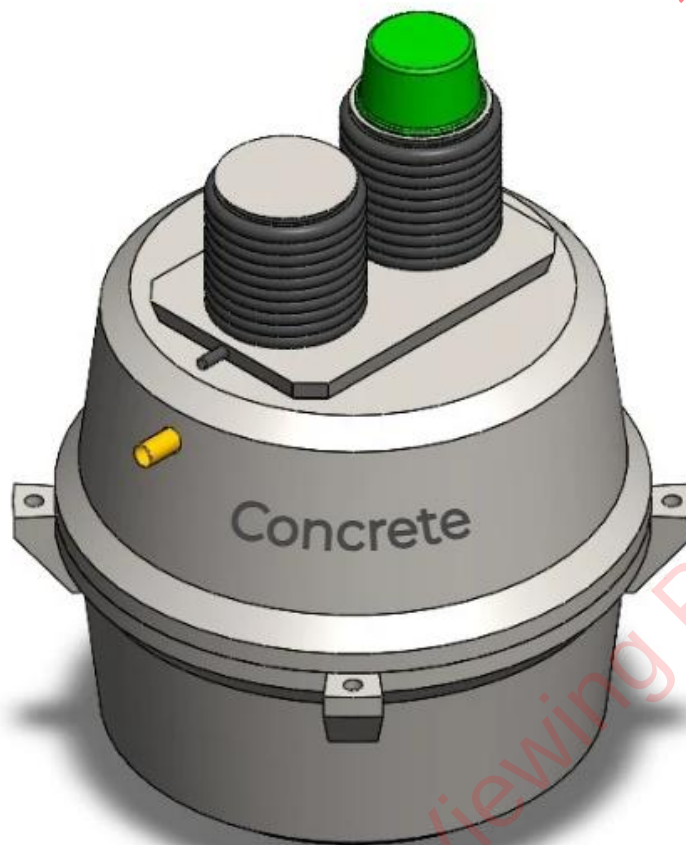




Site Specific Proposal for Shanoon Resources
Eurotank Wastewater Treatment System
Pump Discharge Pipe Network

Commissioned by: *Eugene Bolten*

Date	Apr 30, 2026
Name	Shanoon Resources
Site Location Address	Galmoy Mines, Castletown Co.Kilkenny,

Thank you for choosing a Eurotank Wastewater Treatment system. We have noted the following from the site form you sent;-

Type of Infiltration Area	LPPN
PE	16
EPA Multiplier Percolation Value	15 21-40
Percolation Value Surface (mm/25min)	23
Percolation Value SubSurface (mm/25min)	22
Level of Gravel Bed (mm)	-500
Watertable/Mottling (m)	>2.1
Bedrock (m)	>2.1

We propose our; -

EuroTank BAF2 P16 EN12566/3 SR66 Certified Secondary Wastewater Treatment system with Soil polishing filter, pump discharge pipe network of **240m²** . We recommended to use 2 alternating pumps each feeding an area of 120m2 in order to ensure even distribution over the area.

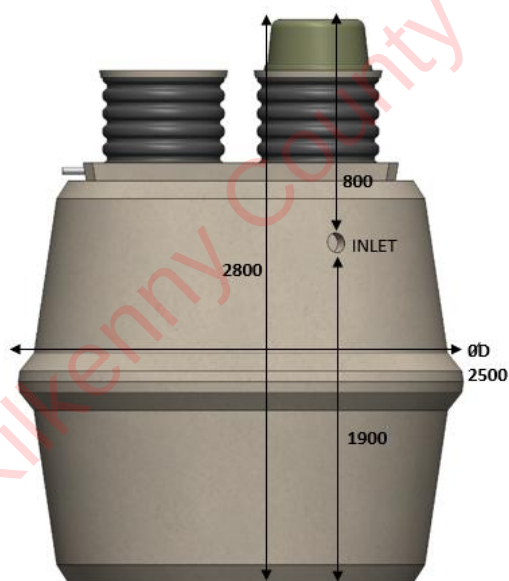
As Follows;-

BAF2 CONCRETE

Description, EUROTANK BAF is a very strong CONCRETE, Economical, Efficient, Wastewater/Sewage Treatment System for use in domestic housing and commercial applications.

