

APPENDIX A: EXPLORATORY LOGS AND PHOTOGRAPHIC RECORDS

Location
CB - GW01
CB - GW02
CB - GW03
CB - LG01
CB - LG02
CB - SA01
CB - SA02
CB - SA03
CB - SA04
CB - TP01
CB - TP02
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CB - TP13
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CB - TP15

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KEY TO SYMBOLS ON EXPLORATORY HOLE RECORDS

All linear dimensions are in metres or millimetres

DESCRIPTIONS

** Drillers Description
Friable Easily crumbled

SAMPLES

U() Undisturbed 102mm diameter sample, () denotes number of blows to drive sampler
U()F, U()P F- not recovered, P-partially recovered
U38 Undisturbed 38mm diameter sample
P(F), (P) Piston sample - disturbed
B Bulk sample - disturbed
D Jar Sample - disturbed
W Water Sample
CBR California Bearing Ratio mould sample
ES Chemical Sample for Contamination Analysis
SPTLS Standard Penetration Test S lump sample from split sampler

CORE RECOVERY AND ROCK QUALITY

TCR Total Core Recovery (% of Core Run)
SCR Solid Core Recovery (length of core having at least one full diameter as % of core run)
RQD Rock Quality Designation (length of solid core greater than 100mm as % of core run)
Where there is insufficient space for the TCR, SCR and RQD, the results may be found in the remarks column
lf Fracture Spacing in mm (Minimum/Average/Maximum) NI - non intact, NR - no recovery
AZCL Assumed Zone of Core Loss
NI Non intact

GROUNDWATER

▽ Groundwater strike
▼ Groundwater level after standing period
Date/Water Date of shift (day/month)/Depth to water at end of previous shift shown above the date and depth to water at beginning of shift given below the date

INSITU TESTING

S Standard Penetration Test - split barrel sampler
C Standard Penetration Test - solid 60° cone
SW Self Weight Penetration
Ivp, HVp (R) In Situ Vane Test, Hand Vane Test (R) demonstrates remoulded strength
K(F), (C), (R), (P) Permeability Test
HP Hand Penetrometer Test

MEASURED PROPERTIES

N Standard Penetration Test - blows required to drive 300mm after seating drive
x/y Denotes x blows for y mm within the Standard Penetration Test
x*/y Denotes x blows for y mm within the seating drive
 c_u Undrained Shear Strength (kN/m²)
CBR California Bearing Ratio

ROTARY DRILLING SIZES

Index Letter	Nominal Diameter (mm)	
	Borehole	Core
N	75	54
H	99	76
P	120	92
S	146	113



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Drilled By:
 KM+SOR
 Logged By:
 N/A

Borehole No.
CB-GW01
 Sheet 1 of 3

Project Name: Longford Landfills - Cartron Big Project No. P18159 Co-ords: 617324E - 775740N Hole Type: Rotary open hole

Location: Co. Longford Level: 66.97m OD Scale: 1:50

Client: Dates: 12/09/2018 13/09/2018

Well	Water Strike (m)	Depth (m)	Type /Fs (min, max, avg)	Coring (%)			Depth (m) / Fl (/m)	Level (mOD)	Legend	Stratum Description	
				TCR	SCR	RQD					
							0.80	66.17		Open hole boring. Driller described: Clayey Gravel.	
							1.30	65.67		Open hole boring. Driller described: Weathered Limestone.	1
										Open hole boring. Driller described: Limestone bedrock.	2
											3
											4
											5
											6
											7
											8
											9

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Groundwater:				Hole Information:			Equipment:	
Struck, m	Rose to	After, min	Sealed	Comment	Hole Depth (m)	Hole Dia (mm)	Casing Dia (mm)	Deltabase 520
				See shift data.	25.00	131	131	Compressed air mist.

Remarks: Borehole terminated at 25.0m bgl. Falling head test carried out in borehole. 90mm dia. standpipe installed. Response zone from 2.0m to 25.0m bgl.	Shift Data:	Groundwater	Shift	Hole Depth	Remarks
		Dry	06/09/2018 08:00	0.00	Start of shift.
		2.2	06/09/2018 18:00	4.30	End o shift
		Dry	12/09/2018 08:00	4.30	Start of shift.
		Dry	12/09/2018 18:00	15.00	End of shift.
		Dry	13/09/2018 08:00	15.00	Start of shift.



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 Logged By:
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Borehole No.
CB-GW01
 Sheet 2 of 3

Project Name: Longford Landfills - Cartron Big
 Project No. P18159
 Co-ords: 617324E - 775740N
 Hole Type: Rotary open hole

Location: Co. Longford
 Level: 66.97m OD
 Scale: 1:50

Client:
 Dates: 12/09/2018 13/09/2018

Well	Water Strike (m)	Depth (m)	Type /Fs (min, max, avg)	Coring (%)			Depth (m) / Fl (/m)	Level (mOD)	Legend	Stratum Description	
				TCR	SCR	RQD					
										Open hole boring. Driller described: Limestone bedrock.	
											10
											11
											12
											13
											14
											15
											16
											17
											18

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Groundwater:				Hole Information:			Equipment:	
Struck, m	Rose to	After, min	Sealed	Comment	Hole Depth (m)	Hole Dia (mm)	Casing Dia (mm)	Deltabase 520
				See shift data.	25.00	131	131	Compressed air mist.
				Method:				

Remarks: Borehole terminated at 25.0m bgl. Falling head test carried out in borehole. 90mm dia. standpipe installed. Response zone from 2.0m to 25.0m bgl.	Shift Data:	Groundwater	Shift	Hole Depth	Remarks
		Dry	06/09/2018 08:00	0.00	Start of shift.
		2.2	06/09/2018 18:00	4.30	End o shift
		Dry	12/09/2018 08:00	4.30	Start of shift.
		Dry	12/09/2018 18:00	15.00	End of shift.
		Dry	13/09/2018 08:00	15.00	Start of shift.



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 Logged By:
 N/A

Borehole No.
CB-GW01
 Sheet 3 of 3

Project Name: Longford Landfills - Cartron Big Project No. P18159 Co-ords: 617324E - 775740N Hole Type: Rotary open hole

Location: Co. Longford Level: 66.97m OD Scale: 1:50

Client: Dates: 12/09/2018 13/09/2018

Well	Water Strike (m)	Depth (m)	Type /Fs (min, max, avg)	Coring (%)			Depth (m) / Fl (/m)	Level (mOD)	Legend	Stratum Description	
				TCR	SCR	RQD					
										Open hole boring. Driller described: Limestone bedrock.	
											19
											20
											21
											22
											23
											24
							25.00	41.97		End of Borehole at 25.000m	25
											26
											27

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Groundwater:					Hole Information:			Equipment:	
Struck, m	Rose to	After, min	Sealed	Comment	Hole Depth (m)	Hole Dia (mm)	Casing Dia (mm)	Deltabase 520	
				See shift data.	25.00	131	131	Method: Compressed air mist.	

Remarks: Borehole terminated at 25.0m bgl. Falling head test carried out in borehole. 90mm dia. standpipe installed. Response zone from 2.0m to 25.0m bgl.	Shift Data:	Groundwater	Shift	Hole Depth	Remarks
		Dry	06/09/2018 08:00	0.00	Start of shift.
		2.2	06/09/2018 18:00	4.30	End o shift
		Dry	12/09/2018 08:00	4.30	Start of shift.
		Dry	12/09/2018 18:00	15.00	End of shift.
		Dry	13/09/2018 08:00	15.00	Start of shift.

