
LABORATORY PROTOCOL FOR SYNTHETIC WATER FOR EXPERIMENTS FROM LAKE MARY GROUND WATER

Personal Protective Equipment:

- Gloves
- Goggles
- Lab Coat

Required Chemicals:

- 8.5 grams of Na-NO₃
- 1.84 grams of Na₂-SO₄
- HATCH Reagents for HR Nitrate and MR Sulfate

Required Materials:

- 50 Liters of Lake Marry groundwater
- 50 Liter water storage container
- 1 x 2000 mL Erlenmeyer Flasks
- 1 x Hot Plate
- HATCH DR 2010

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- 1) Store 50 Liters of Lake Mary ground water in a 50 Liter Nalgene water jug
 - 2) Add 1500 mL of raw Lake Marry Groundwater to the 2000 mL Erlenmeyer flasks
 - 3) Mix in 8.5 grams of Na-NO₃ and 1.84 grams of Na₂-SO₄
 - 4) Heat the water with the chemicals until just before the water boils on a hot plate
 - 5) Add the 500 mL of Lake Mary water to finish the to the mix of Lake Mary ground water and chemicals
 - 6) Check the concentration of nitrate and sulfite of the contaminated water using the HATCH DR 2010 programs 355 and 345
 - 7) Add the contaminated water with the chemicals from the 2000 mL flaks back into the 50 Liter Nalgene water jug
 - 8) Label the Nalgene water jug Synthetic Water for Experiments for the NTS Project