Idaho Department of Environmental Quality (IDDEQ)

Compliance Monitoring Data Portal (CMDP) Best Practices Reference Guide

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Data Synchronization Engine (DSE)

Maintain Passwords

- Use a dedicated account with CMDP State Administrator privileges.
- Passwords with SCS must be updated every 90 days. Recommend setting a calendar reminder for 82 days to ensure account doesn't lapse because user is out of office.
- Passwords must not contain special characters (%, ^, &, |, “, <, >) DSE Password Tool Fails to Encrypt Special Characters – HELP CENTER.

Resources

- EPA's CMDP Help Center.
- Known Issues: CMDP and DSE – HELP CENTER (service now).
- EPA CROMERR Shared Services (SCS) registration for Pre-Prod/Test: https://encromerrtest.epacdxnode.net/.
- CMDP Pre-Prod/Test: https://cmdpprep.epa.gov/.
- Information about SCS: https://encromerr.epa.gov/About.
- EPA SCS Production: https://encromerr.epa.gov/.
- CMDP Production: https://cmdpapp1.epa.gov/.
- For help with CMDP registration see CMDP Role Registration User Guide.
- For help with EPA CROMERR Shared Services (SCS) account registration in test see https://encromerrtest.epacdxnode.net/.
- Note: EPA does not recommend using the handoff link from SCS to get to CMDP, as it does not always work properly. It is better to start with CMDP.
- Stay abreast of information shared by EPA or ASDWA.
    - Contact Anthony DeRosa at ASDWA (aderosa@asdwa.org) to be added to CMDP mailing lists.
    - Participate in the ASDWA/EPA Monthly All Things SDWIS Webinar Series. You sign up for all webinars for the year, so there is no need to register for each webinar individually. Register once and you'll receive reminders for the rest of the year, including notifications of scheduling changes. Please contact Anthony DeRosa at ASDWA if you would like to receive regular calendar reminders for these events.
- CMDP information from Primacy Agency Websites
    - AK: https://dec.alaska.gov/eh/dw/laboratories/
    - CT: https://portal.ct.gov/DPH/Drinking-Water/DWS/Electronic-Reporting-Requirements-for-Water-Quality-Data
    - IN: https://www.in.gov/idem/cleanwater/drinking-water/drinking-water-compliance-section/water-systems/laboratories/
    - NC: https://deq.nc.gov/about/divisions/water-resources/drinking-water/drinking-water-laboratories
    - VA: https://www.vdh.virginia.gov/drinking-water/information-for-laboratories/

- WV: https://www.wvdhhr.org/oehs/eed/dm/CMDP.asp

SDWIS Inventory

- Ensure sampling point "type" field is populated. Sampling points must include the sampling point type indicator, or they will not be uploaded from SDWIS/State to CMDP.
- CMDP does not allow for deletions and/ or renaming changes as any record associated with previous submissions would retain the submitted Sampling Point ID, PWS ID, facility ID, etc. In other words, the CMDP retains the history of inventory data transferred from the SDWIS State database. Thus, if Sample Location ID is changed in SDWIS State, it will result in a new record in the CMDP. How does CMDP handle changes to Sample Location ID?
- Lab and Water System name changes in SDWIS State will impact user permissions in Shared CROMERR Services, which may result in an unsuccessful CMDP log-in by the impacted lab/water system users. Insufficient Permissions Error Due to Lab and Water System Name Changes in SDWIS State
  - Primacy Agency Admins need to notify impacted users and EPA BEFORE you make a lab/water system name change in SDWIS State.
  - Primacy Agency Admins need to notify impacted users and EPA AFTER you make a lab/water system name change in SDWIS State.
- Request a new Method/Analyte pairing in CMDP.
  - Send a spreadsheet with the analyte (name, number), method (name, code) and any reference material to the CMDP helpdesk (copy Deric Teasley, the EPA CMDP Product Owner, at Teasley.deric@epa.gov).
  - The Technical Support Center (TSC) in Cincinnati will vet the task and add it to Jira.
  - The work is completed and added to Pre-Prod/Test and Prod.

