Hilltop Sampler – External Contractor General Instructions

1. Overview

This document expands upon the processes outlined in Sections: (i) 15.9 appendix 1: Hilltop Sampler – Data Entry and (ii) 15.9 appendix 2: Hilltop Sampler – Data Archiving of the Hydrology Operations Manual.

The role of the external contractor (contractor) varies depending on the nature of the sampling work being undertaken, advances to data acquisition methods and updates to Hilltop Sampler (Sampler). This document does not replace the need for training and communication between the contractor and Horizons Regional Councils (HRC) Discrete Water Quality Portfolio Holder (or proxy), as such it assumes that the contractor has a working knowledge of both Sampler and HRC's monitoring network and practices. This document should therefore be considered a live document providing additional information on dealing with the core responsibilities of the contractor.

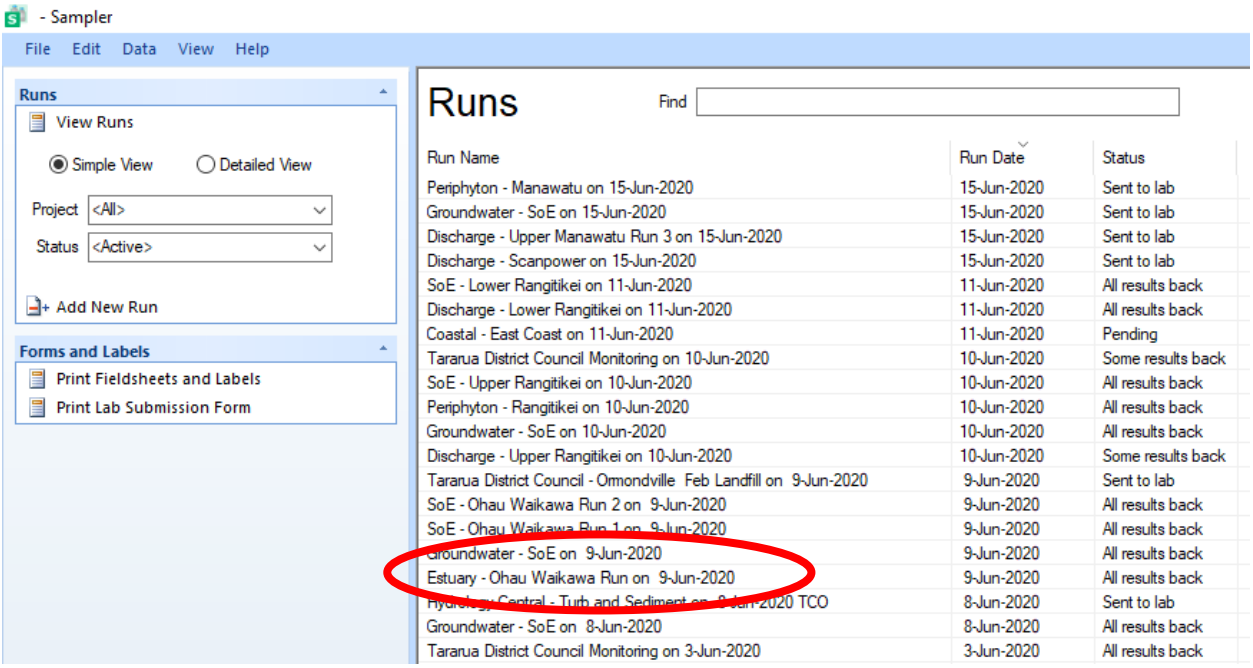
The contractors role is defined in 15.9 appendix 1: Hilltop Sampler – Data Entry.