Falling head permeability test

P18159 Longford Landfills - Cartron Big

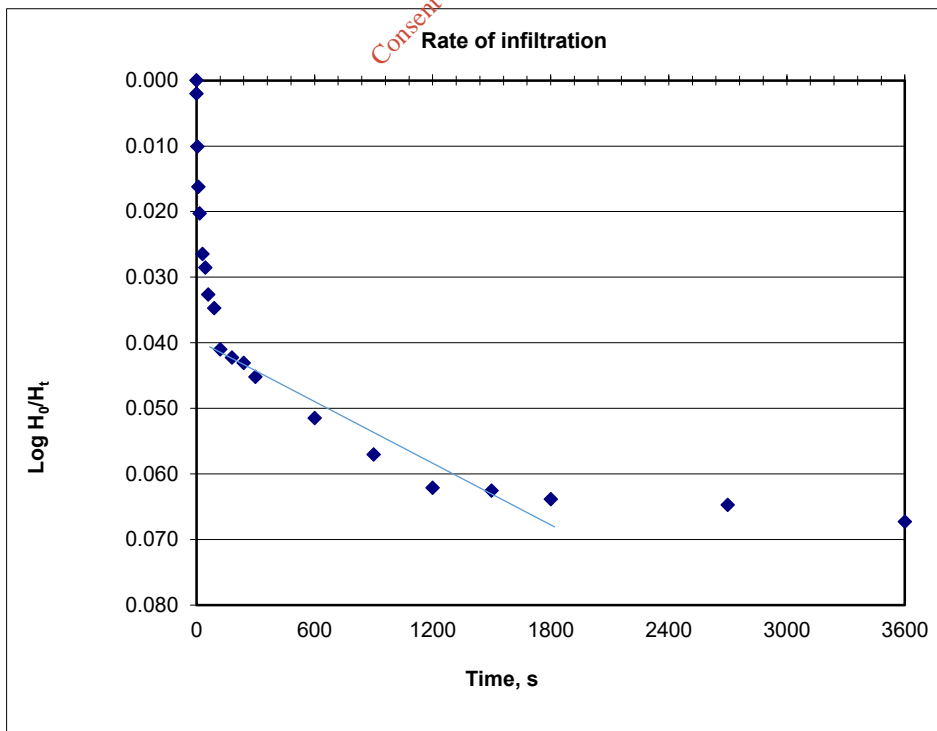
Refer to GW01 for details for standpipe details

Location

BH ID	GW01	H_w/H_o	24.90
Casing diameter	98 mm		
Casing depth	1.3 m		
Borehole depth	25 m		
Groundwater level	25.00 m bgl		
Date	05/07/2018		
Strata	Peat overlying Limestone		

Min	Sec	depth, m bgl	vol, cu.m	H_t	$\log H_0/H_t$
0	0	0.100	0.00075	24.90	0.000
0.00	0	0.150	0.00113	24.85	0.002
0.08	5	0.350	0.00264	24.65	0.010
0.17	10	0.500	0.00377	24.50	0.016
0.25	15	0.600	0.00452	24.40	0.020
0.50	30	0.750	0.00565	24.25	0.026
0.75	45	0.800	0.00603	24.20	0.029
1	60	0.900	0.00679	24.10	0.033
1.5	90	0.950	0.00716	24.05	0.035
2	120	1.100	0.00829	23.90	0.041
3	180	1.130	0.00852	23.87	0.042
4	240	1.150	0.00867	23.85	0.043
5	300	1.200	0.00905	23.80	0.045
10	600	1.350	0.01018	23.65	0.052
15	900	1.480	0.01116	23.52	0.057
20	1200	1.600	0.01206	23.40	0.062
25	1500	1.610	0.01214	23.39	0.063
30	1800	1.640	0.01236	23.36	0.064
45	2700	1.660	0.01251	23.34	0.065
60	3600	1.720	0.01297	23.28	0.067

k_{mean} **6.98E-08** ms^{-1}
 $k_H = k_V$





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Drilled By:
 KM
Logged By:
 N/A

Borehole No.
CB-GW02
 Sheet 1 of 1

Project Name: Longford Landfills - Cartron Big
Project No.: P18159
Co-ords: 617447E - 775847N
Hole Type: Rotary open hole

Location: Co. Longford
Level: 65.13m OD
Scale: 1:50

Client:
Dates: 13/09/2018 13/09/2018

Well	Water Strike (m)	Depth (m)	Type /Fs (min, max, avg)	Coring (%)			Depth (m) / Fl (/m)	Level (mOD)	Legend	Stratum Description	
				TCR	SCR	RQD					
							1.10	64.03		Open hole boring. Driller described: Topsoil.	1
										Open hole boring. Driller described: Limestone bedrock.	2
											3
											4
											5
											6
											7
							7.50	57.63		End of Borehole at 7.500m	8
											9

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Groundwater:				Hole Information:			Equipment:	Deltabase 520	
Struck, m	Rose to	After, min	Sealed	Comment	Hole Depth (m)	Hole Dia (mm)	Casing Dia (mm)	Method:	Compressed air mist.
4.50				See shift data.	7.50	100	131		

Remarks: Borehole terminated at 7.5m bgl, required depth. 90mm dia. standpipe installed. Response zone from 2.0m to 7.5m bgl. Falling head test carried out in borehole.	Shift Data:	Groundwater	Shift	Hole Depth	Remarks
		5.7	13/09/2018 08:00 13/09/2018 18:00	0.00 7.50	Start of shift. End of borehole.

Falling head permeability test

P18159 Longford Landfills - Cartron Big

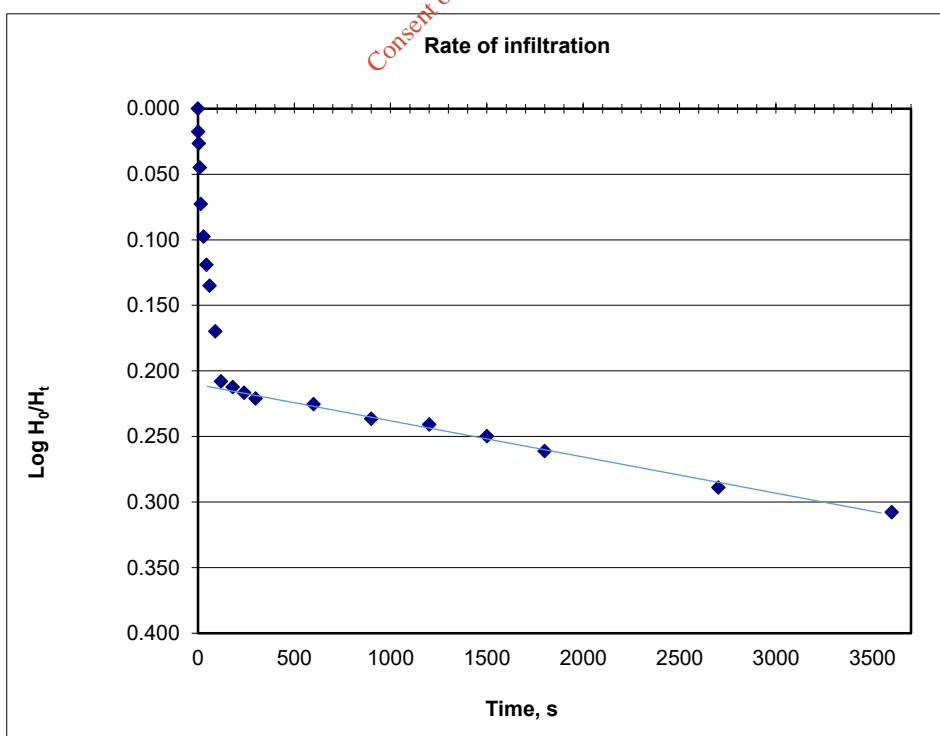
Refer to GW02 for details for standpipe details

Location

BH ID	GW02	H_w/H_o	5.70
Casing diameter	98 mm		
Casing depth	1.1 m		
Borehole depth	7.5 m		
Groundwater level	5.70 m bgl		
Date	13/09/2018		
Strata	Topsoil overlying Limestone		

Min	Sec	depth, m bgl	vol, cu.m	H_t	$\log H_o/H_t$
0	0	0.000	0.00000	5.70	0.000
0.02	1	0.100	0.00075	5.60	0.018
0.08	5	0.150	0.00113	5.55	0.027
0.17	10	0.250	0.00188	5.45	0.045
0.25	15	0.400	0.00302	5.30	0.073
0.50	30	0.530	0.00400	5.17	0.098
0.75	45	0.640	0.00483	5.06	0.119
1	60	0.720	0.00543	4.98	0.135
1.5	90	0.890	0.00671	4.81	0.170
2	120	1.070	0.00807	4.63	0.208
3	180	1.090	0.00822	4.61	0.212
4	240	1.110	0.00837	4.59	0.217
5	300	1.130	0.00852	4.57	0.221
10	600	1.150	0.00867	4.55	0.225
15	900	1.200	0.00905	4.50	0.236
20	1200	1.220	0.00920	4.48	0.241
25	1500	1.260	0.00950	4.44	0.250
30	1800	1.310	0.00988	4.39	0.261
45	2700	1.430	0.01078	4.27	0.289
60	3600	1.510	0.01138	4.19	0.308

