Trinity Green
Environmental Consultants

Clonfert
Maynooth
Co. Kildare
t: 01-6290616
m: 086-2434828
Vat No. 3251411B

Site Characterisation Report

By

Dr. Eugene Bolton

Applicant: David Thompson

Clonfert,
Maynooth
Co. Kildare
Email: info@trinitygreen.ie
Mobile 086-2434828

APPENDIX A: SITE CHARACTERISATION FORM

File Reference:

1.0 GENERAL DETAILS (From planning application)

Prefix: Mr First Name: David Surname: Thompson

Address:

Site Location and Townland:
Slade, Saggart, Co. Dublin
D24 CA36

Number of Bedrooms: 7 Maximum Number of Residents: 9

Comments on population equivalent

Pop equivalent is no. of bedrooms plus 2
Existing house has 5 bedrooms - one being removed with 3 additional proposed

Proposed Water Supply:

Mains ☐ Private Well/Borehole ☑ Existing well on-site Group Well/Borehole ☐

2.0 GENERAL DETAILS (From planning application)

Soil Type. (Specify Type): Sandstone & Shale Till

Subsoil, (Specify Type): Till derived from Lower Palaeozoic sandstones and shales

Bedrock Type: Silurian Metasediments and Volcanics

Aquifer Category: Regionally Important | Locally Important Poor Pl

Vulnerability: Extreme ☐ High ☐ Moderate ☑ Low ☐

Groundwater Body: Kicullen Status Good

Name of Public/Group Scheme Water Supply within 1 km:

Source Protection Area: ZOC ☐ SI ☐ SO ☐ Groundwater Protection Response: R1

Presence of Significant Sites (Archaeological, Natural & Historical): None

Past experience in the area: Good soakage,

Comments:

(Integrate the information above in order to comment on: the potential suitability of the site, potential targets at risk, and/or any potential site restrictions).

Moderate vulnerability groundwater will be at moderate risk.

Note: Only information available at the desk study stage should be used in this section

3.0 ON-SITE ASSESSMENT

3.1 Visual Assessment

Landscape Position: Undulating Landscape - site is on ground that is elivated

Slope: Steep (>1:5) ☐ Shallow (1:5-1:20) ☐ Relatively Flat (<1:20) ☑

Slope Comment | | Percolation on flat ground

Surface Features within a minimum of 250m (Distance To Features Should Be Noted In Metres)

Houses:

Houses to North and one to South with 3 houses to west on opposite side of road all within 250m

Existing Land Use:

Residential
Served by a BAF system and soil filter operating effectively

Vegetation Indicators:

Nothing to suggest poor soakage

Groundwater Flow Direction: Northeast

Ground Condition:

dry

Site Boundaries:

Hedgerow &m Timber fence

3.0 ON-SITE ASSESSMENT

3.1 Visual Assessment (contd.)

Roads:

Road to west

Outcrops (Bedrock And/Or Subsoil):

Nothing exposed

Surface Water Ponding:

None

Lakes:

Nothing within 500m

Beaches/Shellfish Areas:

None

Wetlands:

None

Karst Features:

None

Watercourses/Streams:*

250m Northeast

*Note and record water level

3.0 ON-SITE ASSESSMENT

3.1 Visual Assessment (contd.)

Drainage Ditches:*

None bordering site small stream runs northeast toward stream about 150m away

Springs:*

None

Wells:*

Wells are up-gradient except in land to south where there is a well > 60m from percolation area. This is alongside the percolation area and is not at risk

Comments:

(Integrate the information above in order to comment on: the potential suitability of the site, potential targets at risk, the suitability of the site to treat the wastewater and the location of the proposed system within the site).

Ground conditions are dry. Nothing to suggest poor soakage.
Existing system is operating effectively suggesting good soakage.
The base of the distribution gravel was at original ground level - this has been raised with soil from previous excavation on site so percolation finishes at current ground level.

*Note and record water level

3.2 Trial Hole (should be a minimum of 2.1m deep (3m for regionally important aquifers))

To avoid any accidental damage, a trial hole assessment or percolation tests should not be undertaken in areas which are at or adjacent to significant sites, (e.g. NHAs, SACs, SPAs, and/or Archaeological etc.), without prior advice from National Parks and Wildlife Service or the Heritage Service.