The system is En12566/3 & SR66 Certified as listed on Pia Gmbh list for Irish Use. Eurotank BAF uses Loose Bed Technology in a 3 stage process as a very simple method of treatment with great effluent quality. The range comprises various tank sizes, comes fully built and delivered with many installation advantages. Full after-sales nationwide service

Population Equivalent PE	4 TO 300 Tank configurations for 5, 6, 7, 13, 14, 29 ,35, 50 PE up to 300
Certification	By PIA Gmbh To En12566/3 SR66 as listed for Irish use. (ATTACHED)
Effluent Quality As per PIA Test	BOD ₅ - 11 mg/lit <20mg/l required SS - 12 mg/lit <30mg/l required NH ₄ -N - 6.2mg/lit <20mg/l required <i>Exceeding Irish Requirement</i>
Electrical-Consumption -*Cable -*Protection *not included	1.3 kWh/D c €167/Year 2.5mm ² x 3 core SWA (up to 100m run) RCD 16 amp,230v ,30ma ,Bs 4293 standard
Concrete	45N, reinforced
Alarm	Audible for pump failure
Outlet	Gravity or Pumped
Optional Extra`s	Risers – 600mm Dbl wall Coripipe Pump stations Integrated pumped distribution piping



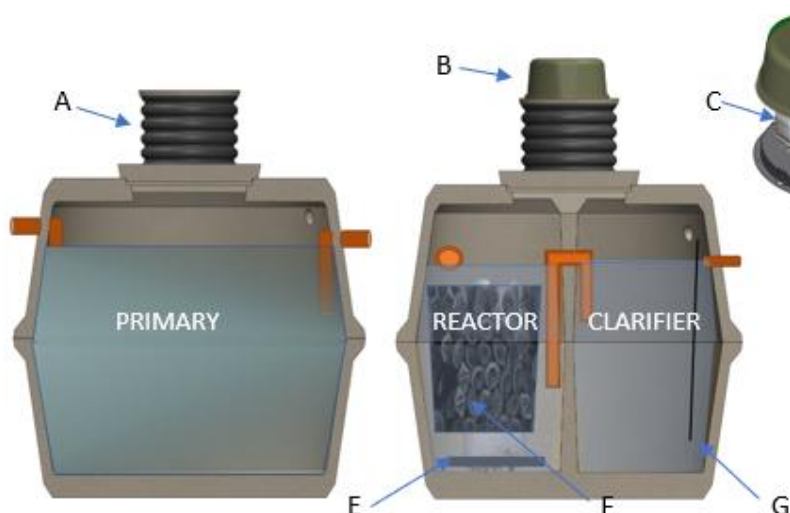
Internal Treatment Process & Chamber Layout

The unit consists of 3 chambers.

CHAMBER 1 –Primary settlement tank/chamber, receives & settles raw sewage

CHAMBER 2 – Reactor Chamber, Biological treatment by use of aeration and high specification media

CHAMBER 3 – Clarifier, Any remaining suspended solids are allowed to settle & are transferred by airlift to primary chamber to aid denitrification. Final effluent leaves chamber 3 via gravity or optional effluent pump.



- A** Pvc Risers, sealed no leaks, Ground Adjustable
B: Enclosure, Aesthetic control unit housing
C: ECO Blower unit
D: Control unit with built in Mcb's & alarm
E: Sludge return, solids removal & activated sludge
F: Media Bed
G: Aeration Diffusers

Certification –
EN12566/3 to NSAI
STANDARD SR66.

TREATMENT PERFORMANCE RESULTS

TPW Systems Ltd
 Ballyheige, Screen, Co. Wexford, Ireland

EN 12566-3

Results corresponding to EN 12566-3 and S.R. 66

PIA2020-SR66-2007-1023

EUROTANK BAF2 (range with 4 models)
 Biological aerated filter

Nominal organic daily load	0.29 kg/d	
Nominal hydraulic daily load	0.9 m³/d	
Material	Concrete	
Watertightness	Pass	
Structural behaviour (Crushing resistance)	Pass (also wet conditions)	
Durability	Pass	
Treatment efficiency (nominal sequences)		
	COD	92.9 %
	BOD ₅	96.4 %
	NH ₄ -N	84.3 %
	SS	96.9 %
Number of desludging	Not more than once	
Electrical consumption	1.10 kWh/d	

Performance tested by:

PIA – Prüfinstitut für Abwassertechnik GmbH
 (PIA GmbH)
 Hergenrather Weg 30
 52074 Aachen, Germany

This document replaces neither the declaration of performance nor the CE marking.

