# Project assessment – receive samples

**Assessment event 2 of 3**

# Trainer & Assessor Marking Guide

## Criteria

### Unit code, name and release number

MSL953003 - Receive and prepare samples for testing (1)

### Qualification/Course code, name and release number

MSL40118 - Certificate IV in Laboratory Techniques (1)

MSL30118 - Certificate III in Laboratory Skills (1)

\*\*Amend the qualification box before distributing to the student. The information here should only contain the qualification the student is enrolled in\*\*

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This assessment can be found in the: [Learning Bank](https://share.tafensw.edu.au/share/access/searching.do?doc=%3Cxml%2F%3E&in=P7ac4831b-430a-4b8d-8b56-f7b32ed5b9cf&q=&type=standard&sort=rank&dr=AFTER)

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## Assessment instructions

Table 1 Assessment instructions

| Assessment details | Instructions |
| --- | --- |
| **Instructions for the trainer and assessor** | This is a project based assessment and will be assessing the student on their knowledge and performance of the unit.  This assessment is in 4 parts and an Assessment Feedback form is provided at the end of the student facing document:   1. Communicate non-conformance to customers 2. Enter samples Laboratory Information Management System 3. Receive samples 4. Assessment Checklist   You will need to download and copy the excel spreadsheet *F100: Laboratory information management system* to your laboratory computers ahead of class. Print the completed chain of custody form for each student (MSL953003\_MG\_Pro\_2of3\_SR1) and sample labels (MSL953003\_MG\_Pro\_2of3\_SR2) to attach to the samples for each student.  The following will also be required for this assessment.  Laboratory:   * A set of ten samples per student   + Nine 1L semitransparent plastic bottles filled with water   + One 1L semitransparent plastic bottle, broken, only some sample remaining * Sample labels (MSL953003\_MG\_Pro\_2of3\_SR2) to attach to the samples * A chain of custody form (MSL953003\_MG\_Pro\_2of3\_SR1) per student * 1 thermometer per student * Access to the fridge * Access to laboratory computers * Access to the Excel file *F100: Laboratory information management system* * Access to the printer * *F102: Chain of custody checklist* one per student * *F103: Refrigerator temperature log* one per student   The following benchmark response documents have been provided:   * *Completed benchmark chain of custody form (MSL953003\_MG\_Pro\_2of3\_SR3)* * *Completed benchmark chain of custody checklist (MSL953003\_MG\_Pro\_2of3\_SR4)* * *Completed benchmark Laboratory information management system (MSL953003\_MG\_Pro\_2of3\_SR5)* * *Completed benchmark refrigerator temperature log (MSL953003\_MG\_Pro\_2of3\_SR6)*   Model answers, sample responses or criteria for each question are provided below. Use these to support your judgement when determining a satisfactory result.  The student’s project/product must contain the information indicated in this marking guide in order to deem it satisfactory. However, if a student provides information other than indicated below, and in the professional opinion of the assessor it is appropriate and meets the intent of the criteria, it may be considered correct.  The assessment feedback page must be signed by both the student and the assessor so the student displays that they have received, understood and accepted the feedback.  Complete the assessment feedback to the student and ensure you have taken a copy of the assessment prior to it being returned to the student. |
| **About this marking guide** | All tasks and activities must responded to correctly in order to satisfactorily complete this assessment event.  Assessors will need to make a judgement call as to whether each answer/response meets the criteria based upon the:   * Rules of Evidence:   + Validity – does the answer address the assessment question and does the evidence reflect the four dimensions of competency?   + Sufficiency – is the answer sufficient in terms of length and depth?   + Currency – has the work been done so recently as to be current?   + Authenticity – is this work the student’s own authentic work? * Principles of Assessment:   + Fairness – individual student’s needs are considered in the assessment process   + Flexibility – assessment is flexible to the individual student   + Validity – any assessment decision is justified, based on the evidence of performance of the student   + Reliability – evidence presented for assessment is consistently interpreted and assessment results are comparable irrespective of the assessor conducting the assessment * Dimensions of Competency   + Task skills   + Task Management Skills   + Contingency Planning Skills   + Job Role Environment Skills |
| **Student must provide** | Pens, appropriate clothing and personal protective equipment (PPE) for laboratory work including: enclosed shoes, long sleeves and pants and long hair tied back. |
| **Assessor must provide** | Please refer to above information in “**Instructions for the trainer and assessor”** |
| **Due date and time allowed** | 2 hours |