$k_{mean} = 3.29E-07 \text{ ms}^{-1}$
 $k_H = k_V$





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Drilled By:	Borehole No.	
KM	CB-GW03	
Logged By:		Sheet 1 of 3
N/A		

Project Name: Longford Landfills - Cartron Big	Project No.: P18159	Co-ords: 617271E - 775981N	Hole Type: Rotary cored
Location: Co. Longford		Level: 63.06m OD	Scale: 1:50
Client:		Dates: 27/09/2018	

Well	Water Strike (m)	Depth (m)	Type /Fs (min, max, avg)	Coring (%)			Depth (m) / Fl (/m)	Level (mOD)	Legend	Stratum Description
				TCR	SCR	RQD				
										Open hole boring. Driller described: Topsoil with waste material.
		2.50 - 4.00	40mm 280mm 170mm	100	93	63	2.50 6/m	60.56		Lithology: Strong, dark grey LIMESTONE. Weathering: Slightly weathered with slight clay smearing on fracture planes and clay infill. Fractures: One main fracture set dipping sub-horizontal 0 to 15 degrees, planar to undulated smooth fracture surfaces, closely spaced.]
			20mm 230mm 100mm				9/m 4.00	59.06		Detail: Not intact from 3.90m to 4.00m. Large clay in fill section from 2.93m to 3.03m. Slightly fossiliferous. Open hole boring. Driller described Limestone bedrock. End of Borehole at 4.000m

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Groundwater:					Hole Information:			Equipment: Deltabase 520
Struck, m	Rose to	After, min	Sealed	Comment	Hole Depth (m)	Hole Dia (mm)	Casing Dia (mm)	Method: Compressed air mist
				None encountered.	4.00	131	131	

Remarks: Borehole terminated at 4.00m bgl. 90mm dia. standpipe installed. Response zone from 3.0m to 25.0m bgl. Falling head test carried out in borehole.	Shift Data:	Groundwater	Shift	Hole Depth	Remarks
		Dry	14/09/2018 08:00 14/09/2018 18:00	0.00 25.00	Start of shift. End of borehole.



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Drilled By:	Borehole No.	
KM	CB-GW03	
Logged By:		Sheet 2 of 3
N/A		

Project Name: Longford Landfills - Cartron Big	Project No.: P18159	Co-ords: 617271E - 775981N	Hole Type: Rotary cored
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Location: Co. Longford	Level: 63.06m OD	Scale: 1:50
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Client:	Dates: 27/09/2018
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Well	Water Strike (m)	Depth (m)	Type /Fs (min, max, avg)	Coring (%)			Depth (m) / Fl (/m)	Level (mOD)	Legend	Stratum Description	
				TCR	SCR	RQD					
										Open hole boring. Driller described Limestone bedrock.	
											10
											11
											12
											13
											14
											15
											16
											17
											18

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Groundwater:				Hole Information:			Equipment: Deltabase 520
Struck, m	Rose to	After, min	Sealed	Comment	Hole Depth (m)	Hole Dia (mm)	Casing Dia (mm)
				None encountered.	4.00	131	131
					Method:		Compressed air mist

Remarks: Borehole terminated at 4.00m bgl. 90mm dia. standpipe installed. Response zone from 3.0m to 25.0m bgl. Falling head test carried out in borehole.	Shift Data:	Groundwater	Shift	Hole Depth	Remarks
		Dry	14/09/2018 08:00 14/09/2018 18:00	0.00 25.00	Start of shift. End of borehole.



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Drilled By:
 KM
 Logged By:
 N/A

Borehole No.
CB-GW03
 Sheet 3 of 3

Project Name: Longford Landfills - Cartron Big Project No. P18159 Co-ords: 617271E - 775981N Hole Type Rotary cored

Location: Co. Longford Level: 63.06m OD Scale 1:50

Client: Dates: 27/09/2018

Well	Water Strike (m)	Depth (m)	Type /Fs (min, max, avg)	Coring (%)			Depth (m) / Fl (/m)	Level (mOD)	Legend	Stratum Description	
				TCR	SCR	RQD					
										Open hole boring. Driller described Limestone bedrock.	
											19
											20
											21
											22
											23
											24
							25.00	38.06			25
											26
											27

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Groundwater:					Hole Information:			Equipment: Deltabase 520	
Struck, m	Rose to	After, min	Sealed	Comment	Hole Depth (m)	Hole Dia (mm)	Casing Dia (mm)	Method: Compressed air mist	
				None encountered.	4.00	131	131		

Remarks: Borehole terminated at 4.00m bgl. 90mm dia. standpipe installed. Response zone from 3.0m to 25.0m bgl. Falling head test carried out in borehole.	Shift Data:	Groundwater	Shift	Hole Depth	Remarks
		Dry	14/09/2018 08:00 14/09/2018 18:00	0.00 25.00	Start of shift. End of borehole.

Falling head permeability test

P18159 Longford Landfills - Cartron Big

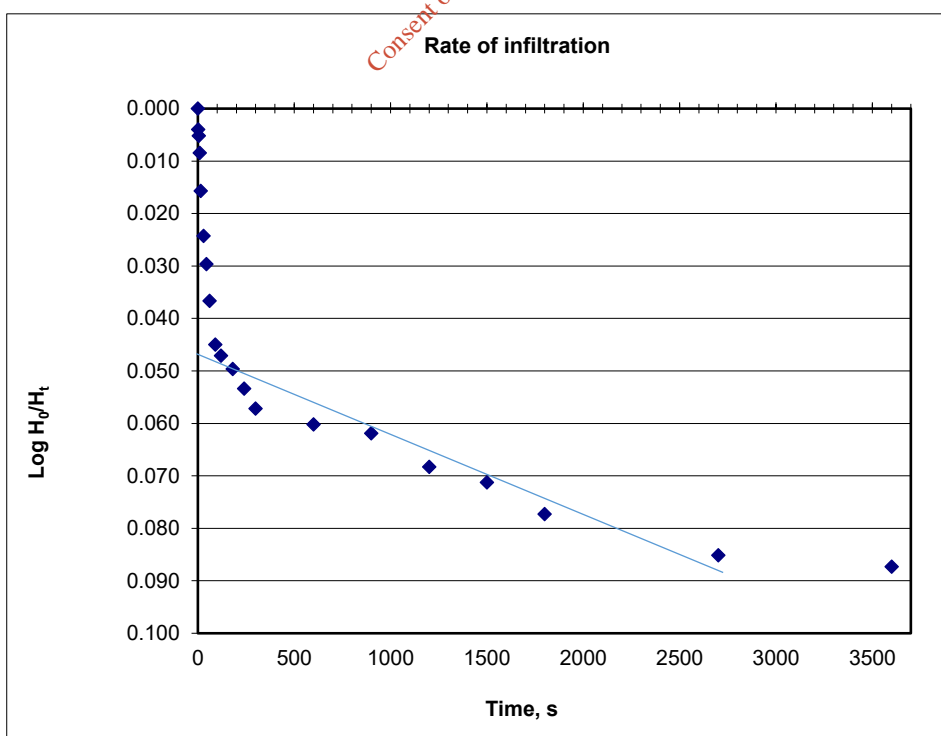
Refer to GW03 for details for standpipe details

Location

BH ID **GW03** H_w/H_o **25.00**
 Casing diameter **98 mm**
 Casing depth **2.5 m**
 Borehole depth **25 m**
 Groundwater level **25.00 m bgl**
 Date **14/09/2018**
 Strata **Topsoil overlying Limestone**

Min	Sec	depth, m bgl	vol, cu.m	H _t	log H ₀ /H _t
0	0	0.000	0.00000	25.00	0.000
0.02	1	0.100	0.00075	24.90	0.004
0.08	5	0.130	0.00098	24.87	0.005
0.17	10	0.210	0.00158	24.79	0.008
0.25	15	0.390	0.00294	24.61	0.016
0.50	30	0.600	0.00452	24.40	0.024
0.75	45	0.730	0.00550	24.27	0.030
1	60	0.900	0.00679	24.10	0.037
1.5	90	1.100	0.00829	23.90	0.045
2	120	1.150	0.00867	23.85	0.047
3	180	1.210	0.00912	23.79	0.050
4	240	1.300	0.00980	23.70	0.053
5	300	1.390	0.01048	23.61	0.057
10	600	1.460	0.01101	23.54	0.060
15	900	1.500	0.01131	23.50	0.062
20	1200	1.650	0.01244	23.35	0.068
25	1500	1.720	0.01297	23.28	0.071
30	1800	1.860	0.01402	23.14	0.077
45	2700	2.040	0.01538	22.96	0.085
60	3600	2.090	0.01576	22.91	0.087

k_{mean} 9.33E-08 ms⁻¹
k_H = k_V





Project Name: Longford Landfills - Cartron Big	Project No.: P18159	Co-ords: 617336E - 775780N Level: 66.24m OD	Date: 31/07/2018
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Location: Co. Longford	Dimensions (m): 3.80	Scale: 1:25
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Client:	Depth: 4.50m BGL	Logged PH
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Water Strike & Backfill	Samples & In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
▼	0.10 - 0.40	B		0.40	65.84	[Pattern]	(TOPSOIL) Brown, sandy SILT. Sand is fine to coarse.
	0.10 - 0.40	D					(MADE GROUND) Dark black, waste material with plastic, timber, cables, glass and mulch. <i>0.40m - 4.50m: Strong hydrocarbon odor.</i>
				4.50	61.74		End of Pit at 4.500m

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Stability: Moderate.	Groundwater: Slow rate of flow.
Plant: 13t tracked excavator.	
Backfill: Arisings.	

