



## **PCBs Sampling and Screening**



# Sampling Tasks

Preparation of  
materials and tools

Identification and  
use of Personal  
Protective Equipment

Collection of  
equipment  
information

Sample extraction

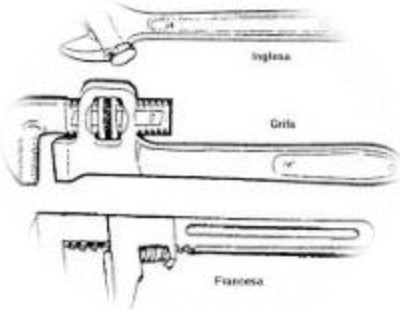
Labeling and  
packaging

Cleaning

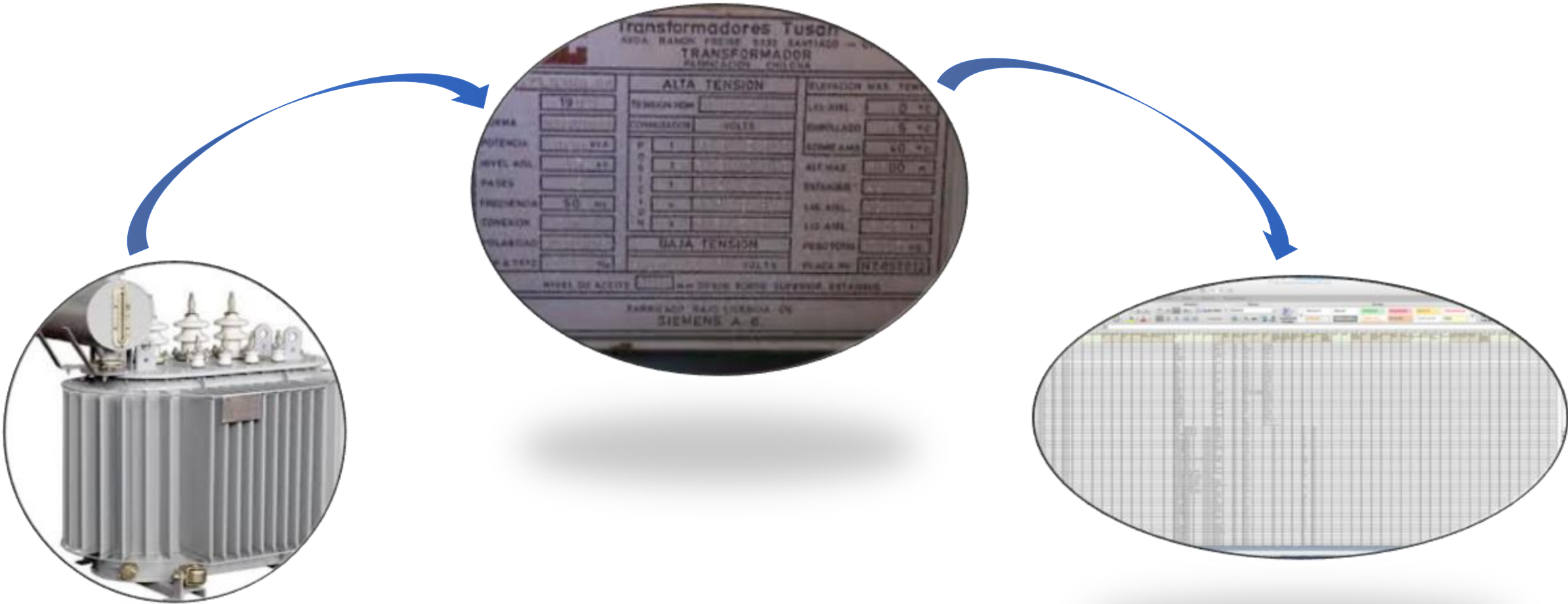
# Personal Protective equipment (PPE)



