



# Status & Trend Networks Preservation, Custody, and Shipment

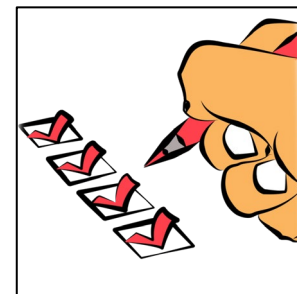
Rachael Dragon

March 2024



# TOPICS

- SAMPLE PRESERVATION
- DOCUMENTATION
- SAMPLE SHIPMENT





# CUSTODY SHEET PACKETS

Lab Page 1 of \_\_\_\_

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
Status & Trend Networks - Chain of Custody Form - October 2020 version

Date Shipped: \_\_\_\_\_ Collected By (Agency Code): \_\_\_\_\_  
Customer: AMBIENT Sampler Names: \_\_\_\_\_

Lab Project ID (circle one): STATUS / SW-TREND /  
GW-TREND / BMAP

# Coolers Shipped: \_\_\_\_\_

Shipping Method (circle one): FedEx / UPS /  
Greyhound / Hand Delivered

RQ - \_\_\_\_\_ Project Name: \_\_\_\_\_

**Instructions:**

- Print this form, affix labels to form and place documentation in zipper bag taped to inside lid of cooler.
- Please return the original of this form to the lab along with sample inventory portion of field sheet for each station & blank sampled.
- Affix labels below for all samples & blanks submitted under this RQ for this collection date.

|  |  |  |
|--|--|--|
|  |  |  |
|  |  |  |
|  |  |  |

Relinquished by (signature): \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

THIS SECTION IS TO BE COMPLETED BY THE LABORATORY

Received/ Inspected By (signature): \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Cover Page

Lab Page \_\_\_\_ of \_\_\_\_

RQ-2020-\_\_\_\_\_ Collected By (Agency Code): \_\_\_\_\_

Project Name: \_\_\_\_\_ Sampler Names: \_\_\_\_\_

Customer: AMBIENT Lab Project ID: ☐ SW-TREND / ☐ STATUS / ☐ BMAP

Place Station ID Label Here

Comments:

Sulfuric Acid Lot #: \_\_\_\_\_

Nitric Acid Lot #: \_\_\_\_\_

Matrix: ☐ W-SURF-FRESH / ☐ W-SURF-SALT ☐ Grab

| Date Collected | Time Collected | D.O. (% SAT) | Temp (°C) | pH (SU) | Sample Depth (m) | Sp. Cond. (umhos/cm) |
|----------------|----------------|--------------|-----------|---------|------------------|----------------------|
|                |                |              |           |         |                  |                      |

Check Boxes for Each Container Submitted to Lab

| Parameter Suite                   | Lab Test Codes Trend Core                                                                             | Lab Test Codes Status Core                                                                            | Lab Test Codes Special Projects | Preservation (Must be completed within 15 min of sample collection)                                                      | # Bottles sent to Lab | Bottle Group |
|-----------------------------------|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|---------------------------------|--------------------------------------------------------------------------------------------------------------------------|-----------------------|--------------|
| Chlorophyll (P-11)                | <input type="checkbox"/> CHLORITE-W                                                                   | <input type="checkbox"/> CHLORITE-W                                                                   |                                 | <input type="checkbox"/> Ice                                                                                             |                       |              |
| Nutrients (P-500ML)               | <input type="checkbox"/> W-NH3 / W-NH3N / W-S-T-P / W-TN / W-TOC                                      | <input type="checkbox"/> W-NH3 / W-NH3N / W-S-T-P / W-TN / W-TOC                                      |                                 | <input type="checkbox"/> 2ML H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> pH < 2 <input type="checkbox"/> Ice |                       |              |
| Metals (P-500ML)                  | <input type="checkbox"/> W-HARD / W-ICP / W-ICPMS                                                     | <input type="checkbox"/> W-HARD / W-ICP / W-ICPMS                                                     |                                 | <input type="checkbox"/> 2ML HNO <sub>3</sub> <input type="checkbox"/> pH < 2 <input type="checkbox"/> Ice               |                       |              |
| Anion / Phys. Aggregate (P-1L)    | <input type="checkbox"/> ALKALINITY / TURBIDITY / W-CL-IC / W-COLOR / W-COND / W-F / W-SO4-IC / W-TDS | <input type="checkbox"/> ALKALINITY / TURBIDITY / W-CL-IC / W-COLOR / W-COND / W-F / W-SO4-IC / W-TDS |                                 | <input type="checkbox"/> Ice                                                                                             |                       |              |
| Microbiology (P-120ML or P-120ML) | <input type="checkbox"/> ECOL-18-QT                                                                   | <input type="checkbox"/> ECOL-18-QT                                                                   |                                 | <input type="checkbox"/> Ice                                                                                             |                       |              |
| Tracers (P-120ML or P-120ML)      | <input type="checkbox"/> W-MCTET-AA / W-SALT-MS                                                       | <input type="checkbox"/> W-MCTET-AA / W-SALT-MS                                                       |                                 | <input type="checkbox"/> Ice                                                                                             |                       |              |
| Microleak (P-120ML or P-120ML)    | <input type="checkbox"/> PCB-BACR / PCB-DO / PCB-GRD / PCB-SO4-IC / PCB-TDS                           | <input type="checkbox"/> PCB-BACR / PCB-DO / PCB-GRD / PCB-SO4-IC / PCB-TDS                           |                                 | <input type="checkbox"/> Ice                                                                                             |                       |              |
| Tracers (P-120ML or P-120ML)      | <input type="checkbox"/> W-EH31-DI / W-EH31-ME                                                        | <input type="checkbox"/> W-EH31-DI / W-EH31-ME                                                        |                                 | <input type="checkbox"/> Ice                                                                                             |                       |              |
| BOD (P-1L)                        | <input type="checkbox"/> OVBOD-UN                                                                     | <input type="checkbox"/> OVBOD-UN                                                                     |                                 | <input type="checkbox"/> Ice                                                                                             |                       |              |
| Pesticides (P-120ML or P-120ML)   | <input type="checkbox"/> W-PSNP-TQ                                                                    | <input type="checkbox"/> W-PSNP-TQ                                                                    |                                 | <input type="checkbox"/> Ice                                                                                             |                       |              |
| Filtered Nutrient (P-120ML)       | <input type="checkbox"/> W-PH-F                                                                       | <input type="checkbox"/> W-PH-F                                                                       |                                 | <input type="checkbox"/> Field Filtered w/ syringe & 0.45 um PES filter <input type="checkbox"/> Ice                     |                       |              |