Depth of trial hole (m): 2.3

Depth from ground surface to bedrock (m) (if present):

Depth from ground surface to water table (m) (if present)

Depth of water ingress: None Rock type (if present): Limestone

Date and time of excavation: 15-Aug-2021 Date and time of examination: 17-Aug-2021

Depth of Surface and Subsurface Percolation Tests	Soil/Subsoil Texture & Classification**	Plasticity and dilatancy***	Soil Structure	Density/ Compactness	Colour****	Preferential flowpaths
0.1 m P	Fill Subsoil Sandy CLAY with ciobbles	Slowly Dilatant Trds= 11, 10, 9 Rib - 100, 110, 110	Blocky	Firm to Stiff	Dark Brown	Rootlets Few tree roots
0.2 m P						
0.3 m P						
0.4 m P						
0.5 m T						
0.6 m T						
0.7 m T						None
0.8 m T	Sandy CLAY Low Sand	Slowly Dilatent Trds =9,9,10 Ribs= 110,100,100	Blocky	Firm	Orange/Brown	
0.9 m						
1.0 m						
1.1 m						
1.2 m						
1.3 m	Sandy SILT/CLAY Mottling at 1.5m	Slowly Dilatent Trds = 5,4,4 Ribs= 60,70,70	Blocky	Firm	Light Brown	
1.4 m						
1.5 m						
1.6 m						
1.7 m						
1.8 m						
1.9 m						
2.0 m						
2.1 m						
2.2 m						
2.3 m	Base of Trench					
2.4 m						
2.5 m						
2.6 m						
2.7 m						
2.8 m						
2.9 m						
3.0 m						
3.1 m						
3.2 m						
3.3 m						
3.4 m						
3.5 m						

Likely Subsurface Percolation Value: 30

Likely Surface Percolation Value: 20

Note: *Depth of percolation test holes should be indicated on log above. (*Enter Surface or Subsurface at depths as appropriate).

** See Appendix E for BS 5930 classification.

*** 3 samples to be tested for each horizon and results should be entered above for each horizon.

**** All signs of mottling should be recorded.

3.2 Trial Hole (contd.) Evaluation:

Good mineral soil.
Original topsoil seems to, have been removed at location of test. However the is 600mm of soil from the site overlain over the area resulting in 1.2m of free draining soil over the watertable (Mottling)

3.3(a) Subsurface Percolation Test for Subsoil

Step 1: Test Hole Preparation

Percolation Test Hole	1	2	3
Depth from ground surface to top of hole (mm) (A)	500	500	500
Depth from ground surface to base of hole (mm) (B)	900	900	900
Depth of hole (mm) [B - A]	400	400	400
Dimensions of hole [length x breadth (mm)]	300 x 300	300 x 300	300 x 300

Step 2: Pre-Soaking Test Holes

Pre-soak start	Date	17-Aug-2021	17-Aug-2021	17-Aug-2021
	Time			
2nd pre-soak start	Date	17-Aug-2021	17-Aug-2021	17-Aug-2021
	Time			

Each hole should be pre-soaked twice before the test is carried out.

Step 3: Measuring T_{100}

Percolation Test Hole No.	1	2	3
Date of test	18-08-2021	18-08-2021	18-08-2021
Time filled to 400 mm	08:21	08:22	08:23
Time water level at 300 mm	09:20	09:31	09:22
Time (min.) to drop 100 mm (T_{100})	59.00	69.00	59.00
Average T_{100}			62.33

If T_{100} > 300 minutes then Subsurface Percolation value >120 – site unsuitable for discharge to ground
If $T_{100} \leq 210$ minutes then go to Step 4;
If T_{100} > 210 minutes then go to Step 5;

Step 4: Standard Method (where $T_{100} \leq 210$ minutes)

Percolation Test Hole	1			2			3		
Fill no.	Start Time (at 300 mm)	Finish Time (at 200 mm)	Δt (min)	Start Time (at 300 mm)	Finish Time (at 200 mm)	Δt (min)	Start Time (at 300 mm)	Finish Time (at 200 mm)	Δt (min)
1	09:20	10:30	70.00	09:31	11:12	101.00	09:22	10:36	74.00
2	10:30	11:57	87.00	11:12	13:23	131.00	10:36	12:08	92.00
3	11:57	13:43	106.00	13:23	16:04	161.00	12:08	14:22	134.00
Average Δt Value			87.67			131.00			100.00
	Average Δt/4 = [Hole No.1]		21.92 (t_1)	Average Δt/4 = [Hole No.2]		32.75 (t_2)	Average Δt/4 = [Hole No.3]		25.00 (t_3)

Result of Test: Subsurface Percolation Value = 26.56 (min/25 mm)

Comments:

Soakage is mid-range - some variation - to be expected if the area is somewhat compacted from previous building on site.

