

USDA/ARS Methods Catalog

MethodID	CSWO WO2.0MEC		
Method Name	Determination of Orthophosphate in Waters by Flow Injection Analysis Colorimetry		
Media	water		
Method Type	Laboratory	Method Subcategory	Inorganic
Method Source	Lachat Instruments		
Source Citation	Lachat Instruments, QuikChem method 10-115-01-1-A (Revision 28 Aug. 2000)		
Method Summary	Analyzed outside by MEC: Ammonium molybdate plus potassium antimony tartrate under acidic conditions in the presence of phosphate (PO ₄ ³⁻) form a complex that is reduced with ascorbic acid. This results in a blue complex that absorbs at 880 nm; as described in QuikChem method 10-115-01-1-A		
Instrument	Automated Spectrophotometer		
Detection Limit Type			
DLNote	Any value below the detection limit is reported as 0.0.		
Scope - Application	This method is applicable to orthophosphate determination in drinking, ground, waste and surface water.		
Concentration Range		Concentration Units	mg/L
Interferences	High silicate concentrations can produce a positive interference and high ferric iron can yield a negative interference;		
Precision Notes			
QA Requirements	daily calibration; check standard every 15 samples; matrix spikes (90-110% recovery); duplicates within 10% RPD		
Sampling Handling	Samples are collected in glass or plastic solvent rinsed bottles and stored at 4° C.		
Max Holding Time	28 days		
Sample Prep Methods			
Link To Full Method	This method is proprietary. www.lachatinstruments.com		
Method Contact	USDA/ARS Bettina.Coggeshall@ars.usda.gov		

Analytes using this Method:

USDA/ARS Methods Catalog

Analyte: Orthophosphate

MethodID: CSWQ_WQ2.0MEC

Detection level: 0.005 mg/L

	Instrument	Matrix
Accuracy		
Precision		

False Positive Value:

False Positive Value:

Accuracy/Precision Concentration Used:
