



## NITRATE-N/PHOSPHATE KIT

LOW RANGE COMPARATOR

CODE 3119-01

QUANTITY	CONTENTS	CODE
120 mL	*Mixed Acid Reagent	*V-6278-J
5 g	*Nitrate Reducing Reagent	*V-6279-C
2 x 30 mL	*Phosphate Acid Reagent	*V-6282-G
5 g	Phosphate Reducing Reagent	V-6283-C
3	Test Tubes, 2.5-5-10 mL, glass, w/2 caps	0844
2	Spoons, 0.1 g, plastic	0699
1	Pipet, 1 mL, plastic	0354
1	Cap, Pull 'n' Push	28571
1	Low Range Comparator Viewer	1102
1	Nitrate-N & Phosphate Low Range Comparator Bar	3120-01

\*WARNING: Reagents marked with an \* are considered to be potential health hazards. To view or print a Safety Data Sheet (SDS) for these reagents go to [www.lamotte.com](http://www.lamotte.com). Search for the four digit reagent code number listed on the reagent label, in the contents list or in the test procedures. Omit any letter that follows or precedes the four digit code number. For example, if the code is 4450WT-H, search 4450. To obtain a printed copy, contact LaMotte by email, phone or fax.

Emergency information for all LaMotte reagents is available from Chem-Tel: (US, 1-800-255-3924) (International, call collect, 813-248-0585).

To order individual reagents or test kit components, use the specified code number.

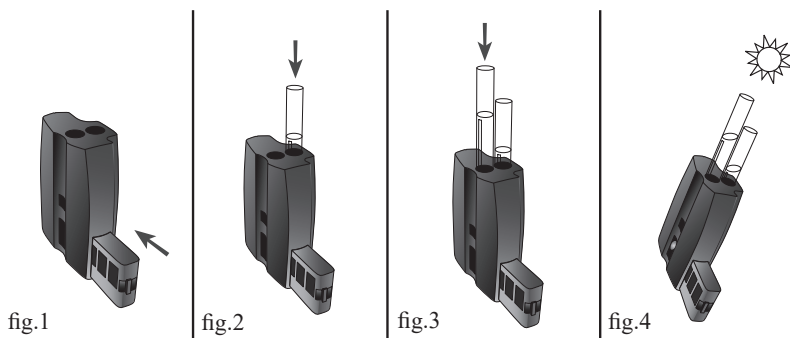
NOTE: Place Push 'n' Pull Cap (28571) on \*Mixed Acid Reagent (V-6278). Save Push 'n' Pull Cap for reagent refills.

Warning! This set contains chemicals that may be harmful if misused. Read cautions on individual containers carefully. Not to be used by children except under adult supervision.

## USE OF THE LOW RANGE COMPARATOR

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The Low Range Comparator allows extremely faint colors to be matched to color standards by viewing the reaction down the length of the tube increasing the path length by ten times compared to comparators that view the reaction across the diameter of the tube.



1. Slide the Low Range Comparator Bar into the Low Range Comparator Viewer (fig.1).
2. Fill a test tube to the 10 mL line with untreated sample water. Insert it in the rear hole on the top of the Low Range Comparator (fig.2).
3. Fill a test tube with sample water. Follow the test procedure. Remove the cap. Insert the tube in the front hole on the top of the Low Range Comparator (fig.3).
4. Position the comparator so that light shines down through the test tubes (fig.4). Tilt the comparator until the color standards and sample are illuminated. Match the color of the reaction to the color standards. Read the result from the Low Range Comparator Bar.

## PROCEDURE

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### NITRATE [RANGE 0.2 - 1.0 ppm]

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NOTE: Nitrites can cause serious interference in this nitrate test and should be determined separately and compensated for if present. The best results are obtained when solution temperatures are close to 23°C.

1. Slide the Nitrate-N & Phosphate Comparator Bar (3120-01) into the Low Range Comparator Viewer (1102). Fill a test tube (0844) to the 10 mL line with sample water. Place in Low Range Comparator.
2. Fill test tube (0844) to 2.5 mL line with sample water.
3. Dilute to 5 mL line with \*Mixed Acid Reagent (V-6278). Cap and mix. Wait 2 minutes.
4. Use the 0.1g spoon (0699) to add one level measure (avoid excess) of \*Nitrate Reducing Reagent (V-6279). Cap and invert 60 times in one minute. Wait 10 minutes.
5. Mix and remove cap. Insert test tube into the Low Range Comparator (1102). Match sample color to a color standard. Record as ppm Nitrate-N.
6. To convert result to nitrate, multiply reading by 4.4. Record as ppm Nitrate.

## PHOSPHATE [RANGE 0.2 - 1.0 ppm]

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This test determines levels of orthophosphates only.

NOTE: This test should be run on clear samples only. Filter sample if necessary. The best results are obtained when solution temperatures are close to 23°C.

1. Slide the Nitrate-N & Phosphate Low Range Comparator Bar (3120-01) into the Low Range Comparator Viewer (1102). Fill a test tube (0844) to the 10 mL line with sample water. Place in Low Range Comparator.
2. Fill test tube (0844) to 10 mL line with sample water.
3. Use the 1.0 mL pipet (0354) to add 1.0 mL of \*Phosphate Acid Reagent (V-6282). Cap and mix.
4. Use second 0.1g spoon (0699) to add one level measure of Phosphate Reducing Reagent (V-6283). Cap and mix until dissolved. Wait 5 minutes.
5. Remove cap. Place tube in Low Range Comparator. Match sample color to a color standard. Record as ppm Orthophosphate.

## **LaMOTTE COMPANY**

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