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NF VALIDATION 102 (AFNOR Certification):

Protocol for validation of methods for the detection and quantification of veterinary drugs in food products
(revision n°1: adopted on June 1st, 2017)

Summary Report

Evaluation of the Delvotest® T method for the detection of a broad range of antibiotics residues in raw cows' milk (individual and commingled) with visual and instrumental reading using the Delvo®scan (ampoule and plates) and the Delvotest® Accelerator Smart (plates)

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Manufacturer: DSM Food Specialties B. V

Certificate number: DSM 28/02-02/12

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Certification Body:
AFNOR certification

Validation protocol:
NF VALIDATION 102 (AFNOR Certification): Protocol for validation of methods for the detection and quantification of veterinary drugs in food products (revision n°1: adopted on June 1st, 2017)

Principle of the method:
This method is a standard diffusion test for the qualitative detection of antibacterial substances as penicillins, tetracyclines, sulfonamides, cefalosporins, macrolides, aminoglycosides, lincosamides in raw milk.

Qualitative method

Scope:
Raw cow milk

Extension study:
Delvotest® Accelerator Smart to incubate and read Delvotest® T (96-wells plate format)

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1. INTRODUCTION

The Delvotest® T method was certified by AFNOR in 2013 under the certification number DSM 28/02-02/12, then 2 renewal studies were performed in 2016 and 2020. An extension study was conducted in 2022.

1.1. First validation in 2013 (ANSES Fougères)

In the first validation, the scope was cow milk with an extension on ewe and goat milks. In addition, the presence of a preservative (azidiol) in milk has been studied. A comparative study has been performed with alternative method Delvotest® T and a reference method.

Results of Delvotest® T and of the reference method were similar. The method was applicable on ewe and goat milks. The presence of preservative (azidiol) did not impact the results. Conclusions of preliminary study were positive to the continuation of project and an interlaboratory study was performed.

1.2. First renewal in 2016 (ANSES Fougères)

A first renewal has been performed in 2016 without further study, as alternative method and AFNOR technical rules were not modified.

1.3. Second renewal in 2020-2021 (ACTALIA Cecalait)

The rules of AFNOR have been changed in 2017 according to NF102 (AFNOR Certification): 'Protocol for validation of methods for the detection and quantification of veterinary drugs in food products' (revision N°1: June 1st, 2017).

The modifications in comparison with previous rules are:

- No comparison of the alternative method with a reference method;
- Detection capability (CCβ) study with minimum 20 repetitions per antibiotic and per level, and 20 antibiotics minimum for a broad spectrum test in milk;
- Applicability with 10 repetitions minimum per antibiotic and per level;
- Analyses with at least 3 different batch numbers of kit (including a batch close to the manufacture date and a batch close to the expiry date) ;
- Influence of test protocol and composition of matrix are to test in robustness study.

As the first preliminary study was done only on 5 repetitions per antibiotic and per level, and age of reagents were not tested, all the validation study was performed again according to the new AFNOR Certification rules including:

- Determination of detection capability (CCβ) with at least 3 batches;
- Determination of false positive results;
- Applicability;
- Robustness;
- Practicability.

A complement of interlaboratory study of 2013 was peformed in 2021:

- To test again Tetracycline;
- To align the interlaboratory study with the new version of AFNOR rules, with addition of 2 antibiotics.

This renewal study was performed on raw cow milk (individual and commingled) with visual and Delvoscan® reading.

1.4. Extension study in 2022 (ACTALIA Cecalait)

DSM Food Specialties wanted to extend their validation of Delvotest® T 96-wells plate with a new device: Delvotest® Accelerator Smart (DAS), according to NF 102 (AFNOR Certification): Protocol for validation of methods for the detection and quantification of veterinary drugs in food products (revision n°1: June 1st, 2017). For this, the applicability study of DAS on raw cow milk (comparison with results obtained during the preliminary validation study in 2020/2021 with water bath incubation and Delvo®Scan reading) was evaluated.

2. DELVOTEST T® METHOD

2.1. Principle

The Delvotest® T is a qualitative broad spectrum test for the detection of antibiotic residues in raw milk. The test is based on growth inhibition of *Geobacillus stearothermophilus*.

The product contains a solid agar medium seeded with standardized number of spores of *Geobacillus stearothermophilus* with required nutrients for growth. The medium is colored by the pH indicator bromocresol purple.

Milk samples are added into the test and are incubated at 64°C ± 2°C. This incubation allows germination and growth of the bacteria; this will lead to a change in color of the pH indicator to (partially) yellow. When milk sample contains antibiotics substances at or above the test sensitivity, growth is inhibited and the color remains (predominantly) purple.

2.2. Protocol

Test production and protocol have not changed since the first validation in 2012.

Delvotest® T kit is in two formats according to the number of samples to use. Each format has different packaging. Once a month, the scanner used with the Delvo®Scan software, is calibrated with a colored card.

<u>The steps are the following</u>:

- Preheat the incubation device. The temperature of the dry incubator or water bath should be set at 64°C ± 2 °C.
- Select the required number of test material. Detach one or more ampoules, or break the plates in blocks depending on the number of milk sample to analyse. Take care that the aluminium foil from the remaining tests is not damaged. Remove the aluminium foil from the plate or perforate the foil of ampoules carefully.
- Add the milk sample. Milk samples should be representative of the milk to be tested and homogenized. Pipette 0,1 mL of sample in the test. For each sample use a new and clean pipette. Indicate clearly each test with for example a sample number.
- Incubate the test. When using test in plate, cover the plates using included adhesive foil. The ampoules and the plates have to be put into the incubator immediately after milk addition.
- Incubate the test plates or ampoules in the preheated dry incubator or water bath. Incubate the test until the control time already determined.
- Read visually or with Delvo®Scan. The colour should be read from the 2/3 part of the ampoule or from underneath the test plate. Interpretation of results is presented in **Table 1**;
- For the plate format, the incubation and the reading can be done using the Delvotest® Accelerator Smart (DAS) device (extension study of 2022).

*Table 1: **Interpretation of results of Delvotest® T.***

COLOR OF MEDIUM	RESULTS
Purple (predominantly)	**POSITIVE** Milk sample contains antibiotics at or above the test sensitivity.
Yellow (partially)	**NEGATIVE** The milk analysed does not contain antibiotics or the antibiotic concentration is below the detection sensitivity of the test.

3. DELVOTEST® ACCELERATOR SMART (DAS)

3.1. Principle

The DAS is an incubator / reader specifically designed to be used with DSM's Delvotest® T 96-wells plate format. The DAS is an automated system that maintains the right incubation temperature, monitors the test color during incubation, ends the incubation at the optimum time and calculates the test results.

3.2. Protocol

To use the DAS, the steps are the following:

- Switch on the DAS, preheat at 64°C ± 2 °C the incubation device (around 10 minutes) and configure the settings.
- Take a 96-wells plate and check that the aluminum foil is not damaged. Remove the aluminum foil from the plate.
- Homogenize milk samples and add 0,1 mL of each one to each well.
- Insert the plate into the DAS. Barcode on the plate, with batch code and product type, is read directly by the DAS. Close the lid and press "START" on the DAS. A display will show the elapsed time from the start.
- At the end of the run, the DAS reads the plate and gives "Z-values" for every well.
- The interpretation of results of Delvotest® T is based on Z-values coming from the color of each well. A threshold value is used to decide between positive (presence of antibiotics) and negative results. The threshold recommended by DSM for the Delvotest® T is the following:
    - $Z \geq -4$: Milk sample contains antibiotics at or above the detection sensitivity;
    - $Z < -4$: Milk sample does not contain antibiotics or does contain at a concentration under the detection sensitivity.