Step 5: Modified Method (where $T_{100} > 210$ minutes)

Percolation Test Hole No. 1

Fall of water in hole (mm)	Time Factor = T_f	Start Time hh:mm	Finish Time hh:mm	Time of fall (mins) = T_m	K_{ts} = T_f / T_m	T – Value = 4.45 / K_{ts}
300 - 250	8.1			0.00		
250 - 200	9.7			0.00		
200 - 150	11.9			0.00		
150 - 100	14.1			0.00		
Average	T- Value		T- Value Hole 1 = (T_1)			0.00

Percolation Test Hole No. 2

Fall of water in hole (mm)	Time Factor = T_f	Start Time hh:mm	Finish Time hh:mm	Time of fall (mins) = T_m	K_{ts} = T_f / T_m	T – Value = 4.45 / K_{ts}
300 - 250	8.1			0.00		
250 - 200	9.7			0.00		
200 - 150	11.9			0.00		
150 - 100	14.1			0.00		
Average	T- Value		T- Value Hole 2 = (T_2)			0.00

Percolation Test Hole No. 3

Fall of water in hole (mm)	Time Factor = T_f	Start Time hh:mm	Finish Time hh.mm	Time of fall (mins) = T_m	K_{ts} = T_f / T_m	T – Value = 4.45 / K_{ts}
300 - 250	8.1			0.00		
250 - 200	9.7			0.00		
200 - 150	11.9			0.00		
150 - 100	14.1			0.00		
Average	T- Value		T- Value Hole 3 = (T_3)			0.00

Result of Test: Subsurface Percolation Value = 0.00 (min/25 mm)

Comments:

3.3(b) Surface Percolation Test for Soil

Step 1: Test Hole Preparation

Percolation Test Hole	1	2	3
Depth from ground surface to top of hole (mm)	0	0	0
Depth from ground surface to base of hole (mm)	400	400	400
Depth of hole (mm)	400	400	400
Dimensions of hole [length x breadth (mm)]	300 x 300	300 x 300	300 x 300

Step 2: Pre-Soaking Test Holes

		1	2	3
Pre-soak start	Date	17-Aug-2021	17-Aug-2021	17-Aug-2021
	Time			
2nd pre-soak start	Date	17-Aug-2021	17-Aug-2021	17-Aug-2021
	Time			

Each hole should be pre-soaked twice before the test is carried out.

Step 3: Measuring T_{100}

Percolation Test Hole No.	1	2	3
Date of test	18-Aug-21	18-Aug-21	18-Aug-2021
Time filled to 400 mm	08:41	08:42	08:43
Time water level at 300 mm	09:46	09:51	09:50
Time to drop 100 mm (T_{100})	65.00	69.00	67.00
Average T_{100}			67.00

If T_{100} > 300 minutes then Surface Percolation value >90 – site unsuitable for discharge to ground
If $T_{100} \leq 210$ minutes then go to Step 4;
If T_{100} > 210 minutes then go to Step 5:

Step 4: Standard Method (where $T_{100} \leq 210$ minutes)

Percolation Test Hole	1			2			3		
Fill no.	Start Time (at 300 mm)	Finish Time (at 200 mm)	ΔT (min)	Start Time (at 300 mm)	Finish Time (at 200 mm)	ΔT (min)	Start Time (at 300 mm)	Finish Time (at 200 mm)	ΔT (min)
1	09:46	11:02	76.00	09:51	11:09	78.00	09:50	11:08	78.00
2	11:02	12:21	79.00	11:09	12:39	90.00	11:08	12:30	82.00
3	12:21	13:54	93.00	12:39	14:35	116.00	12:30	14:39	129.00
Average ΔT Value			82.67			94.67			96.33
	Average ΔT/4 = [Hole No.1]		20.67 (T_1)	Average ΔT/4 = [Hole No.2]		23.67 (T_2)	Average ΔT/4 = [Hole No.3]		24.08 (T_3)

Result of Test: Surface Percolation Value = 22.81 (min/25 mm)

Comments:

Soakage is within acceptable range

Step 5: Modified Method (where $T_{100} > 210$ minutes)

Percolation Test Hole No. 1

Fall of water in hole (mm)	Time Factor = T_f	Start Time hh:mm	Finish Time hh:mm	Time of fall (mins) = T_m	K_{ts} = T_f / T_m	T – Value = 4.45 / K_{ts}
300 - 250	8.1			0.00		
250 - 200	9.7			0.00		
200 - 150	11.9			0.00		
150 - 100	14.1			0.00		
Average	T- Value		T- Value Hole 1 = (T_1)			0.00

