					16	Various	Various	320			24	0.2	27	1.4	3.4	0.06	11	8
NEPM HSLs	5000				6000																	

Notes: B = Benzene; T = Toluene; E = Ethylbenzene; X = Xylene; Napth. = Naphthalene; F1 = (C_6 – C_{10}) – BTEX; F2 = (C_{11} – C_{16}) – Naphthalene; +PAH = Positive polycyclic aromatic hydrocarbons; B.TEQ = Carcinogenic PAHs (as B(a)P TEQ); OCP = Organochlorine pesticides; OPP = Organophosphorus pesticides; PCB = Polychlorinated biphenyls; As = Arsenic; Cd = Cadmium; Cr = Chromium; Cu = Copper; Pb = Lead; Hg = Mercury; Ni = Nickel; Zn = Zinc

Table G8: QA/QC Results for Soils

Duplicate Sample, Primary Sample	B	T	E	X	F1	F2	+PAH	B.TEQ	Napth.	+OCP	+OPP	+PCB	Phenol	Asbestos	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	(Y/N)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
08042018,C20/1.1	<0.2	<0.5	<1	<3	<25	<50	NT	NT	NT	NT	NT	NT	NT	NT	<4	<0.4	4	<1	3	<0.1	1	3
09042018,C26/0.15	<0.2	<0.5	<1	<3	<25	<50	NT	NT	NT	NT	NT	NT	NT	NT	<4	<0.4	71	190	14	<0.1	61	43
11042018,C3/0.5	<0.2	<0.5	<1	<3	<25	<50	NT	NT	NT	NT	NT	NT	NT	NT	<4	<0.4	7	6	21	<0.1	4	18
apple,C35/0.1-0.15	<0.2	<0.5	<1	<3	<25	<50	NT	NT	NT	NT	NT	NT	NT	NT	<4	<0.4	8	82	3	<0.1	91	35
banna,C35/0.8-0.9	<0.2	<0.5	<1	<3	<25	<50	NT	NT	NT	NT	NT	NT	NT	NT	<4	<0.4	<1	1	2	<0.1	1	1
orange,C5/2.9-3.0	<0.2	<0.5	<1	<3	<25	<50	NT	NT	NT	NT	NT	NT	NT	NT	<4	<0.4	2	10	27	<0.1	<1	18
A,C24/0.7-0.8	<0.2	<0.5	<1	<3	<25	<50	NT	NT	NT	NT	NT	NT	NT	NT	<4	<0.4	2	<1	6	<0.1	<1	3
B,C17/0.25-0.35	<0.2	<0.5	<1	<3	<25	<50	NT	NT	NT	NT	NT	NT	NT	NT	<4	<0.4	3	3	3	<0.1	2	9
E,C28/0.06-0.1	<0.2	<0.5	<1	<3	<25	<50	NT	NT	NT	NT	NT	NT	NT	NT	<4	<0.4	3	4	4	<0.1	1	9
F,C23/0.07-0.1	<0.2	<0.5	<1	<3	<25	<50	NT	NT	NT	NT	NT	NT	NT	NT	<4	<0.4	3	4	4	<0.1	1	7
BT1A,102/0.1-0.2	<0.2	<0.5	<1	<3	<25	<50	5.4	0.6	0.1	NIL	NIL	NIL	<5	NT	<4	<0.4	7	52	18	0.2	44	29
BT6A,202/2.7-2.8	<0.2	<0.5	<1	<3	<25	<50	78	11	0.3	NIL	NIL	NIL	<5	NT	5	<0.4	15	97	290	0.8	10	190
BT12A,210/1.0	<0.2	<0.5	<1	<3	<25	<50	<0.05	<0.5	<0.1	NIL	NIL	NIL	<5	NT	<4	<0.4	8	<1	4	<0.1	4	64
BT14A,225/0.6-1.0	<0.2	<0.5	<1	<3	<25	<50	12	1.8	<0.1	NIL	NIL	NIL	<5	NT	<4	<0.4	8	37	83	0.2	3	36
BT21A,209/1.0	<0.2	<0.5	<1	<3	<25	<50	110	15	0.4	NIL	NIL	NIL	<5	NT	5	<0.4	9	55	180	0.8	6	100
BT1B,102/0.1-0.2	<0.1	<0.1	<0.1	<0.3	<20	<50	1.2	<0.5	<0.5	NIL	NIL	NIL	<1	NT	<2	<0.4	8.7	54	33	<0.1	61	50
BT6B,202/2.7-2.8	<0.1	<0.1	<0.1	<0.3	<20	<50	63.3	9.6	0.5	NIL	NIL	NIL	<1	NT	9.9	<0.4	12	66	240	0.5	7.7	150
BT12B,210/1.0	<0.1	<0.1	<0.1	<0.3	<20	<50	<0.5	<0.5	<0.5	NIL	NIL	NIL	<1	NT	2.2	<0.4	7.6	<5	<5	<0.1	<5	<5
BT14B,225/0.6-1.0	<0.1	<0.1	<0.1	<0.3	<20	<50	1.2	<0.5	<0.5	NIL	NIL	NIL	<1	NT	3.6	<0.4	9.3	48	88	0.2	6.6	53
BT21B,209/1.0	<0.1	<0.1	<0.1	<0.3	<20	<50	99.5	12	<0.5	NIL	NIL	NIL	<1	NT	6.7	<0.4	13	33	140	0.5	5.8	76

Notes: B = Benzene; T = Toluene; E = Ethylbenzene; X = Xylene; Napth. = Naphthalene; F1 = (C_6 – C_{10}) – BTEX; F2 = (C_{11} – C_{16}) – Naphthalene; +PAH = Positive polycyclic aromatic hydrocarbons; B.TEQ = Carcinogenic PAHs (as B(a)P TEQ); OCP = Organochlorine pesticides; OPP = Organophosphorus pesticides; PCB = Polychlorinated biphenyls; As = Arsenic; Cd = Cadmium; Cr = Chromium; Cu = Copper; Pb = Lead; Hg = Mercury; Ni = Nickel; Zn = Zinc; NT = not tested

Table G9: QA/QC Results for Groundwater

Sample/ Date	B	T	E	X	F1	F2	+PAH	B.TEQ	Napth.	+OCP	+OPP	+PCB	Phenol	Iron	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
BD1/20190323*	<1	<1	<1	<3	<10	<50	NIL	<5	<1	NIL	NIL	NIL	<50	NT	<1	<0.1	<1	<1	<1	<0.05	6	2
R1/20190323	<1	<1	<1	<3	<10	<50	NIL	<5	<1	NIL	NIL	NIL	<50	NT	<1	<0.1	<1	3	<1	<0.05	1	3

Notes: B = Benzene; T = Toluene; E = Ethylbenzene; X = Xylene; Napth. = Naphthalene; F1 = (C_6 – C_{10}) – BTEX; F2 = (C_{11} – C_{16}) – Naphthalene; +PAH = Positive polycyclic aromatic hydrocarbons; B.TEQ = Carcinogenic PAHs (as B(a)P TEQ); OCP = Organochlorine pesticides; OPP = Organophosphorus pesticides; PCB = Polychlorinated biphenyls; As = Arsenic; Cd = Cadmium; Cr = Chromium; Cu = Copper; Pb = Lead; Hg = Mercury; Ni = Nickel; Zn = Zinc; NIL = below detection limits; NT = not tested; *Duplicate of 101/20190323

Appendix H

Detailed Laboratory Test Results

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 189345

Client Details

Client	Douglas Partners Pty Ltd
Attention	Luke James-Hall
Address	96 Hermitage Rd, West Ryde, NSW, 2114

Sample Details

Your Reference	**86237.00, Sydney Football Stadium**
Number of Samples	17 soil
Date samples received	12/04/2018
Date completed instructions received	12/04/2018

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	19/04/2018
Date of Issue	18/04/2018

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Asbestos Approved By
Analysed by Asbestos Approved Identifier: Lucy Zhu
Authorised by Asbestos Approved Signatory: Lucy Zhu

Results Approved By
Diego Bigolin, Team Leader, Inorganics
Dragana Tomas, Senior Chemist
Jeremy Faircloth, Organics Supervisor
Leon Ow, Chemist
Lucy Zhu, Asbsestos Analyst

Authorised By



Jacinta Hurst, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		189345-1	189345-2	189345-3	189345-4	189345-5
Your Reference	UNITS	C3	C6	C8	C8	C13
Depth		0.5-0.6	1.4-1.5	0.9-1.0	2.4-2.5	0.4-0.5
Date Sampled		11/04/2018	11/04/2018	06/04/2018	06/04/2018	06/04/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	80	79	79	85	79

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		189345-6	189345-7	189345-8	189345-9	189345-10
Your Reference	UNITS	C13	C14	C18	C20	C20
Depth		1.9-2.0	0.9-1.0	0.4-0.5	0.6-0.7	1.1-1.2
Date Sampled		06/04/2018	10/04/2018	11/04/2018	09/04/2018	09/04/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	78	90	76	79	80

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		189345-11	189345-12	189345-13	189345-14	189345-15
Your Reference	UNITS	C21	C21	C26	C31	08042018-1-2
Depth		1.9-2.0	5.4-5.5	0.15-0.18	0.9-1.0	-
Date Sampled		09/04/2018	09/04/2018	09/04/2018	10/04/2018	08/04/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	76	81	80	84	79

vTRH(C6-C10)/BTEXN in Soil			
Our Reference		189345-16	189345-17
Your Reference	UNITS	09042018-3-3	11042018-2-4
Depth		-	-
Date Sampled		09/04/2018	11/04/2018
Type of sample		soil	soil
Date extracted	-	13/04/2018	13/04/2018
Date analysed	-	13/04/2018	13/04/2018
TRH C_6 - C_9	mg/kg	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25
Benzene	mg/kg	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1
m+p-xylene	mg/kg	<2	<2
o-Xylene	mg/kg	<1	<1
naphthalene	mg/kg	<1	<1
Total +ve Xylenes	mg/kg	<1	<1
Surrogate aaa-Trifluorotoluene	%	81	78

svTRH (C10-C40) in Soil						
Our Reference		189345-1	189345-2	189345-3	189345-4	189345-5
Your Reference	UNITS	C3	C6	C8	C8	C13
Depth		0.5-0.6	1.4-1.5	0.9-1.0	2.4-2.5	0.4-0.5
Date Sampled		11/04/2018	11/04/2018	06/04/2018	06/04/2018	06/04/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	14/04/2018	14/04/2018	14/04/2018	14/04/2018	14/04/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	180
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	170
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	140	<100	<100	300
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	140	<50	<50	300
Surrogate o-Terphenyl	%	87	90	92	93	95

svTRH (C10-C40) in Soil						
Our Reference		189345-6	189345-7	189345-8	189345-9	189345-10
Your Reference	UNITS	C13	C14	C18	C20	C20
Depth		1.9-2.0	0.9-1.0	0.4-0.5	0.6-0.7	1.1-1.2
Date Sampled		06/04/2018	10/04/2018	11/04/2018	09/04/2018	09/04/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	14/04/2018	14/04/2018	14/04/2018	14/04/2018	14/04/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	140	<100	<100	510	120
TRH C_{29} - C_{36}	mg/kg	120	<100	<100	480	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	220	<100	120	850	170
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	240	<100
Total +ve TRH (>C10-C40)	mg/kg	220	<50	120	1,100	170
Surrogate o-Terphenyl	%	92	87	90	98	93

svTRH (C10-C40) in Soil						
Our Reference		189345-11	189345-12	189345-13	189345-14	189345-15
Your Reference	UNITS	C21	C21	C26	C31	08042018-1-2
Depth		1.9-2.0	5.4-5.5	0.15-0.18	0.9-1.0	-
Date Sampled		09/04/2018	09/04/2018	09/04/2018	10/04/2018	08/04/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	14/04/2018	14/04/2018	14/04/2018	14/04/2018	14/04/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	430	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	290	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	640	<100	130	<100	<100
TRH >C_{34} -C_{40}	mg/kg	150	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	780	<50	130	<50	<50
Surrogate o-Terphenyl	%	94	90	89	87	90

svTRH (C10-C40) in Soil			
Our Reference		189345-16	189345-17
Your Reference	UNITS	09042018-3-3	11042018-2-4
Depth		-	-
Date Sampled		09/04/2018	11/04/2018
Type of sample		soil	soil
Date extracted	-	13/04/2018	13/04/2018
Date analysed	-	14/04/2018	14/04/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50
Surrogate o-Terphenyl	%	90	85

PAHs in Soil						
Our Reference		189345-1	189345-2	189345-3	189345-4	189345-5
Your Reference	UNITS	C3	C6	C8	C8	C13
Depth		0.5-0.6	1.4-1.5	0.9-1.0	2.4-2.5	0.4-0.5
Date Sampled		11/04/2018	11/04/2018	06/04/2018	06/04/2018	06/04/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Naphthalene	mg/kg	<0.1	0.2	<0.1	<0.1	0.2
Acenaphthylene	mg/kg	<0.1	0.5	0.2	<0.1	0.9
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	0.2	<0.1	<0.1	0.2
Phenanthrene	mg/kg	<0.1	4.0	0.8	<0.1	5.0
Anthracene	mg/kg	<0.1	1.1	0.2	<0.1	1.4
Fluoranthene	mg/kg	0.2	6.2	2.2	<0.1	9.3
Pyrene	mg/kg	0.2	6.3	2.5	<0.1	9.8
Benzo(a)anthracene	mg/kg	<0.1	3.3	1.4	<0.1	5.7
Chrysene	mg/kg	0.1	2.4	1	<0.1	4.2
Benzo(b,j+k)fluoranthene	mg/kg	0.2	4.7	2	<0.2	8.3
Benzo(a)pyrene	mg/kg	0.1	3.0	1.2	<0.05	5.2
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	1.4	0.6	<0.1	2.6
Dibenzo(a,h)anthracene	mg/kg	<0.1	0.4	0.2	<0.1	0.8
Benzo(g,h,i)perylene	mg/kg	<0.1	1.6	0.7	<0.1	3.0
Total +ve PAH's	mg/kg	0.77	35	13	<0.05	57
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	4.4	1.8	<0.5	7.8
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	4.4	1.8	<0.5	7.8
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	4.4	1.8	<0.5	7.8
Surrogate p-Terphenyl-d14	%	103	101	111	110	94

PAHs in Soil						
Our Reference		189345-6	189345-7	189345-8	189345-9	189345-10
Your Reference	UNITS	C13	C14	C18	C20	C20
Depth		1.9-2.0	0.9-1.0	0.4-0.5	0.6-0.7	1.1-1.2
Date Sampled		06/04/2018	10/04/2018	11/04/2018	09/04/2018	09/04/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Naphthalene	mg/kg	0.3	<0.1	<0.1	0.3	<0.1
Acenaphthylene	mg/kg	0.9	0.1	0.3	3.4	0.7
Acenaphthene	mg/kg	0.3	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.8	<0.1	<0.1	0.2	<0.1
Phenanthrene	mg/kg	6.2	0.3	1.8	8.7	1.4
Anthracene	mg/kg	2.0	<0.1	0.6	3.0	0.8
Fluoranthene	mg/kg	9.3	0.8	4.0	25	7.6
Pyrene	mg/kg	9.1	0.9	4.0	26	8.3
Benzo(a)anthracene	mg/kg	4.5	0.5	2.2	17	4.4
Chrysene	mg/kg	3.2	0.4	1.6	12	3.0
Benzo(b,j+k)fluoranthene	mg/kg	6.4	0.8	3.2	28	6.0
Benzo(a)pyrene	mg/kg	4.1	0.5	1.9	17	3.7
Indeno(1,2,3-c,d)pyrene	mg/kg	1.7	0.2	0.9	9.0	1.8
Dibenzo(a,h)anthracene	mg/kg	0.5	<0.1	0.2	2.9	0.5
Benzo(g,h,i)perylene	mg/kg	1.9	0.3	1.0	10	2.0
Total +ve PAH's	mg/kg	51	4.8	22	160	40
Benzo(a)pyrene TEQ calc (zero)	mg/kg	5.9	0.7	2.8	26	5.4
Benzo(a)pyrene TEQ calc(half)	mg/kg	5.9	0.7	2.8	26	5.4
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	5.9	0.8	2.8	26	5.4
Surrogate p-Terphenyl-d14	%	96	96	99	101	103

PAHs in Soil					
Our Reference		189345-11	189345-12	189345-13	189345-14
Your Reference	UNITS	C21	C21	C26	C31
Depth		1.9-2.0	5.4-5.5	0.15-0.18	0.9-1.0
Date Sampled		09/04/2018	09/04/2018	09/04/2018	10/04/2018
Type of sample		soil	soil	soil	soil
Date extracted	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Naphthalene	mg/kg	0.2	<0.1	<0.1	0.1
Acenaphthylene	mg/kg	0.6	0.3	0.2	0.3
Acenaphthene	mg/kg	0.5	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.5	0.1	<0.1	0.1
Phenanthrene	mg/kg	16	2.0	0.5	1.3
Anthracene	mg/kg	4.8	0.6	0.5	0.5
Fluoranthene	mg/kg	42	3.5	2.9	3.8
Pyrene	mg/kg	35	3.4	2.9	3.9
Benzo(a)anthracene	mg/kg	22	2.0	1.6	2.2
Chrysene	mg/kg	14	1.3	1.1	1.6
Benzo(b,j+k)fluoranthene	mg/kg	27	2.3	2.0	3.4
Benzo(a)pyrene	mg/kg	16	1.5	1.2	2.0
Indeno(1,2,3-c,d)pyrene	mg/kg	6.9	0.6	0.5	1
Dibenzo(a,h)anthracene	mg/kg	2.4	0.2	0.1	0.3
Benzo(g,h,i)perylene	mg/kg	7.2	0.8	0.6	1.2
Total +ve PAH's	mg/kg	190	19	14	22
Benzo(a)pyrene TEQ calc (zero)	mg/kg	24	2.2	1.7	3.0
Benzo(a)pyrene TEQ calc(half)	mg/kg	24	2.2	1.7	3.0
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	24	2.2	1.7	3.0
Surrogate p-Terphenyl-d14	%	105	96	102	99

Organochlorine Pesticides in soil						
Our Reference		189345-1	189345-2	189345-3	189345-4	189345-5
Your Reference	UNITS	C3	C6	C8	C8	C13
Depth		0.5-0.6	1.4-1.5	0.9-1.0	2.4-2.5	0.4-0.5
Date Sampled		11/04/2018	11/04/2018	06/04/2018	06/04/2018	06/04/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	14/04/2018	14/04/2018	14/04/2018	14/04/2018	14/04/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	111	100	125	133	109

Organochlorine Pesticides in soil						
Our Reference		189345-6	189345-7	189345-8	189345-9	189345-10
Your Reference	UNITS	C13	C14	C18	C20	C20
Depth		1.9-2.0	0.9-1.0	0.4-0.5	0.6-0.7	1.1-1.2
Date Sampled		06/04/2018	10/04/2018	11/04/2018	09/04/2018	09/04/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	14/04/2018	14/04/2018	14/04/2018	14/04/2018	14/04/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	107	129	124	106	121

Organochlorine Pesticides in soil					
Our Reference		189345-11	189345-12	189345-13	189345-14
Your Reference	UNITS	C21	C21	C26	C31
Depth		1.9-2.0	5.4-5.5	0.15-0.18	0.9-1.0
Date Sampled		09/04/2018	09/04/2018	09/04/2018	10/04/2018
Type of sample		soil	soil	soil	soil
Date extracted	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	14/04/2018	14/04/2018	14/04/2018	14/04/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	112	129	132	110

Organophosphorus Pesticides						
Our Reference		189345-1	189345-2	189345-3	189345-4	189345-5
Your Reference	UNITS	C3	C6	C8	C8	C13
Depth		0.5-0.6	1.4-1.5	0.9-1.0	2.4-2.5	0.4-0.5
Date Sampled		11/04/2018	11/04/2018	06/04/2018	06/04/2018	06/04/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	14/04/2018	14/04/2018	14/04/2018	14/04/2018	14/04/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	111	100	125	133	109

Organophosphorus Pesticides						
Our Reference		189345-6	189345-7	189345-8	189345-9	189345-10
Your Reference	UNITS	C13	C14	C18	C20	C20
Depth		1.9-2.0	0.9-1.0	0.4-0.5	0.6-0.7	1.1-1.2
Date Sampled		06/04/2018	10/04/2018	11/04/2018	09/04/2018	09/04/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	14/04/2018	14/04/2018	14/04/2018	14/04/2018	14/04/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	107	129	124	106	121

Organophosphorus Pesticides					
Our Reference		189345-11	189345-12	189345-13	189345-14
Your Reference	UNITS	C21	C21	C26	C31
Depth		1.9-2.0	5.4-5.5	0.15-0.18	0.9-1.0
Date Sampled		09/04/2018	09/04/2018	09/04/2018	10/04/2018
Type of sample		soil	soil	soil	soil
Date extracted	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	14/04/2018	14/04/2018	14/04/2018	14/04/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	112	129	132	110

PCBs in Soil						
Our Reference		189345-1	189345-2	189345-3	189345-4	189345-5
Your Reference	UNITS	C3	C6	C8	C8	C13
Depth		0.5-0.6	1.4-1.5	0.9-1.0	2.4-2.5	0.4-0.5
Date Sampled		11/04/2018	11/04/2018	06/04/2018	06/04/2018	06/04/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	14/04/2018	14/04/2018	14/04/2018	14/04/2018	14/04/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	111	100	125	133	109

PCBs in Soil						
Our Reference		189345-6	189345-7	189345-8	189345-9	189345-10
Your Reference	UNITS	C13	C14	C18	C20	C20
Depth		1.9-2.0	0.9-1.0	0.4-0.5	0.6-0.7	1.1-1.2
Date Sampled		06/04/2018	10/04/2018	11/04/2018	09/04/2018	09/04/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	14/04/2018	14/04/2018	14/04/2018	14/04/2018	14/04/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.5	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.5	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.5	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.5	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.5	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.5	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.5	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.5	<0.1	<0.1
Surrogate TCLMX	%	107	129	124	106	121

PCBs in Soil					
Our Reference		189345-11	189345-12	189345-13	189345-14
Your Reference	UNITS	C21	C21	C26	C31
Depth		1.9-2.0	5.4-5.5	0.15-0.18	0.9-1.0
Date Sampled		09/04/2018	09/04/2018	09/04/2018	10/04/2018
Type of sample		soil	soil	soil	soil
Date extracted	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	14/04/2018	14/04/2018	14/04/2018	14/04/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	112	129	132	110

Acid Extractable metals in soil						
Our Reference		189345-1	189345-2	189345-3	189345-4	189345-5
Your Reference	UNITS	C3	C6	C8	C8	C13
Depth		0.5-0.6	1.4-1.5	0.9-1.0	2.4-2.5	0.4-0.5
Date Sampled		11/04/2018	11/04/2018	06/04/2018	06/04/2018	06/04/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Arsenic	mg/kg	<4	5	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	7	10	8	<1	4
Copper	mg/kg	5	43	27	<1	14
Lead	mg/kg	16	240	120	<1	76
Mercury	mg/kg	<0.1	0.5	0.1	<0.1	0.1
Nickel	mg/kg	3	5	7	<1	3
Zinc	mg/kg	18	120	150	<1	150

Acid Extractable metals in soil						
Our Reference		189345-6	189345-7	189345-8	189345-9	189345-10
Your Reference	UNITS	C13	C14	C18	C20	C20
Depth		1.9-2.0	0.9-1.0	0.4-0.5	0.6-0.7	1.1-1.2
Date Sampled		06/04/2018	10/04/2018	11/04/2018	09/04/2018	09/04/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Arsenic	mg/kg	<4	<4	<4	9	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	4	4	5	13	4
Copper	mg/kg	19	10	14	76	3
Lead	mg/kg	71	54	43	180	5
Mercury	mg/kg	<0.1	0.1	<0.1	0.5	<0.1
Nickel	mg/kg	8	2	12	8	2
Zinc	mg/kg	88	30	31	150	5

Acid Extractable metals in soil						
Our Reference		189345-11	189345-12	189345-13	189345-14	189345-15
Your Reference	UNITS	C21	C21	C26	C31	08042018-1-2
Depth		1.9-2.0	5.4-5.5	0.15-0.18	0.9-1.0	-
Date Sampled		09/04/2018	09/04/2018	09/04/2018	10/04/2018	08/04/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Arsenic	mg/kg	<4	<4	<4	8	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	56	5	37	6	4
Copper	mg/kg	34	9	46	20	<1
Lead	mg/kg	650	48	50	160	3
Mercury	mg/kg	0.9	0.2	0.2	0.4	<0.1
Nickel	mg/kg	26	2	47	4	1
Zinc	mg/kg	190	36	58	67	3

Acid Extractable metals in soil				
Our Reference		189345-16	189345-17	189345-18
Your Reference	UNITS	09042018-3-3	11042018-2-4	C21 - [TRIPLICATE]
Depth		-	-	1.9-2.0
Date Sampled		09/04/2018	11/04/2018	09/04/2018
Type of sample		soil	soil	soil
Date prepared	-	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	13/04/2018	13/04/2018	13/04/2018
Arsenic	mg/kg	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4
Chromium	mg/kg	71	7	52
Copper	mg/kg	190	6	37
Lead	mg/kg	14	21	180
Mercury	mg/kg	<0.1	<0.1	1
Nickel	mg/kg	61	4	24
Zinc	mg/kg	43	18	200

Misc Soil - Inorg						
Our Reference		189345-1	189345-2	189345-3	189345-4	189345-5
Your Reference	UNITS	C3	C6	C8	C8	C13
Depth		0.5-0.6	1.4-1.5	0.9-1.0	2.4-2.5	0.4-0.5
Date Sampled		11/04/2018	11/04/2018	06/04/2018	06/04/2018	06/04/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg						
Our Reference		189345-6	189345-7	189345-8	189345-9	189345-10
Your Reference	UNITS	C13	C14	C18	C20	C20
Depth		1.9-2.0	0.9-1.0	0.4-0.5	0.6-0.7	1.1-1.2
Date Sampled		06/04/2018	10/04/2018	11/04/2018	09/04/2018	09/04/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg					
Our Reference		189345-11	189345-12	189345-13	189345-14
Your Reference	UNITS	C21	C21	C26	C31
Depth		1.9-2.0	5.4-5.5	0.15-0.18	0.9-1.0
Date Sampled		09/04/2018	09/04/2018	09/04/2018	10/04/2018
Type of sample		soil	soil	soil	soil
Date prepared	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5

Moisture						
Our Reference		189345-1	189345-2	189345-3	189345-4	189345-5
Your Reference	UNITS	C3	C6	C8	C8	C13
Depth		0.5-0.6	1.4-1.5	0.9-1.0	2.4-2.5	0.4-0.5
Date Sampled		11/04/2018	11/04/2018	06/04/2018	06/04/2018	06/04/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	16/04/2018	16/04/2018	16/04/2018	16/04/2018	16/04/2018
Moisture	%	13	14	8.0	2.1	8.4

Moisture						
Our Reference		189345-6	189345-7	189345-8	189345-9	189345-10
Your Reference	UNITS	C13	C14	C18	C20	C20
Depth		1.9-2.0	0.9-1.0	0.4-0.5	0.6-0.7	1.1-1.2
Date Sampled		06/04/2018	10/04/2018	11/04/2018	09/04/2018	09/04/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	16/04/2018	16/04/2018	16/04/2018	16/04/2018	16/04/2018
Moisture	%	15	10	7.1	16	5.3

Moisture						
Our Reference		189345-11	189345-12	189345-13	189345-14	189345-15
Your Reference	UNITS	C21	C21	C26	C31	08042018-1-2
Depth		1.9-2.0	5.4-5.5	0.15-0.18	0.9-1.0	-
Date Sampled		09/04/2018	09/04/2018	09/04/2018	10/04/2018	08/04/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	16/04/2018	16/04/2018	16/04/2018	16/04/2018	16/04/2018
Moisture	%	18	6.3	6.1	8.9	4.2

Moisture			
Our Reference		189345-16	189345-17
Your Reference	UNITS	09042018-3-3	11042018-2-4
Depth		-	-
Date Sampled		09/04/2018	11/04/2018
Type of sample		soil	soil
Date prepared	-	13/04/2018	13/04/2018
Date analysed	-	16/04/2018	16/04/2018
Moisture	%	9.0	16

Asbestos ID - soils						
Our Reference		189345-1	189345-2	189345-3	189345-4	189345-5
Your Reference	UNITS	C3	C6	C8	C8	C13
Depth		0.5-0.6	1.4-1.5	0.9-1.0	2.4-2.5	0.4-0.5
Date Sampled		11/04/2018	11/04/2018	06/04/2018	06/04/2018	06/04/2018
Type of sample		soil	soil	soil	soil	soil
Date analysed	-	18/04/2018	18/04/2018	18/04/2018	18/04/2018	18/04/2018
Sample mass tested	g	Approx. 35g	Approx. 35g	Approx. 30g	Approx. 35g	Approx. 30g
Sample Description	-	Beige coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Beige sandy soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		189345-6	189345-7	189345-8	189345-9	189345-10
Your Reference	UNITS	C13	C14	C18	C20	C20
Depth		1.9-2.0	0.9-1.0	0.4-0.5	0.6-0.7	1.1-1.2
Date Sampled		06/04/2018	10/04/2018	11/04/2018	09/04/2018	09/04/2018
Type of sample		soil	soil	soil	soil	soil
Date analysed	-	18/04/2018	18/04/2018	18/04/2018	18/04/2018	18/04/2018
Sample mass tested	g	Approx. 30g	Approx. 37g	Approx. 30g	Approx. 40g	Approx. 30g
Sample Description	-	Brown coarse-grained soil & rocks	Light brown coarse- grained soil & rocks	Light brown coarse- grained soil & rocks	Brown coarse-grained soil & rocks	Orange brown sandy soil
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils					
Our Reference		189345-11	189345-12	189345-13	189345-14
Your Reference	UNITS	C21	C21	C26	C31
Depth		1.9-2.0	5.4-5.5	0.15-0.18	0.9-1.0
Date Sampled		09/04/2018	09/04/2018	09/04/2018	10/04/2018
Type of sample		soil	soil	soil	soil
Date analysed	-	18/04/2018	18/04/2018	18/04/2018	18/04/2018
Sample mass tested	g	Approx. 30g	Approx. 30g	Approx. 50g	Approx. 30g
Sample Description	-	Dark brown coarse- grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Method ID	Methodology Summary
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Inorg-031	Total Phenolics by segmented flow analyser (in line distillation with colourimetric finish). Solids are extracted in a caustic media prior to analysis.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-008	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.

Method ID	Methodology Summary
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	189345-2
Date extracted	-			13/04/2018	1	13/04/2018	13/04/2018		13/04/2018	13/04/2018
Date analysed	-			13/04/2018	1	13/04/2018	13/04/2018		13/04/2018	13/04/2018
TRH C_6 - C_9	mg/kg	25	Org-016	<25	1	<25	<25	0	104	93
TRH C_6 - C_{10}	mg/kg	25	Org-016	<25	1	<25	<25	0	104	93
Benzene	mg/kg	0.2	Org-016	<0.2	1	<0.2	<0.2	0	101	90
Toluene	mg/kg	0.5	Org-016	<0.5	1	<0.5	<0.5	0	105	94
Ethylbenzene	mg/kg	1	Org-016	<1	1	<1	<1	0	112	100
m+p-xylene	mg/kg	2	Org-016	<2	1	<2	<2	0	101	91
o-Xylene	mg/kg	1	Org-016	<1	1	<1	<1	0	114	102
naphthalene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	83	1	80	80	0	87	86

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	11	13/04/2018	13/04/2018		[NT]	[NT]
Date analysed	-			[NT]	11	13/04/2018	13/04/2018		[NT]	[NT]
TRH C_6 - C_9	mg/kg	25	Org-016	[NT]	11	<25	<25	0	[NT]	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-016	[NT]	11	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-016	[NT]	11	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-016	[NT]	11	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-016	[NT]	11	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-016	[NT]	11	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-016	[NT]	11	<1	<1	0	[NT]	[NT]
naphthalene	mg/kg	1	Org-014	[NT]	11	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	[NT]	11	76	75	1	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	189345-2
Date extracted	-			13/04/2018	1	13/04/2018	13/04/2018		13/04/2018	13/04/2018
Date analysed	-			14/04/2018	1	14/04/2018	14/04/2018		14/04/2018	14/04/2018
TRH C_{10} - C_{14}	mg/kg	50	Org-003	<50	1	<50	<50	0	123	121
TRH C_{15} - C_{28}	mg/kg	100	Org-003	<100	1	<100	<100	0	97	96
TRH C_{29} - C_{36}	mg/kg	100	Org-003	<100	1	<100	<100	0	108	113
TRH >C_{10} -C_{16}	mg/kg	50	Org-003	<50	1	<50	<50	0	123	121
TRH >C_{16} -C_{34}	mg/kg	100	Org-003	<100	1	<100	<100	0	97	96
TRH >C_{34} -C_{40}	mg/kg	100	Org-003	<100	1	<100	<100	0	108	113
Surrogate o-Terphenyl	%		Org-003	88	1	87	86	1	101	90

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	11	13/04/2018	13/04/2018		[NT]	[NT]
Date analysed	-			[NT]	11	14/04/2018	14/04/2018		[NT]	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-003	[NT]	11	<50	<50	0	[NT]	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-003	[NT]	11	430	100	125	[NT]	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-003	[NT]	11	290	<100	97	[NT]	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-003	[NT]	11	<50	<50	0	[NT]	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-003	[NT]	11	640	170	116	[NT]	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-003	[NT]	11	150	<100	40	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-003	[NT]	11	94	90	4	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	189345-2
Date extracted	-			13/04/2018	1	13/04/2018	13/04/2018		13/04/2018	13/04/2018
Date analysed	-			13/04/2018	1	13/04/2018	13/04/2018		13/04/2018	13/04/2018
Naphthalene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	93	87
Acenaphthylene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	79	81
Phenanthrene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	100	63
Anthracene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-012	<0.1	1	0.2	0.2	0	96	60
Pyrene	mg/kg	0.1	Org-012	<0.1	1	0.2	0.2	0	98	60
Benzo(a)anthracene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-012	<0.1	1	0.1	0.1	0	86	80
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-012	<0.2	1	0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-012	<0.05	1	0.1	0.09	11	90	89
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	110	1	103	98	5	126	118

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	11	13/04/2018	13/04/2018		[NT]	[NT]
Date analysed	-			[NT]	11	13/04/2018	13/04/2018		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-012	[NT]	11	0.2	0.2	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-012	[NT]	11	0.6	0.7	15	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-012	[NT]	11	0.5	<0.1	133	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-012	[NT]	11	0.5	0.2	86	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-012	[NT]	11	16	2.9	139	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-012	[NT]	11	4.8	0.8	143	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-012	[NT]	11	42	7.0	143	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-012	[NT]	11	35	7.5	129	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-012	[NT]	11	22	4.4	133	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-012	[NT]	11	14	3.6	118	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-012	[NT]	11	27	7.0	118	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-012	[NT]	11	16	4.2	117	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	[NT]	11	6.9	1.9	114	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	[NT]	11	2.4	0.6	120	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	[NT]	11	7.2	2.1	110	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	11	105	96	9	[NT]	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	189345-2
Date extracted	-			13/04/2018	1	13/04/2018	13/04/2018		13/04/2018	13/04/2018
Date analysed	-			14/04/2018	1	14/04/2018	14/04/2018		14/04/2018	14/04/2018
HCB	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	117	99
gamma-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	104	94
Heptachlor	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	103	93
delta-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	95	81
Heptachlor Epoxide	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	100	85
gamma-Chlordane	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	108	110
Dieldrin	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	119	102
Endrin	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	114	91
pp-DDD	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	100	75
Endosulfan II	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	83	78
Methoxychlor	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-005	108	1	111	128	14	130	127

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	11	13/04/2018	13/04/2018		[NT]	[NT]
Date analysed	-			[NT]	11	14/04/2018	14/04/2018		[NT]	[NT]
HCB	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-005	[NT]	11	112	115	3	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	189345-2
Date extracted	-			13/04/2018	1	13/04/2018	13/04/2018		13/04/2018	13/04/2018
Date analysed	-			14/04/2018	1	14/04/2018	14/04/2018		14/04/2018	14/04/2018
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	100	89
Chlorpyriphos-methyl	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	83	85
Dimethoate	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	100	104
Fenitrothion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	109	102
Malathion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	72	67
Parathion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	110	91
Ronnel	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	106	100
Surrogate TCMX	%		Org-008	108	1	111	128	14	129	99

QUALITY CONTROL: Organophosphorus Pesticides						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	11	13/04/2018	13/04/2018		[NT]	[NT]
Date analysed	-			[NT]	11	14/04/2018	14/04/2018		[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Fenitrothion	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Malathion	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-008	[NT]	11	112	115	3	[NT]	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	189345-2
Date extracted	-			13/04/2018	1	13/04/2018	13/04/2018		13/04/2018	13/04/2018
Date analysed	-			14/04/2018	1	14/04/2018	14/04/2018		14/04/2018	14/04/2018
Aroclor 1016	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	102	108
Aroclor 1260	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCLMX	%		Org-006	108	1	111	128	14	129	99

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	11	13/04/2018	13/04/2018		[NT]	[NT]
Date analysed	-			[NT]	11	14/04/2018	14/04/2018		[NT]	[NT]
Aroclor 1016	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1260	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCLMX	%		Org-006	[NT]	11	112	115	3	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	189345-2
Date prepared	-			13/04/2018	1	13/04/2018	13/04/2018		13/04/2018	13/04/2018
Date analysed	-			13/04/2018	1	13/04/2018	13/04/2018		13/04/2018	13/04/2018
Arsenic	mg/kg	4	Metals-020	<4	1	<4	<4	0	106	100
Cadmium	mg/kg	0.4	Metals-020	<0.4	1	<0.4	<0.4	0	99	95
Chromium	mg/kg	1	Metals-020	<1	1	7	7	0	105	100
Copper	mg/kg	1	Metals-020	<1	1	5	7	33	108	119
Lead	mg/kg	1	Metals-020	<1	1	16	15	6	105	#
Mercury	mg/kg	0.1	Metals-021	<0.1	1	<0.1	<0.1	0	92	100
Nickel	mg/kg	1	Metals-020	<1	1	3	7	80	102	98
Zinc	mg/kg	1	Metals-020	<1	1	18	18	0	103	#

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	11	13/04/2018	13/04/2018		[NT]	[NT]
Date analysed	-			[NT]	11	13/04/2018	13/04/2018		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	11	<4	<4	0	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	11	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	11	56	43	26	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	11	34	35	3	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	11	650	190	110	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	11	0.9	0.7	25	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	11	26	21	21	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	11	190	200	5	[NT]	[NT]

QUALITY CONTROL: Misc Soil - Inorg						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	189345-2
Date prepared	-			13/04/2018	1	13/04/2018	13/04/2018		13/04/2018	13/04/2018
Date analysed	-			13/04/2018	1	13/04/2018	13/04/2018		13/04/2018	13/04/2018
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	<5	1	<5	<5	0	96	105

QUALITY CONTROL: Misc Soil - Inorg						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	11	13/04/2018	13/04/2018		[NT]	[NT]
Date analysed	-			[NT]	11	13/04/2018	13/04/2018		[NT]	[NT]
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	[NT]	11	<5	<5	0	[NT]	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Report Comments

PCBs in Soil (smaple 8) - PQL has been raised due to interference from analytes(other than those being tested) in the sample/s.

Acid Extractable Metals in Soil:
Percent recovery is not possible to report due to the high concentration of the element/s in the sample/s. However an acceptable recovery was obtained for the LCS.

The laboratory RPD acceptance criteria has been exceeded for 189345-11 for Pb. Therefore a triplicate result has been issued as laboratory sample number 189345-18.

TRH/PAHs in Soil - The RPD for duplicate results is accepted due to the non homogenous nature of the sample/s.

Asbestos: A portion of the supplied sample was sub-sampled for asbestos analysis according to Envirolab procedures. We cannot guarantee that this sub-sample is indicative of the entire sample. Envirolab recommends supplying 40-50g of sample in its own container.
Note: Samples 189345-1 to 14 were sub-sampled from jars provided by the client.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	Douglas Partners Pty Ltd
Attention	Luke James-Hall

Sample Login Details

Your reference	86237.00, Sydney Football Stadium
Envirolab Reference	189345
Date Sample Received	12/04/2018
Date Instructions Received	12/04/2018
Date Results Expected to be Reported	19/04/2018

Sample Condition

Samples received in appropriate condition for analysis	YES
No. of Samples Provided	17 soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	14.0
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticidesin soil	Organophosphorus Pesticides	PCBsin Soil	Acid Extractable metalsin soil	Total Phenolics (as Phenol)	Asbestos ID - soils
C3-0.5-0.6	✓	✓	✓	✓	✓	✓	✓	✓	✓
C6-1.4-1.5	✓	✓	✓	✓	✓	✓	✓	✓	✓
C8-03.9-1.0	✓	✓	✓	✓	✓	✓	✓	✓	✓
C8-2.4-2.5	✓	✓	✓	✓	✓	✓	✓	✓	✓
C13-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓
C13-1.9-2.0	✓	✓	✓	✓	✓	✓	✓	✓	✓
C14-0.9-1.0	✓	✓	✓	✓	✓	✓	✓	✓	✓
C18-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓
C20-0.6-0.7	✓	✓	✓	✓	✓	✓	✓	✓	✓
C20-1.1-1.2	✓	✓	✓	✓	✓	✓	✓	✓	✓
C21-1.9-2.0	✓	✓	✓	✓	✓	✓	✓	✓	✓
C21-5.4-5.5	✓	✓	✓	✓	✓	✓	✓	✓	✓
C26-0.15-0.18	✓	✓	✓	✓	✓	✓	✓	✓	✓
C31-0.9-1.0	✓	✓	✓	✓	✓	✓	✓	✓	✓
08042018-1-2	✓	✓					✓		
09042018-3-3	✓	✓					✓		
11042018-2-4	✓	✓					✓		

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.

CHAIN OF CUSTODY

Douglas Partners
Geotechnics | Environment | Groundwater

Client: Douglas Partners	Project Number: 86237.00	To:	Envirolab Services
Contact Person: Luke James-Hall	Project Name: Sydney Football Stadium	Contact Person:	Aileen Hie
Project Mgr: Luke James-Hall	PO No.:	Address:	12 Ashley Street
	lab Quote No. :		Chatswood NSW 2066
Address: 96 Hermitage Road West Ryde NSW 2114	Date results required: standard Or choose: *Note: Inform lab in advance if urgent turnaround is required - surcharges apply*	Phone:	02 9910 6200
		Fax:	02 9910 6201
		Email:	ahie@envirolab.com.au
Phone: 9809 0666 Mob: 0407 216 678	Report format: PDF / Excel	Laboratory Report No:	
Email: luke.james-hall @douglaspartners.com.au	Comments:	Lab Comments:	

Sample information						Tests Required						Comments
Lab Sample ID	Field Sample ID	Depth	Date sampled	Container Type	Type of sample	Combo 8a	TRH, BTEX & Metals					Provide as much information about the sample as you can
1	C3	0.5-0.6	11-04-18			X						
2	C6	1.4-1.5	11-04-18			X						
3	C8	0.9-1.0	06-04-18			X						
4	C8	2.4-2.5	06-04-18			X						
5	C13	0.4-0.5	06-04-18			X						
6	C13	1.9-2.0	06-04-18			X						
7	C14	0.9-1.0	10-04-18			X						
8	C18	0.4-0.5	11-04-18			X						
9	C20	0.6-0.7	09-04-18			X						
10	C20	1.1-1.2	09-04-18			X						
11	C21	1.9-2.0	09-04-18			X						
12	C21	5.4-5.5	09-04-18			X						
13	C26	0.15-0.18	09-04-18			X						
14	C31	0.9-1.0	10-04-18			X						
15	08042018-1-2						X					
16	09042018-3-3						X					
17	11042018-2-4						X					

ENVIROLAB
Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 189545
Date Received: 12/4/18
Time Received: 18:00
Received by: [illegible]
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

Relinquished by: Douglas Partners	Sample Receipt	*Lab use only:*
Hand delivered / Courier (by whom)	Received by (Company): GLS	Samples Received: Cool or Ambient (circle one)
Condition of Sample at dispatch Cool or Ambient (circle)	Print Name: Kevin Ung	Temperature Received at: (If applicable)
Temperature (If Applicable):	Date & Time: 12/4/18 18:00	Transported by: Hand delivered / courier
Print Name:	Signature:	
Date & Time:		
Signature:		

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 190070

Client Details

Client	Douglas Partners Pty Ltd
Attention	Luke James-Hall
Address	96 Hermitage Rd, West Ryde, NSW, 2114

Sample Details

Your Reference	**86237.00, Sydney Football Stadium**
Number of Samples	22 Soil
Date samples received	23/04/2018
Date completed instructions received	23/04/2018

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	01/05/2018
Date of Issue	01/05/2018

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Asbestos Approved By
Analysed by Asbestos Approved Identifier: Lucy Zhu
Authorised by Asbestos Approved Signatory: Lucy Zhu

Results Approved By
Dragana Tomas, Senior Chemist
Jeremy Faircloth, Organics Supervisor
Long Pham, Team Leader, Metals
Lucy Zhu, Asbsestos Analyst
Nick Sarlamis, Inorganics Supervisor
Steven Luong, Senior Chemist

Authorised By



Jacinta Hurst, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		190070-1	190070-2	190070-3	190070-4	190070-5
Your Reference	UNITS	C1	C1	C2	C4	C5
Depth		0.3-0.4	1.9-2.0	0.4-0.5	0.4-0.5	0.4-0.5
Date Sampled		16/04/2018	16/04/2018	16/04/2018	13/04/2018	16/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Date analysed	-	26/04/2018	26/04/2018	26/04/2018	26/04/2018	26/04/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	97	93	93	95	92

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		190070-6	190070-7	190070-8	190070-9	190070-10
Your Reference	UNITS	C5	C7	C9	C30	C30
Depth		2.9-3.0	0.9-1.0	0.4-0.5	0.9-1.0	1.9-2.0
Date Sampled		16/04/2018	16/04/2018	16/04/2018	12/04/2018	12/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Date analysed	-	26/04/2018	26/04/2018	26/04/2018	26/04/2018	26/04/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	93	101	96	96	86

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		190070-11	190070-12	190070-13	190070-14	190070-15
Your Reference	UNITS	C31	C35	C35	C36	C37
Depth		1.4-1.5	0.1-0.15	0.8-0.9	0.4-0.45	0.4-0.5
Date Sampled		17/04/2018	12/04/2018	12/04/2018	13/04/2018	17/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Date analysed	-	26/04/2018	26/04/2018	26/04/2018	26/04/2018	26/04/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	93	98	93	99	95

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		190070-16	190070-17	190070-18	190070-19	190070-20
Your Reference	UNITS	C38	C39	C40	apple	banna
Depth		0.1-0.15	0.5-0.6	0.05-0.1	-	-
Date Sampled		18/04/2018	13/04/2018	13/04/2018	12/04/2018	12/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Date analysed	-	26/04/2018	26/04/2018	26/04/2018	26/04/2018	26/04/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	99	94	96	98	99

vTRH(C6-C10)/BTEXN in Soil			
Our Reference		190070-21	190070-22
Your Reference	UNITS	orange	C25
Depth		-	0.4-0.5
Date Sampled		16/04/2018	16/04/2018
Type of sample		Soil	Soil
Date extracted	-	24/04/2018	24/04/2018
Date analysed	-	26/04/2018	26/04/2018
TRH C_6 - C_9	mg/kg	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25
Benzene	mg/kg	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1
m+p-xylene	mg/kg	<2	<2
o-Xylene	mg/kg	<1	<1
naphthalene	mg/kg	<1	<1
Total +ve Xylenes	mg/kg	<1	<1
Surrogate aaa-Trifluorotoluene	%	100	97

svTRH (C10-C40) in Soil						
Our Reference		190070-1	190070-2	190070-3	190070-4	190070-5
Your Reference	UNITS	C1	C1	C2	C4	C5
Depth		0.3-0.4	1.9-2.0	0.4-0.5	0.4-0.5	0.4-0.5
Date Sampled		16/04/2018	16/04/2018	16/04/2018	13/04/2018	16/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Date analysed	-	26/04/2018	26/04/2018	26/04/2018	26/04/2018	26/04/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	380
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	290
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	600
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	140
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	740
Surrogate o-Terphenyl	%	88	84	70	93	75

svTRH (C10-C40) in Soil						
Our Reference		190070-6	190070-7	190070-8	190070-9	190070-10
Your Reference	UNITS	C5	C7	C9	C30	C30
Depth		2.9-3.0	0.9-1.0	0.4-0.5	0.9-1.0	1.9-2.0
Date Sampled		16/04/2018	16/04/2018	16/04/2018	12/04/2018	12/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Date analysed	-	26/04/2018	26/04/2018	26/04/2018	26/04/2018	26/04/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	94	71	90	80	93

svTRH (C10-C40) in Soil						
Our Reference		190070-11	190070-12	190070-13	190070-14	190070-15
Your Reference	UNITS	C31	C35	C35	C36	C37
Depth		1.4-1.5	0.1-0.15	0.8-0.9	0.4-0.45	0.4-0.5
Date Sampled		17/04/2018	12/04/2018	12/04/2018	13/04/2018	17/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Date analysed	-	26/04/2018	26/04/2018	26/04/2018	26/04/2018	26/04/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	120	<100	<100	<100	110
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	120	<50	<50	<50	110
Surrogate o-Terphenyl	%	81	96	79	96	81

svTRH (C10-C40) in Soil						
Our Reference		190070-16	190070-17	190070-18	190070-19	190070-20
Your Reference	UNITS	C38	C39	C40	apple	banna
Depth		0.1-0.15	0.5-0.6	0.05-0.1	-	-
Date Sampled		18/04/2018	13/04/2018	13/04/2018	12/04/2018	12/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Date analysed	-	26/04/2018	26/04/2018	26/04/2018	26/04/2018	26/04/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	81	80	94	94	93

svTRH (C10-C40) in Soil			
Our Reference		190070-21	190070-22
Your Reference	UNITS	orange	C25
Depth		-	0.4-0.5
Date Sampled		16/04/2018	16/04/2018
Type of sample		Soil	Soil
Date extracted	-	24/04/2018	24/04/2018
Date analysed	-	26/04/2018	26/04/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50
Surrogate o-Terphenyl	%	93	79

PAHs in Soil						
Our Reference		190070-1	190070-2	190070-3	190070-4	190070-5
Your Reference	UNITS	C1	C1	C2	C4	C5
Depth		0.3-0.4	1.9-2.0	0.4-0.5	0.4-0.5	0.4-0.5
Date Sampled		16/04/2018	16/04/2018	16/04/2018	13/04/2018	16/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Date analysed	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Naphthalene	mg/kg	<0.1	0.1	0.2	<0.1	0.6
Acenaphthylene	mg/kg	0.3	0.7	0.2	<0.1	1.6
Acenaphthene	mg/kg	<0.1	<0.1	0.1	<0.1	0.3
Fluorene	mg/kg	<0.1	0.2	0.1	<0.1	0.9
Phenanthrene	mg/kg	1.4	7.6	1.9	<0.1	14
Anthracene	mg/kg	0.5	1.7	0.6	<0.1	3.7
Fluoranthene	mg/kg	3.2	8.4	3.4	<0.1	25
Pyrene	mg/kg	3.4	7.3	3.4	<0.1	25
Benzo(a)anthracene	mg/kg	2.1	4.1	1.8	<0.1	15
Chrysene	mg/kg	1.5	2.8	1.4	<0.1	11
Benzo(b,j+k)fluoranthene	mg/kg	3.2	5.1	2.6	<0.2	20
Benzo(a)pyrene	mg/kg	2.0	3.1	1.6	<0.05	14
Indeno(1,2,3-c,d)pyrene	mg/kg	1.2	1.6	0.9	<0.1	8.0
Dibenzo(a,h)anthracene	mg/kg	0.4	0.5	0.2	<0.1	2.4
Benzo(g,h,i)perylene	mg/kg	1.5	1.9	1.1	<0.1	11
Total +ve PAH's	mg/kg	21	45	19	<0.05	150
Benzo(a)pyrene TEQ calc (zero)	mg/kg	3.0	4.7	2.4	<0.5	21
Benzo(a)pyrene TEQ calc(half)	mg/kg	3.0	4.7	2.4	<0.5	21
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	3.0	4.7	2.4	<0.5	21
Surrogate p-Terphenyl-d14	%	102	99	79	78	72