4. PRELIMINARY STUDY

In the second renewal study in 2020, all preliminary study was performed again according to the new rules of AFNOR of 2017.

During this second renewal study, 2 formats of Delvotest® T were studied: ampoules and plates. In the same time, 2 types of readings were tested: visual and by Delvo®Scan.

All incubations of Delvotest® T in plates were done in a water bath at 64°C ± 2°C. For those in ampoules, DSM Delvotest® Incubators (Mini S block heater) were used at 64°C ± 2°C. All incubations were performed at 'control time' (**see 4.1**).

The Delvo®Scan software used was the version 5.08 (ampoules and plates) with an EPSON V600 scanner with a cut-off equal to 0.

All pipettings were done with a variable pipette (20 – 200 µL with an accuracy of ± 0,6 µL).

4.1. Determination of the control time

The control time is the time when blank negative milk sample turns negative. It was determined for each batch according to DSM good practices by the analyze of 1 negative control provided by DSM, reads every 5 minutes from 2h45 to 3h15 incubation.

4.2. Determination of detection capability (CCβ)

4.2.1. Materials and methods

The blank raw cow milk was commingled milk coming from at least 10 animals not treated with veterinary drugs within the last 8 weeks before milking. The maximum period for the cold storage (between 0°C and 6°C) of the fresh raw milk was 56 hours. Analyses of composition of milk were performed for each milk used (fat, protein, somatic cells, total count of microorganisms and pH).

The blank raw milk was tested before using by Delvotest® T and by another test (Bioeasy® β- lactam – tetracycline – Cefalexin – Ref YRM1008-40) in duplicate. Three blank raw milks of different origin were used.

Blank raw milk was spiked with different compounds belonging to different drug families. 42 molecules have been tested with two formats (plates and ampoules). As the quinolones (sum of enrofloxacin and ciprofloxacin) are not detected by Delvotest® T, they were not tested in this renewal study. Details on antibiotics used are reported in **Appendix 1**.

For each format, results were read by visually and by Delvo®Scan. All samples were codified previously and were analyzed in blind.

At least 3 different batch numbers have been tested (including a batch close to the manufacture date and a batch close to the expiry date).

Each compound was spiked separately. For each compound a minimum of 1 level around the test detection capability was tested.

- In the case where the CCβ values were announced by DSM, in the first time the CCβ announced was tested;
- In the case where the CCβ values were not announced by DSM, in the first time the MRL was tested.

If the CCβ still fails, the CCβ level is increased according to NF 102 rules as follows:

- Range 1 – 10 ppb: increments of 1 ppb
- Range 11 – 20 ppb: increments of 2 ppb
- Range 21 – 50 ppb: increments of 5 ppb
- Range 51 – 250 ppb: increments of 10 ppb
- Range 251 – 500 ppb: increments of 25 ppb
- Range 500 – 1 000 ppb: increments of 100 ppb
- Range 1 000 – 5 000 ppb: increments of 500 ppb.

The number of replicates tested at each level is based on closeness to the MRL according to AFNOR rules. The number of replicates is given in **Table 2**.

Table 2: ***Number of replicates to test according to the MRL***

Concentration tested	Number of replicates	Performance criterion Maximum number of negative results allowed
> MRL	20	1
Close to the MLR (10% below to the MLR)	60	3
Between 50% and 90% of the MLR	40	2
≤ 50% MRL	20	1

Detection capability is defined as the lowest concentration tested giving at least 95% of positive results; it is the lowest concentration where at least 19 out of 20 tests, 38 out of 40 tests, or 57 out of 60 tests are positive, respectively.

Detection capability was determined with 3 batches for ampoules (20A09/31, 19L11/31 and 19L18/31) and 6 batches for plates (19K22/30, 19J18/30, 19J02/30, 20D31/20, 20D16/30 and 20D22/30). The tests were interpreted visually and by Delvo®Scan. All results (reader values) were collected in a data base.

4.2.2. Results

A summary of the detection capabilities obtained is given in **Table 3**.

4.2.3. Conclusion of CCβ study

On 42 antibiotics tested:

- 25 compounds have a detection capability below or equal to MRL.
    - The detection capability of gentamycin is equal to the MRL for both plates and ampoules.
    - The detection capability of oxytetracycline is equal to the MRL for ampoules only;
    - The detection capability of tetracycline is equal to the MRL for plates only.
- 16 compounds have a detection capability higher than regulatory limits (4- epioxytetracycline, chlortetracycline, 4-epitetracycline, 4-epichlortetracycline, sulfamethazine, tilmicosin, erythromycin A, spiramycin, streptomycin, dihydrostreptomycin, cefquinome, chloramphenicol, trimethoprim, lincomycin, clavulanic acid and dapsone);
- Doxycycline has no regulatory limit.

Quinolones (Enrofloxacin and ciprofloxacin) were not tested since Delvotest® T detection capability is far above MRL.

Table 3: ***Detection capabilities (CCβ, in ppb) determined at control time by Delvotest® T kit in raw cow milk.***