Percolation Test Hole No. 2

Fall of water in hole (mm)	Time Factor = T_f	Start Time hh:mm	Finish Time hh:mm	Time of fall (mins) = T_m	K_{ts} = T_f / T_m	T – Value = 4.45 / K_{ts}
300 - 250	8.1			0.00		
250 - 200	9.7			0.00		
200 - 150	11.9			0.00		
150 - 100	14.1			0.00		
Average	T- Value		T- Value Hole 2 = (T_2)			0.00

Percolation Test Hole No. 3

Fall of water in hole (mm)	Time Factor = T_f	Start Time hh:mm	Finish Time hh:mm	Time of fall (mins) = T_m	K_{ts} = T_f / T_m	T – Value = 4.45 / K_{ts}
300 - 250	8.1			0.00		
250 - 200	9.7			0.00		
200 - 150	11.9			0.00		
150 - 100	14.1			0.00		
Average	T- Value		T- Value Hole 3 = (T_2)			0.00

Result of Test: Surface Percolation Value = 0.00 (min/25 mm)

Comments:

4.0 CONCLUSION of SITE CHARACTERISATION

Integrate the information from the desk study and on-site assessment (i.e. visual assessment, trial hole and percolation tests) above and conclude the type of system(s) that is (are) appropriate. This information is also used to choose the optimum final disposal route of the treated wastewater.

Slope of proposed infiltration / treatment area: Flat

Are all minimum separation distances met? ✓

Depth of unsaturated soil and/or subsoil beneath invert of gravel (or drip tubing in the case of drip dispersal system) 0.90

Percolation test result: Surface: 23.00 Sub-surface: 27.00

Not Suitable for Development ☐ **Suitable for Development** ✓

Identify all suitable options		**Discharge Route**[1]
1. Septic tank system (septic tank and percolation area) **(Chapter 7)**	No	groundwater
2. Secondary Treatment System **(Chapters 8 and 9)** and soil polishing filter **(Section 10.1)**	Yes	
3. Tertiary Treatment System and Infiltration / treatment area **(Section 10.2)**	Yes	

5.0 SELECTED DWWTS

Propose to install: Tertiary Treatment System and Infiltration /treatment area

and discharge to: Ground Water

Invert level of the trench/bed gravel or drip tubing (m) 900.00

Site Specific Conditions (e.g. special works, site improvement works testing etc.

Install BAF P12 followed by Ecoflo Coconut filter with discharge to the existing soil polishing filter
This gives 900mm under base of the gravel.
PE = 9
Hydraulic load = 1350 litres
T= 20 - 40 - For infiltration pad allow 7.5m2/PE = 67.5m2
There are 108m2 already in place.
It is therefore recommended to upgrade the existing BAF P8 to a BAF P12, Polish the effluent in a Coconut filter and discharge the polished effluent to the existing percolation area - which has been installed in accordance with the planning under which it was granted - see report on installation by Mitchell Environmental
Ecoflo is underground - effluent is collected in a sump and pumped to the existing gravel bed

[1] A discharge of sewage effluent to "waters" (definition includes any or any part of any river, stream, lake, canal, reservoir, aquifer, pond, watercourse or other inland waters, whether natural or artificial) will require a licence under the Water Pollution Acts 1977-90. Refer to Section 2.4.

6.0 TREATMENT SYSTEM DETAILS

SYSTEM TYPE: Septic Tank Systems (Chapter 7)

Tank Capacity (m^3)		Percolation Area		Mounded Percolation Area	
		No. of Trenches		No. of Trenches	
		Length of Trenches (m)		Length of Trenches (m)	
		Invert Level (m)		Invert Level (m)	

SYSTEM TYPE: Secondary Treatment System (Chapters 8 and 9) and polishing filter (Section 10.1)

Secondary Treatment Systems receiving septic tank effluent (Chapter 8)

Media Type	Area (m^2)*	Depth of Filter	Invert Level
Sand/Soil			
Soil			
Constructed Wetland			
Other			

Packaged Secondary Treatment Systems receiving raw wastewater (Chapter 9)

Type: BAF

Capacity PE: 12

Sizing of Primary Compartment: 4.00 m^3

Polishing Filter*: (Section 10.1)

Surface Area (m^2)*

Option 1 - Direct Discharge
Surface area (m^2)

Option 2 - Pumped Discharge
Surface area (m^2)

Option 3 - Gravity Discharge
Trench length (m)

Option 4 - Low Pressure Pipe Distribution
Trench length (m)

Option 5 - Drip Dispersal
Surface area (m^2)

SYSTEM TYPE: Tertiary Treatment System and infiltration / treatment area (Section 10.2)

Identify purpose of tertiary treatment	Provide performance information demonstrating system will provide required treatment levels	Provide design information
Reduction of Organic loading allowing reduction in Footprint	EPA 2021	9PE 1350 litres load onto Ecoflo module Discharge to gravel base loaded at 7.5m2/PE - requires area of 67.5m2 - 108m2 already in place.