Laboratory Submissions

CMDP/XML Sampling Behavior for Subcontract Lab Entries: The Relationship Between Reporting and Analyzing Labs in the CMDP and SDWIS State

- **Reporting Lab is the Analyzing Lab:** Where the reporting lab is the analyzing lab for all results within a sample, only the reporting lab in the CMDP must be recorded. In this scenario the appropriate data entries are recorded in both the CMDP and SDWIS State for the reporting / analyzing lab.
- **Reporting Lab and Analyzing Lab Are Different:** Where the reporting lab and analyzing lab are different, but the sample only includes results from the one analyzing lab, the values are properly recorded in the CMDP. When the job is migrated to SDWIS State, the samples are associated primarily to the analyzing lab. This is done so that those primacy agencies using the certification module can accurately do so. The reporting lab is recorded in the comments section of the sample in SDWIS State.

- **Reporting Lab has Multiple Analyzing Labs per Job:** Where the reporting lab is having multiple analyzing labs submit per sample, the CMDP records the relationship between the results recorded within the sample as intended. However, when migrated to SDWIS State, all results are associated primarily with the reporting lab. The individual results record the analyzing lab within the comments section of each result submission. In this scenario, primacy agencies that use the certification module should be aware of this. The recommendation is for the reporting lab to ensure a one-to-one relationship with their analyzing lab within the CMDP per sample.

Download CMDP file through API Call

- Must use a State CMDP Administrator account with the Primary organization. For example, if the Administrator uses the same SCS credentials for both WY and Region 8 (note these are only examples, as some laboratories or some state or EPA regional users may have State CMDP Administrator access for more than one organization), only one can be set as the primary. Ensure the primary indicator is set for the organization for which you want to download job files.

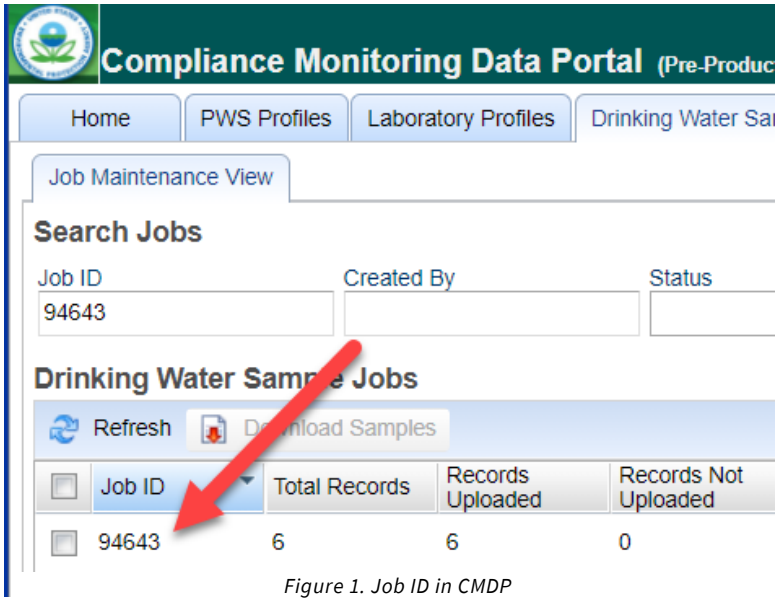

Figure 1. Job ID in CMDP

- Locate the JobID of the job you wish to download from CMDP.
- Modify the URLs below by replacing the highlighted text with the JobID

  Production:
  https://cmdpservice.epa.gov/cmdp-webservice/api/sample/q/jobSamples/%7BjobId%7D.

  Preprod:
  https://cmdpprep.epa.gov/cmdp-webservice/api/sample/q/jobSamples/%7BjobId%7D.

  Example: https://cmdpprep.epa.gov/cmdp-webservice/api/sample/q/jobSamples/94643.

- Paste the modified URL in a web browser and enter your SCS credentials in the pop-up window.

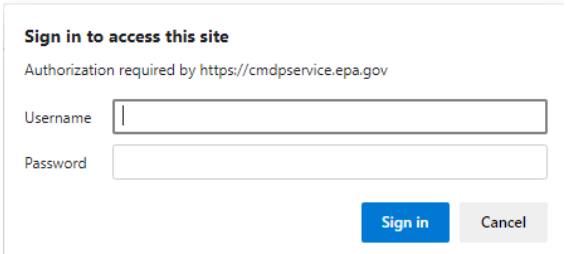

Figure 2. Sign in to CMDP

- The downloaded file will appear in your downloads folder.