Matrix: SEDIMENT Date Collected: \_\_\_\_\_ Time Collected: ☐ ETZ / ☐ CTZ

Check Boxes for Each Container Submitted to Lab

| Parameter Suite              | Lab Test Codes Trend Core                                 | Lab Test Codes Status Core                                | Lab Test Codes Special Projects | Preservation (Must be completed within 15 min of sample collection) | # Bottles sent to Lab | Bottle Group |
|------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|---------------------------------|---------------------------------------------------------------------|-----------------------|--------------|
| Metals & Nutrients (P-500ML) | <input type="checkbox"/> H-TOC / S-ICP-TOC / S-TOC / S-TN | <input type="checkbox"/> H-TOC / S-ICP-TOC / S-TOC / S-TN |                                 | <input type="checkbox"/> Ice                                        |                       |              |

Matrix: BIOLOGICAL Date Collected: \_\_\_\_\_ Time Collected: ☐ ETZ / ☐ CTZ

Check Boxes for Each Container Submitted to Lab

| Parameter Suite                | Lab Test Codes Trend Core           | Lab Test Codes Status Core          | Lab Test Codes Special Projects | Preservation                                     | # Bottles sent to Lab | Bottle Group |
|--------------------------------|-------------------------------------|-------------------------------------|---------------------------------|--------------------------------------------------|-----------------------|--------------|
| Microleak (P-120ML or P-120ML) | <input type="checkbox"/> MI-FW-QLDC | <input type="checkbox"/> MI-FW-QLDC |                                 | <input type="checkbox"/> Buffered Formalin (10%) |                       |              |
| Appl ID (P-120ML)              | <input type="checkbox"/> ALGAL-ID   | <input type="checkbox"/> ALGAL-ID   |                                 | <input type="checkbox"/> Ice                     |                       |              |

Surface Water Details

Lab Page \_\_\_\_ of \_\_\_\_

RQ-2020-\_\_\_\_\_ Collected By (Agency Code): \_\_\_\_\_

Project Name: \_\_\_\_\_ Sampler Names: \_\_\_\_\_

Customer: AMBIENT Lab Project ID: ☐ GW-TREND / ☐ STATUS / ☐ BMAP

Place Station ID Label Here

Comments:

Sulfuric Acid Lot #: \_\_\_\_\_

Nitric Acid Lot #: \_\_\_\_\_

Matrix: W-GROUND ☐ Grab

| Date Collected | Time Collected | D.O. (% SAT) | Temp (°C) | pH (SU) | Sp. Cond. (umhos/cm) |
|----------------|----------------|--------------|-----------|---------|----------------------|
|                |                |              |           |         |                      |

Check Boxes for Each Container Submitted to Lab

| Parameter Suite                         | Lab Test Codes Trend Core                                                                             | Lab Test Codes Status Core                                                                            | Lab Test Codes Special Projects | Preservation (Must be completed within 15 min of sample collection)                                                      | # Bottles sent to Lab | Bottle Group |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|---------------------------------|--------------------------------------------------------------------------------------------------------------------------|-----------------------|--------------|
| Tracers (P-500ML)                       | <input type="checkbox"/> W-ES321-DI / W-ES321-MS                                                      | <input type="checkbox"/> W-ES321-DI / W-ES321-MS                                                      |                                 | <input type="checkbox"/> Ice                                                                                             |                       |              |
| Pesticides - Carbamates (P-500ML)       | <input type="checkbox"/> W-CARB-AA                                                                    | <input type="checkbox"/> W-CARB-AA                                                                    |                                 | <input type="checkbox"/> 1 vial MCAA Buffer <input type="checkbox"/> Ice                                                 |                       |              |
| Pesticides - Organophosphates (P-500ML) | <input type="checkbox"/> W-PCL-TQ-R                                                                   | <input type="checkbox"/> W-PCL-TQ-R                                                                   |                                 | <input type="checkbox"/> Ice                                                                                             |                       |              |
| Pesticides - Organo-SP (P-500ML)        | <input type="checkbox"/> W-PSNP-TQ                                                                    | <input type="checkbox"/> W-PSNP-TQ                                                                    |                                 | <input type="checkbox"/> Ice                                                                                             |                       |              |
| Nutrients (P-500ML)                     | <input type="checkbox"/> W-NH3 / W-NH3N / W-S-T-P / W-TN / W-TOC                                      | <input type="checkbox"/> W-NH3 / W-NH3N / W-S-T-P / W-TN / W-TOC                                      |                                 | <input type="checkbox"/> 2ML H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> pH < 2 <input type="checkbox"/> Ice |                       |              |
| Metals (P-500ML)                        | <input type="checkbox"/> W-HARD / W-ICP / W-ICPMS                                                     | <input type="checkbox"/> W-HARD / W-ICP / W-ICPMS                                                     |                                 | <input type="checkbox"/> 2ML HNO <sub>3</sub> <input type="checkbox"/> pH < 2 <input type="checkbox"/> Ice               |                       |              |
| Anion / Phys. Aggregate (P-1L)          | <input type="checkbox"/> ALKALINITY / TURBIDITY / W-CL-IC / W-COLOR / W-COND / W-F / W-SO4-IC / W-TDS | <input type="checkbox"/> ALKALINITY / TURBIDITY / W-CL-IC / W-COLOR / W-COND / W-F / W-SO4-IC / W-TDS |                                 | <input type="checkbox"/> Ice                                                                                             |                       |              |
| Microbiology (P-120ML or P-120ML)       | <input type="checkbox"/> ECOL-18-QT / TCOL-18-QT                                                      | <input type="checkbox"/> ECOL-18-QT / TCOL-18-QT                                                      |                                 | <input type="checkbox"/> Ice                                                                                             |                       |              |
| Filtered Nutrient (P-120ML)             | <input type="checkbox"/> W-PH-F                                                                       | <input type="checkbox"/> W-PH-F                                                                       |                                 | <input type="checkbox"/> Field Filtered w/ in-line 0.45 um PES filter <input type="checkbox"/> Ice                       |                       |              |