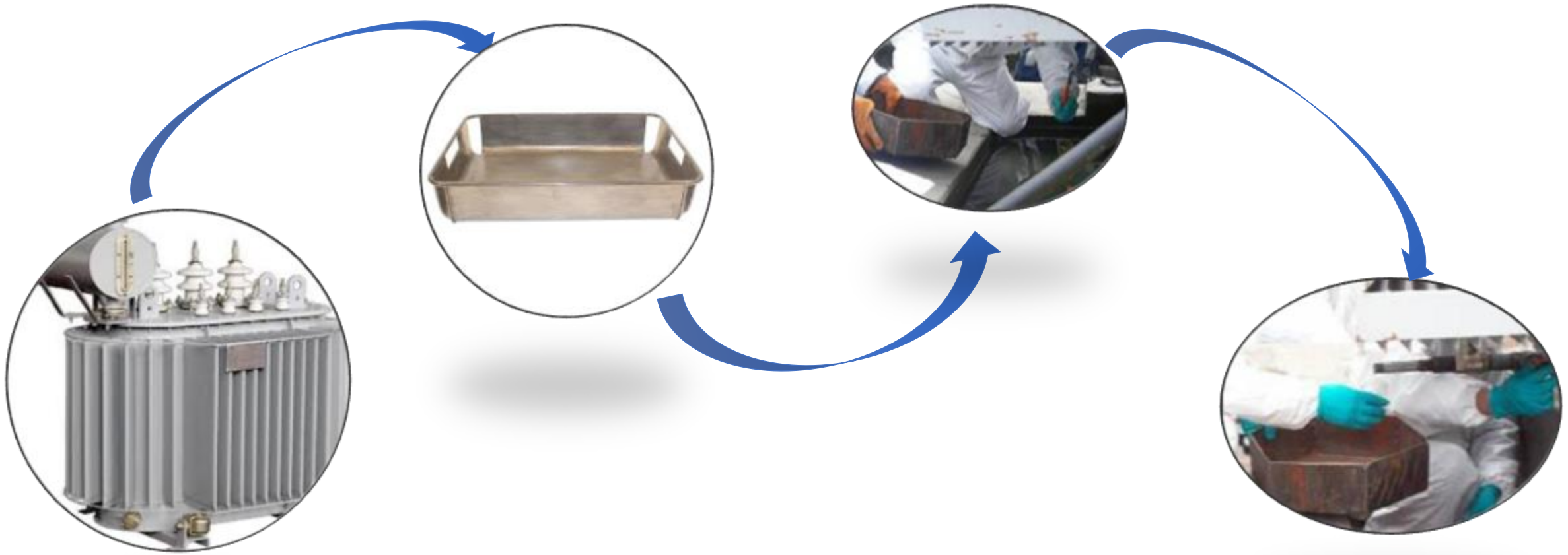
# Materials and Tools



# Collection of equipment information



# Sample extraction



# Labeling and Packaging



Lable the 50 mL glass bottle with the main information of the transformer and unique ID



Transport the samples in an adequate and safe box.

# Cleaning



Leave the place cleaned  
and a good conditions



All the wastes must be  
collected and disposed of  
adequately



# Sampling

Good coding  
and labeling

Safe  
transportation

Chain of  
custody

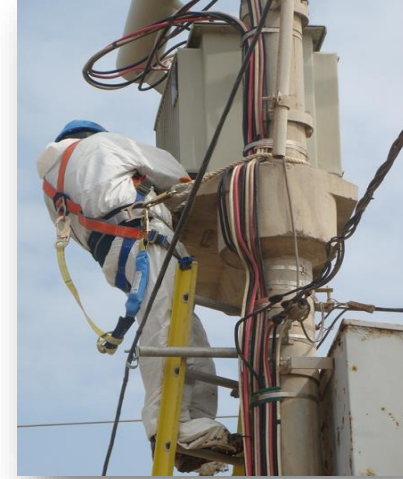
Can be stored for a  
long period of time

Physical  
protection

Hermetic  
closure

No  
refrigeration  
required

# Sampling from elevated transformer



# Sampling from the bottom of a transformer



# Sampling from the top of a transformer



# Methods for detecting PCB

- Low cost
- They are portable
- Instant Results
- Does not require special infrastructure
- Versatility Sample selection
- Low waste generation
- Only positives require CG
- Does not require a specialized technician