Working With Laboratories

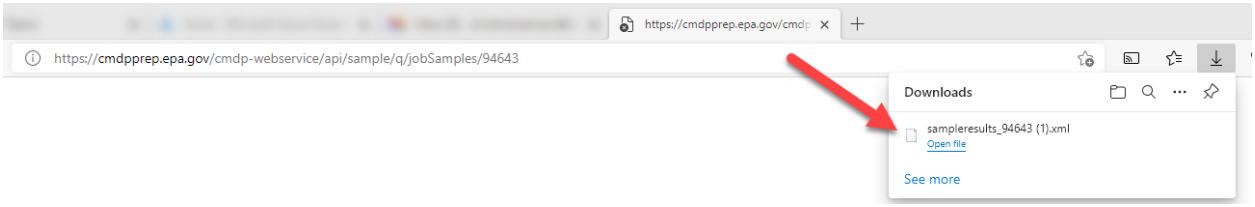

Figure 3. Downloading CMDP Excel Template

Identify Labs Using CMDP in Other States to Report to Your Primacy Agency

- Identify if any labs currently in CMDP are also reporting to Idaho. Hopefully, convincing these labs to register for multiple agencies will be easier than persuading a lab to try CMDP for the first time.
- EPA maintains a list of laboratories using CMDP, which is periodically updated by primacy agencies: https://asdwa-my.sharepoint.com/:x:/g/personal/aderosa_asdwa_org/EVVyq6-2UjxEi9widFZI0WgBGcqw6zvdaJIcMfCK3pVITw?rtime=CO-pkpJL2Ug.

Allow Primacy Agency or a PWS to Have Lab Role in CMDP

- Laboratory administrators can create a read-only role for primacy agency staff (or water system users).
- This practice will allow the primacy agency to see validation errors if the lab is having trouble with CMDP submissions, which greatly enhances their ability to troubleshoot the problem.

Idaho process for Working with Laboratories and Managing the CMDP Process

In Idaho, laboratories submit compliance monitoring data to the Idaho Department of Environmental Quality (DEQ) through the Compliance Monitoring Data Portal (CMDP). Laboratories must first coordinate with DEQ to ensure they are registered in CMDP, have the appropriate SCS access, and have completed required onboarding and training. Once approved, laboratories may begin submitting electronic sample results through CMDP for reporting to SDWIS. If a laboratory needs to correct or modify a job that has already been submitted, the laboratory must complete the Idaho Sample Result Removal Request form so DEQ can remove the job from CMDP/SDWIS and allow the corrected data to be resubmitted. DEQ staff monitor submissions, assist laboratories with validation errors, and work directly with laboratories during testing, onboarding, and production use to ensure accurate electronic reporting.

Having Multiple Accounts in SCS and CMDP

If a lab reports to multiple primacy agencies, they can now use the same username and password for each primacy agency. To set up multiple agencies in SCS test, use the following steps (note that we are using the Wyoming DI program and Region 8 Tribal programs as examples here):