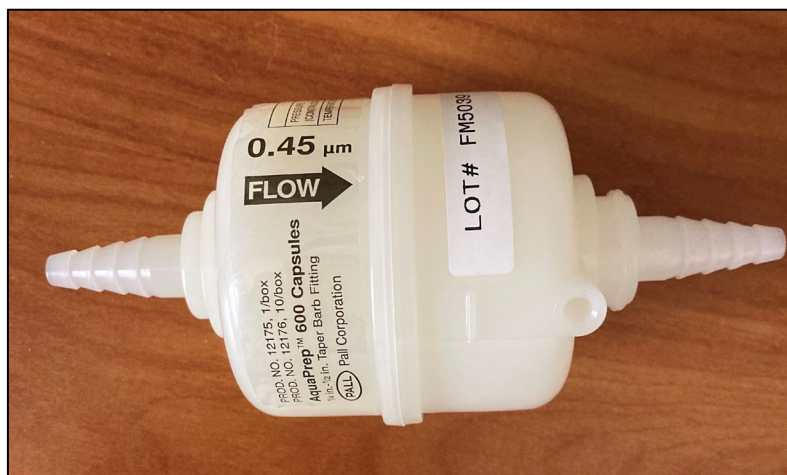
Groundwater Details

Download current versions from Watershed Monitoring Information Center:  
<http://publicfiles.dep.state.fl.us/watershed%20monitoring/Info%20Center/>



# PRESERVATION

## Sampling Manual Section 11





# Surface Water Preservation Details



Lab Page \_\_\_\_ of \_\_\_\_

RQ-2020-\_\_\_\_\_ Collected By (Agency Code): \_\_\_\_\_

Project Name: \_\_\_\_\_ Sampler Names: \_\_\_\_\_

Customer: AMBIENT Lab Project ID: ☐ SW-TREND / ☐ STATUS / ☐ BMAP

|                                         |                      |
|-----------------------------------------|----------------------|
| Place<br>Station<br>ID<br>Label<br>Here | Comments:            |
|                                         | Sulfuric Acid Lot #: |
|                                         | Nitric Acid Lot #:   |

Matrix: ☐ W-SURF-FRESH / ☐ W-SURF-SALT ☒ Grab

| Date Collected | Time Collected                                               | D.O. (% SAT) | Temp (°C) | pH (SU) | Sample Depth (m) | Sp. Cond. (umhos/cm) |
|----------------|--------------------------------------------------------------|--------------|-----------|---------|------------------|----------------------|
|                | <input type="checkbox"/> ETZ<br><input type="checkbox"/> CTZ |              |           |         |                  |                      |

| Check Boxes for Each Container Submitted to Lab |                                                                                                                |                                                                                                                |                                                                                     | Preservation<br>(Must be completed within 15 min<br>of sample collection)                                                | # Bottles<br>sent to<br>Lab | Bottle<br>Group |
|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-----------------------------|-----------------|
| Parameter Suite                                 | Lab Test Codes<br>Trend Core                                                                                   | Lab Test Codes<br>Status Core                                                                                  | Lab Test Codes<br>Special Projects                                                  |                                                                                                                          |                             |                 |
| Chlorophyll<br>(BP-1L)                          | <input type="checkbox"/> CHLSUITE-W                                                                            | <input type="checkbox"/> CHLSUITE-W                                                                            |                                                                                     | <input type="checkbox"/> Ice                                                                                             |                             |                 |
| Nutrients<br>(P-500ML)                          | <input type="checkbox"/> W-NH3 /<br>W-NO2NO3 / W-S-T-P /<br>W-TKN / W-TOC                                      | <input type="checkbox"/> W-NH3 /<br>W-NO2NO3 / W-S-T-P /<br>W-TKN / W-TOC                                      |                                                                                     | <input type="checkbox"/> 2ML H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> pH < 2 <input type="checkbox"/> Ice |                             |                 |
| Metals<br>(P-500ML)                             | <input type="checkbox"/> W-HARD / W-ICP /<br>W-ICPMS                                                           | <input type="checkbox"/> W-HARD / W-ICP /<br>W-ICPMS                                                           |                                                                                     | <input type="checkbox"/> 2ML HNO <sub>3</sub> <input type="checkbox"/> pH < 2 <input type="checkbox"/> Ice               |                             |                 |
| Anion / Phys.<br>Aggregate<br>(P-1L)            | <input type="checkbox"/> ALKALINITY /<br>TURBIDITY / W-CL-IC /<br>W-COLOR / W-COND /<br>W-F / W-SO4-IC / W-TSS | <input type="checkbox"/> ALKALINITY /<br>TURBIDITY / W-CL-IC /<br>W-COLOR / W-COND /<br>W-F / W-SO4-IC / W-TSS |                                                                                     | <input type="checkbox"/> Ice                                                                                             |                             |                 |
| Microbiology<br>(P-250ML or<br>P-120ML)         | <input type="checkbox"/> ECOLI-18-QT                                                                           | <input type="checkbox"/> ECOLI-18-QT                                                                           |                                                                                     | <input type="checkbox"/> Ice                                                                                             |                             |                 |
| Toxins<br>(P-125ML/BG-250ML)                    |                                                                                                                | <input type="checkbox"/> W-MCYST-AA /<br>W-SAXTN-MS                                                            | <input type="checkbox"/> W-MCYST-AA /<br>W-SAXTN-MS                                 | <input type="checkbox"/> Ice                                                                                             |                             |                 |
| Molecular<br>(QPCR-P-500ML)                     |                                                                                                                |                                                                                                                | <input type="checkbox"/> PCR-BACR /<br>PCR-DG3 / PCR-GFD /<br>PCR-GULL2 / PCR-HF183 | <input type="checkbox"/> Ice                                                                                             |                             |                 |
| Tracers<br>(BG-500ML)                           |                                                                                                                |                                                                                                                | <input type="checkbox"/> W-E8321-D1 /<br>W-E8321-MS                                 | <input type="checkbox"/> Ice                                                                                             |                             |                 |
| BOD<br>(P-1L)                                   |                                                                                                                |                                                                                                                | <input type="checkbox"/> OV-BOD-UN                                                  | <input type="checkbox"/> Ice                                                                                             |                             |                 |
| Pesticides<br>(BG-500ML)                        |                                                                                                                |                                                                                                                | <input type="checkbox"/> W-PSNP-TQ                                                  | <input type="checkbox"/> Ice                                                                                             |                             |                 |
| Filtered Nutrient<br>(P-125ML)                  |                                                                                                                |                                                                                                                | <input type="checkbox"/> W-PO4-F                                                    | <input type="checkbox"/> Field Filtered w/ syringe<br>& 0.45 um PES filter <input type="checkbox"/> Ice                  |                             |                 |