Clor-N-Oil tests  
or L2000DXT analyzer



- Less accurate
- Less reliable
- False negatives
- False positives



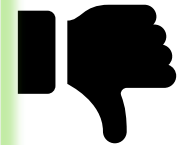
# Methods for detecting PCB

## Gas Chromatography

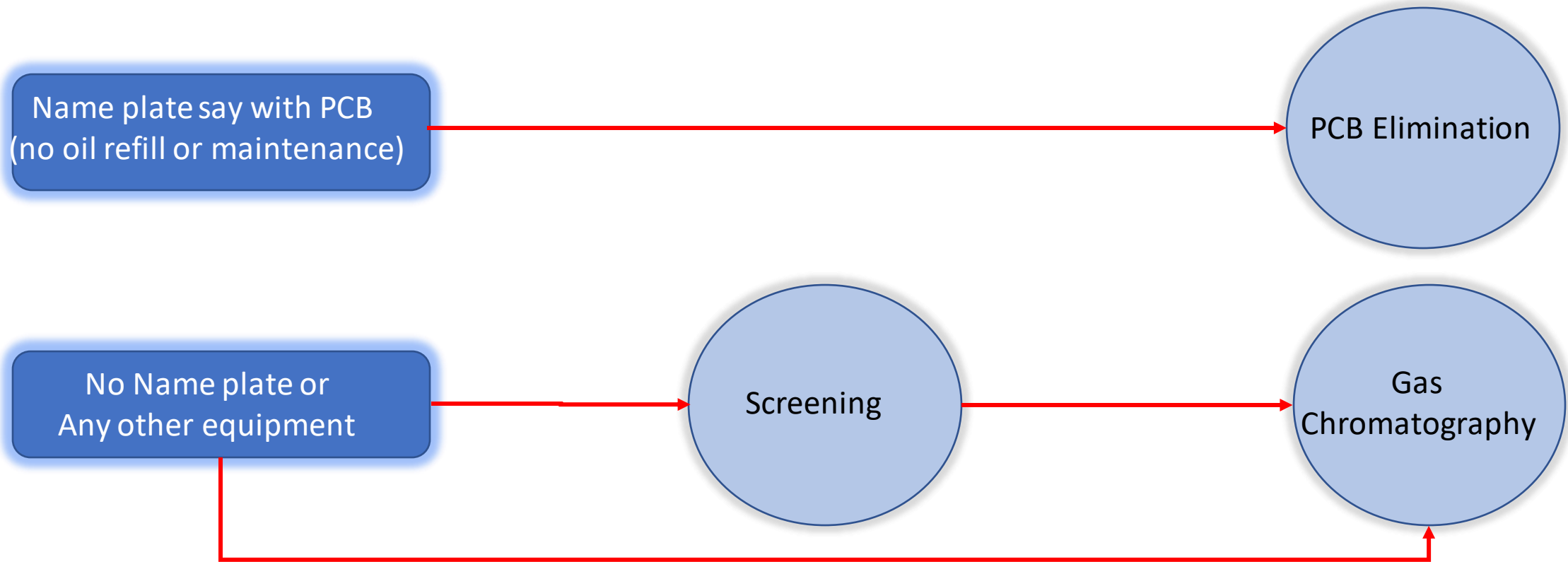


- More accurate
- More reliable

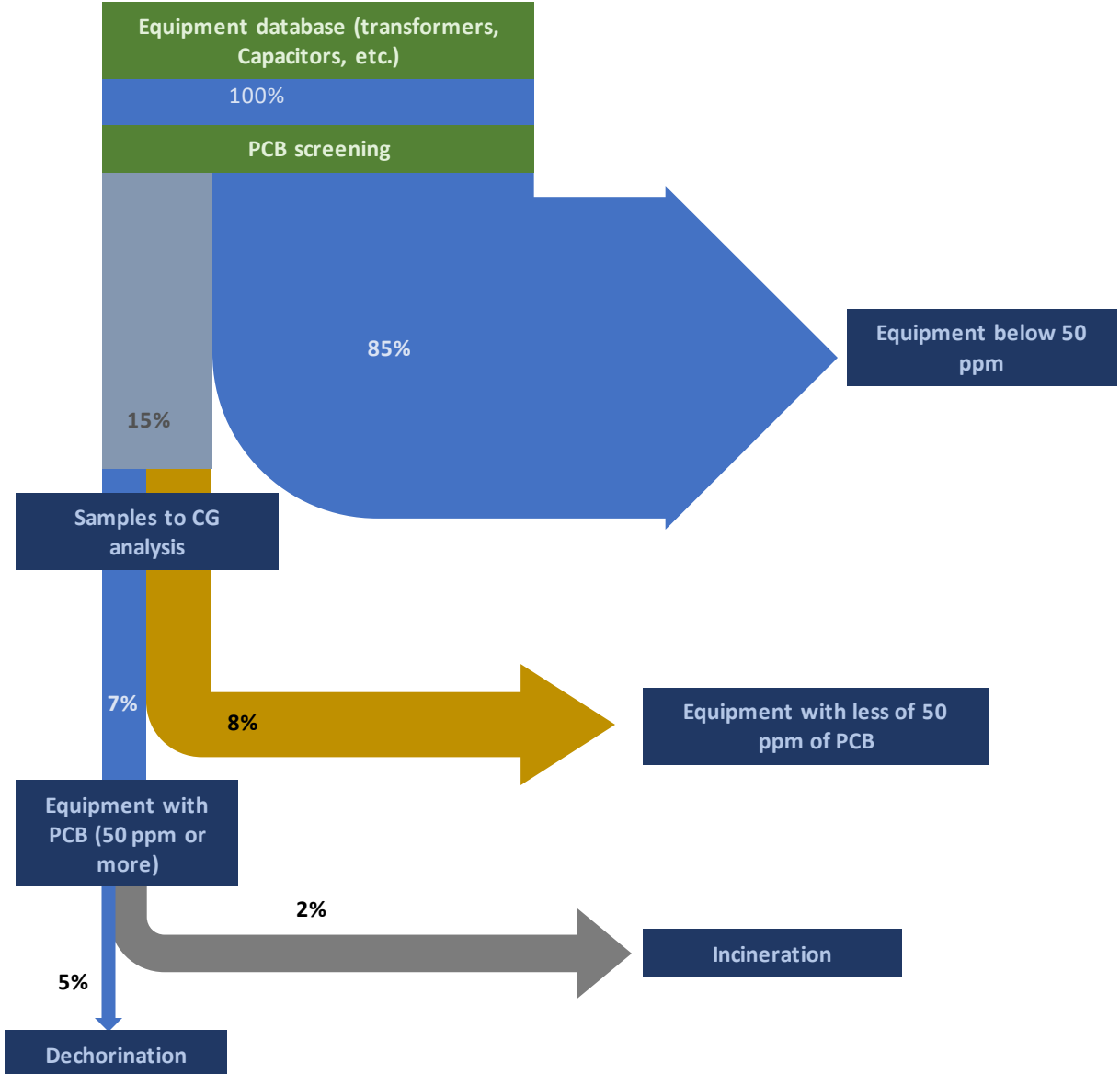
- More expensive
- They are not portable
- More analysis time
- Requires special infrastructure