1. Log into your SCS test account here: https://encromerrtest.epacdxnode.net/.
2. Click on the “Services” link:

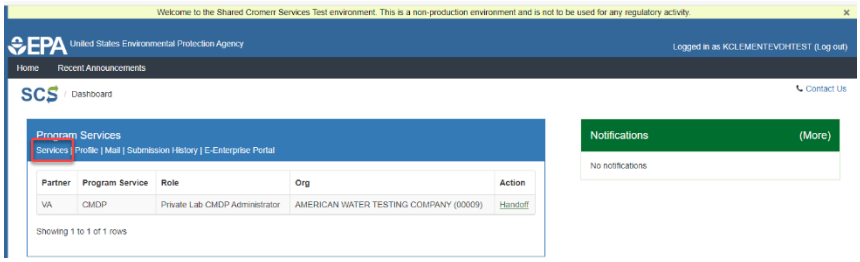

Figure 4. SCS Account registration

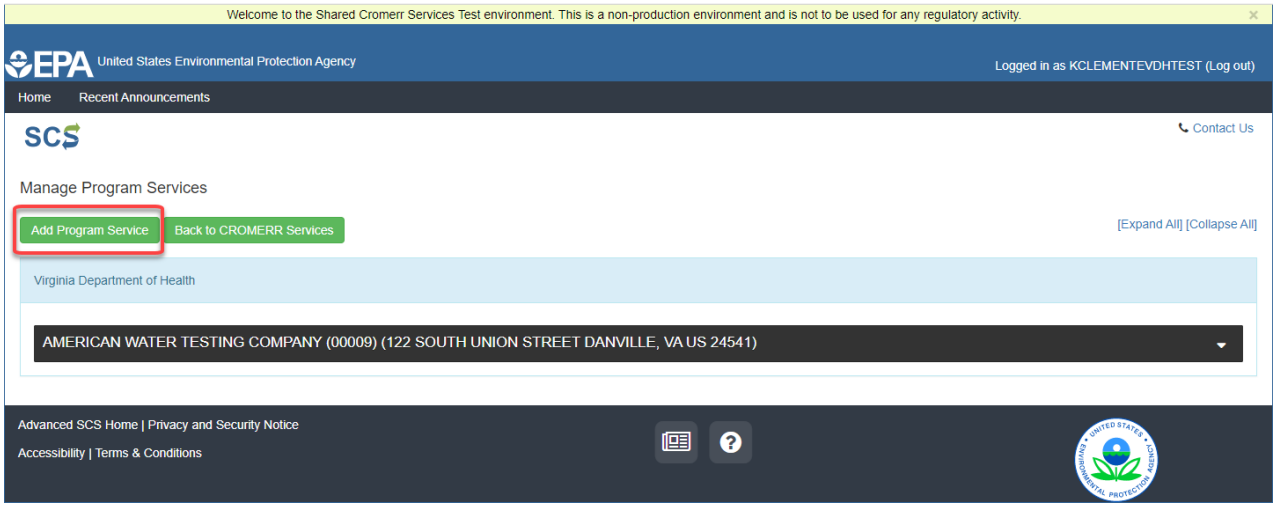

Figure 5. Add program services

3. Click on “Add Program Services” link:
4. Select the program services you would like to add to your account. In this example, select either “Wyoming US EPA Region 8” for WY public water systems (PWSs) or “US EPA Region 8 Tribal” for Tribal PWSs. ***Note:*** if your lab reports drinking water sample results for both WY and Tribal PWSs, you will need to add both program services to your account.
5. Select CMDP: Compliance Monitoring Data Portal from the drop-down menu:

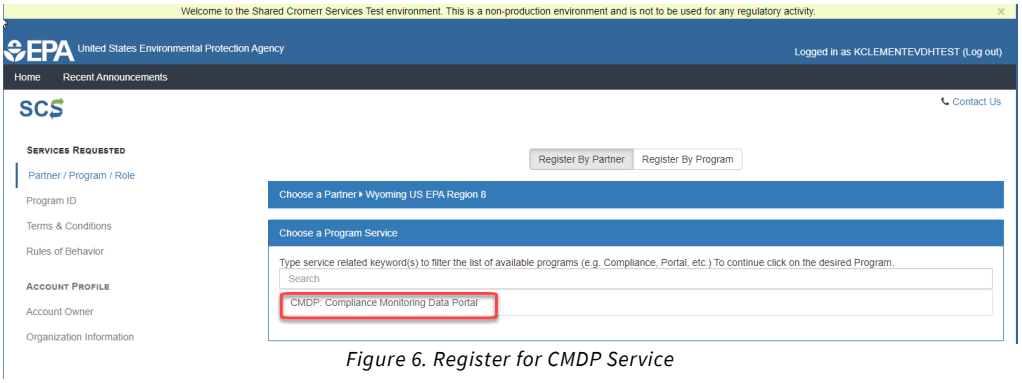

Figure 6. Register for CMDP Service

6. Select the role you would like to add to your account:
7. Follow the remaining instructions for registering an account in SCS test here: CMDP Role Registration User Guide.
8. Once you register for SCS test for your selected organization (WY or Tribal PWSs in the example), a primacy agency administrator will approve your role.
9. To move to CMDP production, please practice submitting three error-free jobs. These should be representative of the analytes for which your lab holds certification. Please submit in CMDP test here: https://cmdpprep.epa.gov/. An administrator will review your submissions for errors and let you know when you are ready to move to production. It is very important to continue to report drinking water compliance data in the same way you currently report until Idaho approves you for production.

