

## RBC Installation at Gulladuff, Ireland



### Application

RBC with an up-front Septic tank Treatment Process

### Details

Two 3.6 Meter Diameter RBCs, along with Two No 75 M3 Septic Tanks and Humus Settlement Tanks were installed for the village of Gulladuff, Lavey, Co. Derry.

The New Plant has the capacity to treat a Population Equivalent of 889 Persons.

The Up-front Septic Tanks served as Settlement, Sludge Storage, and Sludge Draw-off functions. Humus Sludge was returned from the Jacopa Final Tanks, to the Inlet of the Septic Tank encouraging better Settlement of Solids.

During construction, Flows were Pumped through Jacopa SAF units, and Humus Tank, temporarily installed on Concrete Slabs. The Plant was in Service for 6 Months, meeting Discharge Consent constraints at all Times.

### Findings

After Construction the Plant was subjected to a 28 Day Performance Trial period.

The Plant produced Average Final Effluent values of 6:11:1 (BOD:SS:NH3) at PE Loading of 735, greatly exceeding the Consent Standard, without the need for Tertiary Treatment.

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Parameters	28 Day Test	Units
PE	735	
BOD5	44	kg/d
SS	55	kg/d
NH3-N	6	kg/d
Area of Media	8000	M2

Average Results over 28 Days	28 Day Test	Units
BOD5	6.02	mg/l
SS	11	mg/l
NH3-N	<1.0	mg/l

Local Discharge Standard	28 Day Test	Units
BOD5	30	mg/l
SS	50	mg/l
NH3-N	10	mg/l