PAHs in Soil						
Our Reference		190070-6	190070-7	190070-8	190070-9	190070-10
Your Reference	UNITS	C5	C7	C9	C30	C30
Depth		2.9-3.0	0.9-1.0	0.4-0.5	0.9-1.0	1.9-2.0
Date Sampled		16/04/2018	16/04/2018	16/04/2018	12/04/2018	12/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Date analysed	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Naphthalene	mg/kg	<0.1	0.2	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	0.3	<0.1	0.2	<0.1
Acenaphthene	mg/kg	<0.1	0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	0.2	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	2.5	<0.1	0.6	<0.1
Anthracene	mg/kg	<0.1	0.8	<0.1	0.2	<0.1
Fluoranthene	mg/kg	0.2	3.7	<0.1	1.8	<0.1
Pyrene	mg/kg	0.3	3.6	<0.1	1.9	<0.1
Benzo(a)anthracene	mg/kg	0.2	2.0	<0.1	1.0	<0.1
Chrysene	mg/kg	0.1	1.5	<0.1	0.8	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	0.2	2.8	<0.2	2	<0.2
Benzo(a)pyrene	mg/kg	0.1	1.7	<0.05	0.90	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	1	<0.1	0.5	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	0.3	<0.1	0.2	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	1.2	<0.1	0.6	<0.1
Total +ve PAH's	mg/kg	1.1	22	<0.05	10	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	2.6	<0.5	1.4	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	2.6	<0.5	1.4	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	2.6	<0.5	1.4	<0.5
Surrogate p-Terphenyl-d14	%	80	74	78	81	79

PAHs in Soil						
Our Reference		190070-11	190070-12	190070-13	190070-14	190070-15
Your Reference	UNITS	C31	C35	C35	C36	C37
Depth		1.4-1.5	0.1-0.15	0.8-0.9	0.4-0.45	0.4-0.5
Date Sampled		17/04/2018	12/04/2018	12/04/2018	13/04/2018	17/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Date analysed	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Naphthalene	mg/kg	0.2	<0.1	<0.1	<0.1	0.2
Acenaphthylene	mg/kg	0.4	<0.1	0.2	<0.1	0.5
Acenaphthene	mg/kg	0.2	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.4	<0.1	<0.1	<0.1	0.3
Phenanthrene	mg/kg	3.8	<0.1	0.5	<0.1	4.0
Anthracene	mg/kg	1.2	<0.1	0.2	<0.1	1.2
Fluoranthene	mg/kg	6.0	0.1	1.5	<0.1	7.2
Pyrene	mg/kg	5.9	0.1	1.6	<0.1	6.8
Benzo(a)anthracene	mg/kg	3.3	<0.1	0.8	<0.1	4.5
Chrysene	mg/kg	2.3	0.1	0.6	<0.1	3.0
Benzo(b,j+k)fluoranthene	mg/kg	4.4	<0.2	1	<0.2	6.0
Benzo(a)pyrene	mg/kg	2.8	0.06	0.65	<0.05	4.0
Indeno(1,2,3-c,d)pyrene	mg/kg	1.5	<0.1	0.4	<0.1	2.0
Dibenzo(a,h)anthracene	mg/kg	0.5	<0.1	0.1	<0.1	0.6
Benzo(g,h,i)perylene	mg/kg	1.8	<0.1	0.6	<0.1	2.5
Total +ve PAH's	mg/kg	35	0.4	8.1	<0.05	43
Benzo(a)pyrene TEQ calc (zero)	mg/kg	4.2	<0.5	1	<0.5	5.9
Benzo(a)pyrene TEQ calc(half)	mg/kg	4.2	<0.5	1	<0.5	5.9
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	4.2	<0.5	1	<0.5	5.9
Surrogate p-Terphenyl-d14	%	78	81	78	79	78

PAHs in Soil					
Our Reference		190070-16	190070-17	190070-18	190070-22
Your Reference	UNITS	C38	C39	C40	C25
Depth		0.1-0.15	0.5-0.6	0.05-0.1	0.4-0.5
Date Sampled		18/04/2018	13/04/2018	13/04/2018	16/04/2018
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	24/04/2018	24/04/2018	24/04/2018	26/04/2018
Date analysed	-	24/04/2018	24/04/2018	24/04/2018	27/04/2018
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	0.3	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.2	1.0	<0.1	0.1
Anthracene	mg/kg	<0.1	0.4	<0.1	<0.1
Fluoranthene	mg/kg	0.8	2.3	<0.1	0.1
Pyrene	mg/kg	1	2.4	<0.1	0.2
Benzo(a)anthracene	mg/kg	0.5	1.6	<0.1	<0.1
Chrysene	mg/kg	0.4	1.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	0.8	2.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	0.5	1.4	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	0.3	0.8	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	0.2	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	0.4	0.9	<0.1	<0.1
Total +ve PAH's	mg/kg	5.1	15	<0.05	0.4
Benzo(a)pyrene TEQ calc (zero)	mg/kg	0.7	2.1	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	0.7	2.1	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	0.8	2.1	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	82	84	81	78

Organochlorine Pesticides in soil						
Our Reference		190070-1	190070-2	190070-3	190070-4	190070-5
Your Reference	UNITS	C1	C1	C2	C4	C5
Depth		0.3-0.4	1.9-2.0	0.4-0.5	0.4-0.5	0.4-0.5
Date Sampled		16/04/2018	16/04/2018	16/04/2018	13/04/2018	16/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Date analysed	-	26/04/2018	26/04/2018	26/04/2018	26/04/2018	26/04/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	114	110	87	88	88

Organochlorine Pesticides in soil						
Our Reference		190070-6	190070-7	190070-8	190070-9	190070-10
Your Reference	UNITS	C5	C7	C9	C30	C30
Depth		2.9-3.0	0.9-1.0	0.4-0.5	0.9-1.0	1.9-2.0
Date Sampled		16/04/2018	16/04/2018	16/04/2018	12/04/2018	12/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Date analysed	-	26/04/2018	26/04/2018	26/04/2018	26/04/2018	26/04/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	85	88	86	84	88

Organochlorine Pesticides in soil						
Our Reference		190070-11	190070-12	190070-13	190070-14	190070-15
Your Reference	UNITS	C31	C35	C35	C36	C37
Depth		1.4-1.5	0.1-0.15	0.8-0.9	0.4-0.45	0.4-0.5
Date Sampled		17/04/2018	12/04/2018	12/04/2018	13/04/2018	17/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Date analysed	-	26/04/2018	26/04/2018	26/04/2018	26/04/2018	26/04/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	94	87	90	86	84

Organochlorine Pesticides in soil					
Our Reference		190070-16	190070-17	190070-18	190070-22
Your Reference	UNITS	C38	C39	C40	C25
Depth		0.1-0.15	0.5-0.6	0.05-0.1	0.4-0.5
Date Sampled		18/04/2018	13/04/2018	13/04/2018	16/04/2018
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Date analysed	-	26/04/2018	26/04/2018	26/04/2018	27/04/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	83	84	86	85

Organophosphorus Pesticides						
Our Reference		190070-1	190070-2	190070-3	190070-4	190070-5
Your Reference	UNITS	C1	C1	C2	C4	C5
Depth		0.3-0.4	1.9-2.0	0.4-0.5	0.4-0.5	0.4-0.5
Date Sampled		16/04/2018	16/04/2018	16/04/2018	13/04/2018	16/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Date analysed	-	26/04/2018	26/04/2018	26/04/2018	26/04/2018	26/04/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	114	110	87	88	88

Organophosphorus Pesticides						
Our Reference		190070-6	190070-7	190070-8	190070-9	190070-10
Your Reference	UNITS	C5	C7	C9	C30	C30
Depth		2.9-3.0	0.9-1.0	0.4-0.5	0.9-1.0	1.9-2.0
Date Sampled		16/04/2018	16/04/2018	16/04/2018	12/04/2018	12/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Date analysed	-	26/04/2018	26/04/2018	26/04/2018	26/04/2018	26/04/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	85	88	86	84	88

Organophosphorus Pesticides						
Our Reference		190070-11	190070-12	190070-13	190070-14	190070-15
Your Reference	UNITS	C31	C35	C35	C36	C37
Depth		1.4-1.5	0.1-0.15	0.8-0.9	0.4-0.45	0.4-0.5
Date Sampled		17/04/2018	12/04/2018	12/04/2018	13/04/2018	17/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Date analysed	-	26/04/2018	26/04/2018	26/04/2018	26/04/2018	26/04/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	94	87	90	86	84

Organophosphorus Pesticides					
Our Reference		190070-16	190070-17	190070-18	190070-22
Your Reference	UNITS	C38	C39	C40	C25
Depth		0.1-0.15	0.5-0.6	0.05-0.1	0.4-0.5
Date Sampled		18/04/2018	13/04/2018	13/04/2018	16/04/2018
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Date analysed	-	26/04/2018	26/04/2018	26/04/2018	27/04/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	83	84	86	85

PCBs in Soil						
Our Reference		190070-1	190070-2	190070-3	190070-4	190070-5
Your Reference	UNITS	C1	C1	C2	C4	C5
Depth		0.3-0.4	1.9-2.0	0.4-0.5	0.4-0.5	0.4-0.5
Date Sampled		16/04/2018	16/04/2018	16/04/2018	13/04/2018	16/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Date analysed	-	26/04/2018	26/04/2018	26/04/2018	26/04/2018	26/04/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	114	110	87	88	88

PCBs in Soil						
Our Reference		190070-6	190070-7	190070-8	190070-9	190070-10
Your Reference	UNITS	C5	C7	C9	C30	C30
Depth		2.9-3.0	0.9-1.0	0.4-0.5	0.9-1.0	1.9-2.0
Date Sampled		16/04/2018	16/04/2018	16/04/2018	12/04/2018	12/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Date analysed	-	26/04/2018	26/04/2018	26/04/2018	26/04/2018	26/04/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	85	88	86	84	88

PCBs in Soil						
Our Reference		190070-11	190070-12	190070-13	190070-14	190070-15
Your Reference	UNITS	C31	C35	C35	C36	C37
Depth		1.4-1.5	0.1-0.15	0.8-0.9	0.4-0.45	0.4-0.5
Date Sampled		17/04/2018	12/04/2018	12/04/2018	13/04/2018	17/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Date analysed	-	26/04/2018	26/04/2018	26/04/2018	26/04/2018	26/04/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	94	87	90	86	84

PCBs in Soil					
Our Reference		190070-16	190070-17	190070-18	190070-22
Your Reference	UNITS	C38	C39	C40	C25
Depth		0.1-0.15	0.5-0.6	0.05-0.1	0.4-0.5
Date Sampled		18/04/2018	13/04/2018	13/04/2018	16/04/2018
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Date analysed	-	26/04/2018	26/04/2018	26/04/2018	27/04/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	83	84	86	85

Acid Extractable metals in soil						
Our Reference		190070-1	190070-2	190070-3	190070-4	190070-5
Your Reference	UNITS	C1	C1	C2	C4	C5
Depth		0.3-0.4	1.9-2.0	0.4-0.5	0.4-0.5	0.4-0.5
Date Sampled		16/04/2018	16/04/2018	16/04/2018	13/04/2018	16/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Date analysed	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Arsenic	mg/kg	<4	6	7	4	10
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	9	10	11	8	21
Copper	mg/kg	26	24	26	10	53
Lead	mg/kg	130	92	140	20	130
Mercury	mg/kg	0.3	0.3	0.3	<0.1	0.3
Nickel	mg/kg	4	4	6	8	7
Zinc	mg/kg	65	69	71	59	250

Acid Extractable metals in soil						
Our Reference		190070-6	190070-7	190070-8	190070-9	190070-10
Your Reference	UNITS	C5	C7	C9	C30	C30
Depth		2.9-3.0	0.9-1.0	0.4-0.5	0.9-1.0	1.9-2.0
Date Sampled		16/04/2018	16/04/2018	16/04/2018	12/04/2018	12/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Date analysed	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Arsenic	mg/kg	<4	<4	<4	6	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	1	7	4	9	1
Copper	mg/kg	4	20	7	91	2
Lead	mg/kg	21	90	26	2,200	20
Mercury	mg/kg	<0.1	0.3	<0.1	1.4	<0.1
Nickel	mg/kg	<1	3	1	7	<1
Zinc	mg/kg	11	55	22	200	160

Acid Extractable metals in soil						
Our Reference		190070-11	190070-12	190070-13	190070-14	190070-15
Your Reference	UNITS	C31	C35	C35	C36	C37
Depth		1.4-1.5	0.1-0.15	0.8-0.9	0.4-0.45	0.4-0.5
Date Sampled		17/04/2018	12/04/2018	12/04/2018	13/04/2018	17/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Date analysed	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Arsenic	mg/kg	9	<4	<4	<4	4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	7	8	<1	7	8
Copper	mg/kg	21	69	1	72	26
Lead	mg/kg	82	3	2	2	260
Mercury	mg/kg	1	<0.1	<0.1	<0.1	0.3
Nickel	mg/kg	5	83	<1	81	4
Zinc	mg/kg	66	32	1	32	230

Acid Extractable metals in soil						
Our Reference		190070-16	190070-17	190070-18	190070-19	190070-20
Your Reference	UNITS	C38	C39	C40	apple	banna
Depth		0.1-0.15	0.5-0.6	0.05-0.1	-	-
Date Sampled		18/04/2018	13/04/2018	13/04/2018	12/04/2018	12/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Date analysed	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	9	4	9	8	<1
Copper	mg/kg	36	21	71	82	1
Lead	mg/kg	33	82	6	3	2
Mercury	mg/kg	<0.1	0.3	<0.1	<0.1	<0.1
Nickel	mg/kg	13	2	84	91	1
Zinc	mg/kg	53	180	38	35	1

Acid Extractable metals in soil				
Our Reference		190070-21	190070-22	190070-23
Your Reference	UNITS	orange	C25	C31 - [TRIPLICATE]
Depth		-	0.4-0.5	1.4-1.5
Date Sampled		16/04/2018	16/04/2018	17/04/2018
Type of sample		Soil	Soil	Soil
Date prepared	-	24/04/2018	24/04/2018	24/04/2018
Date analysed	-	24/04/2018	24/04/2018	24/04/2018
Arsenic	mg/kg	<4	12	11
Cadmium	mg/kg	<0.4	<0.4	<0.4
Chromium	mg/kg	2	10	6
Copper	mg/kg	10	3	23
Lead	mg/kg	27	10	120
Mercury	mg/kg	<0.1	<0.1	0.5
Nickel	mg/kg	<1	3	4
Zinc	mg/kg	18	31	95

Misc Soil - Inorg						
Our Reference		190070-1	190070-2	190070-3	190070-4	190070-5
Your Reference	UNITS	C1	C1	C2	C4	C5
Depth		0.3-0.4	1.9-2.0	0.4-0.5	0.4-0.5	0.4-0.5
Date Sampled		16/04/2018	16/04/2018	16/04/2018	13/04/2018	16/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Date analysed	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg						
Our Reference		190070-6	190070-7	190070-8	190070-9	190070-10
Your Reference	UNITS	C5	C7	C9	C30	C30
Depth		2.9-3.0	0.9-1.0	0.4-0.5	0.9-1.0	1.9-2.0
Date Sampled		16/04/2018	16/04/2018	16/04/2018	12/04/2018	12/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Date analysed	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg						
Our Reference		190070-11	190070-12	190070-13	190070-14	190070-15
Your Reference	UNITS	C31	C35	C35	C36	C37
Depth		1.4-1.5	0.1-0.15	0.8-0.9	0.4-0.45	0.4-0.5
Date Sampled		17/04/2018	12/04/2018	12/04/2018	13/04/2018	17/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Date analysed	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg					
Our Reference		190070-16	190070-17	190070-18	190070-22
Your Reference	UNITS	C38	C39	C40	C25
Depth		0.1-0.15	0.5-0.6	0.05-0.1	0.4-0.5
Date Sampled		18/04/2018	13/04/2018	13/04/2018	16/04/2018
Type of sample		Soil	Soil	Soil	Soil
Date prepared	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Date analysed	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5

Moisture						
Our Reference		190070-1	190070-2	190070-3	190070-4	190070-5
Your Reference	UNITS	C1	C1	C2	C4	C5
Depth		0.3-0.4	1.9-2.0	0.4-0.5	0.4-0.5	0.4-0.5
Date Sampled		16/04/2018	16/04/2018	16/04/2018	13/04/2018	16/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Date analysed	-	26/04/2018	26/04/2018	26/04/2018	26/04/2018	26/04/2018
Moisture	%	7.4	16	15	10	14

Moisture						
Our Reference		190070-6	190070-7	190070-8	190070-9	190070-10
Your Reference	UNITS	C5	C7	C9	C30	C30
Depth		2.9-3.0	0.9-1.0	0.4-0.5	0.9-1.0	1.9-2.0
Date Sampled		16/04/2018	16/04/2018	16/04/2018	12/04/2018	12/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Date analysed	-	26/04/2018	26/04/2018	26/04/2018	26/04/2018	26/04/2018
Moisture	%	14	10	11	12	15

Moisture						
Our Reference		190070-11	190070-12	190070-13	190070-14	190070-15
Your Reference	UNITS	C31	C35	C35	C36	C37
Depth		1.4-1.5	0.1-0.15	0.8-0.9	0.4-0.45	0.4-0.5
Date Sampled		17/04/2018	12/04/2018	12/04/2018	13/04/2018	17/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Date analysed	-	26/04/2018	26/04/2018	26/04/2018	26/04/2018	26/04/2018
Moisture	%	9.3	4.9	15	3.0	13

Moisture						
Our Reference		190070-16	190070-17	190070-18	190070-19	190070-20
Your Reference	UNITS	C38	C39	C40	apple	banna
Depth		0.1-0.15	0.5-0.6	0.05-0.1	-	-
Date Sampled		18/04/2018	13/04/2018	13/04/2018	12/04/2018	12/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	24/04/2018	24/04/2018	24/04/2018	24/04/2018	24/04/2018
Date analysed	-	26/04/2018	26/04/2018	26/04/2018	26/04/2018	26/04/2018
Moisture	%	6.5	15	2.5	4.4	11

Moisture			
Our Reference		190070-21	190070-22
Your Reference	UNITS	orange	C25
Depth		-	0.4-0.5
Date Sampled		16/04/2018	16/04/2018
Type of sample		Soil	Soil
Date prepared	-	24/04/2018	24/04/2018
Date analysed	-	26/04/2018	26/04/2018
Moisture	%	15	16

Asbestos ID - soils						
Our Reference		190070-1	190070-2	190070-3	190070-4	190070-5
Your Reference	UNITS	C1	C1	C2	C4	C5
Depth		0.3-0.4	1.9-2.0	0.4-0.5	0.4-0.5	0.4-0.5
Date Sampled		16/04/2018	16/04/2018	16/04/2018	13/04/2018	16/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	30/04/2018	30/04/2018	30/04/2018	30/04/2018	30/04/2018
Sample mass tested	g	Approx. 30g	Approx. 35g	Approx. 35g	Approx. 30g	Approx. 40g
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		190070-6	190070-7	190070-8	190070-9	190070-10
Your Reference	UNITS	C5	C7	C9	C30	C30
Depth		2.9-3.0	0.9-1.0	0.4-0.5	0.9-1.0	1.9-2.0
Date Sampled		16/04/2018	16/04/2018	16/04/2018	12/04/2018	12/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	30/04/2018	30/04/2018	30/04/2018	30/04/2018	30/04/2018
Sample mass tested	g	Approx. 30g	Approx. 45g	Approx. 35g	Approx. 25g	Approx. 35g
Sample Description	-	Brown sandy soil & rocks	Brown coarse-grained soil & rocks	Brown sandy soil & rocks	Brown coarse-grained soil & rocks	Brown sandy soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		190070-11	190070-12	190070-13	190070-14	190070-15
Your Reference	UNITS	C31	C35	C35	C36	C37
Depth		1.4-1.5	0.1-0.15	0.8-0.9	0.4-0.45	0.4-0.5
Date Sampled		17/04/2018	12/04/2018	12/04/2018	13/04/2018	17/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	30/04/2018	30/04/2018	30/04/2018	30/04/2018	30/04/2018
Sample mass tested	g	Approx. 40g	Approx. 35g	Approx. 35g	Approx. 40g	Approx. 35g
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Beige sandy soil	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils					
Our Reference		190070-16	190070-17	190070-18	190070-22
Your Reference	UNITS	C38	C39	C40	C25
Depth		0.1-0.15	0.5-0.6	0.05-0.1	0.4-0.5
Date Sampled		18/04/2018	13/04/2018	13/04/2018	16/04/2018
Type of sample		Soil	Soil	Soil	Soil
Date analysed	-	30/04/2018	30/04/2018	30/04/2018	30/04/2018
Sample mass tested	g	Approx. 35g	Approx. 60g	Approx. 40g	Approx. 35g
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Method ID	Methodology Summary
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Inorg-031	Total Phenolics by segmented flow analyser (in line distillation with colourimetric finish). Solids are extracted in a caustic media prior to analysis.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-008	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.

Method ID	Methodology Summary
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	190070-2
Date extracted	-			24/04/2018	1	24/04/2018	24/04/2018		24/04/2018	24/04/2018
Date analysed	-			26/04/2018	1	26/04/2018	26/04/2018		26/04/2018	26/04/2018
TRH C_6 - C_9	mg/kg	25	Org-016	<25	1	<25	<25	0	98	97
TRH C_6 - C_{10}	mg/kg	25	Org-016	<25	1	<25	<25	0	98	97
Benzene	mg/kg	0.2	Org-016	<0.2	1	<0.2	<0.2	0	91	91
Toluene	mg/kg	0.5	Org-016	<0.5	1	<0.5	<0.5	0	100	99
Ethylbenzene	mg/kg	1	Org-016	<1	1	<1	<1	0	105	104
m+p-xylene	mg/kg	2	Org-016	<2	1	<2	<2	0	96	95
o-Xylene	mg/kg	1	Org-016	<1	1	<1	<1	0	107	106
naphthalene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	98	1	97	97	0	96	93

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	11	24/04/2018	24/04/2018		[NT]	[NT]
Date analysed	-			[NT]	11	26/04/2018	26/04/2018		[NT]	[NT]
TRH C_6 - C_9	mg/kg	25	Org-016	[NT]	11	<25	<25	0	[NT]	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-016	[NT]	11	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-016	[NT]	11	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-016	[NT]	11	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-016	[NT]	11	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-016	[NT]	11	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-016	[NT]	11	<1	<1	0	[NT]	[NT]
naphthalene	mg/kg	1	Org-014	[NT]	11	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	[NT]	11	93	92	1	[NT]	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	22	24/04/2018	24/04/2018		[NT]	[NT]
Date analysed	-			[NT]	22	26/04/2018	26/04/2018		[NT]	[NT]
TRH C_6 - C_9	mg/kg	25	Org-016	[NT]	22	<25	<25	0	[NT]	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-016	[NT]	22	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-016	[NT]	22	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-016	[NT]	22	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-016	[NT]	22	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-016	[NT]	22	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-016	[NT]	22	<1	<1	0	[NT]	[NT]
naphthalene	mg/kg	1	Org-014	[NT]	22	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	[NT]	22	97	95	2	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	190070-2
Date extracted	-			24/04/2018	1	24/04/2018	24/04/2018		24/04/2018	24/04/2018
Date analysed	-			26/04/2018	1	26/04/2018	26/04/2018		26/04/2018	26/04/2018
TRH C_{10} - C_{14}	mg/kg	50	Org-003	<50	1	<50	<50	0	114	112
TRH C_{15} - C_{28}	mg/kg	100	Org-003	<100	1	<100	<100	0	105	100
TRH C_{29} - C_{36}	mg/kg	100	Org-003	<100	1	<100	<100	0	92	75
TRH >C_{10} -C_{16}	mg/kg	50	Org-003	<50	1	<50	<50	0	114	112
TRH >C_{16} -C_{34}	mg/kg	100	Org-003	<100	1	<100	<100	0	105	100
TRH >C_{34} -C_{40}	mg/kg	100	Org-003	<100	1	<100	<100	0	92	75
Surrogate o-Terphenyl	%		Org-003	70	1	88	87	1	87	84

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	11	24/04/2018	24/04/2018		[NT]	[NT]
Date analysed	-			[NT]	11	26/04/2018	26/04/2018		[NT]	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-003	[NT]	11	<50	<50	0	[NT]	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-003	[NT]	11	<100	<100	0	[NT]	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-003	[NT]	11	<100	<100	0	[NT]	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-003	[NT]	11	<50	<50	0	[NT]	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-003	[NT]	11	120	120	0	[NT]	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-003	[NT]	11	<100	<100	0	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-003	[NT]	11	81	81	0	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	22	24/04/2018	24/04/2018		[NT]	[NT]
Date analysed	-			[NT]	22	26/04/2018	26/04/2018		[NT]	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-003	[NT]	22	<50	<50	0	[NT]	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-003	[NT]	22	<100	<100	0	[NT]	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-003	[NT]	22	<100	<100	0	[NT]	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-003	[NT]	22	<50	<50	0	[NT]	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-003	[NT]	22	<100	<100	0	[NT]	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-003	[NT]	22	<100	<100	0	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-003	[NT]	22	79	79	0	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	190070-2
Date extracted	-			26/04/2018	1	24/04/2018	24/04/2018		24/04/2018	24/04/2018
Date analysed	-			27/04/2018	1	24/04/2018	24/04/2018		24/04/2018	24/04/2018
Naphthalene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	91	86
Acenaphthylene	mg/kg	0.1	Org-012	<0.1	1	0.3	0.3	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	95	91
Phenanthrene	mg/kg	0.1	Org-012	<0.1	1	1.4	0.9	43	104	105
Anthracene	mg/kg	0.1	Org-012	<0.1	1	0.5	0.4	22	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-012	<0.1	1	3.2	2.6	21	95	#
Pyrene	mg/kg	0.1	Org-012	<0.1	1	3.4	2.8	19	92	#
Benzo(a)anthracene	mg/kg	0.1	Org-012	<0.1	1	2.1	1.8	15	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-012	<0.1	1	1.5	1.3	14	82	113
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-012	<0.2	1	3.2	2.7	17	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-012	<0.05	1	2.0	1.7	16	86	124
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	<0.1	1	1.2	1.0	18	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	<0.1	1	0.4	0.3	29	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	<0.1	1	1.5	1.2	22	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	86	1	102	103	1	110	108

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	11	24/04/2018	24/04/2018		[NT]	[NT]
Date analysed	-			[NT]	11	24/04/2018	24/04/2018		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-012	[NT]	11	0.2	0.1	67	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-012	[NT]	11	0.4	0.4	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-012	[NT]	11	0.2	0.1	67	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-012	[NT]	11	0.4	0.3	29	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-012	[NT]	11	3.8	3.3	14	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-012	[NT]	11	1.2	1.0	18	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-012	[NT]	11	6.0	5.8	3	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-012	[NT]	11	5.9	5.8	2	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-012	[NT]	11	3.3	3.3	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-012	[NT]	11	2.3	2.4	4	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-012	[NT]	11	4.4	4.4	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-012	[NT]	11	2.8	2.8	0	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	[NT]	11	1.5	1.5	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	[NT]	11	0.5	0.5	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	[NT]	11	1.8	1.9	5	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	11	78	78	0	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	22	26/04/2018	26/04/2018		[NT]	[NT]
Date analysed	-			[NT]	22	27/04/2018	27/04/2018		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-012	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-012	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-012	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-012	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-012	[NT]	22	0.1	<0.1	0	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-012	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-012	[NT]	22	0.1	<0.1	0	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-012	[NT]	22	0.2	<0.1	67	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-012	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-012	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-012	[NT]	22	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-012	[NT]	22	<0.05	<0.05	0	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	22	78	75	4	[NT]	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	190070-2
Date extracted	-			24/04/2018	1	24/04/2018	24/04/2018		24/04/2018	24/04/2018
Date analysed	-			26/04/2018	1	26/04/2018	26/04/2018		26/04/2018	26/04/2018
HCB	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	85	88
gamma-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	95	94
Heptachlor	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	87	91
delta-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	99	102
Heptachlor Epoxide	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	94	96
gamma-Chlordane	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	102	102
Dieldrin	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	109	111
Endrin	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	91	98
pp-DDD	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	101	102
Endosulfan II	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	70	66
Methoxychlor	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-005	90	1	114	113	1	123	123

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	11	24/04/2018	24/04/2018		[NT]	[NT]
Date analysed	-			[NT]	11	26/04/2018	26/04/2018		[NT]	[NT]
HCB	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-005	[NT]	11	94	86	9	[NT]	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	22	24/04/2018	24/04/2018		[NT]	[NT]
Date analysed	-			[NT]	22	27/04/2018	27/04/2018		[NT]	[NT]
HCB	mg/kg	0.1	Org-005	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-005	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-005	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-005	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-005	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-005	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-005	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-005	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-005	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-005	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-005	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-005	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-005	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-005	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-005	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-005	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-005	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-005	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-005	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-005	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-005	[NT]	22	85	87	2	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	190070-2
Date extracted	-			24/04/2018	1	24/04/2018	24/04/2018		24/04/2018	24/04/2018
Date analysed	-			26/04/2018	1	26/04/2018	26/04/2018		26/04/2018	26/04/2018
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	100	89
Chlorpyriphos-methyl	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	88	78
Dimethoate	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	130	100
Fenitrothion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	87	71
Malathion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	72	76
Parathion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	102	92
Ronnel	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	109	99
Surrogate TCMX	%		Org-008	90	1	114	113	1	89	85

QUALITY CONTROL: Organophosphorus Pesticides						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	11	24/04/2018	24/04/2018		[NT]	[NT]
Date analysed	-			[NT]	11	26/04/2018	26/04/2018		[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Fenitrothion	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Malathion	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-008	[NT]	11	94	86	9	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	22	24/04/2018	24/04/2018		[NT]	[NT]
Date analysed	-			[NT]	22	27/04/2018	27/04/2018		[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-008	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-008	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-008	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-008	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-008	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-008	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-008	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Fenitrothion	mg/kg	0.1	Org-008	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Malathion	mg/kg	0.1	Org-008	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-008	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-008	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-008	[NT]	22	85	87	2	[NT]	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	190070-2
Date extracted	-			24/04/2018	1	24/04/2018	24/04/2018		24/04/2018	24/04/2018
Date analysed	-			26/04/2018	1	26/04/2018	26/04/2018		26/04/2018	26/04/2018
Aroclor 1016	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	102	100
Aroclor 1260	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCLMX	%		Org-006	90	1	114	113	1	89	85

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	11	24/04/2018	24/04/2018		[NT]	[NT]
Date analysed	-			[NT]	11	26/04/2018	26/04/2018		[NT]	[NT]
Aroclor 1016	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1260	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCLMX	%		Org-006	[NT]	11	94	86	9	[NT]	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	22	24/04/2018	24/04/2018		[NT]	[NT]
Date analysed	-			[NT]	22	27/04/2018	27/04/2018		[NT]	[NT]
Aroclor 1016	mg/kg	0.1	Org-006	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-006	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-006	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-006	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-006	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-006	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1260	mg/kg	0.1	Org-006	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCLMX	%		Org-006	[NT]	22	85	87	2	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	190070-2
Date prepared	-			24/04/2018	1	24/04/2018	24/04/2018		24/04/2018	24/04/2018
Date analysed	-			24/04/2018	1	24/04/2018	24/04/2018		24/04/2018	24/04/2018
Arsenic	mg/kg	4	Metals-020	<4	1	<4	5	22	111	101
Cadmium	mg/kg	0.4	Metals-020	<0.4	1	<0.4	<0.4	0	103	94
Chromium	mg/kg	1	Metals-020	<1	1	9	9	0	109	105
Copper	mg/kg	1	Metals-020	<1	1	26	29	11	112	116
Lead	mg/kg	1	Metals-020	<1	1	130	110	17	104	109
Mercury	mg/kg	0.1	Metals-021	<0.1	1	0.3	0.2	40	107	108
Nickel	mg/kg	1	Metals-020	<1	1	4	4	0	109	100
Zinc	mg/kg	1	Metals-020	<1	1	65	82	23	104	105

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	11	24/04/2018	24/04/2018		[NT]	[NT]
Date analysed	-			[NT]	11	24/04/2018	24/04/2018		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	11	9	12	29	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	11	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	11	7	7	0	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	11	21	24	13	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	11	82	110	29	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	11	1	0.5	67	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	11	5	3	50	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	11	66	81	20	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	22	24/04/2018	24/04/2018		[NT]	[NT]
Date analysed	-			[NT]	22	24/04/2018	24/04/2018		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	22	12	10	18	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	22	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	22	10	10	0	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	22	3	2	40	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	22	10	10	0	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	22	3	2	40	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	22	31	30	3	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	9	24/04/2018	24/04/2018		[NT]	[NT]
Date analysed	-			[NT]	9	24/04/2018	24/04/2018		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	9	6	4	40	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	9	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	9	9	7	25	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	9	91	95	4	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	9	2200	2200	0	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	9	1.4	1.7	19	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	9	7	7	0	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	9	200	150	29	[NT]	[NT]

QUALITY CONTROL: Misc Soil - Inorg						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	190070-2
Date prepared	-			24/04/2018	1	24/04/2018	24/04/2018		24/04/2018	24/04/2018
Date analysed	-			24/04/2018	1	24/04/2018	24/04/2018		24/04/2018	24/04/2018
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	<5	1	<5	<5	0	107	99

QUALITY CONTROL: Misc Soil - Inorg						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	11	24/04/2018	24/04/2018		[NT]	[NT]
Date analysed	-			[NT]	11	24/04/2018	24/04/2018		[NT]	[NT]
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	[NT]	11	<5	<5	0	[NT]	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Report Comments

PAHs in Soil - # Percent recovery in the matrix spike is not possible to report as the high concentration of analytes in the sample has caused interference.

Acid Extractable Metals in Soil: The laboratory RPD acceptance criteria
has been exceeded for 190070-11 for Hg. Therefore a triplicate result has
been issued as laboratory sample number 190070-23.

Asbestos: A portion of the supplied sample was sub-sampled for asbestos analysis according to Envirolab procedures.
We cannot guarantee that this sub-sample is indicative of the entire sample. Envirolab recommends supplying
40-50g of sample in its own container.
Note: Samples 190070-1 to 18, 22 were sub-sampled from jars provided by the client.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	Douglas Partners Pty Ltd
Attention	Luke James-Hall

Sample Login Details

Your reference	86237.00, Sydney Football Stadium
Envirolab Reference	190070
Date Sample Received	23/04/2018
Date Instructions Received	23/04/2018
Date Results Expected to be Reported	01/05/2018

Sample Condition

Samples received in appropriate condition for analysis	YES
No. of Samples Provided	22 Soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	11.2
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
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customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticidesin soil	Organophosphorus Pesticides	PCBsin Soil	Acid Extractable metalsin soil	Total Phenolics (as Phenol)	Asbestos ID - soils
C1-0.3-0.4	✓	✓	✓	✓	✓	✓	✓	✓	✓
C1-1.9-2.0	✓	✓	✓	✓	✓	✓	✓	✓	✓
C2-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓
C4-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓
C5-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓
C5-2.9-3.0	✓	✓	✓	✓	✓	✓	✓	✓	✓
C7-0.9-1.0	✓	✓	✓	✓	✓	✓	✓	✓	✓
C9-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓
C30-0.9-1.0	✓	✓	✓	✓	✓	✓	✓	✓	✓
C30-1.9-2.0	✓	✓	✓	✓	✓	✓	✓	✓	✓
C31-1.4-1.5	✓	✓	✓	✓	✓	✓	✓	✓	✓
C35-0.1-0.15	✓	✓	✓	✓	✓	✓	✓	✓	✓
C35-0.8-0.9	✓	✓	✓	✓	✓	✓	✓	✓	✓
C36-0.4-0.45	✓	✓	✓	✓	✓	✓	✓	✓	✓
C37-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓
C38-0.1-0.15	✓	✓	✓	✓	✓	✓	✓	✓	✓
C39-0.5-0.6	✓	✓	✓	✓	✓	✓	✓	✓	✓
C40-0.05-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓
apple	✓	✓					✓		
banna	✓	✓					✓		
orange	✓	✓					✓		
C25-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.

CHAIN OF CUSTODY

Douglas Partners
Geotechnics / Environment / Groundwater

Client: Douglas Partners	Project Number: 86237.00	To:	Envirolab Services
Contact Person: Luke James-Hall	Project Name: Sydney Football Stadium	Contact Person:	Aileen Hie
Project Mgr: Luke James-Hall	PO No.:	Address:	12 Ashley Street
	lab Quote No.:		Chatswood NSW 2068
Address: 96 Hermitage Road West Ryde NSW 2114	Date results required: standard Or choose: *Note: Inform lab in advance if urgent turnaround is required - surcharges apply*	Phone:	02 9910 6200
		Fax:	02 9910 6201
		Email:	ahie@envirolab.com.au
Phone: 9809 0666 Mob: 0407 216 678	Report Format: PDF / Excel	Laboratory Report No:	
Email: luke.james-hall @douglaspartners.com.au	Comments:	Lab Comments:	

Sample information | Tests Required | Comments

Lab Sample ID	Field Sample ID	Depth	Date sampled	Container Type	Type of sample	Combo 8a	TRH, BTEX & Metals										Provide as much information about the sample as you can
1	C1	0.3-0.4	16-04-18	Jar	soil	x											
2	C1	1.9-2.0	16-04-18	Jar	soil	x											
3	C2	0.4-0.5	16-04-18	Jar	soil	x											
4	C4	0.4-0.5	13-04-18	Jar	soil	x											
5	C5	0.4-0.5	16-04-18	Jar	soil	x											
6	C5	2.9-3.0	16-04-18	Jar	soil	x											
7	C7	0.9-1.0	16-04-18	Jar	soil	x											
8	C9	0.4-0.5	16-04-18	Jar	soil	x											
9	C30	0.9-1.0	12-04-18	Jar	soil	x											
10	C30	1.9-2.0	12-04-18	Jar	soil	x											
11	C31	1.4-1.5	17-04-18	Jar	soil	x											
12	C35	0.1-0.15	12-04-18	Jar	soil	x											
13	C35	0.8-0.9	12-04-18	Jar	soil	x											
14	C36	0.4-0.45	13-04-18	Jar	soil	x											
15	C37	0.4-0.5	17-04-18	Jar	soil	x											
16	C38	0.1-0.15	18-04-18	Jar	soil	x											
17	C39	0.5-0.6	13-04-18	Jar	soil	x											
18	C40	~~0.07~~ 0.1	13-04-18	Jar	soil	x											
19	apple	0.05 KG	12-04-18	Jar	soil		x										
20	banna		12-04-18	Jar	soil		x										
21	orange		16-04-18	Jar	soil		x										

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 190078
Date Received: 23/4
Time Received: 1130
Received By: KG ELS
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

Relinquished by: Douglas Partners	Sample Receipt	*Lab use only:*
Hand delivered / Courier (by whom)	Received by (Company): ELS	Samples Received: Cool or Ambient (circle one)
Condition of Sample at dispatch Cool or Ambient (circle)	Print Name: KG	Temperature Received at: 11.2 (if applicable)
Temperature (if Applicable):	Date & Time: 23/4 1130	Transported by: Hand delivered / courier
Print Name:	Signature:	
Date & Time:		
Signature:		

Page ____ of ____

(22) EXTRA: C25 0-4-0.5 12-4-18

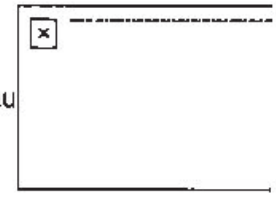
Ellen Wandala Gamage

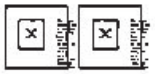
From: Luke James-Hall <Luke.James-Hall@douglaspartners.com.au>
Sent: Monday, 23 April 2018 7:16 PM
To: Ellen Wandala Gamage
Subject: Re: 86237.00, Sydney Football Stadium - 190070

Yes please. Combo 8a.

Thanks!

Luke James-Hall | Geotechnical Engineer
Douglas Partners Pty Ltd | ABN 75 053 980 117 | www.douglaspartners.com.au
96 Hermitage Road West Ryde NSW 2114 | PO Box 472 West Ryde NSW 1685
P: 02 9809 0666 | F: 02 9809 4095 | M: 0407 216 678 | E: Luke.James-Hall@douglaspartners.com.au





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From: Ellen Wandala Gamage <EWandalaGamage@envirolab.com.au>
Sent: Monday, 23 April 2018 7:14 PM
To: Luke James-Hall
Subject: 86237.00, Sydney Football Stadium - 190070 #190070

Hi Luke,
There was an extra sample received C25_0.4-0.5 is this for any analysis?
Thanks
Ellen

Regards,

Ellen Wandala Gamage | Customer Service (12pm - 8pm) | Envirolab Services Pty Ltd

Great Science, Great Service.

Chatswood NSW 2067

E EWandalaGamage@envirolab.com.au | **W**

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 191454

Client Details

Client	Douglas Partners Pty Ltd
Attention	Luke James-Hall
Address	96 Hermitage Rd, West Ryde, NSW, 2114

Sample Details

Your Reference	**86237.00, Sydney Football Stadium**
Number of Samples	20 SOIL
Date samples received	11/05/2018
Date completed instructions received	11/05/2018

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	18/05/2018
Date of Issue	18/05/2018

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Asbestos Approved By
Analysed by Asbestos Approved Identifier: Lucy Zhu
Authorised by Asbestos Approved Signatory: Lucy Zhu

Results Approved By
Dragana Tomas, Senior Chemist
Jeremy Faircloth, Organics Supervisor
Ken Nguyen, Senior Chemist
Lucy Zhu, Asbsestos Analyst
Nick Sarlamis, Inorganics Supervisor

Authorised By



Jacinta Hurst, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		191454-1	191454-2	191454-3	191454-4	191454-5
Your Reference	UNITS	C10	C11	C12	C12	C15
Depth		0.4-0.5	0.7-0.8	0.2-0.3	1.3-1.4	0.7-0.8
Date Sampled		07/05/2018	07/05/2018	07/05/2018	07/05/2018	07/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date extracted	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	16/05/2018	16/05/2018	16/05/2018	16/05/2018	16/05/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	101	98	99	102	101

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		191454-6	191454-7	191454-8	191454-9	191454-10
Your Reference	UNITS	C16	C17	C17	C22	C23
Depth		0.9-1.0	0.25-0.35	1.0-1.2	0.7-0.8	0.07-0.1
Date Sampled		08/05/2018	08/05/2018	08/05/2018	07/05/2018	09/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date extracted	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	16/05/2018	16/05/2018	16/05/2018	16/05/2018	16/05/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	100	100	106	104	103

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		191454-11	191454-12	191454-13	191454-14	191454-15
Your Reference	UNITS	C24	C24	C27	C28	C28
Depth		0.4-0.5	0.7-0.8	0.4-0.5	0.06-0.1	1.5-1.6
Date Sampled		08/05/2018	08/05/2018	07/05/2018	09/05/2018	09/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date extracted	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	16/05/2018	16/05/2018	16/05/2018	16/05/2018	16/05/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	103	97	102	104	103

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		191454-16	191454-17	191454-18	191454-19	191454-20
Your Reference	UNITS	C29	C32	C33	C33	C34
Depth		0.4-0.5	0.45-0.6	0.4-0.5	0.7-0.8	0.3-0.4
Date Sampled		08/05/2018	07/05/2018	09/05/2018	09/05/2018	09/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date extracted	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	16/05/2018	16/05/2018	16/05/2018	16/05/2018	16/05/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	105	90	98	99	101

svTRH (C10-C40) in Soil						
Our Reference		191454-1	191454-2	191454-3	191454-4	191454-5
Your Reference	UNITS	C10	C11	C12	C12	C15
Depth		0.4-0.5	0.7-0.8	0.2-0.3	1.3-1.4	0.7-0.8
Date Sampled		07/05/2018	07/05/2018	07/05/2018	07/05/2018	07/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date extracted	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	83	83	81	85	86

svTRH (C10-C40) in Soil						
Our Reference		191454-6	191454-7	191454-8	191454-9	191454-10
Your Reference	UNITS	C16	C17	C17	C22	C23
Depth		0.9-1.0	0.25-0.35	1.0-1.2	0.7-0.8	0.07-0.1
Date Sampled		08/05/2018	08/05/2018	08/05/2018	07/05/2018	09/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date extracted	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	86	84	84	82	84

svTRH (C10-C40) in Soil						
Our Reference		191454-11	191454-12	191454-13	191454-14	191454-15
Your Reference	UNITS	C24	C24	C27	C28	C28
Depth		0.4-0.5	0.7-0.8	0.4-0.5	0.06-0.1	1.5-1.6
Date Sampled		08/05/2018	08/05/2018	07/05/2018	09/05/2018	09/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date extracted	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	190
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	210
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	210
Surrogate o-Terphenyl	%	86	83	84	85	87

svTRH (C10-C40) in Soil						
Our Reference		191454-16	191454-17	191454-18	191454-19	191454-20
Your Reference	UNITS	C29	C32	C33	C33	C34
Depth		0.4-0.5	0.45-0.6	0.4-0.5	0.7-0.8	0.3-0.4
Date Sampled		08/05/2018	07/05/2018	09/05/2018	09/05/2018	09/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date extracted	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	14/05/2018	14/05/2018	14/05/2018	15/05/2018	15/05/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	82	84	83	84	85

PAHs in Soil						
Our Reference		191454-1	191454-2	191454-3	191454-4	191454-5
Your Reference	UNITS	C10	C11	C12	C12	C15
Depth		0.4-0.5	0.7-0.8	0.2-0.3	1.3-1.4	0.7-0.8
Date Sampled		07/05/2018	07/05/2018	07/05/2018	07/05/2018	07/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date extracted	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	16/05/2018	16/05/2018	16/05/2018	16/05/2018	16/05/2018
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	0.1	<0.1	<0.1	0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1
Phenanthrene	mg/kg	<0.1	0.4	<0.1	<0.1	0.8
Anthracene	mg/kg	<0.1	0.2	<0.1	<0.1	0.3
Fluoranthene	mg/kg	<0.1	1.2	<0.1	<0.1	1.6
Pyrene	mg/kg	<0.1	1.3	<0.1	<0.1	1.6
Benzo(a)anthracene	mg/kg	<0.1	0.6	<0.1	<0.1	0.8
Chrysene	mg/kg	<0.1	0.6	<0.1	<0.1	0.8
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	1	<0.2	<0.2	1
Benzo(a)pyrene	mg/kg	<0.05	0.62	<0.05	<0.05	0.84
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	0.3	<0.1	<0.1	0.4
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	0.4	<0.1	<0.1	0.5
Total +ve PAH's	mg/kg	<0.05	6.7	<0.05	<0.05	9.2
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	0.8	<0.5	<0.5	1.2
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	0.9	<0.5	<0.5	1.2
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	0.9	<0.5	<0.5	1.2
Surrogate p-Terphenyl-d14	%	107	104	106	109	101

PAHs in Soil						
Our Reference		191454-6	191454-7	191454-8	191454-9	191454-10
Your Reference	UNITS	C16	C17	C17	C22	C23
Depth		0.9-1.0	0.25-0.35	1.0-1.2	0.7-0.8	0.07-0.1
Date Sampled		08/05/2018	08/05/2018	08/05/2018	07/05/2018	09/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date extracted	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	16/05/2018	16/05/2018	16/05/2018	16/05/2018	16/05/2018
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.2	<0.1	<0.1	0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	0.1	<0.1
Phenanthrene	mg/kg	1.6	<0.1	<0.1	0.7	<0.1
Anthracene	mg/kg	0.5	<0.1	<0.1	0.3	<0.1
Fluoranthene	mg/kg	3.7	<0.1	<0.1	1.8	<0.1
Pyrene	mg/kg	3.9	<0.1	<0.1	2.1	<0.1
Benzo(a)anthracene	mg/kg	2.0	<0.1	<0.1	1.0	<0.1
Chrysene	mg/kg	1.9	<0.1	<0.1	1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	3.4	<0.2	<0.2	2	<0.2
Benzo(a)pyrene	mg/kg	2.2	<0.05	<0.05	1.1	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	1.0	<0.1	<0.1	0.5	<0.1
Dibenzo(a,h)anthracene	mg/kg	0.3	<0.1	<0.1	0.2	<0.1
Benzo(g,h,i)perylene	mg/kg	1.4	<0.1	<0.1	0.7	<0.1
Total +ve PAH's	mg/kg	22	<0.05	<0.05	11	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	3.2	<0.5	<0.5	1.6	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	3.2	<0.5	<0.5	1.6	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	3.2	<0.5	<0.5	1.6	<0.5
Surrogate p-Terphenyl-d14	%	104	106	104	103	105

PAHs in Soil						
Our Reference		191454-11	191454-12	191454-13	191454-14	191454-15
Your Reference	UNITS	C24	C24	C27	C28	C28
Depth		0.4-0.5	0.7-0.8	0.4-0.5	0.06-0.1	1.5-1.6
Date Sampled		08/05/2018	08/05/2018	07/05/2018	09/05/2018	09/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date extracted	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	16/05/2018	16/05/2018	16/05/2018	16/05/2018	16/05/2018
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.9
Acenaphthylene	mg/kg	<0.1	<0.1	0.1	<0.1	3.5
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.3
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	1.8
Phenanthrene	mg/kg	<0.1	<0.1	0.7	<0.1	22
Anthracene	mg/kg	<0.1	<0.1	0.3	<0.1	4.5
Fluoranthene	mg/kg	<0.1	<0.1	1.7	<0.1	18
Pyrene	mg/kg	<0.1	<0.1	1.8	<0.1	16
Benzo(a)anthracene	mg/kg	<0.1	<0.1	0.9	<0.1	7.5
Chrysene	mg/kg	<0.1	<0.1	0.9	<0.1	5.8
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	2	<0.2	9.4
Benzo(a)pyrene	mg/kg	<0.05	<0.05	0.99	<0.05	5.7
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	0.5	<0.1	2.6
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	0.1	<0.1	0.8
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	0.6	<0.1	2.8
Total +ve PAH's	mg/kg	<0.05	<0.05	10	<0.05	100
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	1.4	<0.5	8.6
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	1.4	<0.5	8.6
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	1.4	<0.5	8.6
Surrogate p-Terphenyl-d14	%	102	102	107	104	97