**Specific task instructions**

The instructions and the criteria in the tasks and activities below will be used by the assessor to determine if you have satisfactorily completed this assessment event. Use these instructions as a guide to ensure you demonstrate the required knowledge.

Specific task instructions are listed under each Part.

## Part 1: Communicate non-conformance to customers

To complete this part of the assessment, the student will be required to follow the instructions below.

Using the information below and the criteria listed on the assessment checklist the student is required to identify a non-conformance and draft an email to a customer.

Once completed the student will need to submit this assessment to the assessor for marking.

**Your task**

This task involves checking a set of ten samples that have been delivered for testing.

You will read the chain of custody and the ten sample labels, and compare them to determine any non-conformances before booking them into the Laboratory Information Management System (LIMS).

Then you will discuss the non-conformances with your assessor and recommend corrective actions you might take. When your assessor agrees with you, your final task is to write an email to your customer in the email table below.

***To complete this task, you will be provided:***

* A set of ten samples
* A chain of custody for the samples
* A copy of *F102: Chain of custody checklist*

***Step 1: Work Health and Safety (WHS)***

1. WHS: Ensure you are wearing appropriate personal protective equipment (PPE) for this task

***Step 2: Research***

1. Read all supplied documents thoroughly
2. Collect your samples and their chain of custody from the sample receipt area

***Step 3: Sample receipt***

1. Use *F102: Chain of custody checklist* to check the **chain of custody** and confirm it is completed correctly:
   1. Write yes or no in the third column as you check the chain of custody against *F102: Chain of custody checklist*
   2. Highlight any errors on the chain of custody; and then list these in the ‘errors’ column of *F102: Chain of custody checklist*
2. Use *F102: Chain of custody checklist* to check the **samples** and confirm if they are suitable for testing:
   1. Write yes or no in the third column as you check the samples against *F102: Chain of custody checklist*
   2. Note any errors on the sample labels and list these in the ‘errors’ column of *F102: Chain of custody checklist*
3. If there are any urgent testing requirements, take note of these in *F102: Chain of custody checklist* to ensure these samples are prioritised for testing
4. Note any non-conformances
5. Discuss these with your assessor and determine the appropriate corrective actions to take, in preparation for step 4
6. Complete *F102: Chain of custody checklist* by listing the corrective actions required
7. Sign off on the chain of custody

***Step 4: Draft an email to the customer***

1. Read the following workplace procedures
2. Use the workplace procedures to help you draft an email informing the customer of the non-conformances and the corrective actions that you have identified
3. Write the email to your customer in the space on the page below

**WORKPLACE PROCEDURES – CUSTOMER CONTACT**

**Phone calls**

1. When answering the phone, say the following phrase:
2. ‘Welcome to AllSci, my name is [YOUR NAME], how may we be of assistance today?’
3. If you are unable to assist the customer with their request, put them through to the correct department or person

**Emails**

1. When emailing a customer, always begin with ‘Dear [CUSTOMER NAME HERE]’
2. End with ‘Kind regards, [YOUR NAME]’

**General**

Do not:

Abbreviate words

Use slang or informal language

Swear

Accuse the customer of doing something wrong

**Non-conformance notification**

1. If possible, telephone the customer and let them know what the issues are with the chain of custody or samples.
2. Regardless of whether the customer is contactable by phone, follow up the call with an email outlining the issues and corrective actions AllSci will undertake.
3. Include photographs of the chain of custody and/or samples, with errors highlighted.