Drug family	Compounds detected	MRL in milk (ppb)	Number of positive sample		CCβ (ppb)	=, < or > MRL	Number of positive sample		CCβ (ppb)	=, < or > MRL
			Visual reading	Delvoscan reading			Visual reading	Delvoscan reading		
			Ampoules				Plates			
Penicillins	Amoxicillin	**4**	20 /20	20/20	**2**	<	20/20	20/20	**2**	<
	Ampicillin	**4**	20/20	20/20	**2**	<	20/20	20/20	**2**	<
	Penicillin G	**4**	40/40	39/40	**3**	<	20/20	20/20	**1**	<
	Cloxacillin	**30**	20/20	20/20	**10**	<	20/20	20/20	**10**	<
	Oxacillin	**30**	20/20	20/20	**3**	<	20/20	20/20	**3**	<
	Nafcillin	**30**	20/20	20/20	**3**	<	20/20	20/20	**3**	<
Tetracyclines	Oxytetracycline	**100**	60/60	60/60	**100**	=	40/40	39/40	**80**	<
	4-Epioxytetracycline	**100**	20/20	20/20	**600**	>	20/20	20/20	**800**	>
	Chlortetracycline	**100**	20/20	20/20	**150**	>	20/20	20/20	**150**	>
	4-Epichlortetra-cycline	**100**	20/20	20/20	**600**	>	20/20	20/20	**600**	>
	Tetracycline	**100**	40/40	40/40	**80**	<	60/60	60/60	**100**	=
	4-Epitetracycline	**100**	20/20	20/20	**800**	>	20/20	20/20	**1000**	>
	Doxycycline	*	20/20	20/20	**50**	*	20/20	20/20	**50**	*
Sulfona mides	Sulfamethazine	**100**	20/20	20/20	**125**	>	20/20	20/20	**125**	>
	Sulfathiazole	**100**	20/20	20/20	**30**	<	20/20	20/20	**30**	<
	Sulfadimethoxine	**100**	20/20	20/20	**40**	<	20/20	20/20	**40**	<
	Sulfadiazine	**100**	40/40	40/40	**55**	<	20/20	20/20	**50**	<
	Sulfadoxine	**100**	40/40	40/40	**80**	<	40/40	40/40	**80**	<
Macro lides	Tilmicosin	**50**	20/20	20/20	**60**	>	20/20	20/20	**100**	>
	Tylosin A	**50**	40/40	40/40	**35**	<	40/40	40/40	**35**	<
	Erythromycin A	**40**	20/20	20/20	**160**	>	20/20	20/20	**200**	>
	Spiramycin	**200**	20/20	20/20	**1500**	>	20/20	20/20	**2000**	>
Aminogl ycosides	Neomycin B	**1500**	20/20	20/20	**140**	<	20/20	20/20	**140**	<
	Gentamycin	**100**	59/60	59/60	**100**	=	58/60	58/60	**100**	=
	Streptomycin	**200**	20/20	20/20	**700**	>	20/20	20/20	**1000**	>
	Dihydrostreptomycin	**200**	20/20	20/20	**700**	>	20/20	20/20	**800**	>
Cephalosporins	Cephapirin	**60**	20/20	20/20	**5**	<	20/20	20/20	**5**	<
	Desacetycephapirin	**60**	20/20	19/20	**2**	<	20/20	20/20	**2**	<
	Ceftiofur	**100**	20/20	20/20	**20**	<	20/20	20/20	**20**	<
	Desfuroylceftiofur	**100**	20/20	20/20	**45**	<	40/40	40/40	**80**	<
	Cefoperazone	**50**	20/20	20/20	**20**	<	20/20	20/20	**20**	<
	Cefalexin	**100**	20/20	20/20	**30**	<	20/20	20/20	**30**	<
	Cefquinome	**20**	20/20	20/20	**50**	>	20/20	20/20	**60**	>
	Cefalonium	**20**	20/20	20/20	**5**	<	20/20	20/20	**5**	<
	Cefazolin	**50**	20/20	20/20	**3**	<	19/20	19/20	**3**	<
Others	Chloramphenicol	**0,3 [a]**	19/20	19/20	**4000**	>	20/20	20/20	**3500**	>
	Trimethoprim	**50**	20/20	20/20	**110**	>	20/20	19/20	**120**	>
	Dapsone	**5 [b]**	20/20	20/20	**10**	>	20/20	20/20	**10**	>
	Lincomycin	**150**	20/20	20/20	**275**	>	20/20	20/20	**220**	>
	Rifaximin	**60**	40/40	40/40	**40**	<	40/40	40/40	**40**	<
	Pirlimicin	**100**	20/20	20/20	**300**	<	20/20	20/20	**300**	<
	Clavulanic acid	**200**	20/20	20/20	**700**	>	20/20	20/20	**800**	>

* No regulatory limit in milk
[a] MRPL (Minimum Required Performance Limit)
[b] MMPR (Minimum Method Performance Requirements)

4.3. Test for false positive results

4.3.1. Materials and methods

The blank raw milk was tested before using by Delvotest® T and other test (Bioeasy® β-lactam – tetracycline or Bioeasy® β-lactam – tetracycline – cefalexine) in duplicate.

93 samples of bulk tank commingled milks were tested by Delvotest® T kit with plates and 84 samples with ampoules. The false positive rate was determined at control time.

4.3.2. Results

On 93 samples analyzed with plates and 84 samples with ampoules, no false positive was detected in blank raw milk from different origin.

4.4. Applicability on individual cow milk

4.4.1. Materials and methods

10 blank milk from different origins were tested at control time.

At minimum 10 milk samples supplemented with antibiotics were tested. One or two representative compounds for each antibiotic family were spiked to its CCβ level or above (maximum 20%) (**Table 4**). If one sample supplemented with antibiotic was negative, 10 additional samples were tested.

All samples were tested with two formats (ampoules and plates), incubated at control time and read visually and by Delvo®Scan. All samples were codified to be analysed in blind.

*Table 4: **List of compounds tested in applicability study on individual cow milk.***

Antibiotic family	Molecules	MRL in milk (ppb)	CCβ validated for cow milk (ppb)	
			Ampoules	Plates
Penicillins	Amoxicillin	**4**	2	2
	Cloxacillin	**30**	10	10
Tetracyclines	Oxytetracycline	**100**	100	80
	Chlortetracycline	**100**	150	150
Sulfonamides	Sulfadimethoxine	**100**	40	40
	Sulfadiazine	**100**	55	50
Macrolides	Tylosin A	**50**	35	35
	Erythromycin A	**40**	160	200
Aminoglycosides	Dihydrostreptomycin	**200**	700	800
Cephalosporins	Cefalexin	**100**	30	30
Lincosamides	Lincomycin	**150**	275	220

4.4.2. Results

Results of applicability on individual cow milk are presented in **Table 5**.

*Table 5: **Results of applicability on individual cow milk at control time.***

Antibiotic family	Molecules tested	MRL in milk (ppb)	Cow milk				Individual cow milk			
			Ampoules		Plates		Ampoules		Plates	
			CCβ (ppb)	=, < or > MRL	CCβ (ppb)	=, < or > MRL	Number of positive sample	Applic ability	Number of positive sample	Applic ability
Penicillins	Amoxicillin	**4**	**2**	<	**2**	<	10/10	YES	10/10	YES
	Cloxacillin	**30**	**10**	<	**10**	<	10/10	YES	10/10	YES
Tetracyclines	Oxytetracycline	**100**	**100**	>	**80**	<	10/10	YES	10/10	YES
	Chlortetracycline	**100**	**150**	>	**150**	>	10/10	YES	10/10	YES
Sulfonamides	Sulfadimethoxine	**100**	**40**	<	**40**	<	10/10	YES	10/10	YES
	Sulfadiazine	**100**	**55**	<	**50**	<	10/10	YES	10/10	YES
Macrolides	Tylosin A	**50**	**35**	<	**35**	<	10/10	YES	10/10	YES
	Erythromycin A	**40**	**160**	>	**200**	>	10/10	YES	10/10	YES
Aminoglycosides	Dihydro-streptomycin	**200**	**700**	>	**800**	>	10/10	YES	10/10	YES
Cephalosporins	Cefalexin	**100**	**30**	<	**30**	<	10/10	YES	10/10	YES
Lincosamides	Lincomycin	**150**	**275**	>	**220**	>	19/20	YES	10/10	YES

4.4.3. Conclusion

No difference was observed in CCβ between the results with commingled cow milk and with individual cow milk. Applicability of the method is verified with individual cow raw milk.

4.5. Robustness

4.5.1. Materials and methods

4.5.1.1. Study performed by ILVO (2012)

Both formats (ampoules and plates) were tested and read visually and by Delvo®Scan.

The different parameters: somatic cells, fat content and protein content have been tested by ILVO lab in 2012 (Reybroeck, W. and Ooghe, S., 2012). The results were kept for this second renewal study.

4.5.1.2. Study performed by ACTALIA Cecalait (2020)

All incubations for the robustness study were performed at control time except for the variation in incubation time, where incubation time was fixed at 3h15.

Both formats (ampoules and plates) were tested and read visually and by Delvo®Scan.

One or two representative compounds for each antibiotic family were spiked to its CCβ level or above (maximum 20%). Fresh raw cow milks were used to prepare positive pool samples. For each parameter tested, samples were tested with:

- At least 3 different blank raw milk samples;
- At least 3 different raw milk samples spiked with antibiotics described in **Table 6**.