DISCHARGE ROUTE:

Groundwater	✓	Hydraulic Loading Rate * ($l/m^2.d$)	12.50	Surface area (m^2)	108.00
Surface Water **		Discharge Rate (m^3/hr)			

* Hydraulic loading rate is determined by the percolation rate of subsoil

** Water Pollution Act discharge licence required

6.0 TREATMENT SYSTEM DETAILS

QUALITY ASSURANCE:

Installation & Commissioning

Install system as specified - Supervised and Certified by Assessor

On-going Maintenance

Anual maintenance by independent maintenance technician

7.0 SITE ASSESSOR DETAILS

Company: Trinity Green

Prefix: Dr First Name: Eugene Surname: Bolton

Address: Clonfert Maynooth, Co. Kildare

Qualifications/Experience: PhD Microbiology, Site Suitability Assessment Course (FETAC)

Date of Report: 19-Aug-2021

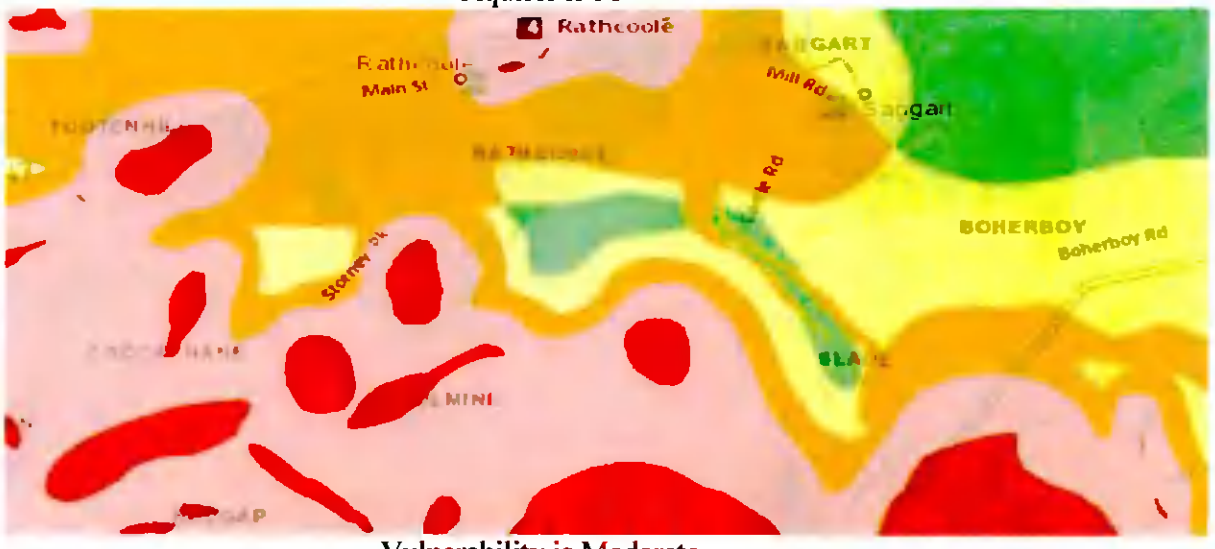
Phone: 0862434828 E-mail info@trinitygreen.ie