PAHs in Soil						
Our Reference		191454-16	191454-17	191454-18	191454-19	191454-20
Your Reference	UNITS	C29	C32	C33	C33	C34
Depth		0.4-0.5	0.45-0.6	0.4-0.5	0.7-0.8	0.3-0.4
Date Sampled		08/05/2018	07/05/2018	09/05/2018	09/05/2018	09/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date extracted	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	16/05/2018	16/05/2018	16/05/2018	16/05/2018	16/05/2018
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	0.2	0.3
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	0.2	0.7	1.0
Anthracene	mg/kg	<0.1	<0.1	<0.1	0.3	0.4
Fluoranthene	mg/kg	<0.1	0.1	0.4	2.0	3.1
Pyrene	mg/kg	<0.1	0.1	0.5	2.1	3.5
Benzo(a)anthracene	mg/kg	<0.1	<0.1	0.2	1.1	1.8
Chrysene	mg/kg	<0.1	<0.1	0.2	1	1.7
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	0.4	2	2.9
Benzo(a)pyrene	mg/kg	<0.05	<0.05	0.2	1.2	1.8
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	0.1	0.6	0.8
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	0.2	0.2
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	0.2	0.7	1.0
Total +ve PAH's	mg/kg	<0.05	0.3	2.4	12	19
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	1.7	2.7
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	1.7	2.7
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	1.7	2.7
Surrogate p-Terphenyl-d14	%	102	102	103	101	103

Organochlorine Pesticides in soil						
Our Reference		191454-1	191454-2	191454-3	191454-4	191454-5
Your Reference	UNITS	C10	C11	C12	C12	C15
Depth		0.4-0.5	0.7-0.8	0.2-0.3	1.3-1.4	0.7-0.8
Date Sampled		07/05/2018	07/05/2018	07/05/2018	07/05/2018	07/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date extracted	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	110	112	110	112	118

Organochlorine Pesticides in soil						
Our Reference		191454-6	191454-7	191454-8	191454-9	191454-10
Your Reference	UNITS	C16	C17	C17	C22	C23
Depth		0.9-1.0	0.25-0.35	1.0-1.2	0.7-0.8	0.07-0.1
Date Sampled		08/05/2018	08/05/2018	08/05/2018	07/05/2018	09/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date extracted	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	116	115	117	115	110

Organochlorine Pesticides in soil						
Our Reference		191454-11	191454-12	191454-13	191454-14	191454-15
Your Reference	UNITS	C24	C24	C27	C28	C28
Depth		0.4-0.5	0.7-0.8	0.4-0.5	0.06-0.1	1.5-1.6
Date Sampled		08/05/2018	08/05/2018	07/05/2018	09/05/2018	09/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date extracted	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	110	110	115	111	112

Organochlorine Pesticides in soil						
Our Reference		191454-16	191454-17	191454-18	191454-19	191454-20
Your Reference	UNITS	C29	C32	C33	C33	C34
Depth		0.4-0.5	0.45-0.6	0.4-0.5	0.7-0.8	0.3-0.4
Date Sampled		08/05/2018	07/05/2018	09/05/2018	09/05/2018	09/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date extracted	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	115	111	109	113	114

Organophosphorus Pesticides						
Our Reference		191454-1	191454-2	191454-3	191454-4	191454-5
Your Reference	UNITS	C10	C11	C12	C12	C15
Depth		0.4-0.5	0.7-0.8	0.2-0.3	1.3-1.4	0.7-0.8
Date Sampled		07/05/2018	07/05/2018	07/05/2018	07/05/2018	07/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date extracted	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	110	112	110	112	118

Organophosphorus Pesticides						
Our Reference		191454-6	191454-7	191454-8	191454-9	191454-10
Your Reference	UNITS	C16	C17	C17	C22	C23
Depth		0.9-1.0	0.25-0.35	1.0-1.2	0.7-0.8	0.07-0.1
Date Sampled		08/05/2018	08/05/2018	08/05/2018	07/05/2018	09/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date extracted	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	116	115	117	115	110

Organophosphorus Pesticides						
Our Reference		191454-11	191454-12	191454-13	191454-14	191454-15
Your Reference	UNITS	C24	C24	C27	C28	C28
Depth		0.4-0.5	0.7-0.8	0.4-0.5	0.06-0.1	1.5-1.6
Date Sampled		08/05/2018	08/05/2018	07/05/2018	09/05/2018	09/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date extracted	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	110	110	115	111	112

Organophosphorus Pesticides						
Our Reference		191454-16	191454-17	191454-18	191454-19	191454-20
Your Reference	UNITS	C29	C32	C33	C33	C34
Depth		0.4-0.5	0.45-0.6	0.4-0.5	0.7-0.8	0.3-0.4
Date Sampled		08/05/2018	07/05/2018	09/05/2018	09/05/2018	09/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date extracted	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	115	111	109	113	114

PCBs in Soil						
Our Reference		191454-1	191454-2	191454-3	191454-4	191454-5
Your Reference	UNITS	C10	C11	C12	C12	C15
Depth		0.4-0.5	0.7-0.8	0.2-0.3	1.3-1.4	0.7-0.8
Date Sampled		07/05/2018	07/05/2018	07/05/2018	07/05/2018	07/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date extracted	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	110	112	110	112	118

PCBs in Soil						
Our Reference		191454-6	191454-7	191454-8	191454-9	191454-10
Your Reference	UNITS	C16	C17	C17	C22	C23
Depth		0.9-1.0	0.25-0.35	1.0-1.2	0.7-0.8	0.07-0.1
Date Sampled		08/05/2018	08/05/2018	08/05/2018	07/05/2018	09/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date extracted	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	116	115	117	115	110

PCBs in Soil						
Our Reference		191454-11	191454-12	191454-13	191454-14	191454-15
Your Reference	UNITS	C24	C24	C27	C28	C28
Depth		0.4-0.5	0.7-0.8	0.4-0.5	0.06-0.1	1.5-1.6
Date Sampled		08/05/2018	08/05/2018	07/05/2018	09/05/2018	09/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date extracted	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	110	110	115	111	112

PCBs in Soil						
Our Reference		191454-16	191454-17	191454-18	191454-19	191454-20
Your Reference	UNITS	C29	C32	C33	C33	C34
Depth		0.4-0.5	0.45-0.6	0.4-0.5	0.7-0.8	0.3-0.4
Date Sampled		08/05/2018	07/05/2018	09/05/2018	09/05/2018	09/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date extracted	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	0.2	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	0.2	<0.1	<0.1
Surrogate TCLMX	%	115	111	109	113	114

Acid Extractable metals in soil						
Our Reference		191454-1	191454-2	191454-3	191454-4	191454-5
Your Reference	UNITS	C10	C11	C12	C12	C15
Depth		0.4-0.5	0.7-0.8	0.2-0.3	1.3-1.4	0.7-0.8
Date Sampled		07/05/2018	07/05/2018	07/05/2018	07/05/2018	07/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date prepared	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	3	4	16	<1	5
Copper	mg/kg	1	14	6	<1	9
Lead	mg/kg	2	41	2	1	33
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	2	19	23	<1	2
Zinc	mg/kg	11	30	21	<1	25

Acid Extractable metals in soil						
Our Reference		191454-6	191454-7	191454-8	191454-9	191454-10
Your Reference	UNITS	C16	C17	C17	C22	C23
Depth		0.9-1.0	0.25-0.35	1.0-1.2	0.7-0.8	0.07-0.1
Date Sampled		08/05/2018	08/05/2018	08/05/2018	07/05/2018	09/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date prepared	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	7	3	2	5	3
Copper	mg/kg	23	2	<1	12	3
Lead	mg/kg	92	2	1	40	3
Mercury	mg/kg	0.2	<0.1	<0.1	0.1	<0.1
Nickel	mg/kg	4	2	<1	4	<1
Zinc	mg/kg	58	9	<1	30	6

Acid Extractable metals in soil						
Our Reference		191454-11	191454-12	191454-13	191454-14	191454-15
Your Reference	UNITS	C24	C24	C27	C28	C28
Depth		0.4-0.5	0.7-0.8	0.4-0.5	0.06-0.1	1.5-1.6
Date Sampled		08/05/2018	08/05/2018	07/05/2018	09/05/2018	09/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date prepared	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	41	2	8	4	4
Copper	mg/kg	12	<1	19	4	15
Lead	mg/kg	4	5	67	5	81
Mercury	mg/kg	<0.1	<0.1	0.2	<0.1	0.2
Nickel	mg/kg	43	<1	12	1	2
Zinc	mg/kg	26	2	55	8	36

Acid Extractable metals in soil						
Our Reference		191454-16	191454-17	191454-18	191454-19	191454-20
Your Reference	UNITS	C29	C32	C33	C33	C34
Depth		0.4-0.5	0.45-0.6	0.4-0.5	0.7-0.8	0.3-0.4
Date Sampled		08/05/2018	07/05/2018	09/05/2018	09/05/2018	09/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date prepared	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	13	6	11	6	5
Copper	mg/kg	3	16	28	23	14
Lead	mg/kg	3	5	43	86	69
Mercury	mg/kg	<0.1	<0.1	<0.1	0.2	0.1
Nickel	mg/kg	13	15	7	10	2
Zinc	mg/kg	22	19	57	55	45

Misc Soil - Inorg						
Our Reference		191454-1	191454-2	191454-3	191454-4	191454-5
Your Reference	UNITS	C10	C11	C12	C12	C15
Depth		0.4-0.5	0.7-0.8	0.2-0.3	1.3-1.4	0.7-0.8
Date Sampled		07/05/2018	07/05/2018	07/05/2018	07/05/2018	07/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date prepared	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	16/05/2018	16/05/2018	16/05/2018	16/05/2018	16/05/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg						
Our Reference		191454-6	191454-7	191454-8	191454-9	191454-10
Your Reference	UNITS	C16	C17	C17	C22	C23
Depth		0.9-1.0	0.25-0.35	1.0-1.2	0.7-0.8	0.07-0.1
Date Sampled		08/05/2018	08/05/2018	08/05/2018	07/05/2018	09/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date prepared	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	16/05/2018	16/05/2018	16/05/2018	16/05/2018	16/05/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg						
Our Reference		191454-11	191454-12	191454-13	191454-14	191454-15
Your Reference	UNITS	C24	C24	C27	C28	C28
Depth		0.4-0.5	0.7-0.8	0.4-0.5	0.06-0.1	1.5-1.6
Date Sampled		08/05/2018	08/05/2018	07/05/2018	09/05/2018	09/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date prepared	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	16/05/2018	16/05/2018	16/05/2018	16/05/2018	16/05/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg						
Our Reference		191454-16	191454-17	191454-18	191454-19	191454-20
Your Reference	UNITS	C29	C32	C33	C33	C34
Depth		0.4-0.5	0.45-0.6	0.4-0.5	0.7-0.8	0.3-0.4
Date Sampled		08/05/2018	07/05/2018	09/05/2018	09/05/2018	09/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date prepared	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	16/05/2018	16/05/2018	16/05/2018	16/05/2018	16/05/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Moisture						
Our Reference		191454-1	191454-2	191454-3	191454-4	191454-5
Your Reference	UNITS	C10	C11	C12	C12	C15
Depth		0.4-0.5	0.7-0.8	0.2-0.3	1.3-1.4	0.7-0.8
Date Sampled		07/05/2018	07/05/2018	07/05/2018	07/05/2018	07/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date prepared	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	15/05/2018	15/05/2018	15/05/2018	15/05/2018	15/05/2018
Moisture	%	17	11	14	6.1	9.9

Moisture						
Our Reference		191454-6	191454-7	191454-8	191454-9	191454-10
Your Reference	UNITS	C16	C17	C17	C22	C23
Depth		0.9-1.0	0.25-0.35	1.0-1.2	0.7-0.8	0.07-0.1
Date Sampled		08/05/2018	08/05/2018	08/05/2018	07/05/2018	09/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date prepared	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	15/05/2018	15/05/2018	15/05/2018	15/05/2018	15/05/2018
Moisture	%	11	8.8	6.4	11	9.8

Moisture						
Our Reference		191454-11	191454-12	191454-13	191454-14	191454-15
Your Reference	UNITS	C24	C24	C27	C28	C28
Depth		0.4-0.5	0.7-0.8	0.4-0.5	0.06-0.1	1.5-1.6
Date Sampled		08/05/2018	08/05/2018	07/05/2018	09/05/2018	09/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date prepared	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	15/05/2018	15/05/2018	15/05/2018	15/05/2018	15/05/2018
Moisture	%	8.5	9.2	10	9.3	11

Moisture						
Our Reference		191454-16	191454-17	191454-18	191454-19	191454-20
Your Reference	UNITS	C29	C32	C33	C33	C34
Depth		0.4-0.5	0.45-0.6	0.4-0.5	0.7-0.8	0.3-0.4
Date Sampled		08/05/2018	07/05/2018	09/05/2018	09/05/2018	09/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date prepared	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	15/05/2018	15/05/2018	15/05/2018	15/05/2018	15/05/2018
Moisture	%	11	11	14	13	9.8

Asbestos ID - soils						
Our Reference		191454-1	191454-2	191454-3	191454-4	191454-5
Your Reference	UNITS	C10	C11	C12	C12	C15
Depth		0.4-0.5	0.7-0.8	0.2-0.3	1.3-1.4	0.7-0.8
Date Sampled		07/05/2018	07/05/2018	07/05/2018	07/05/2018	07/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date analysed	-	17/05/2018	17/05/2018	17/05/2018	17/05/2018	17/05/2018
Sample mass tested	g	Approx. 35g	Approx. 45g	Approx. 30g	Approx. 30g	Approx. 35g
Sample Description	-	Brown sandy soil & rocks	Brown sandy soil & rocks	Brown sandy soil & rocks	Beige sandy soil	Brown sandy soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		191454-6	191454-7	191454-8	191454-9	191454-10
Your Reference	UNITS	C16	C17	C17	C22	C23
Depth		0.9-1.0	0.25-0.35	1.0-1.2	0.7-0.8	0.07-0.1
Date Sampled		08/05/2018	08/05/2018	08/05/2018	07/05/2018	09/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date analysed	-	17/05/2018	17/05/2018	17/05/2018	17/05/2018	17/05/2018
Sample mass tested	g	Approx. 35g	Approx. 40g	Approx. 40g	Approx. 40g	Approx. 35g
Sample Description	-	Grey sandy soil & rocks	Brown sandy soil & rocks	Yellow sandy soil	Brown sandy soil & rocks	Brown sandy soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		191454-11	191454-12	191454-13	191454-14	191454-15
Your Reference	UNITS	C24	C24	C27	C28	C28
Depth		0.4-0.5	0.7-0.8	0.4-0.5	0.06-0.1	1.5-1.6
Date Sampled		08/05/2018	08/05/2018	07/05/2018	09/05/2018	09/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date analysed	-	17/05/2018	17/05/2018	17/05/2018	17/05/2018	17/05/2018
Sample mass tested	g	Approx. 35g	Approx. 35g	Approx. 40g	Approx. 35g	Approx. 40g
Sample Description	-	Brown sandy soil & rocks	Yellow sandy soil	Brown sandy soil & rocks	Brown sandy soil & rocks	Brown sandy soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		191454-16	191454-17	191454-18	191454-19	191454-20
Your Reference	UNITS	C29	C32	C33	C33	C34
Depth		0.4-0.5	0.45-0.6	0.4-0.5	0.7-0.8	0.3-0.4
Date Sampled		08/05/2018	07/05/2018	09/05/2018	09/05/2018	09/05/2018
Type of sample		SOIL	SOIL	SOIL	SOIL	SOIL
Date analysed	-	17/05/2018	17/05/2018	17/05/2018	17/05/2018	17/05/2018
Sample mass tested	g	Approx. 30g	Approx. 35g	Approx. 35g	Approx. 35g	Approx. 40g
Sample Description	-	Brown sandy soil & rocks	Brown sandy soil & rocks	Beige sandy soil	Brown sandy soil & rocks	Grey sandy soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Method ID	Methodology Summary
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Inorg-031	Total Phenolics by segmented flow analyser (in line distillation with colourimetric finish). Solids are extracted in a caustic media prior to analysis.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-008	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.

Method ID	Methodology Summary
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-10	191454-2
Date extracted	-			14/05/2018	1	14/05/2018	14/05/2018		14/05/2018	14/05/2018
Date analysed	-			16/05/2018	1	16/05/2018	16/05/2018		16/05/2018	16/05/2018
TRH C_6 - C_9	mg/kg	25	Org-016	<25	1	<25	<25	0	94	91
TRH C_6 - C_{10}	mg/kg	25	Org-016	<25	1	<25	<25	0	94	91
Benzene	mg/kg	0.2	Org-016	<0.2	1	<0.2	<0.2	0	91	89
Toluene	mg/kg	0.5	Org-016	<0.5	1	<0.5	<0.5	0	94	90
Ethylbenzene	mg/kg	1	Org-016	<1	1	<1	<1	0	95	92
m+p-xylene	mg/kg	2	Org-016	<2	1	<2	<2	0	95	93
o-Xylene	mg/kg	1	Org-016	<1	1	<1	<1	0	101	98
naphthalene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	105	1	101	95	6	107	102

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	11	14/05/2018	14/05/2018		[NT]	[NT]
Date analysed	-			[NT]	11	16/05/2018	16/05/2018		[NT]	[NT]
TRH C_6 - C_9	mg/kg	25	Org-016	[NT]	11	<25	<25	0	[NT]	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-016	[NT]	11	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-016	[NT]	11	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-016	[NT]	11	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-016	[NT]	11	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-016	[NT]	11	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-016	[NT]	11	<1	<1	0	[NT]	[NT]
naphthalene	mg/kg	1	Org-014	[NT]	11	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	[NT]	11	103	105	2	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-10	191454-2
Date extracted	-			14/05/2018	1	14/05/2018	14/05/2018		14/05/2018	14/05/2018
Date analysed	-			14/05/2018	1	14/05/2018	14/05/2018		14/05/2018	14/05/2018
TRH C_{10} - C_{14}	mg/kg	50	Org-003	<50	1	<50	<50	0	114	106
TRH C_{15} - C_{28}	mg/kg	100	Org-003	<100	1	<100	<100	0	91	86
TRH C_{29} - C_{36}	mg/kg	100	Org-003	<100	1	<100	<100	0	92	73
TRH >C_{10} -C_{16}	mg/kg	50	Org-003	<50	1	<50	<50	0	114	106
TRH >C_{16} -C_{34}	mg/kg	100	Org-003	<100	1	<100	<100	0	91	86
TRH >C_{34} -C_{40}	mg/kg	100	Org-003	<100	1	<100	<100	0	92	73
Surrogate o-Terphenyl	%		Org-003	126	1	83	82	1	96	83

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	11	14/05/2018	14/05/2018		[NT]	[NT]
Date analysed	-			[NT]	11	14/05/2018	14/05/2018		[NT]	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-003	[NT]	11	<50	<50	0	[NT]	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-003	[NT]	11	<100	<100	0	[NT]	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-003	[NT]	11	<100	<100	0	[NT]	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-003	[NT]	11	<50	<50	0	[NT]	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-003	[NT]	11	<100	<100	0	[NT]	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-003	[NT]	11	<100	<100	0	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-003	[NT]	11	86	86	0	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-10	191454-2
Date extracted	-			14/05/2018	1	14/05/2018	14/05/2018		14/05/2018	14/05/2018
Date analysed	-			16/05/2018	1	16/05/2018	16/05/2018		16/05/2018	16/05/2018
Naphthalene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	83	84
Acenaphthylene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	85	84
Phenanthrene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	93	93
Anthracene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	94	86
Pyrene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	90	81
Benzo(a)anthracene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	88	82
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-012	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-012	<0.05	1	<0.05	<0.05	0	85	77
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	104	1	107	104	3	125	121

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	11	14/05/2018	14/05/2018		[NT]	[NT]
Date analysed	-			[NT]	11	16/05/2018	16/05/2018		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-012	[NT]	11	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-012	[NT]	11	<0.05	<0.05	0	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	11	102	106	4	[NT]	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-10	191454-2
Date extracted	-			14/05/2018	1	14/05/2018	14/05/2018		14/05/2018	14/05/2018
Date analysed	-			14/05/2018	1	14/05/2018	14/05/2018		14/05/2018	14/05/2018
HCB	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	104	103
gamma-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	92	90
Heptachlor	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	100	99
delta-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	99	99
Heptachlor Epoxide	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	94	93
gamma-Chlordane	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	102	101
Dieldrin	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	107	106
Endrin	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	94	94
pp-DDD	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	103	103
Endosulfan II	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	89	90
Methoxychlor	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-005	110	1	110	110	0	126	124

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	11	14/05/2018	14/05/2018		[NT]	[NT]
Date analysed	-			[NT]	11	14/05/2018	14/05/2018		[NT]	[NT]
HCB	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-005	[NT]	11	110	114	4	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-10	191454-2
Date extracted	-			14/05/2018	1	14/05/2018	14/05/2018		14/05/2018	14/05/2018
Date analysed	-			14/05/2018	1	14/05/2018	14/05/2018		14/05/2018	14/05/2018
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	102	101
Chlorpyriphos-methyl	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	101	92
Dimethoate	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	108	101
Fenitrothion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	99	95
Malathion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	89	96
Parathion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	114	110
Ronnel	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	109	106
Surrogate TCMX	%		Org-008	110	1	110	110	0	115	113

QUALITY CONTROL: Organophosphorus Pesticides						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	11	14/05/2018	14/05/2018		[NT]	[NT]
Date analysed	-			[NT]	11	14/05/2018	14/05/2018		[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Fenitrothion	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Malathion	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-008	[NT]	11	110	114	4	[NT]	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-10	191454-2
Date extracted	-			14/05/2018	1	14/05/2018	14/05/2018		14/05/2018	14/05/2018
Date analysed	-			14/05/2018	1	14/05/2018	14/05/2018		14/05/2018	14/05/2018
Aroclor 1016	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	102	100
Aroclor 1260	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCLMX	%		Org-006	110	1	110	110	0	115	113

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	11	14/05/2018	14/05/2018		[NT]	[NT]
Date analysed	-			[NT]	11	14/05/2018	14/05/2018		[NT]	[NT]
Aroclor 1016	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1260	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCLMX	%		Org-006	[NT]	11	110	114	4	[NT]	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	18	14/05/2018	16/05/2018		[NT]	[NT]
Date analysed	-			[NT]	18	14/05/2018	16/05/2018		[NT]	[NT]
Aroclor 1016	mg/kg	0.1	Org-006	[NT]	18	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-006	[NT]	18	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-006	[NT]	18	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-006	[NT]	18	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-006	[NT]	18	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-006	[NT]	18	0.2	0.2	0	[NT]	[NT]
Aroclor 1260	mg/kg	0.1	Org-006	[NT]	18	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCLMX	%		Org-006	[NT]	18	109	76	36	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-10	191454-2
Date prepared	-			14/05/2018	1	14/05/2018	14/05/2018		14/05/2018	14/05/2018
Date analysed	-			14/05/2018	1	14/05/2018	14/05/2018		14/05/2018	14/05/2018
Arsenic	mg/kg	4	Metals-020	<4	1	<4	<4	0	107	96
Cadmium	mg/kg	0.4	Metals-020	<0.4	1	<0.4	<0.4	0	104	101
Chromium	mg/kg	1	Metals-020	<1	1	3	3	0	109	103
Copper	mg/kg	1	Metals-020	<1	1	1	1	0	107	110
Lead	mg/kg	1	Metals-020	<1	1	2	3	40	106	108
Mercury	mg/kg	0.1	Metals-021	<0.1	1	<0.1	<0.1	0	103	103
Nickel	mg/kg	1	Metals-020	<1	1	2	2	0	100	77
Zinc	mg/kg	1	Metals-020	<1	1	11	10	10	104	104

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	11	14/05/2018	14/05/2018		[NT]	[NT]
Date analysed	-			[NT]	11	14/05/2018	14/05/2018		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	11	<4	<4	0	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	11	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	11	41	40	2	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	11	12	12	0	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	11	4	4	0	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	11	43	47	9	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	11	26	33	24	[NT]	[NT]

QUALITY CONTROL: Misc Soil - Inorg						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-10	191454-2
Date prepared	-			16/05/2018	1	14/05/2018	14/05/2018		16/05/2018	16/05/2018
Date analysed	-			16/05/2018	1	16/05/2018	16/05/2018		16/05/2018	16/05/2018
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	<5	1	<5	<5	0	100	96

QUALITY CONTROL: Misc Soil - Inorg						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	11	14/05/2018	14/05/2018		[NT]	[NT]
Date analysed	-			[NT]	11	16/05/2018	16/05/2018		[NT]	[NT]
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	[NT]	11	<5	<5	0	[NT]	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Report Comments

Asbestos: A portion of the supplied sample was sub-sampled for asbestos analysis according to Envirolab procedures.
We cannot guarantee that this sub-sample is indicative of the entire sample. Envirolab recommends supplying 40-50g of sample in its own container.
Note: Samples 191454-1 to 20 were sub-sampled from jars provided by the client.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	Douglas Partners Pty Ltd
Attention	Luke James-Hall

Sample Login Details

Your reference	86237.00, Sydney Football Stadium
Envirolab Reference	191454
Date Sample Received	11/05/2018
Date Instructions Received	11/05/2018
Date Results Expected to be Reported	18/05/2018

Sample Condition

Samples received in appropriate condition for analysis	YES
No. of Samples Provided	20 SOIL
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	13.4
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticidesin soil	Organophosphorus Pesticides	PCBsin Soil	Acid Extractable metalsin soil	Total Phenolics (as Phenol)	Asbestos ID - soils
C10-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓
C11-0.7-0.8	✓	✓	✓	✓	✓	✓	✓	✓	✓
C12-0.2-0.3	✓	✓	✓	✓	✓	✓	✓	✓	✓
C12-1.3-1.4	✓	✓	✓	✓	✓	✓	✓	✓	✓
C15-0.7-0.8	✓	✓	✓	✓	✓	✓	✓	✓	✓
C16-0.9-1.0	✓	✓	✓	✓	✓	✓	✓	✓	✓
C17-0.25-0.35	✓	✓	✓	✓	✓	✓	✓	✓	✓
C17-1.0-1.2	✓	✓	✓	✓	✓	✓	✓	✓	✓
C22-0.7-0.8	✓	✓	✓	✓	✓	✓	✓	✓	✓
C23-0.07-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓
C24-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓
C24-0.7-0.8	✓	✓	✓	✓	✓	✓	✓	✓	✓
C27-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓
C28-0.06-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓
C28-1.5-1.6	✓	✓	✓	✓	✓	✓	✓	✓	✓
C29-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓
C32-0.45-0.6	✓	✓	✓	✓	✓	✓	✓	✓	✓
C33-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓
C33-0.7-0.8	✓	✓	✓	✓	✓	✓	✓	✓	✓
C34-0.3-0.4	✓	✓	✓	✓	✓	✓	✓	✓	✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.

CHAIN OF CUSTODY

Douglas Partners
Geotechnics | Environment | Groundwater

Client: Douglas Partners	Project Number: 86237.00	To:	Envirolab Services
Contact Person: Luke James-Hall	Project Name: Sydney Football Stadium	Contact Person:	Aileen Hie
Project Mgr: Luke James-Hall	PO No.:	Address:	12 Ashley Street
	lab Quote No. :		Chatswood NSW 2068
Address: 96 Hermitage Road West Ryde NSW 2114	Date results required: standard Or choose: *Note: Inform lab in advance if urgent turnaround is required - surcharges apply*	Phone:	02 9910 6200
		Fax:	02 9910 6201
		Email:	ahie@envirolab.com.au
Phone: 9809 0666 Mob: 0407 216 678	Report format: PDF / Excel	Laboratory Report No:	
Email: luke.james-hall @douglaspartners.com.au	Comments:	Lab Comments:	

Sample information						Tests Required											Comments
Lab Sample ID	Field Sample ID	Depth	Date sampled 0.3-0.4 on jar	Container Type jar	Type of sample	Combo 8a	TRH, BTEX & Metals										Provide as much information about the sample as you can
1	C10	0.4 - 0.5	7/05/2018	Glass		X											
2	C11	0.7 - 0.8	7/05/2018	Glass		X											
3	C12	0.2 - 0.3	7/05/2018	Glass		X											
4	C12	1.3 - 1.4	7/05/2018	Glass		X											
5	C15	0.7 - 0.8	7/05/2018	Glass		X											
6	C16	0.9 - 1.0	8/05/2018	Glass		X											
7	C17	0.25 - 0.35	8/05/2018	Glass		X											
8	C17	1.0 - 1.2	8/05/2018	Glass		X											
9	C22	0.7 - 0.8	7/05/2018	Glass		X											
10	C23	0.07 - 0.1	9/05/2018	Glass		X											
11	C24	0.4 - 0.5	8/05/2018	Glass		X											
12	C24	0.7 - 0.8	8/05/2018	Glass		X											
13	C27	0.4 - 0.5	7/05/2018	Glass		X											
14	C28	0.05 - 0.1	9/05/2018	Glass		X											
15	C28	1.5 - 1.6	9/05/2018	Glass		X											
16	C29	0.4 - 0.5	8/05/2018	Glass		X											
17	C32	0.45 - 0.6	7/05/2018	Glass		X											
18	C33	0.4 - 0.5	9/05/2018	Glass		X											
19	C33	0.7 - 0.8	9/05/2018	Glass		X											
20	C34	0.3 - 0.4	9/05/2018	Glass		X											

ENVIROLAB
Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 191454

Date Received: 11/5/18
Time Received: 16:00
Received By: RW
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

Relinquished by: Douglas Partners	Sample Receipt	*Lab use only:*
Hand delivered / Courier (by whom)	Received by (Company): EI	Samples Received: Cool or Ambient (circle one)
Condition of Sample at dispatch Cool or Ambient (circle)	Print Name: Rebecca	Temperature Received at: (if applicable)
Temperature (if Applicable):	Date & Time: 11/5/18 16:00	Transported by: Hand delivered / courier
Print Name:	Signature: RW	
Date & Time:		
Signature:		Page ____ of ____

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 191455

Client Details

Client	Douglas Partners Pty Ltd
Attention	Luke James-Hall
Address	96 Hermitage Rd, West Ryde, NSW, 2114

Sample Details

Your Reference	**86237.00, Sydney Football Stadium**
Number of Samples	4 SOIL
Date samples received	11/05/2018
Date completed instructions received	11/05/2018

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	18/05/2018
Date of Issue	17/05/2018

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Results Approved By
Dragana Tomas, Senior Chemist
Ken Nguyen, Senior Chemist

Authorised By



Jacinta Hurst, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil					
Our Reference		191455-1	191455-2	191455-3	191455-4
Your Reference	UNITS	A	B	E	F
Type of sample		SOIL	SOIL	SOIL	SOIL
Date extracted	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	15/05/2018	15/05/2018	15/05/2018	15/05/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	105	108	104	128

svTRH (C10-C40) in Soil					
Our Reference		191455-1	191455-2	191455-3	191455-4
Your Reference	UNITS	A	B	E	F
Type of sample		SOIL	SOIL	SOIL	SOIL
Date extracted	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	15/05/2018	15/05/2018	15/05/2018	15/05/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50
Surrogate o-Terphenyl	%	73	72	72	72

Acid Extractable metals in soil					
Our Reference	UNITS	191455-1	191455-2	191455-3	191455-4
Your Reference		A	B	E	F
Type of sample		SOIL	SOIL	SOIL	SOIL
Date prepared	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Arsenic	mg/kg	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	2	3	3	3
Copper	mg/kg	<1	3	4	4
Lead	mg/kg	6	3	4	4
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	<1	2	1	1
Zinc	mg/kg	3	9	9	7

Moisture					
Our Reference		191455-1	191455-2	191455-3	191455-4
Your Reference	UNITS	A	B	E	F
Type of sample		SOIL	SOIL	SOIL	SOIL
Date prepared	-	14/05/2018	14/05/2018	14/05/2018	14/05/2018
Date analysed	-	15/05/2018	15/05/2018	15/05/2018	15/05/2018
Moisture	%	8.5	7.3	8.3	8.3

Method ID	Methodology Summary
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	[NT]
Date extracted	-			14/05/2018	[NT]	[NT]	[NT]	[NT]	14/05/2018	[NT]
Date analysed	-			15/05/2018	[NT]	[NT]	[NT]	[NT]	15/05/2018	[NT]
TRH C_6 - C_9	mg/kg	25	Org-016	<25	[NT]	[NT]	[NT]	[NT]	111	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-016	<25	[NT]	[NT]	[NT]	[NT]	111	[NT]
Benzene	mg/kg	0.2	Org-016	<0.2	[NT]	[NT]	[NT]	[NT]	105	[NT]
Toluene	mg/kg	0.5	Org-016	<0.5	[NT]	[NT]	[NT]	[NT]	110	[NT]
Ethylbenzene	mg/kg	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	114	[NT]
m+p-xylene	mg/kg	2	Org-016	<2	[NT]	[NT]	[NT]	[NT]	113	[NT]
o-Xylene	mg/kg	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	118	[NT]
naphthalene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	112	[NT]	[NT]	[NT]	[NT]	114	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	[NT]
Date extracted	-			14/05/2018	[NT]	[NT]	[NT]	[NT]	14/05/2018	[NT]
Date analysed	-			15/05/2018	[NT]	[NT]	[NT]	[NT]	15/05/2018	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-003	<50	[NT]	[NT]	[NT]	[NT]	100	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	83	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	77	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-003	<50	[NT]	[NT]	[NT]	[NT]	100	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	83	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	77	[NT]
Surrogate o-Terphenyl	%		Org-003	77	[NT]	[NT]	[NT]	[NT]	85	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	[NT]
Date prepared	-			14/05/2018	[NT]	[NT]	[NT]	[NT]	14/05/2018	[NT]
Date analysed	-			14/05/2018	[NT]	[NT]	[NT]	[NT]	14/05/2018	[NT]
Arsenic	mg/kg	4	Metals-020	<4	[NT]	[NT]	[NT]	[NT]	112	[NT]
Cadmium	mg/kg	0.4	Metals-020	<0.4	[NT]	[NT]	[NT]	[NT]	104	[NT]
Chromium	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	109	[NT]
Copper	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	112	[NT]
Lead	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	106	[NT]
Mercury	mg/kg	0.1	Metals-021	<0.1	[NT]	[NT]	[NT]	[NT]	102	[NT]
Nickel	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	108	[NT]
Zinc	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	103	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	Douglas Partners Pty Ltd
Attention	Luke James-Hall

Sample Login Details

Your reference	86237.00, Sydney Football Stadium
Envirolab Reference	191455
Date Sample Received	11/05/2018
Date Instructions Received	11/05/2018
Date Results Expected to be Reported	18/05/2018

Sample Condition

Samples received in appropriate condition for analysis	YES
No. of Samples Provided	4 SOIL
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	12.3
Cooling Method	Ice
Sampling Date Provided	YES

Comments

missing D

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
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customerservice@envirolab.com.au
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Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	Acid Extractable metalsin soil
A	✓	✓	✓
B	✓	✓	✓
E	✓	✓	✓
F	✓	✓	✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.

CHAIN OF CUSTODY

Douglas Partners
Geotechnics / Environment / Groundwater

Client: Douglas Partners	Project Number: 86237.00	To:	Envirolab Services
Contact Person: Luke James-Hall	Project Name: Sydney Football Stadium	Contact Person:	Aileen Hie
Project Mgr: Luke James-Hall	PO No.:	Address:	12 Ashley Street
	lab Quote No. :		Chatswood NSW 2068
Address: 96 Hermitage Road West Ryde NSW 2114	Date results required: standard Or choose: *Note: Inform lab in advance if urgent turnaround is required - surcharges apply*	Phone:	02 9910 6200
		Fax:	02 9910 6201
		Email:	ahie@envirolab.com.au
Phone: 9809 0666 Mob: 0407 216 678	Report format: PDF / Excel	Laboratory Report No:	
Email: luke.james-hall @douglaspartners.com.au	Comments:	Lab Comments:	

Sample information						Tests Required										Comments
Lab Sample ID	Field Sample ID	Depth	Date sampled	Container Type	Type of sample	Combo 8a	TRH, BTEX & Metals									Provide as much information about the sample as you can
1	A						X									
2	B						X									
NR	D						X									
3	E						X									
4	F						X									

ENVIROLAB

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 191455
Date Received: 1/5/18
Time Received: 16:00
Received By: RS
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

Relinquished by: Douglas Partners	Sample Receipt	*Lab use only:*
Hand delivered / Courier (by whom)	Received by (Company): DS	Samples Received: Cool or Ambient (circle one)
Condition of Sample at dispatch Cool or Ambient (circle)	Print Name: Rebecca	Temperature Received at: (if applicable)
Temperature (if Applicable):	Date & Time: 1/5/18 16:00	Transported by: Hand delivered / courier
Print Name:	Signature:	
Date & Time:		
Signature:		

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customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 193498

Client Details

Client	Douglas Partners Pty Ltd
Attention	Peter Oitmaa
Address	96 Hermitage Rd, West Ryde, NSW, 2114

Sample Details

Your Reference	**86276.00, Moore Park**
Number of Samples	1 water
Date samples received	07/06/2018
Date completed instructions received	07/06/2018

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	13/06/2018
Date of Issue	13/06/2018

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Results Approved By
Jaimie Loa-Kum-Cheung, Senior Chemist
Jeremy Faircloth, Organics Supervisor
Nick Sarlamis, Inorganics Supervisor
Steven Luong, Senior Chemist

Authorised By



Jacinta Hurst, Laboratory Manager

vTRH(C6-C10)/BTEXN in Water		
Our Reference		193498-1
Your Reference	UNITS	C37
Date Sampled		06/06/2018
Type of sample		water
Date extracted	-	07/06/2018
Date analysed	-	07/06/2018
TRH C_6 - C_9	µg/L	<10
TRH C_6 - C_{10}	µg/L	<10
TRH C_6 - C_{10} less BTEX (F1)	µg/L	<10
Benzene	µg/L	<1
Toluene	µg/L	<1
Ethylbenzene	µg/L	<1
m+p-xylene	µg/L	<2
o-xylene	µg/L	<1
Naphthalene	µg/L	<1
Surrogate Dibromofluoromethane	%	101
Surrogate toluene-d8	%	97
Surrogate 4-BFB	%	94

svTRH (C10-C40) in Water		
Our Reference		193498-1
Your Reference	UNITS	C37
Date Sampled		06/06/2018
Type of sample		water
Date extracted	-	08/06/2018
Date analysed	-	08/06/2018
TRH C_{10} - C_{14}	µg/L	<50
TRH C_{15} - C_{28}	µg/L	<100
TRH C_{29} - C_{36}	µg/L	<100
TRH >C_{10} - C_{16}	µg/L	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	µg/L	<50
TRH >C_{16} - C_{34}	µg/L	<100
TRH >C_{34} - C_{40}	µg/L	<100
Surrogate o-Terphenyl	%	69

PAHs in Water - Low Level		
Our Reference	UNITS	193498-1
Your Reference		C37
Date Sampled		06/06/2018
Type of sample		water
Date extracted	-	08/06/2018
Date analysed	-	08/06/2018
Naphthalene	µg/L	<0.2
Acenaphthylene	µg/L	<0.1
Acenaphthene	µg/L	<0.1
Fluorene	µg/L	<0.1
Phenanthrene	µg/L	<0.1
Anthracene	µg/L	<0.1
Fluoranthene	µg/L	<0.1
Pyrene	µg/L	<0.1
Benzo(a)anthracene	µg/L	<0.1
Chrysene	µg/L	<0.1
Benzo(b,j+k)fluoranthene	µg/L	<0.2
Benzo(a)pyrene	µg/L	<0.1
Indeno(1,2,3-c,d)pyrene	µg/L	<0.1
Dibenzo(a,h)anthracene	µg/L	<0.1
Benzo(g,h,i)perylene	µg/L	<0.1
Benzo(a)pyrene TEQ	µg/L	<0.5
Total +ve PAH's	µg/L	NIL (+)VE
Surrogate p-Terphenyl-d14	%	83

HM in water - dissolved		
Our Reference		193498-1
Your Reference	UNITS	C37
Date Sampled		06/06/2018
Type of sample		water
Date prepared	-	08/06/2018
Date analysed	-	08/06/2018
Arsenic-Dissolved	µg/L	<1
Cadmium-Dissolved	µg/L	<0.1
Chromium-Dissolved	µg/L	<1
Copper-Dissolved	µg/L	4
Lead-Dissolved	µg/L	<1
Mercury-Dissolved	µg/L	<0.05
Nickel-Dissolved	µg/L	<1
Zinc-Dissolved	µg/L	11
Iron-Dissolved	µg/L	300

Miscellaneous Inorganics		
Our Reference	UNITS	193498-1
Your Reference		C37
Date Sampled		06/06/2018
Type of sample		water
Date prepared	-	07/06/2018
Date analysed	-	07/06/2018
pH	pH Units	6.2
Electrical Conductivity	µS/cm	420
Chloride, Cl	mg/L	26
Sulphate, SO4	mg/L	52
Ferrous Iron	mg/L	0.13

HM in water - total		
Our Reference		193498-1
Your Reference	UNITS	C37
Date Sampled		06/06/2018
Type of sample		water
Date prepared	-	08/06/2018
Date analysed	-	08/06/2018
Iron-Total	µg/L	470

Method ID	Methodology Summary
Inorg-001	pH - Measured using pH meter and electrode in accordance with APHA latest edition, 4500-H+. Please note that the results for water analyses are indicative only, as analysis outside of the APHA storage times.
Inorg-002	Conductivity and Salinity - measured using a conductivity cell at 25°C in accordance with APHA latest edition 2510 and Rayment & Lyons.
Inorg-076	Ferrous Iron is determined colourimetrically by discrete analyser.
Inorg-081	Anions - a range of Anions are determined by Ion Chromatography, in accordance with APHA latest edition, 4110-B. Alternatively determined by colourimetry/turbidity using Discrete Analyer.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Metals-022	Determination of various metals by ICP-MS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.
Org-013	Water samples are analysed directly by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	[NT]
Date extracted	-			07/06/2018	[NT]	[NT]	[NT]	[NT]	07/06/2018	[NT]
Date analysed	-			07/06/2018	[NT]	[NT]	[NT]	[NT]	07/06/2018	[NT]
TRH C_6 - C_9	µg/L	10	Org-016	<10	[NT]	[NT]	[NT]	[NT]	98	[NT]
TRH C_6 - C_{10}	µg/L	10	Org-016	<10	[NT]	[NT]	[NT]	[NT]	98	[NT]
Benzene	µg/L	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Toluene	µg/L	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	99	[NT]
Ethylbenzene	µg/L	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	98	[NT]
m+p-xylene	µg/L	2	Org-016	<2	[NT]	[NT]	[NT]	[NT]	98	[NT]
o-xylene	µg/L	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	99	[NT]
Naphthalene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-016	101	[NT]	[NT]	[NT]	[NT]	100	[NT]
Surrogate toluene-d8	%		Org-016	97	[NT]	[NT]	[NT]	[NT]	104	[NT]
Surrogate 4-BFB	%		Org-016	96	[NT]	[NT]	[NT]	[NT]	102	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	[NT]
Date extracted	-			07/06/2018	[NT]	[NT]	[NT]	[NT]	07/06/2018	[NT]
Date analysed	-			08/06/2018	[NT]	[NT]	[NT]	[NT]	08/06/2018	[NT]
TRH C_{10} - C_{14}	µg/L	50	Org-003	<50	[NT]	[NT]	[NT]	[NT]	91	[NT]
TRH C_{15} - C_{28}	µg/L	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	97	[NT]
TRH C_{29} - C_{36}	µg/L	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	76	[NT]
TRH >C_{10} - C_{16}	µg/L	50	Org-003	<50	[NT]	[NT]	[NT]	[NT]	91	[NT]
TRH >C_{16} - C_{34}	µg/L	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	97	[NT]
TRH >C_{34} - C_{40}	µg/L	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	76	[NT]
Surrogate o-Terphenyl	%		Org-003	115	[NT]	[NT]	[NT]	[NT]	88	[NT]

QUALITY CONTROL: PAHs in Water - Low Level					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			08/06/2018	[NT]	[NT]	[NT]	[NT]	08/06/2018	[NT]
Date analysed	-			08/06/2018	[NT]	[NT]	[NT]	[NT]	08/06/2018	[NT]
Naphthalene	µg/L	0.2	Org-012	<0.2	[NT]	[NT]	[NT]	[NT]	97	[NT]
Acenaphthylene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluorene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	84	[NT]
Phenanthrene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	81	[NT]
Anthracene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	80	[NT]
Pyrene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	78	[NT]
Benzo(a)anthracene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	79	[NT]
Benzo(b,j+k)fluoranthene	µg/L	0.2	Org-012	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	84	[NT]
Indeno(1,2,3-c,d)pyrene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	106	[NT]	[NT]	[NT]	[NT]	88	[NT]

QUALITY CONTROL: HM in water - dissolved						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			08/06/2018	[NT]	[NT]	[NT]	[NT]	08/06/2018	[NT]
Date analysed	-			08/06/2018	[NT]	[NT]	[NT]	[NT]	08/06/2018	[NT]
Arsenic-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	102	[NT]
Cadmium-Dissolved	µg/L	0.1	Metals-022	<0.1	[NT]	[NT]	[NT]	[NT]	103	[NT]
Chromium-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	97	[NT]
Copper-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Lead-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	106	[NT]
Mercury-Dissolved	µg/L	0.05	Metals-021	<0.05	[NT]	[NT]	[NT]	[NT]	92	[NT]
Nickel-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	100	[NT]
Zinc-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	99	[NT]
Iron-Dissolved	µg/L	10	Metals-022	<10	[NT]	[NT]	[NT]	[NT]	99	[NT]

QUALITY CONTROL: Miscellaneous Inorganics					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			07/06/2018	[NT]	[NT]	[NT]	[NT]	07/06/2018	[NT]
Date analysed	-			07/06/2018	[NT]	[NT]	[NT]	[NT]	07/06/2018	[NT]
pH	pH Units		Inorg-001	[NT]	[NT]	[NT]	[NT]	[NT]	102	[NT]
Electrical Conductivity	µS/cm	1	Inorg-002	<1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Chloride, Cl	mg/L	1	Inorg-081	<1	[NT]	[NT]	[NT]	[NT]	97	[NT]
Sulphate, SO4	mg/L	1	Inorg-081	<1	[NT]	[NT]	[NT]	[NT]	101	[NT]
Ferrous Iron	mg/L	0.05	Inorg-076	<0.05	[NT]	[NT]	[NT]	[NT]	100	[NT]

QUALITY CONTROL: HM in water - total						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	193498-1
Date prepared	-			08/06/2018	[NT]	[NT]	[NT]	[NT]	08/06/2018	08/06/2018
Date analysed	-			08/06/2018	[NT]	[NT]	[NT]	[NT]	08/06/2018	08/06/2018
Iron-Total	µg/L	10	Metals-022	<10	[NT]	[NT]	[NT]	[NT]	96	92

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	Douglas Partners Pty Ltd
Attention	Peter Oitmaa

Sample Login Details

Your reference	86276.00, Moore Park
Envirolab Reference	193498
Date Sample Received	07/06/2018
Date Instructions Received	07/06/2018
Date Results Expected to be Reported	13/06/2018

Sample Condition

Samples received in appropriate condition for analysis	YES
No. of Samples Provided	1 water
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	14.5
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	vTRH(C6-C10)/BTEXN in Water	svTRH (C10-C40) in Water	PAHs in Water - Low Level	HM in water - dissolved	Miscellaneous inorganics	HM in water - total
C37	✓	✓	✓	✓	✓	✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.

