FACT SHEET

Water Testing

Drinking water

Total coliforms/Ecoli Presence-Absence Test 8040

Method : Enzyme substrate - Chromogenic Standard Methods 9223

This test employs the IDEXX, Inc Colilert ™ system, allowing the detection of Total Coliforms at one colony-forming unit (1 CFU equivalent) by hydrolysis of ortho-nitrophenyl-ß-D-galactoside and Escherichia coli by hydrolysis of 4-methyl-umbelliferyl-ß-D-glucuronide. This is the most commonly used test for determination of the potability of drinking water, whether collected from a water system or a well.

Reference Range: Total Coliforms and E. coli tests should be negative for a water sample to be considered a safe drinking water source.

Turnaround time: I day

Recreational and Ocean Water

Total coliforms/Ecoli MPN 8025

Method : Enzyme substrate - Chromogenic Standard Methods 9223

This test employs the IDEXX, Inc Colilert ™ Quantitray system, allowing the detection and enumeration of Total Coliforms by hydrolysis of ortho-nitrophenyl-ß-D-galactoside and Eschericia coli by hydrolysis of 4-methyl-umbelliferyl-ß-D-glucuronide. Enumeration results in the reporting of a Most Probable Number (MPN) and is commonly used to determine the microbial load of both the total coliforms and E coli. This is the most commonly used test for determination of safety of recreational water.

Reference Range: Total Coliforms should be less than 10,000 MPN per 100mL for single sample and less than 1,000 for a 30-day sampling period; E. coli should be less than 400 MPN per 100mL for a single sample and less than 200 for a 30-day sampling period.

Turnaround time: I day

Enterococci MPN 8010

Method : Defined substrate hydrolysis- Chromogenic Standard Methods 9230

This test employs the IDEXX, Inc Enterolert ™ Quantitray system, allowing the detection and enumeration of Enterococci by hydrolysis of 4-methyl-umbelliferyl glucoside. Enumeration results in the reporting of a Most Probable Number (MPN) and is commonly used to determine the microbial load of of enterococci, an enteric bacterium that is easily and accurately detected and enumerated in marine and brackish waters.

Reference Range: Enterococci MPN should be less than 104 MPN per 100mL for single sample and less than 35 for a 30-day sampling period for recreational waters to be considered safe for recreational activities such as bathing.

Turnaround time: I day

San Luis Obispo County Public Health Laboratory

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Laboratory Hours: Monday – Friday, 8:00am – 5:00pm

Water Testing

Waste Water

Total and Fecal Coliforms Waste Water 8400

Method : Multiple Tube Fermentation Test (MTF) Standard Methods 9221C, E

This test employs the standard method using 15-tube Lauryl Tryptose broth with production of gas from glucose. Enumeration is conducted by a Most Probable Number (MPN) table and is commonly used to determine the total coliform count. Samples of positive LTB tubes are transferred to BGBB medium tubes incubated at 35 C for 24-48 hrs to obtain a total coliform MPN and EC medium incubated at 44.5 C for 24 hrs to obtain a fecal colifomr MPN
Reference Range: Waste water effluents are subject to permit requirements .
Turnaround time: 3 days

Fecal Coliforms MTF 8020

Method : Multiple Tube Fermentation Test (MTF) Standard Methods 9221E

This test employs the standard method using 15-tube Lauryl Tryptose broth with production of gas from glucose. Enumeration is conducted by a Most Probable Number (MPN) table and is commonly used to determine the fecal coliform count. Samples of positive LTB tubes are transferred to EC medium tubes incubated at 44.5 C for 24 hrs to obtain a fecal coliform MPN
Reference Range: Waste water effluents are subject to permit requirements .
Turnaround time: 3 days

Shellfish Growing waters

Fecal Coliforms MTF 8020

Method : Multiple Tube Fermentation Test (MTF) Standard Methods 9221E

This test employs the standard method using 15-tube Lauryl Tryptose broth with production of gas from glucose. Enumeration is conducted by a Most Probable Number (MPN) table and is commonly used to determine the fecal coliform count. Samples of positive LTB tubes are transferred to EC medium tubes incubated at 44.5 C for 24 hrs to obtain a fecal coliform MPN
Reference Range: Shellfish growing waters have varying limits based on location .
Turnaround time: 3 days

Fecal Coliforms A-1 8910

Method : Multiple Tube Fermentation Test (MTF) Standard Methods 9221E

This test employs the standard method using 15-tube A-1 medium with production of gas from glucose. Enumeration is conducted by a Most Probable Number (MPN) table and is commonly used to determine the fecal coliform count. Sample tubes are incubated at 35C for 3hr ± 0.5hr then at 44.5 C for 21± 2 hrs incubation.
Reference Range: Shellfish growing waters have varying limits based on location .

Water Testing

Turnaround time: 1 day