# What can we do to detect PCBs

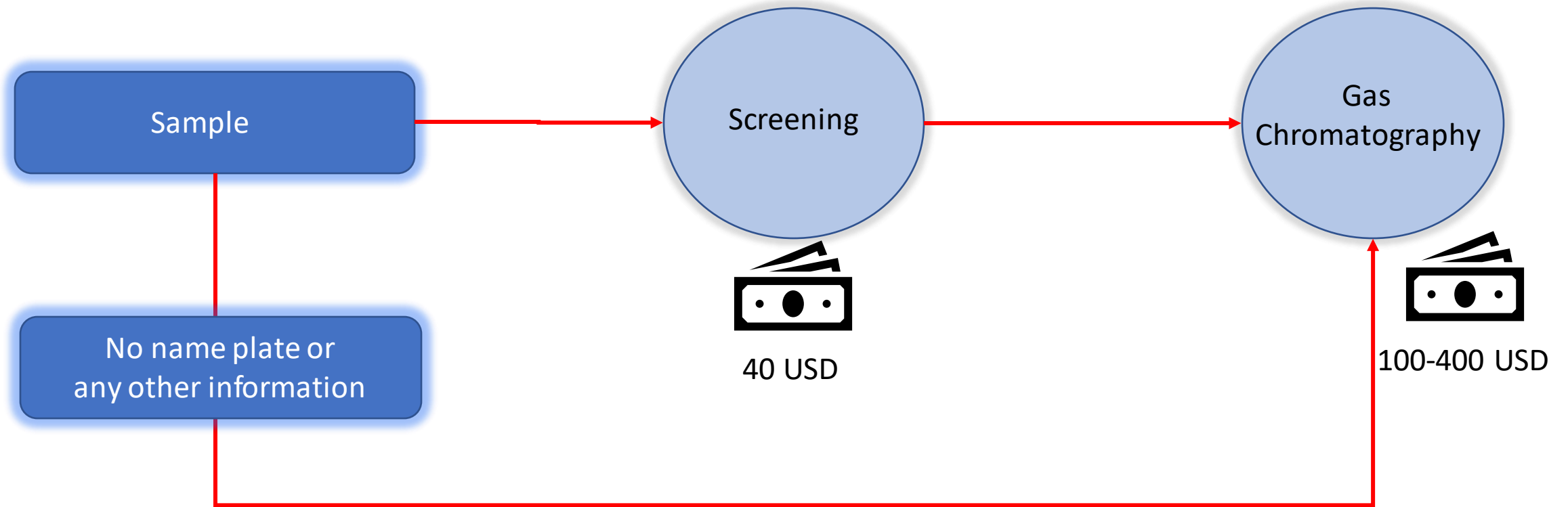


# Example of a quantitative flow of the inventory process



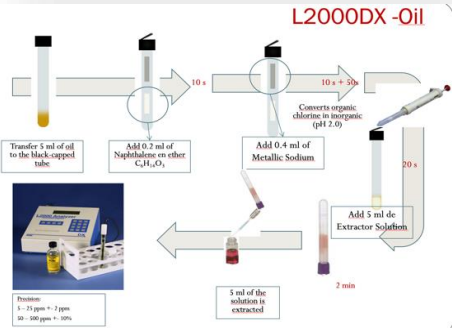