# Groundwater Preservation Details

|                                                 |                                                                                                                      |                                                                                                                      |                                                                           |                                                                                                                          |                             |                 |
|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-----------------------------|-----------------|
| Station<br>ID<br>Label<br>Here                  |                                                                                                                      |                                                                                                                      |                                                                           |                                                                                                                          |                             |                 |
|                                                 |                                                                                                                      |                                                                                                                      | Sulfuric Acid Lot #:                                                      |                                                                                                                          |                             |                 |
|                                                 |                                                                                                                      |                                                                                                                      | Nitric Acid Lot #:                                                        |                                                                                                                          |                             |                 |
| Matrix: W-GROUND                                |                                                                                                                      |                                                                                                                      | ✓ Grab                                                                    |                                                                                                                          |                             |                 |
| Date Collected                                  | Time Collected                                                                                                       | D.O.<br>(% SAT)                                                                                                      | Temp<br>(°C)                                                              | pH<br>(SU)                                                                                                               | Sp. Cond.<br>(umhos/cm)     |                 |
|                                                 | <input type="checkbox"/> ETZ<br><input type="checkbox"/> CTZ                                                         |                                                                                                                      |                                                                           |                                                                                                                          |                             |                 |
| Check Boxes for Each Container Submitted to Lab |                                                                                                                      |                                                                                                                      | Preservation<br>(Must be completed within 15 min<br>of sample collection) |                                                                                                                          | # Bottles<br>sent to<br>Lab | Bottle<br>Group |
| Parameter Suite                                 | Lab Test Codes<br>Trend Core                                                                                         | Lab Test Codes<br>Status Core                                                                                        | Lab Test Codes<br>Special Projects                                        |                                                                                                                          |                             |                 |
| Tracers<br>(BG-500ML)                           |                                                                                                                      |                                                                                                                      | <input type="checkbox"/> W-E8321-DI /<br>W-E8321-MS                       | <input type="checkbox"/> Ice                                                                                             |                             |                 |
| Pesticides –<br>Carbamates<br>(BG-500ML)        |                                                                                                                      |                                                                                                                      | <input type="checkbox"/> W-CARB-AA                                        | <input type="checkbox"/> 1 vial MCAA Buffer <input type="checkbox"/> Ice<br>MCAA Lot #:                                  |                             |                 |
| Pesticides -<br>Organochlorine<br>(BG-500ML)    |                                                                                                                      |                                                                                                                      | <input type="checkbox"/> W-PCL-TQ-R                                       | <input type="checkbox"/> Ice                                                                                             |                             |                 |
| Pesticides –<br>Organo-N/P<br>(BG-500ML)        |                                                                                                                      |                                                                                                                      | <input type="checkbox"/> W-PSNP-TQ                                        | <input type="checkbox"/> Ice                                                                                             |                             |                 |
| Nutrients<br>(P-500ML)                          | <input type="checkbox"/> W-NH3 /<br>W-NO2NO3 /<br>W-S-T-P / W-TN /<br>W-TOC                                          | <input type="checkbox"/> W-NH3 /<br>W-NO2NO3 /<br>W-S-T-P / W-TN /<br>W-TOC                                          |                                                                           | <input type="checkbox"/> 2ML H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> pH < 2 <input type="checkbox"/> Ice |                             |                 |
| Metals<br>(P-500ML)                             | <input type="checkbox"/> W-HARD /<br>W-ICP / W-ICPMS                                                                 | <input type="checkbox"/> W-HARD /<br>W-ICP / W-ICPMS                                                                 |                                                                           | <input type="checkbox"/> 2ML HNO <sub>3</sub> <input type="checkbox"/> pH < 2 <input type="checkbox"/> Ice               |                             |                 |
| Anion / Phys.<br>Aggregate<br>(P-1L)            | <input type="checkbox"/> ALKALINITY /<br>TURBIDITY /<br>W-CL-IC /<br>W-COLOR /<br>W-COND / W-F /<br>W-SO4-IC / W-TDS | <input type="checkbox"/> ALKALINITY /<br>TURBIDITY /<br>W-CL-IC /<br>W-COLOR /<br>W-COND / W-F /<br>W-SO4-IC / W-TDS |                                                                           | <input type="checkbox"/> Ice                                                                                             |                             |                 |
| Microbiology<br>(P-250ML or<br>P-120ML)         | <input type="checkbox"/> ECOLI-18QT /<br>TCOLI-18QT                                                                  | <input type="checkbox"/> ECOLI-18QT /<br>TCOLI-18QT                                                                  |                                                                           | <input type="checkbox"/> Ice                                                                                             |                             |                 |
| Filtered<br>Nutrient<br>(P-125ML)               | <input type="checkbox"/> W-PO4-F                                                                                     |                                                                                                                      |                                                                           | <input type="checkbox"/> Field Filtered w/<br>in-line 0.45 um<br>PES filter <input type="checkbox"/> Ice                 |                             |                 |



# PRESERVATION BASICS

Boxes indicate required preservation for each bottle.

- Check box for each procedure performed.
- Add comment for any procedures not performed.