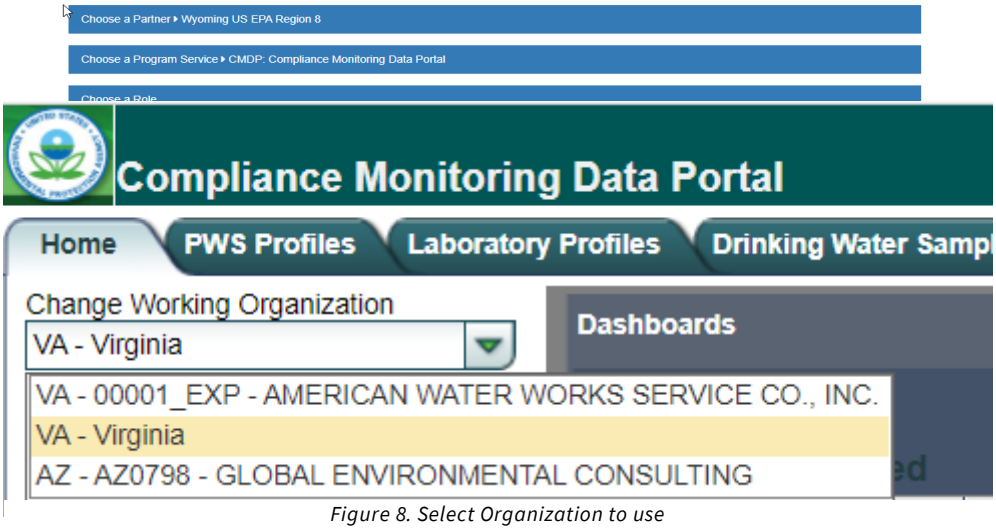

Figure 8. Select Organization to use

10. Once you log into CMDP, remember to select the correct organization before you upload data. Change your organization on the Home Tab using the pull-down menu. An example using the state of VA is shown below.

Once you are approved to submit drinking water data to CMDP production you will need to repeat the steps above to add additional organizations to your account as needed here: https://encromerr.epa.gov/.

11. Then log into CMDP production here: https://cmdpapp1.epa.gov/.

How to Change a Lab Name

- State or lab must call SCS Help Desk and get help to change name in CMDP.
- If you make changes in SDWIS/State, the DSE picks it up and flows it to CMDP. But if you make a change, it doesn't flow back to SCS.

  - When a lab name is changed, SCS inactivates the old lab organization number, and assigns a new organization number. Then SCS inactivates the accounts of users associated with that laboratory.
  - If a user cannot sign into their SCS account, they will need to contact the SCS helpdesk to reactivate their account, and to add the new lab organization ID to their account.
- The lab can request a Profile Change in CMDP and CMDP Admin can check it. They must change it in SDWIS/State. Then it's updated in CMDP.

Public Water System (PWS) is also a Certified Lab

Background:
Some Public Water Systems (PWSs) also have laboratories that are certified to perform analysis and report results to the primacy agency. This can lead to the primacy agency having to decide how they want to configure this information in CMDP; is the analysis reporting done by a PWS organization in CMDP or by a laboratory?

Option 1 – Reported by PWS:
Under this scenario the PWS is an organization in SCS and CMDP which has an administrator and possibly other users who can enter/submit data. The PWS staff would submit data to the primacy agency for their PWS only. A PWS organization type is not able to submit data for another PWS.

Requirements:
If the PWS analyzes the results themselves and is reporting those results, then the PWS must be a laboratory in the SDWIS State database and been uploaded to CMDP as a valid laboratory.

The samples must be entered with the "Laboratory ID" being the laboratory that performed the analysis, in this case, the laboratory record for the PWS.

Items of Note:
- Requires both PWS and Laboratory organizations in SCS/CMDP with users assigned.
- PWS can only submit samples for their PWS.

Option 2 – Reported by Laboratory (the laboratory "department" of the PWS is considered a certified laboratory by the primacy agency):
Under this scenario the laboratory portion of PWS is an organization in SCS and CMDP which has an administrator and possibly other users who can enter/submit data. The laboratory staff would submit data to the primacy agency for all PWSs that they analyze samples for.

Requirements:
The PWS laboratory must be a laboratory in the SDWIS State database and been uploaded to CMDP as a valid laboratory.

Items of Note:
- Requires only the Laboratory organization in SCS/CMDP with users assigned.

- The PWS the samples were analyzed for would need to be a valid PWS but would not need to have user accounts in SCS.
- Laboratory can submit samples for any PWS of the SCS Partner.

Version of Excel Needed to Run Macros

- For Windows (2010 or later).
- For Macs (2008 or later).
- Excel file must be accessed from a Trusted Location.
- Macros must be enabled.

To Enable Macros and access from Trusted Locations, see the following steps.

1. Make sure the CMDP template is saved/located in the folder of your choosing (not only in your downloads).
2. Open Excel.
3. Find the Options tab on the Excel Home page or find using the search bar.

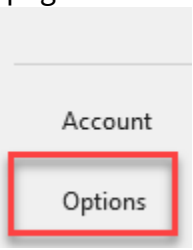

Figure 8:Options button in Excel

4. The Options pop-up window will have a menu to the left of the page.
5. Select “Trust Center” at the bottom of this menu.

