# Running Dilutions on the **Catalyst One**\* Chemistry Analyzer

# When to Dilute

Dilutions should only be performed when a test value is outside the reportable range or when the sample contains interfering substances (e.g., medications) that cause a nonlinear or invalid result. The Catalyst One\* Chemistry Analyzer supports automated dilutions (the analyzer mixes the sample and diluent for you) and manual dilutions (you prepare the dilution outside of the analyzer).

IMPORTANT: Do not dilute samples that are undergoing ammonia, phenobarbital, fructosamine, total T<sub>4</sub>, SDMA, progesterone, or electrolyte testing.

### **Loading Automated Dilution Materials**

When prompted, do the following:

- 1. Load pipette tips.
- 2. Load the sample.
- 3. Load the slides.
- 4. Load an empty sample cup in the left dilution cup holder.
- 5. Load a sample cup containing 300  $\mu$ L of diluent (0.9% saline) in the right dilution cup holder.

Note: Only load the slide(s) that require a dilution. Do not load an entire CLIP.

## **Loading Manual Dilution Materials**

- 1. Accurately measure the desired amount of sample to be diluted and gently transfer it to a sample cup. Then, accurately measure an equal amount of diluent (0.9% saline) and transfer it to the sample.
- 2. Thoroughly mix the sample and diluent, ensuring there are no bubbles in the mixed sample.
- 3. Initiate the run on the IDEXX VetLab\* Station.
- 4. Load pipette tips.
- 5. Load the diluted sample created in steps 1 and 2.
- 6. Load the slides.

**Note:** Only load the slide(s) that require a dilution. Do not load an entire CLIP.





### Manual Dilutions

Volumes are for example only. Fill the sample cup with up to  $300 \,\mu\text{L}$  of the mixed sample. Parts Sample + Parts Diluent = Total Parts (Dilution Factor)

Parts Sample	Parts Diluent	Total Parts (Dilution Factor)
1 (100 µL)	0	1 (no dilution)
1 (100 µL)	1 (100 µL)	2
1 (100 µL)	2 (200 µL)	3
1 (100 µL)	3 (300 µL)	4
1 (100 µL)	4 (400 μL)	5
1 (100 µL)	5 (500 μL)	6
1 (100 µL)	6 (600 μL)	7
1 (100 µL)	7 (700 μL)	8
1 (100 µL)	8 (800 µL)	9
1 (100 µL)	9 (900 µL)	10

