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| USDA Forest Service shield | **Surface Water Chemistry Monitoring Record** *(Bolded items are mandatory. NA, not applicable may be used. Please send this form to the contracted laboratory and make a copy for yourself.)  Revised: 6/1/2004* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Site Information | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Lake/Stream ID** | | | | | | | | | | | | | | **Lake/Stream Name** | | | | | | | | | | | | | | | | | | | | | |
| **Latitude** | | | | | | **Longitude** | | | | | | | | | | | | | **Location Description** *(e.g., west side of lake near weir)* | | | | | | | | | | | | | | | | |
| Hydrologic Unit Code | | | | | | | | | | | | | | | National Hydrography Data (NHD) Reach Code | | | | | | | | | | | | | | | | | | | | |
| **National Forest** | | | | | | | | | | | | | | | **Wilderness** | | | | | | | | | | | | | | | | | | | | |
| **Ranger District** | | | | | | | | | | | | | | | **Other Administrative Name** *(e.g. Research Natural Area, Experimental Forest)* | | | | | | | | | | | | | | | | | | | | |
| Elevation *(m)* | | | | | | Lake Size *(ha)* | | | | | | | | | Stream Order *(N/A for lakes)* | | | | | | | | | | | | Lithology | | | | | | | | |
| Catchment Slope *(%)* | | | | | | Catchment Aspect *(e.g., N, SW, NE)* | | | | | | | | | | | | | | | | | Catchment Size *(ha)* | | | | | | | | | | | | |
| % of Catchment above Lake/Stream: | | | | Hardwoods **\_\_\_\_­** | | | | | | | Conifers\_\_\_ | | | | | | Exposed Bedrock/scale **\_\_\_** | | | | | | | | | | | | Meadows Shrubs **\_\_\_\_** | | | | Other **\_\_\_** | | |
| Sample Information | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Technician Responsible: Last Name | | | | | | | | | | | | | First Name | | | | | | | | | | | | | | Phone No: Area code\_\_\_\_\_\_\_\_\_\_\_ Number\_\_\_\_\_\_\_\_-\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | | | | | |
| **Date** *(mm/dd/yyyy)* | | | | **Time** *(hh24mm***)** | | | | | **Sample Measurement Location** *(Please use Type Table)* | | | | | | | | | | | | | | | **Sample Depth Zone** *(Please use Type Table)* | | | | | | | | | | | |
| GPS Latitude*(decimal degrees) (x.xxxx)* | | | | | | | | | GPS Longitude *(decimal degrees) (x.xxxx)* | | | | | | | | | | | | | | | **Stream Stage (please circle)** Rising, Falling, Steady, Peak, Baseflow | | | | | | | | | | | |
| Usual CollectionPoint? | | | Y\_\_ | | **N\_\_** | | | **If no, why?** | | | | | | | | | | | | | | **Observed Water Level (please circle)** High, Medium, Low | | | | | | | | | **Measurement Sampling****Depth** *(m)* | | | | |
| **Sample ID** *(ID sent to lab, bar code) (Please attach chain of custody)* | | | | | | | | | | | | | | | | | | | | **Sampling Method (please circle)** Grab, Composite, Shallow, Pole, Auto, Point | | | | | | | | | | **Type of Sample (please circle)** Regular, Duplicate, Triplicate, Blank, Split, Other | | | | | |
| Did sample collection deviate from protocol? | | | | | | | | | | | | Y\_\_ | | | | N\_\_ | | | | | If yes, describe | | | | | | | | | | | | | | |
| Field Notes and Observations (*Vegetation: significant differences from last site visit, clarity, color, fish, photos taken, etc.) (Please attach a separate sheet if needed.)* | | | | | | | | | | | | | | | | | | | | | | | | | | | | Percent snow or ice cover on lake or stream | | | | | | \_\_\_\_\_ | |
|  | | | | | | | | | | | | | | | | | | | | | | | | | | | | In catchment above lake or stream | | | | | | \_\_\_\_ | |
| Field Measurements | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Water Temperature *(°C)* | | Secchi Disk Disappearance *(m)* | | | | | | | | | | | | | Secchi Disk Reappearance *(m)* | | | | | | | | | | | | | | | Secchi Disk Depth *(Mean)* (*m)* | | | | | |
| Stage Height *(m)  (eg. Staff gage)* | | Discharge (*cfs)* | | | | | Discharge Method | | | | | | | | Disch. Equip*(make/model #)* | | | | | | | | | | pH *(s.u.)* | | | | | pH Equipment *(make/model #)* | | | | | |
| Conductivity @ 25*°C (uS/cm)* | | Conductivity Equipment *(make/model #)* | | | | | | | | | | | | | | | | Dissolved Oxygen (D.O.) *(mg/L)* | | | | | | | | | | | | D.O. Equipment *(make/model #)* | | | | | |
| Weather Conditions | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Wind Speed *(m/s) (see Wind Speed Scale)* | | | | | | | | | | Wind Direction *(from N, NW, etc.)* | | | | | | | | | | | | | | | | Precipitating during Collection? | | | | | | Y\_\_ | | | N\_\_ |
| Cloud Cover *(%)* | | | | | | | | | | Barometric Pressure *(mmHg)* | | | | | | | | | | | | | | | | Air Temperature *(°C)* | | | | | | | | | |

