

Visual Soakaway Design 4.0

Project Details

Project Title: NEW HOUSE ON LAND AT MEIKLE KIRKHILL FARM, MAUD, AB42 5PG

Project Number: L2003

Designer: JAMES G IRONSIDE LIMITED

Global Variables

Impermeable Area :- 312 m²

Soil Infiltration Rate :- 0.0000083 m/sec

Storm Duration :- 60 minutes

Rainfall :- 0.016756 metres

Void Ratio :- 0.3

Volumetric Runoff Coeff :- 1.00

Factor of Safety :- 1

Ring soakaway failure depth :- 4 metres

Half Empty failure time (hrs) :- 24 hours

* Base has NOT been included in design of trench soakaway *

* Base has NOT been included in design of ring soakaway *

* Granular surround has NOT been included in ring soakaway design *

Trench Soakaway

Length :- 6.0 metres

Width :- 2.28 metres

Depth :- 1.2 metres

Half empty time :- 8.31 hours (decimal)

Surface area of exfiltration :- 9.93 metres squared

Precast Concrete Ring Soakaway

| Ring Size (mm) | Depth (metres) | Half Empty Time (hours) |
|----------------|----------------|-------------------------|
| 900 | Fail | Fail |
| 1050 | Fail | Fail |
| 1200 | Fail | Fail |
| 1350 | 3.49 | 11.29 |
| 1500 | 2.84 | 12.55 |
| 1800 | 1.98 | 15.06 |
| 2100 | 1.46 | 17.57 |
| 2400 | 1.12 | 20.08 |
| 2700 | 0.89 | 22.59 |

Variable Ring Soakaway Design

| Diameter (mm) | Depth (metres) | Half Empty Time (hours) |
|---------------|----------------|-------------------------|
| 1350 | 3.49 | 11.29 |