Notified Body
 No.: 1739

Certified according to
 ISO 9001:2015

PIA - Sustainable Certification
 Oversticht
 R. W. W. W.
 geprüft - tested - teste

Verschilt / Wermter July 2020

Infiltration / Percolation Area – Shanoon Resources

The following is a typical specification and layout for an infiltration system suitable for this application and site. Design sizing is carried out in accordance with **Option 2, Section 10.1 and Table 10.1 (Options 1 & 2) of the EPA Code of Practice 2021.**

Soil Polishing Filter Calculation

Table 10.1: Infiltration/treatment area and trench length design for tertiary treatment, per PE

Percolation values (PVs)	Pumped or underlying gravity discharge (Options 1 and 2)	Gravity discharge into 500 mm wide trenches (Option 3)	Low-pressure pipe distribution into 300 mm wide trenches (Option 4)	Drip dispersal system (Option 5)	Tertiary infiltration area (Option 6)
	Area required per person (m ²)	Trench length required per person (m)	Trench length required per person (m)	Area required per person (m ²)	Area required per person (m ²)
3 ≤ PV ≤ 20	≥7.5	≥6	≥6	≥5	≥3.75
21 < PV ≤ 40	≥15	≥12	≥12	≥14	≥7.5
41 < PV ≤ 50	≥30	≥17	≥17	≥16	≥15
51 < PV ≤ 75	≥50	≥19	≥19	≥22	≥25
76 < PV ≤ 90	–	–	≥28	≥34	–
91 < PV ≤ 120	–	–	–	≥54	–

Item	Value
PE	16
Calculation	16 × 15 21-40
Area Required	240m ²

Additional information on site specifically designed integrated pump discharge pipe network;-

Treated wastewater or effluent from the proposed EuroTank BAF is pumped to the infiltration area via a rising main pipe to the main manifold of the Low pressure pipe network LPPN, which evenly distributes the effluent over the entire area in a bed of stone. The soil polishing filter may be at ground level or raised depending on the findings of the percolation test **but must have a minimum of 900mm of un-saturated free draining soil.**

Distribution gravel must be, 25mm clean crushed or pebble with a minimum of 250mm depth

***The pump system in Our EuroTank BAF and LPPN will be matched as an integrated system, with all site-specific parameters, such as elevations, rising main length etc. calculated before installation. Full design report Available on request.**

Key Features

Pressure equalisation features inc.
Reducing pipe sizing, lowered manifold
To ensure quick and even discharge.



Unique Orifice Shields, Protecting
Orifices from stone blockage,
Biomat build up. Aiding oxygenation
& bioreaction.

Maintenance features
Individual lateral flush out
valves housed in valve boxes
For ease of access



Important Notes

- *This proposal is based on information from the site characterisation form supplied by the client for this site only.*
- *Final specification should be passed by Site Engineer before installation. Installation should also be supervised by suitably qualified Engineer and in accordance with installation instructions supplied with the unit.*
- *Installation should be in compliance with Epa Code of Practice 2021 guidelines with particular attention to separation distances to wells etc, with DoEHLG Building Regulations Part H and Planning Permission Conditions.*
- *Maintenance agreement is available after commissioning of the unit.*

Thank you for using the TPW Systems site-specific report as part of your project assessment. We appreciate your confidence in our solutions and in specifying **Eurotank** and the wider **TPW Systems** product range within your design.

TPW Systems Ltd offers a complete supply and installation service, ensuring that all products are delivered and installed to the highest standards.

Please be assured of our full co-operation throughout your project. If you require any additional details, product information, or further support, we are always here to help.