*Table 6: **List of compounds tested in robustness study.***

Antibiotic families	Molecules	MRL in milk (ppb)	CCβ validated for cow milk (ppb)	
			Ampoules	Plates
Penicillins	Amoxicillin	**4**	2	2
	Cloxacillin	**30**	10	10
Tetracyclines	Oxytetracycline	**100**	100	80
	Chlortetracycline	**100**	150	150
Sulfonamides	Sulfadimethoxine	**100**	40	40
	Sulfadiazine	**100**	55	50
Macrolides	Tylosin A	**50**	35	35
	Erythromycin A	**40**	160	200
Aminoglycosides	Dihydrostreptomycin	**200**	700	800
Cephalosporins	Cefalexin	**100**	30	30
Lincosamides	Lincomycin	**150**	275	220

Reagents, sample volumes, temperatures and incubation times were tested:

- **Sample volume**: 110 µL and 90 µL versus 100 µL;
- **Incubation time**: 3h15 versus control time;
- **Incubation temperature**: 66°C and 62°C versus 64°C;
- **Delay in reading**: 15 min after incubation time with test at room temperature and 15 min after incubation time with test in cold water versus immediately after incubation.

Different parameters were tested concerning composition of the milk. Parameters are following:

- **pH values**: 6 < pH < 6,3 and 7,1 < pH < 7,5 versus 6,6 < pH < 6,9;
- **Total bacterial count**: TBC > 5.10^5/mL versus TBC < 1.10^5/mL;
- **Frozen milk versus unfrozen milk**: frozen milk was thawed overnight at 4°C;
- **Milk temperature**: cold milk (3 ± 2°C) versus milk at 20 ± 2°C.

Low pH was obtained by addition of lactic acid and high pH by addition of sodium hydroxide. Total bacterial counts were obtained after maturing of milk during 15 hours at 20°C.

4.5.2. Results

4.5.2.1. Study performed by ILVO (2012)

Both formats (ampoules and plates) were tested and read visually and by Delvo®Scan.

This study showed that there was a high rate of false positive results for milk with a high somatic cells count and high fat content:

- 19,1% for a content of somatic cells between 5.10^5 and 10^6 /mL;
- 50% for a content of somatic cells >10^6 /mL.

For raw milk samples with a fat content > 6%, rate of false positive was 14,9%.

There was no false positive for milk samples with a protein content > 4% and < 3% (**Table 7**).

Table 7: ***Conclusion of robustness study by ILVO (2012).***

	Somatic cells between 5.10^5 and 1.10^6/mL	Somatic cells > 10^6/mL	Fat content > 6%	Protein content > 4%	Protein content < 3%
Number of raw milk samples	71	69	47	10	13
Rate of false positive	19,1%	50%	14,9%	No false positive	No false positive

4.5.2.2. Complement of ILVO's study performed by ACTALIA Cecalait (2020)

The robustness study by ILVO lab showed high rate of false positive results (negative sample which gives positive result) when milk composition was out of the scope (somatic cells > 5.10^5/mL and fat content > 6%). These parameters (somatic cells and fat content) were not tested in ACTALIA Cecalait but some data were collected when milk samplings were not in the AFNOR scope for milk composition.

On 144 samples of bulk tank commingled sampling:

- no milk had a fat content higher than 6%;
- only 3 milks had a level higher than 5.10^5 somatic cells/mL. These samples were not used in this study, but blank milks were tested and were all negative (**Table 8**).

Table 8: ***Results of blank milk with high somatic cells content.***

Dates	Somatic cells /mL	Ampoules batches	Plates batches	AMPOULES		PLATES	
				Visual reading	Delvoscan reading	Visual reading	Delvoscan reading
27/04/2020	532 000	20A09/31	19K22/30	-	- 6,13	-	- 8,34
		19L11/31	19J18/30	-	- 4,34	-	- 10,49
		19L18/31	19J02/30	-	- 2,23	-	- 5,66
25/05/2020	655 000	20A09/31	19K22/30	-	- 6,06	-	- 5,39
		19L11/31	19J18/30	-	- 4,6	-	- 8,07
		19L18/31	19J02/30	-	- 1,69	-	- 3,42
04/06/2020	1 233 000	20A09/31	19K22/30	-	- 5,82	-	- 7,00
		19L11/31	19J18/30	-	- 4,82	-	- 8,31
		19L18/31	19J02/30	-	- 0,85	-	- 4,32

4.5.2.3. Study performed by ACTALIA Cecalait (2020)

Other parameters were tested in ACTALIA Cecalait.

Results of robustness on raw cow milk are presented in **Table 9**. All the results for ampoules and plates are presented in **Appendix 2**.

*Table 9: **Results of robustness study for both formats (ampoules and plates) read visually and by Delvo®Scan.***

	Robustness test	False positive results	False negative results	Conclusion
Sample volume	90 µL	NO	NO	Robust
	110 µL	NO	NO	
Incubation time	3h15	NO	**YES ***	**Not robust ***
Incubation temperature	62°C	NO	NO	Robust
	66°C	NO	NO	
Delay in reading	15 min at room temperature	NO	NO	Robust
	15 min at 4°C	NO	NO	
pH	Low (6,0 < pH < 6,3)	NO	**YES****	**Not robust****
	High (7,1 < pH < 7,5)	NO	NO	Robust
Total bacterial count	> 5.10^5 /mL	NO	NO	Robust
Frozen milk	Frozen milk	NO	NO	Robust
Milk temperature	3 ± 2°C	NO	NO	Robust

*: There are false negative for 2 antibiotics (dihydrostreptomycin and lincomycin) on plates format only read visually and by Delvo®Scan.

**: There are false negative for 4 antibiotics (tylosin A, erythromycin, dihydrostreptomycin and lincomycin) on both formats (ampoules and plates) read visually and by Delvo®Scan.

4.5.3. Conclusion of robustness

All robustness study was carried out at the control time of 2h55 for the 2 batches used (20D21/30 and 20D16/30). Only for robustness of incubation time, it was replaced by 3h15.

For all parameters tested, no false positive results were observed.

For 6 parameters tested (sample volume, incubation temperature, delay in reading, total bacterial count, frozen milk and milk temperature) no false negative was observed.

False negative results were observed for the robustness parameter incubation time (incubation of 3h15 instead of control time of 2h55), on 2 antibiotics (dihydrostreptomycin and lincomycin) and only with plates format read visually and using Delvo®Scan. Nevertheless, the CCβ of these antibiotics are higher than the Maximum Residue Limit (MRL).

False negative results were also obtained with incubation at control time of milk samples with low pH (6 <pH< 6,3) on 4 antibiotics (tylosin A, erythromycin, dihydrostreptomycin and lincomycin) with both formats (plates and ampoules) read visually and using Delvo®Scan. Nevertheless, during the detection capability study the pH of the144 samples tested was never lower than 6,5. We can notice also that the CCβ of 3 antibiotics of them (erythromycin, dihydrostreptomycin and lincomycin) were higher than the Maximum Residue Limit (MRL).

During the detection capability study, no difference was detected between different batches including reagent close to the manufactory or expiry dates. We can conclude that age of batches for plates and ampoules, has no impact on the data.

4.6. Practicability

The practicability of the alternative method was evaluated according to the 12 criteria defined in AFNOR rules (**Table 10**).