2. Tracking a Run or Sample

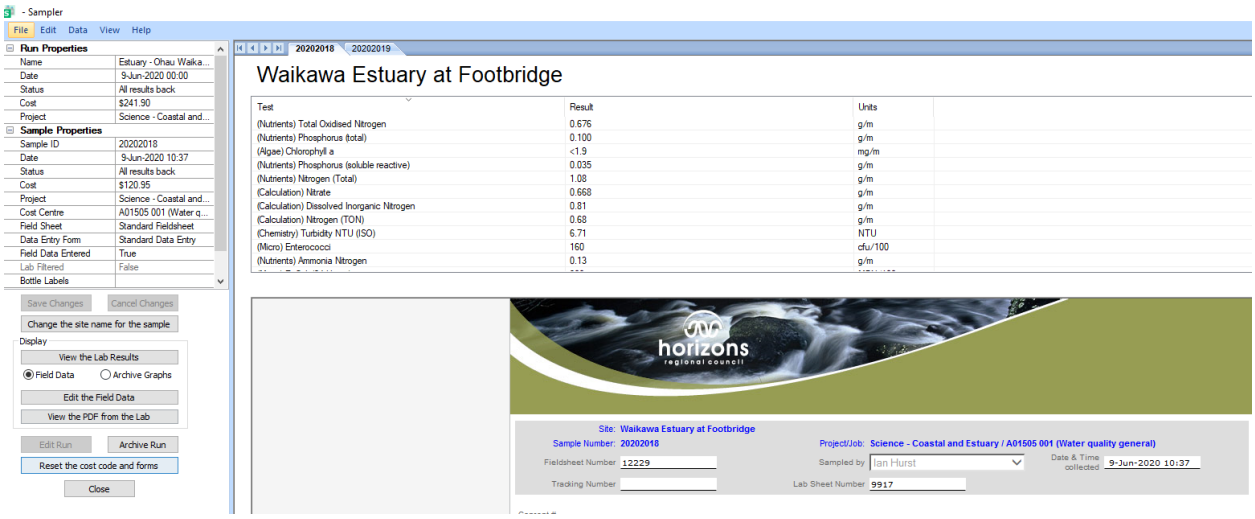
The lab sends results in both .pdf and .csv format by email to the wqlabresults@horizons.govt.nz e-mail address. Labmail software will automatically reads these e-mails on a nightly schedule and writes the results into Sampler. Sampler will change the status of each to display that some or all of the lab test results are back.

In sampler click the Runs button in the bottom of the left hand pane, and then you can then see the status of all the runs. You can select items from the Project and Status combo-boxes to filter the items in the list. Each run or sample is shown in a list, and the order of the list can be controlled from the headings.

Hilltop Sampler – External Contractor General Instructions

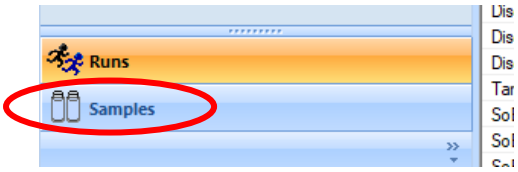


Double click on a Run in the Run Name list and the software will give you a detailed view of the sample.



Each sample appears under a tab at the top of the screen. Click a tab to select the sample that you want to work with. The test results and the field sheet are shown in the main window, and several important properties of the run and sample are in the left hand window.

You can get to a similar position by clicking the Samples button (in the bottom of the left hand pane) and then double-clicking on a sample in the list.



The screen will show the test results and field sheet for the sample, and the sample properties will be on the left hand side. The properties for the run are not displayed since you are not editing the run, just a sample in the run.

3. Status Settings

A run and the samples within it have a status, and this status changes automatically as the results come in. The run status and the sample status can be different, and this can occur when all the lab results for one sample arrive before others in the run, however the lab should only send the result once all analytical work on that run have been completed. The status values are:

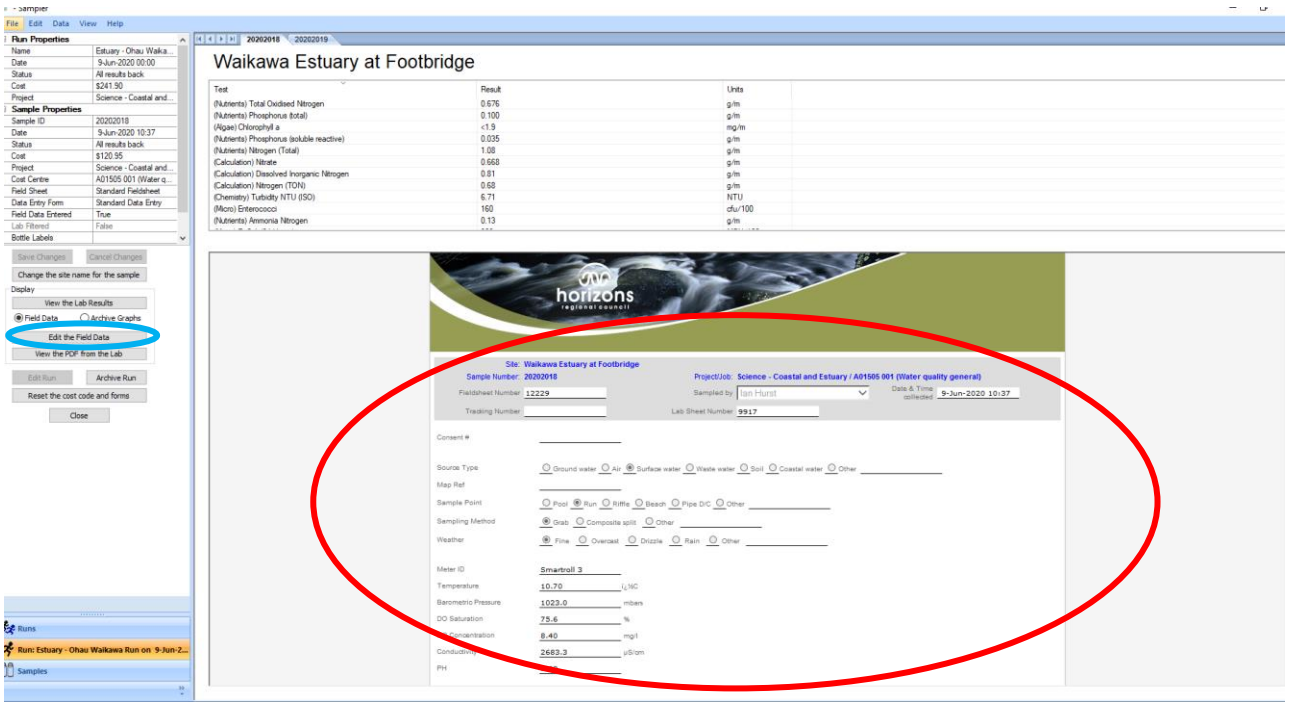
Pending	The run hasn't been done yet and there is no data collected
Sent to Lab	Samples have been collected in the feidl and have been sent to the lab
Some results back	Lab test results have begun to come back from the lab
All results back	The Lab Mail software has all it needs
Closed	The test results and field data are in the final archive
Cancelled	The sample or run was abandoned, and no data sent to archive

The status, for either run or sample, can be set manually by clicking on the status field – this should open a drop down box to allow you to select the required status. NOTE: Only when the run (i.e. all samples within the runs) is set at "All results back" can the data be written to the archive by an HRC staff member.

4. Entering Field Data

Whilst waiting for the lab results to be completed and uploaded the field collected data and sample properties need to be entered. These are shown in the bottom right hand pane of the screen (the upper right hand pane displays lab provided data).

Hilltop Sampler – External Contractor General Instructions



To enable data entry select the “Edit the Field Data” button – blue circle above and you will access an electronic version of the field form (below):

Hilltop Sampler – External Contractor General Instructions

The field sheet will now take up all of the screen and you can type data in as required. Click the Save button at the bottom of the field sheet when you have finished typing. Click the Close button in the left hand pane to finish looking at the samples in a run, or click on a sample number tab to view or edit another sample in the run.

The run and the samples composing of the the run start off with the same set of properties (top left hand pane), however the properties in each sample will change. For example, the status values may vary as the test results for each sample may arrive at different times. Changing a property in a sample does not change the corresponding property in a run. The same applies to changing a run property except that changing the status in a run will change the status in all the samples.

5. Archiving the Run

Once; (i) all the results are back from the lab and have been cross referenced with the matching .pdf results and (ii) you have entered data from field sheets into Sampler, the sample run is ready to be archived by an HRC staff member. If it has not already been set automatically, set the Run status to “All results back” –this will activate the Archive button. Inform the appropriate HRC staff member(s) via email of the runs that have been set as “all results back” and are ready to be archived.

Hilltop Sampler – External Contractor General Instructions

The process of archiving the run will write the test results and field sheet information into the archive data file – this itself is defined with the project details that the sample run is linked to.

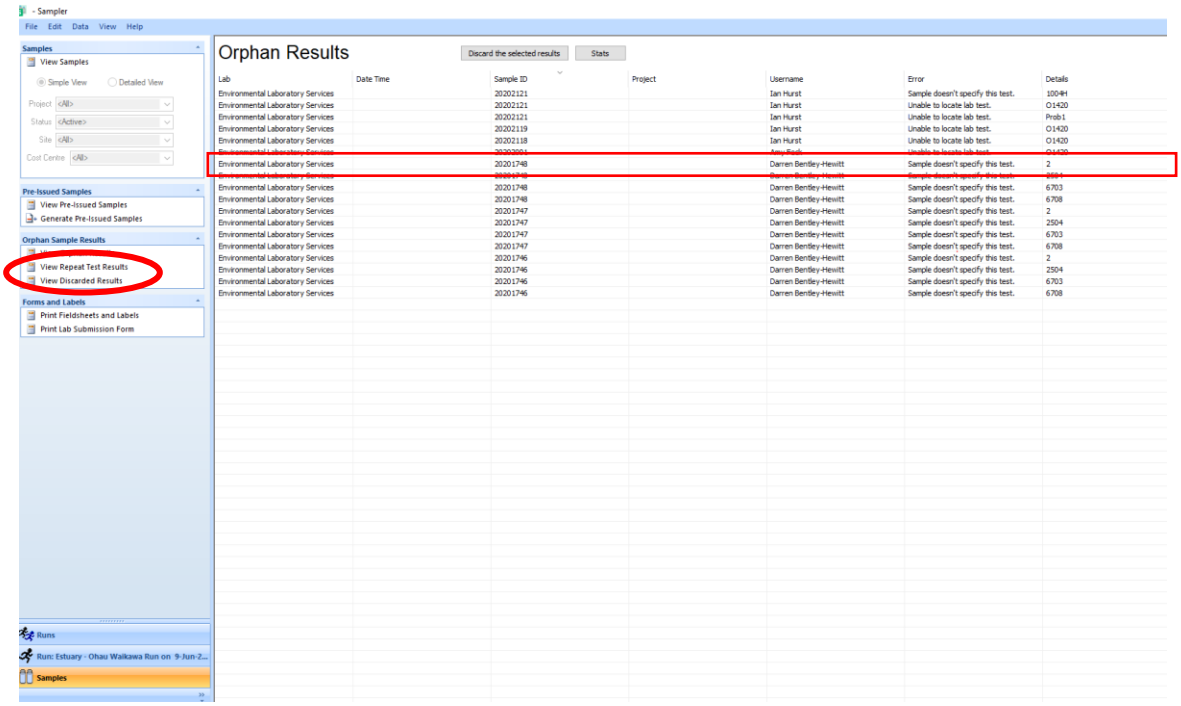
Note that the Archive Run button is only available when the Run Status is set to "All Results Back". This gets set auto-magically by the Labmail program, but you can set the status yourself if you need to push results into the archive file ahead of time or conversely to avoid incomplete or erroneous data accidently getting archived until further checks/edits are completed. The Run Status will change to Closed once you send the data to the archive.

6. Problems with the Lab Test Results

The Lab Mail software reads the .csv results files from the lab and writes them into Sampler.

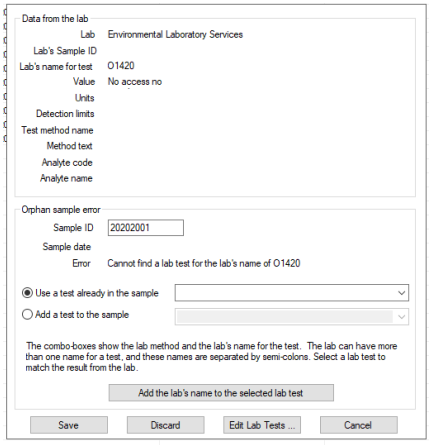
6.1 Orphan Results: Unfortunately, there may be problems with this because the lab results may not match what was requested. Labmail writes test results it doesn't like into the database and calls them "Orphan Sample Results". They get this name because the result appears to have lost its parent and is now homeless. It should be part of your office practise to check for orphan sample results regularly and try and resolve them. These will be noticeable by there being an apparent missing data point(s) in an otherwise complete set of lab results.