Indemnity Insurance Number: PI/C/12453/21/1

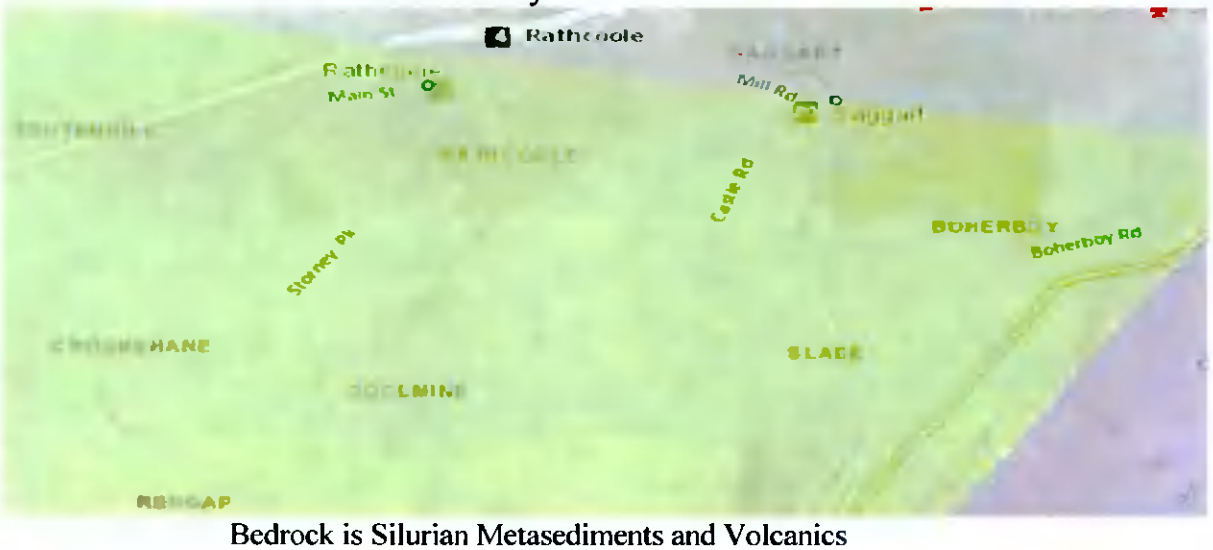
Signature: _____

Maps - Aquifer, Vulnerability, Bedrock

Aquifer is PI



Vulnerability is Moderate



Bedrock is Silurian Metasediments and Volcanics

Soil

Parent Material	TLPSsS
Parent Material Name	Till derived chiefly from Lower Palaeozoic rocks
Parent Material Description	Sandstone and shale till (Lower Palaeozoic)
Soil Group	Acid Brown Earths/ Brown Podzolics
IFS Soil Code	AminDW
IFS Soil Description	Derived from mainly non-calcareous parent materials
County	DUBLIN
Category	Deep well drained mineral (Mainly acidic)
Legend	AminDW - Deep well drained mineral (Mainly acidic)

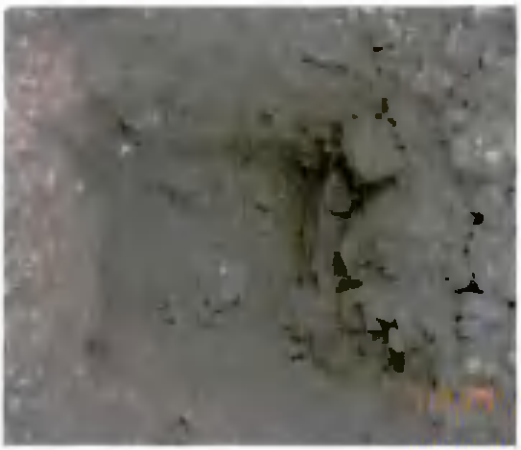
Subsoil

Lithology	Till derived from Lower Palaeozoic sandstones and shales
Quaternary Sediment	TLPSs