Remarks: Trial pit terminated at 4.50m at the required depth.



Number:

CB – TP01

**Project
Project No
Engineer**

Longford Landfills – Cartron Big
P18159
Fehily Timoney




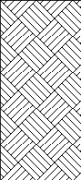

Number: CB - TP01	Project Longford Landfills – Cartron Big Project No P18159 Engineer Fehily Timoney	
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Project Name: Longford Landfills - Cartron Big	Project No.: P18159	Co-ords: 617366E - 775802N Level: 65.52m OD	Date: 31/07/2018
-------------------------------------------------------	----------------------------	--------------------------------------------------------------	-------------------------

Location: Co. Longford	Dimensions (m): 	Scale: 1:25
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Client:	Depth: 3.50m BGL	Logged PH
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Water Strike & Backfill	Samples & In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.20 - 0.60	B		0.60	64.92		(TOPSOIL) Brown, slightly sandy slightly gravelly SILT. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to sub-rounded.
	0.20 - 0.60	D					(MADE GROUND) Dark brown black, waste material with plastic, metal, concrete and mulch. <i>Strong hydrocarbon odor. Oil in groundwater.</i>
				3.50	62.02		End of Pit at 3.500m

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Stability: Moderate	Groundwater: 2.85m: Steady rate of flow.
Plant: 13T Track machine	
Backfill: Arisings.	

Remarks: Trial pit terminated at 3.50m bgl at the required depth.



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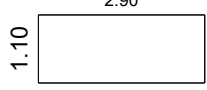
Number: CB – TP02	Project Longford Landfills – Cartron Big Project No P18159 Engineer Fehily Timoney	
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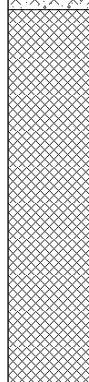


Number: CB – TP02	Project Longford Landfills – Cartron Big Project No P18159 Engineer Fehily Timoney	
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Project Name: Longford Landfills - Cartron Big	Project No.: P18159	Co-ords: 617409E - 775852N Level: 64.39m OD	Date: 31/07/2018
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Location: Co. Longford	Dimensions (m): 	Scale: 1:25
Client:	Depth: 1.80m BGL	Logged PH

Water Strike & Backfill	Samples & In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.20 - 0.55	B		0.55	63.84		Brown, sandy gravelly SILT. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to sub-rounded.
	0.20 - 0.55	D					(MADE GROUND) Dark black brown, waste material with plastic, glass, metal and wood. <i>0.55m - 1.80m: Hydrocarbon odor and oil sheen in groundwater.</i>
				1.80	62.59		End of Pit at 1.800m

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Stability: Good	Groundwater: 1.80m: Slow rate of flow.
Plant: 13T Track machine.	
Backfill: Arisings.	

Remarks: Trial pit terminated at 1.80m bgl at the required depth.



Number:

CB – TP03

**Project
Project No
Engineer**

Longford Landfills – Cartron Big
P18159
Fehily Timoney



Number:

CB – TP03

Project
Project No
Engineer

Longford Landfills – Cartron Big
P18159
Fehily Timoney



Project Name: Longford Landfills - Cartron Big	Project No.: P18159	Co-ords: 617372E - 775916N Level: 63.63m OD	Date: 31/07/2018
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Location: Co. Longford	Dimensions (m): 2.90 1.50	Scale: 1:25
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Client:	Depth: 1.80m BGL	Logged PH
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Water Strike & Backfill	Samples & In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.10 - 0.40	B		0.40	63.23		Brown, slightly sandy gravelly SILT. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to sub-rounded.
	0.10 - 0.40	D					(MADE GROUND) Dark brown, gravelly waste material with metal, plastic, wood. <i>0.40m - 1.80m: Hydrocarbon odor. Oil sheen in water. Gas bubbling up through groundwater.</i>
				1.80	61.83		End of Pit at 1.800m

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Stability: Moderate. Plant: 13T Track machine Backfill: Arisings.	Groundwater: 1.00m Slow rate of flow. 1.70m: Fast rate of flow.
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Remarks: Trial pit terminated at 1.80m bgl at the required depth.



Number:

CB – TP04

**Project
Project No
Engineer**

Longford Landfills – Cartron Big
P18159
Fehily Timoney



Number:

CB – TP04

Project
Project No
Engineer


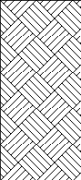

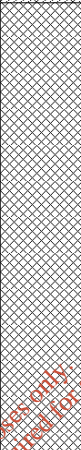
Longford Landfills – Cartron Big
P18159
Fehily Timoney



Project Name: Longford Landfills - Cartron Big	Project No.: P18159	Co-ords: 617333E - 775890N Level: 64.38m OD	Date: 31/07/2018
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Location: Co. Longford	Dimensions (m): 	Scale: 1:25
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Client:	Depth: 2.10m BGL	Logged PH
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Water Strike & Backfill	Samples & In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.20 - 0.60	B		0.60	63.78		(TOPSOIL) Brown, slightly sandy gravelly SILT. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to sub-rounded.
	0.20 - 0.60	D					(MADE GROUND) Dark brown black, waste material with mainly plastic, metal, wood and mulch. <i>0.60m - 2.10m: Oil sheen in groundwater. Hydrocarbon odor.</i>
				2.10	62.28		End of Pit at 2.100m

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Stability: Good	Groundwater: 2.00m: Fast rate of flow.
Plant: 13T Track machine	
Backfill: Arisings.	

Remarks: Trial pit terminated at 2.10m bgl at the required depth.



Number:

CB – TP05

Project
Project No
Engineer

Longford Landfills – Cartron Big
P18159
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Number: CB – TP05	Project Longford Landfills – Cartron Big Project No P18159 Engineer Fehily Timoney	
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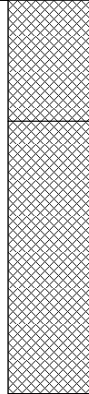
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Trial Pit No
CB-TP06
 Sheet 1 of 1

Project Name: Longford Landfills - Cartron Big **Project No.:** P18159 **Co-ords:** 617293E - 775862N
Level: 65.06m OD **Date:** 01/08/2018

Location: Co. Longford **Dimensions (m):**  **Scale:** 1:25

Client: **Depth:** 1.30m BGL **Logged PH**

Water Strike & Backfill	Samples & In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
▼				0.40	64.66		(MADE GROUND) Brown, sandy gravelly SILT with plastic glass and timber inclusions. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to sub-rounded.
				1.30	63.76		(MADE GROUND) Grey, sandy CLAY with waste material, plastic, glass, timber.
							End of Pit at 1.300m

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Stability: Good. **Groundwater:** 1.10m: Slow flow rate.
Plant: 13t tracked excavator.
Backfill: Arisings.

Remarks: Trail pit terminated at 1.3m bgl at the required depth.