|                                                                                                       |                                                                              |                                                                                                      |                                               |
|-------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| H / <input type="radio"/> W-SURF-SALT                                                                 |                                                                              | <input checked="" type="checkbox"/> Grab                                                             |                                               |
| Collected                                                                                             | D.O. (% SAT)                                                                 | Temp (°C)                                                                                            | pH (SU) Sample Depth (m) Sp. Cond. (umhos/cm) |
| <input type="checkbox"/> ETZ<br><input type="checkbox"/> CTZ                                          |                                                                              |                                                                                                      |                                               |
| Container Submitted to Lab                                                                            |                                                                              | Preservation<br>(Must be completed within 15 min of sample collection)                               | # Bottles sent to Lab                         |
| Lab Test Codes Status Core                                                                            | Lab Test Codes Special Projects                                              |                                                                                                      | Bottle Group                                  |
| <input type="checkbox"/> CHLSUITE-W                                                                   |                                                                              | <input type="checkbox"/> Ice                                                                         |                                               |
| <input type="checkbox"/> W-NH3 / W-NO2NO3 / W-S-T-P / W-TKN / W-TOC                                   |                                                                              | <input type="checkbox"/> 2ML H2SO4 <input type="checkbox"/> pH < 2 <input type="checkbox"/> Ice      |                                               |
| <input type="checkbox"/> W-HARD / W-ICP / W-ICPMS                                                     |                                                                              | <input type="checkbox"/> 2ML HNO3 <input type="checkbox"/> pH < 2 <input type="checkbox"/> Ice       |                                               |
| <input type="checkbox"/> ALKALINITY / TURBIDITY / W-CL-IC / W-COLOR / W-COND / W-F / W-SO4-IC / W-TSS |                                                                              | <input type="checkbox"/> Ice                                                                         |                                               |
| <input type="checkbox"/> ECOLI-H-QT                                                                   |                                                                              | <input type="checkbox"/> Ice                                                                         |                                               |
| <input type="checkbox"/> W-MCYST-AA / W-SAXTN-MS                                                      | <input type="checkbox"/> W-MCYST-AA / W-SAXTN-MS                             | <input type="checkbox"/> Ice                                                                         |                                               |
|                                                                                                       | <input type="checkbox"/> PCR-BACR / PCR-DG3 / PCR-GFD / PCR-GULL2 / PCR-HF18 | <input type="checkbox"/> Ice                                                                         |                                               |
|                                                                                                       | <input type="checkbox"/> W-E8321-DI / W-E8321-MS                             | <input type="checkbox"/> Ice                                                                         |                                               |
|                                                                                                       | <input type="checkbox"/> OV-BOD-UN                                           | <input type="checkbox"/> Ice                                                                         |                                               |
|                                                                                                       | <input type="checkbox"/> W-PSNP-TQ                                           | <input type="checkbox"/> Ice                                                                         |                                               |
|                                                                                                       | <input type="checkbox"/> W-P04-F                                             | <input type="checkbox"/> Field Filtered w/ syringe & 0.45 um PES filter <input type="checkbox"/> Ice |                                               |
| Collected:                                                                                            |                                                                              | Time Collected: <input type="checkbox"/> ETZ / <input type="checkbox"/> CTZ                          |                                               |
| Container Submitted to Lab                                                                            |                                                                              | Preservation                                                                                         | # Bottles                                     |

|                                                                                                            |              |            |                         |
|------------------------------------------------------------------------------------------------------------|--------------|------------|-------------------------|
| Lab Page ____ of ____                                                                                      |              |            |                         |
| Collected By (Agency Code): _____                                                                          |              |            |                         |
| Sampler Names: _____                                                                                       |              |            |                         |
| Lab Project ID: <input type="radio"/> GW-TREND / <input type="radio"/> STATUS / <input type="radio"/> BMAP |              |            |                         |
| Comments:                                                                                                  |              |            |                         |
| Sulfuric Acid Lot #:                                                                                       |              |            |                         |
| Nitric Acid Lot #:                                                                                         |              |            |                         |
| <input checked="" type="checkbox"/> Grab                                                                   |              |            |                         |
| D.O.<br>(% SAT)                                                                                            | Temp<br>(°C) | pH<br>(SU) | Sp. Cond.<br>(umhos/cm) |

Document lot numbers from the acid vials used to preserve samples.



# PRESERVATION BASICS

If preservation performed differs  
from required steps listed on details page,  
**DESCRIBE DIFFERENCES IN COMMENTS.**



Lab Page \_\_\_\_ of \_\_\_\_

RQ-2020-\_\_\_\_\_ Collected By (Agency Code): \_\_\_\_\_

Project Name: \_\_\_\_\_ Sampler Names: \_\_\_\_\_

Customer: AMBIENT Lab Project ID: ☐ GW-TREND / ☐ STATUS / ☐ BMAP

Place  
Station  
ID  
Label  
Here

Comments:

Sulfuric Acid Lot #:

Nitric Acid Lot #:

Matrix: **W-GROUND**

☒ Grab

| Date Collected | Time Collected                                         | D.O.<br>(% SAT) | Temp<br>(°C) | pH<br>(SU) | Sp. Cond.<br>(umhos/cm) |
|----------------|--------------------------------------------------------|-----------------|--------------|------------|-------------------------|
|                | <input type="radio"/> ETZ<br><input type="radio"/> CTZ |                 |              |            |                         |



# PRESERVATION BASICS

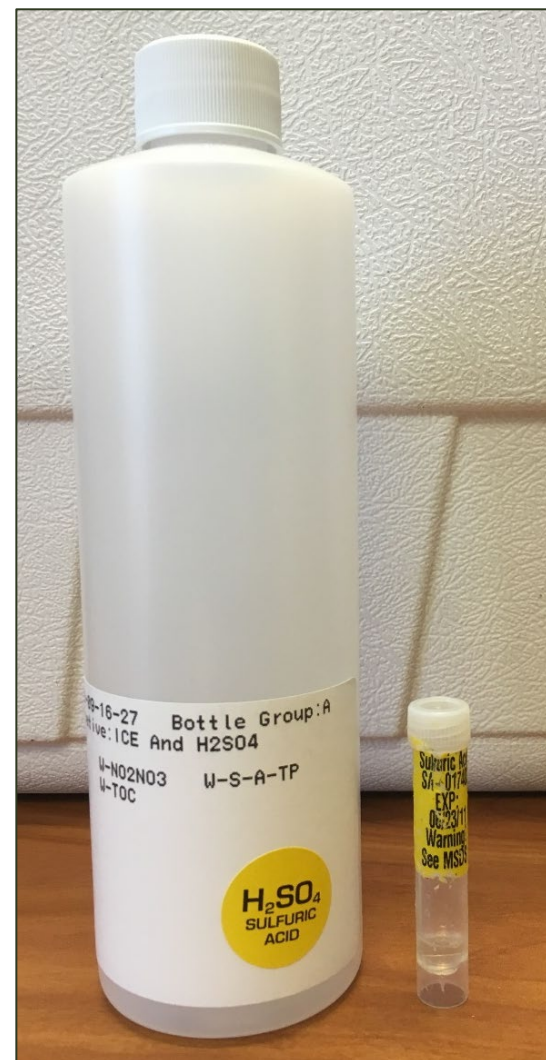
- Complete all preservation within **15 minutes** of sample collection.
- Check bottle labels & sample details page for preservation instructions
- Wear CLEAN, powder-free, disposable gloves.
- Wear protective eyewear and work in a well-ventilated area when working with acid or formalin.