*Table 10: **Practicability's criteria of alternative method.***

N°	Criteria	Communication of criteria	Results of expert lab	
			AMPOULES	PLATES
1	Reagent packaging	Kit wrapping or kit insert	Cardboard box with kit insert in 6 languages and colorcard for results interpretation	Cardboard box with kit insert in 6 languages and colorcard for results interpretation (in 5 and 20 packs) + adhesive tape
2	Reagent volume	Kit wrapping or kit insert	1 or 4 packages of 25 ampoules	5, 20 or 80 plates of 96 samples divisible in 6 x 16 samples per plate
3	Storage conditions (+ expiry date)	Kit wrapping or kit insert	Sense of storage, storage temperature (2- 8°C), away from the light, protect from freezing, expiry date and batch number	
4	Use after one use	Kit wrapping or kit insert	To prevent from freezing and between 2-8°C	
5	Equipment or specific places	Kit insert	DSM incubator or water bath	
6	Reagent (ready to use or to reconstitute)	Kit wrapping or kit insert	Kit ready to use; Control to reconstitute for determination of control time	
7	Training time	Report	Half day including incubation time	
8	Real time of manipulation	Report	Sample inoculation is very short (few seconds) Incubation time for raw cow milk : 3h00 ± 15 min	
9	Delay to obtain results	Report	Between 3h00 and 3h30 from the beginning to reading	
10	Operator's qualification	Report	Laboratory agent	
11	Results traceability	Kit insert	Printing of result report, save csv and picture file with Delvo®Scan software	
12	Maintenance	Report	Monthly calibration of Delvo®Scan	

4.7. Bibliography

Two publications were published.

- A study had compared 9 microbial inhibitor tests including Delvotest® T on milk samples from 200 different individual goats (Romero et al., 2016).Results were based on visual and instrumental reading. For Delvotest® T, specificity with instrumental reading was 99,5% and 98,5% with visual reading. This result shows that Delvotest® T is suitable for goat milk. This

study shows that fat removal followed by heat treatment is the most appropriate milk treatment to reduce false positive results for almost all tests except for the Delvotest® T. Delvotest® T was not influenced by the milk pre-treatment.

- Another study has used Delvotest® T for a search of antibiotic residues in commercialized milk in Constantine region (North East Algeria) (Boultif et al., 2016). Sampling was cow milk produced locally as well as imported milk powder. A total 180 samples were analysed (120 samples of local milk and 60 samples of imported milk).Delvotest® T data showed that 40% of milk samples (25% positive and 15% doubtful samples) produced locally were contaminated with antibiotic residues. For milk powder, Delvotest® T revealed 5% (3% positive and 2% doubtful samples) of samples contaminated with antibiotic residues.

4.8. Conclusion of the preliminary study

The rules of AFNOR have been changed in 2017 according to NF102 (AFNOR Certification): 'Protocol for validation of methods for the detection and quantification of veterinary drugs in food products' (revision N°1: June 1st, 2017), so the preliminary study was performed again in the second renewal study in 2020 according to these new rules.

The Delvo®Scan software used was the version 5.08 (ampoules and plates) with an EPSON V600 scanner with a cut-off equal to 0.

All incubations of this renewal study were performed at control time except when the incubation time was tested in robustness (incubation at 3h15).

The results of the preliminary study on Delvotest® T with 2 formats (plates and ampoules) and 2 readings (visual and Delvo®Scan) were:

- No false positive detected with plates and ampoules;
- Detection capabilities determined at control time on 42 antibiotics;
- Several parameters tested in the robustness study: sample volume, incubation time, incubation temperature, delay in reading, pH, total bacterial count, frozen milk, milk temperature and age of batches.
    - No false positive results were observed
    - False negative results were observed for 2 robustness parameters:
        - **Incubation time** of 3h15 for dihydrostreptomycin and lincomycin, only on plates read visually and by Delvo®Scan.
        - **Low pH** for tylosin A, erythromycin, dihydrostreptomycin and lincomycin by ampoules and plates read visually and by Delvo®Scan.
    - In detection capability study, no difference was detected between different batches for plates and ampoules.
    - The robustness study performed by ILVO lab showed high rate of false positive results when milk composition was not in conformity (somatic cells > 5.10^5 /mL and fat content > 6%), but in the samples of the second renewal study performed by ACTALIA Cecalait no false positive results was detected.
- Applicability on individual cow milk was verified with plates and ampoules, read visually and by Delvo®Scan.
- The complaints observed and the bibliography study did not lead to a protocol modification or exclusion of material.
- No modification of the method was observed since the first validation study.

4.9. User complaints

From 2016 to 2019, DSM recorded complaints concerning all the formats (ampoules and plates) on around 500 batches per year. In that period, DSM received 101 complaints, 88 complaints were considered by DSM as justified. The distributions of overall and justified complaints are presented in **Table 11**.

Concerning justified complaints, the most common found were performance and appearance of products (48 complaints of 88 complaints). Complaints are mainly related to the formats: 100 ampoules and 20 plates. These complaints did not lead to a protocol modification or exclusion of material. Details of complaints are presented in **Table 12**.

*Table 11: **Types of complaints for Delvotest® T from 2016 to 2019.***

Overall complaints				
Format	Overall	Logistic (packaging, delivery)	Performance / Appearance	Administrative / Others
25 ampoules	11	3	4	4
100 ampoules	51	13	28	10
5 plates	10	2	7	1
20 plates	29	8	20	1
Total complaints	**101**	**26**	**59**	**16**

*Table 12: **Details of complaints.***

Justified complaints				
Format	Overall	Logistic (packaging, delivery)	Performance / Appearance	Administrative / Others
25 ampoules	9	3	3	3
100 ampoules	46	12	24	10
5 plates	8	2	5	1
20 plates	25	8	16	1
Total complaints	**88**	**25**	**48**	**15**

5. INTERLABORATORY STUDY

A first interlaboratory study was conducted by the expert laboratory ANSES Fougères in 2013.

According to the new AFNOR rules of 2017, for a broad spectrum test 6 antibiotics must be tested in an interlaboratory study.

5.1. Interlaboratory study in 2013 (ANSES Fougères)

Nine laboratories participated to this interlaboratory study. The choice of concentration was based on MRL and the results of phase 1 of preliminary study (sensitivity of reference method and alternative method).

Each material was prepared in double-blind, codified, such as 56 samples were sent to be analysed by each laboratory. In addition, 4 negative controls were provided to laboratory to determinate optimum incubation time: 1 cow milk, 1 ewe milk, 1 goat milk and 1 cow milk with azidiol. Milk samples were sent frozen. The **Table 13** presents the samples prepared for the interlaboratory study.

*Table 13: **Samples of the interlaboratory study in 2013***

Preservative	**With azidiol**	**Without azidiol**					
Antibiotics	**Penicillin G**	**Penicillin G**			**Cefquinome**	**Tetracycline**	**Tylosin A**
MRL	4	4	4	4	20	100	50
Species	Cow	Cow	Ewe	Goat	Cow		
Concentrations (ppb)	'Blank'	'Blank'	'Blank'	'Blank'	'Blank'	'Blank'	'Blank'
	1	1	1	1	20	40	20
	4	4	4	4	80	200	50
	6	6	6	6	300	300	300

The results of expert laboratory were:

1- 14 on 14 blank milks were negative (L0);
2- Below the supposed detection limit (L1), 12 on 14 samples were negative;
3- At the supposed detection limit (L2), all samples were positive;
4- Above the supposed detection limit (L3), all samples were positive.

All results of this study are presented in **Appendix 3**, and were satisfactory.

8 or 9 laboratories were retained for results interpretation. Overall for sensitivity study, results of the interlaboratory study are similar to results of the preliminary study.