Kind Regards

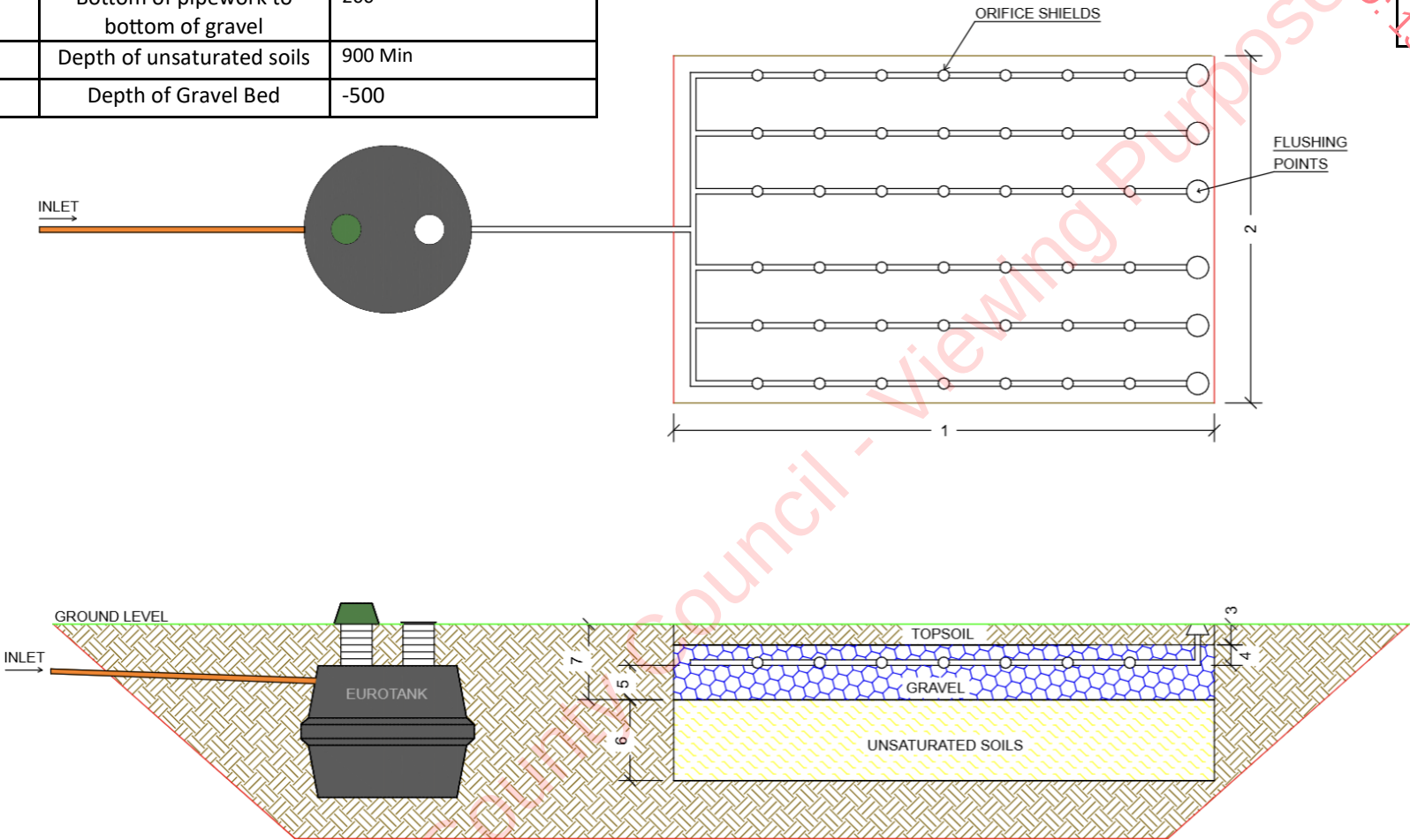
Cian Boggan,
TpW Systems Ltd

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E: cian@tpwsystems.ie
W: www.tpwsystems.ie



Dimension	Description	Length (mm)
1	Length of Percolation	24000
2	Width of Percolation	10000
3	Depth of Topsoil	150 Min
4	Bottom of pipework to top of gravel	100
5	Bottom of pipework to bottom of gravel	200
6	Depth of unsaturated soils	900 Min
7	Depth of Gravel Bed	-500

Date	Apr 30, 2026
Name	Shanoon Resources
Site	Galmoy Mines, Castletown Co.Kilkenny,
Title	Eurotank Baf2 – Low Pressure Piping Cross Section
	



Percolation Area Seperation Distances

- 10m min from dwelling
- 3m min from site boundaries
- 4m min from roads

****As per table 6.2 EPA COP 2021****

Percolation Cross Section Description

150mm min. finishing topsoils laid on geotextile layer laid on 300mm min. gravel (200mm below the pipes & 100mm from bottom of pipes to top of gravel) on min 900mm permeable unsaturated soils.