Acronyms on the chain of custody that you may need to know when writing an email to the customer:

**EC:** electrical conductivity, or just conductivity

**TSS:** total suspended solids

**TDS:** total dissolved solids

**Table 2: email to customer**

Table 2 email to customer

|  |  |
| --- | --- |
| Email to customer (include their email address and a subject) | |
| **Email to:** | brian.wilderbeest@boggs.com.au |
| **Subject:** | Non-conformances on job 3472 delivered 18/2/20 |
| **Message:** | |
| Dear Brian  Your recent delivery of samples has some errors, can you please confirm the correct information before we commence testing? We have attached photographs of the samples in question and a copy of the chain of custody.  Sample 1 – Groundwater A  Unfortunately the container arrived broken and there is no sample remaining. This was your urgent sample. Please let us know if you will be bringing a replacement sample.  Sample 4 – Groundwater D  None of the tests were ticked for this sample. Could you please let us know which ones you require?  Sample 6 – Effluent point A136  Should this sample be called ‘Effluent point A’ or ‘Effluent point A136?  Sample 9 – Effluent point D  Should this sample be called ‘Effluent point D’ or ‘Effluent point D158?  Sample 10 – no name on chain of custody  There is no name on the chain of custody, however, the one sample left over has a label of ‘Effluent point E164. Is this the correct sample 10?  Kind regards  Jane Smarts  AllSci Laboratory Services | |

**Physical evidence required:**

1. **Chain of custody**
   1. Correctly completed chain of custody
   2. Errors highlighted on the chain of custody
2. ***F102: Chain of custody checklist*:**
   1. Yes / No column completed
   2. All errors listed
   3. All corrective actions listed
   4. Form named, signed and dated
3. **Email to customer:**
   1. Email addressing non-conformances drafted in space above

**EMAIL TO CLIENT:**

The completed example above should only be used as a guide. Students will have their own way of writing, and as long as they stick to the workplace procedure and list all of the non-conformances/errors, they will meet the criteria for competence in this task.

## Part 2: Enter samples into Laboratory Information Management System (LIMS)

To complete this part of the assessment, the student will be required to enter the ten samples from Part 1 into the LIMS spreadsheet.

Using the information below and the criteria listed on the assessment checklist you are required to complete the task below.

Once completed the student will need to submit this assessment to the assessor for marking.

**Your task**

For Part 2, you are required to enter the ten samples from Part 1 into the LIMS.

After completing the data entry, you will preserve two samples from the batch and record their location as well as the temperature of the refrigerator.

***To complete this task, you will be provided:***

* The set of ten samples used in Part 1
* The chain of custody used in Part 1
* The completed *F102: Chain of custody checklist* from Part 1
* 1 thermometer
* Access to the fridge
* *F103: Refrigerator temperature log*
* Access to the Excel file *F100: Laboratory information management system*
* Access to the laboratory computer/s
* Access to the printer

***Step 1: Log samples***

1. Open the Excel file *F100: Laboratory information management system* and follow the instructions on the following sheet: *1. Log samples*. This is the only sheet you are required to use for this assessment task.

*Remember to make adjustments to the due date for any urgent samples to ensure they are processed within an acceptable timeframe.*

1. Print out the sheet: *1. Log samples* and write your name, sign and date it.

***Step 2: Preserve samples***

1. Choose two samples to preserve before testing. In this instance, preservation simply means refrigeration. Before placing your samples in the refrigerator, you must confirm the environmental conditions are suitable for storage of your samples.
   1. Check the temperature of the room by reading the thermometer. Record this on *F103: Refrigerator temperature log.*
   2. Check the temperature of the refrigerator by placing a thermometer on the middle shelf with the door closed for 5 minutes. Record this on *F103: Refrigerator temperature log.*
   3. Place your samples into the refrigerator.
   4. Note where your samples are being held by placing an X in the appropriate box in the table below.