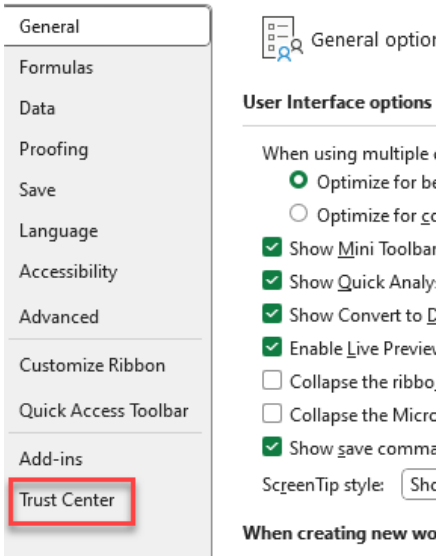

Figure 9: Trust Center option

6. Select “Trust Center Settings” button.

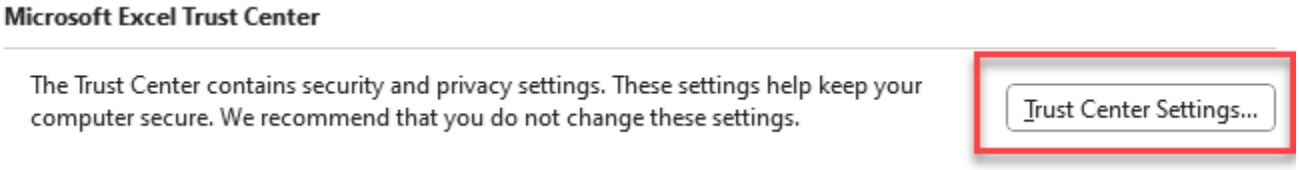

Figure 10: Trust Center Settings option

7. Select “Macro Settings” in the menu.

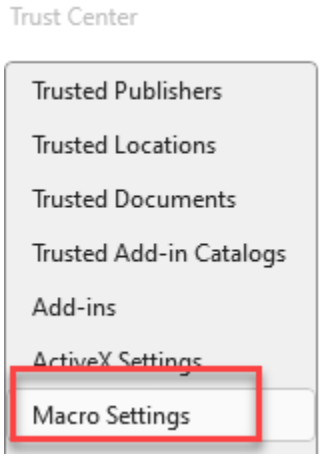

Figure 11: Macro Settings option

8. Select the last radio button “Enable VBA Macros (not recommended potentially dangerous code can run).”
9. Select the two remaining check-boxes “Enable Excel 4.0 macros when VBA’s are enabled”, and “Trust Access to the VBA project object model.”

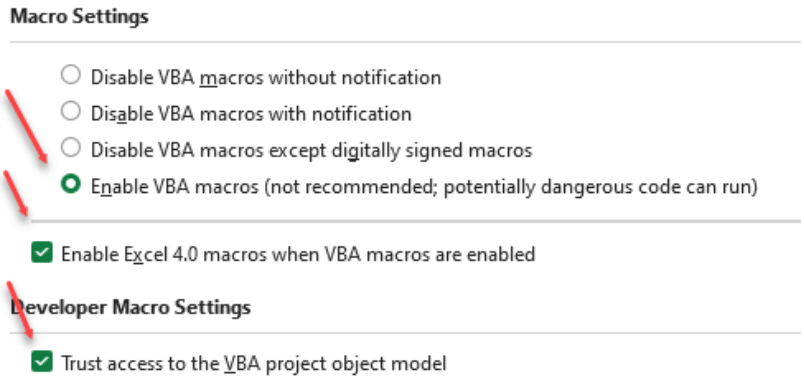

Figure 12: Check these options to enable macros

10. Now Select the Menu Option “Trusted Locations.”

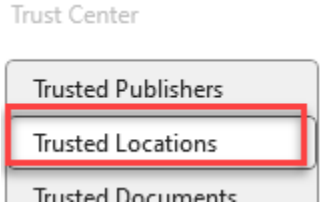

Figure 13: Trusted Locations menu option

11. Add the folder/folders you will be working into the Trusted Locations List.
12. Select “OK.”
13. Try “Generate XML” button now. If it does not work, close and re-open excel and try again.

Data Submission

- Do not use special characters like an ampersand (&) in the sample location field in the Excel template. Some special characters cause rejection errors in the CMDP web form or in XML files, causing data to be rejected.
- EPA's data dictionary, and user's manual discuss in more detail the data field requirements and character limits in CMDP.