With all these data, two formats of Delvotest® T have been validated:

- Ampoules with visual reading;
- Plates with visual and Delvo®Scan reading

5.2. Interlaboratory study in 2021 (ACTALIA-Cecalait)

To answer to AFNOR requirements, 3 antibiotics left have to be tested. AFNOR Technical Board asked to test again **Tetracycline** (Tetracycline) because the detection capabilities changed compared to the last study. The 2 antibiotics left were selected for their antibiotic family and for a practicability reason, because they have the same CCβ for the 2 formats of Delvotest® T (ampoule and plate): **Sulfadimethoxine** (Sulfonamide) and **Gentamycin** (Aminoglycoside).

Before using Delvotest® T (ampoules or plates) for the interlaboratory study, collaborative laboratories had to determine the control time of each batch of Delvotest® T.

All analyses were performed at control time. The Delvo®Scan software used was the version 5.08 (ampoules and plates) with an EPSON V600 scanner and the cut-off was equal to 0.

The detection capabilities of antibiotics tested in 2013 (penicillin G, cefquinome and tylosin A) were equivalent to these obtained in the renewal study in 2020, except for tetracycline (**Table 14**). Results of penicillin G, cefquinome and tylosin A of the first interlaboratory study in 2013 were kept and completed with 3 antibiotics during the new interlaboratory study in 2021 conducted by ACTALIA Cecalait: tetracycline (tetracycline), sulfadimethoxine (sulfonamide) and gentamycin (aminoglycoside).

*Table 14: **Detection capabilities determined in 2013 and 2020.***

Antibiotic families	Antibiotics	LMR (ppb)	CCβ (ppb) determined by ANSES in 2013		CCβ (ppb) determined by ACTALIA in 2020	
			Ampoules	Plates	Ampoules	Plates
β-lactams	Penicillin G	4	4	2	3	1
	Cefquinome	20	40	40	50	60
Tetracycline	Tetracycline	100	200	200	80	100
Macrolide	Tylosin A	50	50	50	35	35

5.2.1. Preparation of samples

Specifications of the blank raw milk:

- Be used within 36 hours after sampling;
- Be stored between 0 and 6°C;
- Contain at least the milk of 10 animals, without treatment during at least 8 weeks before sampling;
- Have a milk composition corresponding to AFNOR rules.

The commingled raw cow milk was tested to confirm the absence of antibiotic by:

- 3 BioEasy® tests performed in duplicate:
  - BioEasy® β-lactam – Tetracycline – Cefalexine (reference: 763.000008.40);
  - BioEasy® Sulphonamide (reference: 763.001024.10);
  - BioEasy® Gentamycin (reference: 763.001007.05).
- 2 formats of Delvotest® T (ampoules and plates) in duplicate.

The raw cow milk was sampled the day of samples preparation and its composition was in conformity.

Antibiotic stock solutions were prepared the day of samples preparation. Details of antibiotics used are presented in **Appendix 4** (brand, reference and batch).

For each antibiotic, blank milk was spiked at 4 levels:

- L0: Antibiotic-free sample
- L1: Sample spiked at 50% of the CCβ
- L2: Sample spiked at +20% of CCβ
- L3: Sample spiked at +50% of CCβ

The **Table 15** presents the list of antibiotics and their concentrations tested with Delvotest® T in ampoules and plates formats.

Table 15: ***List of antibiotics tested.***

Antibiotic families	Antibiotics	MRL (ppb)	Delvotest® T format	CCβ (ppb)	Concentration levels tested (ppb)			
					L0	L1	L2	L3
Sulfonamide	Sulfadimethoxine	100	Ampoules and plates	40	0	20	48	60
Aminoglycoside	Gentamycin	100	Ampoules and plates	100	0	50	120	150
Tetracycline	Tetracycline	100	Ampoules	80	0	40	96	120
			Plates	100	0	50	120	150

The collaborative laboratories also received 2 negative and 1 positive controls. The first negative control was provided by DSM Food Specialties in the same time as tests necessary for this study. It was used to determine the control time of each batch of Delvotest® T (ampoules and plates). The second negative control was milk without antibiotic. The positive control was a sample at L3 level of gentamycin. These 2 controls (1 negative and 1 positive) were used to validate the run.

Spiked samples were distributed under agitation in tubes codified in blind duplicates. Milk samples (samples and controls) were frozen at -80°C for 1 day and then stored at -20°C until the shipment.

To sum up, <u>each laboratory received from ACTALIA Cecalait</u>:

- 1 negative control and 1 positive control to analyze in twice, with 2 formats (ampoules and plates) and with 2 types of reading (visual and by Delvo®Scan);
- 32 samples to analyze in twice with 2 types of reading (visual and by Delvo®Scan) All laboratories had to perform analyses the same day, 7 days after sending (20/04/2021).

5.2.2. Verification of homogeneity and stability

Homogeneity and stability of milk samples were verified at control time with 2 formats of Delvotest® T (ampoules and plates) and interpreted from Delvo®Scan results (Z-values).

5.2.2.1. Homogeneity

Homogeneity was performed with 10 samples spiked at L3 level for each antibiotic in duplicate. These samples were selected randomly during the distribution. For each sample, visual and Delvo®Scan readings were performed. For each antibiotic, a mean, a standard deviation and a coefficient of variation were calculated from the Z-values (Delvo®Scan results).

All results were positives. Raw data are presented in **Appendix 5**. The calculations from Delvo®Scan results are presented in **Table 16**. The higher standard deviation is 0,56 and the higher coefficient of variation is 10,5 %. From these results it can be concluded that the homogeneity of samples is verified.

Table 16: ***Control of homogeneity.***

DELVOTEST® T - AMPOULES			
Antibiotics	Gentamycin (120 ppb)	ulfadimethoxine (48 ppb)	Tetracycline (96 ppb)
Mean of Z-values	6,21	3,47	4,53
Standard deviation	0,34	0,36	0,38
Coefficient of variation	5,42 %	10,51 %	8,30 %
DELVOTEST® T - PLATES			
Antibiotics	Gentamycin (120 ppb)	ulfadimethoxine (48 ppb)	Tetracycline (120 ppb)
Mean of Z-values	5,83	4,63	5,60
Standard deviation	0,56	0,45	0,47
Coefficient of variation	9,57 %	9,75 %	8,40 %

5.2.2.2. Stability

Samples stability was performed with 3 samples spiked at L3 level for each antibiotic. These samples were analyzed in duplicate at 3 different times: after 24 hours in freezer (T1), the day of samples shipment (T2) and the day of samples analyses (T3). For each sample, visual and Delvo®Scan readings were performed. For each antibiotic, a mean of the Z-values was calculated.

Raw data are presented in **Appendix 6**. The means of Z-values are presented in **Table 17** and **Figure 1**. All readings (visual and by Delvo®Scan) were positives. A low decrease of Z-values was noticed for all antibiotics for plates format at the third point of stability (day of sample analysis), but had no impact because all laboratories performed analyses the same day. It can be concluded that the stability of samples is satisfactory.