Douglas Partners
Geotechnics | Environment | Groundwater

CHAIN OF CUSTODY DESPATCH SHEET

Project No:	86276.00	**Suburb:**	Moore Park	**To:**	EnviroLab
Project Name:	Sydney Football Stadium	**Order Number**			12 Ashley Street, Chatswood 2067
Project Manager:	Peter Oitmaa	**Sampler:**	Joel James-Hall	**Attn:**	Aileen Hie
Emails:	peter.oitmaa@douglaspartners.com.au; joel.james-hall@douglaspartners.com			**Phone:**	(02) 9910 6200
Date Required:	Same day ☐ 24 hours ☐ 48 hours ☐ 72 hours ☑ Standard ☐			**Email:**	Ahie@envirolab.com.au
Prior Storage:	☑ Esky ☐ Fridge ☐ Shelved	Do samples contain 'potential' HBM?	Yes ☐	No ☐	(If YES, then handle, transport and store in accordance with FPM HAZID)

Sample ID	Lab ID	Date Sampled	Sample Type (S - soil, W - water)	Container Type (G, P)	Analytes: Combo 3L	pH	EC	SO4	Cl	Fe 2+				Notes/preservation
C37	1	06/06/18	W	G/P	x	x	x	x	x	x				Include Iron and total
														dissolved iron
PQL (S) mg/kg														ANZECC PQLs req'd for all water analytes ☐

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 193498
Date Received: 7/6
Time Received: 0945
Received by: PH
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

PQL = practical quantitation limit. If none given, default to Laboratory Method Detection Limit

Metals to Analyse: 8HM unless specified here:

Lab Report/Reference No:

Total number of samples in container: | **Relinquished by:** | **Transported to laboratory by:**

Send Results to: Douglas Partners Pty Ltd | **Address** 96 Hermitage Rd West Ryde. | **Phone:** | **Fax:**

Signed: | **Received by:** | **Date & Time:** 7/6 0945

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 212577

Client Details

Client	Douglas Partners Pty Ltd
Attention	Peter Oitmaa
Address	96 Hermitage Rd, West Ryde, NSW, 2114

Sample Details

Your Reference	**Moore Park/ 86529.00**
Number of Samples	48 Soil
Date samples received	01/03/2019
Date completed instructions received	04/03/2019

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	11/03/2019
Date of Issue	18/03/2019
Reissue Details	This report replaces R00 created on 11/03/2019 due to: result entry error

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Asbestos Approved By
Analysed by Asbestos Approved Identifier: Aida Marner, Lucy Zhu
Authorised by Asbestos Approved Signatory: Matt Tang

Results Approved By
Jeremy Faircloth, Operations Manager, Sydney
Ken Nguyen, Reporting Supervisor
Lucy Zhu, Senior Asbestos Analyst
Matthew Tang, Asbsestos Supervisor
Nancy Zhang, Laboratory Manager, Sydney
Nick Sarlamis, Inorganics Supervisor
Steven Luong, Organics Supervisor

Authorised By



Jacinta Hurst, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		212577-1	212577-2	212577-3	212577-4	212577-5
Your Reference	UNITS	101	101	102	102	102
Depth		1.5	3.0	0.1-0.2	2-2.1	8.5-8.95
Date Sampled		26/02/2019	26/02/2019	20/02/2019	20/02/2019	20/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	06/03/2019	06/03/2019	06/03/2019	06/03/2019	06/03/2019
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	90	89	93	86	89

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		212577-6	212577-7	212577-8	212577-9	212577-10
Your Reference	UNITS	103	104	106	107	202
Depth		0.5-0.6	0.5-0.6	0.7-0.8	1.5	0.5-0.6
Date Sampled		22/02/2019	23/02/2019	25/02/2019	27/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	06/03/2019	06/03/2019	06/03/2019	06/03/2019	06/03/2019
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	93	87	81	89	93

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		212577-11	212577-12	212577-13	212577-14	212577-15
Your Reference	UNITS	202	202	204	205	206
Depth		2.7-2.8	5.6-5.7	1.0	0.65	2.5
Date Sampled		27/02/2019	27/02/2019	26/02/2019	26/02/2019	26/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	06/03/2019	06/03/2019	06/03/2019	06/03/2019	06/03/2019
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	91	108	82	60	87

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		212577-16	212577-17	212577-18	212577-19	212577-20
Your Reference	UNITS	207	207	208	210	210
Depth		0.5	1.5	0.9-1.0	0.7	1.0
Date Sampled		27/02/2019	27/02/2019	27/02/2019	27/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	06/03/2019	06/03/2019	06/03/2019	06/03/2019	06/03/2019
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	85	95	92	131	95

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		212577-21	212577-22	212577-23	212577-24	212577-25
Your Reference	UNITS	211	212	212	213	216
Depth		0.5	2.3	4.0	0.5-0.6	0.9
Date Sampled		26/02/2019	01/03/2019	01/03/2019	22/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	06/03/2019	06/03/2019	06/03/2019	06/03/2019	06/03/2019
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	90	96	95	93	92

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		212577-26	212577-27	212577-28	212577-29	212577-30
Your Reference	UNITS	217	220	221	221	222
Depth		1.4-1.5	0.5-0.6	1.5	2.5	1.0
Date Sampled		26/02/2019	26/02/2019	28/02/2019	28/02/2019	26/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	06/03/2019	06/03/2019	06/03/2019	06/03/2019	06/03/2019
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	2	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	88	87	91	97	97

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		212577-31	212577-32	212577-33	212577-34	212577-35
Your Reference	UNITS	223	223	224	225	225
Depth		1.0	2.0	1.5	0.6-1.0	1.5
Date Sampled		28/02/2019	28/02/2019	28/02/2019	28/02/2019	28/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	06/03/2019	06/03/2019	06/03/2019	06/03/2019	06/03/2019
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	96	60	90	87	92

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		212577-36	212577-37	212577-38	212577-39	212577-40
Your Reference	UNITS	225	226	228	228	BT1A
Depth		3.0	0.8-1.0	0.9-1.0	4.3-4.4	-
Date Sampled		28/02/2019	28/02/2019	27/02/2019	27/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	07/03/2019	05/03/2019
Date analysed	-	06/03/2019	06/03/2019	06/03/2019	08/03/2019	06/03/2019
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	89	90	89	101	87

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		212577-41	212577-42	212577-43	212577-44	212577-45
Your Reference	UNITS	BT6A	BT12A	BT14A	Blank	Spike
Depth		-	-	-	-	-
Date Sampled		27/02/2019	27/02/2019	27/02/2019	27/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	06/03/2019	06/03/2019	06/03/2019	06/03/2019	06/03/2019
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	[NA]
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	[NA]
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	[NA]
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	97%
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	97%
Ethylbenzene	mg/kg	<1	<1	<1	<1	97%
m+p-xylene	mg/kg	<2	<2	<2	<2	96%
o-Xylene	mg/kg	<1	<1	<1	<1	97%
naphthalene	mg/kg	<1	<1	<1	<1	[NA]
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	[NA]
Surrogate aaa-Trifluorotoluene	%	88	87	94	94	86

svTRH (C10-C40) in Soil						
Our Reference		212577-1	212577-2	212577-3	212577-4	212577-5
Your Reference	UNITS	101	101	102	102	102
Depth		1.5	3.0	0.1-0.2	2-2.1	8.5-8.95
Date Sampled		26/02/2019	26/02/2019	20/02/2019	20/02/2019	20/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	07/03/2019	07/03/2019	07/03/2019	07/03/2019	07/03/2019
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	390	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	190	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	130	500	<100	140	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	130	500	<50	140	<50
Surrogate o-Terphenyl	%	114	119	111	110	105

svTRH (C10-C40) in Soil						
Our Reference		212577-6	212577-7	212577-8	212577-9	212577-10
Your Reference	UNITS	103	104	106	107	202
Depth		0.5-0.6	0.5-0.6	0.7-0.8	1.5	0.5-0.6
Date Sampled		22/02/2019	23/02/2019	25/02/2019	27/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	06/03/2019	06/03/2019	06/03/2019	06/03/2019	06/03/2019
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	100	<50
Surrogate o-Terphenyl	%	128	111	109	111	110

svTRH (C10-C40) in Soil						
Our Reference		212577-11	212577-12	212577-13	212577-14	212577-15
Your Reference	UNITS	202	202	204	205	206
Depth		2.7-2.8	5.6-5.7	1.0	0.65	2.5
Date Sampled		27/02/2019	27/02/2019	26/02/2019	26/02/2019	26/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	07/03/2019	06/03/2019	07/03/2019	07/03/2019	07/03/2019
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	480	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	290	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	670	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	150	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	820	<50	<50	<50	<50
Surrogate o-Terphenyl	%	118	107	108	106	110

svTRH (C10-C40) in Soil						
Our Reference		212577-16	212577-17	212577-18	212577-19	212577-20
Your Reference	UNITS	207	207	208	210	210
Depth		0.5	1.5	0.9-1.0	0.7	1.0
Date Sampled		27/02/2019	27/02/2019	27/02/2019	27/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	07/03/2019	07/03/2019	07/03/2019	07/03/2019	07/03/2019
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	105	111	112	106	107

svTRH (C10-C40) in Soil						
Our Reference		212577-21	212577-22	212577-23	212577-24	212577-25
Your Reference	UNITS	211	212	212	213	216
Depth		0.5	2.3	4.0	0.5-0.6	0.9
Date Sampled		26/02/2019	01/03/2019	01/03/2019	22/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	07/03/2019	08/03/2019	07/03/2019	07/03/2019	07/03/2019
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	760	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	620	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	1,200	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	320	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	1,600	<50	<50	<50
Surrogate o-Terphenyl	%	104	#	110	110	109

svTRH (C10-C40) in Soil						
Our Reference		212577-26	212577-27	212577-28	212577-29	212577-30
Your Reference	UNITS	217	220	221	221	222
Depth		1.4-1.5	0.5-0.6	1.5	2.5	1.0
Date Sampled		26/02/2019	26/02/2019	28/02/2019	28/02/2019	26/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	07/03/2019	07/03/2019	07/03/2019	07/03/2019	07/03/2019
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	70	<50
TRH C_{15} - C_{28}	mg/kg	120	<100	230	1,100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	160	480	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	120	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	120	<50
TRH >C_{16} -C_{34}	mg/kg	150	<100	330	1,400	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	230	<100
Total +ve TRH (>C10-C40)	mg/kg	150	<50	330	1,700	<50
Surrogate o-Terphenyl	%	113	106	111	128	109

svTRH (C10-C40) in Soil						
Our Reference		212577-31	212577-32	212577-33	212577-34	212577-35
Your Reference	UNITS	223	223	224	225	225
Depth		1.0	2.0	1.5	0.6-1.0	1.5
Date Sampled		28/02/2019	28/02/2019	28/02/2019	28/02/2019	28/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	07/03/2019	07/03/2019	07/03/2019	07/03/2019	07/03/2019
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	160	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	230	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	230	<50	<50	<50	<50
Surrogate o-Terphenyl	%	107	108	104	102	104

svTRH (C10-C40) in Soil						
Our Reference		212577-36	212577-37	212577-38	212577-39	212577-40
Your Reference	UNITS	225	226	228	228	BT1A
Depth		3.0	0.8-1.0	0.9-1.0	4.3-4.4	-
Date Sampled		28/02/2019	28/02/2019	27/02/2019	27/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	07/03/2019	07/03/2019	07/03/2019	07/03/2019	07/03/2019
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	170	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	120	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	260	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	260	<50	<50
Surrogate o-Terphenyl	%	107	104	110	107	104

svTRH (C10-C40) in Soil				
Our Reference		212577-41	212577-42	212577-43
Your Reference	UNITS	BT6A	BT12A	BT14A
Depth		-	-	-
Date Sampled		27/02/2019	27/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	07/03/2019	08/03/2019	08/03/2019
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	250	<100	<100
TRH C_{29} - C_{36}	mg/kg	200	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	420	<100	<100
TRH >C_{34} -C_{40}	mg/kg	110	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	530	<50	<50
Surrogate o-Terphenyl	%	108	102	99

PAHs in Soil						
Our Reference		212577-1	212577-2	212577-3	212577-4	212577-5
Your Reference	UNITS	101	101	102	102	102
Depth		1.5	3.0	0.1-0.2	2-2.1	8.5-8.95
Date Sampled		26/02/2019	26/02/2019	20/02/2019	20/02/2019	20/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	07/03/2019	07/03/2019	07/03/2019	07/03/2019	07/03/2019
Naphthalene	mg/kg	0.2	1.9	<0.1	0.2	<0.1
Acenaphthylene	mg/kg	0.4	2.0	<0.1	0.3	<0.1
Acenaphthene	mg/kg	<0.1	0.6	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.2	3.4	<0.1	0.2	<0.1
Phenanthrene	mg/kg	2.5	23	<0.1	2.3	<0.1
Anthracene	mg/kg	0.5	5.2	<0.1	0.5	<0.1
Fluoranthene	mg/kg	5.1	22	0.3	4.7	<0.1
Pyrene	mg/kg	4.8	21	0.3	4.8	<0.1
Benzo(a)anthracene	mg/kg	2.6	10	0.2	2.5	<0.1
Chrysene	mg/kg	2.8	9.8	0.2	2.8	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	4.1	12	0.4	4.1	<0.2
Benzo(a)pyrene	mg/kg	2.6	8.3	0.2	2.8	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	1.1	3.4	0.1	1.2	<0.1
Dibenzo(a,h)anthracene	mg/kg	0.4	1	<0.1	0.4	<0.1
Benzo(g,h,i)perylene	mg/kg	1.5	4.1	0.1	1.6	<0.1
Total +ve PAH's	mg/kg	29	130	1.7	28	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	3.7	12	<0.5	4.0	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	3.7	12	<0.5	4.0	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	3.7	12	<0.5	4.0	<0.5
Surrogate p-Terphenyl-d14	%	118	111	109	103	102

PAHs in Soil						
Our Reference		212577-6	212577-7	212577-8	212577-9	212577-10
Your Reference	UNITS	103	104	106	107	202
Depth		0.5-0.6	0.5-0.6	0.7-0.8	1.5	0.5-0.6
Date Sampled		22/02/2019	23/02/2019	25/02/2019	27/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	07/03/2019	07/03/2019	07/03/2019	07/03/2019	07/03/2019
Naphthalene	mg/kg	<0.1	<0.1	<0.1	0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	0.3	0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	0.4	1.6	0.5
Anthracene	mg/kg	<0.1	<0.1	<0.1	0.3	0.1
Fluoranthene	mg/kg	<0.1	<0.1	1.1	3.7	1.8
Pyrene	mg/kg	<0.1	<0.1	1.1	3.8	1.7
Benzo(a)anthracene	mg/kg	<0.1	<0.1	0.6	1.8	1.1
Chrysene	mg/kg	<0.1	<0.1	0.7	2.2	1.3
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	1	3.2	2.0
Benzo(a)pyrene	mg/kg	<0.05	<0.05	0.67	2.0	1.3
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	0.3	0.9	0.6
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	0.3	0.2
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	0.4	1.2	0.8
Total +ve PAH's	mg/kg	<0.05	<0.05	6.3	22	12
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	0.9	3.0	1.9
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	0.9	3.0	1.9
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	1	3.0	1.9
Surrogate p-Terphenyl-d14	%	106	102	101	103	102

PAHs in Soil						
Our Reference		212577-11	212577-12	212577-13	212577-14	212577-15
Your Reference	UNITS	202	202	204	205	206
Depth		2.7-2.8	5.6-5.7	1.0	0.65	2.5
Date Sampled		27/02/2019	27/02/2019	26/02/2019	26/02/2019	26/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	07/03/2019	07/03/2019	07/03/2019	07/03/2019	07/03/2019
Naphthalene	mg/kg	0.4	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	2.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.4	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	1.7	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	18	0.2	0.3	<0.1	<0.1
Anthracene	mg/kg	3.4	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	21	0.3	0.9	<0.1	<0.1
Pyrene	mg/kg	20	0.3	0.9	<0.1	<0.1
Benzo(a)anthracene	mg/kg	10	0.2	0.5	<0.1	<0.1
Chrysene	mg/kg	10	0.1	0.5	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	14	0.2	0.8	<0.2	<0.2
Benzo(a)pyrene	mg/kg	9.2	0.1	0.5	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	4.1	<0.1	0.2	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	1.2	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	5.2	<0.1	0.3	<0.1	<0.1
Total +ve PAH's	mg/kg	120	1.4	4.8	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	13	<0.5	0.6	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	13	<0.5	0.7	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	13	<0.5	0.7	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	105	104	104	100	104

PAHs in Soil						
Our Reference		212577-16	212577-17	212577-18	212577-19	212577-20
Your Reference	UNITS	207	207	208	210	210
Depth		0.5	1.5	0.9-1.0	0.7	1.0
Date Sampled		27/02/2019	27/02/2019	27/02/2019	27/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	07/03/2019	07/03/2019	07/03/2019	07/03/2019	07/03/2019
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.2	<0.1	0.2	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.4	<0.1	0.5	<0.1	<0.1
Pyrene	mg/kg	0.4	<0.1	0.5	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.2	<0.1	0.3	<0.1	<0.1
Chrysene	mg/kg	0.2	<0.1	0.4	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	0.3	<0.2	0.5	<0.2	<0.2
Benzo(a)pyrene	mg/kg	0.2	<0.05	0.3	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	<0.1	0.2	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	0.1	<0.1	0.2	<0.1	<0.1
Total +ve PAH's	mg/kg	2.2	<0.05	3.0	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	99	104	104	94	102

PAHs in Soil						
Our Reference		212577-21	212577-22	212577-23	212577-24	212577-25
Your Reference	UNITS	211	212	212	213	216
Depth		0.5	2.3	4.0	0.5-0.6	0.9
Date Sampled		26/02/2019	01/03/2019	01/03/2019	22/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	07/03/2019	07/03/2019	07/03/2019	07/03/2019	07/03/2019
Naphthalene	mg/kg	<0.1	1.6	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	0.9	<0.1	0.2	<0.1
Acenaphthene	mg/kg	<0.1	1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	1.4	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	12	<0.1	0.8	0.2
Anthracene	mg/kg	<0.1	2.8	<0.1	0.2	<0.1
Fluoranthene	mg/kg	0.2	16	<0.1	2.2	0.9
Pyrene	mg/kg	0.2	15	<0.1	2.3	0.9
Benzo(a)anthracene	mg/kg	0.1	7.4	<0.1	1.2	0.5
Chrysene	mg/kg	0.1	7.9	<0.1	1.4	0.5
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	11	<0.2	2.2	0.9
Benzo(a)pyrene	mg/kg	0.1	6.8	<0.05	1.3	0.57
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	3.1	<0.1	0.7	0.3
Dibenzo(a,h)anthracene	mg/kg	<0.1	0.9	<0.1	0.2	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	4.0	<0.1	0.8	0.3
Total +ve PAH's	mg/kg	0.96	91	<0.05	14	5.0
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	10	<0.5	1.9	0.7
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	10	<0.5	1.9	0.8
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	10	<0.5	1.9	0.8
Surrogate p-Terphenyl-d14	%	99	106	103	106	107

PAHs in Soil						
Our Reference		212577-26	212577-27	212577-28	212577-29	212577-30
Your Reference	UNITS	217	220	221	221	222
Depth		1.4-1.5	0.5-0.6	1.5	2.5	1.0
Date Sampled		26/02/2019	26/02/2019	28/02/2019	28/02/2019	26/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	07/03/2019	07/03/2019	07/03/2019	07/03/2019	07/03/2019
Naphthalene	mg/kg	0.2	<0.1	0.6	5.4	<0.1
Acenaphthylene	mg/kg	0.5	<0.1	0.9	5.5	0.2
Acenaphthene	mg/kg	0.2	<0.1	0.2	1.7	<0.1
Fluorene	mg/kg	0.4	<0.1	0.4	7.3	<0.1
Phenanthrene	mg/kg	4.3	0.6	6.2	39	0.8
Anthracene	mg/kg	1	0.1	1.4	11	0.2
Fluoranthene	mg/kg	6.2	1.1	12	39	2.4
Pyrene	mg/kg	6.0	1.1	12	37	2.5
Benzo(a)anthracene	mg/kg	2.8	0.5	6.3	18	1.4
Chrysene	mg/kg	3.0	0.6	7.2	17	1.5
Benzo(b,j+k)fluoranthene	mg/kg	3.6	1	9.6	21	2.3
Benzo(a)pyrene	mg/kg	2.2	0.63	6.3	14	1.5
Indeno(1,2,3-c,d)pyrene	mg/kg	0.9	0.3	2.8	7.6	0.7
Dibenzo(a,h)anthracene	mg/kg	0.3	<0.1	0.9	2.3	0.2
Benzo(g,h,i)perylene	mg/kg	1.1	0.4	3.5	8.8	0.9
Total +ve PAH's	mg/kg	33	6.3	70	230	15
Benzo(a)pyrene TEQ calc (zero)	mg/kg	3.3	0.8	9.2	21	2.1
Benzo(a)pyrene TEQ calc(half)	mg/kg	3.3	0.9	9.2	21	2.1
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	3.3	0.9	9.2	21	2.1
Surrogate p-Terphenyl-d14	%	100	97	106	103	103

PAHs in Soil						
Our Reference		212577-31	212577-32	212577-33	212577-34	212577-35
Your Reference	UNITS	223	223	224	225	225
Depth		1.0	2.0	1.5	0.6-1.0	1.5
Date Sampled		28/02/2019	28/02/2019	28/02/2019	28/02/2019	28/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	07/03/2019	07/03/2019	07/03/2019	07/03/2019	07/03/2019
Naphthalene	mg/kg	0.2	<0.1	<0.1	0.1	<0.1
Acenaphthylene	mg/kg	0.3	<0.1	0.1	0.3	0.3
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.2	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	2.2	<0.1	0.9	1.4	1.1
Anthracene	mg/kg	0.6	<0.1	0.2	0.4	0.3
Fluoranthene	mg/kg	4.3	<0.1	2.1	3.2	3.0
Pyrene	mg/kg	4.4	<0.1	2.1	3.3	3.1
Benzo(a)anthracene	mg/kg	2.2	<0.1	1.0	1.7	1.7
Chrysene	mg/kg	2.4	<0.1	1.2	1.9	1.9
Benzo(b,j+k)fluoranthene	mg/kg	3.6	<0.2	2	2.8	2.9
Benzo(a)pyrene	mg/kg	2.4	<0.05	1.2	1.8	1.9
Indeno(1,2,3-c,d)pyrene	mg/kg	1.1	<0.1	0.6	0.9	1
Dibenzo(a,h)anthracene	mg/kg	0.3	<0.1	0.1	0.2	0.2
Benzo(g,h,i)perylene	mg/kg	1.4	<0.1	0.7	1.2	1.2
Total +ve PAH's	mg/kg	26	<0.05	12	19	18
Benzo(a)pyrene TEQ calc (zero)	mg/kg	3.4	<0.5	1.7	2.6	2.7
Benzo(a)pyrene TEQ calc(half)	mg/kg	3.4	<0.5	1.7	2.6	2.7
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	3.4	<0.5	1.7	2.6	2.7
Surrogate p-Terphenyl-d14	%	104	104	98	101	105

PAHs in Soil						
Our Reference		212577-36	212577-37	212577-38	212577-39	212577-40
Your Reference	UNITS	225	226	228	228	BT1A
Depth		3.0	0.8-1.0	0.9-1.0	4.3-4.4	-
Date Sampled		28/02/2019	28/02/2019	27/02/2019	27/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	07/03/2019	07/03/2019	07/03/2019	07/03/2019	07/03/2019
Naphthalene	mg/kg	<0.1	<0.1	0.2	<0.1	0.1
Acenaphthylene	mg/kg	<0.1	<0.1	0.6	<0.1	0.1
Acenaphthene	mg/kg	<0.1	<0.1	0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	0.3	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	5.0	<0.1	0.5
Anthracene	mg/kg	<0.1	<0.1	1.1	<0.1	0.1
Fluoranthene	mg/kg	<0.1	<0.1	10	<0.1	0.8
Pyrene	mg/kg	<0.1	<0.1	11	<0.1	0.8
Benzo(a)anthracene	mg/kg	<0.1	<0.1	5.4	<0.1	0.4
Chrysene	mg/kg	<0.1	<0.1	6.4	<0.1	0.5
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	8.4	<0.2	0.8
Benzo(a)pyrene	mg/kg	<0.05	<0.05	5.9	<0.05	0.5
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	2.7	<0.1	0.2
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	0.8	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	3.6	<0.1	0.3
Total +ve PAH's	mg/kg	<0.05	<0.05	62	<0.05	5.4
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	8.4	<0.5	0.6
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	8.4	<0.5	0.7
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	8.4	<0.5	0.7
Surrogate p-Terphenyl-d14	%	101	101	104	105	98

PAHs in Soil					
Our Reference		212577-41	212577-42	212577-43	212577-49
Your Reference	UNITS	BT6A	BT12A	BT14A	223 - [TRIPLICATE]
Depth		-	-	-	1.0
Date Sampled		27/02/2019	27/02/2019	27/02/2019	28/02/2019
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	08/03/2019
Date analysed	-	07/03/2019	07/03/2019	07/03/2019	11/03/2019
Naphthalene	mg/kg	0.3	<0.1	<0.1	0.3
Acenaphthylene	mg/kg	0.9	<0.1	0.2	0.3
Acenaphthene	mg/kg	0.2	<0.1	<0.1	0.1
Fluorene	mg/kg	0.4	<0.1	<0.1	0.2
Phenanthrene	mg/kg	5.7	<0.1	0.9	2.2
Anthracene	mg/kg	1.4	<0.1	0.2	0.7
Fluoranthene	mg/kg	13	<0.1	2.0	4.0
Pyrene	mg/kg	13	<0.1	2.1	4.2
Benzo(a)anthracene	mg/kg	6.8	<0.1	1.1	2.2
Chrysene	mg/kg	7.8	<0.1	1.3	2.2
Benzo(b,j+k)fluoranthene	mg/kg	12	<0.2	2	3.6
Benzo(a)pyrene	mg/kg	7.7	<0.05	1.2	2.4
Indeno(1,2,3-c,d)pyrene	mg/kg	3.6	<0.1	0.6	1.0
Dibenzo(a,h)anthracene	mg/kg	1.0	<0.1	0.2	0.2
Benzo(g,h,i)perylene	mg/kg	4.7	<0.1	0.8	1.4
Total +ve PAH's	mg/kg	78	<0.05	12	25
Benzo(a)pyrene TEQ calc (zero)	mg/kg	11	<0.5	1.8	3.3
Benzo(a)pyrene TEQ calc(half)	mg/kg	11	<0.5	1.8	3.3
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	11	<0.5	1.8	3.3
Surrogate p-Terphenyl-d14	%	104	100	98	110

Organochlorine Pesticides in soil						
Our Reference		212577-1	212577-2	212577-3	212577-4	212577-5
Your Reference	UNITS	101	101	102	102	102
Depth		1.5	3.0	0.1-0.2	2-2.1	8.5-8.95
Date Sampled		26/02/2019	26/02/2019	20/02/2019	20/02/2019	20/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	110	106	111	110	110

Organochlorine Pesticides in soil						
Our Reference		212577-6	212577-7	212577-8	212577-9	212577-10
Your Reference	UNITS	103	104	106	107	202
Depth		0.5-0.6	0.5-0.6	0.7-0.8	1.5	0.5-0.6
Date Sampled		22/02/2019	23/02/2019	25/02/2019	27/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	112	109	109	115	111

Organochlorine Pesticides in soil						
Our Reference		212577-11	212577-12	212577-13	212577-14	212577-15
Your Reference	UNITS	202	202	204	205	206
Depth		2.7-2.8	5.6-5.7	1.0	0.65	2.5
Date Sampled		27/02/2019	27/02/2019	26/02/2019	26/02/2019	26/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	109	111	111	108	115

Organochlorine Pesticides in soil						
Our Reference		212577-16	212577-17	212577-18	212577-19	212577-20
Your Reference	UNITS	207	207	208	210	210
Depth		0.5	1.5	0.9-1.0	0.7	1.0
Date Sampled		27/02/2019	27/02/2019	27/02/2019	27/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	05/03/2019	05/03/2019	05/03/2019	06/03/2019	06/03/2019
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	108	115	116	103	102

Organochlorine Pesticides in soil						
Our Reference		212577-21	212577-22	212577-23	212577-24	212577-25
Your Reference	UNITS	211	212	212	213	216
Depth		0.5	2.3	4.0	0.5-0.6	0.9
Date Sampled		26/02/2019	01/03/2019	01/03/2019	22/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	06/03/2019	06/03/2019	06/03/2019	06/03/2019	06/03/2019
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	96	97	106	104	107

Organochlorine Pesticides in soil						
Our Reference		212577-26	212577-27	212577-28	212577-29	212577-30
Your Reference	UNITS	217	220	221	221	222
Depth		1.4-1.5	0.5-0.6	1.5	2.5	1.0
Date Sampled		26/02/2019	26/02/2019	28/02/2019	28/02/2019	26/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	06/03/2019	06/03/2019	06/03/2019	06/03/2019	06/03/2019
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	109	95	99	91	103

Organochlorine Pesticides in soil						
Our Reference		212577-31	212577-32	212577-33	212577-34	212577-35
Your Reference	UNITS	223	223	224	225	225
Depth		1.0	2.0	1.5	0.6-1.0	1.5
Date Sampled		28/02/2019	28/02/2019	28/02/2019	28/02/2019	28/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	06/03/2019	06/03/2019	06/03/2019	06/03/2019	06/03/2019
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	105	108	103	99	101

Organochlorine Pesticides in soil						
Our Reference		212577-36	212577-37	212577-38	212577-39	212577-40
Your Reference	UNITS	225	226	228	228	BT1A
Depth		3.0	0.8-1.0	0.9-1.0	4.3-4.4	-
Date Sampled		28/02/2019	28/02/2019	27/02/2019	27/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	06/03/2019	06/03/2019	06/03/2019	06/03/2019	06/03/2019
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	106	104	104	108	100

Organochlorine Pesticides in soil				
Our Reference		212577-41	212577-42	212577-43
Your Reference	UNITS	BT6A	BT12A	BT14A
Depth		-	-	-
Date Sampled		27/02/2019	27/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	06/03/2019	06/03/2019	06/03/2019
HCB	mg/kg	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1
Surrogate TCMX	%	102	101	97

Organophosphorus Pesticides						
Our Reference		212577-1	212577-2	212577-3	212577-4	212577-5
Your Reference	UNITS	101	101	102	102	102
Depth		1.5	3.0	0.1-0.2	2-2.1	8.5-8.95
Date Sampled		26/02/2019	26/02/2019	20/02/2019	20/02/2019	20/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.2	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	110	106	111	110	110

Organophosphorus Pesticides						
Our Reference		212577-6	212577-7	212577-8	212577-9	212577-10
Your Reference	UNITS	103	104	106	107	202
Depth		0.5-0.6	0.5-0.6	0.7-0.8	1.5	0.5-0.6
Date Sampled		22/02/2019	23/02/2019	25/02/2019	27/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	112	109	109	115	111

Organophosphorus Pesticides						
Our Reference		212577-11	212577-12	212577-13	212577-14	212577-15
Your Reference	UNITS	202	202	204	205	206
Depth		2.7-2.8	5.6-5.7	1.0	0.65	2.5
Date Sampled		27/02/2019	27/02/2019	26/02/2019	26/02/2019	26/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Azinphos-methyl (Guthion)	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	109	111	111	108	115

Organophosphorus Pesticides						
Our Reference		212577-16	212577-17	212577-18	212577-19	212577-20
Your Reference	UNITS	207	207	208	210	210
Depth		0.5	1.5	0.9-1.0	0.7	1.0
Date Sampled		27/02/2019	27/02/2019	27/02/2019	27/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	05/03/2019	05/03/2019	05/03/2019	06/03/2019	06/03/2019
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	108	115	116	103	102

Organophosphorus Pesticides						
Our Reference		212577-21	212577-22	212577-23	212577-24	212577-25
Your Reference	UNITS	211	212	212	213	216
Depth		0.5	2.3	4.0	0.5-0.6	0.9
Date Sampled		26/02/2019	01/03/2019	01/03/2019	22/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	06/03/2019	06/03/2019	06/03/2019	06/03/2019	06/03/2019
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	96	97	106	104	107

Organophosphorus Pesticides						
Our Reference		212577-26	212577-27	212577-28	212577-29	212577-30
Your Reference	UNITS	217	220	221	221	222
Depth		1.4-1.5	0.5-0.6	1.5	2.5	1.0
Date Sampled		26/02/2019	26/02/2019	28/02/2019	28/02/2019	26/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	06/03/2019	06/03/2019	06/03/2019	06/03/2019	06/03/2019
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	109	95	99	91	103

Organophosphorus Pesticides						
Our Reference		212577-31	212577-32	212577-33	212577-34	212577-35
Your Reference	UNITS	223	223	224	225	225
Depth		1.0	2.0	1.5	0.6-1.0	1.5
Date Sampled		28/02/2019	28/02/2019	28/02/2019	28/02/2019	28/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	06/03/2019	06/03/2019	06/03/2019	06/03/2019	06/03/2019
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	105	108	103	99	101

Organophosphorus Pesticides						
Our Reference		212577-36	212577-37	212577-38	212577-39	212577-40
Your Reference	UNITS	225	226	228	228	BT1A
Depth		3.0	0.8-1.0	0.9-1.0	4.3-4.4	-
Date Sampled		28/02/2019	28/02/2019	27/02/2019	27/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	06/03/2019	06/03/2019	06/03/2019	06/03/2019	06/03/2019
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	106	104	104	108	100

Organophosphorus Pesticides				
Our Reference		212577-41	212577-42	212577-43
Your Reference	UNITS	BT6A	BT12A	BT14A
Depth		-	-	-
Date Sampled		27/02/2019	27/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	06/03/2019	06/03/2019	06/03/2019
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1
Surrogate TCMX	%	102	101	97

PCBs in Soil						
Our Reference		212577-1	212577-2	212577-3	212577-4	212577-5
Your Reference	UNITS	101	101	102	102	102
Depth		1.5	3.0	0.1-0.2	2-2.1	8.5-8.95
Date Sampled		26/02/2019	26/02/2019	20/02/2019	20/02/2019	20/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	110	106	111	110	110

PCBs in Soil						
Our Reference		212577-6	212577-7	212577-8	212577-9	212577-10
Your Reference	UNITS	103	104	106	107	202
Depth		0.5-0.6	0.5-0.6	0.7-0.8	1.5	0.5-0.6
Date Sampled		22/02/2019	23/02/2019	25/02/2019	27/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	112	109	109	115	111

PCBs in Soil						
Our Reference		212577-11	212577-12	212577-13	212577-14	212577-15
Your Reference	UNITS	202	202	204	205	206
Depth		2.7-2.8	5.6-5.7	1.0	0.65	2.5
Date Sampled		27/02/2019	27/02/2019	26/02/2019	26/02/2019	26/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	109	111	111	108	115

PCBs in Soil						
Our Reference		212577-16	212577-17	212577-18	212577-19	212577-20
Your Reference	UNITS	207	207	208	210	210
Depth		0.5	1.5	0.9-1.0	0.7	1.0
Date Sampled		27/02/2019	27/02/2019	27/02/2019	27/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	05/03/2019	05/03/2019	05/03/2019	06/03/2019	06/03/2019
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	108	115	116	103	102

PCBs in Soil						
Our Reference		212577-21	212577-22	212577-23	212577-24	212577-25
Your Reference	UNITS	211	212	212	213	216
Depth		0.5	2.3	4.0	0.5-0.6	0.9
Date Sampled		26/02/2019	01/03/2019	01/03/2019	22/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	06/03/2019	06/03/2019	06/03/2019	06/03/2019	06/03/2019
Aroclor 1016	mg/kg	<0.1	<0.5	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.5	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.5	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.5	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.5	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.5	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.5	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.5	<0.1	<0.1	<0.1
Surrogate TCLMX	%	96	97	106	104	107

PCBs in Soil						
Our Reference		212577-26	212577-27	212577-28	212577-29	212577-30
Your Reference	UNITS	217	220	221	221	222
Depth		1.4-1.5	0.5-0.6	1.5	2.5	1.0
Date Sampled		26/02/2019	26/02/2019	28/02/2019	28/02/2019	26/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	06/03/2019	06/03/2019	06/03/2019	06/03/2019	06/03/2019
Aroclor 1016	mg/kg	<0.1	<0.1	<0.5	<0.5	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.5	<0.5	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.5	<0.5	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.5	<0.5	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.5	<0.5	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.5	<0.5	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.5	<0.5	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.5	<0.5	<0.1
Surrogate TCLMX	%	109	95	99	91	103

PCBs in Soil						
Our Reference		212577-31	212577-32	212577-33	212577-34	212577-35
Your Reference	UNITS	223	223	224	225	225
Depth		1.0	2.0	1.5	0.6-1.0	1.5
Date Sampled		28/02/2019	28/02/2019	28/02/2019	28/02/2019	28/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	06/03/2019	06/03/2019	06/03/2019	06/03/2019	06/03/2019
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	105	108	103	99	101

PCBs in Soil						
Our Reference		212577-36	212577-37	212577-38	212577-39	212577-40
Your Reference	UNITS	225	226	228	228	BT1A
Depth		3.0	0.8-1.0	0.9-1.0	4.3-4.4	-
Date Sampled		28/02/2019	28/02/2019	27/02/2019	27/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	06/03/2019	06/03/2019	06/03/2019	06/03/2019	06/03/2019
Aroclor 1016	mg/kg	<0.1	<0.1	<0.5	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.5	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.5	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.5	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.5	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.5	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.5	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.5	<0.1	<0.1
Surrogate TCLMX	%	106	104	104	108	100

PCBs in Soil				
Our Reference		212577-41	212577-42	212577-43
Your Reference	UNITS	BT6A	BT12A	BT14A
Depth		-	-	-
Date Sampled		27/02/2019	27/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil
Date extracted	-	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	06/03/2019	06/03/2019	06/03/2019
Aroclor 1016	mg/kg	<0.5	<0.1	<0.1
Aroclor 1221	mg/kg	<0.5	<0.1	<0.1
Aroclor 1232	mg/kg	<0.5	<0.1	<0.1
Aroclor 1242	mg/kg	<0.5	<0.1	<0.1
Aroclor 1248	mg/kg	<0.5	<0.1	<0.1
Aroclor 1254	mg/kg	<0.5	<0.1	<0.1
Aroclor 1260	mg/kg	<0.5	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.5	<0.1	<0.1
Surrogate TCLMX	%	102	101	97

Acid Extractable metals in soil						
Our Reference		212577-1	212577-2	212577-3	212577-4	212577-5
Your Reference	UNITS	101	101	102	102	102
Depth		1.5	3.0	0.1-0.2	2-2.1	8.5-8.95
Date Sampled		26/02/2019	26/02/2019	20/02/2019	20/02/2019	20/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Arsenic	mg/kg	5	9	<4	7	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	10	12	7	14	3
Copper	mg/kg	51	50	43	44	<1
Lead	mg/kg	290	220	20	250	2
Mercury	mg/kg	0.8	0.4	<0.1	0.5	<0.1
Nickel	mg/kg	8	6	40	5	1
Zinc	mg/kg	120	140	27	68	17

Acid Extractable metals in soil						
Our Reference		212577-6	212577-7	212577-8	212577-9	212577-10
Your Reference	UNITS	103	104	106	107	202
Depth		0.5-0.6	0.5-0.6	0.7-0.8	1.5	0.5-0.6
Date Sampled		22/02/2019	23/02/2019	25/02/2019	27/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	3	24	5	10	7
Copper	mg/kg	2	10	12	38	21
Lead	mg/kg	3	3	61	390	97
Mercury	mg/kg	<0.1	<0.1	0.1	0.4	0.2
Nickel	mg/kg	2	27	3	4	3
Zinc	mg/kg	14	18	38	120	51

Acid Extractable metals in soil						
Our Reference		212577-11	212577-12	212577-13	212577-14	212577-15
Your Reference	UNITS	202	202	204	205	206
Depth		2.7-2.8	5.6-5.7	1.0	0.65	2.5
Date Sampled		27/02/2019	27/02/2019	26/02/2019	26/02/2019	26/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Arsenic	mg/kg	7	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	13	4	5	3	2
Copper	mg/kg	70	<1	22	9	<1
Lead	mg/kg	200	3	16	<1	<1
Mercury	mg/kg	0.8	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	6	<1	5	1	<1
Zinc	mg/kg	120	2	17	<1	<1

Acid Extractable metals in soil						
Our Reference		212577-16	212577-17	212577-18	212577-19	212577-20
Your Reference	UNITS	207	207	208	210	210
Depth		0.5	1.5	0.9-1.0	0.7	1.0
Date Sampled		27/02/2019	27/02/2019	27/02/2019	27/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	2	1	5	8	7
Copper	mg/kg	2	<1	12	2	<1
Lead	mg/kg	8	1	28	4	4
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	2	<1	5	3	1
Zinc	mg/kg	4	<1	18	3	1

Acid Extractable metals in soil						
Our Reference		212577-21	212577-22	212577-23	212577-24	212577-25
Your Reference	UNITS	211	212	212	213	216
Depth		0.5	2.3	4.0	0.5-0.6	0.9
Date Sampled		26/02/2019	01/03/2019	01/03/2019	22/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	3	7	<1	7	3
Copper	mg/kg	1	27	<1	40	2
Lead	mg/kg	8	170	<1	160	11
Mercury	mg/kg	<0.1	0.5	<0.1	0.4	<0.1
Nickel	mg/kg	2	3	<1	4	<1
Zinc	mg/kg	4	58	<1	62	4

Acid Extractable metals in soil						
Our Reference		212577-26	212577-27	212577-28	212577-29	212577-30
Your Reference	UNITS	217	220	221	221	222
Depth		1.4-1.5	0.5-0.6	1.5	2.5	1.0
Date Sampled		26/02/2019	26/02/2019	28/02/2019	28/02/2019	26/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	7	5	8	7	4
Copper	mg/kg	19	9	41	32	16
Lead	mg/kg	36	42	120	140	78
Mercury	mg/kg	<0.1	<0.1	0.3	0.3	0.3
Nickel	mg/kg	6	1	6	4	2
Zinc	mg/kg	18	20	76	73	46

Acid Extractable metals in soil						
Our Reference		212577-31	212577-32	212577-33	212577-34	212577-35
Your Reference	UNITS	223	223	224	225	225
Depth		1.0	2.0	1.5	0.6-1.0	1.5
Date Sampled		28/02/2019	28/02/2019	28/02/2019	28/02/2019	28/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	5	<1	6	7	6
Copper	mg/kg	10	<1	19	37	32
Lead	mg/kg	40	4	82	91	94
Mercury	mg/kg	<0.1	<0.1	0.2	0.2	0.2
Nickel	mg/kg	2	<1	3	4	4
Zinc	mg/kg	24	2	53	61	55

Acid Extractable metals in soil						
Our Reference		212577-36	212577-37	212577-38	212577-39	212577-40
Your Reference	UNITS	225	226	228	228	BT1A
Depth		3.0	0.8-1.0	0.9-1.0	4.3-4.4	-
Date Sampled		28/02/2019	28/02/2019	27/02/2019	27/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	3	3	6	2	7
Copper	mg/kg	1	3	30	<1	52
Lead	mg/kg	2	2	82	1	18
Mercury	mg/kg	<0.1	<0.1	0.4	<0.1	0.2
Nickel	mg/kg	<1	8	4	<1	44
Zinc	mg/kg	1	3	74	<1	29

Acid Extractable metals in soil					
Our Reference		212577-41	212577-42	212577-43	212577-49
Your Reference	UNITS	BT6A	BT12A	BT14A	223 - [TRIPLICATE]
Depth		-	-	-	1.0
Date Sampled		27/02/2019	27/02/2019	27/02/2019	28/02/2019
Type of sample		Soil	Soil	Soil	Soil
Date prepared	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Arsenic	mg/kg	5	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	15	8	8	7
Copper	mg/kg	97	<1	37	15
Lead	mg/kg	290	4	83	53
Mercury	mg/kg	0.8	<0.1	0.2	<0.1
Nickel	mg/kg	10	1	4	3
Zinc	mg/kg	190	1	64	36

Misc Soil - Inorg						
Our Reference		212577-1	212577-2	212577-3	212577-4	212577-5
Your Reference	UNITS	101	101	102	102	102
Depth		1.5	3.0	0.1-0.2	2-2.1	8.5-8.95
Date Sampled		26/02/2019	26/02/2019	20/02/2019	20/02/2019	20/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	07/03/2019	07/03/2019	07/03/2019	07/03/2019	07/03/2019
Date analysed	-	07/03/2019	07/03/2019	07/03/2019	07/03/2019	07/03/2019
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg						
Our Reference		212577-6	212577-7	212577-8	212577-9	212577-10
Your Reference	UNITS	103	104	106	107	202
Depth		0.5-0.6	0.5-0.6	0.7-0.8	1.5	0.5-0.6
Date Sampled		22/02/2019	23/02/2019	25/02/2019	27/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	07/03/2019	07/03/2019	07/03/2019	07/03/2019	07/03/2019
Date analysed	-	07/03/2019	07/03/2019	07/03/2019	07/03/2019	07/03/2019
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg						
Our Reference		212577-11	212577-12	212577-13	212577-14	212577-15
Your Reference	UNITS	202	202	204	205	206
Depth		2.7-2.8	5.6-5.7	1.0	0.65	2.5
Date Sampled		27/02/2019	27/02/2019	26/02/2019	26/02/2019	26/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	07/03/2019	07/03/2019	07/03/2019	07/03/2019	07/03/2019
Date analysed	-	07/03/2019	07/03/2019	07/03/2019	07/03/2019	07/03/2019
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg						
Our Reference		212577-16	212577-17	212577-18	212577-19	212577-20
Your Reference	UNITS	207	207	208	210	210
Depth		0.5	1.5	0.9-1.0	0.7	1.0
Date Sampled		27/02/2019	27/02/2019	27/02/2019	27/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	07/03/2019	07/03/2019	07/03/2019	07/03/2019	07/03/2019
Date analysed	-	07/03/2019	07/03/2019	07/03/2019	07/03/2019	07/03/2019
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg						
Our Reference		212577-21	212577-22	212577-23	212577-24	212577-25
Your Reference	UNITS	211	212	212	213	216
Depth		0.5	2.3	4.0	0.5-0.6	0.9
Date Sampled		26/02/2019	01/03/2019	01/03/2019	22/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	07/03/2019	07/03/2019	07/03/2019	07/03/2019	07/03/2019
Date analysed	-	07/03/2019	07/03/2019	07/03/2019	07/03/2019	07/03/2019
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg						
Our Reference		212577-26	212577-27	212577-28	212577-29	212577-30
Your Reference	UNITS	217	220	221	221	222
Depth		1.4-1.5	0.5-0.6	1.5	2.5	1.0
Date Sampled		26/02/2019	26/02/2019	28/02/2019	28/02/2019	26/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	07/03/2019	07/03/2019	07/03/2019	07/03/2019	07/03/2019
Date analysed	-	07/03/2019	07/03/2019	07/03/2019	07/03/2019	07/03/2019
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg						
Our Reference		212577-31	212577-32	212577-33	212577-34	212577-35
Your Reference	UNITS	223	223	224	225	225
Depth		1.0	2.0	1.5	0.6-1.0	1.5
Date Sampled		28/02/2019	28/02/2019	28/02/2019	28/02/2019	28/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	07/03/2019	07/03/2019	07/03/2019	07/03/2019	07/03/2019
Date analysed	-	07/03/2019	07/03/2019	07/03/2019	07/03/2019	07/03/2019
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg						
Our Reference		212577-36	212577-37	212577-38	212577-39	212577-40
Your Reference	UNITS	225	226	228	228	BT1A
Depth		3.0	0.8-1.0	0.9-1.0	4.3-4.4	-
Date Sampled		28/02/2019	28/02/2019	27/02/2019	27/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	07/03/2019	07/03/2019	07/03/2019	07/03/2019	07/03/2019
Date analysed	-	07/03/2019	07/03/2019	07/03/2019	07/03/2019	07/03/2019
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg				
Our Reference		212577-41	212577-42	212577-43
Your Reference	UNITS	BT6A	BT12A	BT14A
Depth		-	-	-
Date Sampled		27/02/2019	27/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil
Date prepared	-	07/03/2019	07/03/2019	07/03/2019
Date analysed	-	07/03/2019	07/03/2019	07/03/2019
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5

Moisture						
Our Reference		212577-1	212577-2	212577-3	212577-4	212577-5
Your Reference	UNITS	101	101	102	102	102
Depth		1.5	3.0	0.1-0.2	2-2.1	8.5-8.95
Date Sampled		26/02/2019	26/02/2019	20/02/2019	20/02/2019	20/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	06/03/2019	06/03/2019	06/03/2019	06/03/2019	06/03/2019
Moisture	%	13	7.2	4.5	14	17

Moisture						
Our Reference		212577-6	212577-7	212577-8	212577-9	212577-10
Your Reference	UNITS	103	104	106	107	202
Depth		0.5-0.6	0.5-0.6	0.7-0.8	1.5	0.5-0.6
Date Sampled		22/02/2019	23/02/2019	25/02/2019	27/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	06/03/2019	06/03/2019	06/03/2019	06/03/2019	06/03/2019
Moisture	%	5.0	12	17	21	6.0

Moisture						
Our Reference		212577-11	212577-12	212577-13	212577-14	212577-15
Your Reference	UNITS	202	202	204	205	206
Depth		2.7-2.8	5.6-5.7	1.0	0.65	2.5
Date Sampled		27/02/2019	27/02/2019	26/02/2019	26/02/2019	26/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	06/03/2019	06/03/2019	06/03/2019	06/03/2019	06/03/2019
Moisture	%	12	6.5	17	15	3.7

Moisture						
Our Reference		212577-16	212577-17	212577-18	212577-19	212577-20
Your Reference	UNITS	207	207	208	210	210
Depth		0.5	1.5	0.9-1.0	0.7	1.0
Date Sampled		27/02/2019	27/02/2019	27/02/2019	27/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	06/03/2019	06/03/2019	06/03/2019	06/03/2019	06/03/2019
Moisture	%	15	3.7	4.4	11	8.0

Moisture						
Our Reference		212577-21	212577-22	212577-23	212577-24	212577-25
Your Reference	UNITS	211	212	212	213	216
Depth		0.5	2.3	4.0	0.5-0.6	0.9
Date Sampled		26/02/2019	01/03/2019	01/03/2019	22/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	06/03/2019	06/03/2019	06/03/2019	06/03/2019	06/03/2019
Moisture	%	12	7.2	2.9	5.2	3.8

Moisture						
Our Reference		212577-26	212577-27	212577-28	212577-29	212577-30
Your Reference	UNITS	217	220	221	221	222
Depth		1.4-1.5	0.5-0.6	1.5	2.5	1.0
Date Sampled		26/02/2019	26/02/2019	28/02/2019	28/02/2019	26/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	06/03/2019	06/03/2019	06/03/2019	06/03/2019	06/03/2019
Moisture	%	11	15	8.5	9.4	5.3

Moisture						
Our Reference		212577-31	212577-32	212577-33	212577-34	212577-35
Your Reference	UNITS	223	223	224	225	225
Depth		1.0	2.0	1.5	0.6-1.0	1.5
Date Sampled		28/02/2019	28/02/2019	28/02/2019	28/02/2019	28/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	06/03/2019	06/03/2019	06/03/2019	06/03/2019	06/03/2019
Moisture	%	8.9	3.1	9.7	16	9.4

Moisture						
Our Reference		212577-36	212577-37	212577-38	212577-39	212577-40
Your Reference	UNITS	225	226	228	228	BT1A
Depth		3.0	0.8-1.0	0.9-1.0	4.3-4.4	-
Date Sampled		28/02/2019	28/02/2019	27/02/2019	27/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	06/03/2019	06/03/2019	06/03/2019	06/03/2019	06/03/2019
Moisture	%	5.0	6.0	4.6	9.9	8.0

Moisture				
Our Reference		212577-41	212577-42	212577-43
Your Reference	UNITS	BT6A	BT12A	BT14A
Depth		-	-	-
Date Sampled		27/02/2019	27/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil
Date prepared	-	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	06/03/2019	06/03/2019	06/03/2019
Moisture	%	10	7.6	16

Asbestos ID - soils NEPM						
Our Reference		212577-1	212577-2	212577-3	212577-4	212577-6
Your Reference	UNITS	101	101	102	102	103
Depth		1.5	3.0	0.1-0.2	2-2.1	0.5-0.6
Date Sampled		26/02/2019	26/02/2019	20/02/2019	20/02/2019	22/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	6-7/03/2019	6-7/03/2019	6-7/03/2019	6-7/03/2019	6-7/03/2019
Sample mass tested	g	1,151.63	690.39	1,288.37	1,194.31	1,231.9
Sample Description	-	Brown fine-grained soil & rocks	Brown sandy soil & rocks	Brown sandy soil & rocks	Brown fine-grained soil & rocks	Brown sandy soil & rocks
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	Chrysotile asbestos detected Organic Fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected
Total Asbestos[#1]	g/kg	<0.1	<0.1	0.7240	<0.1	<0.1
Asbestos ID in soil <0.1g/kg*	-	No visible asbestos detected	No visible asbestos detected	See Above	No visible asbestos detected	No visible asbestos detected
ACM >7mm Estimation*	g	–	–	0.9327	–	–
FA and AF Estimation*	g	–	–	–	–	–
FA and AF Estimation*#2	%(w/w)	<0.001	<0.001	<0.001	<0.001	<0.001

Asbestos ID - soils NEPM						
Our Reference		212577-7	212577-9	212577-10	212577-11	212577-13
Your Reference	UNITS	104	107	202	202	204
Depth		0.5-0.6	1.5	0.5-0.6	2.7-2.8	1.0
Date Sampled		23/02/2019	27/02/2019	27/02/2019	27/02/2019	26/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	6-7/03/2019	6-7/03/2019	6-7/03/2019	6-7/03/2019	6-7/03/2019
Sample mass tested	g	1,289.76	957.5	1,252.36	910.09	1,099.42
Sample Description	-	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown sandy soil & rocks
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected
Total Asbestos#1	g/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Asbestos ID in soil <0.1g/kg*	-	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected
ACM >7mm Estimation*	g	–	–	–	–	–
FA and AF Estimation*	g	–	–	–	–	–
FA and AF Estimation*#2	%(w/w)	<0.001	<0.001	<0.001	<0.001	<0.001

Asbestos ID - soils NEPM						
Our Reference		212577-14	212577-15	212577-16	212577-18	212577-20
Your Reference	UNITS	205	206	207	208	210
Depth		0.65	2.5	0.5	0.9-1.0	1.0
Date Sampled		26/02/2019	26/02/2019	27/02/2019	27/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	6-7/03/2019	6-7/03/2019	6-7/03/2019	6-7/03/2019	6-7/03/2019
Sample mass tested	g	1,115.21	1,375.18	1,056.65	1,181.39	1,078.83
Sample Description	-	Brown sandy soil	Brown sandy soil	Brown sandy soil	Brown sandy soil	Brown sandy soil
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected
Total Asbestos[#1]	g/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Asbestos ID in soil <0.1g/kg*	-	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected
ACM >7mm Estimation*	g	–	–	–	–	–
FA and AF Estimation*	g	–	–	–	–	–
FA and AF Estimation*#2	%(w/w)	<0.001	<0.001	<0.001	<0.001	<0.001

Asbestos ID - soils NEPM						
Our Reference		212577-21	212577-22	212577-23	212577-24	212577-25
Your Reference	UNITS	211	212	212	213	216
Depth		0.5	2.3	4.0	0.5-0.6	0.9
Date Sampled		26/02/2019	01/03/2019	01/03/2019	22/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	6-7/03/2019	6-7/03/2019	6-7/03/2019	6-7/03/2019	6-7/03/2019
Sample mass tested	g	568.56	1,195.23	1,193.59	1,430.71	1,079.41
Sample Description	-	Brown sandy soil	Brown sandy soil	Brown sandy soil	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected
Total Asbestos#1	g/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Asbestos ID in soil <0.1g/kg*	-	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected
ACM >7mm Estimation*	g	–	–	–	–	–
FA and AF Estimation*	g	–	–	–	–	–
FA and AF Estimation*#2	%(w/w)	<0.001	<0.001	<0.001	<0.001	<0.001

Asbestos ID - soils NEPM						
Our Reference		212577-27	212577-29	212577-30	212577-31	212577-33
Your Reference	UNITS	220	221	222	223	224
Depth		0.5-0.6	2.5	1.0	1.0	1.5
Date Sampled		26/02/2019	28/02/2019	26/02/2019	28/02/2019	28/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	6-7/03/2019	6-7/03/2019	6-7/03/2019	6-7/03/2019	6-7/03/2019
Sample mass tested	g	1,581.6	1,011.38	995.14	1,160.77	1,145.21
Sample Description	-	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected
Total Asbestos#1	g/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Asbestos ID in soil <0.1g/kg*	-	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected
ACM >7mm Estimation*	g	–	–	–	–	–
FA and AF Estimation*	g	–	–	–	–	–
FA and AF Estimation*#2	%(w/w)	<0.001	<0.001	<0.001	<0.001	<0.001

Asbestos ID - soils NEPM				
Our Reference		212577-35	212577-37	212577-38
Your Reference	UNITS	225	226	228
Depth		1.5	0.8-1.0	0.9-1.0
Date Sampled		28/02/2019	28/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil
Date analysed	-	6-7/03/2019	6-7/03/2019	6-7/03/2019
Sample mass tested	g	1,159.72	1,119.28	989.54
Sample Description	-	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected
Total Asbestos#1	g/kg	<0.1	<0.1	<0.1
Asbestos ID in soil <0.1g/kg*	-	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected
ACM >7mm Estimation*	g	–	–	–
FA and AF Estimation*	g	–	–	–
FA and AF Estimation*#2	%(w/w)	<0.001	<0.001	<0.001

Asbestos ID - soils						
Our Reference		212577-8	212577-19	212577-26	212577-28	212577-34
Your Reference	UNITS	106	210	217	221	225
Depth		0.7-0.8	0.7	1.4-1.5	1.5	0.6-1.0
Date Sampled		25/02/2019	27/02/2019	26/02/2019	28/02/2019	28/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	06/03/2019	06/03/2019	06/03/2019	06/03/2019	06/03/2019
Sample mass tested	g	Approx. 30g	Approx. 50g	Approx. 30g	Approx. 50g	Approx. 55g
Sample Description	-	Brown sandy soil & rocks	Brown sandy soil & rocks	Brown sandy soil & rocks	Brown sandy soil & rocks	Brown sandy soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Misc Inorg - Soil						
Our Reference		212577-5	212577-12	212577-17	212577-32	212577-36
Your Reference	UNITS	102	202	207	223	225
Depth		8.5-8.95	5.6-5.7	1.5	2.0	3.0
Date Sampled		20/02/2019	27/02/2019	27/02/2019	28/02/2019	28/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	06/03/2019	06/03/2019	06/03/2019	06/03/2019	06/03/2019
Date analysed	-	06/03/2019	06/03/2019	06/03/2019	06/03/2019	06/03/2019
pH 1:5 soil:water	pH Units	8.9	8.1	8.4	8.2	7.0

Misc Inorg - Soil		
Our Reference		212577-39
Your Reference	UNITS	228
Depth		4.3-4.4
Date Sampled		27/02/2019
Type of sample		Soil
Date prepared	-	06/03/2019
Date analysed	-	06/03/2019
pH 1:5 soil:water	pH Units	6.7

CEC						
Our Reference		212577-5	212577-12	212577-17	212577-32	212577-36
Your Reference	UNITS	102	202	207	223	225
Depth		8.5-8.95	5.6-5.7	1.5	2.0	3.0
Date Sampled		20/02/2019	27/02/2019	27/02/2019	28/02/2019	28/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Date analysed	-	05/03/2019	05/03/2019	05/03/2019	05/03/2019	05/03/2019
Exchangeable Ca	meq/100g	0.5	1.0	0.2	0.3	0.4
Exchangeable K	meq/100g	<0.1	<0.1	<0.1	<0.1	<0.1
Exchangeable Mg	meq/100g	<0.1	0.13	<0.1	<0.1	<0.1
Exchangeable Na	meq/100g	<0.1	<0.1	<0.1	<0.1	<0.1
Cation Exchange Capacity	meq/100g	<1	1.2	<1	<1	<1

CEC		
Our Reference		212577-39
Your Reference	UNITS	228
Depth		4.3-4.4
Date Sampled		27/02/2019
Type of sample		Soil
Date prepared	-	05/03/2019
Date analysed	-	05/03/2019
Exchangeable Ca	meq/100g	0.2
Exchangeable K	meq/100g	<0.1
Exchangeable Mg	meq/100g	<0.1
Exchangeable Na	meq/100g	<0.1
Cation Exchange Capacity	meq/100g	<1

Method ID	Methodology Summary
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.
ASB-001	Asbestos ID - Identification of asbestos in soil samples using Polarised Light Microscopy and Dispersion Staining Techniques. Minimum 500mL soil sample was analysed as recommended by "National Environment Protection (Assessment of site contamination) Measure, Schedule B1 and "The Guidelines from the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia - May 2009" with a reporting limit of 0.1g/kg (0.01% w/w) as per Australian Standard AS4964-2004. Results reported denoted with * are outside our scope of NATA accreditation. **NOTE** #1 Total Asbestos g/kg was analysed and reported as per Australian Standard AS4964 (This is the sum of ACM >7mm, <7mm and FA/AF) **NOTE** #2 The screening level of 0.001% w/w asbestos in soil for FA and AF only applies where the FA and AF are able to be quantified by gravimetric procedures. This screening level is not applicable to free fibres. Estimation = Estimated asbestos weight Results reported with "--" is equivalent to no visible asbestos identified using Polarised Light microscopy and Dispersion Staining Techniques.
Inorg-001	pH - Measured using pH meter and electrode in accordance with APHA latest edition, 4500-H+. Please note that the results for water analyses are indicative only, as analysis outside of the APHA storage times.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Inorg-031	Total Phenolics by segmented flow analyser (in line distillation with colourimetric finish). Solids are extracted in a caustic media prior to analysis.
Metals-009	Determination of exchangeable cations and cation exchange capacity in soils using 1M Ammonium Chloride exchange and ICP-AES analytical finish.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.