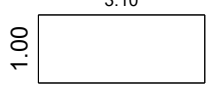



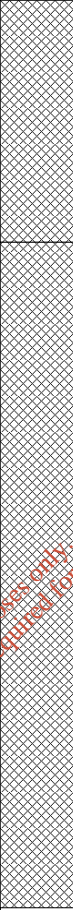
Number: CB – TP06	Project Longford Landfills – Cartron Big Project No P18159 Engineer Fehily Timoney	
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Number: CB – TP06	Project Longford Landfills – Cartron Big Project No P18159 Engineer Fehily Timoney	
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Project Name: Longford Landfills - Cartron Big	Project No.: P18159	Co-ords: 617288E - 775924N Level: 64.37m OD	Date: 01/08/2018
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Location: Co. Longford	Dimensions (m): 	Scale: 1:25
Client:	Depth: 3.00m BGL	Logged: PH

Water Strike & Backfill	Samples & In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.20 - 0.70	B					(MADE GROUND) Brown, sandy slightly gravelly SILT. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to sub-rounded.
				0.80	63.57		(MADE GROUND) Brown, slightly gravelly sandy SILT with plastic glass metal and wood.
				3.00	61.37		<p>2.9m: Hydrocarbon odor with oil sheen in groundwater.</p> <p>End of Pit at 3.000m</p>

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Stability: Good.	Groundwater: 2.90m: Slow flow rate.
Plant: 13t tracked excavator.	
Backfill: Arisings.	

Remarks: Trial pit terminated at 3.00m bgl at the required depth



Number:

CB – TP07

**Project
Project No
Engineer**

Longford Landfills – Cartron Big
P18159
Fehily Timoney



Number:

CB – TP07

**Project
Project No
Engineer**

Longford Landfills – Cartron Big
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Trial Pit No
CB-TP08
 Sheet 1 of 1

Project Name: Longford Landfills - Cartron Big **Project No.:** P18159 **Co-ords:** 617340E - 775959N
Level: 63.01m OD **Date:** 01/08/2018

Location: Co. Longford **Dimensions (m):** 1.80
 1.00

Client: **Depth:** 0.90m BGL **Scale:** 1:25
Logged PH

Water Strike & Backfill	Samples & In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
▼				0.65	62.36		(MADE GROUND) Very soft, brown, sandy SILT.
				0.90	62.11		(MADE GROUND) Very soft, brown sandy SILT with plastic wood and metal.
							End of Pit at 0.900m
							1 2 3 4 5

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Stability: Moderate. **Groundwater:** 0.65m: Fast flow rate.
Plant: 13t tracked excavator.
Backfill: Arisings.

Remarks: Trial pit terminated at 0.90m bgl, groundwater encountered.



Number: CB – TP08	Project Longford Landfills – Cartron Big Project No P18159 Engineer Fehily Timoney	
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Number: CB –TP08	Project Longford Landfills – Cartron Big Project No P18159 Engineer Fehily Timoney	
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Trial Pit No
CB-TP09
 Sheet 1 of 1

Project Name: Longford Landfills - Cartron Big
Project No.: P18159
Co-ords: 617267E - 775969N
Level: 63.63m OD
Date: 01/08/2018

Location: Co. Longford
Dimensions (m): 2.90
Scale: 1:25

Client:
Depth: 1.35m BGL
Logged PH

Water Strike & Backfill	Samples & In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
▼	0.10 - 0.50	B					(MADE GROUND) Brown, slightly sandy gravelly SILT. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to sub-rounded.
				0.50	63.13		(MADE GROUND) Brown grey, slightly sandy gravelly SILT with plastic glass wood metal and concrete waste waste material.
				1.35	62.28		1.20m. Strong hydrocarbon odor with oil sheen on groundwater. End of Pit at 1.350m

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Stability: Good.
Plant: 13t tracked excavator.
Backfill: Arisings.
Groundwater: 1.20m: Steady flow rate.

Remarks: Trial pit terminated at 1.35m bgl, required depth.



Number: CB – TP09	Project Longford Landfills – Cartron Big Project No P18159 Engineer Fehily Timoney	
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Number:

CB – TP09

Project
Project No
Engineer

Longford Landfills – Cartron Big
P18159
Fehily Timoney



Project Name: Longford Landfills - Cartron Big	Project No.: P18159	Co-ords: 617234E - 775948N Level: 64.08m OD	Date: 01/08/2018
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Location: Co. Longford	Dimensions (m): 	Scale: 1:25
Client:	Depth: 3.00m BGL	Logged: PH

Water Strike & Backfill	Samples & In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
▼				0.40	63.68	[Cross-hatched pattern]	(MADE GROUND) Brown, slightly sandy gravelly SILT. Sand is fine to coarse. Gravel is fine to coarse.
				1.60	62.48		(MADE GROUND) Dark brown CLAY with plastic glass metal and wood waste material.
				3.00	61.08		(MADE GROUND) Grey, slightly sandy gravelly CLAY with plastic metal wood and concrete waste material. Sand is fine to coarse. Gravel is fine to coarse.
							2.90m. Strong order in groundwater.
							End of Pit at 3.000m

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Stability: Good.	Groundwater: 2.90m: Steady flow rate.
Plant: 13t tracked excavator.	
Backfill: Arisings	

Remarks: Trial Pit terminated at 3.00m bgl at the required depth.



Number:

CB – TP10

**Project
Project No
Engineer**

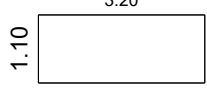
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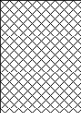
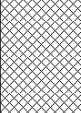
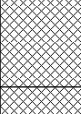
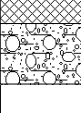



Number: CB – TP10	Project Longford Landfills – Cartron Big Project No P18159 Engineer Fehily Timoney	
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Project Name: Longford Landfills - Cartron Big	Project No.: P18159	Co-ords: 617212E - 775940N Level: 63.56m OD	Date: 01/08/2018
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Location: Co. Longford	Dimensions (m): 	Scale: 1:25
Client:	Depth: 1.50m BGL	Logged: PH

Water Strike & Backfill	Samples & In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00 - 0.40	B					(MADE GROUND) Brown, slightly sandy gravelly SILT
				0.40	63.16		(MADE GROUND) Brown, slightly sandy gravel SILT with plastic glass metal and wood waste material. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to sub-sub-rounded.
				0.80	62.76		(MADE GROUND) Grey, slightly sandy gravelly SILT with plastic metal waste material. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to sub-rounded.
				1.10	62.46		(MADE GROUND) Slightly sandy gravelly SILT with dark black waste material layer.
	1.30 - 1.50	B		1.30	62.26		Grey, slightly sandy gravelly CLAY with high boulder content. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to sub-rounded.
				1.50	62.06		End of Pit at 1.500m

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Stability: Good.	Groundwater: None encountered.
Plant: 13t tracked excavator	
Backfill: Arisings.	

Remarks: Trial pit terminated at 1.5m bgl at the required depth.



Number: CB – TP11	Project Longford Landfills – Cartron Big Project No P18159 Engineer Fehily Timoney	
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Number:

CB – TP11

**Project
Project No
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Longford Landfills – Cartron Big
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Trial Pit No
CB-TP12
 Sheet 1 of 1

Project Name: Longford Landfills - Cartron Big **Project No.:** P18159 **Co-ords:** 617269E - 775828N
Level: 64.96m OD **Date:** 01/08/2018

Location: Co. Longford **Dimensions (m):** 2.40

Client: **Depth:** 1.10m BGL **Scale:** 1:25
Logged PH

Water Strike & Backfill	Samples & In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
Water Strike & Backfill	0.10 - 0.80	B					(TOPSOIL) Brown, slightly sandy gravelly SILT. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to sub-rounded.
	0.10 - 0.80	D					
				0.80	64.17	Boulders	Brown grey, silty BOULDERS. Boulders sub-angular to sub-rounded, 200mm to 800mm.
				1.10	63.86		End of Pit at 1.100m

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Stability: Good. **Groundwater:** None encountered.
Plant: 13t tracked excavator.
Backfill: Arisings

Remarks: Trial pit terminated at 1.10m bgl at the required depth.



Number: CB – TP12	Project Longford Landfills – Cartron Big Project No P18159 Engineer Fehily Timoney	
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Number: CB – TP12	Project Longford Landfills – Cartron Big Project No P18159 Engineer Fehily Timoney	
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Trial Pit No
CB-TP13
 Sheet 1 of 1

Project Name: Longford Landfills - Cartron Big **Project No.:** P18159 **Co-ords:** 617288E - 775801N
Level: 65.45m OD **Date:** 01/08/2018

Location: Co. Longford **Dimensions (m):** 2.90 x 1.10
Client: **Depth:** 2.80m BGL **Scale:** 1:25
Logged PH

Water Strike & Backfill	Samples & In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
Water Strike & Backfill				0.40	65.05	Legend	(MADE GROUND) Brown, slightly sandy gravelly SILT. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to sub-rounded.
							(MADE GROUND) Grey black, CLAY with plastic glass and timber waste material.
				2.80	62.65		End of Pit at 2.800m

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Stability: Good. **Groundwater:** None encountered.
Plant: 13t tracked excavator.
Backfill: Arisings.

