

Creative Commons License



Sandec
Sanitation, Water and
Solid Waste for Development

This document is open content and licensed under the Creative Commons Attribution Works 4.0 International License.

To view a copy of this license, visit <http://creativecommons.org/licenses/by/4.0>



You are free to:



Share – Copy and redistribute the material in any medium or format


Remix – Remix, transform, and build upon the material for any purpose, even commercially

Under the following conditions:

Attribution – You must give appropriate credit to CAWST and Eawag-Sandec, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests that CAWST and Eawag-Sandec endorses you or your use. Please include our website: www.cawst.org and www.sandec.ch.

CAWST and Eawag-Sandec will produce updated versions of this document periodically. For this reason, we do not recommend hosting this document to download from your website.

CAWST and Eawag-Sandec its directors, employees, contractors, and volunteers do not assume any responsibility for, and make no warranty with respect to, the results that may be obtained from the use of the information provided.



This presentation is used with Lesson Plan Faecal
Sludge Quantification and Characterization
in the Introduction to Faecal Sludge Management
Trainer Manual

Available at www.cawst.org/resources and www.sandec.ch

Faecal Sludge Quantification and Characterization

2016 | MAY



Sandec
Sanitation, Water and
Solid Waste for Development

Learning Outcomes

- Identify the characteristics of excreta and faecal sludge.
- Explain the difference between faecal sludge and wastewater characteristics.
- Explain the variability of faecal sludge characteristics.
- Discuss the difficulties in reliable faecal sludge quantification and characterization.

Household Septic Tank

Sample Nr. 152



Chemical parameters

pH	7.0
COD in mg/L	1,047.0
CODsol in mg/L	185.7
TN in mg/L	125.8
NH4-N in mg/L	72.6
Nitrate in mg/L	0.6
TP in mg/L	16.3
PO4-P in mg/L	14.0

Physical parameters

TSS in mg/L	964.8
VSS in mg/L	540.6
TS in mg/L	1,358.5
VS in mg/L	884.6

System:

System information





System type	Septic Tank
How much emptied?	33 %
System Volume	20 m ³
Truck full?	Yes
Origin	Institutional/Commercial /Industrial
System users	70
WW Character	Toilet
Last emptied?	Monthly
Water Connection	Yes
Solid Waste	No

Alternative parameters (1 weak - 3 strong)



Foam	1
Smell	1
Viscosity	2

Comments

Restaurant Pit Latrine

Sample Nr. 23	Chemical parameters	
	pH	7.5
	COD in mg/L	6,740.0
	CODsol in mg/L	1,489.3
	TN in mg/L	494.5
	NH4-N in mg/L	223.6
	Nitrate in mg/L	2.0
	TP in mg/L	65.4
	PO4-P in mg/L	140.0
	Physical parameters	
	TSS in mg/L	4,691.6
VSS in mg/L	3,391.6	
TS in mg/L	-	
VS in mg/L	-	
System:	System information	
	System type	Latrine Pit
	How much emptied?	100 %
	System Volume	10 m ³
	Truck full?	Yes
	Origin	Restaurant/Hotel
	System users	250
	WW Character	Toilet
	Last emptied?	10 years ago
	Water Connection	Yes
	Solid Waste	No
Alternative parameters (1 weak - 3 strong)		
Foam	1	
Smell	1	
Viscosity	1	
Comments		

Multiple Household Septic Tank

Sample Nr. 34		Chemical parameters		
	pH		8.08	
	COD in mg/L		20,918.3	
	CODsol in mg/L		1,457.7	
	TN in mg/L		1,321.7	
	NH4-N in mg/L		682.0	
	Nitrate in mg/L		6.1	
	TP in mg/L		337.5	
	PO4-P in mg/L		51.3	
	Physical parameters			
	TSS in mg/L		13,269.7	
VSS in mg/L		10,371.6		
TS in mg/L		-		
VS in mg/L		-		
System:		System information		
	System type		Septic Tank	
	How much emptied?		20 %	
	System Volume		23 m ³	
	Truck full?		Yes	
	Origin		Multiple Household	
	System users		60	
	WW Character		Toilet, Bathing, Washing	
	Last emptied?		7 months ago	
	Water Connection		No	
	Solid Waste		No	
	Alternative parameters (1 weak - 3 strong)			
	Foam		2	
	Smell		1	
	Viscosity		2	
	Comments			

How we can support you!

Contact CAWST and Eawag-Sandec for support on using and adapting our education and training resources for your work.



Upper 424 Aviation Rd NE,
Calgary AB T2E 8H6, Canada



+ 1 403 243 3285



support@cawst.org



www.cawst.org

Visit www.cawst.org/resources and www.sandec.ch for:

- Latest updates to this document
- Other workshop & training related resources



Überlandstrasse 133
CH-8600 Dübendorf, Switzerland



+41 (0)58 765 55 11



info@sandec.ch



www.sandec.ch



Sandec
Sanitation, Water and
Solid Waste for Development