# PRESERVING WITH ACID

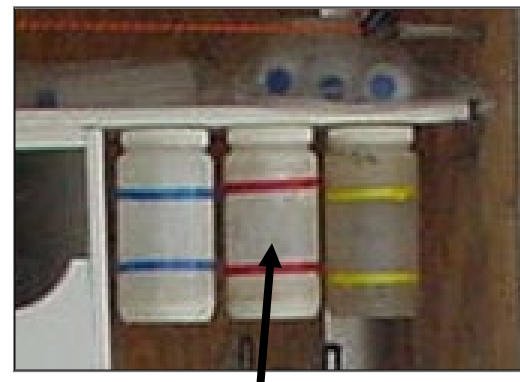
- Use “tag-team” approach to ensure correct preservation
- Check label of acid vial against sample bottle before preserving sample
- Use sulfuric acid with nutrients and test pH – **FIRST**
- Then use nitric acid with metals and test pH





# PRESERVING WITH ACID

- Use narrow range pH paper (0-3)
- Pour acidified sample onto pH strip over a small disposable cup or watch glass
- Check  $\text{pH} < 2$
- If  $\text{pH} \geq 2$ , use another  $\frac{1}{2}$  vial of acid; check again; document
- Dispose of acids properly



**Small acid waste containers; empty frequently; follow chemical safety plan for your building when disposing**



# **PRESERVING WITH ACID**

## **(If premeasured vials are unavailable)**

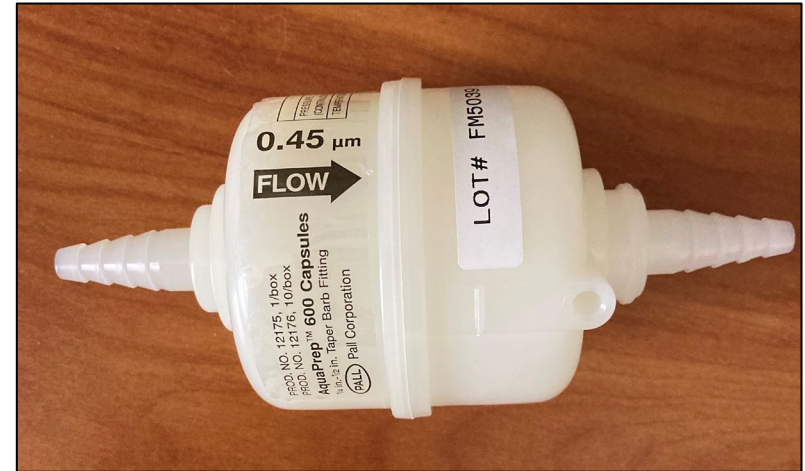
- Lab will provide plastic containers of pre-mixed 1:1 acid solutions and disposable pipettes
- Always use a clean, disposable pipette to add acid to sample or blank
- Use a new pipette for each sample or blank
- 2 mL sulfuric per 500 mL bottle for nutrients.
- 2 mL nitric per 500 mL bottle for metals.
- Don't allow pipette to come into contact with bottle lip or sample
- Cap, mix and check preservation as previously described. If more acid needed to reach  $\text{pH} < 2$  then document.
- Dispose of used pipettes in acid disposal container



# FIELD FILTRATION PRESERVATION

If filtration is required  
(e.g. orthophosphate),  
it must be done

- In the field
- Before thermal preservation





# THERMAL PRESERVATION

- Place samples together in large zip-top bag
- Place bag in wet ice  $\leq 6^{\circ}\text{C}$   
Ice must be loose and surround the bag of samples for proper cooling.
- Include temperature verification bottle
- Samples  $> 6^{\circ}\text{C}$  will be qualified or discarded





# PRESERVATION SPECIFICS

## Bottles for Tracers, Pesticides & Algal Toxins:

(250 mL & 500 mL amber glass bottles)

- Place in bubble-wrap bag  
**CAUTION** - always support container from bottom; bags are not strong
- Place in cooler **in ice** within 15 minutes

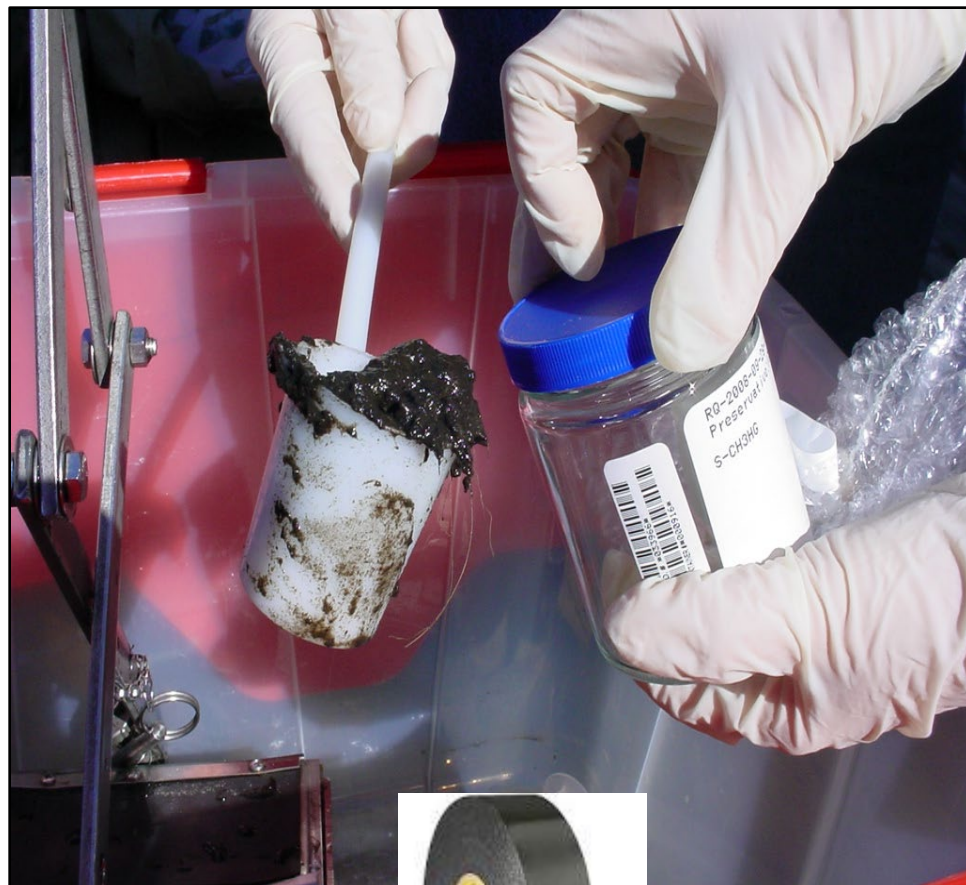




# PRESERVATION SPECIFICS

## Sediments:

- Seal lid/container with tape (electrical tape recommended)
- Place in bubble-wrap bag (**CAUTION**—always support container from bottom; bags are not strong)
- Place in cooler **in ice** within 15 minutes