Remarks: Trial pit terminated at 2.80m bgl at the required depth.



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Number: CB – TP13	Project Longford Landfills – Cartron Big Project No P18159 Engineer Fehily Timoney	
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Number: CB – TP13	Project Longford Landfills – Cartron Big Project No P18159 Engineer Fehily Timoney	
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Trial Pit No
CB-TP14
 Sheet 1 of 1

Project Name: Longford Landfills - Cartron Big
Project No.: P18159
Co-ords: 617240E - 775977N
Level: 63.02m OD
Date: 01/08/2018

Location: Co. Longford
Dimensions (m): 3.20
Scale: 1:25

Client:
Depth: 1.40m BGL
Logged PH

Water Strike & Backfill	Samples & In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
Water Strike & Backfill				0.40	62.62	Legend	(TOPSOIL) Brown, slightly sandy slightly gravelly SILT. Sand is fine to coarse. Gravel fine to coarse, sub-angular to sub-rounded.
				1.40	61.62		(MADE GROUND) Grey, waste material with plastic metal timber and glass.
							Grey CLAY with high boulder content. Boulders sub-angular to sub-rounded, 200mm to 700mm. End of Pit at 1.400m

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Stability: Good.
Plant: 13t tracked excavator.
Backfill: Arisings.
Groundwater: None encountered.

Remarks: Trial pit terminated at 1.4m bgl at the required depth.




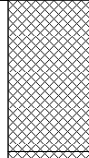
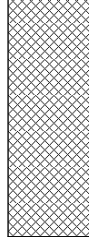

Number: CB – TP14	Project Longford Landfills – Cartron Big Project No P18159 Engineer Fehily Timoney	
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Project Name: Longford Landfills - Cartron Big	Project No.: P18159	Co-ords: 617277E - 775980N Level: 63.15m OD	Date: 01/08/2018
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Location: Co. Longford	Dimensions (m): 	Scale: 1:25
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Client:	Depth: 1.60m BGL	Logged PH
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Water Strike & Backfill	Samples & In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
				0.50	62.65		(MADE GROUND) Brown sandy slightly gravelly SILT.
							(MADE GROUND) Dark grey, waste material with plastic timber glass and wood.
	1.30 - 1.60	B		1.30	61.85		Stiff to firm, grey, sandy CLAY. Sand is fine to coarse.
				1.60	61.55		End of Pit at 1.600m

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Stability: Good	Groundwater: None encountered.
Plant: 13t tracked excavator.	
Backfill: Arisings.	

Remarks: Trial pit terminated at 1.60m bgl at the required depth.



Number: CB – TP15	Project Longford Landfills – Cartron Big Project No P18159 Engineer Fehily Timoney	
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Number:

CB – TP15

Project
Project No
Engineer

Longford Landfills – Cartron Big
P18159
Fehily Timoney




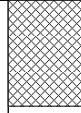
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Trial Pit No
CB-SA01
 Sheet 1 of 1

Project Name: Longford Landfills - Cartron Big **Project No.:** P18159 **Co-ords:** 617342E - 775814N
Level: 65.45m OD **Date:** 01/08/2018

Location: Co. Longford **Dimensions (m):**  **Scale:** 1:25

Client: **Depth:** 0.35m BGL **Logged PH**

Water Strike & Backfill	Samples & In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.10 - 0.35	B		0.35	65.10		(MADE GROUND) Brown, slightly sandy gravelly SILT with wood and mulch. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to sub-rounded.
							End of Pit at 0.350m
							1
							2
							3
							4
							5

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Stability: Good. **Groundwater:** None encountered.
Plant: 13t tracked excavator.
Backfill: Arisings.

Remarks: Trial pit terminate at 0.35m bgl, required depth. Soakaway test carried out.

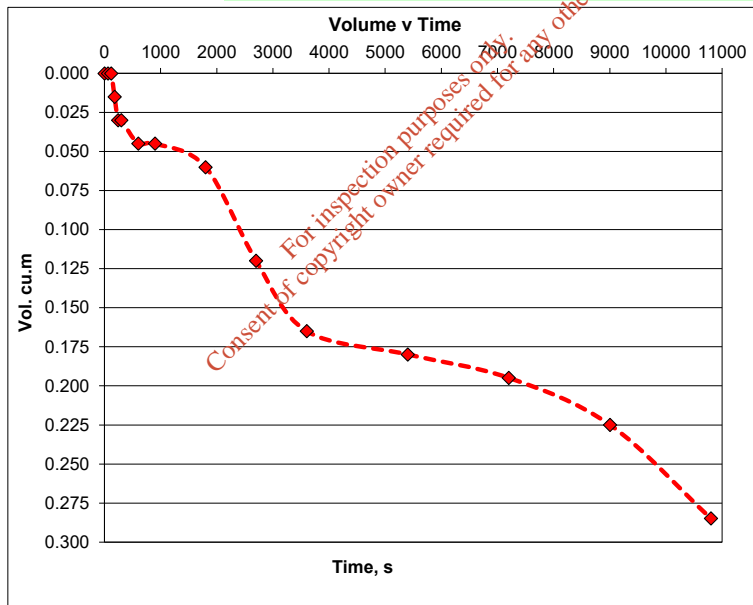
P18159

Longford Landfills - Cartron Big
 CB - SA01
 01/08/2018

l, m 1.00 b, m 1.10 d, m 0.35
 l_base, m 1.00 d_eff, m 0.27
 l_eff, m 1.00 GW, m

Time, min	Measure, m bgl	Time, sec	Depth water, m	Fall, m	Volume
0	0.08	0	0.27	0.00	0.000
1	0.08	60	0.27	0.00	0.000
2	0.08	120	0.27	0.00	0.000
3	0.09	180	0.26	0.01	0.015
4	0.10	240	0.25	0.02	0.030
5	0.10	300	0.25	0.02	0.030
10	0.11	600	0.24	0.03	0.045
15	0.11	900	0.24	0.03	0.045
30	0.12	1800	0.23	0.04	0.060
45	0.16	2700	0.19	0.08	0.120
60	0.19	3600	0.16	0.11	0.165
90	0.20	5400	0.15	0.12	0.180
120	0.21	7200	0.14	0.13	0.195
150	0.23	9000	0.12	0.15	0.225
180	0.27	10800	0.08	0.19	0.285

Area 1.10 m² V_{p75-25 theory} volume 0.19 m³
 50% Area_eff, a_{p50} 1.84 m² V_{p 75 - 25 actual} volume 0.1045 m³
 50% Area_act, a_{p50} 1.50 m² t_{p 75- 25 actual} time 6316.20 s
 Infiltration Coefficient, f 1.10E-05 ms⁻¹



NOTES:

See CB - SA01 for detailed overburden description. No groundwater encountered. Pit assumed unsaturated.



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Number: CB – SA01	Project Longford Landfills – Cartron Big Project No P18159 Engineer Fehily Timoney	
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Trial Pit No
CB-SA02
 Sheet 1 of 1

Project Name: Longford Landfills - Cartron Big
Project No.: P18159
Co-ords: 617391E - 775838N
Level: 64.80m OD
Date: 01/08/2018

Location: Co. Longford
Dimensions (m): 1.00 x 1.30
Scale: 1:25

Client:
Depth: 0.35m BGL
Logged PH

Water Strike & Backfill	Samples & In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.10 - 0.35	B		0.35	64.45		(MADE GROUND) Brown, slightly sandy gravelly SILT with waste material. Sand is fine to coarse. Gravel os fine to coarse, sub-angular to sub-rounded.
	0.10 - 0.35	D					
	End of Pit at 0.350m						
							1
							2
							3
							4
							5

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Stability: Good.
Plant: 13t tracked excavator.
Backfill: Arisings.
Groundwater: None encountered.

Remarks: Trial pit terminated at 0.35m bgl, required depth. Soakaway test carried out in pit.