Table 17: ***Control of stability based on interpretation of Z-values (not quantitative data).***

DELVOTEST® T - AMPOULE			
Mean of Z-values	Gentamycin (120 ppb)	Sulfadimethoxine (48 ppb)	Tetracycline (96 ppb)
T0	6,05	3,40	4,47
T1	6,62	4,54	4,95
T2	6,79	4,64	5,07
DELVOTEST® T - PLATE			
Mean of Z-values	Gentamycin (120 ppb)	Sulfadimethoxine (48 ppb)	Tetracycline (120 ppb)
T0	6,56	5,62	6,14
T1	6,72	6,02	6,66
T2	4,60	4,08	3,87

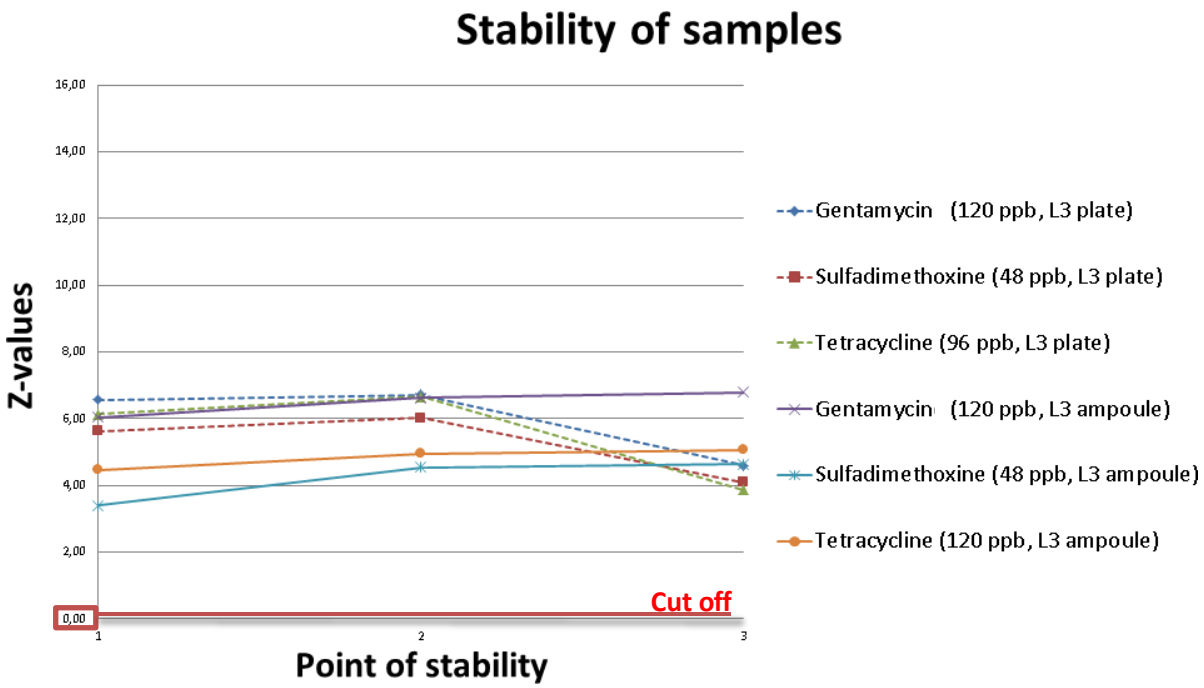

*Figure 1: **Stability of samples.***

5.2.3. Shipment

Frozen samples were sent to the collaborative laboratories on dry ice. Upon receipt, collaborative laboratories checked the temperature indicator (Giovatemp +2/3°C; reference P2- 3; C.C.F Technologies) and checked if samples were still frozen.

ACTALIA Cecalait performed analysis on the same samples as collaborative laboratories, but results were not included in the interpretation of the interlaboratory study. To be in the same conditions of travel, samples were also kept on dry ice in a package at room temperature.

5.2.4. Exclusion of laboratories

In order to obtain at least 8 valid sets of results, 11 laboratories were in the list of collaborative laboratories.

On these 11 collaborative laboratories, few days before the interlaboratory study, the **laboratory 11** announced that it could not participate.

The collaborative **laboratory 10** did not receive its package, that was held at customs.

For other participants (including the expert laboratory), milk samples were still frozen at receipt without temperature alarm.

According to AFNOR rules, some results can be excluded of interpretation of the interlaboratory study. In this case, the reason of exclusion has to be explained in the report. Collaborative laboratories knew the conditions of exclusion in the protocol, which are:

- Discordance in results of controls (if positive control is negative or negative control is positive);
- Non respect of storage temperature during the shipment (defrosting of samples) and in the collaborative laboratory (positive cold storage before the protocol of defrosting);
- Non respect of the day analyses (20/04/2021).

In this study, 2 collaborative laboratories were excluded:

- The collaborative **laboratory 9 did** not respect the protocol of the method. This laboratory did not determine the control time, as required in the instructions and during the training, and used an incubation time of 3h15. This over incubation leads to a decrease of Z-values (around -15 instead of -7/ -6 for blank milk) and by extension a loss of sensitivity;
- The collaborative **laboratory 5** had problem with its software for ampoules the day of samples analyses, despite the fact that the software was correctly installed and was already used before to determine the control time. For results with ampoules format, only data from visual reading were interpretable.

To overcome the high number of missing data, the collaborative **laboratory 7** kindly accepted to participate with a second collaborator, on a different set of samples and in the same conditions as other collaborative laboratories.

All laboratories performed analyses the same day.

Therefore, 9 sets of results were interpreted in this report (including 1 set without results read by Delvo®Scan on ampoules format).

All information about the shipment, reception of samples and reasons of exclusion are presented in the Table 18.

For each antibiotic, the results with visual and by Delvo®Scan readings are presented in **Appendix 7** for ampoules and plates formats. Raw data of the expert laboratory are included in these tables and are consistent to expected results, but were not taken into account for the statistic evaluation (specificity, selectivity, repeatability and reproducibility)

*Table 18: **Conditions of reception and exclusion of collaborative laboratories***

Collaborative laboratories	Labs identification	Alarm of temperature indicator	Receipt dates	Reasons of exclusion
1	1	No	14/04/2021	No
2	2	No	14/04/2021	No
3	3	No	14/04/2021	No
4	4	No	14/04/2021	No
5	5	No	14/04/2021	No
6	6	No	14/04/2021	No
7 Collaborator A	7	No	13/04/2021	No
7 Collaborator B	9	No	19/04/2021	No
8	8	No	15/04/2021	Software problem, no results with ampoules
9	/	No	14/04/2021	No determination of the control time
10	/	/	/	Package held at customs
11	/	/	/	Withdrawal of participation before sending

5.3. Calculation on both interlaboratory studies (2013 and 2021)

5.3.1. Specificity, percentage of positive results and sensitivity

Based on these data, several parameters were calculated:

- **Specificity** (SP, %) of the method, with the following equation:

  $SP (\%) = (1-(P_0/N_0)) \times 100$

  where P_0 is the number of positive results at level L0

  N_0 is the total of results at level L0

- **Percentage of positive results** at level L1 (PR_1, %), with the following equation:

  $PR_1 (\%) = P_1/N_1 \times 100$

  where P_1 is the number of positive results at level L1

  N_1 is the total of results at level L1

- **Sensitivity** (SE, %) for each level L2 and L3, with the following equation:

  $SEL2 (\%) = (P_2/N_2) \times 100$

  where P_2 is the number of positive results at level L2

  N_2 is the total of results at level L2

  $SEL3 (\%) = (P_3/N_3) \times 100$

  where P_3 is the number of positive results at level L3

  N_3 is the total of results at level L3

- **Global sensitivity** (GSE, %) for the levels L2 + L3, with the following equation:

  $GSE (\%) = (P/N) \times 100$

  where P is the number of positive results at the levels L2 and L3

  N is the total of results at the levels L2 and L3

Interpretation of global results from both interlaboratory studies of 2013 and 2021 (**Table 19** and **Table 20**):

- Ampoules format:
  - **Specificity**: The specificity was very satisfactory, 100 % obtained for each type of reading.
  - **Sensitivity**: At level L1, positive results were between 39 and 47 %.