Method ID	Methodology Summary
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-008	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	212577-2
Date extracted	-			07/03/2019	1	05/03/2019	05/03/2019		05/03/2019	05/03/2019
Date analysed	-			08/03/2019	1	06/03/2019	06/03/2019		06/03/2019	06/03/2019
TRH C_6 - C_9	mg/kg	25	Org-016	<25	1	<25	<25	0	83	74
TRH C_6 - C_{10}	mg/kg	25	Org-016	<25	1	<25	<25	0	83	74
Benzene	mg/kg	0.2	Org-016	<0.2	1	<0.2	<0.2	0	93	82
Toluene	mg/kg	0.5	Org-016	<0.5	1	<0.5	<0.5	0	79	70
Ethylbenzene	mg/kg	1	Org-016	<1	1	<1	<1	0	82	73
m+p-xylene	mg/kg	2	Org-016	<2	1	<2	<2	0	80	72
o-Xylene	mg/kg	1	Org-016	<1	1	<1	<1	0	83	74
naphthalene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	104	1	90	91	1	101	86

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	212577-22
Date extracted	-			[NT]	11	05/03/2019	05/03/2019		05/03/2019	05/03/2019
Date analysed	-			[NT]	11	06/03/2019	06/03/2019		06/03/2019	06/03/2019
TRH C_6 - C_9	mg/kg	25	Org-016	[NT]	11	<25	<25	0	79	85
TRH C_6 - C_{10}	mg/kg	25	Org-016	[NT]	11	<25	<25	0	79	85
Benzene	mg/kg	0.2	Org-016	[NT]	11	<0.2	<0.2	0	88	96
Toluene	mg/kg	0.5	Org-016	[NT]	11	<0.5	<0.5	0	73	80
Ethylbenzene	mg/kg	1	Org-016	[NT]	11	<1	<1	0	79	83
m+p-xylene	mg/kg	2	Org-016	[NT]	11	<2	<2	0	77	82
o-Xylene	mg/kg	1	Org-016	[NT]	11	<1	<1	0	79	85
naphthalene	mg/kg	1	Org-014	[NT]	11	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	[NT]	11	91	68	29	91	98

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	212577-42
Date extracted	-			[NT]	21	05/03/2019	05/03/2019		07/03/2019	05/03/2019
Date analysed	-			[NT]	21	06/03/2019	06/03/2019		08/03/2019	06/03/2019
TRH C_6 - C_9	mg/kg	25	Org-016	[NT]	21	<25	<25	0	89	83
TRH C_6 - C_{10}	mg/kg	25	Org-016	[NT]	21	<25	<25	0	89	83
Benzene	mg/kg	0.2	Org-016	[NT]	21	<0.2	<0.2	0	88	94
Toluene	mg/kg	0.5	Org-016	[NT]	21	<0.5	<0.5	0	91	78
Ethylbenzene	mg/kg	1	Org-016	[NT]	21	<1	<1	0	90	82
m+p-xylene	mg/kg	2	Org-016	[NT]	21	<2	<2	0	89	81
o-Xylene	mg/kg	1	Org-016	[NT]	21	<1	<1	0	92	83
naphthalene	mg/kg	1	Org-014	[NT]	21	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	[NT]	21	90	87	3	110	95

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	31	05/03/2019	05/03/2019		[NT]	[NT]
Date analysed	-			[NT]	31	06/03/2019	06/03/2019		[NT]	[NT]
TRH C_6 - C_9	mg/kg	25	Org-016	[NT]	31	<25	<25	0	[NT]	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-016	[NT]	31	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-016	[NT]	31	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-016	[NT]	31	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-016	[NT]	31	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-016	[NT]	31	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-016	[NT]	31	<1	<1	0	[NT]	[NT]
naphthalene	mg/kg	1	Org-014	[NT]	31	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	[NT]	31	96	85	12	[NT]	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	41	05/03/2019	05/03/2019		[NT]	[NT]
Date analysed	-			[NT]	41	06/03/2019	06/03/2019		[NT]	[NT]
TRH C_6 - C_9	mg/kg	25	Org-016	[NT]	41	<25	<25	0	[NT]	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-016	[NT]	41	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-016	[NT]	41	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-016	[NT]	41	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-016	[NT]	41	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-016	[NT]	41	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-016	[NT]	41	<1	<1	0	[NT]	[NT]
naphthalene	mg/kg	1	Org-014	[NT]	41	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	[NT]	41	88	91	3	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	212577-2
Date extracted	-			05/03/2019	1	05/03/2019	05/03/2019		05/03/2019	05/03/2019
Date analysed	-			07/03/2019	1	07/03/2019	07/03/2019		07/03/2019	07/03/2019
TRH C_{10} - C_{14}	mg/kg	50	Org-003	<50	1	<50	<50	0	97	106
TRH C_{15} - C_{28}	mg/kg	100	Org-003	<100	1	<100	180	57	88	#
TRH C_{29} - C_{36}	mg/kg	100	Org-003	<100	1	<100	120	18	114	130
TRH >C_{10} -C_{16}	mg/kg	50	Org-003	<50	1	<50	<50	0	97	106
TRH >C_{16} -C_{34}	mg/kg	100	Org-003	<100	1	130	260	67	88	#
TRH >C_{34} -C_{40}	mg/kg	100	Org-003	<100	1	<100	<100	0	114	130
Surrogate o-Terphenyl	%		Org-003	100	1	114	115	1	118	119

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	212577-22
Date extracted	-			[NT]	11	05/03/2019	05/03/2019		05/03/2019	05/03/2019
Date analysed	-			[NT]	11	07/03/2019	07/03/2019		07/03/2019	08/03/2019
TRH C_{10} - C_{14}	mg/kg	50	Org-003	[NT]	11	<50	<50	0	118	123
TRH C_{15} - C_{28}	mg/kg	100	Org-003	[NT]	11	480	210	78	108	72
TRH C_{29} - C_{36}	mg/kg	100	Org-003	[NT]	11	290	150	64	129	#
TRH >C_{10} -C_{16}	mg/kg	50	Org-003	[NT]	11	<50	<50	0	118	123
TRH >C_{16} -C_{34}	mg/kg	100	Org-003	[NT]	11	670	340	65	108	72
TRH >C_{34} -C_{40}	mg/kg	100	Org-003	[NT]	11	150	<100	40	129	#
Surrogate o-Terphenyl	%		Org-003	[NT]	11	118	110	7	123	124

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	212577-42
Date extracted	-			[NT]	21	05/03/2019	05/03/2019		05/03/2019	05/03/2019
Date analysed	-			[NT]	21	07/03/2019	07/03/2019		07/03/2019	08/03/2019
TRH C_{10} - C_{14}	mg/kg	50	Org-003	[NT]	21	<50	<50	0	114	107
TRH C_{15} - C_{28}	mg/kg	100	Org-003	[NT]	21	<100	<100	0	104	98
TRH C_{29} - C_{36}	mg/kg	100	Org-003	[NT]	21	<100	<100	0	114	107
TRH >C_{10} -C_{16}	mg/kg	50	Org-003	[NT]	21	<50	<50	0	114	107
TRH >C_{16} -C_{34}	mg/kg	100	Org-003	[NT]	21	<100	<100	0	104	98
TRH >C_{34} -C_{40}	mg/kg	100	Org-003	[NT]	21	<100	<100	0	114	107
Surrogate o-Terphenyl	%		Org-003	[NT]	21	104	106	2	124	111

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	31	05/03/2019	05/03/2019		[NT]	[NT]
Date analysed	-			[NT]	31	07/03/2019	07/03/2019		[NT]	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-003	[NT]	31	<50	<50	0	[NT]	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-003	[NT]	31	160	<100	46	[NT]	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-003	[NT]	31	<100	<100	0	[NT]	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-003	[NT]	31	<50	<50	0	[NT]	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-003	[NT]	31	230	110	71	[NT]	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-003	[NT]	31	<100	<100	0	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-003	[NT]	31	107	106	1	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	41	05/03/2019	05/03/2019		[NT]	[NT]
Date analysed	-			[NT]	41	07/03/2019	08/03/2019		[NT]	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-003	[NT]	41	<50	<50	0	[NT]	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-003	[NT]	41	250	320	25	[NT]	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-003	[NT]	41	200	240	18	[NT]	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-003	[NT]	41	<50	<50	0	[NT]	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-003	[NT]	41	420	510	19	[NT]	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-003	[NT]	41	110	130	17	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-003	[NT]	41	108	112	4	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	212577-2
Date extracted	-			05/03/2019	1	05/03/2019	05/03/2019		05/03/2019	05/03/2019
Date analysed	-			07/03/2019	1	07/03/2019	07/03/2019		07/03/2019	07/03/2019
Naphthalene	mg/kg	0.1	Org-012	<0.1	1	0.2	0.2	0	95	#
Acenaphthylene	mg/kg	0.1	Org-012	<0.1	1	0.4	0.6	40	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-012	<0.1	1	0.2	0.4	67	99	#
Phenanthrene	mg/kg	0.1	Org-012	<0.1	1	2.5	5.4	73	101	#
Anthracene	mg/kg	0.1	Org-012	<0.1	1	0.5	1.3	89	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-012	<0.1	1	5.1	8.5	50	96	#
Pyrene	mg/kg	0.1	Org-012	<0.1	1	4.8	7.7	46	97	#
Benzo(a)anthracene	mg/kg	0.1	Org-012	<0.1	1	2.6	4.0	42	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-012	<0.1	1	2.8	4.2	40	108	#
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-012	<0.2	1	4.1	5.8	34	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-012	<0.05	1	2.6	3.6	32	102	#
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	<0.1	1	1.1	1.5	31	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	<0.1	1	0.4	0.5	22	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	<0.1	1	1.5	1.8	18	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	123	1	118	102	15	107	130

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	212577-22
Date extracted	-			[NT]	11	05/03/2019	05/03/2019		05/03/2019	05/03/2019
Date analysed	-			[NT]	11	07/03/2019	07/03/2019		07/03/2019	07/03/2019
Naphthalene	mg/kg	0.1	Org-012	[NT]	11	0.4	0.4	0	96	#
Acenaphthylene	mg/kg	0.1	Org-012	[NT]	11	2.1	0.9	80	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-012	[NT]	11	0.4	0.1	120	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-012	[NT]	11	1.7	0.5	109	102	110
Phenanthrene	mg/kg	0.1	Org-012	[NT]	11	18	6.2	98	103	#
Anthracene	mg/kg	0.1	Org-012	[NT]	11	3.4	1.5	78	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-012	[NT]	11	21	12	55	99	#
Pyrene	mg/kg	0.1	Org-012	[NT]	11	20	12	50	100	#
Benzo(a)anthracene	mg/kg	0.1	Org-012	[NT]	11	10	6.5	42	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-012	[NT]	11	10	7.2	33	110	#
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-012	[NT]	11	14	10	33	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-012	[NT]	11	9.2	6.8	30	103	#
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	[NT]	11	4.1	3.1	28	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	[NT]	11	1.2	0.9	29	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	[NT]	11	5.2	4.0	26	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	11	105	105	0	110	99

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	212577-42
Date extracted	-			[NT]	21	05/03/2019	05/03/2019		05/03/2019	05/03/2019
Date analysed	-			[NT]	21	07/03/2019	07/03/2019		07/03/2019	07/03/2019
Naphthalene	mg/kg	0.1	Org-012	[NT]	21	<0.1	<0.1	0	96	89
Acenaphthylene	mg/kg	0.1	Org-012	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-012	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-012	[NT]	21	<0.1	<0.1	0	102	95
Phenanthrene	mg/kg	0.1	Org-012	[NT]	21	0.1	<0.1	0	103	95
Anthracene	mg/kg	0.1	Org-012	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-012	[NT]	21	0.2	<0.1	67	99	90
Pyrene	mg/kg	0.1	Org-012	[NT]	21	0.2	<0.1	67	100	91
Benzo(a)anthracene	mg/kg	0.1	Org-012	[NT]	21	0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-012	[NT]	21	0.1	<0.1	0	110	102
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-012	[NT]	21	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-012	[NT]	21	0.1	<0.05	67	103	95
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	21	99	99	0	110	100

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	31	05/03/2019	05/03/2019		[NT]	[NT]
Date analysed	-			[NT]	31	07/03/2019	07/03/2019		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-012	[NT]	31	0.2	0.2	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-012	[NT]	31	0.3	0.3	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-012	[NT]	31	0.1	0.5	133	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-012	[NT]	31	0.2	0.5	86	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-012	[NT]	31	2.2	7.6	110	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-012	[NT]	31	0.6	1.8	100	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-012	[NT]	31	4.3	11	88	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-012	[NT]	31	4.4	11	86	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-012	[NT]	31	2.2	4.8	74	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-012	[NT]	31	2.4	5.4	77	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-012	[NT]	31	3.6	6.6	59	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-012	[NT]	31	2.4	4.5	61	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	[NT]	31	1.1	1.9	53	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	[NT]	31	0.3	0.6	67	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	[NT]	31	1.4	2.5	56	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	31	104	104	0	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	41	05/03/2019	05/03/2019		[NT]	[NT]
Date analysed	-			[NT]	41	07/03/2019	07/03/2019		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-012	[NT]	41	0.3	0.3	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-012	[NT]	41	0.9	0.9	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-012	[NT]	41	0.2	0.3	40	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-012	[NT]	41	0.4	0.5	22	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-012	[NT]	41	5.7	9.3	48	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-012	[NT]	41	1.4	2.0	35	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-012	[NT]	41	13	17	27	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-012	[NT]	41	13	17	27	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-012	[NT]	41	6.8	8.9	27	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-012	[NT]	41	7.8	10	25	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-012	[NT]	41	12	14	15	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-012	[NT]	41	7.7	9.4	20	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	[NT]	41	3.6	4.4	20	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	[NT]	41	1.0	1.3	26	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	[NT]	41	4.7	5.7	19	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	41	104	105	1	[NT]	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	212577-2
Date extracted	-			05/03/2019	1	05/03/2019	05/03/2019		05/03/2019	05/03/2019
Date analysed	-			06/03/2019	1	05/03/2019	05/03/2019		05/03/2019	05/03/2019
HCB	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	96	93
gamma-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	91	90
Heptachlor	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	90	91
delta-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	90	91
Heptachlor Epoxide	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	101	99
gamma-Chlordane	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	100	100
Dieldrin	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	120	121
Endrin	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	103	107
pp-DDD	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	106	108
Endosulfan II	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	90	91
Methoxychlor	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-005	107	1	110	107	3	127	126

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	212577-22
Date extracted	-			[NT]	11	05/03/2019	05/03/2019		05/03/2019	05/03/2019
Date analysed	-			[NT]	11	05/03/2019	05/03/2019		06/03/2019	06/03/2019
HCB	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	91	78
gamma-BHC	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	87	74
Heptachlor	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	88	79
delta-BHC	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	90	80
Heptachlor Epoxide	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	98	85
gamma-Chlordane	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	96	83
Dieldrin	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	116	103
Endrin	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	96	90
pp-DDD	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	105	91
Endosulfan II	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	92	89
Methoxychlor	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-005	[NT]	11	109	110	1	122	108

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	212577-42
Date extracted	-			[NT]	21	05/03/2019	05/03/2019		05/03/2019	05/03/2019
Date analysed	-			[NT]	21	06/03/2019	06/03/2019		06/03/2019	06/03/2019
HCB	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	92	82
gamma-BHC	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	88	75
Heptachlor	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	88	69
delta-BHC	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	93	76
Heptachlor Epoxide	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	100	81
gamma-Chlordane	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	96	82
Dieldrin	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	117	98
Endrin	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	96	68
pp-DDD	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	104	62
Endosulfan II	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	86	65
Methoxychlor	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-005	[NT]	21	96	99	3	124	111

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	31	05/03/2019	05/03/2019		[NT]	[NT]
Date analysed	-			[NT]	31	06/03/2019	06/03/2019		[NT]	[NT]
HCB	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-005	[NT]	31	105	100	5	[NT]	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	41	05/03/2019	05/03/2019		[NT]	[NT]
Date analysed	-			[NT]	41	06/03/2019	06/03/2019		[NT]	[NT]
HCB	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-005	[NT]	41	102	103	1	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	212577-2
Date extracted	-			05/03/2019	1	05/03/2019	05/03/2019		05/03/2019	05/03/2019
Date analysed	-			06/03/2019	1	05/03/2019	05/03/2019		05/03/2019	05/03/2019
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	97	101
Chlorpyriphos-methyl	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	85	89
Dimethoate	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	99	103
Fenitrothion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	114	112
Malathion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	94	92
Parathion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	107	101
Ronnel	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	96	99
Surrogate TCMX	%		Org-008	107	1	110	107	3	108	110

QUALITY CONTROL: Organophosphorus Pesticides						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	212577-22
Date extracted	-			[NT]	11	05/03/2019	05/03/2019		05/03/2019	05/03/2019
Date analysed	-			[NT]	11	05/03/2019	05/03/2019		06/03/2019	06/03/2019
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	[NT]	11	<0.2	<0.2	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	101	90
Chlorpyriphos-methyl	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	91	83
Dimethoate	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	99	94
Fenitrothion	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	103	98
Malathion	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	90	71
Parathion	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	136	73
Ronnel	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	99	90
Surrogate TCMX	%		Org-008	[NT]	11	109	110	1	107	93

QUALITY CONTROL: Organophosphorus Pesticides						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	212577-42
Date extracted	-			[NT]	21	05/03/2019	05/03/2019		05/03/2019	05/03/2019
Date analysed	-			[NT]	21	06/03/2019	06/03/2019		06/03/2019	06/03/2019
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-008	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-008	[NT]	21	<0.1	<0.1	0	96	79
Chlorpyriphos-methyl	mg/kg	0.1	Org-008	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-008	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-008	[NT]	21	<0.1	<0.1	0	86	65
Dimethoate	mg/kg	0.1	Org-008	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-008	[NT]	21	<0.1	<0.1	0	93	74
Fenitrothion	mg/kg	0.1	Org-008	[NT]	21	<0.1	<0.1	0	102	113
Malathion	mg/kg	0.1	Org-008	[NT]	21	<0.1	<0.1	0	89	101
Parathion	mg/kg	0.1	Org-008	[NT]	21	<0.1	<0.1	0	129	97
Ronnel	mg/kg	0.1	Org-008	[NT]	21	<0.1	<0.1	0	94	75
Surrogate TCMX	%		Org-008	[NT]	21	96	99	3	105	98

QUALITY CONTROL: Organophosphorus Pesticides						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	31	05/03/2019	05/03/2019		[NT]	[NT]
Date analysed	-			[NT]	31	06/03/2019	06/03/2019		[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-008	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-008	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-008	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-008	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-008	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-008	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-008	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Fenitrothion	mg/kg	0.1	Org-008	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Malathion	mg/kg	0.1	Org-008	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-008	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-008	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-008	[NT]	31	105	100	5	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	41	05/03/2019	05/03/2019		[NT]	[NT]
Date analysed	-			[NT]	41	06/03/2019	06/03/2019		[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-008	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-008	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-008	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-008	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-008	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-008	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-008	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Fenitrothion	mg/kg	0.1	Org-008	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Malathion	mg/kg	0.1	Org-008	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-008	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-008	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-008	[NT]	41	102	103	1	[NT]	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	212577-2
Date extracted	-			05/03/2019	1	05/03/2019	05/03/2019		05/03/2019	05/03/2019
Date analysed	-			06/03/2019	1	05/03/2019	05/03/2019		05/03/2019	05/03/2019
Aroclor 1016	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	102	110
Aroclor 1260	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCLMX	%		Org-006	107	1	110	107	3	108	110

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	212577-22
Date extracted	-			[NT]	11	05/03/2019	05/03/2019		05/03/2019	05/03/2019
Date analysed	-			[NT]	11	05/03/2019	05/03/2019		06/03/2019	06/03/2019
Aroclor 1016	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	100	101
Aroclor 1260	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCLMX	%		Org-006	[NT]	11	109	110	1	107	93

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	212577-42
Date extracted	-			[NT]	21	05/03/2019	05/03/2019		05/03/2019	05/03/2019
Date analysed	-			[NT]	21	06/03/2019	06/03/2019		06/03/2019	06/03/2019
Aroclor 1016	mg/kg	0.1	Org-006	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-006	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-006	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-006	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-006	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-006	[NT]	21	<0.1	<0.1	0	100	101
Aroclor 1260	mg/kg	0.1	Org-006	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCLMX	%		Org-006	[NT]	21	96	99	3	105	98

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	31	05/03/2019	05/03/2019		[NT]	[NT]
Date analysed	-			[NT]	31	06/03/2019	06/03/2019		[NT]	[NT]
Aroclor 1016	mg/kg	0.1	Org-006	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-006	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-006	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-006	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-006	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-006	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1260	mg/kg	0.1	Org-006	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCLMX	%		Org-006	[NT]	31	105	100	5	[NT]	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	41	05/03/2019	05/03/2019		[NT]	[NT]
Date analysed	-			[NT]	41	06/03/2019	06/03/2019		[NT]	[NT]
Aroclor 1016	mg/kg	0.1	Org-006	[NT]	41	<0.5	<0.5	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-006	[NT]	41	<0.5	<0.5	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-006	[NT]	41	<0.5	<0.5	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-006	[NT]	41	<0.5	<0.5	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-006	[NT]	41	<0.5	<0.5	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-006	[NT]	41	<0.5	<0.5	0	[NT]	[NT]
Aroclor 1260	mg/kg	0.1	Org-006	[NT]	41	<0.5	<0.5	0	[NT]	[NT]
Surrogate TCLMX	%		Org-006	[NT]	41	102	103	1	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	212577-2
Date prepared	-			05/03/2019	1	05/03/2019	05/03/2019		05/03/2019	05/03/2019
Date analysed	-			05/03/2019	1	05/03/2019	05/03/2019		05/03/2019	05/03/2019
Arsenic	mg/kg	4	Metals-020	<4	1	5	7	33	86	102
Cadmium	mg/kg	0.4	Metals-020	<0.4	1	<0.4	<0.4	0	111	93
Chromium	mg/kg	1	Metals-020	<1	1	10	10	0	116	98
Copper	mg/kg	1	Metals-020	<1	1	51	57	11	108	102
Lead	mg/kg	1	Metals-020	<1	1	290	260	11	112	80
Mercury	mg/kg	0.1	Metals-021	<0.1	1	0.8	0.8	0	91	97
Nickel	mg/kg	1	Metals-020	<1	1	8	9	12	106	93
Zinc	mg/kg	1	Metals-020	<1	1	120	140	15	107	86

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	212577-22
Date prepared	-			[NT]	11	05/03/2019	05/03/2019		05/03/2019	05/03/2019
Date analysed	-			[NT]	11	05/03/2019	05/03/2019		05/03/2019	05/03/2019
Arsenic	mg/kg	4	Metals-020	[NT]	11	7	7	0	109	107
Cadmium	mg/kg	0.4	Metals-020	[NT]	11	<0.4	<0.4	0	106	100
Chromium	mg/kg	1	Metals-020	[NT]	11	13	13	0	107	100
Copper	mg/kg	1	Metals-020	[NT]	11	70	89	24	109	113
Lead	mg/kg	1	Metals-020	[NT]	11	200	230	14	107	82
Mercury	mg/kg	0.1	Metals-021	[NT]	11	0.8	0.7	13	79	73
Nickel	mg/kg	1	Metals-020	[NT]	11	6	7	15	107	98
Zinc	mg/kg	1	Metals-020	[NT]	11	120	150	22	105	96

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	212577-42
Date prepared	-			[NT]	21	05/03/2019	05/03/2019		05/03/2019	05/03/2019
Date analysed	-			[NT]	21	05/03/2019	05/03/2019		05/03/2019	05/03/2019
Arsenic	mg/kg	4	Metals-020	[NT]	21	<4	<4	0	112	104
Cadmium	mg/kg	0.4	Metals-020	[NT]	21	<0.4	<0.4	0	111	105
Chromium	mg/kg	1	Metals-020	[NT]	21	3	4	29	112	103
Copper	mg/kg	1	Metals-020	[NT]	21	1	1	0	114	109
Lead	mg/kg	1	Metals-020	[NT]	21	8	5	46	113	98
Mercury	mg/kg	0.1	Metals-021	[NT]	21	<0.1	<0.1	0	90	92
Nickel	mg/kg	1	Metals-020	[NT]	21	2	2	0	111	102
Zinc	mg/kg	1	Metals-020	[NT]	21	4	2	67	109	102

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	31	05/03/2019	05/03/2019		[NT]	[NT]
Date analysed	-			[NT]	31	05/03/2019	05/03/2019		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	31	<4	<4	0	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	31	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	31	5	10	67	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	31	10	14	33	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	31	40	58	37	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	31	2	3	40	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	31	24	33	32	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	41	05/03/2019	05/03/2019		[NT]	[NT]
Date analysed	-			[NT]	41	05/03/2019	05/03/2019		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	41	5	6	18	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	41	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	41	15	11	31	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	41	97	93	4	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	41	290	410	34	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	41	0.8	0.7	13	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	41	10	7	35	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	41	190	180	5	[NT]	[NT]

QUALITY CONTROL: Misc Soil - Inorg						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	212577-2
Date prepared	-			07/03/2019	1	07/03/2019	07/03/2019		07/03/2019	07/03/2019
Date analysed	-			07/03/2019	1	07/03/2019	07/03/2019		07/03/2019	07/03/2019
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	<5	1	<5	<5	0	91	104

QUALITY CONTROL: Misc Soil - Inorg						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	212577-22
Date prepared	-			[NT]	11	07/03/2019	07/03/2019		07/03/2019	07/03/2019
Date analysed	-			[NT]	11	07/03/2019	07/03/2019		07/03/2019	07/03/2019
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	[NT]	11	<5	<5	0	103	98

QUALITY CONTROL: Misc Soil - Inorg						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	212577-42
Date prepared	-			[NT]	21	07/03/2019	07/03/2019		07/03/2019	07/03/2019
Date analysed	-			[NT]	21	07/03/2019	07/03/2019		07/03/2019	07/03/2019
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	[NT]	21	<5	<5	0	106	109

QUALITY CONTROL: Misc Soil - Inorg						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	31	07/03/2019	07/03/2019		[NT]	[NT]
Date analysed	-			[NT]	31	07/03/2019	07/03/2019		[NT]	[NT]
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	[NT]	31	<5	<5	0	[NT]	[NT]

QUALITY CONTROL: Misc Soil - Inorg						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	41	07/03/2019	07/03/2019		[NT]	[NT]
Date analysed	-			[NT]	41	07/03/2019	07/03/2019		[NT]	[NT]
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	[NT]	41	<5	<5	0	[NT]	[NT]

QUALITY CONTROL: Misc Inorg - Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	[NT]
Date prepared	-			06/03/2019	32	06/03/2019	06/03/2019		06/03/2019	[NT]
Date analysed	-			06/03/2019	32	06/03/2019	06/03/2019		06/03/2019	[NT]
pH 1:5 soil:water	pH Units		Inorg-001	[NT]	32	8.2	8.1	1	102	[NT]

QUALITY CONTROL: CEC						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	[NT]
Date prepared	-			05/03/2019	5	05/03/2019	05/03/2019		05/03/2019	[NT]
Date analysed	-			05/03/2019	5	05/03/2019	05/03/2019		05/03/2019	[NT]
Exchangeable Ca	meq/100g	0.1	Metals-009	<0.1	5	0.5	0.5	0	106	[NT]
Exchangeable K	meq/100g	0.1	Metals-009	<0.1	5	<0.1	<0.1	0	107	[NT]
Exchangeable Mg	meq/100g	0.1	Metals-009	<0.1	5	<0.1	<0.1	0	103	[NT]
Exchangeable Na	meq/100g	0.1	Metals-009	<0.1	5	<0.1	<0.1	0	104	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Report Comments

OP's in Soil - The PQL has been raised due to interferences from analytes (other than those being tested) in samples 2 and 11.

Asbestos: A portion of the supplied samples were sub-sampled for asbestos
analysis according to Envirolab procedures.
We cannot guarantee that these sub-samples are indicative of the entire sample.
Envirolab recommends supplying 40-50g of sample in its own container.
Note: Samples 212577-8, 19, 26, 28 & 34 were sub-sampled from jars provided by the client.

Asbestos-ID in soil: NEPM
This report is consistent with the reporting recommendations in the National Environment Protection (Assessment of Site Contamination) Measure, Schedule B1, May 2013. This is reported outside our scope of NATA accreditation.

PCBs in Soil - The PQL has been raised due to interferences from analytes (other than those being tested) in samples 22, 28, 29, 38 and 41.

TRH Soil C10-C40 NEPM - # Percent recovery is not possible to report as the high concentration of analytes in the samples 22,22ms have caused interference.
The RPD for duplicate results is accepted due to the non homogenous nature of samples 1 and 11.

PAHs in Soil - # Percent recovery for the matrix spike is not possible to report as the high concentration of analytes in samples 2 and 22 have caused interference.
The RPD for duplicate results is accepted due to the non homogenous nature of samples 1 and 11.

Acid Extractable Metals in Soil: The laboratory RPD acceptance criteria has been exceeded for 212577-31 for Cr. Therefore a triplicate result has been issued as laboratory sample number 212577-49.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	Douglas Partners Pty Ltd
Attention	Peter Oitmaa

Sample Login Details

Your reference	Moore Park/ 86529.00
Envirolab Reference	212577
Date Sample Received	01/03/2019
Date Instructions Received	04/03/2019
Date Results Expected to be Reported	11/03/2019

Sample Condition

Samples received in appropriate condition for analysis	YES
No. of Samples Provided	48 Soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	18.2
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticidesin soil	Organophosphorus Pesticides	PCBsin Soil	Acid Extractable metalsin soil	Misc Soil - Inorg	Asbestos ID - soils NEPM	Asbestos ID - soils	Misc Inorg - Soil	CEC	On Hold
101-1.5	✓	✓	✓	✓	✓	✓	✓	✓	✓				
101-3.0	✓	✓	✓	✓	✓	✓	✓	✓	✓				
102-0.1-0.2	✓	✓	✓	✓	✓	✓	✓	✓	✓				
102-2-2.1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
102-8.5-8.95	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	
103-0.5-0.6	✓	✓	✓	✓	✓	✓	✓	✓	✓				
104-0.5-0.6	✓	✓	✓	✓	✓	✓	✓	✓	✓				
106-0.7-0.8	✓	✓	✓	✓	✓	✓	✓	✓		✓			
107-1.5	✓	✓	✓	✓	✓	✓	✓	✓	✓				
202-0.5-0.6	✓	✓	✓	✓	✓	✓	✓	✓	✓				
202-2.7-2.8	✓	✓	✓	✓	✓	✓	✓	✓	✓				
202-5.6-5.7	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	
204-1.0	✓	✓	✓	✓	✓	✓	✓	✓	✓				
205-0.65	✓	✓	✓	✓	✓	✓	✓	✓	✓				
206-2.5	✓	✓	✓	✓	✓	✓	✓	✓	✓				
207-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓				
207-1.5	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	
208-0.9-1.0	✓	✓	✓	✓	✓	✓	✓	✓	✓				
210-0.7	✓	✓	✓	✓	✓	✓	✓	✓		✓			
210-1.0	✓	✓	✓	✓	✓	✓	✓	✓	✓				
211-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓				
212-2.3	✓	✓	✓	✓	✓	✓	✓	✓	✓				
212-4.0	✓	✓	✓	✓	✓	✓	✓	✓	✓				
213-0.5-0.6	✓	✓	✓	✓	✓	✓	✓	✓	✓				
216-0.9	✓	✓	✓	✓	✓	✓	✓	✓	✓				
217-1.4-1.5	✓	✓	✓	✓	✓	✓	✓	✓		✓			
220-0.5-0.6	✓	✓	✓	✓	✓	✓	✓	✓	✓				
221-1.5	✓	✓	✓	✓	✓	✓	✓	✓		✓			
221-2.5	✓	✓	✓	✓	✓	✓	✓	✓	✓				
222-1.0	✓	✓	✓	✓	✓	✓	✓	✓	✓				
223-1.0	✓	✓	✓	✓	✓	✓	✓	✓	✓				
223-2.0	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticidesin soil	Organophosphorus Pesticides	PCBsin Soil	Acid Extractable metalsin soil	Misc Soil - Inorg	Asbestos ID - soils NEPM	Asbestos ID - soils	Misc Inorg - Soil	CEC	On Hold
224-1.5	✓	✓	✓	✓	✓	✓	✓	✓	✓				
225-0.6-1.0	✓	✓	✓	✓	✓	✓	✓	✓		✓			
225-1.5	✓	✓	✓	✓	✓	✓	✓	✓	✓				
225-3.0	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	
226-0.8-1.0	✓	✓	✓	✓	✓	✓	✓	✓	✓				
228-0.9-1.0	✓	✓	✓	✓	✓	✓	✓	✓	✓				
228-4.3-4.4	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	
BT1A	✓	✓	✓	✓	✓	✓	✓	✓					
BT6A	✓	✓	✓	✓	✓	✓	✓	✓					
BT12A	✓	✓	✓	✓	✓	✓	✓	✓					
BT14A	✓	✓	✓	✓	✓	✓	✓	✓					
Blank	✓												
Spike	✓												
221-0.5													✓
221-5.5													✓
Extra (unlabelled)													✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.

Requests for longer term sample storage must be received in writing.

Douglas Partners
Geotechnics · Environment · Groundwater

CHAIN OF CUSTODY

Project Name: MOORE PARK
Project No: 86529.00 Sampler: Various
Project Mgr: Peter Oitmaa Mob. Phone: 0412 574 518
Email: peter.oitmaa@douglaspartners.com.au
Date Required: Std Lab Quote No.

To: Envirolab Services
12 Ashley Street, Chatswood NSW 2067
Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

Sample ID	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W - water	Container type	Analytes: Combo 8a	pH CEC	BTEX	TRH C6-C9	Cubo 8				Notes
101	1.5	1	26/2	S	Jar/Bag									
101	3.0	2	"											
102	0.1-0.2	3	20/2											
102	2-2.1	4	"											
102	8.5-8.95	5	"				✓			✓				
103	0.5-0.6	6	22/2											
104	0.5-0.6	7	23/2											
106	0.7-0.8	8	25/2											
107	1.5	9	27/2											
202	0.5-0.6	10	"											
202	2.7-2.8	11	"											
202	5.6-5.7	12	"				✓			✓				

ENVIROLAB
Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 212577
Date Received: 1-3-19
Time Received: 1800
Received By: KG
Temp: Cool/Ambient
Cooling: Ice/Icepack 18.2°C
Security: Intact/Broken/None

Lab Report No.
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114
Phone: (02) 9809 0666
Fax: (02) 9809 4095

Relinquished by: P. Oitmaa	Signed: PO	Date & Time: 1/3 1520hrs	Received By:	Date & Time:	
Relinquished by:	Signed:	Date & Time:	Received By: K-Gore	Date & Time: 1-3-19	1800

Douglas Partners
Geotechnics - Environment - Groundwater

CHAIN OF CUSTODY

Project Name: MOORE PARK
Project No: 86528.00 Sampler: Various
Project Mgr: Peter Oitmaa Mob. Phone: 0412 574 518
Email: peter.oitmaa@douglaspartners.com.au
Date Required: Std Lab Quote No.

To: Envirolab Services
12 Ashley Street, Chatswood NSW 2067
Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

Sample ID	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W - water	Container type	Analytes: Combo 8a	pH CEC	BTEX	TRH C6-C9	Combo 8				Notes
~~203~~	~~0.7~~		~~26/2~~	~~S~~	~~Jar/Bag~~									
204	1.0	13	"											
205	0.65	14	"											
206	2.5	15	"											
207	0.5	16	27/2											
207	1.5	17	"				✓			✓				
208	0.9-1.0	18	"											
210	0.7	19	"											
210	1.0	20	"											
211	0.5	21	26/2											
212	2.3	22	1/3											
212	4.0	23	"											

Lab Report No.
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114
Phone: (02) 9809 0666
Fax: (02) 9809 4095

Relinquished by: P Oitmaa	Signed: PO	Date & Time: 1/3 1520hr	Received By:	Date & Time:	
Relinquished by:	Signed:	Date & Time:	Received By: K-Gore	Date & Time: 1.3.19 1800	

212577

Douglas Partners
Geotechnics · Environment · Groundwater

CHAIN OF CUSTODY

Project Name: MOORE PARK
Project No: 86529.00 Sampler: Various
Project Mgr: Peter Oitmaa Mob. Phone: 0412 574 516
Email: peter.oitmaa@douglaspartners.com.au
Date Required: Std Lab Quote No.

To: Envirolab Services
12 Ashley Street, Chatswood NSW 2067
Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

	Sample ID	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W - water	Container type	Analytes: Combo 8a	pH CEC	BTEX	TRH C6-C9	Combo 8				Notes
	213	0.5-0.6	24	22/2	S	Bag/Jar									
	216	0.9	25	27/2											
	217	1.4-1.5	26	26/2											
	220	0.5-0.6	27	"											
	221	1.5	28	28/2											
	221	2.5	29	"											
	222	1.0	30	26/2											
	223	1.0	31	28/2											
	223	2.0	32	"				✓			✓				
	224	1.5	33	"											
	225	0.6-1.0	34												
	225	1.5	35												

Lab Report No.
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114 Phone: (02) 9809 0666 Fax: (02) 9809 4095

Relinquished by:	Signed:	Date & Time:	Received By:	Date & Time:
P Oitmaa		1/3 1520hrs		
Relinquished by:	Signed:	Date & Time:	Received By:	Date & Time:

21257

Douglas Partners
Geotechnics · Environment · Groundwater

CHAIN OF CUSTODY

Project Name: MOORE PARK
Project No: 86529.00 Sampler: Various
Project Mgr: Peter Oitmaa Mob. Phone: 0412 574 516
Email: peter.oitmaa@douglaspartners.com.au
Date Required: Std Lab Quote No.

To: Envirolab Services
12 Ashley Street, Chatswood NSW 2067
Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

Sample ID	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W - water	Container type	Analytes: Combo 8a	pH CEC	BTEX	TRH C6-C9	Combo 8				Notes
225	3.0	36	28/2	S	Jar/Bag		✓			✓				
226	0.8-1.0	37	"											
228	0.9-1.0	38	27/2											
228	4.3-4.4	39	"				✓			✓				
BT1A		40												
BT1B														
BT6A		41												Send 'B' samples to Eurofins.
BT6B														
BT12A		42												
BT12B														
BH14A		43												
BT14B														

Lab Report No.
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114 Phone: (02) 9809 0666 Fax: (02) 9809 4095

Relinquished by: P Oitmaa	Signed:	Date & Time: 1/3 1520hrs	Received By:	Date & Time:	
Relinquished by:	Signed:	Date & Time:	Received By: IC-Core	Date & Time: 1.3.19 1800	

212577

Douglas Partners
Geotechnics · Environment · Groundwater

CHAIN OF CUSTODY

Project Name: MOORE PARK
Project No: 86521.00 Sampler: Various
Project Mgr: Peter Oitmaa Mob. Phone: 0412 574 518
Email: peter.oitmaa@douglaspartners.com.au
Date Required: Std Lab Quote No.

