













## FLUID SAMPLING PROCEDURE

Fluid analysis is only effective with accurate sampling. There are 2 goals while obtaining a fluid sample:

### MAXIMIZING DATA DENSITY | MINIMIZING DATA DISTURBANCE

Meaning, that there should be as much information per millilitre of fluid as possible and the concentration of information needs to be consistent and representative of the entire fluid sump. Follow these steps to accurately collect samples without contamination

| Sampling Pump  | Tubing   | Sample Bottles   | Sample Label  | PPE (Personal Protective Equipment's) |
|--|--|--|---|---------------------------------------|
|    | <p><b>1</b> Take a clean, new sampling tube. Measure the length required for it to reach half or 1/3rd of the fluid sump. Cut it.</p>  |    | <p><b>7</b> Pull the pump handle towards yourself. Now push it forward. Do this repeatedly for a few times. This starts the vacuuming and fills the bottle with fluid.</p>  |                                       |
|   | <p><b>2</b> Take the sampling pump and loosen the black knob (located above the yellow part). Insert the cut sampling tube from upper side of pump through this black knob. Allow a maximum of 25mm of the tube to come out from the other side. Tighten the black knob comfortably (Not too tight).</p> |   | <p><b>8</b> Do not fill the bottle fully. Leave some gap from the top. You can fill the bottle up to 90% of its total capacity.</p>   |                                       |
|  | <p><b>3</b> Write the details of the equipment on the sampling label provided. Paste the label on a clean, dry sampling bottle. Remove the inner and outer caps of the bottle and keep them in the vicinity, away from dust and contamination.</p>   |  | <p><b>9</b> Rotate the bottle to loosen it from the pump. Do not rotate the pump. Put aside the pump and tube.</p>  |                                       |
|  | <p><b>4</b> Attach the bottle to the vacuum pump. The bottle must fit tightly enough to create a vacuum for the fluid sample.</p>  |  | <p><b>10</b> Immediately put the inner cap onto the bottle ensuring it fits properly. Tighten the outer cap and wipe the bottle clean with a cloth. Keep this filled sample bottle in clean &amp; safe place.</p>                   |                                       |
|  | <p><b>5</b> Open the tank /sampling port. Use a clean cloth to wipe the tank/sampling port in order to avoid fluid contamination. Insert the sampling tube into the tank/sampling port without letting it touch the bottom of the fluid sump.</p>  |  | <p><b>11</b> Now take the pump. Loosen the black knob as shown in the figure. Wipe the outer tubing with a clean cloth.</p>   |                                       |
|  | <p><b>6</b> Hold the pump and bottle in an upright position. This makes visual observation of the sample possible.</p>   |  | <p><b>12</b> From the top of the black knob, cut the tube. Pull the remaining tube from below the pump instantly. The pump should not come in contact with the fluid. Discard the tube and use a fresh set for the next sample.</p> |                                       |