

A complete urinalysis should be performed with every complete blood count (CBC) and chemistry profile. Although inexpensive, manual microscopic sediment examination is time consuming, labor intensive, and lacks standardization.¹ The VETSCAN SA allows urine to be examined quickly after collection using a smaller sample volume than traditionally required (650 µL vs. 5mL), without the need for centrifugation.^{1,2} As a result, the VETSCAN SA can streamline workflow of manual urine sediment analysis and help decrease storage handling artifacts.

Urine Contaminants and Artifacts

Urine can commonly contain contaminants or artifacts that can be difficult to identify, regardless of urine sample collection method. These elements can be confusing for both a manual reviewer and an automated analyzer using image recognition technology.

The VETSCAN SA recognizes 10 classified urinary elements. When an element appears in a field that is not recognized, it is considered unclassified. Artifacts can occasionally be misclassified if the appearance is similar to a classified element, such as bacteria. It is best practice to review images provided with every sample run. This is analogous to performing a blood smear review with every automated CBC to ensure accurate cell counts and examine for any abnormal cells and/or morphology. **Please note: If bacteria suspected and/or high volumes of unclassified elements are present the analyzer will alert the user to review images.**²

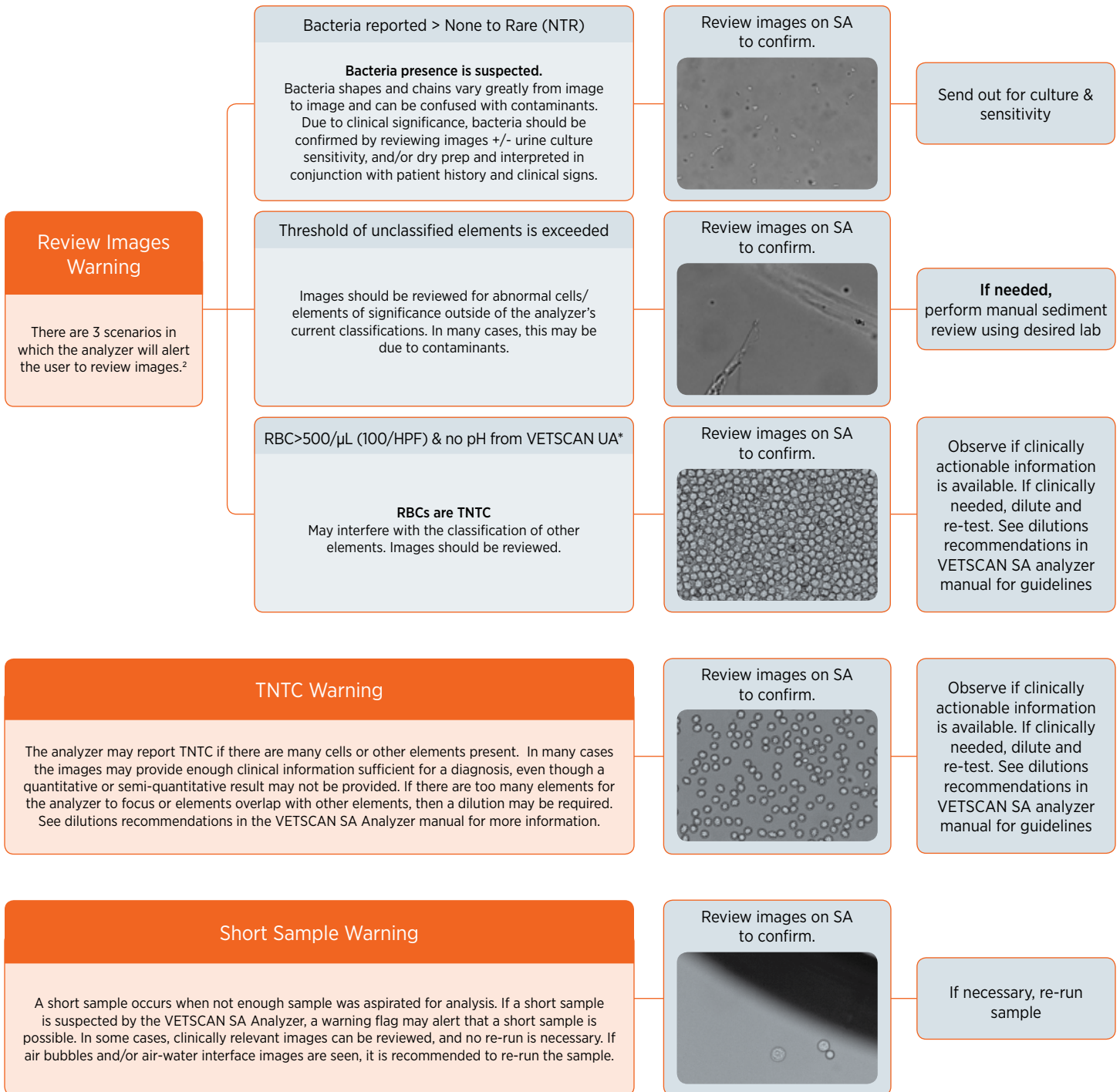
Common Urine Contaminants³

Structure	Origin	Comments
Lipid droplets	Epithelium	Refractile, especially common in cats
Mucus	Urogenital tract	Usually seen in strands
Sperm	Male gonads	
Fungal Hyphae	Environment	Rare significance
Yeast	Environment	May look similar to bacteria
Pollen	Environment	
Plant fibers	Environment	May be confused with casts
Muscle fibers	Cystocentesis accidental aspirate	May be confused with casts
Air bubbles	Sample pipetting error	Vary in size
Glass*	Broken slide	May be confused with crystals
Stain Precipitate*	Stain	May be confused with bacteria

*Does not apply to VETSCAN SA

Interpreting Results and Result Warnings

Images from the VETSCAN SA should always be reviewed in conjunction with patient results. Normal or standard samples will take approximately 1-3 minutes to review. Samples with contaminants and unusual and/or numerous elements may take longer to review. Other result warnings will appear if a short sample or Too Numerous to Count (TNTC) is detected by the analyzer. Please see flow chart for quick reference.



*CaOX will display as NTR. See VETSCAN SA Analyzer manual for more information.

Contact Technical Support for additional information:

☎ 800 822 2947

@ dxsupport@zoetis.com

¹ Morissette, Eric. Evaluation of Urine by Automatic and Manual Methods, ABX-00145

² VETSCAN SA Manual, ABX-00074

³ Skeldon N, Ristic J. Urinalysis [Chapter 10]. BSAVA Manual of Canine and Feline Clinical Pathology, 2016: p. 203.