



TIER 2/3 ENVIRONMENTAL RISK ASSESSMENT

LIMERICK CITY COUNCIL SITE
ST. MARY'S PARK
LIMERICK

APPENDIX 3

TRIAL PIT LOGS

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01 AUG 2012
AGENCY
ENVIRONMENTAL PROTECTION

VERDE REF 20476





Trial Pit No.: 001
 installed in raised ground on southern
 end of the site

Brief	Site Investigation
Client	Limerick City Council
Address	Back Field, St. Mary's Park, Limerick
Date drilled	18-Jun-11
Logged by	CT
Equipment used	Excavator
Report No.	20476

Description of Strata	Unit Depth (m)	Legend	Sample Type	Sample Depth (m)	Sample ID	Comments	Water Depth (m)
	0.0						
Made Ground Light Brown Sandy SILT	0.1-0.5		S	0.1-0.5	20476-1-001A	No decomposition odour or colour	
	0.25						
	0.5						
Made Ground Dark Brown Loam SILT Organic Residues and WASTE Mixed with Soils	0.75					Lots of waste present - rocks, wood, plastic, rubble, bicycle wheels (rubber) Brown / black coloured moist soils	
	1.0		S	0.6-1.5	20476-1-001B	Sample taken in most contaminated area Brown / black coloured moist soils with landfill odour	
	1.25						
	1.5						
	1.75						
Assumed Natural Ground Dark Brown Loam SILT	1.9		W	1.9	20476-1-001D	Water intrusion at 1.9m BGL Decomposition colour & odour present	1.9
	2.0						
	2.25						
	2.5						
Natural Ground Light brown silt CLAY	2.75					Clean clays	
	2.8-3.0		S	2.8-3.0	20476-1-001C	No decomposition odour or colour	
	3.0						

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Trial Pit No.: 002
 In level ground at south of landfill,
 north of the raised ground section
 Approx 12m east of rear of houses

Brief	Site Investigation
Client	Limerick City Council
Address	Back Field, St. Mary's Park, Limerick
Date drilled	16-Jun-11
Logged by	CT
Equipment used	Excavator
Report No.	20476

Description of Strata	Unit Depth (m)	Legend	Sample Type	Sample Depth (m)	Sample ID	Comments	Water Depth (m)
Made Ground / Waste	0.0					Light waste scattered on surface	
Made Ground Light Brown Sandy SILT	0.25		S	0 - 0.5	20476-1-002A	Slight organic odour Soils visibly clean	
	0.5						
Made Ground Dark Brown Loam SILT Organic Residues and WASTE Mixed with Soils	0.75		S	0.6-1.0	20476-1-002B	Brown / black coloured moist soils with Waste plastic, paper, tyres etc. Organic residues Decomposition colour and odour Some water intrusion at 0.8m BGL	0.8
	1.0						
Natural Ground Grey / Brown silty CLAY	1.25					No decomposition odour Soils visibly clean	
	1.5						
	1.75						
	2.0						
	2.25						
	2.5						
	2.75						
End of Trial Pit	3.0						

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Trial Pit No.: 003
 In level ground at south of landfill,
 north of the raised ground section
 Approx 12m east of rear of houses

Brief: Site Investigation
Client: Limerick City Council
Address: Back Field, St. Mary's Park, Limerick
Date drilled: 16-Jun-11
Logged by: CT
Equipment used: Excavator
Report No.: 20478

Description of Strata	Unit Depth (m)	Legend	Sample Type	Sample Depth (m)	Sample ID	Comments	Water Depth (m)
Made Ground / Waste	0.0					Light waste scattered on surface	
Made Ground Light Brown Sandy Loam SILT	0.25		S	0 - 0.4	20478-1-003A	Slight organic odour Soils visibly clean	
Made Ground Dark Brown Loam SILT Organic Residues and WASTE Mixed with Soils	0.8		S	0.5-1.4	20478-1-003B	Brown / black coloured moist soils with Waste plastic, paper, wood, metal etc. Organic residues Decomposition colour and odour	
Assumed Natural Ground below 0.6m BGL Brown Loam SILT	0.75					Some water intrusion at 0.6m BGL	0.8
Natural Ground Light Grey / Brown Silty CLAY	1.6		S	1.6-2.8	20478-1-003C	No decomposition odour Soils visibly clean	
End of Trial Pit	3.0						

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Trial Pit No.: 004
 In level ground
 Centrally along length of landfill
 On boundary between landfill and
 undisturbed land behind

Brief	Site Investigation
Client	Limerick City Council
Address	Back Field, St. Mary's Park, Limerick
Date drilled	18-Jun-11
Logged by	CT
Equipment used	Excavator
Report No.	20476

Description of Strata	Unit Depth (m)	Legend	Sample Type	Sample Depth (m)	Sample ID	Comments	Water Depth (m)
Made Ground / Waste	0.0	[Dark Grey Pattern]				Light waste scattered on surface	
Made Ground	0.25					No significant decomposition odour Soils visibly clean, with occasional mixed waste	
Dark Brown Loam SILT with cobbles and occasional waste	0.5		S	0.1 - 0.8	20476-1-004A		
Assumed Natural Ground	0.75					No significant decomposition odour Soils visibly clean	
Dark Brown Loam SILT with cobbles	1.0						NA
Natural Ground	1.25						
Light Grey Sandy CLAY	1.5					No decomposition odour Soils visibly clean	
	1.75						
	2.0						
Natural Ground	2.25						
Light Grey / Brown Tight Silty CLAY	2.5	S	2.2-2.8	20476-1-004C	No decomposition odour Soils visibly clean		
	2.75						
End of Trial Pit	3.0						

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Trial Pit No.: 005
 In level ground
 Centrally along landfill body
 Approx 7m east of rear of houses

Brief Site Investigation
Client Limerick City Council
Address Back Field, St. Mary's Park, Limerick
Date drilled 18-Jun-11
Logged by NR
Equipment used Excavator
Report No. 20478

Description of Strata	Unit Depth (m)	Legend	Sample Type	Sample Depth (m)	Sample ID	Comments	Water Depth (m)
	0.0						
Made Ground/ Mixed Waste Including aggregate fill	0.25					Horse Manure on Surface Strong Manure Odour Light Mixed Waste - plastic, wood plastic bags, building waste Small quantity of asbestos visible	
	0.31		S	0.5-0.75	20478-1-005A	Mild decomposition odour	
Made Ground/ Natural Ground Brown Loam Clay SILT Aggregate fill & Cobbles Occasional waste	0.75						
Natural Ground Brown Loam Clay SILT and Sandy CLAY	1.0		S	0.8 - 1.5	20478-1-005B	Mild decomposition odour initially becoming clean at 0.75m BGL	
	1.25						
	1.51						
Natural Ground Light Grey / Brown Silty CLAY	1.75					No decomposition odour Soils visibly clean	
	2.0						
	2.25						
	2.51						
	2.75						
	3.01						
End of Trial Pit	3.0						

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Trial Pit No.: 006
 Centrally along landfill
 Approx 6m east of rear of houses

Brief: Site Investigation
Client: Limerick City Council
Address: Back Field, St. Mary's Park, Limerick
Date drilled: 18-Jun-11
Logged by: NR
Equipment used: Excavator
Report No.: 20476

Description of Strata	Unit Depth (m)	Legend	Sample Type	Sample Depth (m)	Sample ID	Comments	Water Depth (m)
	0.0						
Made Ground comprising Mixed Waste and Light Brown Sandy SILT	0.25		S	0 - 1.1	20476-1-008A	Mixed Municipal Waste Mixed with Soils Slight organic odour	
	0.5						
	0.75						
	1.0						
Made Ground / Natural Ground Dark Brown Organic SILT	1.25		S	1.2 - 1.5	20476-1-008B	Brown / black moist organic soil Mild decomposition colour and odour	
	1.5						
Natural Ground Light Grey and Brown SILT CLAY	1.75		S	1.8 - 2.8	20476-1-008C	No decomposition odour Soils visibly clean	N/A
	2.0						
	2.25						
	2.5						
	2.75						
End of Trial Pit	3.0						

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Trial Pit No.: 007
 On raised fill ground
 At southern boundary of landfill
 At south eastern corner of raised area

Brief	Site Investigation
Client	Limerick City Council
Address	Back Field, St. Mary's Park, Limerick
Date drilled	16-Jun-11
Logged by	NR
Equipment used	Excavator
Report No.	20478

Description of Strata	Unit Depth (m)	Legend	Sample Type	Sample Depth (m)	Sample ID	Comments	Water Depth (m)
	0.0						
	0.25		S	0 - 0.5	20478-1-007A	Large Volume of Mixed Municipal Waste Mixed with Soils Mild organic / peaty odour	
Made Ground comprising Mixed Waste, Aggregate fill & Light Brown Sandy SILT	0.5					Wastes include plastic, carpets, wood, metal, household waste and C&D fill	
	0.75						
	1.0						
	1.25						
	1.5						
	1.75						
	2.0					Black, humic water entry	1.9
Made Ground / Natural Ground Dark Brown Organic SILT	2.25		S	2.0 - 2.3	20478-1-007B	Brown / black moist organic soil Decomposition colour and odour	
	2.5						
Natural Ground Light Gray and Brown SILT CLAY	2.75		S	2.3 - 3.0	20478-1-007C	No decomposition odour Soils visibly clean	
	3.0						
End of Trial Pit							