Photos

Row 1 - P1, P2

Row 2 - P3, T1

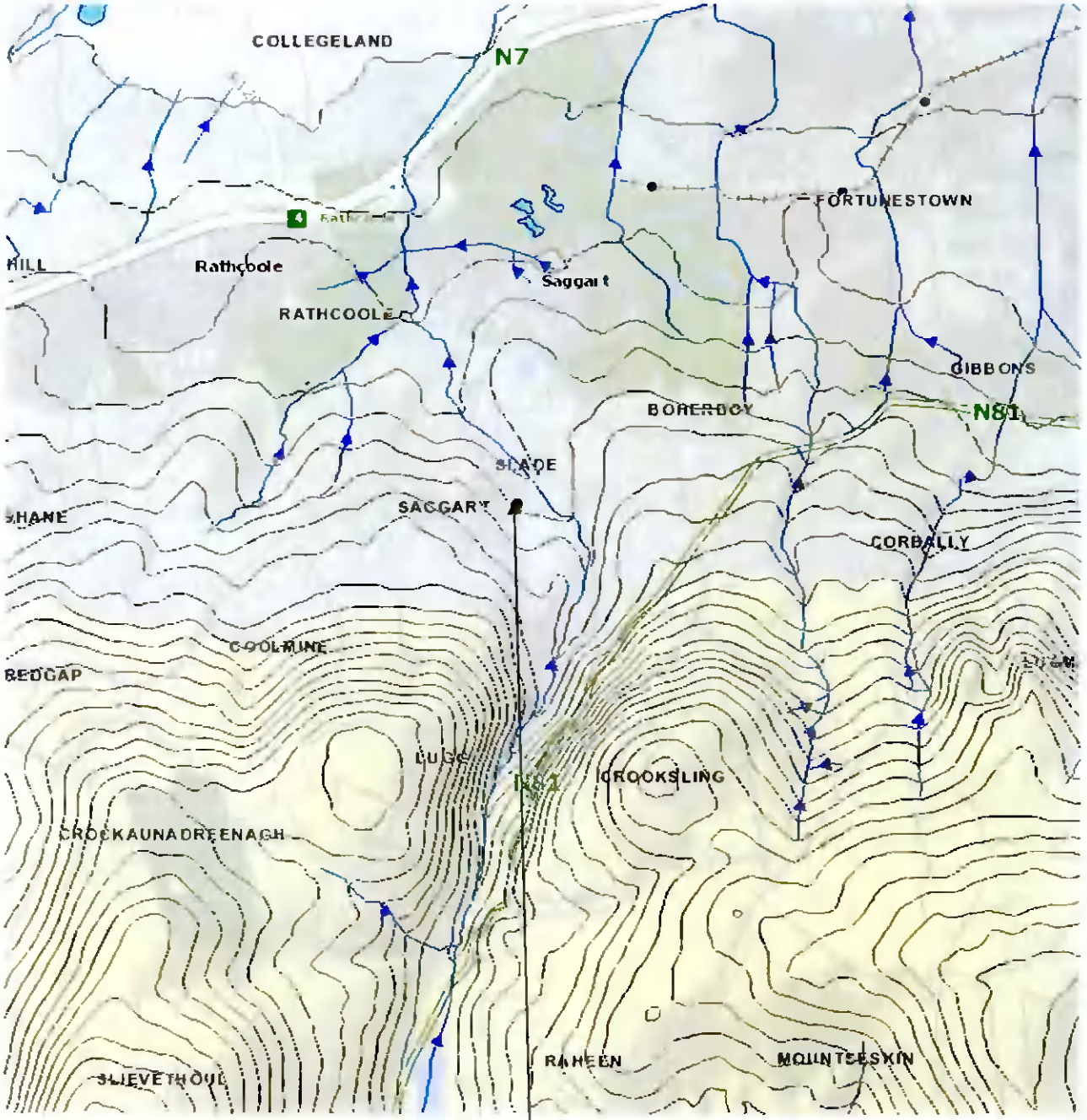


Row 3 - T2, T3

Trial Pit

Site overview

Site Location



Site

Mitchell Environmental

Pressurised Percolation Completion Report

J+M Building Services,

Slade,

Saggart,

Co. Kildare

Reference: 0598.

Mitchell Environmental

Killberry Navan
Co. Meath Ireland
M: +353 (0) 87 9609 975
T. +353 (0) 46 9055 642

VAT No. IE 672 66 17K
Company Reg. No.: 339 302

Site: Slade, Saggart, Co. Dublin.

Project Type: Pressurised Percolation Completion Report

Ref: 0598.

Date: 21-06-2017

1. Overview:

1.0 **Mitchell Environmental** were requested by J and M Building services to supply and install a new 105m2 Pressurised Percolation network at the above site.

Mitchell Environmental carried out the Following:

1. **Supply and Installation of Pressurised Percolation Pipework**
2. **Oversight and Labour of pipework installation**

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VAT No IE 672 66 17K
Company Reg No. 339 30z

1. Installed Pressurised Percolation Network

- 108m2 Pressurised Pipe Network- 8m of 50mm manifold with 7 number 32mm lines at 1.1m c/c, 11 metres long with 4mm orifices drilled every 500mm
- 105m2 of Geotextile Membrane
- 1 Flush Valves
- Connection from STP to Percolation

(see attached photos)

Pressurised Percolation Pipework installed

Dimensions:	**108m² (12m x 9m)**
Pressurised Pipework:	**108m2 (7number 32mm lines 11m long)**
Valve flush Taps	**1**
Geotextile Membrane (Permeable):	**108m² (provided and installed by client)**
Rising Main	**5m**
Aj/riser/lids	**1**

2. Oversight and Labour

- Connection of all pipework from STP outlet
- Completion Report on all work
-

3. Aggregate's

-15-25mm Pea Gravel. 40 tonnes (provided by client)

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Mitchell environmental are fully insured for Public Liability (€2,600,000) and Private Indemnity. (€1,300,000).
Mitchell Environmental Provide a 12 month maintenance on installed percolation network.

Our calculations are based on Information supplied to Mitchell Environmental by J&M Builders via Site Layout Map and in accordance with the EPA 2009 Code of Practice and USEPA.