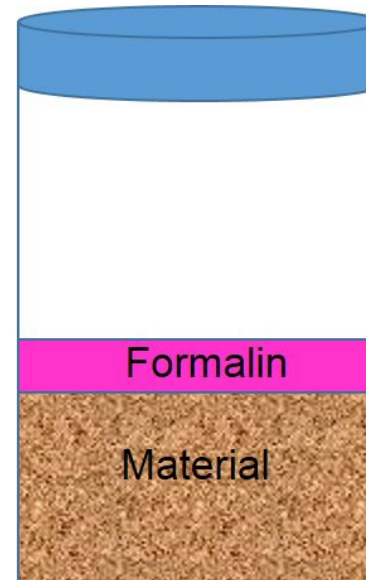




# PRESERVATION SPECIFICS

## Stream Condition Index (SCI):

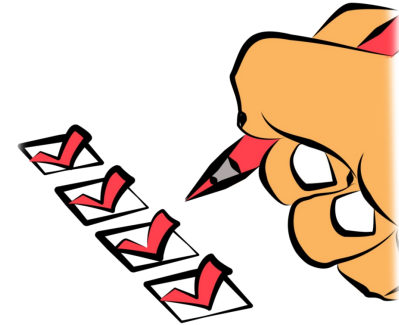
- Drain excess water from jug before preserving
- Add recycled 10% buffered Formalin to sufficiently cover material
- Seal lid/container with tape (*optional*)
- Place back in the large zip-top bag in which they arrived
- Always transport buffered formalin & preserved SCI samples in upright position in a cooler





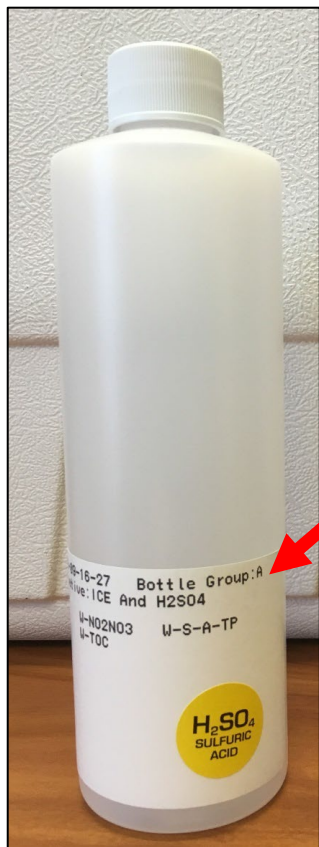
# Documenting Preservation

- Survey123 guides user through completing sample details page for each sample and / or blank.
- When a particular analyte is marked as collected, the application requires preservation information to be selected or a comment to be entered before allowing you to proceed.





- **Bottle Group**
  - Summary In RQ paperwork from kit
  - On sample bottles
- **Parameters Collected**
  - Core lists for Status or Trend



×

FL DEP Status and Trend Networks - Surface Water

Water Sample Inventory & Preservation Details

Bottle group for water samples? \*

☐ A
 ☐ B
 ☐ C
 ☐ D
 ☐ E
 ☐ F
 ☐ G
 ☐ H

▼ Trend Network - Core Parameters

Chlorophyll container filled? (BP-1L) \*

Lab test: CHLSUITE-W

☐ YES
 ☐ NO

Nutrients container filled and preserved? (P-500ML) \*

Lab tests: W-NH3 / W-NO2NO3 / W-S-T-P / W-TKN / W-TOC

☐ Yes - container filled, preserved w/ 2 mL (or one vial) sulfuric acid, pH < 2.
 ☐ Yes - container filled, different preservation (described below)
 ☐ No

Metals container filled and preserved? (P-500ML) \*

Lab tests: W-HARD / W-ICP / W-ICPMS

☐ Yes - container filled, preserved w/ 2 mL (or one vial) nitric acid, pH < 2.
 ☐ Yes - container filled, different preservation (described below)
 ☐ No

Anion / Phys. Aggregate container filled? (P-1L) \*

Lab tests: ALKALINITY / TURBIDITY / W-CL-IC / W-COLOR / W-COND / W-F / W-SO4-IC / W-TSS

☐ YES
 ☐ NO

Microbiology container(s) filled? (P-250mL or P-125ML) \*

Lab test: ECOLI-18-QT

☐ YES
 ☐ NO

✓

20



- Preservation must be recorded for each analyte collected
- 'No' answers require a comment.

FL DEP Status and Trend Networks - Surface Water

### Preservation and Container Inventory

#### Nutrients Preservation

Nutrients Bottle - 2ML (or one vial) sulfuric acid added? \*

☐ YES ☐ NO

Sulfuric acid lot number: \*

Nutrients Bottle - pH < 2? \*

☐ YES ☐ NO

#### Metals Preservation

Metals Bottle - 2ML (or one vial) nitric acid added? \*

☐ YES ☐ NO

Nitric acid lot number: \*

Metals Bottle - pH < 2? \*

☐ YES ☐ NO



- Number of bottles submitted to lab for each parameter group
- Populates sample details page (used by Lab Receiving during sample login)

FL DEP Status and Trend Networks - Surface Water

### Container Inventory

Chlorophyll - Number of containers sent to lab? \*

(BP-1L)

Nutrients - Number of containers sent to lab? \*

(P-500ML)

Metals - Number of containers sent to lab? \*

(P-500ML)

Anion / Phys. Aggregate - Number of containers sent to lab? \*

(P-1L)

Microbiology - Number of containers sent to lab? \*

(P-250mL or P-125ML)

All water sample containers submerged in wet ice ( $\leq 6^{\circ}\text{C}$ ) within 15 min of sample collection? \*

☐ YES ☐ NO

### Water Samples - Comments for Lab

Include comments for scenarios such as damaged containers and deviations from required preservation procedures. If "NO" was selected for any preservation questions above, a comment is required.



