Taking the Sample

- Start the engine and warm the oil for a minimum of 10 minutes prior to taking the oil sample. **Note:** Warming the oil prior to taking the sample will allow it to circulate and flow well which will give a more representative sample and make it easier to take the sample.
- Remove sample jar and tubing from shipping bag and remove cap from sample jar. Set cap aside in a clean place.
- Remove pump from storage case.
- Install plastic tubing into pump knurled brass fitting so that approximately a quarter inch of tubing is sticking into pump o-ring cavity. Tighten knurled fitting securely so that tubing cannot be pulled out of fitting.
- Install sample jar onto vacuum pump and secure finger tight.
- Remove dipstick from engine or transmission on remove plug from differential case.
- Insert plastic tubing into dipstick tube (engine, gearbox, compressor, transmission, etc.) or access hole (differential, etc.) until resistance is met.
- Retract tubing 1-2 inches so that your sample is not drawn off the bottom of the sump.
- Actuate the pump handle to create suction and draw the oil sample up the plastic tubing and into the sample jar. **Note:** A new pump may have a dry piston seal. To create improved suction, unscrew the black case from the main housing and apply a couple of drops of oil to the piston seal.
- Fill sample jar approximately 2/3 full. **Do not fill jar all the way full.**
- Carefully remove jar from pump and install plastic cap. Seal jar tightly.
- Remove plastic tubing from vacuum pump and throw plastic tubing away.
  - **Note:** Never reuse plastic tubing. You could contaminate other samples.
- Clean the pump o-ring cavity with a paper towel and place pump back into the plastic pump storage container.

Completing the Registration Form and Shipping the Sample

- Detach the Tracking Code sticker from the Registration Form and stick it to the outside of the sample jar (as shown on the form).
- Complete the Registration Form (see page 2, reverse side of this instruction sheet).
- Put sample and Registration Form into the return shipping bag (if you purchased either the single or 3-pack retail kit) or use the black plastic shipping container (if you purchased the fleet 10-pack kit).
- Detach return lab address label (use the lab location nearest to you) and place it on the outside of the return shipping bag or black plastic shipping container.
SAMPLE INFORMATION SECTION (top portion of form)
This section identifies the customer, describes the vehicle or equipment and defines the time on the vehicle or equipment and marks any changes to the oil or filter. Please include as much information as possible.

- **Component ID** - Identify the vehicle or equipment being sampled. *Note: Use something that’s meaningful to you (Truck# XXXX, Bus# XXXX, Motor Home Manufacturer, Boat Manufacturer, etc.)*
- **Secondary ID** – Use this to further describe vehicle or the equipment from which the sample is taken (VIN# or Serial Number).
- **Sample Point** – Select the component being sampled. (Engine, transmission, etc.)
- **New Lube Reference** - If this is a sample of new oil (for reference), please check the box labeled “New Reference”
- **Position** - Check the position where the sample was taken *(if applicable)*.
- **Date Sampled** - Date sample was taken.
- **Lube Time** – Record actual accumulated miles or hours on oil (if known) since the oil was last changed. To calculate lube time, subtract the vehicle or equipment odometer, or hour meter, reading when oil was last changed from the current vehicle or equipment odometer, or hour meter, reading.
- **Component Time** – Current vehicle of equipment odometer, or hour meter, reading. Check the appropriate box to show us how you measure Lube Time and Component Time *(miles, kilometers, hours, etc.)*.
- **Lube or Filter Added or Changed** - Fill in the amount of Lube Added since the last sample or oil change *(if applicable)* and the unit of measure (Qt., Gal, or Liter). Check whether or not the lube was changed after the sample was taken. Also, check the appropriate boxes to show us if there was any Lube Added or if the Lube or Filter was changed since the last sample or from the last oil change.
- **Miscellaneous (Misc)** – Include any miscellaneous information you think might be appropriate to describe the sample.
- **Comments** - Provide us with additional information that you feel will help us do a better job at analyzing your sample. Or, if you have a question, this is where you should write it down.

COMPONENT REGISTRATION SECTION (bottom portion of form)
This section describes the component being sampled.

- **Component Manufacturer** – Fill in the manufacturer of the component being sampled (CAT, Cummins, DDC, GM, Ford, Allison, etc.)
- **Component Model** – Fill in the Model or Model Number of the component being sampled.
- **Component Type** – Check the component type being sampled *(engine, transmission, generator, etc.)*.
- **Application** – Check the box that best identifies the way the vehicle is used).
- **Lube Manufacturer** - Fill in the Lube *(oil)* manufacturer *(Shell, Mobil, Chevron, etc.)*, if known.
- **Product Name** – Fill in the Product Name *(ROTELLA, DELVAC, DELO, etc.)*, if known.
- **Grade** – Fill in the Viscosity Grade *(5W-30, 5W-40, 15W-40, etc.)* and check whether it’s SAE or ISO grade *(if known)*.
- **Complete the Filter Type and Filter Micron Rating *(if known)* and give us the Sump Capacity *(if known)*.
- **NOTE:** In some cases, you may not know all of the information about the oil you’re using in your equipment. That’s OK; your report will still reveal lot’s of valuable information about the condition of the oil, any contamination that’s taking place in the oil, and whether or not you may have signs of internal part wear on the component being sampled.