

Method 1

This method is used if the system has an appropriate valve for taking samples. The flow of oil must be steady and the pressure cannot exceed 14 bars. The required instruments:

- An appropriate connector for the valve
- A particle free bottle for the sample. The lid is not to be placed on a surface face down or put into a pocket.
- Particle free (0,5 µm filtered) solvent (if no solvent is available then in emergencies rinsing can be performed by running oil through the sample equipment just before sampling)

NOTE!

- Oil shooting out of a pressure valve at over 10 bars can be fatal as it may penetrate the skin causing blood poisoning! This is why the person taking the sample must have the appropriate safety equipment on (protective goggles, gloves and overalls).
- Used oil is a risk to the environment so immediate surroundings should be protected with rags and some sort of immersing substance.
- Before taking the sample run the system for at least 30 minutes so that impurities will distribute as evenly as possible.
- The bottle must be free of particles. Hold the lid face down in your hand.
- Do not touch the valve when taking the sample. This might cause particles to dislodge and thus the sample will not represent the oil flowing in the system.
- The instruments used for taking samples must be rinsed with clean solvent before each sample. In emergencies at least 300 ml of oil can be used to replace the solvent.

Instructions:

1. Open the valve and run at least 500 ml of oil through it. Do not close the valve after rinsing.
2. Place the bottle under the valve and gather at least 200 ml of liquid.
3. Rinse the insides of the bottle with the oil and then empty the bottle. Repeat this process once more.
4. Gather a 250-300 ml sample or $\frac{3}{4}$ of the volume of the bottle and then seal the bottle with the lid.
5. Close the valve.
6. Write the details of the sample on the bottle.
 - The sample bottle must have details of the system, sampling date and time written on it.
 - The following information must be in the cover letter:
 - the date and sampling position of the sample
 - the device
 - type of oil
 - oil temperature and hours used
 - type of filter and filtration level
 - date of filter change
 - has any oil been added?
 - have there been any breakages?
 - the name of the sample taker

The cover letter is to be sent with the sample to:
Fluidlab Oy, Iso-Heikkiläntie 8, 20200 TURKU, FINLAND.