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| |  |  | | --- | --- | | USDA Forest Service shield | Surface Water Depth Profile Measurements  (*Bolded items are mandatory. NA, not applicable may be used. Complete Site Information  portion once, then preprint subsequent copies for data collection.)  Revised: 6/1/2004* | | | | | | | | | | | | | | | | | | | |
| Site Information | | | | | | | | | | | | | | | | | | |
| Lake ID | | | | | | | | | **Lake Name** | | | | | | | | | |
| **Latitude** | | | | | **Longitude** | | | | **National Forest** | | | | | **Ranger District** | | | | |
| Wilderness | | | | | | | | | **Other Administrative Name** *(e.g., Research Natural Area, Experimental Forest)* | | | | | | | | | |
| **If not done in the deepest part of the lake, why?** | | | | | | | | | | | | | | | | | | |
| Sample Information | | | | | | | | | | | | | | | | | | |
| **Date** *(mm/dd/yyyy)* | | | | | | | | | | | | | | | | | | |
| Sample ID *(ID sent to lab)* | | Depth *(m)* (Collected through the deepest area) | | | | Time  *(hrs)* | Temp  (°*C*) | | | D.O.  *(mg/L)* | pH  *(s.u.)* | Specific Conductance@25°*C* *(S/cm)* | | | Other *(unit)*  \_\_\_\_\_\_\_\_ | Other *(unit)*  \_\_\_\_\_\_\_\_ | | |
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| USDA Forest Service shield | | Revised: 6/1/2004  **Wind Speed Scale** | | | | | | | | | | | | | |
| **Mean Speed (m/s)** | | | | **Description** | | | | **Land Specifications**  **Use at streams** | | | | | **Water Specifications**  **Use at lakes** | | | | |
| 0 | | | | Calm | | | | No leaf movement | | | | | Water like glass | | | | |
| 0.8 | | | | Light air | | | | Leaves quiver | | | | | Water ripples | | | | |
| 2.4 | | | | Light breeze | | | | Leaves rustle | | | | | Small wavelets: crests have glassy appearance | | | | |
| 4.3 | | | | Gentle breeze | | | | Leaves and small twigs in constant motion | | | | | Large wavelets: crests begin to break | | | | |
| 6.7 | | | | Moderate breeze | | | | Small braches move | | | | | Small waves: frequently white caps | | | | |
| 9.3 | | | | Fresh breeze | | | | Small leafed trees sway | | | | | Moderate waves: Many white caps | | | | |
| 12.3 | | | | Strong breeze | | | | Large branches move | | | | | Large waves: spray off white caps | | | | |
| 15.5 | | | | Near gale | | | | Whole trees sway | | | | | White foam blown from breaking waves | | | | |
| > 18.9 | | | | Gale or stronger | | | | Twigs break of trees | | | | | Very high waves | | | | |

**Sample Measurement Location Type Table**

| **Type** | **Description** |
| --- | --- |
| BANK | Bank – Stream waters edge |
| CENT | Lake centroid – Center of the Lake |
| CHLC | Channel center- Center of a stream channel |
| DEEP | Over deepest spot of the Lake or Stream |
| INLT | **I**nlet - A stream flowing into a lake or pond |
| OUTL | Outlet - A stream flowing out of a lake or pond |
| POOL | Stream Pool - An area of the stream with greater than average depth and slower than average flow. Pools typically occur where the river bends or meanders. |
| RIFL | Stream Riffle - A raised area of the active channel that results in an increase in flow velocity. Riffle areas are typically preceded by pools and represent the fastest current in a given river or stream. |
| SHOR | Shore – Lake waters edge |
| UNKN | Unknown |

**Sample Depth Zone Type Table**

| **Type** | **Description** |
| --- | --- |
| EPLZ | Epilimnion - The layer of water in a thermally stratified lake that lies above the thermocline, is circulating, and remains perpetually warm. |
| HYPZ | Hypolimnion – The layer of water in a thermally stratified lake that lies below the thermocline, is noncirculating, and remains perpetually cold. |
| TERZ | Thermocline Zone - The zone where the temperature change marks the transition between warm surface water (Epilimnion) and the cold deep water (Hypolimnion). |
| TLWG | Thalweg - The line defining the lowest points along the length of a stream bed. |
| WTRS | Lake/Stream Water surface and Water subsurface |
| WUBT | Lake/Stream Water bottom |
| UNKN | Unknown |