Click the Samples button and then click on View Orphan Results. The screen will show the test results that have problems. Click the headings in the list to change the order in which the results are shown.



Hilltop Sampler – External Contractor General Instructions

To repair a test result, double click on it in the list and a dialog box will appear. It shows as much information as Labmail was able to read and lets you change two of the fields. You can assign the test result to a different sample number to correct a typing mistake in the lab, or you can assign the result to a new lab test. Click the Save button to write your changes. The software will check your changes and they will only be written back into the database if they are now sensible.



The Discard button abandons a test result so that it will no longer appear in the list of Orphan Sample Results. Click this button for test results that just don't make any sense. You can view the discarded test results and change a result back again if circumstances change.

6.2 Corrupt .csv data file: The other most likely reason for data being missing is due to a corrupted (i.e. non-standard) .csv data file proved by the lab. This results in the file not being read by the labmail system.

In these instances you will see missing data for anything between a single test result to an entire sample run with no matching orphan results stored within sampler. You should also observe an unread email sitting in the wqlabresults@horizons.govt.nz inbox. The .csv data will only read up to the incorrect data point (i.e. the Sample ID number not being the 20201234 format).

In such situations contact the Discrete Water Quality Portfolio Holder (or proxy).

6.3 Non-Sampling Occurrences: Occasionally the sampling of a site cannot be undertaken, typically these are due to situations out of the sample staff members control (i.e. flood events preventing safe access to a site, road closures, drought events resulting in no flow to sample and plant machinery not operating). As such, the field sheet should have an appropriate comment-giving context to the 'missing' data. In addition, the paperwork is still submitted to the laboratory – the affected sample in the book should be clearly commented as NO SAMPLE.

Hilltop Sampler – External Contractor General Instructions

The lab will provide a test result confirming that no sample was undertaken and subsequently analysed in both .csv and .PDF formats (Eurofins-ELS uses test code O1420 that contains text as the result value). This will show as an orphan and needs to be added to the site as per 6.1. All other tests need to be deleted from the sample with the O1420 used in their place. The comments on the fieldwork need to be added to Sampler along with any other field data (i.e. time etc.)

The run/sample cannot be archived without the corresponding O1420 code - this 'test' allows the comments to be pulled into Hilltop Manager along with the sample metadata (Sample ID, date etc.). Conversely Hilltop Manager cannot display the text value from the lab result, as such the text from the comment section of the fieldwork is required (the text comment and O1420 comment from the lab need to be treated as a pairing).

If these steps are not taken the missed sample, will appear as a gap in HRC's archive and could be mis-construed as lost data.

7. Problems with the field data

The onus on providing you adequate field data is on the sample staff member. It is expected that staff will complete the field sheets wholly and accurately.

For any uncertainty contact the staff member for confirmation and/or the Discrete Water Quality Portfolio Holder (or proxy).

8. Pre-Issued Sample ID's

For sampling work undertaken by external stakeholders and compliance sampling among other situations, sample ID's need to be generated before knowing the number of sample sites, parameters required or number of samples needed are known. In these instances the Discrete Water Quality Portfolio Holder (or proxy) will create some pre-issued sample IDs. This in effect reserves these sample IDs for later use.

Processing Results with a Pre-Issued Sample ID: A pre-issued sample ID needs to be associated with a run before it can accept results from the lab. The method is to build a run as if you were going into the field and then assign the pre-issued sample ID instead of allowing Hilltop Sampler to create one. Steps to follow are:

- Click the Runs button and then click Add New Run. The dialog box asks for the run name so don't select a recurring run, but do give the date when you did the sample, and a short name for the site.
- The Run Editor will start and you should add a site name, and then the tests that you asked for when you sent the bottles to the lab.

Hilltop Sampler – External Contractor General Instructions

- There is a Sample ID field in the lower right corner of the dialog. This is normally blank because Hilltop Sampler will choose the ID. Type the number of the pre-issued sample and then click the Save button

The run is created with the sample ID, and now acts like a normal run and sample combination.