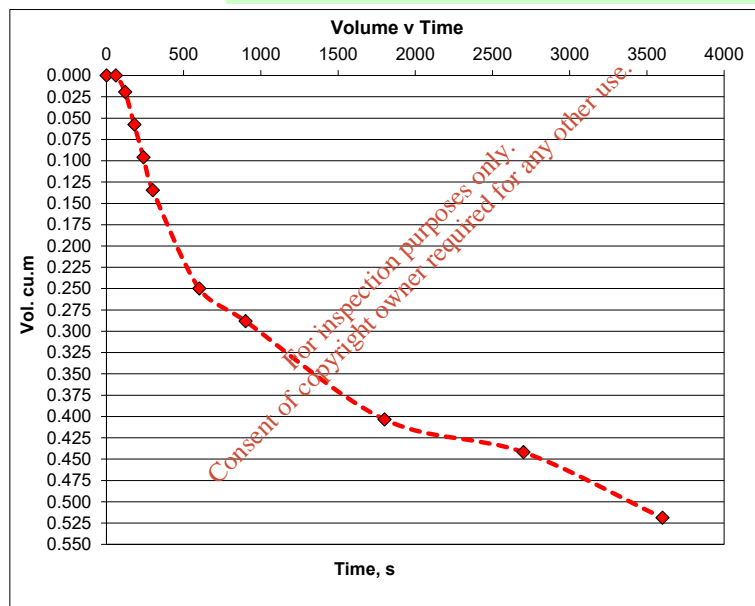
P18159

Longford Landfills - Cartron Big
 CB - SA02_1
 02/08/2018

l, m 1.30 b, m 1.00 d, m 0.35
 l_base, m 1.30 d_eff, m 0.27
 l_eff, m 1.30 GW, m

Time, min	Measure, m bgl	Time, sec	Depth water, m	Fall, m	Volume
0	0.08	0	0.27	0.00	0.000
1	0.08	60	0.27	0.00	0.000
2	0.09	120	0.26	0.01	0.019
3	0.11	180	0.24	0.03	0.058
4	0.13	240	0.22	0.05	0.096
5	0.15	300	0.20	0.07	0.134
10	0.21	600	0.14	0.13	0.250
15	0.23	900	0.12	0.15	0.288
30	0.29	1800	0.06	0.21	0.403
45	0.31	2700	0.04	0.23	0.442
60	0.35	3600	0.00	0.27	0.519

Area 1.30 m² V_{p75-25 theory} volume 0.23 m³
 50% Area_eff, a_{p50} 2.11 m² V_{p 75 - 25 actual} volume 0.1755 m³
 50% Area_act, a_{p50} 1.92 m² t_{p 75-25 actual} time 1400.00 s
 Infiltration Coefficient, f 6.53E-05 ms⁻¹



NOTES:

See CB - SA02 for detailed overburden description. No groundwater encountered. Pit assumed unsaturated.

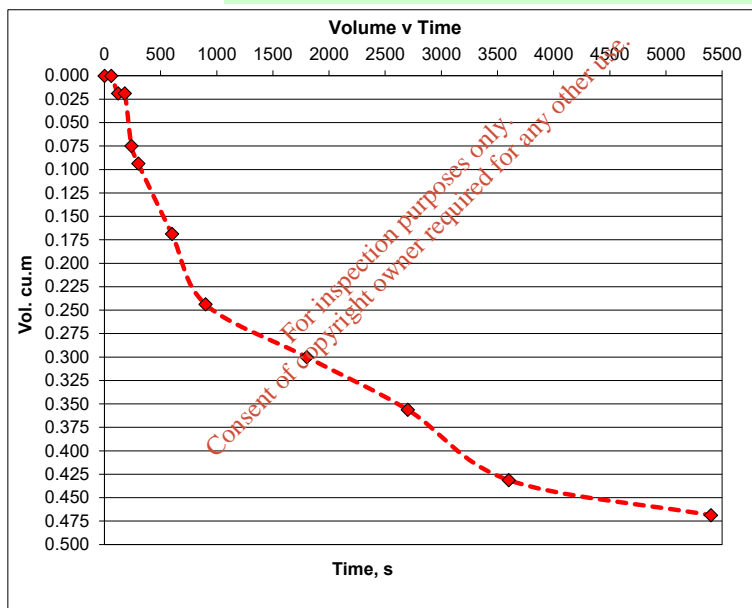
P18159

Longford Landfills - Cartron Big
 CB - SA02_2
 02/08/2018

l, m 1.30 b, m 1.00 d, m 0.35
 l_base, m 1.30 d_eff, m 0.25
 l_eff, m 1.30 GW, m

Time, min	Measure, m bgl	Time, sec	Depth water, m	Fall, m	Volume
0	0.10	0	0.25	0.00	0.000
1	0.10	60	0.25	0.00	0.000
2	0.11	120	0.24	0.01	0.019
3	0.11	180	0.24	0.01	0.019
4	0.14	240	0.21	0.04	0.075
5	0.15	300	0.20	0.05	0.094
10	0.19	600	0.16	0.09	0.169
15	0.23	900	0.12	0.13	0.244
30	0.26	1800	0.09	0.16	0.300
45	0.29	2700	0.06	0.19	0.356
60	0.33	3600	0.02	0.23	0.431
90	0.35	5400	0.00	0.25	0.469

Area 1.30 m² V_{p75-25 theory} volume 0.23 m³
 50% Area_eff, a_{p50} 2.11 m² V_{p 75 - 25 actual} volume 0.1625 m³
 50% Area_act, a_{p50} 1.88 m² t_{p 75- 25 actual} time 2226.00 s
 Infiltration Coefficient, f 3.89E-05 ms⁻¹



NOTES:

See CB - SA02 for detailed overburden description. No groundwater encountered. Pit assumed unsaturated.



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Number: CB – SA02	Project Longford Landfills – Cartron Big Project No P18159 Engineer Fehily Timoney	
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Trial Pit No
CB-SA03
 Sheet 1 of 1

Project Name: Longford Landfills - Cartron Big
Project No.: P18159
Co-ords: 617325E - 775954N
Level: 63.27m OD
Date: 01/08/2018

Location: Co. Longford
Dimensions (m): 1.10
Scale: 1:25

Client:
Depth: 0.50m BGL
Logged PH

Water Strike & Backfill	Samples & In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
Water Strike & Backfill	0.15 - 0.45	B		0.15	63.12		(TOPSOIL) Brown, sandy gravelly SILT. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to sub-rounded.
				0.45	62.82		(MADE GROUND) Light brown, silty slightly gravelly SAND. Sand is fine to coarse.
				0.50	62.77		(MADE GROUND) Dark brown, sandy SILT with mulch. Sand is fine to coarse. End of Pit at 0.500m
							1 2 3 4 5

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Stability: Good
Plant: 12t tracked excavator.
Backfill: Arisings.
Groundwater: None encountered.

Remarks: Trial pit terminated at 0.50m bgl at the required depth.

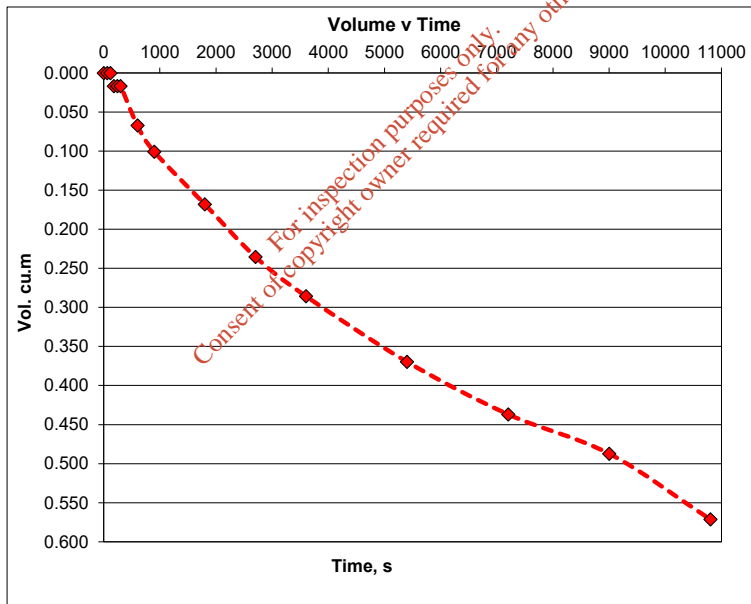
P18159

Longford Landfills - Cartron Big
 CB - SA03
 01/08/2018

l, m 1.00 b, m 1.00 d, m 0.50
 l_base, m 1.00 d_eff, m 0.44
 l_eff, m 1.00 GW, m

Time, min	Measure, m bgl	Time, sec	Depth water, m	Fall, m	Volume
0	0.06	0	0.44	0.00	0.000
1	0.06	60	0.44	0.00	0.000
2	0.06	120	0.44	0.00	0.000
3	0.07	180	0.43	0.01	0.017
4	0.07	240	0.43	0.01	0.017
5	0.07	300	0.43	0.01	0.017
10	0.10	600	0.40	0.04	0.067
15	0.12	900	0.38	0.06	0.101
30	0.16	1800	0.34	0.10	0.168
45	0.20	2700	0.30	0.14	0.235
60	0.23	3600	0.27	0.17	0.286
90	0.28	5400	0.22	0.22	0.370
120	0.32	7200	0.18	0.26	0.437
150	0.35	9000	0.15	0.29	0.487
180	0.40	10800	0.10	0.34	0.571

