

## DILUTION RECOMMENDATIONS

### URINE DILUTION

Overtly hemolyzed and/or concentrated urine samples must be diluted. This prevents excessive cells from overlapping and interfering with the analyzer finding the cartridge fiducials that are required to orient and focus the cameras. In other words, the abundance of cells (RBCs in particular) may cause a cartridge error, such as "Failure to Find Focus Feature".

The Element AIM® will not prompt the user to dilute a urine sample. Urine dilution prior to loading Element AIM cartridge is recommended in the following scenarios:

- If less than 0.5 mL sample is obtained from the patient.
- If upon visual inspection, the urine sample appears bloody or excessively concentrated.

Figure 1

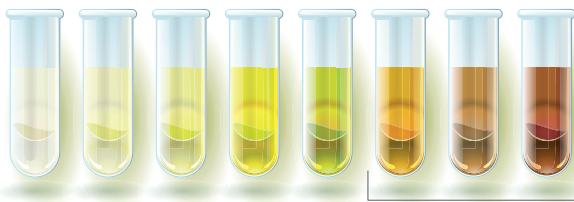


Figure 1.  
Visual inspection of urine sample.

Dilution recommended

### URINE DILUTION RATIOS

Current dilutions available to notate on the Element AIM are 1:5, 1:10, 1:50 and 1:100.

- 1:10 is suggested if the sample grossly looked normal, but an error occurred.
- 1:50 is recommended for samples that visually appear bloody or very concentrated.
- Other dilution levels may be used at the user's preference.

Urine Dilution Calculator	1:5	1:10	1:50	1:100
<b>1 mL Final Volume</b>				
Add urine	0.2 mL	0.1 mL	0.02 mL	0.01 mL
To sterile saline	0.8 mL	0.9 mL	0.98 mL	0.99 mL
<b>3 mL Final Volume</b>				
Add urine	0.6 mL	0.3 mL	0.06 mL	0.03 mL
To sterile saline	2.4 mL	2.7 mL	2.94 mL	2.97 mL

### URINE DILUTION PROCESS

#### NOTE:

Saline has the potential to dissolve certain types of urine crystals. If crystalluria is suspected, and the sample requires a dilution, the user may benefit from reviewing a manual sample (pre-dilution) under normal microscopy methods to look for crystals.

1. Dilute the sample with normal saline.

- Ensure the bottle of sterile saline is <30 days old. Older saline can cause false bacteria or contaminants.
- Wipe the top of the saline bottle with alcohol prior to obtaining the saline for dilution to help reduce the possibility of contamination. Contamination may lead to bacteria growth in the dispensing saline bottle.



## FAILURE TO FIND FOCUS FEATURE ERROR

### URINE SAMPLES

This error usually occurs within the first 2 minutes after loading the sample. *Figure 2*

Appropriate sample handling is needed to prevent the error and prevent unnecessary waste of Element AIM cartridges.

1. Inspect the cartridge to ensure there aren't bubbles present.

a. If bubbles are visible in the sample, discard the AIM cartridge and fill a new cartridge. Place cartridge on a flat surface, then slowly depress syringe plunger and fill cartridge until the filter changes color.

b. If bubbles are not visible, discard the AIM cartridge and proceed with diluting the urine sample.

### FECAL SAMPLES

Fecal sample errors can occur if attempting to run a sample that is too thick or if bubbles are introduced into the cartridge. If this occurs, use the following instructions:

1. Use a new cartridge, fecal prep kit, and a fresh fecal sample.
2. Do not add more than the recommended amount of feces (2 g).
3. Add fecal float solution to the first solution fill line and then thoroughly mix the sample.
4. Ensure the filter is inserted correctly; cone point facing down, and no fecal matter is above the filter.
5. Add the proper volume of fecal float solution to the second fill line. There will be issues with cartridge filling, sample processing, and transfer of any objects of interest if the fecal solution is not added to the proper volume recommended.
6. Centrifuge as recommended.
7. Use fecal prep kit transfer device as recommended to fill the cartridge.

#### Test Not Completed

Test ended due to failure to find focus features, most likely due to bubbles, overt hemolysis, or high concentrations of objects in the sample.

- Discard cartridge.
- Load new sample in fresh unused cartridge.
- Consider diluting hematuric or heavily concentrated samples.

See Element AIM Dilution Recommendations Product Bulletin for more information.

Press Initialize to continue.

Initialize