To: Envirolab Services
12 Ashley Street, Chatswood NSW 2067
Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

Sample ID	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W - water	Container type	Analytes: Combo 8a	pH CEC	BTEX	TRH C6-C9					Notes
Blank		~~44~~						✓	✓					
Spike		~~45~~						✓						
EXTRA ~~221/0.5~~		46												
221/5-5		47												
unlabelled		48												

Lab Report No.
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114 Phone: (02) 9809 0666 Fax: (02) 9809 4095

Relinquished by: P Oitmaa	Signed:	Date & Time: 1/3 1520hrs	Received By:	Date & Time:	
Relinquished by:	Signed:	Date & Time:	Received By: K. Gore	Date & Time: 1.3.19 1800	

212597

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 213234

Client Details

Client	Douglas Partners Pty Ltd
Attention	Peter Oitmaa
Address	96 Hermitage Rd, West Ryde, NSW, 2114

Sample Details

Your Reference	**86529.00, Moore Park**
Number of Samples	12 soil
Date samples received	11/03/2019
Date completed instructions received	11/03/2019

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	19/03/2019
Date of Issue	19/03/2019

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Asbestos Approved By
Analysed by Asbestos Approved Identifier: Aida Marner
Authorised by Asbestos Approved Signatory: Lucy Zhu

Results Approved By
Giovanni Agosti, Group Technical Manager
Lucy Zhu, Senior Asbestos Analyst
Matthew Tang, Asbsestos Supervisor
Nancy Zhang, Laboratory Manager, Sydney
Steven Luong, Organics Supervisor

Authorised By



Jacinta Hurst, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		213234-1	213234-2	213234-3	213234-4	213234-5
Your Reference	UNITS	105	108	201	209	214
Depth		3.7	1-1.1	1.0	1.0	0.9-1.0
Date Sampled		01/03/2019	05/03/2019	05/03/2019	27/02/2019	28/02/2019
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	13/03/2019	13/03/2019	13/03/2019	13/03/2019	13/03/2019
Date analysed	-	16/03/2019	16/03/2019	16/03/2019	16/03/2019	16/03/2019
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	107	108	106	114	106

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		213234-6	213234-7	213234-8	213234-9	213234-10
Your Reference	UNITS	215	219	227	229	BT21A
Depth		0.5-0.6	2.8-2.9	0.5-0.6	1.5	-
Date Sampled		28/02/2019	28/02/2019	01/03/2019	07/03/2019	07/03/2019
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	13/03/2019	13/03/2019	13/03/2019	13/03/2019	13/03/2019
Date analysed	-	16/03/2019	16/03/2019	16/03/2019	16/03/2019	16/03/2019
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	109	108	115	115	108

vTRH(C6-C10)/BTEXN in Soil			
Our Reference		213234-11	213234-12
Your Reference	UNITS	TB	TS
Depth		-	-
Date Sampled		07/03/2019	07/03/2019
Type of sample		soil	soil
Date extracted	-	13/03/2019	13/03/2019
Date analysed	-	16/03/2019	16/03/2019
TRH C_6 - C_9	mg/kg	<25	[NA]
TRH C_6 - C_{10}	mg/kg	<25	[NA]
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	[NA]
Benzene	mg/kg	<0.2	96%
Toluene	mg/kg	<0.5	96%
Ethylbenzene	mg/kg	<1	96%
m+p-xylene	mg/kg	<2	96%
o-Xylene	mg/kg	<1	95%
naphthalene	mg/kg	<1	[NA]
Total +ve Xylenes	mg/kg	<1	[NA]
Surrogate aaa-Trifluorotoluene	%	111	102

svTRH (C10-C40) in Soil						
Our Reference		213234-1	213234-2	213234-3	213234-4	213234-5
Your Reference	UNITS	105	108	201	209	214
Depth		3.7	1-1.1	1.0	1.0	0.9-1.0
Date Sampled		01/03/2019	05/03/2019	05/03/2019	27/02/2019	28/02/2019
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	13/03/2019	13/03/2019	13/03/2019	13/03/2019	13/03/2019
Date analysed	-	16/03/2019	16/03/2019	16/03/2019	16/03/2019	16/03/2019
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	200	100	110	160	<100
TRH C_{29} - C_{36}	mg/kg	210	<100	<100	130	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	360	150	170	260	<100
TRH >C_{34} -C_{40}	mg/kg	120	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	480	150	170	260	<50
Surrogate o-Terphenyl	%	101	99	98	100	95

svTRH (C10-C40) in Soil						
Our Reference		213234-6	213234-7	213234-8	213234-9	213234-10
Your Reference	UNITS	215	219	227	229	BT21A
Depth		0.5-0.6	2.8-2.9	0.5-0.6	1.5	-
Date Sampled		28/02/2019	28/02/2019	01/03/2019	07/03/2019	07/03/2019
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	13/03/2019	13/03/2019	13/03/2019	13/03/2019	13/03/2019
Date analysed	-	16/03/2019	16/03/2019	16/03/2019	16/03/2019	16/03/2019
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	310
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	250
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	110	100	500
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	140
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	110	100	630
Surrogate o-Terphenyl	%	96	95	95	95	98

PAHs in Soil						
Our Reference		213234-1	213234-2	213234-3	213234-4	213234-5
Your Reference	UNITS	105	108	201	209	214
Depth		3.7	1-1.1	1.0	1.0	0.9-1.0
Date Sampled		01/03/2019	05/03/2019	05/03/2019	27/02/2019	28/02/2019
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	13/03/2019	13/03/2019	13/03/2019	13/03/2019	13/03/2019
Date analysed	-	14/03/2019	14/03/2019	14/03/2019	14/03/2019	14/03/2019
Naphthalene	mg/kg	0.4	0.2	0.2	0.3	0.6
Acenaphthylene	mg/kg	0.8	0.7	0.7	0.7	0.3
Acenaphthene	mg/kg	0.3	<0.1	<0.1	0.2	<0.1
Fluorene	mg/kg	0.4	0.4	0.3	0.3	<0.1
Phenanthrene	mg/kg	5.3	5.1	4.0	5.5	1.2
Anthracene	mg/kg	1.5	1.4	1.1	1.4	0.3
Fluoranthene	mg/kg	11	6.4	6.7	9.5	2.3
Pyrene	mg/kg	11	6.1	6.6	10	2.4
Benzo(a)anthracene	mg/kg	5.7	3.0	3.6	5.3	1.3
Chrysene	mg/kg	6.0	2.9	3.4	5.8	1.3
Benzo(b,j+k)fluoranthene	mg/kg	8.9	3.9	4.9	7.7	2
Benzo(a)pyrene	mg/kg	5.5	2.3	2.8	4.9	1.2
Indeno(1,2,3-c,d)pyrene	mg/kg	3.1	1.2	1.5	2.7	0.7
Dibenzo(a,h)anthracene	mg/kg	0.6	0.3	0.3	0.6	0.1
Benzo(g,h,i)perylene	mg/kg	3.6	1.4	1.8	3.6	0.8
Total +ve PAH's	mg/kg	64	35	38	58	15
Benzo(a)pyrene TEQ calc (zero)	mg/kg	8.0	3.4	4.2	7.2	1.7
Benzo(a)pyrene TEQ calc(half)	mg/kg	8.0	3.4	4.2	7.2	1.7
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	8.0	3.4	4.2	7.2	1.7
Surrogate p-Terphenyl-d14	%	108	117	113	113	115

PAHs in Soil						
Our Reference		213234-6	213234-7	213234-8	213234-9	213234-10
Your Reference	UNITS	215	219	227	229	BT21A
Depth		0.5-0.6	2.8-2.9	0.5-0.6	1.5	-
Date Sampled		28/02/2019	28/02/2019	01/03/2019	07/03/2019	07/03/2019
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	13/03/2019	13/03/2019	13/03/2019	13/03/2019	13/03/2019
Date analysed	-	14/03/2019	14/03/2019	14/03/2019	14/03/2019	14/03/2019
Naphthalene	mg/kg	<0.1	<0.1	0.1	<0.1	0.4
Acenaphthylene	mg/kg	0.1	<0.1	0.3	0.4	1.5
Acenaphthene	mg/kg	<0.1	<0.1	0.1	<0.1	0.2
Fluorene	mg/kg	<0.1	<0.1	0.2	<0.1	0.5
Phenanthrene	mg/kg	0.4	<0.1	3.2	1.9	7.9
Anthracene	mg/kg	0.1	<0.1	0.8	0.5	2.3
Fluoranthene	mg/kg	1.0	0.1	4.8	4.1	17
Pyrene	mg/kg	1.1	0.1	5.0	4.2	18
Benzo(a)anthracene	mg/kg	0.6	<0.1	2.5	2.2	9.9
Chrysene	mg/kg	0.6	<0.1	2.6	2.3	11
Benzo(b,j+k)fluoranthene	mg/kg	1	<0.2	3.6	3.3	15
Benzo(a)pyrene	mg/kg	0.65	0.06	2.2	2.1	10
Indeno(1,2,3-c,d)pyrene	mg/kg	0.4	<0.1	1.2	1.1	5.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	0.3	0.3	1.0
Benzo(g,h,i)perylene	mg/kg	0.5	<0.1	1.5	1.3	6.8
Total +ve PAH's	mg/kg	6.7	0.3	28	24	110
Benzo(a)pyrene TEQ calc (zero)	mg/kg	0.9	<0.5	3.3	3.1	15
Benzo(a)pyrene TEQ calc(half)	mg/kg	0.9	<0.5	3.3	3.1	15
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	1	<0.5	3.3	3.1	15
Surrogate p-Terphenyl-d14	%	116	113	114	112	114

Organochlorine Pesticides in soil						
Our Reference		213234-1	213234-2	213234-3	213234-4	213234-5
Your Reference	UNITS	105	108	201	209	214
Depth		3.7	1-1.1	1.0	1.0	0.9-1.0
Date Sampled		01/03/2019	05/03/2019	05/03/2019	27/02/2019	28/02/2019
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	13/03/2019	13/03/2019	13/03/2019	13/03/2019	13/03/2019
Date analysed	-	15/03/2019	15/03/2019	15/03/2019	15/03/2019	15/03/2019
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	112	106	102	101	99

Organochlorine Pesticides in soil						
Our Reference		213234-6	213234-7	213234-8	213234-9	213234-10
Your Reference	UNITS	215	219	227	229	BT21A
Depth		0.5-0.6	2.8-2.9	0.5-0.6	1.5	-
Date Sampled		28/02/2019	28/02/2019	01/03/2019	07/03/2019	07/03/2019
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	13/03/2019	13/03/2019	13/03/2019	13/03/2019	13/03/2019
Date analysed	-	15/03/2019	15/03/2019	15/03/2019	15/03/2019	15/03/2019
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	104	105	102	100	106

Organophosphorus Pesticides						
Our Reference		213234-1	213234-2	213234-3	213234-4	213234-5
Your Reference	UNITS	105	108	201	209	214
Depth		3.7	1-1.1	1.0	1.0	0.9-1.0
Date Sampled		01/03/2019	05/03/2019	05/03/2019	27/02/2019	28/02/2019
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	13/03/2019	13/03/2019	13/03/2019	13/03/2019	13/03/2019
Date analysed	-	15/03/2019	15/03/2019	15/03/2019	15/03/2019	15/03/2019
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	112	106	102	101	99

Organophosphorus Pesticides						
Our Reference		213234-6	213234-7	213234-8	213234-9	213234-10
Your Reference	UNITS	215	219	227	229	BT21A
Depth		0.5-0.6	2.8-2.9	0.5-0.6	1.5	-
Date Sampled		28/02/2019	28/02/2019	01/03/2019	07/03/2019	07/03/2019
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	13/03/2019	13/03/2019	13/03/2019	13/03/2019	13/03/2019
Date analysed	-	15/03/2019	15/03/2019	15/03/2019	15/03/2019	15/03/2019
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	104	105	102	100	106

PCBs in Soil						
Our Reference		213234-1	213234-2	213234-3	213234-4	213234-5
Your Reference	UNITS	105	108	201	209	214
Depth		3.7	1-1.1	1.0	1.0	0.9-1.0
Date Sampled		01/03/2019	05/03/2019	05/03/2019	27/02/2019	28/02/2019
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	13/03/2019	13/03/2019	13/03/2019	13/03/2019	13/03/2019
Date analysed	-	15/03/2019	15/03/2019	15/03/2019	15/03/2019	15/03/2019
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	112	106	102	101	99

PCBs in Soil						
Our Reference		213234-6	213234-7	213234-8	213234-9	213234-10
Your Reference	UNITS	215	219	227	229	BT21A
Depth		0.5-0.6	2.8-2.9	0.5-0.6	1.5	-
Date Sampled		28/02/2019	28/02/2019	01/03/2019	07/03/2019	07/03/2019
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	13/03/2019	13/03/2019	13/03/2019	13/03/2019	13/03/2019
Date analysed	-	15/03/2019	15/03/2019	15/03/2019	15/03/2019	15/03/2019
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	104	105	102	100	106

Acid Extractable metals in soil						
Our Reference		213234-1	213234-2	213234-3	213234-4	213234-5
Your Reference	UNITS	105	108	201	209	214
Depth		3.7	1-1.1	1.0	1.0	0.9-1.0
Date Sampled		01/03/2019	05/03/2019	05/03/2019	27/02/2019	28/02/2019
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	13/03/2019	13/03/2019	13/03/2019	13/03/2019	13/03/2019
Date analysed	-	13/03/2019	13/03/2019	13/03/2019	13/03/2019	13/03/2019
Arsenic	mg/kg	<4	4	4	5	<4
Cadmium	mg/kg	<0.4	1	<0.4	<0.4	<0.4
Chromium	mg/kg	5	11	9	10	6
Copper	mg/kg	17	43	41	41	16
Lead	mg/kg	86	110	560	140	66
Mercury	mg/kg	0.2	0.2	0.4	0.6	0.2
Nickel	mg/kg	3	10	4	6	4
Zinc	mg/kg	69	560	71	120	40

Acid Extractable metals in soil						
Our Reference		213234-6	213234-7	213234-8	213234-9	213234-10
Your Reference	UNITS	215	219	227	229	BT21A
Depth		0.5-0.6	2.8-2.9	0.5-0.6	1.5	-
Date Sampled		28/02/2019	28/02/2019	01/03/2019	07/03/2019	07/03/2019
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	13/03/2019	13/03/2019	13/03/2019	13/03/2019	13/03/2019
Date analysed	-	13/03/2019	13/03/2019	13/03/2019	13/03/2019	13/03/2019
Arsenic	mg/kg	<4	<4	<4	<4	5
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	7	3	5	5	9
Copper	mg/kg	33	<1	24	17	55
Lead	mg/kg	65	4	88	73	180
Mercury	mg/kg	0.1	<0.1	0.2	0.2	0.8
Nickel	mg/kg	19	<1	3	2	6
Zinc	mg/kg	39	5	52	46	100

Misc Soil - Inorg						
Our Reference		213234-1	213234-2	213234-3	213234-4	213234-5
Your Reference	UNITS	105	108	201	209	214
Depth		3.7	1-1.1	1.0	1.0	0.9-1.0
Date Sampled		01/03/2019	05/03/2019	05/03/2019	27/02/2019	28/02/2019
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	13/03/2019	13/03/2019	13/03/2019	13/03/2019	13/03/2019
Date analysed	-	13/03/2019	13/03/2019	13/03/2019	13/03/2019	13/03/2019
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg						
Our Reference		213234-6	213234-7	213234-8	213234-9	213234-10
Your Reference	UNITS	215	219	227	229	BT21A
Depth		0.5-0.6	2.8-2.9	0.5-0.6	1.5	-
Date Sampled		28/02/2019	28/02/2019	01/03/2019	07/03/2019	07/03/2019
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	13/03/2019	13/03/2019	13/03/2019	13/03/2019	13/03/2019
Date analysed	-	13/03/2019	13/03/2019	13/03/2019	13/03/2019	13/03/2019
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Moisture						
Our Reference		213234-1	213234-2	213234-3	213234-4	213234-5
Your Reference	UNITS	105	108	201	209	214
Depth		3.7	1-1.1	1.0	1.0	0.9-1.0
Date Sampled		01/03/2019	05/03/2019	05/03/2019	27/02/2019	28/02/2019
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	13/03/2019	13/03/2019	13/03/2019	13/03/2019	13/03/2019
Date analysed	-	14/03/2019	14/03/2019	14/03/2019	14/03/2019	14/03/2019
Moisture	%	9.6	13	10	12	11

Moisture						
Our Reference		213234-6	213234-7	213234-8	213234-9	213234-10
Your Reference	UNITS	215	219	227	229	BT21A
Depth		0.5-0.6	2.8-2.9	0.5-0.6	1.5	-
Date Sampled		28/02/2019	28/02/2019	01/03/2019	07/03/2019	07/03/2019
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	13/03/2019	13/03/2019	13/03/2019	13/03/2019	13/03/2019
Date analysed	-	14/03/2019	14/03/2019	14/03/2019	14/03/2019	14/03/2019
Moisture	%	9.1	4.4	16	8.2	13

Asbestos ID - soils NEPM						
Our Reference		213234-1	213234-3	213234-4	213234-5	213234-6
Your Reference	UNITS	105	201	209	214	215
Depth		3.7	1.0	1.0	0.9-1.0	0.5-0.6
Date Sampled		01/03/2019	05/03/2019	27/02/2019	28/02/2019	28/02/2019
Type of sample		soil	soil	soil	soil	soil
Date analysed	-	14/03/2019	14/03/2019	14/03/2019	14/03/2019	14/03/2019
Sample mass tested	g	910.93	991.78	1,251.57	1,319.39	1,159.73
Sample Description	-	Brown sandy soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected
Total Asbestos[#1]	g/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Asbestos ID in soil <0.1g/kg*	-	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected
ACM >7mm Estimation*	g	–	–	–	–	–
FA and AF Estimation*	g	–	–	–	–	–
FA and AF Estimation*#2	%(w/w)	<0.001	<0.001	<0.001	<0.001	<0.001

Asbestos ID - soils NEPM				
Our Reference		213234-7	213234-8	213234-9
Your Reference	UNITS	219	227	229
Depth		2.8-2.9	0.5-0.6	1.5
Date Sampled		28/02/2019	01/03/2019	07/03/2019
Type of sample		soil	soil	soil
Date analysed	-	14/03/2019	14/03/2019	14/03/2019
Sample mass tested	g	1,421.66	1,195.85	1,162.3
Sample Description	-	Brown sandy soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected
Total Asbestos#1	g/kg	<0.1	<0.1	<0.1
Asbestos ID in soil <0.1g/kg*	-	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected
ACM >7mm Estimation*	g	–	–	–
FA and AF Estimation*	g	–	–	–
FA and AF Estimation*#2	%(w/w)	<0.001	<0.001	<0.001

Asbestos ID - soils		
Our Reference		213234-2
Your Reference	UNITS	108
Depth		1-1.1
Date Sampled		05/03/2019
Type of sample		soil
Date analysed	-	14/03/2019
Sample mass tested	g	Approx. 40g
Sample Description	-	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Asbestos comments	-	NO
Trace Analysis	-	No asbestos detected

Method ID	Methodology Summary
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.
ASB-001	Asbestos ID - Identification of asbestos in soil samples using Polarised Light Microscopy and Dispersion Staining Techniques. Minimum 500mL soil sample was analysed as recommended by "National Environment Protection (Assessment of site contamination) Measure, Schedule B1 and "The Guidelines from the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia - May 2009" with a reporting limit of 0.1g/kg (0.01% w/w) as per Australian Standard AS4964-2004. Results reported denoted with * are outside our scope of NATA accreditation. **NOTE** #1 Total Asbestos g/kg was analysed and reported as per Australian Standard AS4964 (This is the sum of ACM >7mm, <7mm and FA/AF) **NOTE** #2 The screening level of 0.001% w/w asbestos in soil for FA and AF only applies where the FA and AF are able to be quantified by gravimetric procedures. This screening level is not applicable to free fibres. Estimation = Estimated asbestos weight Results reported with "--" is equivalent to no visible asbestos identified using Polarised Light microscopy and Dispersion Staining Techniques.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Inorg-031	Total Phenolics by segmented flow analyser (in line distillation with colourimetric finish). Solids are extracted in a caustic media prior to analysis.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.

Method ID	Methodology Summary
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-008	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	213234-2
Date extracted	-			13/03/2019	1	13/03/2019	13/03/2019		13/03/2019	13/03/2019
Date analysed	-			16/03/2019	1	16/03/2019	16/03/2019		16/03/2019	16/03/2019
TRH C_6 - C_9	mg/kg	25	Org-016	<25	1	<25	<25	0	120	118
TRH C_6 - C_{10}	mg/kg	25	Org-016	<25	1	<25	<25	0	120	118
Benzene	mg/kg	0.2	Org-016	<0.2	1	<0.2	<0.2	0	122	119
Toluene	mg/kg	0.5	Org-016	<0.5	1	<0.5	<0.5	0	121	119
Ethylbenzene	mg/kg	1	Org-016	<1	1	<1	<1	0	119	117
m+p-xylene	mg/kg	2	Org-016	<2	1	<2	<2	0	119	118
o-Xylene	mg/kg	1	Org-016	<1	1	<1	<1	0	121	118
naphthalene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	116	1	107	109	2	119	115

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	10	13/03/2019	13/03/2019		[NT]	[NT]
Date analysed	-			[NT]	10	16/03/2019	16/03/2019		[NT]	[NT]
TRH C_6 - C_9	mg/kg	25	Org-016	[NT]	10	<25	<25	0	[NT]	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-016	[NT]	10	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-016	[NT]	10	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-016	[NT]	10	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-016	[NT]	10	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-016	[NT]	10	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-016	[NT]	10	<1	<1	0	[NT]	[NT]
naphthalene	mg/kg	1	Org-014	[NT]	10	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	[NT]	10	108	110	2	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	213234-2
Date extracted	-			13/03/2019	1	13/03/2019	13/03/2019		13/03/2019	13/03/2019
Date analysed	-			16/03/2019	1	16/03/2019	16/03/2019		16/03/2019	16/03/2019
TRH C_{10} - C_{14}	mg/kg	50	Org-003	<50	1	<50	<50	0	96	111
TRH C_{15} - C_{28}	mg/kg	100	Org-003	<100	1	200	210	5	94	114
TRH C_{29} - C_{36}	mg/kg	100	Org-003	<100	1	210	180	15	129	127
TRH >C_{10} -C_{16}	mg/kg	50	Org-003	<50	1	<50	<50	0	96	111
TRH >C_{16} -C_{34}	mg/kg	100	Org-003	<100	1	360	360	0	94	114
TRH >C_{34} -C_{40}	mg/kg	100	Org-003	<100	1	120	100	18	129	127
Surrogate o-Terphenyl	%		Org-003	101	1	101	100	1	108	99

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	10	13/03/2019	13/03/2019		[NT]	[NT]
Date analysed	-			[NT]	10	16/03/2019	16/03/2019		[NT]	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-003	[NT]	10	<50	<50	0	[NT]	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-003	[NT]	10	310	190	48	[NT]	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-003	[NT]	10	250	160	44	[NT]	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-003	[NT]	10	<50	<50	0	[NT]	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-003	[NT]	10	500	310	47	[NT]	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-003	[NT]	10	140	<100	33	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-003	[NT]	10	98	99	1	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	213234-2
Date extracted	-			13/03/2019	1	13/03/2019	13/03/2019		[NT]	[NT]
Date analysed	-			14/03/2019	1	14/03/2019	14/03/2019		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-012	<0.1	1	0.4	0.5	22	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-012	<0.1	1	0.8	1	22	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-012	<0.1	1	0.3	0.2	40	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-012	<0.1	1	0.4	0.4	0	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-012	<0.1	1	5.3	6.8	25	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-012	<0.1	1	1.5	1.9	24	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-012	<0.1	1	11	14	24	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-012	<0.1	1	11	13	17	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-012	<0.1	1	5.7	7.1	22	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-012	<0.1	1	6.0	7.0	15	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-012	<0.2	1	8.9	10	12	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-012	<0.05	1	5.5	6.1	10	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	<0.1	1	3.1	3.4	9	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	<0.1	1	0.6	0.8	29	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	<0.1	1	3.6	4.1	13	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	122	1	108	117	8	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	10	13/03/2019	13/03/2019		[NT]	[NT]
Date analysed	-			[NT]	10	14/03/2019	14/03/2019		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-012	[NT]	10	0.4	0.3	29	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-012	[NT]	10	1.5	0.9	50	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-012	[NT]	10	0.2	0.1	67	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-012	[NT]	10	0.5	0.3	50	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-012	[NT]	10	7.9	5.5	36	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-012	[NT]	10	2.3	1.4	49	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-012	[NT]	10	17	11	43	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-012	[NT]	10	18	11	48	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-012	[NT]	10	9.9	6.3	44	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-012	[NT]	10	11	6.5	51	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-012	[NT]	10	15	9.4	46	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-012	[NT]	10	10	5.7	55	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	[NT]	10	5.1	3.2	46	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	[NT]	10	1.0	0.7	35	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	[NT]	10	6.8	4.2	47	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	10	114	115	1	[NT]	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	213234-2
Date extracted	-			13/03/2019	1	13/03/2019	13/03/2019		13/03/2019	13/03/2019
Date analysed	-			15/03/2019	1	15/03/2019	15/03/2019		15/03/2019	15/03/2019
HCB	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	99	88
gamma-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	83	79
Heptachlor	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	76	76
delta-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	91	84
Heptachlor Epoxide	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	99	93
gamma-Chlordane	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	96	91
Dieldrin	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	118	111
Endrin	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	89	91
pp-DDD	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	80	79
Endosulfan II	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	87	81
Methoxychlor	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-005	105	1	112	114	2	131	126

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	10	13/03/2019	13/03/2019		[NT]	[NT]
Date analysed	-			[NT]	10	15/03/2019	15/03/2019		[NT]	[NT]
HCB	mg/kg	0.1	Org-005	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-005	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-005	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-005	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-005	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-005	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-005	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-005	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-005	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-005	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-005	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-005	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-005	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-005	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-005	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-005	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-005	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-005	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-005	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-005	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-005	[NT]	10	106	105	1	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	213234-2
Date extracted	-			13/03/2019	1	13/03/2019	13/03/2019		13/03/2019	13/03/2019
Date analysed	-			15/03/2019	1	15/03/2019	15/03/2019		15/03/2019	15/03/2019
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	92	96
Chlorpyriphos-methyl	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	83	78
Dimethoate	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	87	94
Fenitrothion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	112	110
Malathion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	82	71
Parathion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	118	93
Ronnel	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	92	91
Surrogate TCMX	%		Org-008	105	1	112	114	2	105	107

QUALITY CONTROL: Organophosphorus Pesticides						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	10	13/03/2019	13/03/2019		[NT]	[NT]
Date analysed	-			[NT]	10	15/03/2019	15/03/2019		[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-008	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-008	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-008	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-008	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-008	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-008	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-008	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
Fenitrothion	mg/kg	0.1	Org-008	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
Malathion	mg/kg	0.1	Org-008	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-008	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-008	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-008	[NT]	10	106	105	1	[NT]	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	213234-2
Date extracted	-			13/03/2019	1	13/03/2019	13/03/2019		13/03/2019	13/03/2019
Date analysed	-			15/03/2019	1	15/03/2019	15/03/2019		15/03/2019	15/03/2019
Aroclor 1016	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	123	110
Aroclor 1260	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCLMX	%		Org-006	105	1	112	114	2	105	107

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	10	13/03/2019	13/03/2019		[NT]	[NT]
Date analysed	-			[NT]	10	15/03/2019	15/03/2019		[NT]	[NT]
Aroclor 1016	mg/kg	0.1	Org-006	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-006	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-006	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-006	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-006	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-006	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1260	mg/kg	0.1	Org-006	[NT]	10	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCLMX	%		Org-006	[NT]	10	106	105	1	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	213234-2
Date prepared	-			13/03/2019	1	13/03/2019	13/03/2019		13/03/2019	13/03/2019
Date analysed	-			13/03/2019	1	13/03/2019	13/03/2019		13/03/2019	13/03/2019
Arsenic	mg/kg	4	Metals-020	<4	1	<4	<4	0	97	88
Cadmium	mg/kg	0.4	Metals-020	<0.4	1	<0.4	<0.4	0	91	81
Chromium	mg/kg	1	Metals-020	<1	1	5	6	18	97	81
Copper	mg/kg	1	Metals-020	<1	1	17	23	30	104	118
Lead	mg/kg	1	Metals-020	<1	1	86	130	41	96	##
Mercury	mg/kg	0.1	Metals-021	<0.1	1	0.2	0.2	0	100	110
Nickel	mg/kg	1	Metals-020	<1	1	3	3	0	95	73
Zinc	mg/kg	1	Metals-020	<1	1	69	75	8	94	#

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	10	13/03/2019	13/03/2019		[NT]	[NT]
Date analysed	-			[NT]	10	13/03/2019	13/03/2019		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	10	5	5	0	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	10	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	10	9	10	11	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	10	55	56	2	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	10	180	170	6	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	10	0.8	0.9	12	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	10	6	7	15	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	10	100	100	0	[NT]	[NT]

QUALITY CONTROL: Misc Soil - Inorg						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	213234-2
Date prepared	-			13/03/2019	1	13/03/2019	13/03/2019		13/03/2019	13/03/2019
Date analysed	-			13/03/2019	1	13/03/2019	13/03/2019		13/03/2019	13/03/2019
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	<5	1	<5	<5	0	104	105

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Report Comments

Asbestos: A portion of the supplied sample was sub-sampled for asbestos analysis according to Envirolab procedures.
We cannot guarantee that this sub-sample is indicative of the entire sample.
Envirolab recommends supplying 40-50g of sample in its own container.
Note: Sample 213234-2 was sub-sampled from a jar provided by the client.

Asbestos-ID in soil: NEPM
This report is consistent with the reporting recommendations in the National Environment Protection (Assessment of Site Contamination) Measure, Schedule B1, May 2013. This is reported outside our scope of NATA accreditation.

Acid Extractable Metals in Soil:
Percent recovery is not possible to report due to the high concentration of the element/s in the sample/s. However an acceptable recovery was obtained for the LCS.

Acid Extractable Metals in Soil:
Percent recovery is not possible to report due to the inhomogeneous nature of the element/s in the sample/s. However an acceptable recovery was obtained for the LCS.

Acid Extractable Metals in Soil - Spike recovery for Hg in sample #2 at 146% which is outside lab acceptance criteria (70-130%), however, the LCS recovery is acceptable at 100%, sample heterogeneity suspected

PAHs in Soil - The RPD for duplicate results is accepted due to the non homogenous nature of sample 10.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	Douglas Partners Pty Ltd
Attention	Peter Oitmaa

Sample Login Details

Your reference	86529.00, Moore Park
Envirolab Reference	213234
Date Sample Received	11/03/2019
Date Instructions Received	11/03/2019
Date Results Expected to be Reported	19/03/2019

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	12 soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	22.3
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

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12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticidesin soil	Organophosphorus Pesticides	PCBsin Soil	Acid Extractable metalsin soil	Misc Soil - Inorg	Asbestos ID - soils NEPM
105-3.7	✓	✓	✓	✓	✓	✓	✓	✓	✓
108-1-1.1	✓	✓	✓	✓	✓	✓	✓	✓	✓
201-1.0	✓	✓	✓	✓	✓	✓	✓	✓	✓
209-1.0	✓	✓	✓	✓	✓	✓	✓	✓	✓
214-0.9-1.0	✓	✓	✓	✓	✓	✓	✓	✓	✓
215-0.5-0.6	✓	✓	✓	✓	✓	✓	✓	✓	✓
219-2.8-2.9	✓	✓	✓	✓	✓	✓	✓	✓	✓
227-0.5-0.6	✓	✓	✓	✓	✓	✓	✓	✓	✓
229-1.5	✓	✓	✓	✓	✓	✓	✓	✓	✓
BT21A	✓	✓	✓	✓	✓	✓	✓	✓	
TB	✓								
TS	✓								

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.

Douglas Partners
Geotechnics · Environment · Groundwater

CHAIN OF CUSTODY

Project Name: MOORE PARK
Project No: 86529.00 Sampler: Various
Project Mgr: Peter Oitmaa Mob. Phone: 0412 574 518
Email: peter.oitmaa@douglaspartners.com.au
Date Required: Std. Lab Quote No.

To: Envirolab Services
12 Ashley Street, Chatswood NSW 2067
Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

Sample ID	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W - water	Container type	Analytes: Combo 8	Asb. 500mL	BTEX	TRH C_6-C_9					Notes
105	3.7	1	1/3	S	Jar/Bag									
108	1-1.1	2	5/3											
201	1.0	3	"											
209	1.0	4	27/2											
214	0.9-1.0	5	28/2											
215	0.5-0.6	6	"											
219	2.8-2.9	7	"											22.3
227	0.5-0.6	8	1/3											
229	1.5	9	7/3											
BT2/A	N/A	10	N/A		Jar									
BT2/B	"	—	"		"									
Blank/Spike		11,12							/	/				Send 21B to Eurofins
														As applicable

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200
Job No: 213234
Date Received: 11/3/2019
Time Received: 16:53
Received by: R
Temp: Cool/Ambient
Cooling: Ice/Ice pack
Security: Intact/Broken/None

Lab Report No.
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114
Phone: (02) 9809 0666
Fax: (02) 9809 4095

Relinquished by: PMO	Signed: PMO	Date & Time: 11/3 1200hrs	Received By:	Date & Time:	
Relinquished by:	Signed:	Date & Time:	Received By: Ray Ellis	Date & Time: 11/3/2019	

16:53

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 214209

Client Details

Client	Douglas Partners Pty Ltd
Attention	Peter Oitmaa
Address	96 Hermitage Rd, West Ryde, NSW, 2114

Sample Details

Your Reference	**86529.00, Moore Park**
Number of Samples	5 Water
Date samples received	26/03/2019
Date completed instructions received	26/03/2019

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	02/04/2019
Date of Issue	02/04/2019

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Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Giovanni Agosti, Group Technical Manager
Jeremy Faircloth, Operations Manager, Sydney
Nick Sarlamis, Inorganics Supervisor
Steven Luong, Organics Supervisor

Authorised By



Jacinta Hurst, Laboratory Manager

VOCs in water						
Our Reference		214209-1	214209-2	214209-3	214209-4	214209-5
Your Reference	UNITS	101	107	C37	BD1	R1
Date Sampled		23/03/2019	23/03/2019	23/03/2019	23/03/2019	23/03/2019
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	28/03/2019	28/03/2019	28/03/2019	28/03/2019	28/03/2019
Date analysed	-	29/03/2019	29/03/2019	29/03/2019	29/03/2019	29/03/2019
Dichlorodifluoromethane	µg/L	<10	<10	<10	<10	<10
Chloromethane	µg/L	<10	<10	<10	<10	<10
Vinyl Chloride	µg/L	<10	<10	<10	<10	<10
Bromomethane	µg/L	<10	<10	<10	<10	<10
Chloroethane	µg/L	<10	<10	<10	<10	<10
Trichlorofluoromethane	µg/L	<10	<10	<10	<10	<10
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trans-1,2-dichloroethene	µg/L	<1	<1	<1	<1	<1
1,1-dichloroethane	µg/L	<1	<1	<1	<1	<1
Cis-1,2-dichloroethene	µg/L	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	<1	7
2,2-dichloropropane	µg/L	<1	<1	<1	<1	<1
1,2-dichloroethane	µg/L	<1	<1	<1	<1	<1
1,1,1-trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-dichloropropene	µg/L	<1	<1	<1	<1	<1
Cyclohexane	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Benzene	µg/L	<1	<1	<1	<1	<1
Dibromomethane	µg/L	<1	<1	<1	<1	<1
1,2-dichloropropane	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	µg/L	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	µg/L	<1	<1	<1	<1	<1
1,1,2-trichloroethane	µg/L	<1	<1	<1	<1	<1
Toluene	µg/L	<1	<1	<1	<1	<1
1,3-dichloropropane	µg/L	<1	<1	<1	<1	<1
Dibromochloromethane	µg/L	<1	<1	<1	<1	<1
1,2-dibromoethane	µg/L	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	µg/L	<1	<1	<1	<1	<1
Chlorobenzene	µg/L	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1
Bromoform	µg/L	<1	<1	<1	<1	<1

VOCs in water						
Our Reference		214209-1	214209-2	214209-3	214209-4	214209-5
Your Reference	UNITS	101	107	C37	BD1	R1
Date Sampled		23/03/2019	23/03/2019	23/03/2019	23/03/2019	23/03/2019
Type of sample		Water	Water	Water	Water	Water
m+p-xylene	µg/L	<2	<2	<2	<2	<2
Styrene	µg/L	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	µg/L	<1	<1	<1	<1	<1
o-xylene	µg/L	<1	<1	<1	<1	<1
1,2,3-trichloropropane	µg/L	<1	<1	<1	<1	<1
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1
Bromobenzene	µg/L	<1	<1	<1	<1	<1
n-propyl benzene	µg/L	<1	<1	<1	<1	<1
2-chlorotoluene	µg/L	<1	<1	<1	<1	<1
4-chlorotoluene	µg/L	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	µg/L	<1	<1	<1	<1	<1
Tert-butyl benzene	µg/L	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	µg/L	1	<1	<1	1	<1
1,3-dichlorobenzene	µg/L	<1	<1	<1	<1	<1
Sec-butyl benzene	µg/L	<1	<1	<1	<1	<1
1,4-dichlorobenzene	µg/L	<1	<1	<1	<1	<1
4-isopropyl toluene	µg/L	<1	<1	<1	<1	<1
1,2-dichlorobenzene	µg/L	<1	<1	<1	<1	<1
n-butyl benzene	µg/L	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	µg/L	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	µg/L	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	µg/L	<1	<1	<1	<1	<1
Surrogate Dibromofluoromethane	%	109	114	112	114	98
Surrogate toluene-d8	%	97	98	97	97	98
Surrogate 4-BFB	%	104	101	101	107	102

vTRH(C6-C10)/BTEXN in Water						
Our Reference		214209-1	214209-2	214209-3	214209-4	214209-5
Your Reference	UNITS	101	107	C37	BD1	R1
Date Sampled		23/03/2019	23/03/2019	23/03/2019	23/03/2019	23/03/2019
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	28/03/2019	28/03/2019	28/03/2019	28/03/2019	28/03/2019
Date analysed	-	29/03/2019	29/03/2019	29/03/2019	29/03/2019	29/03/2019
TRH C_6 - C_9	µg/L	<10	<10	<10	<10	<10
TRH C_6 - C_{10}	µg/L	<10	<10	<10	<10	<10
TRH C_6 - C_{10} less BTEX (F1)	µg/L	<10	<10	<10	<10	<10
Benzene	µg/L	<1	<1	<1	<1	<1
Toluene	µg/L	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1
m+p-xylene	µg/L	<2	<2	<2	<2	<2
o-xylene	µg/L	<1	<1	<1	<1	<1
Naphthalene	µg/L	<1	<1	<1	<1	<1
Surrogate Dibromofluoromethane	%	109	114	112	114	98
Surrogate toluene-d8	%	97	98	97	97	98
Surrogate 4-BFB	%	104	101	101	107	102

svTRH (C10-C40) in Water						
Our Reference		214209-1	214209-2	214209-3	214209-4	214209-5
Your Reference	UNITS	101	107	C37	BD1	R1
Date Sampled		23/03/2019	23/03/2019	23/03/2019	23/03/2019	23/03/2019
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	27/03/2019	27/03/2019	27/03/2019	27/03/2019	27/03/2019
Date analysed	-	28/03/2019	28/03/2019	28/03/2019	28/03/2019	28/03/2019
TRH C_{10} - C_{14}	µg/L	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	µg/L	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	µg/L	<100	<100	<100	<100	<100
TRH >C_{10} - C_{16}	µg/L	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	µg/L	<50	<50	<50	<50	<50
TRH >C_{16} - C_{34}	µg/L	<100	<100	<100	<100	<100
TRH >C_{34} - C_{40}	µg/L	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	79	96	84	105	87

PAHs in Water						
Our Reference		214209-1	214209-2	214209-3	214209-4	214209-5
Your Reference	UNITS	101	107	C37	BD1	R1
Date Sampled		23/03/2019	23/03/2019	23/03/2019	23/03/2019	23/03/2019
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	27/03/2019	27/03/2019	27/03/2019	27/03/2019	27/03/2019
Date analysed	-	28/03/2019	28/03/2019	28/03/2019	28/03/2019	28/03/2019
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	112	126	112	130	119

OCP in water						
Our Reference		214209-1	214209-2	214209-3	214209-4	214209-5
Your Reference	UNITS	101	107	C37	BD1	R1
Date Sampled		23/03/2019	23/03/2019	23/03/2019	23/03/2019	23/03/2019
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	27/03/2019	27/03/2019	27/03/2019	27/03/2019	27/03/2019
Date analysed	-	27/03/2019	27/03/2019	27/03/2019	27/03/2019	27/03/2019
HCB	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
alpha-BHC	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
gamma-BHC	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
beta-BHC	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Heptachlor	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
delta-BHC	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Aldrin	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Heptachlor Epoxide	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
gamma-Chlordane	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
alpha-Chlordane	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Endosulfan I	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
pp-DDE	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Dieldrin	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
pp-DDD	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Endosulfan II	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
pp-DDT	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin Aldehyde	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Endosulfan Sulphate	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Methoxychlor	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Surrogate TCMX	%	86	99	92	98	97

OP Pesticides in water						
Our Reference		214209-1	214209-2	214209-3	214209-4	214209-5
Your Reference	UNITS	101	107	C37	BD1	R1
Date Sampled		23/03/2019	23/03/2019	23/03/2019	23/03/2019	23/03/2019
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	27/03/2019	27/03/2019	27/03/2019	27/03/2019	27/03/2019
Date analysed	-	27/03/2019	27/03/2019	27/03/2019	27/03/2019	27/03/2019
Azinphos-methyl (Guthion)	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos ethyl	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyriphos	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyriphos-methyl	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Diazinon	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorvos	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Dimethoate	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Ethion	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Fenitrothion	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Ronnel	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Surrogate TCMX	%	86	99	92	98	97

PCBs in Water						
Our Reference		214209-1	214209-2	214209-3	214209-4	214209-5
Your Reference	UNITS	101	107	C37	BD1	R1
Date Sampled		23/03/2019	23/03/2019	23/03/2019	23/03/2019	23/03/2019
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	27/03/2019	27/03/2019	27/03/2019	27/03/2019	27/03/2019
Date analysed	-	27/03/2019	27/03/2019	27/03/2019	27/03/2019	27/03/2019
Aroclor 1016	µg/L	<2	<2	<2	<2	<2
Aroclor 1221	µg/L	<2	<2	<2	<2	<2
Aroclor 1232	µg/L	<2	<2	<2	<2	<2
Aroclor 1242	µg/L	<2	<2	<2	<2	<2
Aroclor 1248	µg/L	<2	<2	<2	<2	<2
Aroclor 1254	µg/L	<2	<2	<2	<2	<2
Aroclor 1260	µg/L	<2	<2	<2	<2	<2
Surrogate TCLMX	%	86	99	92	98	97

Total Phenolics in Water						
Our Reference		214209-1	214209-2	214209-3	214209-4	214209-5
Your Reference	UNITS	101	107	C37	BD1	R1
Date Sampled		23/03/2019	23/03/2019	23/03/2019	23/03/2019	23/03/2019
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	02/04/2019	02/04/2019	02/04/2019	02/04/2019	02/04/2019
Date analysed	-	02/04/2019	02/04/2019	02/04/2019	02/04/2019	02/04/2019
Total Phenolics (as Phenol)	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05

HM in water - dissolved						
Our Reference		214209-1	214209-2	214209-3	214209-4	214209-5
Your Reference	UNITS	101	107	C37	BD1	R1
Date Sampled		23/03/2019	23/03/2019	23/03/2019	23/03/2019	23/03/2019
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	27/03/2019	27/03/2019	27/03/2019	27/03/2019	27/03/2019
Date analysed	-	27/03/2019	27/03/2019	27/03/2019	27/03/2019	27/03/2019
Arsenic-Dissolved	µg/L	<1	<1	<1	<1	<1
Cadmium-Dissolved	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Chromium-Dissolved	µg/L	<1	<1	<1	<1	<1
Copper-Dissolved	µg/L	<1	<1	<1	<1	3
Lead-Dissolved	µg/L	<1	<1	<1	<1	<1
Mercury-Dissolved	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Nickel-Dissolved	µg/L	6	2	<1	6	1
Zinc-Dissolved	µg/L	2	2	2	2	3

Method ID	Methodology Summary
Inorg-031	Total Phenolics by segmented flow analyser (in line distillation with colourimetric finish). Solids are extracted in a caustic media prior to analysis.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Metals-022	Determination of various metals by ICP-MS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Org-008	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.
Org-013	Water samples are analysed directly by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.

QUALITY CONTROL: VOCs in water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			28/03/2019	1	28/03/2019	28/03/2019		28/03/2019	[NT]
Date analysed	-			29/03/2019	1	29/03/2019	29/03/2019		29/03/2019	[NT]
Dichlorodifluoromethane	µg/L	10	Org-013	<10	1	<10	<10	0	[NT]	[NT]
Chloromethane	µg/L	10	Org-013	<10	1	<10	<10	0	[NT]	[NT]
Vinyl Chloride	µg/L	10	Org-013	<10	1	<10	<10	0	[NT]	[NT]
Bromomethane	µg/L	10	Org-013	<10	1	<10	<10	0	[NT]	[NT]
Chloroethane	µg/L	10	Org-013	<10	1	<10	<10	0	[NT]	[NT]
Trichlorofluoromethane	µg/L	10	Org-013	<10	1	<10	<10	0	[NT]	[NT]
1,1-Dichloroethene	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
Trans-1,2-dichloroethene	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
1,1-dichloroethane	µg/L	1	Org-013	<1	1	<1	<1	0	90	[NT]
Cis-1,2-dichloroethene	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
Bromochloromethane	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
Chloroform	µg/L	1	Org-013	<1	1	<1	<1	0	92	[NT]
2,2-dichloropropane	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
1,2-dichloroethane	µg/L	1	Org-013	<1	1	<1	<1	0	92	[NT]
1,1,1-trichloroethane	µg/L	1	Org-013	<1	1	<1	<1	0	106	[NT]
1,1-dichloropropene	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
Cyclohexane	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
Carbon tetrachloride	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
Benzene	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
Dibromomethane	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
1,2-dichloropropane	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
Trichloroethene	µg/L	1	Org-013	<1	1	<1	<1	0	112	[NT]
Bromodichloromethane	µg/L	1	Org-013	<1	1	<1	<1	0	105	[NT]
trans-1,3-dichloropropene	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
cis-1,3-dichloropropene	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
1,1,2-trichloroethane	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
Toluene	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
1,3-dichloropropane	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
Dibromochloromethane	µg/L	1	Org-013	<1	1	<1	<1	0	118	[NT]
1,2-dibromoethane	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
Tetrachloroethene	µg/L	1	Org-013	<1	1	<1	<1	0	125	[NT]
1,1,1,2-tetrachloroethane	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
Chlorobenzene	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
Ethylbenzene	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
Bromoform	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
m+p-xylene	µg/L	2	Org-013	<2	1	<2	<2	0	[NT]	[NT]
Styrene	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
1,1,2,2-tetrachloroethane	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
o-xylene	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]

QUALITY CONTROL: VOCs in water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
1,2,3-trichloropropane	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
Isopropylbenzene	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
Bromobenzene	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
n-propyl benzene	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
2-chlorotoluene	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
4-chlorotoluene	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
1,3,5-trimethyl benzene	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
Tert-butyl benzene	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
1,2,4-trimethyl benzene	µg/L	1	Org-013	<1	1	1	1	0	[NT]	[NT]
1,3-dichlorobenzene	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
Sec-butyl benzene	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
1,4-dichlorobenzene	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
4-isopropyl toluene	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
1,2-dichlorobenzene	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
n-butyl benzene	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
1,2-dibromo-3-chloropropane	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
1,2,4-trichlorobenzene	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
Hexachlorobutadiene	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
1,2,3-trichlorobenzene	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-013	109	1	109	108	1	102	[NT]
Surrogate toluene-d8	%		Org-013	98	1	97	98	1	107	[NT]
Surrogate 4-BFB	%		Org-013	104	1	104	99	5	113	[NT]

QUALITY CONTROL: VOCs in water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	5	28/03/2019	01/04/2019		[NT]	[NT]
Date analysed	-			[NT]	5	29/03/2019	02/04/2019		[NT]	[NT]
Dichlorodifluoromethane	µg/L	10	Org-013	[NT]	5	<10	<10	0	[NT]	[NT]
Chloromethane	µg/L	10	Org-013	[NT]	5	<10	<10	0	[NT]	[NT]
Vinyl Chloride	µg/L	10	Org-013	[NT]	5	<10	<10	0	[NT]	[NT]
Bromomethane	µg/L	10	Org-013	[NT]	5	<10	<10	0	[NT]	[NT]
Chloroethane	µg/L	10	Org-013	[NT]	5	<10	<10	0	[NT]	[NT]
Trichlorofluoromethane	µg/L	10	Org-013	[NT]	5	<10	<10	0	[NT]	[NT]
1,1-Dichloroethene	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
Trans-1,2-dichloroethene	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
1,1-dichloroethane	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
Cis-1,2-dichloroethene	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
Bromochloromethane	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
Chloroform	µg/L	1	Org-013	[NT]	5	7	6	15	[NT]	[NT]
2,2-dichloropropane	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
1,2-dichloroethane	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
1,1,1-trichloroethane	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
1,1-dichloropropene	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
Cyclohexane	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
Carbon tetrachloride	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
Benzene	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
Dibromomethane	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
1,2-dichloropropane	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
Trichloroethene	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
Bromodichloromethane	µg/L	1	Org-013	[NT]	5	<1	2	67	[NT]	[NT]
trans-1,3-dichloropropene	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
cis-1,3-dichloropropene	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
1,1,2-trichloroethane	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
Toluene	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
1,3-dichloropropane	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
Dibromochloromethane	µg/L	1	Org-013	[NT]	5	<1	1	0	[NT]	[NT]
1,2-dibromoethane	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
Tetrachloroethene	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
1,1,1,2-tetrachloroethane	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
Chlorobenzene	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
Ethylbenzene	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
Bromoform	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
m+p-xylene	µg/L	2	Org-013	[NT]	5	<2	<2	0	[NT]	[NT]
Styrene	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
1,1,2,2-tetrachloroethane	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
o-xylene	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]

QUALITY CONTROL: VOCs in water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
1,2,3-trichloropropane	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
Isopropylbenzene	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
Bromobenzene	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
n-propyl benzene	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
2-chlorotoluene	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
4-chlorotoluene	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
1,3,5-trimethyl benzene	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
Tert-butyl benzene	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
1,2,4-trimethyl benzene	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
1,3-dichlorobenzene	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
Sec-butyl benzene	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
1,4-dichlorobenzene	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
4-isopropyl toluene	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
1,2-dichlorobenzene	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
n-butyl benzene	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
1,2-dibromo-3-chloropropane	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
1,2,4-trichlorobenzene	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
Hexachlorobutadiene	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
1,2,3-trichlorobenzene	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-013	[NT]	5	98	102	4	[NT]	[NT]
Surrogate toluene-d8	%		Org-013	[NT]	5	98	106	8	[NT]	[NT]
Surrogate 4-BFB	%		Org-013	[NT]	5	102	115	12	[NT]	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			28/03/2019	1	28/03/2019	28/03/2019		28/03/2019	[NT]
Date analysed	-			29/03/2019	1	29/03/2019	29/03/2019		29/03/2019	[NT]
TRH C_6 - C_9	µg/L	10	Org-016	<10	1	<10	<10	0	107	[NT]
TRH C_6 - C_{10}	µg/L	10	Org-016	<10	1	<10	<10	0	107	[NT]
Benzene	µg/L	1	Org-016	<1	1	<1	<1	0	99	[NT]
Toluene	µg/L	1	Org-016	<1	1	<1	<1	0	113	[NT]
Ethylbenzene	µg/L	1	Org-016	<1	1	<1	<1	0	108	[NT]
m+p-xylene	µg/L	2	Org-016	<2	1	<2	<2	0	107	[NT]
o-xylene	µg/L	1	Org-016	<1	1	<1	<1	0	109	[NT]
Naphthalene	µg/L	1	Org-013	<1	1	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-016	109	1	109	108	1	[NT]	[NT]
Surrogate toluene-d8	%		Org-016	98	1	97	98	1	[NT]	[NT]
Surrogate 4-BFB	%		Org-016	104	1	104	99	5	107	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	5	28/03/2019	01/04/2019		[NT]	[NT]
Date analysed	-			[NT]	5	29/03/2019	02/04/2019		[NT]	[NT]
TRH C_6 - C_9	µg/L	10	Org-016	[NT]	5	<10	<10	0	[NT]	[NT]
TRH C_6 - C_{10}	µg/L	10	Org-016	[NT]	5	<10	12	18	[NT]	[NT]
Benzene	µg/L	1	Org-016	[NT]	5	<1	<1	0	[NT]	[NT]
Toluene	µg/L	1	Org-016	[NT]	5	<1	<1	0	[NT]	[NT]
Ethylbenzene	µg/L	1	Org-016	[NT]	5	<1	<1	0	[NT]	[NT]
m+p-xylene	µg/L	2	Org-016	[NT]	5	<2	<2	0	[NT]	[NT]
o-xylene	µg/L	1	Org-016	[NT]	5	<1	<1	0	[NT]	[NT]
Naphthalene	µg/L	1	Org-013	[NT]	5	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-016	[NT]	5	98	102	4	[NT]	[NT]
Surrogate toluene-d8	%		Org-016	[NT]	5	98	106	8	[NT]	[NT]
Surrogate 4-BFB	%		Org-016	[NT]	5	102	115	12	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	214209-2
Date extracted	-			27/03/2019	1	27/03/2019	27/03/2019		27/03/2019	27/03/2019
Date analysed	-			28/03/2019	1	28/03/2019	28/03/2019		28/03/2019	28/03/2019
TRH C_{10} - C_{14}	µg/L	50	Org-003	<50	1	<50	<50	0	101	109
TRH C_{15} - C_{28}	µg/L	100	Org-003	<100	1	<100	<100	0	79	87
TRH C_{29} - C_{36}	µg/L	100	Org-003	<100	1	<100	<100	0	106	109
TRH >C_{10} - C_{16}	µg/L	50	Org-003	<50	1	<50	<50	0	101	109
TRH >C_{16} - C_{34}	µg/L	100	Org-003	<100	1	<100	<100	0	79	87
TRH >C_{34} - C_{40}	µg/L	100	Org-003	<100	1	<100	<100	0	106	109
Surrogate o-Terphenyl	%		Org-003	98	1	79	99	22	119	121

QUALITY CONTROL: PAHs in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	214209-2
Date extracted	-			27/03/2019	1	27/03/2019	27/03/2019		27/03/2019	27/03/2019
Date analysed	-			28/03/2019	1	28/03/2019	28/03/2019		28/03/2019	28/03/2019
Naphthalene	µg/L	1	Org-012	<1	1	<1	<1	0	95	95
Acenaphthylene	µg/L	1	Org-012	<1	1	<1	<1	0	[NT]	[NT]
Acenaphthene	µg/L	1	Org-012	<1	1	<1	<1	0	[NT]	[NT]
Fluorene	µg/L	1	Org-012	<1	1	<1	<1	0	99	99
Phenanthrene	µg/L	1	Org-012	<1	1	<1	<1	0	103	103
Anthracene	µg/L	1	Org-012	<1	1	<1	<1	0	[NT]	[NT]
Fluoranthene	µg/L	1	Org-012	<1	1	<1	<1	0	94	94
Pyrene	µg/L	1	Org-012	<1	1	<1	<1	0	94	94
Benzo(a)anthracene	µg/L	1	Org-012	<1	1	<1	<1	0	[NT]	[NT]
Chrysene	µg/L	1	Org-012	<1	1	<1	<1	0	104	104
Benzo(b,j+k)fluoranthene	µg/L	2	Org-012	<2	1	<2	<2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-012	<1	1	<1	<1	0	108	108
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012	<1	1	<1	<1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-012	<1	1	<1	<1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-012	<1	1	<1	<1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	128	1	112	130	15	116	116

QUALITY CONTROL: OCP in water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	214209-2
Date extracted	-			27/03/2019	1	27/03/2019	27/03/2019		27/03/2019	27/03/2019
Date analysed	-			27/03/2019	1	27/03/2019	27/03/2019		27/03/2019	27/03/2019
HCB	µg/L	0.2	Org-005	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
alpha-BHC	µg/L	0.2	Org-005	<0.2	1	<0.2	<0.2	0	76	70
gamma-BHC	µg/L	0.2	Org-005	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
beta-BHC	µg/L	0.2	Org-005	<0.2	1	<0.2	<0.2	0	72	68
Heptachlor	µg/L	0.2	Org-005	<0.2	1	<0.2	<0.2	0	72	70
delta-BHC	µg/L	0.2	Org-005	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
Aldrin	µg/L	0.2	Org-005	<0.2	1	<0.2	<0.2	0	72	68
Heptachlor Epoxide	µg/L	0.2	Org-005	<0.2	1	<0.2	<0.2	0	82	74
gamma-Chlordane	µg/L	0.2	Org-005	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
alpha-Chlordane	µg/L	0.2	Org-005	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
Endosulfan I	µg/L	0.2	Org-005	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
pp-DDE	µg/L	0.2	Org-005	<0.2	1	<0.2	<0.2	0	78	75
Dieldrin	µg/L	0.2	Org-005	<0.2	1	<0.2	<0.2	0	96	92
Endrin	µg/L	0.2	Org-005	<0.2	1	<0.2	<0.2	0	81	73
pp-DDD	µg/L	0.2	Org-005	<0.2	1	<0.2	<0.2	0	70	66
Endosulfan II	µg/L	0.2	Org-005	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
pp-DDT	µg/L	0.2	Org-005	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
Endrin Aldehyde	µg/L	0.2	Org-005	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
Endosulfan Sulphate	µg/L	0.2	Org-005	<0.2	1	<0.2	<0.2	0	75	74
Methoxychlor	µg/L	0.2	Org-005	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
Surrogate TCMX	%		Org-005	95	1	86	104	19	76	88

QUALITY CONTROL: OP Pesticides in water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	214209-3
Date extracted	-			27/03/2019	1	27/03/2019	27/03/2019		27/03/2019	27/03/2019
Date analysed	-			27/03/2019	1	27/03/2019	27/03/2019		27/03/2019	27/03/2019
Azinphos-methyl (Guthion)	µg/L	0.2	Org-008	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
Bromophos ethyl	µg/L	0.2	Org-008	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
Chlorpyriphos	µg/L	0.2	Org-008	<0.2	1	<0.2	<0.2	0	73	84
Chlorpyriphos-methyl	µg/L	0.2	Org-008	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
Diazinon	µg/L	0.2	Org-008	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
Dichlorvos	µg/L	0.2	Org-008	<0.2	1	<0.2	<0.2	0	82	81
Dimethoate	µg/L	0.2	Org-008	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
Ethion	µg/L	0.2	Org-008	<0.2	1	<0.2	<0.2	0	78	83
Fenitrothion	µg/L	0.2	Org-008	<0.2	1	<0.2	<0.2	0	98	110
Malathion	µg/L	0.2	Org-008	<0.2	1	<0.2	<0.2	0	82	86
Parathion	µg/L	0.2	Org-008	<0.2	1	<0.2	<0.2	0	96	106
Ronnel	µg/L	0.2	Org-008	<0.2	1	<0.2	<0.2	0	70	84
Surrogate TCMX	%		Org-008	95	1	86	104	19	82	99

QUALITY CONTROL: PCBs in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	214209-3
Date extracted	-			27/03/2019	1	27/03/2019	27/03/2019		27/03/2019	27/03/2019
Date analysed	-			27/03/2019	1	27/03/2019	27/03/2019		27/03/2019	27/03/2019
Aroclor 1016	µg/L	2	Org-006	<2	1	<2	<2	0	[NT]	[NT]
Aroclor 1221	µg/L	2	Org-006	<2	1	<2	<2	0	[NT]	[NT]
Aroclor 1232	µg/L	2	Org-006	<2	1	<2	<2	0	[NT]	[NT]
Aroclor 1242	µg/L	2	Org-006	<2	1	<2	<2	0	[NT]	[NT]
Aroclor 1248	µg/L	2	Org-006	<2	1	<2	<2	0	[NT]	[NT]
Aroclor 1254	µg/L	2	Org-006	<2	1	<2	<2	0	76	78
Aroclor 1260	µg/L	2	Org-006	<2	1	<2	<2	0	[NT]	[NT]
Surrogate TCLMX	%		Org-006	95	1	86	104	19	82	99

QUALITY CONTROL: Total Phenolics in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	214209-2
Date extracted	-			02/04/2019	1	02/04/2019	02/04/2019		02/04/2019	02/04/2019
Date analysed	-			02/04/2019	1	02/04/2019	02/04/2019		02/04/2019	02/04/2019
Total Phenolics (as Phenol)	mg/L	0.05	Inorg-031	<0.05	1	<0.05	<0.05	0	93	92

QUALITY CONTROL: HM in water - dissolved						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W4	214209-2
Date prepared	-			27/03/2019	1	27/03/2019	27/03/2019		27/03/2019	27/03/2019
Date analysed	-			27/03/2019	1	27/03/2019	27/03/2019		27/03/2019	27/03/2019
Arsenic-Dissolved	µg/L	1	Metals-022	<1	1	<1	<1	0	104	[NT]
Cadmium-Dissolved	µg/L	0.1	Metals-022	<0.1	1	<0.1	<0.1	0	109	[NT]
Chromium-Dissolved	µg/L	1	Metals-022	<1	1	<1	<1	0	104	[NT]
Copper-Dissolved	µg/L	1	Metals-022	<1	1	<1	<1	0	104	[NT]
Lead-Dissolved	µg/L	1	Metals-022	<1	1	<1	<1	0	108	[NT]
Mercury-Dissolved	µg/L	0.05	Metals-021	<0.05	1	<0.05	<0.05	0	98	98
Nickel-Dissolved	µg/L	1	Metals-022	<1	1	6	6	0	108	[NT]
Zinc-Dissolved	µg/L	1	Metals-022	<1	1	2	2	0	105	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Douglas Partners
Geotechnics · Environment · Groundwater

CHAIN OF CUSTODY

Project Name: Moore Park ..... To: Envirolab Services
Project No: 86529.00 Sampler: Sam Balian.....
Project Mgr : Peter Oitmaa Mob. Phone 0412 574 518 .....
Email: peter.oitmaa@douglaspartners.com.au .....
Date Required: Standard Lab Quote No. .....