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Trial Pit No.: 008
 On southern end of landfill
 Between the raised filled ground area
 and the rear of the houses

Brief	Site Investigation
Client	Limerick City Council
Address	Back Field, St. Mary's Park, Limerick
Date drilled	16-Jun-11
Logged by	NR
Equipment used	Excavator
Report No.	20476

Description of Strata	Unit Depth (m)	Legend	Sample Type	Sample Depth (m)	Sample ID	Comments	Water Depth (m)
	0.0						
	0.21		S	0 - 1.0	20476-1-008A	Large Volume of Mixed Municipal Waste Mixed with Soils Mild organic / peaty odour Wastes include plastic, carpets, wood, metal, household waste and boulders	
Made Ground comprising Mixed Waste and Light Brown Sandy SILT and boulders	0.4						
	0.71						
	1.0						
	1.21		S	1.2-1.6	20476-1-008B	Brown / Black moist organic soil Decomposition colour and odour	
Made Ground/ Natural Ground comprising Dark Brown Organic SILT	1.6						
	1.71						
	2.0						
Natural Ground Light Grey and Brown SILT CLAY	2.25		S	1.7 - 2.7	20476-1-008C	No decomposition odour Soils visibly clean	1.9
	2.5						
End of Trial Pit	2.75						
	3.0						

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Trial Pit No.: 009
 In northern quarter of the landfill
 On the eastern border of the landfill area

Brief	Site Investigation
Client	Limerick City Council
Address	Back Field, St. Mary's Park, Limerick
Date drilled	16-Jun-11
Logged by	NR
Equipment used	Excavator
Report No.	20476

Description of Strata	Udit Depth (m)	Legend	Sample Type	Sample Depth (m)	Sample ID	Comments	Water Depth (m)
Made Ground comprising Mixed Municipal Waste	0.0 - 0.2	[Dark Grey Box]	S	0 - 0.5	20476-1-008A	Large Volume of Mixed Municipal Waste on the surface	
Made Ground comprising Brown Loam SILT, Aggregate Fill and cobbles	0.2 - 0.7	[Dark Grey Box]				Mild decomposition conditions Waste material mixed with soils	N/A
Made Ground/ Natural Ground comprising Dark Brown Organic SILT	0.7 - 1.5	[Dark Grey Box]				Brown / black organic soil Humic colour and odour	
Natural Ground Light Grey and Brown SILT CLAY	1.5 - 1.7	[Light Grey Box]	S	1.7 - 2.7	20476-1-008B	No decomposition odour Soils visibly clean	
End of Trial Pit	2.0	[Dark Grey Box]					
	2.25						
	2.5						
	2.75						
	3.0						

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Trial Pit No.: 010
 In northern quarter of the landfill
 On the eastern border of the landfill area
 (North of Trial Pit 9)

Brief	Site Investigation
Client	Limerick City Council
Address	Beck Field, St. Mary's Park, Limerick
Date drilled	16-Jun-11
Logged by	NR
Equipment used	Excavator
Report No.	20478

Description of Strata	Unit Depth (m)	Legend	Sample Type	Sample Depth (m)	Sample ID	Comments	Water Depth (m)
Made Ground comprising Mixed Municipal Waste	0.0 - 0.25	[Dark Grey Box]	S	0 - 0.5	20478-1-010A	Large Volume of Mixed Municipal Waste on the surface	
Made Ground comprising Brown Sandy Loam SILT, Aggregate Fill and Cobbles	0.25 - 1.0	[Dark Grey Box]				Waste material mixed with soils No significant decomposition odour	NA
Made Ground/ Natural Ground comprising Dark Brown Organic SILT	1.0 - 1.5	[Dark Grey Box]	S	1.2-1.5	20478-1-010B	Brown / black organic soil Humic colour and odour	
Natural Ground Light Grey and Brown SILT CLAY	1.5 - 2.0	[Light Grey Box]	S	1.7-2.0	20478-1-010C	No decomposition odour Soils visibly clean	
End of Trial Pit	2.0						
	2.25						
	2.5						
	2.75						
	3.0						

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Trial Pit No.: 011
 In northern quarter of the landfill
 On the eastern border of the landfill area
 (North of Trial Pit 10)

Brief	Site Investigation
Client	Limerick City Council
Address	Back Field, St. Mary's Park, Limerick
Date drilled	16-Jun-11
Logged by	NR
Equipment used	Excavator
Report No.	20476