CMDP/XML Sampling Behavior for Subcontract Lab Entities

This could be important for primacy agencies checking laboratory method certification in SDWIS. Entering the sample result in CMDP as shown in Test Case #2 will impact the method-lab certification checks in SDWIS as only the lab listed on the sample is validated to the method/analyte pairing. A primacy agency may want the subcontract laboratory to report their results using their own laboratory ID so that SDWIS can check that the lab is certified for the analytical method used.

Test cases performed in CMDP Prep vs 1.25/DSE v1.23 as R5 Lab 0899 - Generic Tribal Lab and uploaded into R5 SDWIS TEST via XMLSampling.

Test Case #1 - one job, two samples, sample 1 results from reporting lab, sample 2 results from analyzing lab

- Job ID: 87901
    - Sample ID: 492893
        - Results
        - 4010 - Combined Radium analyzed by IN00035 Eurofins
    - Presentation in SDWIS - Eurofins listed as the Lab on the sample record and reporting lab ID 0899 in the comments.
    - SampleID: 492893_raB
        - Results

- 4020 and 4030 without an analyzing lab

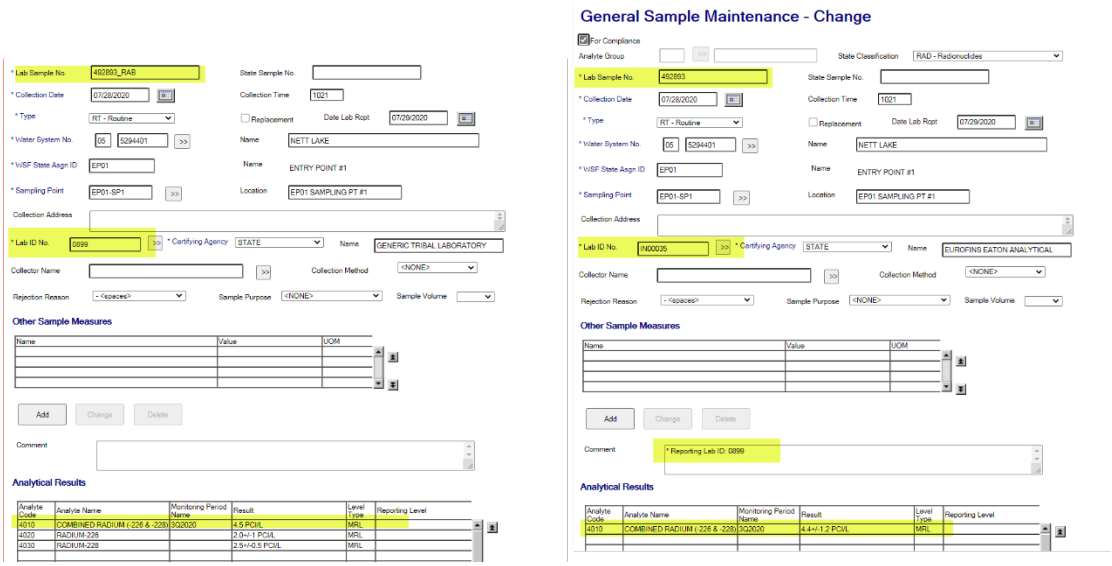

Figure 14. Test Job Case 1

Presentation in SDWIS - 0899 listed as the lab on the sample record. Note: SDWIS Calculates the combined Radium when the two analytes are reported

Test Case #2 - one job, one sample with 2 results. One result from reporting lab, and the other from the analyzing lab.

- Job ID: 87955
  - SampleID: 40206435001
    - Results
    - 1040 Nitrate - analyzed by MN01084 - Pace
    - 1041 Nitrite - without an analyzing lab
    - Presentation in SDWIS - 0899 listed as the lab on the sample. No identification to the analyzing lab on the sample page. Expansion of the 1040 Nitrate result to see the full result page presents the analyzing lab ID in the Result Comment field

