

System Performance Data - Kanakuk Youth Camp

In addition, here are some quick system facts and a legend for the wastewater characteristics.

Quick Facts

Building / Facilities: **Youth Camp - Summer Only**
 Start-up: **Mar-01**
 Location: **Durango, CO**
 Designer / Engineer: **Church & Associates**
 Contractor / Installer: **Mountain States Constructors**
 Regulating Authority: **State of Colorado**
 Design Flows: **20,000**
 Grease Tank: **1,500**
 Septic Tank: **4,000 Gallons**
 Recirculation Tank: **15,000 Gallons**
 Filters (sq ft): **4000**
 Actual Loading Rate (gpd/ft²): **1.2**
 System Configuration: **Mode 1**
 Discharge: **Surface discharge to Los Pinos River**

Legend

BOD5: Biochemical Oxygen Demand (5 day, uninhibited)
 cBOD5: Carbonaceous Biochemical Oxygen Demand (5 day, inhibited)
 TSS: Total Suspended Solids
 TKN: Total Kjeldahl-Nitrogen (Organic and Ammonia Nitrogen)
 NH3-n: Ammonia-Nitrogen
 NO2-n: Nitrite-Nitrogen
 NO3-n: Nitrate-Nitrogen
 NOx: Nitrite + Nitrate
 TN: Total Nitrogen = (TKN) + (NO3-n) + (NO2-n)
 DO: Dissolved Oxygen
 pH: Measure of acidity, 7 is neutral. Wastewater w/value <5 or >9 are difficult to treat biologically
 Alk: Alkalinity
 TP: Total Phosphorus
 G&O: Grease and Oil
 FC: Fecal Coliform
 reported as less than

Notes:

Septic Tank Effluent													
Date	GPD	BOD5	TSS	TKN	NH3	NO3	NOx	TN	pH	Alk	TP	G&O	FC
4/1/2001	600	30	38										
5/1/2001	600	160	220										
6/1/2001	6900	195	125										
7/1/2001	9700	240	140										
8/1/2001	6300	210	83										
5/1/2002	300	290	320										
6/1/2002	5500	450	170										
7/1/2002	9000	450	300										
8/1/2002	4000	160	95										
5/1/2003	2200	200	120										
6/1/2003	7600	450	280										
7/1/2003	9600	370	260										
8/1/2003	4300	450	250										
9/1/2003	300	130	140										
5/1/2004	2700	450	95										
6/1/2004	7400	140	230										
7/1/2004	8700	260	180										
8/1/2004	3600	170	100										
AVE:	4961	267	175										

Filtrate Effluent											
BOD5	TSS	TKN	NH3	NO3	NOx	TN	pH	Alk	TP	G&O	FC
2	10						7.75				2
1	10		1				7.4				2
3	10		1.4				6.8				2
6	10		1				6.8				2
3	10		2.1				6.8				2
1	10		1				7.1				2
3	11		1				6.9				2
5	10		1				7				2
5	10		1				6.8				2
6	11		4.6				7.1				2
12	10		4.8				6.9				2
5	10		0.47				6.9				2
2	10		4.6				6.9				2
3	13		1.4				6.7				2
5	10		0.05				6.9				2
1	10		0.22				6.9				2
2	10		0.05				7				2
2	10		0.95				6.5				2
4	10		1.6				7.0				