Yours Sincerely,

Gordon Mitchell

Mitchell Environmental

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Co. Meath Ireland

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Photo 1 - 300mm of 15-25mm Pebble installed on 108m2 percolation area

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Photo 2 - Installing Pressurised Percolation Network

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Company Reg. No. 339 302

Photo 3 - Pressurised Percolation Network Installed

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VAT No.: IE 672 66 17K
Company Reg. No.: 339 302

Photo 4 - Flush Valve Taps

David Thompson, Slade, Saggart, Co. Dublin

O'Reilly Oakstown Environmental

O'Reilly Oakstown Environmental

Oakstown, Trim
Co. Meath
Tel: 046 - 943 - 1389
Fax: 046 - 943 - 7054

E: info@oreillyoakstown.com
W: www.oreillyoakstown.com
V.A.T Reg. No.: IE 6401624D
Company Reg. No.: 381624

OAKSTOWN
BAF System

Date: 24th August 2021

Applicant Name: David Thompson

Site Address: Slade, Saggart, Co. Dublin

Design Capacity:

Maximum number of residents:	09
No. of single bedrooms:	00
No. of double bedrooms:	07

A representative of *O'Reilly Oakstown Ltd* has assessed the Soil Test Report and confirms the suitability of their Oakstown BAF 12 PE Wastewater Treatment System to treat effluent being discharged from the above proposed dwelling based on the residential demands submitted to us above.

1. Waste Water Treatment System Design Details:

- Maximum Capacity Design Loadings:

Max No. of users	Flow Litres/day/person	Total Hydraulic Load	B0D5 (grams/day/person)	Total Organic Loading (grams/day)
12	150	1800 litres	60	720

- Maximum Daily Design Loadings as per client:

Total Organic Loading	0.54kg BOD/day
Total Hydraulic loading	1.35m³ /day

- Average treated effluent standard - see performance results on EN-12566-3 certification attached

BOD	8mg/litre
TSS	12mg/litre
Ammonia	13mg/litre

- Proposed system details: ► Oakstown BAF 12 P.E.

Volume of Total Plant	9.5m³
Volume of Primary Sedimentation Chambers	4.75m³
Volume of Secondary Aeration Chamber	2m³
Volume of Biomedia	1.3m³

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O'Reilly Oakstown Environmental

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V.A.T Reg. No.: IE 6401624D
Company Reg. No.: 381624

OAKSTOWN
BAF System

2. Wastewater Treatment system description:

The Oakstown BAF 12 PE is designed to provide proven, cost effective primary and secondary wastewater treatment in robust steel reinforced concrete tanks.
The primary sedimentation chambers have substantial capacity (4.75m³) to allow anaerobic digestion to occur naturally while letting sludge settle on the tank floor.
Once primary treatment has taken place the effluent is further degraded in the aeration chamber where oxygen enriched wastewater provides ideal conditions for aerobic bacteria to thrive.
Before pumping to the percolation area the clear water is left to further settle in the clarifier chamber to eliminate any remaining settle able solids.

3. Guarantee and warrantees:

O'Reilly Oakstown provide a 12 month maintenance service contract on all systems from date of first occupation. We provide a 24 month warranty on all parts.

4. Percolation:

The percolation area designed must conform to the requirements of Chapters 8 & 10, Table 8.2 and / or Table 10.4 of the EPA Code of Practice 2021 Wastewater Treatment and Disposal System serving single houses.

The percolation area requirements are as follows:
Groundwater Protection Response: R1.
T-value: 26.56 as per Site Characterisation Form.
P-value: 22.81 as per Site Characterisation Form.
Depth from ground surface to water table: None Encountered BGL.
Depth from ground surface to bed rock: None Encountered BGL.
Depth from ground surface to mottling: 1.2m BGL.
Tertiary Treatment is achieved through an Ecoflo coco filter module.
Area required for disposal of treated wastewater from Ecoflo coco filter module: 108m².
►See Site Characterisation report for percolation area details.

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5. Client Responsibilities unless included in our quotation:

- Excavation and backfill.
- Construction of the percolation / polishing filter as recommended by the site engineer on the Site Characterisation report and/or drawing.
- Provision of access for delivery by hi-ab truck to within 3 metres of the excavation.
- Provision of a power ducting from the tanks to the house/garage.
- Mounting and connection of control panel to mains power in the house/garage.

6. Operation and Maintenance:

The client is responsible for the operation and maintenance of the wastewater treatment system in accordance with the owner's manual supplied by O'Reilly Oakstown.

Please do not hesitate to contact us if there are any further queries.

Yours sincerely

Sarah O'Connor

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