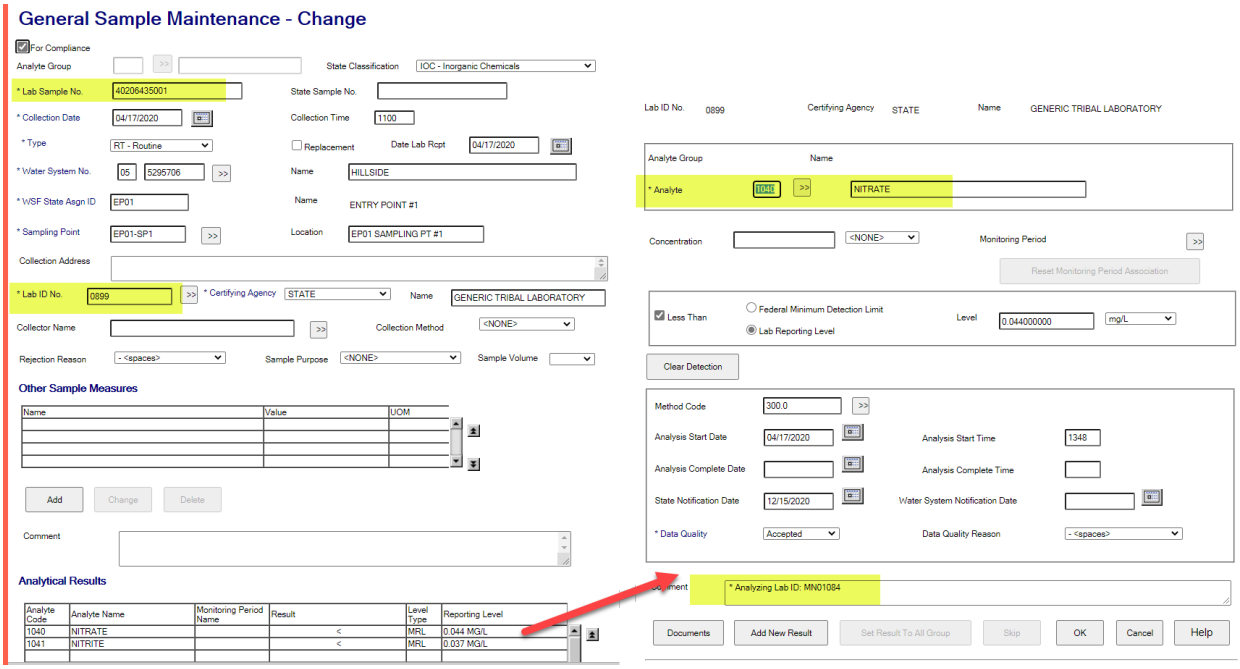

Figure 15. Test case 2

Validation of Accepted Data Via the Web Form

- Web forms sometimes let you save with missing or incorrect data (and will therefore allow you to certify and submit incorrect or incomplete data) through CMDP. Laboratories should check the validations tab after they enter data into the web form.
- If there are no errors on the validations tab, it means CMDP has accepted the lab's data.
- To save time and ensure quicker compliance reporting, the laboratory should address any errors noted on the validations tab before submitting and certifying data to the primacy agency. If they do not, the primacy agency will be contacting the laboratory to correct the errors and data acceptance will be delayed.

Setting Correct Method/Analyte Pairs

- In the Excel template, labs may not know the codes allowed by a specific primacy agency. It is recommended that each primacy agency update the Excel template to limit selection to analytes/methods permitted by their agency.
- Important to train properly as XML sampling errors are largely due to incorrect pairings or code selections.

Determine a Path to Production for the Labs

- For existing labs, labs test three times in CMDP pre-prod for contaminants they typically report data for.
- If a laboratory already reports data for another primacy agency, they should submit three test jobs to CMDP before being moved to production.

- Once CMDP submissions in test have been reviewed and approved by the state, the lab can move to production (there is no set time period for practice yet).

Track status of Labs in Pre-Prod

- Microsoft Excel tracking spreadsheet is located here: Lab Onboarding Tracking Template.xlsx

Working With EPA Headquarters

Request a Method/Analyte Pair

- To add a new pairing, send a spreadsheet or an email with the analyte (name, number) method (name, code) and any reference material to the CMDP helpdesk (copy Deric Teasley, the EPA CMDP Product Owner, at Teasley.deric@epa.gov).
- The Technical Support Center (TSC) in Cincinnati will vet the task and add it to JIRA.
- Information on new pairings should be included in release notes when they are released to CMDP test and CMDP production.

Known Issues

- If a problem emerges, you can check whether it is a "known issue" that has already been flagged by another primacy agency.
- EPA has created a known issues section in their help center or Services Now website: site: https://usepa.servicenowservices.com/sdwisprogram?id=sdwis_kb_search&kb_knowledge_base=af3900f81b5b05547b16ea04bc4bcb26&spa=1&kb_category=387156ee1b38d9d0fd044262f54bcb47.