Area 1.00 m² V_{p75-25 theory} volume 0.25 m³
 50% Area_eff, a_{p50} 2.00 m² V_{p 75 - 25 actual} volume 0.17 m³
 50% Area_act, a_{p50} 1.68 m² t_{p 75- 25 actual} time 5495.00 s
 Infiltration Coefficient, f 1.84E-05 ms⁻¹



NOTES:

See CB - SA03 for detailed overburden description. No groundwater encountered. Pit assumed unsaturated.



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Number: CB – SA03	Project Longford Landfills – Cartron Big Project No P18159 Engineer Fehily Timoney	
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Trial Pit No
CB-SA04
 Sheet 1 of 1

Project Name: Longford Landfills - Cartron Big **Project No.:** P18159 **Co-ords:** 617235E - 775940N
Level: 64.20m OD **Date:** 01/08/2018

Location: Co. Longford **Dimensions (m):** 1.10
 1.00

Client: **Depth:** 0.40m BGL **Scale:** 1:25
Logged PH

Water Strike & Backfill	Samples & In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.10 - 0.40	B		0.40	63.80		(TOPSOIL) Brown, slightly sandy gravelly SILT. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to sub rounded.
							End of Pit at 0.400m

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Stability: Good. **Groundwater:** None encountered.
Plant: 14t tracked excavator.
Backfill: Arisings.

Remarks: Trial pit terminated at 0.40m bgl at the required depth. Soakaway test carried out in pit.

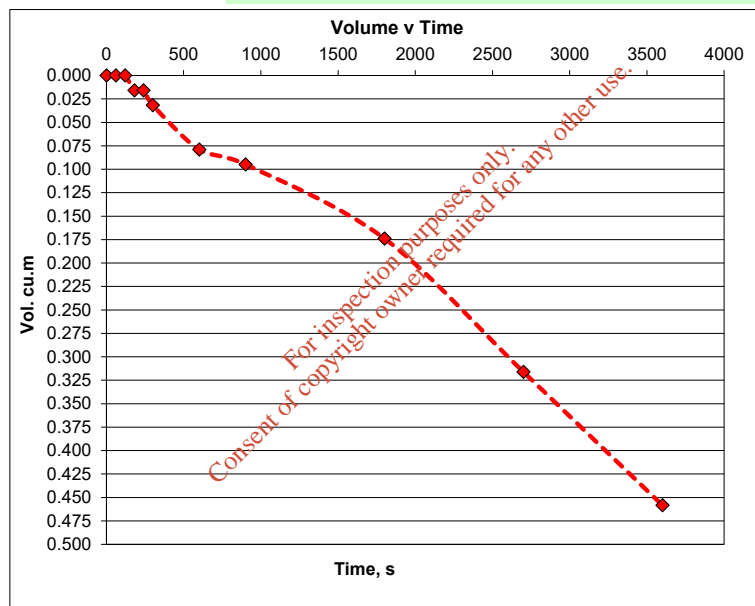
P18159

Longford Landfills - Cartron Big
 CB - SA04_1
 01/08/2018

l, m 1.00 b, m 1.00 d, m 0.40
 l_base, m 1.00 d_eff, m 0.29
 l_eff, m 1.00 GW, m

Time, min	Measure, m bgl	Time, sec	Depth water, m	Fall, m	Volume
0	0.11	0	0.29	0.00	0.000
1	0.11	60	0.29	0.00	0.000
2	0.11	120	0.29	0.00	0.000
3	0.12	180	0.28	0.01	0.016
4	0.12	240	0.28	0.01	0.016
5	0.13	300	0.27	0.02	0.032
10	0.16	600	0.24	0.05	0.079
15	0.17	900	0.23	0.06	0.095
30	0.22	1800	0.18	0.11	0.174
45	0.31	2700	0.09	0.20	0.316
60	0.40	3600	0.00	0.29	0.458

Area 1.00 m² V_{p75-25 theory} volume 0.20 m³
 50% Area_eff, a_{p50} 1.80 m² V_{p 75 - 25 actual} volume 0.145 m³
 50% Area_act, a_{p50} 1.58 m² t_{p 75- 25 actual} time 1755.00 s
 Infiltration Coefficient, f 5.23E-05 ms⁻¹



NOTES:

See CB - SA04_1 for detailed overburden description. No groundwater encountered. Pit assumed unsaturated.

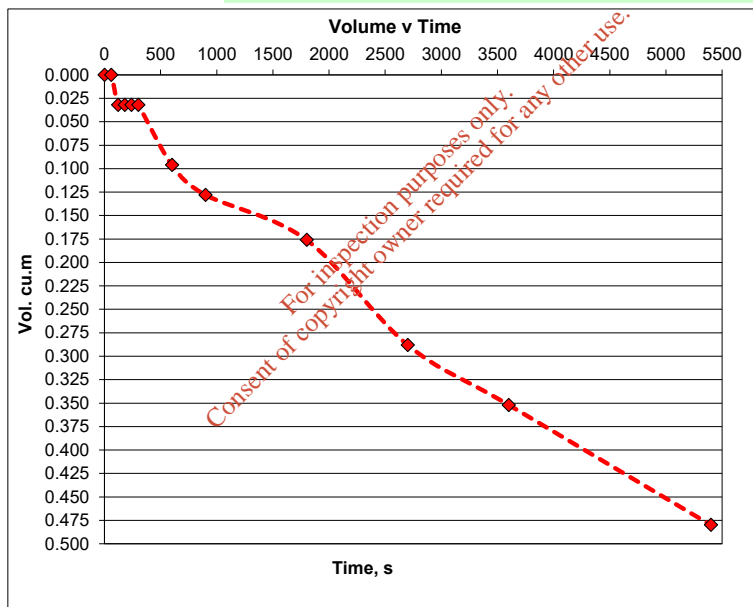
P18159

Longford Landfills - Cartron Big
 CB - SA04_2
 01/08/2018

l, m 1.00 b, m 1.00 d, m 0.40
 l_base, m 1.00 d_eff, m 0.32
 l_eff, m 1.00 GW, m

Time, min	Measure, m bgl	Time, sec	Depth water, m	Fall, m	Volume
0	0.08	0	0.32	0.00	0.000
1	0.08	60	0.32	0.00	0.000
2	0.10	120	0.30	0.02	0.032
3	0.10	180	0.30	0.02	0.032
4	0.10	240	0.30	0.02	0.032
5	0.10	300	0.30	0.02	0.032
10	0.14	600	0.26	0.06	0.096
15	0.16	900	0.24	0.08	0.128
30	0.19	1800	0.21	0.11	0.176
45	0.26	2700	0.14	0.18	0.288
60	0.30	3600	0.10	0.22	0.352
90	0.38	5400	0.02	0.30	0.480
120	0.40	7200	0.00	0.32	0.512

Area 1.00 m² V_{p75-25 theory} volume 0.20 m³
 50% Area_eff, a_{p50} 1.80 m² V_{p 75 - 25 actual} volume 0.15 m³
 50% Area_act, a_{p50} 1.60 m² t_{p 75- 25 actual} time 3150.00 s
 Infiltration Coefficient, f 2.98E-05 ms⁻¹



NOTES:

See CB - SA04 for detailed overburden description. No groundwater encountered. Pit assumed unsaturated.

Photographic Record



Number:

CB – SA04

Project
Project No
Engineer

Longford Landfills – Cartron Big
P18159
Fehily Timoney