# What is the cost?



# Screening procedure

## Sample Preparation

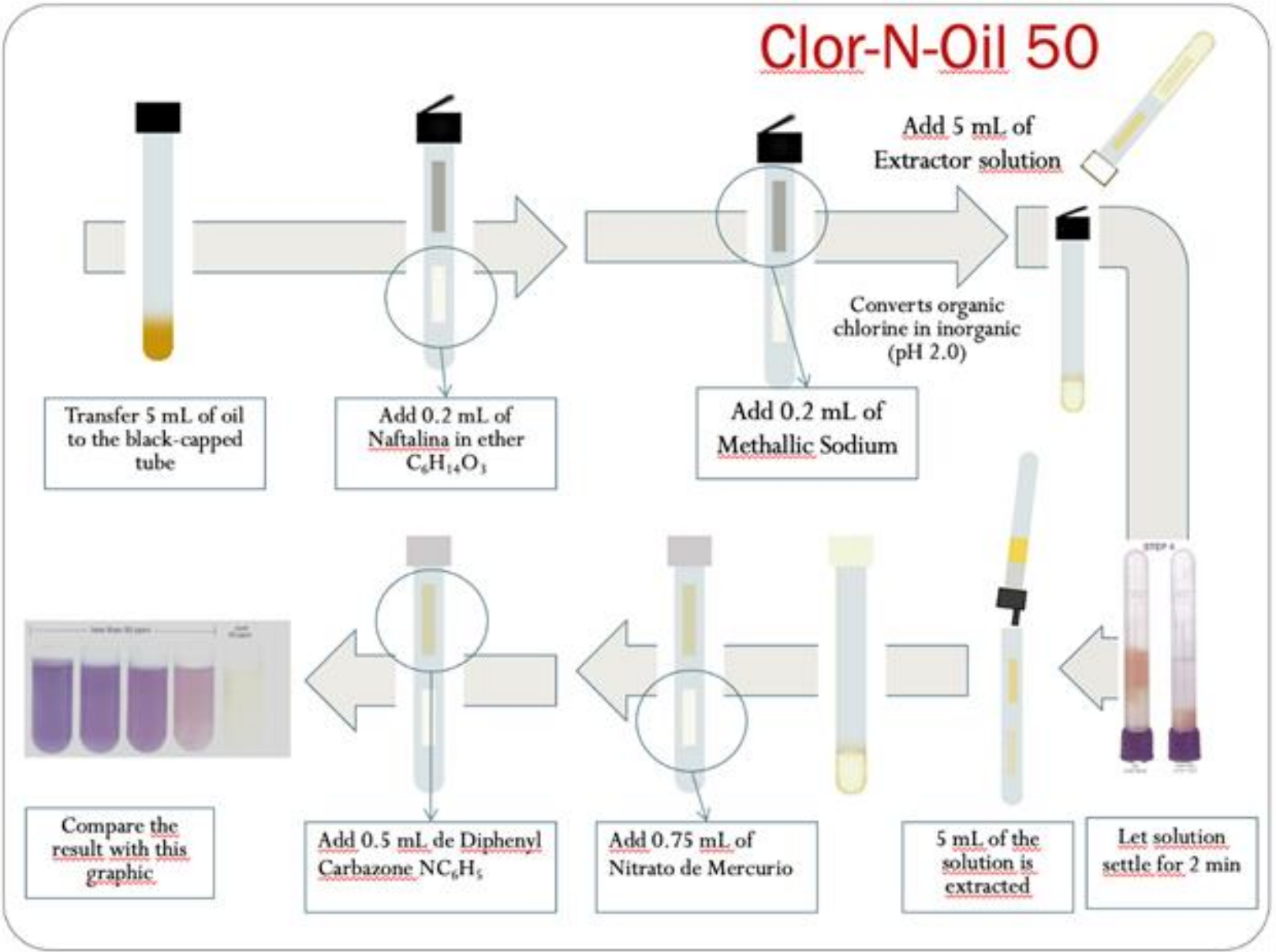


## Read the Sample

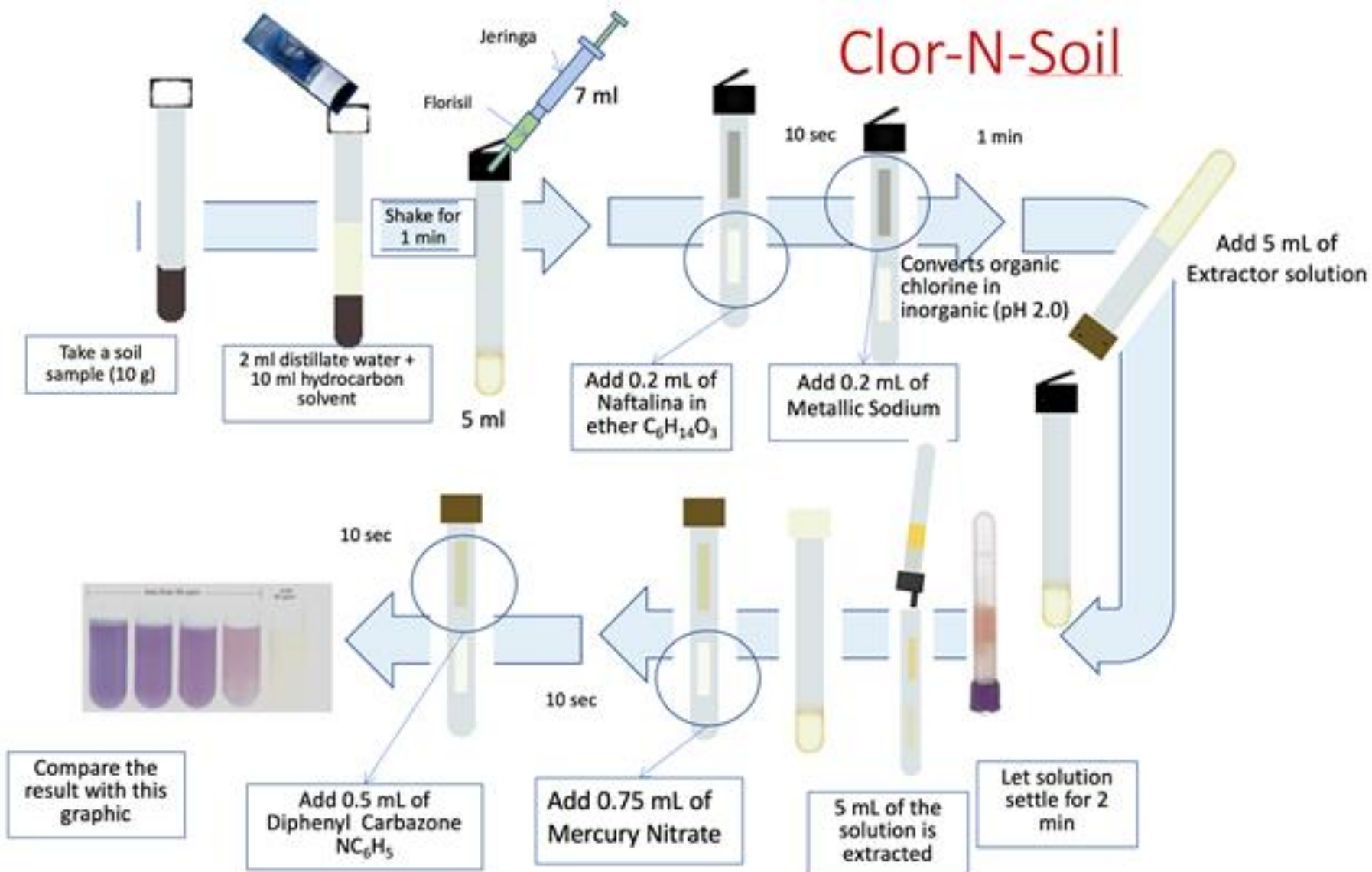


PCB concentration in ppm