# CUSTODY AND SHIPMENT

## Sampling Manual Section 13





# CUSTODY SHEET PACKETS

- Submit separate custody sheet packet for each RQ.
- 1 cover page per packet
  - List all samples & blanks (digital barcodes or barcode labels).
  - Signature required in “relinquished by” section.
- 1 details page for each sample submitted
- 1 details page for each blank submitted



# CUSTODY SHEET PACKETS

- Document every sample submitted.
- Details page differs for GW & SW.
- Make sure all containers from a site are submitted with matching RQs.
- Fill out completely & use digital barcodes or Station ID & RQ Labels



# CUSTODY SHEET PACKETS

If you have no choice but to hand-write the information  
Please write as clearly as possible!

STATUS – Site Location & Field ID =  
Random Sample Location  
(e.g. Z4-UA-14025)

TREND – Site Location = WIN  
Monitoring Location ID (If you  
don't know it, write the station  
name or description)

|                                                                                  |                                                  |                                      |
|----------------------------------------------------------------------------------|--------------------------------------------------|--------------------------------------|
|  | RQ-2020-_____                                    | Collected By (A                      |
|                                                                                  | Project Name: _____                              | Sampler Names                        |
|                                                                                  | Customer: <u>AMBIENT</u>                         | Lab Project ID:                      |
| Place<br>Station<br>ID<br>Label<br>Here                                          | SITE = Z4-UA-14025<br><br>FIELD ID = Z4-UA-14025 | Comm<br><br>Sulfuric<br><br>Nitric A |
| Matrix:                                                                          | W-GROUND                                         |                                      |

|                                                                                     |                                                                        |                        |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------|------------------------|
|  | RQ-_____                                                               | Collected B            |
|                                                                                     | Project Name: _____                                                    | Sampler Na             |
|                                                                                     | Customer: <u>AMBIENT</u>                                               | Lab Project            |
| Place<br>Station<br>ID<br>Label<br>Here                                             | SITE = 21200<br><br>FIELD ID = LSJ918                                  | Co<br><br>Su<br><br>Ni |
| Matrix:                                                                             | <input type="radio"/> W-SURF-FRESH / <input type="radio"/> W-SURF-SALT |                        |



# CUSTODY SHEET PACKETS

- Analytes listed on details page tell the lab what you're submitting
- Different analyte lists on SW and GW details pages
- If anything is different / missing, COMMENT!



# CUSTODY SHEET PACKETS

- Copies of custody sheet packets needed for:
  - Lab
  - Tallahassee WMS
  - Sampling Agency
- Digital custody sheet packets
  - Email to [lab.receiving@floridadep.gov](mailto:lab.receiving@floridadep.gov)
  - Or print and place in in zip-top bag, taped to inside lid of cooler.
- Paper custody sheet packets w/ physical labels
  - place in in zip-top bag, taped to inside lid of cooler.
  - DO NOT scan and email to lab.
- Lab preference: If shipping multiple coolers at once, label outside of coolers: "Cooler 1 of 2", etc.

## Field Sheet - Station 1

[illegible][illegible][illegible][illegible]

## Field Sheet - Station 2

[illegible][illegible][illegible][illegible][illegible][illegible]

The screenshot shows the Microsoft Project software interface. At the top, there is a title bar with the text 'Microsoft Project - [Project Name]'. Below the title bar is a menu bar with the following options: File, Edit, View, Tools, Window, and Help. Under the 'File' menu, there are options like New, Open, Save, Print, and others. The main window is divided into two panes. The left pane is a task list, and the right pane is a Gantt chart. The task list shows a hierarchy of tasks, with 'Task 1' selected. The Gantt chart shows a timeline from 1/1/2000 to 12/31/2000, with task bars representing the duration of each task. The task 'Task 1' is highlighted in blue in the task list, and its corresponding bar is visible in the Gantt chart.

[illegible]

Custody Sheet  
Page 2

Custody Sheet  
Page 3

Custody Sheet  
Page 4

Custody Sheet  
Page 5



# SHIPMENT

## Sampling Manual Section 13

- Ensure spigot is plugged and cooler is not cracked.
- Pack samples properly:
  - Line cooler w/ large plastic bag.
  - Surround sample bags w/ wet ice.
  - Tie / tape outer bag closed.
  - Bag custody sheet & tape to inside of lid. (If applicable)
  - Tape cooler closed.
  - Remove the existing shipping tag and attach the return tag.
- Observe lab holidays and weekends!
- Make every attempt to use FedEx Priority Overnight Shipping





# SHIPMENT

## Locating **STAFFED** FedEx Shipping Centers for Cooler Drop-Off

Other options:

- Call 1.800.GOFEDEx (1.800.463.3339)
- Visit [www.FedEx.com](http://www.FedEx.com) and select “schedule pickup”



# What if things don't go as planned?

- Shipping delay or lost in shipment
  - Document and report all shipping problems to QA Officer ASAP. (Please include waybill / tracking numbers)
- Cracked or leaking containers
- Sample lost during analysis





# RESAMPLING PROTOCOL

- Resampling requirements will be decided by QA Officer & Managers.
- Time and logistics will determine if resampling will be attempted.
- If many analytes are lost resampling is advisable.
- SCI will not be resampled (as long as the original samples were properly collected and preserved).



# RESAMPLING PROTOCOL

- Retain original field sheets & Trimble files.
- Status – For surface water, rename site location from original sampling event with a “B” designation (e.g. “Z1-SL-17001B”) in the Trimble file. No need to rename for wells since the sample is collected from the same location.
- Trend – No need to rename the site location since the sample is collected from the same location.
- Complete new Survey123 response for Status or Trend re-sampling. Create new Trimble data file for Status re-sampling.
- Collect all water quality data again, including GPS points & field parameter measurements.
- Send documentation for **both events** (original & resample) to WMS Project Manager.

A photograph of a swampy landscape. In the foreground, there is a body of water with ripples, reflecting the surrounding trees. The middle ground is filled with a dense forest of cypress trees, some with prominent white, gnarled trunks and others with green foliage. A fallen, bleached tree branch lies horizontally across the water. The background shows more trees under a clear sky.

**QUESTIONS?**