**Table 3: Sample location**

Table 3 sample location

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Shelf (from top to bottom) | 1 | 2 | 3 | 4 |
| Rear |  |  |  |  |
| Middle |  | X |  |  |
| Front |  |  |  |  |

***Step 3: Housekeeping***

1. Clean up your work area, including any splashes and spills
2. Empty water bottles and rinse out with tap water
3. Place water bottles into container supplied
4. Put all rubbish into correct bins
5. Safely dispose of hazardous materials
6. Provide your teacher with your completed documentation.

**Physical evidence required:**

1. ***F100: Laboratory information management system*:**
   1. Sheet 1 completed correctly
   2. Sheet 1 printed out, name, signature and date completed
2. ***F103: Refrigerator temperature log***:
   1. Completed temperature log
3. **Samples:**
   1. 2 samples preserved in the refrigerator
   2. Table 3: Sample location completed
4. **Paperwork:**
   1. When you hand in your paperwork and this document, confirm with your teacher that they have received all of the required documentation

## Part 3: Assessment Checklist

The student’s copy of the Assessment Checklist will be used by you to capture evidence of their performance in any type of project. This checklist outlines all the required criteria you will be marking the student on. All criteria must be met. The following checklist contains benchmark responses for you to use when assessing to ensure reliability of judgement. You may ask questions during the demonstration or if appropriate directly after the assessment has been completed noting that both the question and student response needs to be captured on the checklist.

Table 4 assessment checklist

| ITEM # | Marking criteria | S | U/S | Assessor Comments |
| --- | --- | --- | --- | --- |
| **1** | **PPE** |  |  | Student is wearing safety glasses, gloves and lab coat |
| **2** | **Chain of custody**  Receive chain of custody with samples and check for non-conformances/errors.  Complete both chain of custody and chain of custody checklist. |  |  | The chain of custody has been completed as per benchmark form MSL953003\_MG\_Pro\_2of3\_SR3  *F102: Chain of custody checklist* has been completed as per benchmark MSL953003\_MG\_Pro\_2of3\_SR4 |
| **3** | **Email to customer**  Ensure that information provided to the customer is accurate and authorised for release.  Customers are dealt with politely, following workplace procedures. |  |  | Student must discuss the issues with the assessor before completing the non-conformances section of *F102: Chain of custody checklist*. The assessor can assist the student come up with corrective actions, as this part is to meet PC2.1.  Student and I have discussed the errors/non-conformances found.  Student has completed as per example benchmark response provided.  Student has applied workplace procedures, includes introduction as ‘Dear [client name], ends with Kind regards [student’s name]. Has not used slang, abbreviations, or swear words.  All errors/non-conformances have been included with recommended corrective actions, as per chain of custody checklist completed above. |
| **4** | **LIMS**  Using chain of custody and completed *F102: Chain of custody checklist* to enter data into LIMS. |  |  | LIMS completed as per benchmark response MSL953003\_MG\_Pro\_2of3\_SR5 – sheet 1 is printed and handed in with the student’s other documentation for this assessment event. |
| **5** | **Preservation**  Monitor and control condition by completing the temperature log accurately. |  |  | *F103: Refrigerator temperature log* has been completed as per benchmark response (MSL953003\_MG\_Pro\_2of3\_SR6).  Student was observed checking temperature of room and fridge, and samples have been preserved in the fridge. Table 3 Sample location is completed as per benchmark example above. |
| **6** | **Housekeeping**  Generation of waste is minimised and wastes, including hazardous materials are safely disposed or recycled as required.  Spills are cleaned up immediately. |  |  | Student has recycled the water sample bottles, and correctly disposed of all other wastes, including any hazardous wastes, in accordance with local laboratory procedures, hazardous materials were safely disposed into biohazard bins/decanting drums etc.  Student kept workspace clear and clean, wearing PPE at all times. Spills and splashes were cleaned with paper towel and the towel was binned immediately upon cleaning. |
| **7** | **Paperwork**  Check with assessor that all files have been received and confirm where preserved samples have been placed. |  |  | I have confirmed with student that I have received all paperwork, as listed in physical evidence required in Part 1 and Part 2. |