Description of Strata	Unit Depth (m)	Legend	Sample Type	Sample Depth (m)	Sample ID	Comments	Water Depth (m)
	0.0						
Made Ground comprising Mixed Municipal Waste	0.15		S	0 - 0.5	20476-1-010A	Large Volume of Mixed Municipal Waste on the surface 1.0m	
	0.5						
	0.75						
	1.0						NA
Made Ground comprising Brown Sandy SILT, Aggregate Fill and Cobble	1.25					Mild decomposition odour	
Made Ground/ Natural Ground comprising Dark Brown Organic SILT	1.5		S	1.2-1.5	20476-1-011B	Brown / black organic soil Humic colour and odour	
Natural Ground Light Grey and Brown SILT CLAY	1.75		S	1.7-2.0	20476-1-011C	No decomposition odour Soils visibly clean	
End of Trial Pit	2.0						
	2.25						
	2.5						
	2.75						
	3.0						

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Trial Pit No.: 012
 In northern end of the landfill
 In the waste area
 Opposite the entrance gate

Brief	Site Investigation
Client	Limerick City Council
Address	Back Field, St. Mary's Park, Limerick
Date drilled	16-Jun-11
Logged by	NR
Equipment used	Excavator
Report No.	20478

Description of Strata	Unit Depth (m)	Legend	Sample Type	Sample Depth (m)	Sample ID	Comments	Water Depth (m)
	0.0						
Made Ground comprising Mixed Municipal Waste	0.25		S	0 - 0.5	20478-1-012A	Large Volume of Mixed Municipal Waste on the surface 1.0m	
	0.5						
Made Ground comprising Brown Sandy SILT, Aggregate Fill and Cobbles and mixed waste	0.75					Mainly soils with some waste Soils quite aerobic and no significant decomposition odour	N/A
	1.0						
Made Ground/ Natural Ground comprising Dark Brown Organic SILT	1.25		S	1.2-1.5	20478-1-012B	Brown / black organic soil Humic colour and odour	
	1.5						
Natural Ground Light Grey and Brown SILT CLAY	1.75		S	1.75-2.25	20478-1-012C	No decomposition odour Soils visibly clean	
	2.0						
End of Trial Pit	2.25						
	2.5						
	2.75						
	3.0						

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Trial Pit No.: 013
 At northern boundary of landfill area
 inside the entrance gate
 At the edge of the waste body

Brief	Site Investigation
Client	Limerick City Council
Address	Back Field, St. Mary's Park, Limerick
Date drilled	16-Jun-11
Logged by	NR
Equipment used	Excavator
Report No.	20476

Description of Strata	Unit Depth (m)	Legend	Sample Type	Sample Depth (m)	Sample ID	Comments	Water Depth (m)
	0.0						
Made Ground comprising Mixed Municipal Waste with Brown Sandy SILT, Aggregate Fill and Cobbles	0.25		S	0 - 0.5	20476-1-013A	Large Volumes of Mixed Municipal Waste on the surface and mixed with soil Mild organic odour	
	0.3						
Dark Brown Organic SILT	0.6-0.7		S	0.6-0.7	20476-1-013B	Humic colour and odour Water intrusion at 0.7m BGL	0.7
	0.75						
	1.0						
Natural Ground Light Grey and Brown SILT CLAY	1.0-2.0		S	1.0-2.0	20476-1-013C	No decomposition odour Soils visibly clean	
	1.25						
	1.5						
	1.75						
	2.0						
End of Trial Pit							
	2.25						
	2.5						
	2.75						
	3.0						

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Trial Pit No.: 014
 Beyond the northern boundary of the landfill area
 In relatively untouched soils

Brief	Site Investigation
Client	Limerick City Council
Address	Back Field, St. Mary's Park, Limerick
Data drilled	16-Jun-11
Logged by	NR
Equipment used	Excavator
Report No.	20478

Description of Strata	Unit Depth (m)	Legend	Sample Type	Sample Depth (m)	Sample ID	Comments	Water Depth (m)
	0.0						
Made Ground/ Natural Ground comprising Brown Sandy LOAM			S	0 - 0.2	20478-1-014A	No decomposition odour Soils visibly clean	
	0.21						
Natural Ground Light Grey and Brown SILT CLAY							
	0.5						
			S	0.5-1.0	20478-1-014B	No decomposition odour Soils visibly clean	
	0.75						
End of Trial Pit	1.0						
	1.25						
	1.5						
	1.75						
	2.0						
	2.25						
	2.5						
	2.75						
	3.0						

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