12 Ashley Street, Chatswood NSW 2068
Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

Sample ID	Sample Depth	Lab ID	Sampling Date	Sample Type	Container type	Analytes: Combo 8	Analytes: VOC	Analytes	Analytes	Analytes	Analytes	Analytes	Notes
101	1 →		23/3/19	W	Various	✓	✓						
107	2 →		23/3/19	W	Various	✓	✓						
C37	3 →		23/3/19	W	Various	✓	✓						
BD1	4 →		23/3/19	W	Various	✓	✓						
R1	5 →		23/3/19	W	Various	✓	✓						

ENVIROLAB
Job No: 214209
Date Received: 26/3/19
Time Received: 8:30
Received by: RD
Temp: Cool/Ambient 6.2°C
Cooling: Ice/Icepack
Security: Intact/Broken/None

Lab Report No. .....
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114
Phone: (02) 9809 0666
Fax: (02) 9809 4095

Relinquished by: Sam Balian Signed: Date & Time: 16:51/25/03/19 Received By: Eng. O'Hearty Date & Time: 26.3.19 8:30
Relinquished by: Signed: Date & Time: Received By: Date & Time:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 212577-A

Client Details

Client	Douglas Partners Pty Ltd
Attention	Peter Oitmaa
Address	96 Hermitage Rd, West Ryde, NSW, 2114

Sample Details

Your Reference	**Moore Park/ 86529.00**
Number of Samples	48 Soil
Date samples received	01/03/2019
Date completed instructions received	25/03/2019

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	01/04/2019
Date of Issue	01/04/2019

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Results Approved By
Giovanni Agosti, Group Technical Manager
Nancy Zhang, Laboratory Manager, Sydney

Authorised By



Jacinta Hurst, Laboratory Manager

PAHs in TCLP (USEPA 1311)						
Our Reference		212577-A-2	212577-A-11	212577-A-22	212577-A-28	212577-A-29
Your Reference	UNITS	101	202	212	221	221
Depth		3.0	2.7-2.8	2.3	1.5	2.5
Date Sampled		26/02/2019	27/02/2019	01/03/2019	28/02/2019	28/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	29/03/2019	29/03/2019	29/03/2019	29/03/2019	29/03/2019
Date analysed	-	01/04/2019	01/04/2019	01/04/2019	01/04/2019	01/04/2019
Naphthalene in TCLP	mg/L	0.16	0.16	1.7	<0.001	1.2
Acenaphthylene in TCLP	mg/L	0.080	<0.001	0.090	<0.001	0.58
Acenaphthene in TCLP	mg/L	0.080	0.080	0.63	<0.001	0.66
Fluorene in TCLP	mg/L	0.080	0.16	0.18	<0.001	2.2
Phenanthrene in TCLP	mg/L	0.41	0.58	0.27	0.17	8.0
Anthracene in TCLP	mg/L	<0.001	0.080	0.090	<0.001	0.91
Fluoranthene in TCLP	mg/L	0.16	0.24	0.18	0.080	2.2
Pyrene in TCLP	mg/L	0.080	0.24	0.090	<0.001	1.6
Benzo(a)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	0.16
Chrysene in TCLP	mg/L	<0.001	0.24	0.090	<0.001	0.16
Benzo(bjk)fluoranthene in TCLP	mg/L	<0.002	<0.002	<0.002	<0.002	0.08
Benzo(a)pyrene in TCLP	mg/L	<0.001	0.16	<0.001	<0.001	<0.001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(g,h,i)perylene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Total +ve PAH's	mg/L	1.0	1.9	3.3	0.25	18
Surrogate p-Terphenyl-d14	%	89	74	96	89	71

PAHs in TCLP (USEPA 1311)		
Our Reference		212577-A-38
Your Reference	UNITS	228
Depth		0.9-1.0
Date Sampled		27/02/2019
Type of sample		Soil
Date extracted	-	29/03/2019
Date analysed	-	01/04/2019
Naphthalene in TCLP	mg/L	<0.001
Acenaphthylene in TCLP	mg/L	<0.001
Acenaphthene in TCLP	mg/L	<0.001
Fluorene in TCLP	mg/L	<0.001
Phenanthrene in TCLP	mg/L	0.18
Anthracene in TCLP	mg/L	<0.001
Fluoranthene in TCLP	mg/L	<0.001
Pyrene in TCLP	mg/L	<0.001
Benzo(a)anthracene in TCLP	mg/L	<0.001
Chrysene in TCLP	mg/L	<0.001
Benzo(bjk)fluoranthene in TCLP	mg/L	<0.002
Benzo(a)pyrene in TCLP	mg/L	<0.001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	<0.001
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.001
Benzo(g,h,i)perylene in TCLP	mg/L	<0.001
Total +ve PAH's	mg/L	0.18
Surrogate p-Terphenyl-d14	%	97

Metals in TCLP USEPA1311						
Our Reference		212577-A-1	212577-A-2	212577-A-4	212577-A-9	212577-A-11
Your Reference	UNITS	101	101	102	107	202
Depth		1.5	3.0	2-2.1	1.5	2.7-2.8
Date Sampled		26/02/2019	26/02/2019	20/02/2019	27/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	29/03/2019	29/03/2019	29/03/2019	29/03/2019	29/03/2019
Date analysed	-	29/03/2019	29/03/2019	29/03/2019	29/03/2019	29/03/2019
pH of soil for fluid# determ.	pH units	8.6	9.1	9.2	9.0	9.1
pH of soil TCLP (after HCl)	pH units	2.0	1.8	1.8	1.8	1.9
Extraction fluid used	-	1	1	1	1	1
pH of final Leachate	pH units	5.4	5.1	5.1	5.1	5.2
Lead in TCLP	mg/L	0.2	0.47	0.54	0.3	0.44

Metals in TCLP USEPA1311					
Our Reference		212577-A-22	212577-A-28	212577-A-29	212577-A-38
Your Reference	UNITS	212	221	221	228
Depth		2.3	1.5	2.5	0.9-1.0
Date Sampled		01/03/2019	28/02/2019	28/02/2019	27/02/2019
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	29/03/2019	29/03/2019	29/03/2019	29/03/2019
Date analysed	-	29/03/2019	29/03/2019	29/03/2019	29/03/2019
pH of soil for fluid# determ.	pH units	9.2	9.4	8.9	9.3
pH of soil TCLP (after HCl)	pH units	1.9	1.8	1.7	1.7
Extraction fluid used	-	1	1	1	1
pH of final Leachate	pH units	5.9	5.2	5.0	5.1
Lead in TCLP	mg/L	0.1	[NA]	[NA]	[NA]

Method ID	Methodology Summary
EXTRACT.7	Toxicity Characteristic Leaching Procedure (TCLP) using Zero Headspace Extraction (zHE) using AS4439 and USEPA 1311.
Inorg-001	pH - Measured using pH meter and electrode in accordance with APHA latest edition, 4500-H+. Please note that the results for water analyses are indicative only, as analysis outside of the APHA storage times.
Inorg-004	Toxicity Characteristic Leaching Procedure (TCLP) using in house method INORG-004. Please note that the mass used may be scaled down from the default based on sample mass available.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
Org-012	Leachates are extracted with Dichloromethane and analysed by GC-MS.
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.

QUALITY CONTROL: PAHs in TCLP (USEPA 1311)					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	[NT]
Date extracted	-			29/03/2019	[NT]	[NT]	[NT]	[NT]	29/03/2019	[NT]
Date analysed	-			01/04/2019	[NT]	[NT]	[NT]	[NT]	01/04/2019	[NT]
Naphthalene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	94	[NT]
Acenaphthylene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluorene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	99	[NT]
Phenanthrene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	100	[NT]
Anthracene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	90	[NT]
Pyrene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	91	[NT]
Benzo(a)anthracene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	104	[NT]
Benzo(bjk)fluoranthene in TCLP	mg/L	0.002	Org-012	<0.002	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	97	[NT]
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	70	[NT]	[NT]	[NT]	[NT]	105	[NT]

QUALITY CONTROL: Metals in TCLP USEPA1311						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			29/03/2019	[NT]	[NT]	[NT]	[NT]	29/03/2019	[NT]
Date analysed	-			29/03/2019	[NT]	[NT]	[NT]	[NT]	29/03/2019	[NT]
Lead in TCLP	mg/L	0.03	Metals-020 ICP-AES	<0.03	[NT]	[NT]	[NT]	[NT]	98	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 213234-A

Client Details

Client	Douglas Partners Pty Ltd
Attention	Peter Oitmaa
Address	96 Hermitage Rd, West Ryde, NSW, 2114

Sample Details

Your Reference	**86529.00, Moore Park**
Number of Samples	12 soil
Date samples received	11/03/2019
Date completed instructions received	25/03/2019

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	01/04/2019
Date of Issue	27/03/2019

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Results Approved By
Giovanni Agosti, Group Technical Manager
Jeremy Faircloth, Operations Manager, Sydney

Authorised By



Jacinta Hurst, Laboratory Manager

PAHs in TCLP (USEPA 1311)				
Our Reference		213234-A-1	213234-A-3	213234-A-4
Your Reference	UNITS	105	201	209
Depth		3.7	1.0	1.0
Date Sampled		01/03/2019	05/03/2019	27/02/2019
Type of sample		soil	soil	soil
Date extracted	-	26/03/2019	26/03/2019	26/03/2019
Date analysed	-	27/03/2019	27/03/2019	27/03/2019
Naphthalene in TCLP	mg/L	<0.001	<0.001	<0.001
Acenaphthylene in TCLP	mg/L	<0.001	<0.001	<0.001
Acenaphthene in TCLP	mg/L	<0.001	<0.001	<0.001
Fluorene in TCLP	mg/L	<0.001	<0.001	<0.001
Phenanthrene in TCLP	mg/L	<0.001	<0.001	0.002
Anthracene in TCLP	mg/L	<0.001	<0.001	<0.001
Fluoranthene in TCLP	mg/L	<0.001	<0.001	<0.001
Pyrene in TCLP	mg/L	<0.001	<0.001	<0.001
Benzo(a)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001
Chrysene in TCLP	mg/L	<0.001	<0.001	<0.001
Benzo(bjk)fluoranthene in TCLP	mg/L	<0.002	<0.002	<0.002
Benzo(a)pyrene in TCLP	mg/L	<0.001	<0.001	<0.001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	<0.001	<0.001	<0.001
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001
Benzo(g,h,i)perylene in TCLP	mg/L	<0.001	<0.001	<0.001
Total +ve PAH's	mg/L	NIL (+)VE	NIL (+)VE	0.0017
Surrogate p-Terphenyl-d14	%	115	105	83

Metals in TCLP USEPA1311				
Our Reference		213234-A-1	213234-A-3	213234-A-4
Your Reference	UNITS	105	201	209
Depth		3.7	1.0	1.0
Date Sampled		01/03/2019	05/03/2019	27/02/2019
Type of sample		soil	soil	soil
Date extracted	-	26/03/2019	26/03/2019	26/03/2019
Date analysed	-	26/03/2019	26/03/2019	26/03/2019
pH of soil for fluid# determ.	pH units	7.7	8.1	8.7
pH of soil TCLP (after HCl)	pH units	1.8	2.0	2.0
Extraction fluid used	-	1	1	1
pH of final Leachate	pH units	5.0	5.1	5.1
Lead in TCLP	mg/L	[NA]	0.43	0.45

Method ID	Methodology Summary
EXTRACT.7	Toxicity Characteristic Leaching Procedure (TCLP) using Zero Headspace Extraction (zHE) using AS4439 and USEPA 1311.
Inorg-001	pH - Measured using pH meter and electrode in accordance with APHA latest edition, 4500-H+. Please note that the results for water analyses are indicative only, as analysis outside of the APHA storage times.
Inorg-004	Toxicity Characteristic Leaching Procedure (TCLP) using in house method INORG-004. Please note that the mass used may be scaled down from the default based on sample mass available.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
Org-012	Leachates are extracted with Dichloromethane and analysed by GC-MS.
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.

QUALITY CONTROL: PAHs in TCLP (USEPA 1311)					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			26/03/2019	[NT]	[NT]	[NT]	[NT]	26/03/2019	[NT]
Date analysed	-			27/03/2019	[NT]	[NT]	[NT]	[NT]	27/03/2019	[NT]
Naphthalene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	76	[NT]
Acenaphthylene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluorene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	86	[NT]
Phenanthrene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	88	[NT]
Anthracene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	82	[NT]
Pyrene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	82	[NT]
Benzo(a)anthracene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	94	[NT]
Benzo(bjk)fluoranthene in TCLP	mg/L	0.002	Org-012	<0.002	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	95	[NT]
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	130	[NT]	[NT]	[NT]	[NT]	108	[NT]

QUALITY CONTROL: Metals in TCLP USEPA1311						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			26/03/2019	[NT]	[NT]	[NT]	[NT]	26/03/2019	[NT]
Date analysed	-			26/03/2019	[NT]	[NT]	[NT]	[NT]	26/03/2019	[NT]
Lead in TCLP	mg/L	0.03	Metals-020 ICP-AES	<0.03	[NT]	[NT]	[NT]	[NT]	102	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Report Comments

PAH TCLP analysed outside of RHT

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 212577-B

Client Details

Client	Douglas Partners Pty Ltd
Attention	Peter Oitmaa
Address	96 Hermitage Rd, West Ryde, NSW, 2114

Sample Details

Your Reference	**Moore Park/ 86529.00**
Number of Samples	Additional Testing on 6 Soils
Date samples received	01/03/2019
Date completed instructions received	04/03/2019

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	05/04/2019
Date of Issue	05/04/2019

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Results Approved By
Jeremy Faircloth, Operations Manager, Sydney

Authorised By



Jacinta Hurst, Laboratory Manager

PAHs in water leach						
Our Reference		212577-B-2	212577-B-11	212577-B-22	212577-B-28	212577-B-29
Your Reference	UNITS	101	202	212	221	221
Depth		3.0	2.7-2.8	2.3	1.5	2.5
Date Sampled		26/02/2019	27/02/2019	01/03/2019	28/02/2019	28/02/2019
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/04/2019	05/04/2019	05/04/2019	05/04/2019	05/04/2019
Date analysed	-	05/04/2019	05/04/2019	05/04/2019	05/04/2019	05/04/2019
pH of final Leachate	pH units	9.0	8.8	9.0	9.1	8.5
Naphthalene in ASLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Acenaphthylene in ASLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Acenaphthene in ASLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Fluorene in ASLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Phenanthrene in ASLP	mg/L	<0.001	<0.001	<0.001	<0.001	0.002
Anthracene in ASLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Fluoranthene in ASLP	mg/L	<0.001	<0.001	<0.001	<0.001	0.003
Pyrene in ASLP	mg/L	<0.001	<0.001	<0.001	<0.001	0.002
Benzo(a)anthracene in ASLP	mg/L	<0.001	<0.001	<0.001	<0.001	0.001
Chrysene in ASLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(bjk)fluoranthene in ASLP	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002
Benzo(a)pyrene in ASLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Indeno(1,2,3-c,d)pyrene - ASLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Dibenzo(a,h)anthracene in ASLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(g,h,i)perylene in ASLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Surrogate p-Terphenyl-d_{14}	%	79	83	78	86	72

PAHs in water leach		
Our Reference		212577-B-38
Your Reference	UNITS	228
Depth		0.9-1.0
Date Sampled		27/02/2019
Type of sample		Soil
Date extracted	-	05/04/2019
Date analysed	-	05/04/2019
pH of final Leachate	pH units	9.2
Naphthalene in ASLP	mg/L	<0.001
Acenaphthylene in ASLP	mg/L	<0.001
Acenaphthene in ASLP	mg/L	<0.001
Fluorene in ASLP	mg/L	<0.001
Phenanthrene in ASLP	mg/L	<0.001
Anthracene in ASLP	mg/L	<0.001
Fluoranthene in ASLP	mg/L	<0.001
Pyrene in ASLP	mg/L	<0.001
Benzo(a)anthracene in ASLP	mg/L	<0.001
Chrysene in ASLP	mg/L	<0.001
Benzo(bjk)fluoranthene in ASLP	mg/L	<0.002
Benzo(a)pyrene in ASLP	mg/L	<0.001
Indeno(1,2,3-c,d)pyrene - ASLP	mg/L	<0.001
Dibenzo(a,h)anthracene in ASLP	mg/L	<0.001
Benzo(g,h,i)perylene in ASLP	mg/L	<0.001
Surrogate p-Terphenyl-d_{14}	%	86

Method ID	Methodology Summary
Inorg-001	pH - Measured using pH meter and electrode in accordance with APHA latest edition, 4500-H+. Please note that the results for water analyses are indicative only, as analysis outside of the APHA storage times.
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
Org-012 ASLP	ASLP Leachates are extracted with Dichloromethane and analysed by GC-MS.

QUALITY CONTROL: PAHs in water leach						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			05/04/2019	[NT]	[NT]	[NT]	[NT]	05/04/2019	[NT]
Date analysed	-			05/04/2019	[NT]	[NT]	[NT]	[NT]	05/04/2019	[NT]
Naphthalene in ASLP	mg/L	0.001	Org-012 ASLP	<0.001	[NT]	[NT]	[NT]	[NT]	78	[NT]
Acenaphthylene in ASLP	mg/L	0.001	Org-012 ASLP	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene in ASLP	mg/L	0.001	Org-012 ASLP	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluorene in ASLP	mg/L	0.001	Org-012 ASLP	<0.001	[NT]	[NT]	[NT]	[NT]	86	[NT]
Phenanthrene in ASLP	mg/L	0.001	Org-012 ASLP	<0.001	[NT]	[NT]	[NT]	[NT]	84	[NT]
Anthracene in ASLP	mg/L	0.001	Org-012 ASLP	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene in ASLP	mg/L	0.001	Org-012 ASLP	<0.001	[NT]	[NT]	[NT]	[NT]	80	[NT]
Pyrene in ASLP	mg/L	0.001	Org-012 ASLP	<0.001	[NT]	[NT]	[NT]	[NT]	80	[NT]
Benzo(a)anthracene in ASLP	mg/L	0.001	Org-012 ASLP	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene in ASLP	mg/L	0.001	Org-012 ASLP	<0.001	[NT]	[NT]	[NT]	[NT]	110	[NT]
Benzo(bjk)fluoranthene in ASLP	mg/L	0.002	Org-012 ASLP	<0.002	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene in ASLP	mg/L	0.001	Org-012 ASLP	<0.001	[NT]	[NT]	[NT]	[NT]	70	[NT]
Indeno(1,2,3-c,d)pyrene - ASLP	mg/L	0.001	Org-012 ASLP	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene in ASLP	mg/L	0.001	Org-012 ASLP	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene in ASLP	mg/L	0.001	Org-012 ASLP	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d_{14}	%		Org-012	112	[NT]	[NT]	[NT]	[NT]	100	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Douglas Partners (Syd)
96 Hermitage Road
West Ryde
NSW 2114

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Peter Oitmaa**

Report **644901-S**
Project name MOORE PARK
Project ID 86529.00
Received Date Mar 12, 2019

Client Sample ID			**BT21B**
Sample Matrix			**Soil**
Eurofins | mgt Sample No.			**S19-Ma13647**
Date Sampled			**Not Provided**
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons - 1999 NEPM Fractions			
TRH C6-C9	20	mg/kg	< 20
TRH C10-C14	20	mg/kg	< 20
TRH C15-C28	50	mg/kg	260
TRH C29-C36	50	mg/kg	170
TRH C10-36 (Total)	50	mg/kg	430
BTEX			
Benzene	0.1	mg/kg	< 0.1
Toluene	0.1	mg/kg	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2
o-Xylene	0.1	mg/kg	< 0.1
Xylenes - Total	0.3	mg/kg	< 0.3
4-Bromofluorobenzene (surr.)	1	%	76
Total Recoverable Hydrocarbons - 2013 NEPM Fractions			
Naphthalene[N02]	0.5	mg/kg	< 0.5
TRH C6-C10	20	mg/kg	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20
TRH >C10-C16	50	mg/kg	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50
TRH >C16-C34	100	mg/kg	390
TRH >C34-C40	100	mg/kg	< 100
TRH >C10-C40 (total)*	100	mg/kg	390
Polycyclic Aromatic Hydrocarbons			
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	12
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	12
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	12
Acenaphthene	0.5	mg/kg	< 0.5
Acenaphthylene	0.5	mg/kg	1.5
Anthracene	0.5	mg/kg	2.4
Benz(a)anthracene	0.5	mg/kg	7.7
Benzo(a)pyrene	0.5	mg/kg	9.1
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	5.9
Benzo(g.h.i)perylene	0.5	mg/kg	6.0
Benzo(k)fluoranthene	0.5	mg/kg	7.5
Chrysene	0.5	mg/kg	8.0

Client Sample ID			BT21B
Sample Matrix			Soil
Eurofins | mgt Sample No.			S19-Ma13647
Date Sampled			Not Provided
Test/Reference	LOR	Unit	
Polycyclic Aromatic Hydrocarbons			
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5
Fluoranthene	0.5	mg/kg	18
Fluorene	0.5	mg/kg	1.0
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	4.5
Naphthalene	0.5	mg/kg	< 0.5
Phenanthrene	0.5	mg/kg	9.9
Pyrene	0.5	mg/kg	18
Total PAH*	0.5	mg/kg	99.5
2-Fluorobiphenyl (surr.)	1	%	103
p-Terphenyl-d14 (surr.)	1	%	107
Organochlorine Pesticides			
Chlordanes - Total	0.1	mg/kg	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05
a-BHC	0.05	mg/kg	< 0.05
Aldrin	0.05	mg/kg	< 0.05
b-BHC	0.05	mg/kg	< 0.05
d-BHC	0.05	mg/kg	< 0.05
Dieldrin	0.05	mg/kg	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05
Endrin	0.05	mg/kg	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05
Heptachlor	0.05	mg/kg	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05
Methoxychlor	0.2	mg/kg	< 0.2
Toxaphene	1	mg/kg	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.2
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.2
Dibutylchlorendate (surr.)	1	%	85
Tetrachloro-m-xylene (surr.)	1	%	82
Organophosphorus Pesticides			
Azinphos-methyl	0.2	mg/kg	< 0.2
Bolstar	0.2	mg/kg	< 0.2
Chlorfenvinphos	0.2	mg/kg	< 0.2
Chlorpyrifos	0.2	mg/kg	< 0.2
Chlorpyrifos-methyl	0.2	mg/kg	< 0.2
Coumaphos	2	mg/kg	< 2
Demeton-S	0.2	mg/kg	< 0.2
Demeton-O	0.2	mg/kg	< 0.2
Diazinon	0.2	mg/kg	< 0.2
Dichlorvos	0.2	mg/kg	< 0.2

Client Sample ID			BT21B
Sample Matrix			Soil
Eurofins | mgt Sample No.			S19-Ma13647
Date Sampled			Not Provided
Test/Reference	LOR	Unit	
Organophosphorus Pesticides			
Dimethoate	0.2	mg/kg	< 0.2
Disulfoton	0.2	mg/kg	< 0.2
EPN	0.2	mg/kg	< 0.2
Ethion	0.2	mg/kg	< 0.2
Ethoprop	0.2	mg/kg	< 0.2
Ethyl parathion	0.2	mg/kg	< 0.2
Fenitrothion	0.2	mg/kg	< 0.2
Fensulfothion	0.2	mg/kg	< 0.2
Fenthion	0.2	mg/kg	< 0.2
Malathion	0.2	mg/kg	< 0.2
Merphos	0.2	mg/kg	< 0.2
Methyl parathion	0.2	mg/kg	< 0.2
Mevinphos	0.2	mg/kg	< 0.2
Monocrotophos	2	mg/kg	< 2
Naled	0.2	mg/kg	< 0.2
Omethoate	2	mg/kg	< 2
Phorate	0.2	mg/kg	< 0.2
Pirimiphos-methyl	0.2	mg/kg	< 0.2
Pyrazophos	0.2	mg/kg	< 0.2
Ronnel	0.2	mg/kg	< 0.2
Terbufos	0.2	mg/kg	< 0.2
Tetrachlorvinphos	0.2	mg/kg	< 0.2
Tokuthion	0.2	mg/kg	< 0.2
Trichloronate	0.2	mg/kg	< 0.2
Triphenylphosphate (surr.)	1	%	92
Polychlorinated Biphenyls			
Aroclor-1016	0.5	mg/kg	< 0.5
Aroclor-1221	0.1	mg/kg	< 0.1
Aroclor-1232	0.5	mg/kg	< 0.5
Aroclor-1242	0.5	mg/kg	< 0.5
Aroclor-1248	0.5	mg/kg	< 0.5
Aroclor-1254	0.5	mg/kg	< 0.5
Aroclor-1260	0.5	mg/kg	< 0.5
Total PCB*	0.5	mg/kg	< 0.5
Dibutylchlorendate (surr.)	1	%	85
Tetrachloro-m-xylene (surr.)	1	%	82
Phenols (Halogenated)			
2-Chlorophenol	0.5	mg/kg	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5
2.4.5-Trichlorophenol	1	mg/kg	< 1
2.4.6-Trichlorophenol	1	mg/kg	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1
Pentachlorophenol	1	mg/kg	< 1
Tetrachlorophenols - Total	1	mg/kg	< 1
Total Halogenated Phenol*	1	mg/kg	< 1

Client Sample ID			BT21B
Sample Matrix			Soil
Eurofins | mgt Sample No.			S19-Ma13647
Date Sampled			Not Provided
Test/Reference	LOR	Unit	
Phenols (non-Halogenated)			
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2
2-Nitrophenol	1	mg/kg	< 1
2.4-Dimethylphenol	0.5	mg/kg	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4
4-Nitrophenol	5	mg/kg	< 5
Dinoseb	20	mg/kg	< 20
Phenol	0.5	mg/kg	< 0.5
Total Non-Halogenated Phenol*	20	mg/kg	< 20
Phenol-d6 (surr.)	1	%	119
Heavy Metals			
Arsenic	2	mg/kg	6.7
Cadmium	0.4	mg/kg	< 0.4
Chromium	5	mg/kg	13
Copper	5	mg/kg	33
Lead	5	mg/kg	140
Mercury	0.1	mg/kg	0.5
Nickel	5	mg/kg	5.8
Zinc	5	mg/kg	76
% Moisture	1	%	12

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Eurofins | mgt Suite B7A			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Mar 13, 2019	14 Day
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Mar 13, 2019	14 Day
- Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Mar 13, 2019	14 Day
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Mar 13, 2019	14 Day
- Method: LTM-ORG-2010 TRH C6-C40			
Polycyclic Aromatic Hydrocarbons	Sydney	Mar 13, 2019	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Phenols (Halogenated)	Sydney	Mar 13, 2019	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Phenols (non-Halogenated)	Sydney	Mar 13, 2019	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Metals M8	Sydney	Mar 13, 2019	28 Day
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Organochlorine Pesticides	Sydney	Mar 13, 2019	14 Day
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Organophosphorus Pesticides	Sydney	Mar 13, 2019	14 Day
- Method: LTM-ORG-2200 Organophosphorus Pesticides by GC-MS			
Polychlorinated Biphenyls	Sydney	Mar 13, 2019	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
% Moisture	Sydney	Mar 12, 2019	14 Day
- Method: LTM-GEN-7080 Moisture			

eurofins | mgt

ABN– 50 005 085 521
e.mail : EnviroSales@eurofins.com
web : www.eurofins.com.au

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

Company Name: Douglas Partners (Syd)
Address: 96 Hermitage Road
West Ryde
NSW 2114

Project Name: MOORE PARK
Project ID: 86529.00

Order No.:
Report #: 644901
Phone: 02 9809 0666
Fax:

Received: Mar 12, 2019 2:46 PM
Due: Mar 19, 2019
Priority: 5 Day
Contact Name: Peter Oitmaa

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Eurofins | mgt Suite B15	Moisture Set	Eurofins | mgt Suite B7A
Melbourne Laboratory - NATA Site # 1254 & 14271								
Sydney Laboratory - NATA Site # 18217						X	X	X
Brisbane Laboratory - NATA Site # 20794								
Perth Laboratory - NATA Site # 23736								
External Laboratory								
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**			
1	BT21B	Not Provided		Soil	S19-Ma13647	X	X	X
Test Counts						1	1	1

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure, April 2011 and are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
ug/L: micrograms per litre
ppm: Parts per million
ppb: Parts per billion
%: Percentage
org/100mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	US Department of Defense Quality Systems Manual Version 5.2 2018
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries: Recoveries must lie between 50-150%-Phenols & PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.2 where no positive PFAS results have been reported have been reviewed and no data was affected.

WA DWER (n=10): PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-BHC	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-BHC	mg/kg	< 0.05			0.05	Pass	
d-BHC	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-BHC (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.2			0.2	Pass	
Toxaphene	mg/kg	< 1			1	Pass	
Method Blank							
Organophosphorus Pesticides							
Azinphos-methyl	mg/kg	< 0.2			0.2	Pass	
Bolstar	mg/kg	< 0.2			0.2	Pass	
Chlorfenvinphos	mg/kg	< 0.2			0.2	Pass	
Chlorpyrifos	mg/kg	< 0.2			0.2	Pass	
Chlorpyrifos-methyl	mg/kg	< 0.2			0.2	Pass	
Coumaphos	mg/kg	< 2			2	Pass	
Demeton-S	mg/kg	< 0.2			0.2	Pass	
Demeton-O	mg/kg	< 0.2			0.2	Pass	
Diazinon	mg/kg	< 0.2			0.2	Pass	
Dichlorvos	mg/kg	< 0.2			0.2	Pass	
Dimethoate	mg/kg	< 0.2			0.2	Pass	
Disulfoton	mg/kg	< 0.2			0.2	Pass	
EPN	mg/kg	< 0.2			0.2	Pass	
Ethion	mg/kg	< 0.2			0.2	Pass	
Ethoprop	mg/kg	< 0.2			0.2	Pass	
Ethyl parathion	mg/kg	< 0.2			0.2	Pass	
Fenitrothion	mg/kg	< 0.2			0.2	Pass	
Fensulfothion	mg/kg	< 0.2			0.2	Pass	
Fenthion	mg/kg	< 0.2			0.2	Pass	
Malathion	mg/kg	< 0.2			0.2	Pass	
Merphos	mg/kg	< 0.2			0.2	Pass	
Methyl parathion	mg/kg	< 0.2			0.2	Pass	
Mevinphos	mg/kg	< 0.2			0.2	Pass	
Monocrotophos	mg/kg	< 2			2	Pass	
Naled	mg/kg	< 0.2			0.2	Pass	
Omethoate	mg/kg	< 2			2	Pass	
Phorate	mg/kg	< 0.2			0.2	Pass	
Pirimiphos-methyl	mg/kg	< 0.2			0.2	Pass	
Pyrazophos	mg/kg	< 0.2			0.2	Pass	
Ronnel	mg/kg	< 0.2			0.2	Pass	
Terbufos	mg/kg	< 0.2			0.2	Pass	
Tetrachlorvinphos	mg/kg	< 0.2			0.2	Pass	
Tokuthion	mg/kg	< 0.2			0.2	Pass	
Trichloronate	mg/kg	< 0.2			0.2	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.5			0.5	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.5			0.5	Pass	
Aroclor-1242	mg/kg	< 0.5			0.5	Pass	
Aroclor-1248	mg/kg	< 0.5			0.5	Pass	
Aroclor-1254	mg/kg	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Aroclor-1260	mg/kg	< 0.5			0.5	Pass	
Total PCB*	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Phenols (Halogenated)							
2-Chlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4.5-Trichlorophenol	mg/kg	< 1			1	Pass	
2.4.6-Trichlorophenol	mg/kg	< 1			1	Pass	
2.6-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
4-Chloro-3-methylphenol	mg/kg	< 1			1	Pass	
Pentachlorophenol	mg/kg	< 1			1	Pass	
Tetrachlorophenols - Total	mg/kg	< 1			1	Pass	
Method Blank							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	mg/kg	< 20			20	Pass	
2-Methyl-4.6-dinitrophenol	mg/kg	< 5			5	Pass	
2-Methylphenol (o-Cresol)	mg/kg	< 0.2			0.2	Pass	
2-Nitrophenol	mg/kg	< 1			1	Pass	
2.4-Dimethylphenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dinitrophenol	mg/kg	< 5			5	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/kg	< 0.4			0.4	Pass	
4-Nitrophenol	mg/kg	< 5			5	Pass	
Dinoseb	mg/kg	< 20			20	Pass	
Phenol	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	109			70-130	Pass	
TRH C10-C14	%	70			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	103			70-130	Pass	
Toluene	%	107			70-130	Pass	
Ethylbenzene	%	110			70-130	Pass	
m&p-Xylenes	%	109			70-130	Pass	
o-Xylene	%	110			70-130	Pass	
Xylenes - Total	%	109			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	114			70-130	Pass	
TRH C6-C10	%	104			70-130	Pass	
TRH >C10-C16	%	73			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	83			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Acenaphthylene	%	88			70-130	Pass	
Anthracene	%	84			70-130	Pass	
Benz(a)anthracene	%	76			70-130	Pass	
Benzo(a)pyrene	%	83			70-130	Pass	
Benzo(b&j)fluoranthene	%	73			70-130	Pass	
Benzo(g.h.i)perylene	%	82			70-130	Pass	
Benzo(k)fluoranthene	%	96			70-130	Pass	
Chrysene	%	84			70-130	Pass	
Dibenz(a.h)anthracene	%	79			70-130	Pass	
Fluoranthene	%	88			70-130	Pass	
Fluorene	%	84			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	79			70-130	Pass	
Naphthalene	%	83			70-130	Pass	
Phenanthrene	%	83			70-130	Pass	
Pyrene	%	91			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	75			70-130	Pass	
4.4'-DDD	%	110			70-130	Pass	
4.4'-DDE	%	101			70-130	Pass	
4.4'-DDT	%	89			70-130	Pass	
a-BHC	%	96			70-130	Pass	
Aldrin	%	97			70-130	Pass	
b-BHC	%	91			70-130	Pass	
d-BHC	%	102			70-130	Pass	
Dieldrin	%	101			70-130	Pass	
Endosulfan I	%	98			70-130	Pass	
Endosulfan II	%	100			70-130	Pass	
Endosulfan sulphate	%	103			70-130	Pass	
Endrin	%	88			70-130	Pass	
Endrin aldehyde	%	92			70-130	Pass	
Endrin ketone	%	102			70-130	Pass	
g-BHC (Lindane)	%	96			70-130	Pass	
Heptachlor	%	93			70-130	Pass	
Heptachlor epoxide	%	100			70-130	Pass	
Hexachlorobenzene	%	90			70-130	Pass	
Methoxychlor	%	89			70-130	Pass	
Toxaphene	%	84			70-130	Pass	
LCS - % Recovery							
Organophosphorus Pesticides							
Dimethoate	%	93			70-130	Pass	
Ethion	%	92			70-130	Pass	
Fenitrothion	%	107			70-130	Pass	
Methyl parathion	%	121			70-130	Pass	
Mevinphos	%	87			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1260	%	86			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated)							
2-Chlorophenol	%	84			30-130	Pass	
2.4-Dichlorophenol	%	85			30-130	Pass	
2.4.5-Trichlorophenol	%	94			30-130	Pass	
2.4.6-Trichlorophenol	%	72			30-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
2.6-Dichlorophenol	%	86			30-130	Pass	
4-Chloro-3-methylphenol	%	91			30-130	Pass	
Pentachlorophenol	%	75			30-130	Pass	
Tetrachlorophenols - Total	%	89			30-130	Pass	
LCS - % Recovery							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	%	80			30-130	Pass	
2-Methyl-4.6-dinitrophenol	%	106			30-130	Pass	
2-Methylphenol (o-Cresol)	%	88			30-130	Pass	
2-Nitrophenol	%	93			30-130	Pass	
2.4-Dimethylphenol	%	88			30-130	Pass	
2.4-Dinitrophenol	%	76			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	%	90			30-130	Pass	
4-Nitrophenol	%	88			30-130	Pass	
Dinoseb	%	73			30-130	Pass	
Phenol	%	86			30-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	119			70-130	Pass	
Cadmium	%	113			70-130	Pass	
Chromium	%	111			70-130	Pass	
Copper	%	111			70-130	Pass	
Lead	%	118			70-130	Pass	
Mercury	%	93			70-130	Pass	
Nickel	%	112			70-130	Pass	
Zinc	%	110			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	S19-Ma18824	NCP	%	105			70-130	Pass	
TRH C10-C14	S19-Ma11880	NCP	%	76			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S19-Ma18824	NCP	%	96			70-130	Pass	
Toluene	S19-Ma18824	NCP	%	98			70-130	Pass	
Ethylbenzene	S19-Ma18824	NCP	%	98			70-130	Pass	
m&p-Xylenes	S19-Ma18824	NCP	%	97			70-130	Pass	
o-Xylene	S19-Ma18824	NCP	%	98			70-130	Pass	
Xylenes - Total	S19-Ma18824	NCP	%	98			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S19-Ma18824	NCP	%	74			70-130	Pass	
TRH C6-C10	S19-Ma18824	NCP	%	102			70-130	Pass	
TRH >C10-C16	S19-Ma15275	NCP	%	74			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S19-Ma10815	NCP	%	81			70-130	Pass	
Acenaphthylene	S19-Ma10815	NCP	%	87			70-130	Pass	
Anthracene	S19-Ma10815	NCP	%	84			70-130	Pass	
Benz(a)anthracene	S19-Ma10815	NCP	%	78			70-130	Pass	
Benzo(a)pyrene	S19-Ma10815	NCP	%	81			70-130	Pass	
Benzo(b&j)fluoranthene	S19-Ma10815	NCP	%	76			70-130	Pass	
Benzo(g.h.i)perylene	S19-Ma10815	NCP	%	76			70-130	Pass	
Benzo(k)fluoranthene	S19-Ma10815	NCP	%	88			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Chrysene	S19-Ma10815	NCP	%	80			70-130	Pass	
Dibenz(a.h)anthracene	S19-Ma10815	NCP	%	76			70-130	Pass	
Fluoranthene	S19-Ma10815	NCP	%	83			70-130	Pass	
Fluorene	S19-Ma10815	NCP	%	83			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S19-Ma10815	NCP	%	76			70-130	Pass	
Naphthalene	S19-Ma10815	NCP	%	89			70-130	Pass	
Phenanthrene	S19-Ma10815	NCP	%	81			70-130	Pass	
Pyrene	S19-Ma10815	NCP	%	84			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	S19-Ma15275	NCP	%	107			70-130	Pass	
4.4'-DDD	S19-Ma16790	NCP	%	130			70-130	Pass	
4.4'-DDE	S19-Ma15275	NCP	%	119			70-130	Pass	
4.4'-DDT	S19-Ma15275	NCP	%	80			70-130	Pass	
a-BHC	S19-Ma15275	NCP	%	118			70-130	Pass	
Aldrin	S19-Ma15275	NCP	%	122			70-130	Pass	
b-BHC	S19-Ma15275	NCP	%	104			70-130	Pass	
d-BHC	S19-Ma15275	NCP	%	119			70-130	Pass	
Dieldrin	S19-Ma15275	NCP	%	119			70-130	Pass	
Endosulfan I	S19-Ma15275	NCP	%	123			70-130	Pass	
Endosulfan II	S19-Ma15275	NCP	%	114			70-130	Pass	
Endosulfan sulphate	S19-Ma15275	NCP	%	108			70-130	Pass	
Endrin	S19-Ma15275	NCP	%	122			70-130	Pass	
Endrin aldehyde	S19-Ma15275	NCP	%	117			70-130	Pass	
Endrin ketone	S19-Ma15275	NCP	%	107			70-130	Pass	
g-BHC (Lindane)	S19-Ma15275	NCP	%	102			70-130	Pass	
Heptachlor	S19-Ma15275	NCP	%	110			70-130	Pass	
Heptachlor epoxide	S19-Ma15275	NCP	%	121			70-130	Pass	
Hexachlorobenzene	S19-Ma15275	NCP	%	112			70-130	Pass	
Methoxychlor	S19-Ma15275	NCP	%	86			70-130	Pass	
Toxaphene	S19-Ma15275	NCP	%	109			70-130	Pass	
Spike - % Recovery									
Organophosphorus Pesticides				Result 1					
Dimethoate	S19-Ma15005	NCP	%	93			70-130	Pass	
Ethion	S19-Ma15005	NCP	%	92			70-130	Pass	
Fenitrothion	S19-Ma15005	NCP	%	105			70-130	Pass	
Methyl parathion	S19-Ma15005	NCP	%	120			70-130	Pass	
Mevinphos	S19-Ma15005	NCP	%	85			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1260	S19-Ma15275	NCP	%	100			70-130	Pass	
Spike - % Recovery									
Phenols (Halogenated)				Result 1					
2-Chlorophenol	S19-Ma15005	NCP	%	72			30-130	Pass	
2.4-Dichlorophenol	S19-Ma15005	NCP	%	76			30-130	Pass	
2.4.5-Trichlorophenol	S19-Ma15005	NCP	%	82			30-130	Pass	
2.4.6-Trichlorophenol	S19-Ma15520	NCP	%	72			30-130	Pass	
2.6-Dichlorophenol	S19-Ma15005	NCP	%	77			30-130	Pass	
4-Chloro-3-methylphenol	S19-Ma15005	NCP	%	84			30-130	Pass	
Pentachlorophenol	S19-Ma15005	NCP	%	70			30-130	Pass	
Tetrachlorophenols - Total	S19-Ma15005	NCP	%	80			30-130	Pass	
Spike - % Recovery									
Phenols (non-Halogenated)				Result 1					
2-Cyclohexyl-4.6-dinitrophenol	S19-Ma15520	NCP	%	91			30-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
2-Methyl-4.6-dinitrophenol	S19-Ma11801	NCP	%	95			30-130	Pass	
2-Methylphenol (o-Cresol)	S19-Ma15005	NCP	%	76			30-130	Pass	
2-Nitrophenol	S19-Ma15005	NCP	%	86			30-130	Pass	
2.4-Dimethylphenol	S19-Ma15005	NCP	%	73			30-130	Pass	
2.4-Dinitrophenol	S19-Ma13431	NCP	%	99			70-130	Pass	
3&4-Methylphenol (m&p-Cresol)	S19-Ma15005	NCP	%	80			30-130	Pass	
4-Nitrophenol	S19-Ma15005	NCP	%	83			30-130	Pass	
Dinoseb	S19-Ma15520	NCP	%	74			30-130	Pass	
Phenol	S19-Ma15005	NCP	%	75			30-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S19-Ma15494	NCP	%	130			70-130	Pass	
Cadmium	S19-Ma15494	NCP	%	111			70-130	Pass	
Chromium	S19-Ma15494	NCP	%	117			70-130	Pass	
Copper	S19-Ma15494	NCP	%	113			70-130	Pass	
Lead	S19-Ma15494	NCP	%	119			70-130	Pass	
Mercury	S19-Ma15494	NCP	%	121			70-130	Pass	
Nickel	S19-Ma15494	NCP	%	108			70-130	Pass	
Zinc	S19-Ma15494	NCP	%	115			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S19-Ma14995	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S19-Ma06756	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S19-Ma06756	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S19-Ma06756	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S19-Ma14995	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S19-Ma14995	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S19-Ma14995	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S19-Ma14995	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S19-Ma14995	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total	S19-Ma14995	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S19-Ma14995	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S19-Ma14995	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S19-Ma06756	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S19-Ma06756	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S19-Ma06756	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S19-Ma10813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S19-Ma10813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S19-Ma10813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S19-Ma10813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S19-Ma10813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S19-Ma10813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S19-Ma10813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S19-Ma10813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S19-Ma10813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S19-Ma10813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S19-Ma10813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Fluorene	S19-Ma10813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S19-Ma10813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S19-Ma10813	NCP	mg/kg	0.7	0.5	37	30%	Fail	Q15
Phenanthrene	S19-Ma10813	NCP	mg/kg	0.5	< 0.5	27	30%	Pass	
Pyrene	S19-Ma10813	NCP	mg/kg	0.6	< 0.5	48	30%	Fail	Q15
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S19-Ma16789	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S19-Ma16789	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S19-Ma16789	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S19-Ma16789	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-BHC	S19-Ma16789	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S19-Ma16789	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-BHC	S19-Ma16789	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-BHC	S19-Ma16789	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S19-Ma16789	NCP	mg/kg	0.19	Dil 0.20	<1	30%	Pass	
Endosulfan I	S19-Ma16789	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S19-Ma16789	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S19-Ma16789	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S19-Ma16789	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S19-Ma16789	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S19-Ma16789	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-BHC (Lindane)	S19-Ma16789	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S19-Ma16789	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S19-Ma16789	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S19-Ma16789	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S19-Ma16789	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Toxaphene	S19-Ma16789	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Organophosphorus Pesticides				Result 1	Result 2	RPD			
Azinphos-methyl	N19-Ma13551	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Bolstar	N19-Ma13551	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorfenvinphos	N19-Ma13551	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorpyrifos	N19-Ma13551	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorpyrifos-methyl	N19-Ma13551	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Coumaphos	N19-Ma13551	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Demeton-S	N19-Ma13551	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Demeton-O	N19-Ma13551	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Diazinon	N19-Ma13551	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Dichlorvos	N19-Ma13551	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Dimethoate	N19-Ma13551	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Disulfoton	N19-Ma13551	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
EPN	N19-Ma13551	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethion	N19-Ma13551	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethoprop	N19-Ma13551	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethyl parathion	N19-Ma13551	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fenitrothion	N19-Ma13551	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fensulfothion	N19-Ma13551	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fenthion	N19-Ma13551	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Malathion	N19-Ma13551	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Merphos	N19-Ma13551	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Methyl parathion	N19-Ma13551	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Mevinphos	N19-Ma13551	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Monocrotophos	N19-Ma13551	NCP	mg/kg	< 2	< 2	<1	30%	Pass	

Duplicate									
Organophosphorus Pesticides				Result 1	Result 2	RPD			
Naled	N19-Ma13551	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Omethoate	N19-Ma13551	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Phorate	N19-Ma13551	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Pirimiphos-methyl	N19-Ma13551	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Pyrazophos	N19-Ma13551	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ronnel	N19-Ma13551	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Terbufos	N19-Ma13551	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Tetrachlorvinphos	N19-Ma13551	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Tokuthion	N19-Ma13551	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Trichloronate	N19-Ma13551	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	S19-Ma06756	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1221	S19-Ma06756	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	S19-Ma06756	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1242	S19-Ma06756	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1248	S19-Ma06756	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1254	S19-Ma06756	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1260	S19-Ma06756	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Phenols (Halogenated)				Result 1	Result 2	RPD			
2-Chlorophenol	N19-Ma13551	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dichlorophenol	N19-Ma13551	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4.5-Trichlorophenol	N19-Ma13551	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4.6-Trichlorophenol	N19-Ma13551	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
2.6-Dichlorophenol	N19-Ma13551	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chloro-3-methylphenol	N19-Ma13551	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Pentachlorophenol	N19-Ma13551	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Tetrachlorophenols - Total	N19-Ma13551	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
2-Cyclohexyl-4.6-dinitrophenol	N19-Ma13551	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
2-Methyl-4.6-dinitrophenol	N19-Ma13551	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
2-Methylphenol (o-Cresol)	N19-Ma13551	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
2-Nitrophenol	N19-Ma13551	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4-Dimethylphenol	N19-Ma13551	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dinitrophenol	N19-Ma13551	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	N19-Ma13551	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
4-Nitrophenol	N19-Ma13551	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Dinoseb	N19-Ma13551	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
Phenol	N19-Ma13551	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S19-Ma15483	NCP	mg/kg	3.2	3.1	3.0	30%	Pass	
Cadmium	S19-Ma15483	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S19-Ma15483	NCP	mg/kg	5.9	6.5	9.0	30%	Pass	
Copper	S19-Ma15483	NCP	mg/kg	21	21	<1	30%	Pass	
Lead	S19-Ma15483	NCP	mg/kg	14	12	13	30%	Pass	
Mercury	S19-Ma15483	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S19-Ma15483	NCP	mg/kg	6.6	7.9	17	30%	Pass	
Zinc	S19-Ma15483	NCP	mg/kg	40	35	15	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S19-Ma05947	NCP	%	4.1	4.3	6.0	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q15	The RPD reported passes Eurofins | mgt's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised By

Nibha Vaidya	Analytical Services Manager
Andrew Sullivan	Senior Analyst-Organic (NSW)
Gabriele Cordero	Senior Analyst-Metal (NSW)



Glenn Jackson
General Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

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ABN– 50 005 085 521
e.mail : EnviroSales@eurofins.com
web : www.eurofins.com.au

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

Company Name:	Douglas Partners (Syd)	**Order No.:**		**Received:**	Mar 12, 2019 2:46 PM
Address:	96 Hermitage Road West Ryde NSW 2114	**Report #:**	644901	**Due:**	Mar 19, 2019
		Phone:	02 9809 0666	**Priority:**	5 Day
		Fax:		**Contact Name:**	Peter Oitmaa
Project Name:	MOORE PARK				
Project ID:	86529.00				

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Eurofins | mgt Suite B15	Moisture Set	Eurofins | mgt Suite B7A
Melbourne Laboratory - NATA Site # 1254 & 14271								
Sydney Laboratory - NATA Site # 18217						X	X	X
Brisbane Laboratory - NATA Site # 20794								
Perth Laboratory - NATA Site # 23736								
External Laboratory								
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**			
1	BT21B	Not Provided		Soil	S19-Ma13647	X	X	X
Test Counts						1	1	1

Melbourne
6 Monterey Road
Dandenong South Vic 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261 Site # 23736

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com web : www.eurofins.com.au

Sample Receipt Advice

Company name:	**Douglas Partners (Syd)**
Contact name:	Peter Oitmaa
Project name:	MOORE PARK
Project ID:	86529.00
COC number:	Not provided
Turn around time:	5 Day
Date/Time received:	Mar 12, 2019 2:46 PM
Eurofins | mgt reference:	**644901**

Sample information

☑ A detailed list of analytes logged into our LIMS, is included in the attached summary table.