# Screening procedure for oil samples with test kit

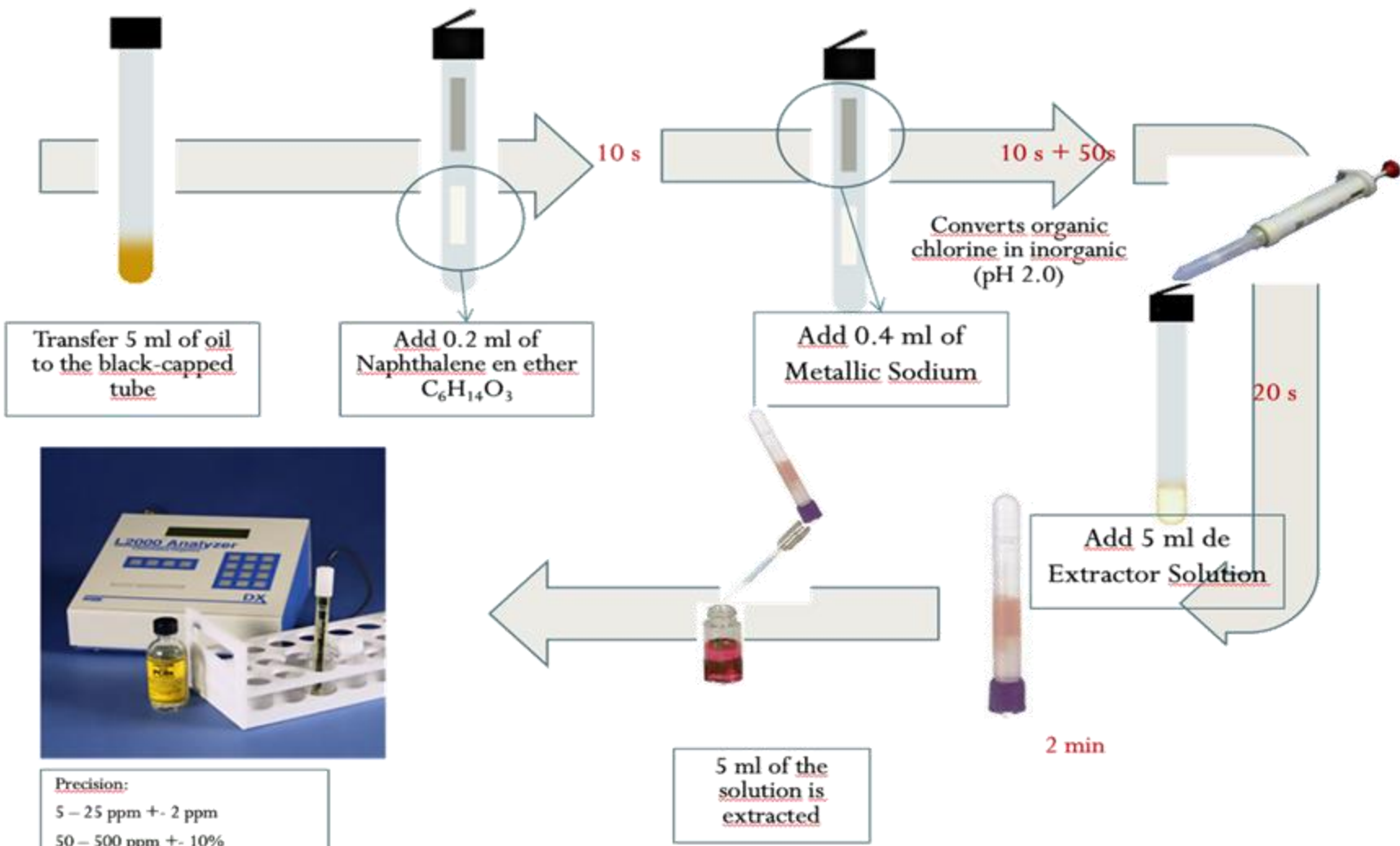


# Screening procedure for soil samples with test kit

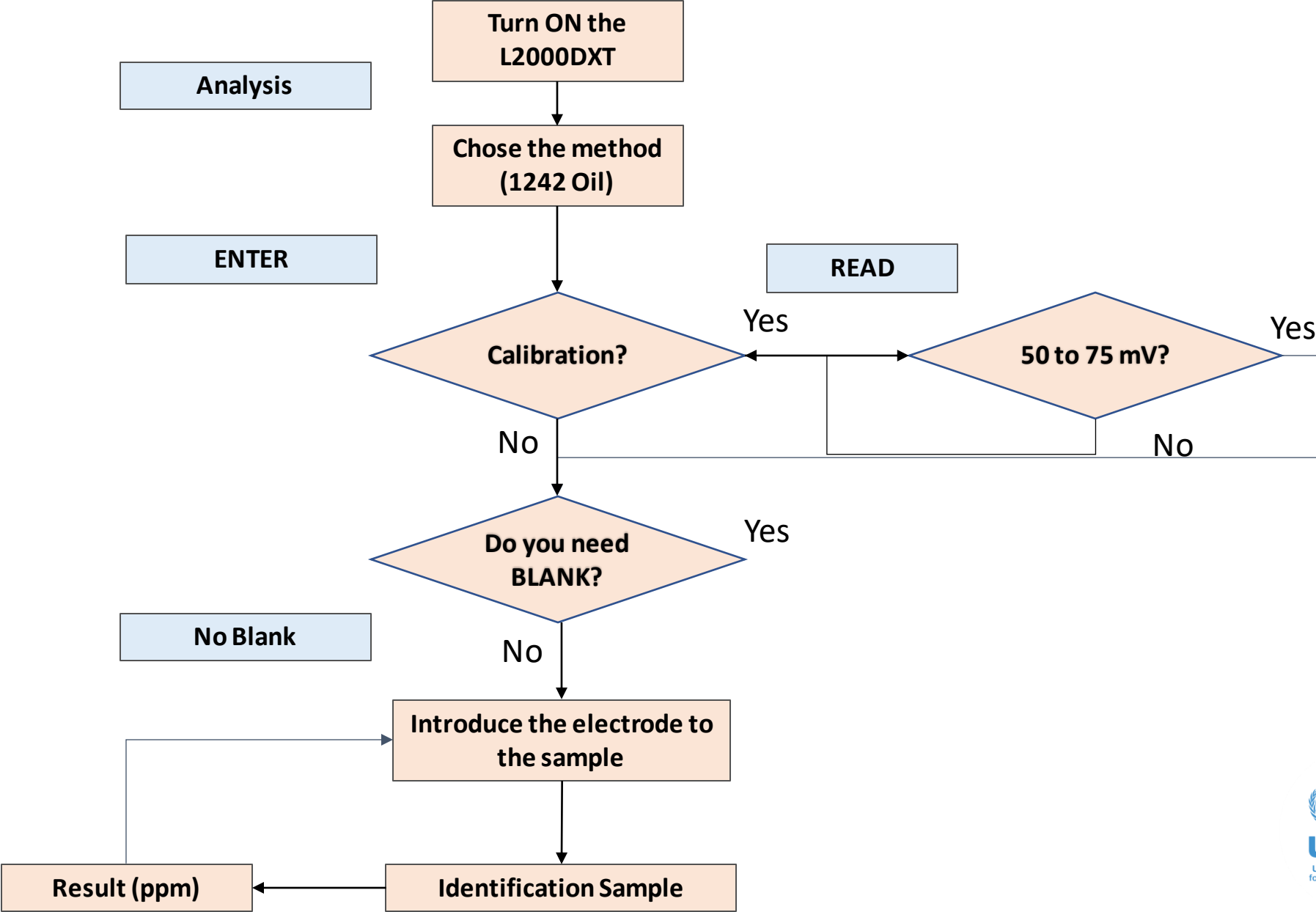


# Screening procedure for the L2000 DXT analyzer

## L2000DX -oil



# Manual for the L2000DXT analyzer





**Thank you for your  
attention !**

<https://www.pcb.unitar.org/>