☑ All samples have been received as described on the above COC.

☑ COC has been completed correctly.

☑ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

☑ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.

☑ Appropriate sample containers have been used.

☒ Split sample sent to requested external lab.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Contact notes

If you have any questions with respect to these samples please contact:

Nibha Vaidya on Phone : +61 (2) 9900 8415 or by e.mail: NibhaVaidya@eurofins.com

Results will be delivered electronically via e.mail to Peter Oitmaa - peter.oitmaa@douglaspartners.com.au.

Douglas Partners
Geotechnics · Environment · Groundwater

CHAIN OF CUSTODY

Project Name: MOORE PARK
Project No: 86529.00 Sampler: Various
Project Mgr: Peter Oitmaa Mob. Phone: 0412 574 518
Email: peter.oitmaa@douglaspartners.com.au
Date Required: Std. Lab Quote No.

To: Envirolab Services
12 Ashley Street, Chatswood NSW 2067
Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

Sample ID	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W - water	Container type	Analytes: Combo 8	Asb. 500mL	BTEX	TRH C_6-C_9					Notes
105	3.7	1	1/3	S	Jar/Bag									
108	1-1.1	2	5/3											
201	1.0	3	"											
209	1.0	4	27/2											
214	0.9-1.0	5	28/2											
215	0.5-0.6	6	"											
219	2.8-2.9	7	"											22.3
227	0.5-0.6	8	1/3											
229	1.5	9	7/3											
BT2/A	N/A	10	N/A		Jar									
BT2/B	"	—	"		"									Send 21B to Eurofins
Blank/Spike		11,12						/	/					As applicable

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200
Job No: 213234
Date Received: 11/3/2019
Time Received: 16:53
Received by: RL
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

Lab Report No.
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114
Phone: (02) 9809 0666
Fax: (02) 9809 4095

Relinquished by: PMO Signed: PMO Date & Time: 11/3/2019 Received By: GTUCKWELL Date & Time: 12/3 2:46
Relinquished by: Tania Dohtaj Signed: Date & Time: 12/3/19 Received By: Ray Eurofins Date & Time: 11/3/2019 16:53

Re

#644901

Form COC Rev0/November 2006

Douglas Partners (Syd)
96 Hermitage Road
West Ryde
NSW 2114

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Peter Oitmaa**

Report **643680-S**
Project name MOORE PARK
Project ID 86529.00
Received Date Mar 04, 2019

Client Sample ID			**BT1B**	**BT6B**	**BT12B**	**BT14B**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S19-Ma04719**	**S19-Ma04720**	**S19-Ma04721**	**S19-Ma04722**
Date Sampled			**Feb 27, 2019**	**Feb 27, 2019**	**Feb 27, 2019**	**Feb 27, 2019**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	23
TRH C15-C28	50	mg/kg	< 50	260	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	170	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	< 50	430	< 50	< 50
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	85	76	70	86
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	390	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	490	< 100	< 100
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	9.6	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	9.8	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	10	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	1.2	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	1.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	6.3	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	7.4	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	7.8	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	4.6	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	3.1	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	5.1	< 0.5	< 0.5

Client Sample ID			BT1B	BT6B	BT12B	BT14B
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S19-Ma04719	S19-Ma04720	S19-Ma04721	S19-Ma04722
Date Sampled			Feb 27, 2019	Feb 27, 2019	Feb 27, 2019	Feb 27, 2019
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	0.6	8.7	< 0.5	0.6
Fluorene	0.5	mg/kg	< 0.5	0.6	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	3.4	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	4.6	< 0.5	< 0.5
Pyrene	0.5	mg/kg	0.6	8.5	< 0.5	0.6
Total PAH*	0.5	mg/kg	1.2	63.3	< 0.5	1.2
2-Fluorobiphenyl (surr.)	1	%	69	79	101	64
p-Terphenyl-d14 (surr.)	1	%	70	58	105	81
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Toxaphene	1	mg/kg	< 1	< 1	< 1	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Dibutylchlorendate (surr.)	1	%	78	INT	54	78
Tetrachloro-m-xylene (surr.)	1	%	64	63	59	79
Organophosphorus Pesticides						
Azinphos-methyl	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Bolstar	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Chlorfenvinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Chlorpyrifos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Chlorpyrifos-methyl	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Coumaphos	2	mg/kg	< 2	< 2	< 2	< 2
Demeton-S	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Demeton-O	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Diazinon	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Dichlorvos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2

Client Sample ID			BT1B	BT6B	BT12B	BT14B
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S19-Ma04719	S19-Ma04720	S19-Ma04721	S19-Ma04722
Date Sampled			Feb 27, 2019	Feb 27, 2019	Feb 27, 2019	Feb 27, 2019
Test/Reference	LOR	Unit				
Organophosphorus Pesticides						
Dimethoate	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Disulfoton	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
EPN	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Ethion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Ethoprop	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Ethyl parathion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Fenitrothion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Fensulfothion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Fenthion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Malathion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Merphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methyl parathion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Mevinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Monocrotophos	2	mg/kg	< 2	< 2	< 2	< 2
Naled	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Omethoate	2	mg/kg	< 2	< 2	< 2	< 2
Phorate	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Pirimiphos-methyl	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Pyrazophos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Ronnel	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Terbufos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Tetrachlorvinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Tokuthion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Trichloronate	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Triphenylphosphate (surr.)	1	%	69	88	67	65
Polychlorinated Biphenyls						
Aroclor-1016	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1242	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1248	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1254	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1260	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PCB*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibutylchlorendate (surr.)	1	%	78	INT	54	78
Tetrachloro-m-xylene (surr.)	1	%	64	63	59	79
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4.5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4.6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Tetrachlorophenols - Total	1	mg/kg	< 1	< 1	< 1	< 1
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1	< 1

Client Sample ID			BT1B	BT6B	BT12B	BT14B
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S19-Ma04719	S19-Ma04720	S19-Ma04721	S19-Ma04722
Date Sampled			Feb 27, 2019	Feb 27, 2019	Feb 27, 2019	Feb 27, 2019
Test/Reference	LOR	Unit				
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
2-Nitrophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
Phenol-d6 (surr.)	1	%	79	82	100	57
Heavy Metals						
Arsenic	2	mg/kg	< 2	9.9	2.2	3.6
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	8.7	12	7.6	9.3
Copper	5	mg/kg	54	66	< 5	48
Lead	5	mg/kg	33	240	< 5	88
Mercury	0.1	mg/kg	< 0.1	0.5	< 0.1	0.2
Nickel	5	mg/kg	61	7.7	< 5	6.6
Zinc	5	mg/kg	50	150	< 5	53
% Moisture	1	%	16	11	8.2	19

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Mar 06, 2019	14 Day
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Mar 06, 2019	14 Day
- Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Mar 06, 2019	14 Day
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Mar 06, 2019	14 Day
- Method: LTM-ORG-2010 TRH C6-C40			
Polycyclic Aromatic Hydrocarbons	Sydney	Mar 06, 2019	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Organochlorine Pesticides	Sydney	Mar 06, 2019	14 Day
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Organophosphorus Pesticides	Sydney	Mar 06, 2019	14 Day
- Method: LTM-ORG-2200 Organophosphorus Pesticides by GC-MS			
Metals M8	Sydney	Mar 06, 2019	28 Day
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Polychlorinated Biphenyls	Sydney	Mar 06, 2019	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Phenols (Halogenated)	Sydney	Mar 06, 2019	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Phenols (non-Halogenated)	Sydney	Mar 06, 2019	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
% Moisture	Sydney	Mar 05, 2019	14 Day
- Method: LTM-GEN-7080 Moisture			

eurofins | mgt

ABN– 50 005 085 521
e.mail : EnviroSales@eurofins.com
web : www.eurofins.com.au

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

Company Name: Douglas Partners (Syd)
Address: 96 Hermitage Road
West Ryde
NSW 2114

Project Name: MOORE PARK
Project ID: 86529.00

Order No.:
Report #: 643680
Phone: 02 9809 0666
Fax:

Received: Mar 4, 2019 3:02 PM
Due: Mar 11, 2019
Priority: 5 Day
Contact Name: Peter Oitmaa

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						HOLD	Polychlorinated Biphenyls	Phenols (IWRG 621)	Moisture Set	Eurofins | mgt Suite B10
Melbourne Laboratory - NATA Site # 1254 & 14271										
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794										
Perth Laboratory - NATA Site # 23736										
External Laboratory										
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**					
1	BT1B	Feb 27, 2019		Soil	S19-Ma04719		X	X	X	X
2	BT6B	Feb 27, 2019		Soil	S19-Ma04720		X	X	X	X
3	BT12B	Feb 27, 2019		Soil	S19-Ma04721		X	X	X	X
4	BT14B	Feb 27, 2019		Soil	S19-Ma04722		X	X	X	X
5	BT4B	Feb 27, 2019		Soil	S19-Ma04757	X				
Test Counts						1	4	4	4	4

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure, April 2011 and are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	US Department of Defense Quality Systems Manual Version 5.2 2018
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries: Recoveries must lie between 50-150%-Phenols & PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.2 where no positive PFAS results have been reported have been reviewed and no data was affected.

WA DWER (n=10): PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-BHC	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-BHC	mg/kg	< 0.05			0.05	Pass	
d-BHC	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-BHC (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.2			0.2	Pass	
Toxaphene	mg/kg	< 1			1	Pass	
Method Blank							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Organophosphorus Pesticides							
Azinphos-methyl	mg/kg	< 0.2			0.2	Pass	
Bolstar	mg/kg	< 0.2			0.2	Pass	
Chlorfenvinphos	mg/kg	< 0.2			0.2	Pass	
Chlorpyrifos	mg/kg	< 0.2			0.2	Pass	
Chlorpyrifos-methyl	mg/kg	< 0.2			0.2	Pass	
Coumaphos	mg/kg	< 2			2	Pass	
Demeton-S	mg/kg	< 0.2			0.2	Pass	
Demeton-O	mg/kg	< 0.2			0.2	Pass	
Diazinon	mg/kg	< 0.2			0.2	Pass	
Dichlorvos	mg/kg	< 0.2			0.2	Pass	
Dimethoate	mg/kg	< 0.2			0.2	Pass	
Disulfoton	mg/kg	< 0.2			0.2	Pass	
EPN	mg/kg	< 0.2			0.2	Pass	
Ethion	mg/kg	< 0.2			0.2	Pass	
Ethoprop	mg/kg	< 0.2			0.2	Pass	
Ethyl parathion	mg/kg	< 0.2			0.2	Pass	
Fenitrothion	mg/kg	< 0.2			0.2	Pass	
Fensulfothion	mg/kg	< 0.2			0.2	Pass	
Fenthion	mg/kg	< 0.2			0.2	Pass	
Malathion	mg/kg	< 0.2			0.2	Pass	
Merphos	mg/kg	< 0.2			0.2	Pass	
Methyl parathion	mg/kg	< 0.2			0.2	Pass	
Mevinphos	mg/kg	< 0.2			0.2	Pass	
Monocrotophos	mg/kg	< 2			2	Pass	
Naled	mg/kg	< 0.2			0.2	Pass	
Omethoate	mg/kg	< 2			2	Pass	
Phorate	mg/kg	< 0.2			0.2	Pass	
Pirimiphos-methyl	mg/kg	< 0.2			0.2	Pass	
Pyrazophos	mg/kg	< 0.2			0.2	Pass	
Ronnel	mg/kg	< 0.2			0.2	Pass	
Terbufos	mg/kg	< 0.2			0.2	Pass	
Tetrachlorvinphos	mg/kg	< 0.2			0.2	Pass	
Tokuthion	mg/kg	< 0.2			0.2	Pass	
Trichloronate	mg/kg	< 0.2			0.2	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.5			0.5	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.5			0.5	Pass	
Aroclor-1242	mg/kg	< 0.5			0.5	Pass	
Aroclor-1248	mg/kg	< 0.5			0.5	Pass	
Aroclor-1254	mg/kg	< 0.5			0.5	Pass	
Aroclor-1260	mg/kg	< 0.5			0.5	Pass	
Total PCB*	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Phenols (Halogenated)							
2-Chlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4.5-Trichlorophenol	mg/kg	< 1			1	Pass	
2.4.6-Trichlorophenol	mg/kg	< 1			1	Pass	
2.6-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
4-Chloro-3-methylphenol	mg/kg	< 1			1	Pass	
Pentachlorophenol	mg/kg	< 1			1	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Tetrachlorophenols - Total	mg/kg	< 1			1	Pass	
Method Blank							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	mg/kg	< 20			20	Pass	
2-Methyl-4.6-dinitrophenol	mg/kg	< 5			5	Pass	
2-Methylphenol (o-Cresol)	mg/kg	< 0.2			0.2	Pass	
2-Nitrophenol	mg/kg	< 1			1	Pass	
2.4-Dimethylphenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dinitrophenol	mg/kg	< 5			5	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/kg	< 0.4			0.4	Pass	
4-Nitrophenol	mg/kg	< 5			5	Pass	
Dinoseb	mg/kg	< 20			20	Pass	
Phenol	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C10-C14	%	74			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
TRH >C10-C16	%	72			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	84			70-130	Pass	
Acenaphthylene	%	92			70-130	Pass	
Anthracene	%	80			70-130	Pass	
Benz(a)anthracene	%	87			70-130	Pass	
Benzo(a)pyrene	%	88			70-130	Pass	
Benzo(b&j)fluoranthene	%	90			70-130	Pass	
Benzo(g.h.i)perylene	%	75			70-130	Pass	
Benzo(k)fluoranthene	%	89			70-130	Pass	
Chrysene	%	76			70-130	Pass	
Dibenz(a.h)anthracene	%	93			70-130	Pass	
Fluoranthene	%	72			70-130	Pass	
Fluorene	%	79			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	90			70-130	Pass	
Naphthalene	%	89			70-130	Pass	
Phenanthrene	%	88			70-130	Pass	
Pyrene	%	70			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
4.4'-DDD	%	101			70-130	Pass	
4.4'-DDE	%	91			70-130	Pass	
4.4'-DDT	%	85			70-130	Pass	
a-BHC	%	98			70-130	Pass	
Aldrin	%	94			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
b-BHC	%	88			70-130	Pass	
d-BHC	%	98			70-130	Pass	
Dieldrin	%	91			70-130	Pass	
Endosulfan I	%	91			70-130	Pass	
Endosulfan II	%	92			70-130	Pass	
Endosulfan sulphate	%	95			70-130	Pass	
Endrin	%	98			70-130	Pass	
Endrin aldehyde	%	76			70-130	Pass	
Endrin ketone	%	85			70-130	Pass	
g-BHC (Lindane)	%	95			70-130	Pass	
Heptachlor	%	94			70-130	Pass	
Heptachlor epoxide	%	95			70-130	Pass	
Hexachlorobenzene	%	93			70-130	Pass	
Methoxychlor	%	86			70-130	Pass	
LCS - % Recovery							
Organophosphorus Pesticides							
Diazinon	%	79			70-130	Pass	
Dimethoate	%	71			70-130	Pass	
Ethion	%	99			70-130	Pass	
Fenitrothion	%	85			70-130	Pass	
Methyl parathion	%	88			70-130	Pass	
Mevinphos	%	103			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1260	%	94			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated)							
2-Chlorophenol	%	84			30-130	Pass	
2.4-Dichlorophenol	%	88			30-130	Pass	
2.4.5-Trichlorophenol	%	84			30-130	Pass	
2.4.6-Trichlorophenol	%	109			30-130	Pass	
2.6-Dichlorophenol	%	91			30-130	Pass	
4-Chloro-3-methylphenol	%	88			30-130	Pass	
Pentachlorophenol	%	100			30-130	Pass	
Tetrachlorophenols - Total	%	96			30-130	Pass	
LCS - % Recovery							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	%	102			30-130	Pass	
2-Methyl-4.6-dinitrophenol	%	104			30-130	Pass	
2-Methylphenol (o-Cresol)	%	101			30-130	Pass	
2-Nitrophenol	%	86			30-130	Pass	
2.4-Dimethylphenol	%	90			30-130	Pass	
2.4-Dinitrophenol	%	93			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	%	106			30-130	Pass	
4-Nitrophenol	%	88			30-130	Pass	
Dinoseb	%	104			30-130	Pass	
Phenol	%	86			30-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	112			70-130	Pass	
Cadmium	%	110			70-130	Pass	
Chromium	%	114			70-130	Pass	
Copper	%	116			70-130	Pass	
Lead	%	116			70-130	Pass	

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Mercury			%	124			70-130	Pass	
Nickel			%	118			70-130	Pass	
Zinc			%	115			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S19-Ma06672	NCP	%	88			70-130	Pass	
Acenaphthylene	S19-Ma06672	NCP	%	94			70-130	Pass	
Anthracene	S19-Ma06672	NCP	%	82			70-130	Pass	
Benz(a)anthracene	S19-Ma06672	NCP	%	90			70-130	Pass	
Benzo(a)pyrene	S19-Ma06672	NCP	%	87			70-130	Pass	
Benzo(b&j)fluoranthene	S19-Ma06672	NCP	%	96			70-130	Pass	
Benzo(g.h.i)perylene	S19-Ma06672	NCP	%	90			70-130	Pass	
Benzo(k)fluoranthene	S19-Ma06672	NCP	%	95			70-130	Pass	
Chrysene	S19-Ma06672	NCP	%	77			70-130	Pass	
Dibenz(a.h)anthracene	S19-Ma06672	NCP	%	92			70-130	Pass	
Fluoranthene	S19-Ma06672	NCP	%	93			70-130	Pass	
Fluorene	S19-Ma06672	NCP	%	82			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S19-Ma06672	NCP	%	82			70-130	Pass	
Naphthalene	S19-Ma06672	NCP	%	98			70-130	Pass	
Phenanthrene	S19-Ma06672	NCP	%	78			70-130	Pass	
Pyrene	S19-Ma06672	NCP	%	96			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
4.4'-DDD	S19-Ma05091	NCP	%	87			70-130	Pass	
4.4'-DDE	S19-Ma05091	NCP	%	85			70-130	Pass	
4.4'-DDT	S19-Ma05091	NCP	%	75			70-130	Pass	
a-BHC	S19-Ma05091	NCP	%	81			70-130	Pass	
Aldrin	S19-Ma05091	NCP	%	80			70-130	Pass	
b-BHC	S19-Ma05091	NCP	%	72			70-130	Pass	
d-BHC	S19-Ma05091	NCP	%	83			70-130	Pass	
Dieldrin	S19-Ma05091	NCP	%	83			70-130	Pass	
Endosulfan I	S19-Ma05091	NCP	%	79			70-130	Pass	
Endosulfan II	S19-Ma05091	NCP	%	79			70-130	Pass	
Endosulfan sulphate	S19-Ma05091	NCP	%	80			70-130	Pass	
Endrin	S19-Ma05091	NCP	%	84			70-130	Pass	
Endrin aldehyde	S19-Ma05091	NCP	%	74			70-130	Pass	
Endrin ketone	S19-Ma05091	NCP	%	73			70-130	Pass	
g-BHC (Lindane)	S19-Ma05091	NCP	%	76			70-130	Pass	
Heptachlor	S19-Ma05091	NCP	%	80			70-130	Pass	
Heptachlor epoxide	S19-Ma05091	NCP	%	92			70-130	Pass	
Hexachlorobenzene	S19-Ma05091	NCP	%	76			70-130	Pass	
Methoxychlor	S19-Ma05091	NCP	%	73			70-130	Pass	
Spike - % Recovery									
Organophosphorus Pesticides				Result 1					
Diazinon	S19-Ma06671	NCP	%	104			70-130	Pass	
Dimethoate	S19-Ma06671	NCP	%	98			70-130	Pass	
Ethion	S19-Ma06671	NCP	%	111			70-130	Pass	
Fenitrothion	S19-Ma06671	NCP	%	109			70-130	Pass	
Methyl parathion	S19-Ma06671	NCP	%	111			70-130	Pass	
Mevinphos	S19-Ma06671	NCP	%	114			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1260	S19-Ma06672	NCP	%	88			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S19-Ma04315	NCP	%	111			70-130	Pass	
Cadmium	S19-Ma04315	NCP	%	110			70-130	Pass	
Chromium	S19-Ma04315	NCP	%	110			70-130	Pass	
Copper	S19-Ma04315	NCP	%	114			70-130	Pass	
Lead	S19-Ma04315	NCP	%	116			70-130	Pass	
Mercury	S19-Ma04315	NCP	%	125			70-130	Pass	
Nickel	S19-Ma04315	NCP	%	114			70-130	Pass	
Zinc	S19-Ma04315	NCP	%	90			70-130	Pass	
Spike - % Recovery									
Phenols (Halogenated)				Result 1					
2-Chlorophenol	S19-Ma03733	NCP	%	95			30-130	Pass	
2.4-Dichlorophenol	S19-Ma03733	NCP	%	98			30-130	Pass	
2.4.5-Trichlorophenol	S19-Ma03733	NCP	%	105			30-130	Pass	
2.4.6-Trichlorophenol	S19-Ma03733	NCP	%	109			30-130	Pass	
2.6-Dichlorophenol	S19-Ma03733	NCP	%	100			30-130	Pass	
4-Chloro-3-methylphenol	S19-Ma03733	NCP	%	96			30-130	Pass	
Pentachlorophenol	S19-Ma03706	NCP	%	106			30-130	Pass	
Tetrachlorophenols - Total	S19-Ma03706	NCP	%	98			30-130	Pass	
Spike - % Recovery									
Phenols (non-Halogenated)				Result 1					
2-Cyclohexyl-4.6-dinitrophenol	S19-Ma03706	NCP	%	114			30-130	Pass	
2-Methyl-4.6-dinitrophenol	S19-Ma03733	NCP	%	127			30-130	Pass	
2-Methylphenol (o-Cresol)	S19-Ma03733	NCP	%	90			30-130	Pass	
2-Nitrophenol	S19-Ma03733	NCP	%	101			30-130	Pass	
2.4-Dimethylphenol	S19-Ma03733	NCP	%	95			30-130	Pass	
2.4-Dinitrophenol	S19-Ma03706	NCP	%	97			70-130	Pass	
3&4-Methylphenol (m&p-Cresol)	S19-Ma03733	NCP	%	93			30-130	Pass	
4-Nitrophenol	S19-Ma03733	NCP	%	90			30-130	Pass	
Dinoseb	S19-Ma03706	NCP	%	118			30-130	Pass	
Phenol	S19-Ma03733	NCP	%	89			30-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	S19-Ma04313	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S19-Ma04313	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S19-Ma04313	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	S19-Ma04313	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S19-Ma04313	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S19-Ma04313	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S19-Ma06671	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S19-Ma06671	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S19-Ma06671	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S19-Ma06671	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S19-Ma06671	NCP	mg/kg	0.7	< 0.5	43	30%	Fail	Q15
Benzo(b&j)fluoranthene	S19-Ma06671	NCP	mg/kg	0.8	0.5	43	30%	Fail	Q15
Benzo(g.h.i)perylene	S19-Ma06671	NCP	mg/kg	0.6	< 0.5	41	30%	Fail	Q15
Benzo(k)fluoranthene	S19-Ma06671	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S19-Ma06671	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Dibenz(a.h)anthracene	S19-Ma06671	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S19-Ma06671	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S19-Ma06671	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S19-Ma06671	NCP	mg/kg	0.5	< 0.5	41	30%	Fail	Q15
Naphthalene	S19-Ma06671	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S19-Ma06671	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S19-Ma06671	NCP	mg/kg	0.7	< 0.5	59	30%	Fail	Q15
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S19-Ma01752	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S19-Ma01752	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S19-Ma01752	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S19-Ma01752	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-BHC	S19-Ma01752	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S19-Ma01752	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-BHC	S19-Ma01752	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-BHC	S19-Ma01752	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S19-Ma01752	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S19-Ma01752	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S19-Ma01752	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S19-Ma01752	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S19-Ma01752	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S19-Ma01752	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S19-Ma01752	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-BHC (Lindane)	S19-Ma01752	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S19-Ma01752	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S19-Ma01752	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S19-Ma01752	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S19-Ma01752	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Toxaphene	S19-Ma01752	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Organophosphorus Pesticides				Result 1	Result 2	RPD			
Azinphos-methyl	S19-Ma06671	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Bolstar	S19-Ma06671	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorfenvinphos	S19-Ma06671	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorpyrifos	S19-Ma06671	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorpyrifos-methyl	S19-Ma06671	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Coumaphos	S19-Ma06671	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Demeton-S	S19-Ma06671	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Demeton-O	S19-Ma06671	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Diazinon	S19-Ma06671	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Dichlorvos	S19-Ma06671	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Dimethoate	S19-Ma06671	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Disulfoton	S19-Ma06671	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
EPN	S19-Ma06671	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethion	S19-Ma06671	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethoprop	S19-Ma06671	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethyl parathion	S19-Ma06671	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fenitrothion	S19-Ma06671	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fensulfothion	S19-Ma06671	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fenthion	S19-Ma06671	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Malathion	S19-Ma06671	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Merphos	S19-Ma06671	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Methyl parathion	S19-Ma06671	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	

Duplicate									
Organophosphorus Pesticides				Result 1	Result 2	RPD			
Mevinphos	S19-Ma06671	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Monocrotophos	S19-Ma06671	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Naled	S19-Ma06671	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Omethoate	S19-Ma06671	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Phorate	S19-Ma06671	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Pirimiphos-methyl	S19-Ma06671	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Pyrazophos	S19-Ma06671	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ronnel	S19-Ma06671	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Terbufos	S19-Ma06671	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Tetrachlorvinphos	S19-Ma06671	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Tokuthion	S19-Ma06671	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Trichloronate	S19-Ma06671	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	S19-Ma01752	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1221	S19-Ma01752	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	S19-Ma01752	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1242	S19-Ma01752	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1248	S19-Ma01752	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1254	S19-Ma01752	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1260	S19-Ma01752	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S19-Ma04313	NCP	mg/kg	2.6	2.3	12	30%	Pass	
Cadmium	S19-Ma04313	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S19-Ma03083	NCP	mg/kg	23	19	15	30%	Pass	
Copper	S19-Ma04313	NCP	mg/kg	8.5	7.3	16	30%	Pass	
Lead	S19-Ma04313	NCP	mg/kg	14	13	4.0	30%	Pass	
Mercury	S19-Ma03083	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S19-Ma04313	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	S19-Ma04313	NCP	mg/kg	64	59	8.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S19-Ma04719	CP	%	16	14	11	30%	Pass	
Duplicate									
Phenols (Halogenated)				Result 1	Result 2	RPD			
2-Chlorophenol	S19-Fe33056	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dichlorophenol	S19-Fe33056	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4.5-Trichlorophenol	S19-Fe33056	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4.6-Trichlorophenol	S19-Fe33056	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
2.6-Dichlorophenol	S19-Fe33056	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chloro-3-methylphenol	S19-Fe33056	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Pentachlorophenol	S19-Fe33056	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Tetrachlorophenols - Total	S19-Fe33056	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
2-Cyclohexyl-4.6-dinitrophenol	S19-Fe33056	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
2-Methyl-4.6-dinitrophenol	S19-Fe33056	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
2-Methylphenol (o-Cresol)	S19-Fe33056	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
2-Nitrophenol	S19-Fe33056	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4-Dimethylphenol	S19-Fe33056	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dinitrophenol	S19-Fe33056	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	S19-Fe33056	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
4-Nitrophenol	S19-Fe33056	NCP	mg/kg	< 5	< 5	<1	30%	Pass	

Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
Dinoseb	S19-Fe33056	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
Phenol	S19-Fe33056	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q15	The RPD reported passes Eurofins | mgt's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised By

Nibha Vaidya	Analytical Services Manager
Andrew Sullivan	Senior Analyst-Organic (NSW)
Gabriele Cordero	Senior Analyst-Metal (NSW)



Glenn Jackson
General Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

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ABN– 50 005 085 521
e.mail : EnviroSales@eurofins.com
web : www.eurofins.com.au

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

Company Name: Douglas Partners (Syd)
Address: 96 Hermitage Road
West Ryde
NSW 2114

Project Name: MOORE PARK
Project ID: 86529.00

Order No.:
Report #: 643680
Phone: 02 9809 0666
Fax:

Received: Mar 4, 2019 3:02 PM
Due: Mar 11, 2019
Priority: 5 Day
Contact Name: Peter Oitmaa

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						HOLD	Polychlorinated Biphenyls	Phenols (IWRG 621)	Moisture Set	Eurofins | mgt Suite B10
Melbourne Laboratory - NATA Site # 1254 & 14271										
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794										
Perth Laboratory - NATA Site # 23736										
External Laboratory										
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**					
1	BT1B	Feb 27, 2019		Soil	S19-Ma04719		X	X	X	X
2	BT6B	Feb 27, 2019		Soil	S19-Ma04720		X	X	X	X
3	BT12B	Feb 27, 2019		Soil	S19-Ma04721		X	X	X	X
4	BT14B	Feb 27, 2019		Soil	S19-Ma04722		X	X	X	X
5	BT4B	Feb 27, 2019		Soil	S19-Ma04757	X				
Test Counts						1	4	4	4	4

Melbourne
6 Monterey Road
Dandenong South Vic 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261 Site # 23736

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com web : www.eurofins.com.au

Sample Receipt Advice

Company name:	**Douglas Partners (Syd)**
Contact name:	Peter Oitmaa
Project name:	MOORE PARK
Project ID:	86529.00
COC number:	Not provided
Turn around time:	5 Day
Date/Time received:	Mar 4, 2019 3:02 PM
Eurofins | mgt reference:	**643680**

Sample information

☑ A detailed list of analytes logged into our LIMS, is included in the attached summary table.

☑ All samples have been received as described on the above COC.

☑ COC has been completed correctly.

☑ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

☑ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.

☑ Appropriate sample containers have been used.

☒ Split sample sent to requested external lab.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Notes

Extra sample BT4B received and placed on hold.

Contact notes

If you have any questions with respect to these samples please contact:

Nibha Vaidya on Phone : +61 (2) 9900 8415 or by e.mail: NibhaVaidya@eurofins.com

Results will be delivered electronically via e.mail to Peter Oitmaa - peter.oitmaa@douglaspartners.com.au.

Douglas Partners
Geotechnics · Environment · Groundwater

CHAIN OF CUSTODY

Project Name: MOORE PARK
Project No: 86529.00 Sampler: Various
Project Mgr: Peter Oitmaa Mob. Phone: 0412 574 518
Email: peter.oitmaa@douglaspartners.com.au
Date Required: Std Lab Quote No.

To: Envirolab Services
12 Ashley Street, Chatswood NSW 2067
Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

Sample ID	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W - water	Container type	Analytes: Combo 8a	pH CEC	BTEX	TRH C6-C9	Combo 8				Notes
225	3.0		28/2	S	Jar/Bag		✓			✓				
226	0.8-1.0		11											
228	0.9-1.0		27/2											
228	4.3-4.4		11				✓			✓				
BT1A														
BT1B ✓														
BT6A														
BT6B ✓														
BT12A														
BT12B ✓														
BH14A														
BT14B ✓	(labelled as TB (4B))													

Send 'B' samples to Eurofins

Lab Report No. ..... On ice. PL.
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114
Phone: (02) 9809 0666
Fax: (02) 9809 4095

Relinquished by: P Oitmaa	Signed:	Date & Time: 1/3 1520hrs	Received By: Anawat	Date & Time: 4/03 3:02pm	
Relinquished by: Thgf	Signed:	Date & Time: 4/3/2019 1300hrs	Received By:	Date & Time:	

Extra BT4B.

643680

Appendix I

QA/QC Information

Quality Assurance/Quality Control Procedures and Results

Intra-Laboratory QA/QC Analysis on Soil Samples

Intra-laboratory analysis of soil samples was conducted as an internal check of the reproducibility of the results from the primary laboratory and as a measure of consistency of sampling techniques. The duplicate QA/QC samples were analysed by the primary laboratory (Envirolab). The results were compared between the primary and duplicate samples to determine the relative percentage difference (RPD) between the samples. The RPD was then used to determine whether unacceptable errors may be present in the sample data.

Selected comparative results of the analysis of the intra-laboratory soil samples are summarised in Tables I1 to I3.

Table I1: Intra-Laboratory QA/QC Results for BTEX in Soil

Sample ID	Total Concentration (mg/kg)				
	Benzene	Toluene	Ethylbenzene	m + p xylene	o xylene
08042018	<0.2	<0.5	<1	<2	<1
C20/1.1-1.2	<0.2	<0.5	<1	<2	<1
RPD	0%	0%	0%	0%	0%
09042018	<0.2	<0.5	<1	<2	<1
C26/0.15-0.18	<0.2	<0.5	<1	<2	<1
RPD	0%	0%	0%	0%	0%
11042018	<0.2	<0.5	<1	<2	<1
C3/0.5-0.6	<0.2	<0.5	<1	<2	<1
RPD	0%	0%	0%	0%	0%
'Apple'	<0.2	<0.5	<1	<2	<1
C35/0.1-0.15	<0.2	<0.5	<1	<2	<1
RPD	0%	0%	0%	0%	0%
'Banana'	<0.2	<0.5	<1	<2	<1
C35/0.8-0.9	<0.2	<0.5	<1	<2	<1
RPD	0%	0%	0%	0%	0%
'Orange'	<0.2	<0.5	<1	<2	<1
C5/2.9-3.0	<0.2	<0.5	<1	<2	<1
RPD	0%	0%	0%	0%	0%

Table I1: Intra-Laboratory QA/QC Results for BTEX in Soil (continued)

Sample ID	Total Concentration (mg/kg)				
	Benzene	Toluene	Ethylbenzene	m + p xylene	o xylene
'A'	<0.2	<0.5	<1	<2	<1
C24/0.7-0.8	<0.2	<0.5	<1	<2	<1
RPD	0%	0%	0%	0%	0%
'B'	<0.2	<0.5	<1	<2	<1
C17/0.25-0.35	<0.2	<0.5	<1	<2	<1
RPD	0%	0%	0%	0%	0%
'E'	<0.2	<0.5	<1	<2	<1
C28/0.06-0.1	<0.2	<0.5	<1	<2	<1
RPD	0%	0%	0%	0%	0%
'F'	<0.2	<0.5	<1	<2	<1
C23/0.07-0.1	<0.2	<0.5	<1	<2	<1
RPD	0%	0%	0%	0%	0%
BT1A	<0.2	<0.5	<1	<2	<1
102/0.1-0.2	<0.2	<0.5	<1	<2	<1
RPD	0%	0%	0%	0%	0%
BT6A	<0.2	<0.5	<1	<2	<1
202/2.7-2.8	<0.2	<0.5	<1	<2	<1
RPD	0%	0%	0%	0%	0%
BT12A	<0.2	<0.5	<1	<2	<1
210/1.0	<0.2	<0.5	<1	<2	<1
RPD	0%	0%	0%	0%	0%
BT14A	<0.2	<0.5	<1	<2	<1
225/0.6-1.0	<0.2	<0.5	<1	<2	<1
RPD	0%	0%	0%	0%	0%
BT21A	<0.2	<0.5	<1	<2	<1
209/1.0	<0.2	<0.5	<1	<2	<1
RPD	0%	0%	0%	0%	0%

Table I2: Intra-Laboratory QA/QC Results for TRH in Soil

Sample ID	Total Concentration (mg/kg)			
	$C_6 - C_9$	$C_{10} - C_{14}$	$C_{15} - C_{28}$	$C_{29} - C_{36}$
08042018	<25	<50	<100	<100
C20/1.1-1.2	<25	<50	120	<100
RPD	0%	0%	18%	0%
09042018	<25	<50	<100	<100
C26/0.15-0.18	<25	<50	<100	<100
RPD	0%	0%	0%	0%
11042018	<25	<50	<100	<100
C3/0.5-0.6	<25	<50	<100	<100
RPD	0%	0%	0%	0%
'Apple'	<25	<50	<100	<100
C35/0.1-0.15	<25	<50	<100	<100
RPD	0%	0%	0%	0%
'Banana'	<25	<50	<100	<100
C35/0.8-0.9	<25	<50	<100	<100
RPD	0%	0%	0%	0%
'Orange'	<25	<50	<100	<100
C5/2.9-3.0	<25	<50	<100	<100
RPD	0%	0%	0%	0%
'A'	<25	<50	<100	<100
C24/0.7-0.8	<25	<50	<100	<100
RPD	0%	0%	0%	0%
'B'	<25	<50	<100	<100
C17/0.25-0.35	<25	<50	<100	<100
RPD	0%	0%	0%	0%
'E'	<25	<50	<100	<100
C28/0.06-0.1	<25	<50	<100	<100
RPD	0%	0%	0%	0%

Table I2: Intra-Laboratory QA/QC Results for TRH in Soil (continued)

Sample ID	Total Concentration (mg/kg)			
	$C_6 - C_9$	$C_{10} - C_{14}$	$C_{15} - C_{28}$	$C_{29} - C_{36}$
'F'	<25	<50	<100	<100
C23/0.07-0.1	<25	<50	<100	<100
RPD	0%	0%	0%	0%
BT1A	<25	<50	<100	<100
102/0.1-0.2	<25	<50	<100	<100
RPD	0%	0%	0%	0%
BT6A	<25	<50	250	200
202/2.7-2.8	<25	<50	480	290
RPD	0%	0%	63%	37%
BT12A	<25	<50	<100	<100
210/1.0	<25	<50	<100	<100
RPD	0%	0%	0%	0%
BT14A	<25	<50	<100	<100
225/0.6-1.0	<25	<50	<100	<100
RPD	0%	0%	0%	0%
BT21A	<25	<50	310	250
209/1.0	<25	<50	160	130
RPD	0%	0%	64%	63%

Table I3: Intra-Laboratory QA/QC Results for Heavy Metals in Soil

Sample ID	Total Concentration (mg/kg)							
	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn
08042018	<4	<0.4	4	<1	3	<0.1	1	3
C20/1.1-1.2	<4	<0.4	4	3	5	<0.1	2	5
RPD	0%	0%	0%	100%	50%	0%	67%	50%
09042018	<4	<0.4	71	190	14	<0.1	61	43
C26/0.15-0.18	<4	<0.4	37	46	50	0.2	47	58
RPD	0%	0%	63%	122%	113%	67%	26%	30%

Table I3: Intra-Laboratory QA/QC Results for Heavy Metals in Soil (continued)

Sample ID	Total Concentration (mg/kg)							
	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn
11042018	<4	<0.4	7	6	21	<0.1	4	18
C3/0.5-0.6	<4	<0.4	7	5	16	<0.1	3	18
RPD	0%	0%	0%	18%	27%	0%	29%	0%
'Apple'	<4	<0.4	8	82	3	<0.1	91	35
C35/0.1-0.15	<4	<0.4	8	69	3	<0.1	83	32
RPD	0%	0%	0%	17%	0%	0%	9%	9%
'Banana'	<4	<0.4	<1	1	2	<0.1	1	1
C35/0.8-0.9	<4	<0.4	<1	1	2	<0.1	<1	1
RPD	0%	0%	0%	0%	0%	0%	0%	0%
'Orange'	<4	<0.4	2	10	27	<0.1	<1	18
C5/2.9-3.0	<4	<0.4	1	4	21	<0.1	<1	11
RPD	0%	0%	67%	86%	25%	0%	0%	48%
'A'	<4	<0.4	2	<1	6	<0.1	<1	3
C24/0.7-0.8	<4	<0.4	2	<1	5	<0.1	<1	2
RPD	0%	0%	0%	0%	18%	0%	0%	40%
'B'	<4	<0.4	3	3	3	<0.1	2	9
C17/0.25-0.35	<4	<0.4	3	2	2	<0.1	2	9
RPD	0%	0%	0%	40%	40%	0%	0%	0%
'E'	<4	<0.4	3	4	4	<0.1	1	9
C28/0.06-0.1	<4	<0.4	4	4	5	<0.1	1	8
RPD	0%	0%	29%	0%	22%	0%	0%	12%
'F'	<4	<0.4	3	4	4	<0.1	1	7
C23/0.07-0.1	<4	<0.4	3	3	3	<0.1	<1	6
RPD	0%	0%	0%	29%	29%	0%	0%	15%
BT1A	<4	<0.4	7	52	18	0.2	44	29
102/0.1-0.2	<4	<0.4	7	43	20	<0.1	40	27
RPD	0%	0%	0%	19%	11%	67%	10%	7%

Table I3: Intra-Laboratory QA/QC Results for Heavy Metals in Soil (continued)

Sample ID	Total Concentration (mg/kg)							
	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn
BT6A	5	<0.4	15	97	290	0.8	10	190
202/2.7-2.8	7	<0.4	13	70	200	0.8	6	120
RPD	33%	0%	14%	32%	37%	0%	50%	45%
BT12A	<4	<0.4	8	<1	4	<0.1	4	64
210/1.0	<4	<0.4	7	<1	4	<0.1	1	1
RPD	0%	0%	13%	29%	29%	0%	120%	194%
BT14A	<4	<0.4	8	<1	4	<0.1	4	64
225/0.6-1.0	<4	<0.4	7	37	91	0.2	4	61
RPD	0%	0%	13%	189%	183%	67%	0%	5%
BT21A	5	<0.4	9	55	180	0.8	6	100
209/1.0	5	<0.4	10	41	140	0.6	6	120
RPD	0%	0%	11%	29%	25%	29%	0%	18%

Notes: As = Arsenic; Cd = Cadmium; Cr = Chromium; Cu = Copper; Pb = Lead, Hg = Mercury; Ni = Nickel; Zn = Zinc

A RPD of ± 30% is generally considered acceptable for inorganic analytes and a wider range may be acceptable for organic analytes. The RPD values outside the generally acceptable range of ± 30% are indicated by yellow shading in Tables I2 and I3. These values are not considered significant due to the relatively small actual differences between the sample pairs and, in the case of filling, the heterogeneous nature of the samples.

It is therefore considered that the results indicate acceptable consistency between the primary and duplicate soil samples, that suitable field sampling methodology was adopted and that adequate laboratory precision was achieved.

Inter-Laboratory QA/QC Analysis on Soil Samples

Inter-laboratory analysis of soil samples was conducted as an internal check of the reproducibility of the results from the primary laboratory and as a measure of consistency of sampling techniques. The duplicate QA/QC samples were analysed by the secondary laboratory (eurofins mgt). The results were compared between the primary and duplicate samples to determine the relative percentage difference (RPD) between the samples. The RPD was then used to determine whether unacceptable errors may be present in the sample data.

Selected comparative results of the analysis of the intra-laboratory soil samples are summarised in Tables I4 to I6.

Table I4: Inter-Laboratory QA/QC Results for BTEX in Soil

Sample ID	Total Concentration (mg/kg)				
	Benzene	Toluene	Ethylbenzene	m + p xylene	o xylene
BT1B	<0.1	<0.1	<0.1	<0.2	<0.1
102/0.1-0.2	<0.2	<0.5	<1	<2	<1
RPD	0%	0%	0%	0%	0%
BT6B	<0.1	<0.1	<0.1	<0.2	<0.1
202/2.7-2.8	<0.2	<0.5	<1	<2	<1
RPD	0%	0%	0%	0%	0%
BT12B	<0.1	<0.1	<0.1	<0.2	<0.1
210/1.0	<0.2	<0.5	<1	<2	<1
RPD	0%	0%	0%	0%	0%
BT14B	<0.1	<0.1	<0.1	<0.2	<0.1
225/0.6-1.0	<0.2	<0.5	<1	<2	<1
RPD	0%	0%	0%	0%	0%
BT21B	<0.1	<0.1	<0.1	<0.2	<0.1
209/1.0	<0.2	<0.5	<1	<2	<1
RPD	0%	0%	0%	0%	0%

Table I5: Inter-Laboratory QA/QC Results for TRH in Soil

Sample ID	Total Concentration (mg/kg)			
	$C_6 – C_9$	$C_{10} – C_{14}$	$C_{15} – C_{28}$	$C_{29} – C_{36}$
BT1B	<20	<20	<50	<50
102/0.1-0.2	<25	<50	<100	<100
RPD	0%	0%	0%	0%
BT6B	<20	<20	260	170
202/2.7-2.8	<25	<50	480	290
RPD	0%	0%	59%	52%
BT12B	<20	<20	<50	<50
210/1.0	<25	<50	<100	<100
RPD	0%	0%	0%	0%

Table I5: Inter-Laboratory QA/QC Results for TRH in Soil (continued)

Sample ID	Total Concentration (mg/kg)			
	$C_6 - C_9$	$C_{10} - C_{14}$	$C_{15} - C_{28}$	$C_{29} - C_{36}$
BT14B	<20	23	<50	<50
225/0.6-1.0	<25	<50	<100	<100
RPD	0%	0%	0%	0%
BT21B	<20	<20	260	170
209/1.0	<25	<50	160	130
RPD	0%	0%	48%	27%

Table I6: Inter-Laboratory QA/QC Results for Heavy Metals in Soil

Sample ID	Total Concentration (mg/kg)							
	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn
BT1B	<2	<0.4	8.7	54	33	<0.1	61	50
102/0.1-0.2	<4	<0.4	7	43	20	<0.1	40	27
RPD	0%	0%	22%	23%	49%	0%	42%	60%
BT6B	9.9	<0.4	12	66	240	0.5	7.7	150
202/2.7-2.8	7	<0.4	13	70	200	0.8	6	120
RPD	34%	0%	8%	6%	18%	46%	25%	22%
BT12B	2.2	<0.4	7.6	<5	<5	<0.1	<5	<5
210/1.0	<4	<0.4	7	<1	4	<0.1	1	1
RPD	0%	0%	8%	0%	0%	0%	0%	0%
BT14B	3.6	<0.4	9.3	48	88	0.2	6.6	53
225/0.6-1.0	<4	<0.4	7	37	91	0.2	4	61
RPD	0%	0%	28%	26%	3%	0%	49%	14%
BT21B	6.7	<0.4	13	33	140	0.5	5.8	79
209/1.0	5	<0.4	10	41	140	0.6	6	120
RPD	29%	0%	26%	22%	0%	18%	3%	41%

Notes: As = Arsenic; Cd = Cadmium; Cr = Chromium; Cu = Copper; Pb = Lead, Hg = Mercury; Ni = Nickel; Zn = Zinc

A RPD of ± 30% is generally considered acceptable for inorganic analytes and a wider range may be acceptable for organic analytes. The RPD values outside the generally acceptable range of ± 30% are indicated by yellow shading in Tables I5 and I6. These values are not considered significant due to the relatively small actual differences between the sample pairs and the heterogeneous nature of the filling samples.

It is therefore considered that the results indicate acceptable consistency between the primary and duplicate soil samples, that suitable field sampling methodology was adopted and that adequate laboratory precision was achieved.

Field QA/QC

Laboratory-prepared Trip Blank and Trip Spike water samples were taken to site during the field work, stored in the same container used to store the field samples, and transported to the laboratory with the field samples selected for analysis. The purpose of the Trip Blank was to determine whether cross-contamination of the samples was likely to have occurred. The purpose of the Trip Spike was to determine whether the significant loss of volatile contaminants may have occurred.

The results for the Trip Blank and Trip Spike samples are provided in Table I7.

Table I7: Trip Blank and Trip Spike QA/QC Results for Hydrocarbons

Sample ID	Total Concentration (mg/kg) or % Recovery				
	Benzene	Toluene	Ethyl-benzene	Xylene	TRH $C_6 – C_9$
Blank	<1	<1	<1	<3	<25
Spike	97%	97%	97%	96%/97%	NT

Notes: TRH = Total recoverable hydrocarbons; NT = Not tested

The concentrations of analytes in the Trip Blank were below the laboratory detection limits which indicates that cross-contamination is unlikely to have occurred. The recovery rates for the Trip Spike analytes were within an acceptable range which indicates that the significant loss of volatile contaminants is unlikely to have occurred. The field sampling protocols are therefore considered appropriate.

Laboratory QA/QC Procedures

Quality control procedures used during the analyses include:

Reagent Blank

A reagent blank sample is prepared and analysed at the beginning of every analytical run, following calibration of the analytical apparatus. The laboratory results for reagent blanks indicated that concentrations of all analytes were below respective laboratory practical quantitation limits.

Duplicate

This is the complete duplicate of a sample from the process batch. The results of the two samples are compared to laboratory acceptance criteria and exceedences highlighted. Exceedances were detected for Cu, Pb and Zn, and therefore a triplicate result was reported as per laboratory guidelines.

Matrix Spike

A portion of a sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and determine whether matrix interference exists. The matrix spike recovery is compared to laboratory acceptance criteria. No exceedences were noted.

Laboratory Control Sample

This is a standard reference sample or control matrix used to check the analytical process. The results were within acceptable limits.

Surrogate Spike

Surrogates are known additions of known compounds to each sample, blank, matrix spike and laboratory control sample. The surrogates are similar to the analyte of interest, however are not expected to be detected in real samples. The results were acceptable.