The sensitivity of levels L2, L3 and L2+L3 was very satisfactory, 100 % obtained for each type of reading.

- Plates format:
  - **Specificity:** The specificity was satisfactory (100 % for visual reading and 97 % for Delvo®Scan reading).
  - **Sensitivity**: At level L1, positive results were between 25 and 44 %.

The sensitivity at levels L2 and L3 were close to 100 % (L2 > 96% and L3 > 98 %). Therefore, the global sensitivity was also satisfactory (98 % for visual reading and 97 % for Delvo®Scan reading).

*Table 19: **Specificity, percentage of positive results, sensitivity and global sensitivity for both interlaboratory studies (2013 and 2021) with Delvotest® T in ampoules format.***

Delvotest® T formats	AMPOULES								
Readings	Visual						Delvo®Scan		
Antibiotics	P	C	Ty	G	S	T	G	S	T
Number of positive results (L0) / Total of results (L0)	0 / 32	0 / 32	0 / 32	0 / 36	0 / 36	0 / 36	0 / 32	0 / 32	0 / 32
Specificity per antibiotic (%)	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
Specificity L0 (%)	100,0						100,0		
Number of positive results (L1) / Total of results (L1)	2 / 32	2 / 32	15 / 32	32 / 36	28 / 36	15 / 36	20 / 32	13 / 32	5 / 32
Positive results L1 per antibiotic (%)	6,3	6,3	46,9	88,9	77,8	41,7	62,5	40,6	15,6
Positive results L1 (%)	46,1						39,6		
Number of positive results (L2) / Total of results (L2)	32 / 32	32 / 32	32 / 32	36 / 36	36 / 36	36 / 36	32 / 32	32 / 32	32 / 32
Positive results L2 per antibiotic (%)	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
Sensitivity L2 (%)	100,0						100,0		
Number of positive results (L3) / Total of results (L3)	32 / 32	32 / 32	32 / 32	36 / 36	36 / 36	36 / 36	32 / 32	32 / 32	32 / 32
Positive results L3 per antibiotic (%)	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
Sensitivity L3 (%)	100,0						100,0		
Number of positive results (L2+L3) / Total of results (L2+L3)	64 / 64	64 / 64	64 / 64	72 / 72	72 / 72	72 / 72	64 / 64	64 / 64	64 / 64
Positive results L2+L3 per antibiotic (%)	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
Global sensitivity L2+L3 (%)	100,0						100,0		

P = Penicillin G; C = Cefquinome; Ty = Tylosin A; G = Gentamycin; S = Sulfadimethoxine; T = Tetracycline.

Table 20: ***Specificity, percentage of positive results, sensitivity and global sensitivity for both interlaboratory studies (2013 and 2021) with Delvotest® T in plates format.***

Delvotest® T formats	PLATES											
Readings	Visual						Delvo®Scan					
Antibiotics	P	C	Ty	G	S	T	P	C	Ty	G	S	T
Number of positive results (L0) / Total of results (L0)	0 / 36	0 / 36	0 / 36	0 / 36	0 / 36	0 / 34	2 / 36	1 / 36	1 / 36	0 / 36	0 / 36	0 / 36
Specificity per antibiotic (%)	100,0	100,0	100,0	100,0	100,0	100,0	94,4	97,2	97,2	100,0	100,0	100,0
Specificity L0 (%)	100,0						97,8					
Number of positive results (L1) / Total of results (L1)	6 / 36	11 / 36	24 / 36	12 / 36	28 / 36	13 / 36	4 / 36	8 / 36	16 / 36	5 / 36	16 / 36	6 / 36
Positive results L1 per antibiotic (%)	16,7	30,6	66,7	33,3	77,8	36,1	11,1	22,2	44,4	13,9	44,4	16,7
Positive results L1 (%)	43,5						25,5					
Number of positive results (L2) / Total of results (L2)	32 / 36	36 / 36	34 / 36	36 / 36	36 / 36	36 / 36	34 / 36	33 / 36	35 / 36	36 / 36	35 / 36	36 / 36
Positive results L2 per antibiotic (%)	88,9	100,0	94,4	100,0	100,0	100,0	94,4	91,7	97,2	100,0	97,2	100,0
Sensitivity L2 (%)	97,2						96,8					
Number of positive results (L3) / Total of results (L3)	36 / 36	36 / 36	36 / 36	36 / 36	34 / 36	36 / 36	35 / 36	34 / 36	35 / 36	36 / 36	36 / 36	36 / 36
Positive results L3 per antibiotic (%)	100,0	100,0	100,0	100,0	94,4	100,0	97,2	94,4	97,2	100,0	100,0	100,0
Sensitivity L3 (%)	99,1						98,1					
Number of positive results (L2+L3) / Total of results (L2+L3)	68 / 72	72 / 72	70 / 72	72 / 72	70 / 72	72 / 72	69 / 72	67 / 72	70 / 72	72 / 72	71 / 72	72 / 72
Positive results L2+L3 per antibiotic (%)	94,4	100,0	97,2	100,0	97,2	100,0	95,8	93,1	97,2	100,0	98,6	100,0
Global sensitivity L2+L3 (%)	**98,1**						**97,5**					

P = Penicillin G; C = Cefquinome; Ty = Tylosin A; G = Gentamycin; S = Sulfadimethoxine; T = Tetracycline.

5.3.2. Repeatability

Two types of repeatability (%) were calculated for each laboratory:

- The comparison between duplicates of the same sample;
- The comparison between two identical samples.

Table 21,Table 22, Table 23 and **Table 24** present the repeatability of samples used during the interlaboratory study performed by ANSES in 2013 and **Table 25, Table 26, Table 27** and **Table 28** by ACTALIA Cecalait in 2021.

Repeatability is between 90 % and 100 % for each sample (blank or spiked milks), each format, each type of reading and each type of repeatability.

Only repeatability between two identical samples were around 80% for samples spiked with:

- Sulfadimethoxine with Delvo®Scan reading in plate format;
- Cefquinome with visual reading in plate format.

Table 21: ***Repeatability of blank milk (ANSES, 2013).***

Labs	(Number of analysis for **same sample** / Number of total sample) x 100 (%)			(Number of analysis for **identical sample** / Number of total sample) x 100 (%)		
	AMPOULES	PLATES		AMPOULES	PLATES	
	Visual	Visual	Delvo®Scan	Visual	Visual	Delvo®Scan
AA	8/8	8/8	8/8	8/8	8/8	8/8
AB	8/8	8/8	8/8	8/8	8/8	8/8
AD	8/8	8/8	8/8	8/8	8/8	8/8
AE	8/8	8/8	8/8	8/8	8/8	8/8
AF	8/8	8/8	8/8	8/8	8/8	8/8
AG	8/8	8/8	8/8	8/8	8/8	8/8
AH	8/8	8/8	8/8	8/8	8/8	8/8
AI	Excluded (1 analysis *vs* 2)	8/8	8/8	Excluded (1 analysis *vs* 2)	8/8	8/8
AK	8/8	8/8	2/8	8/8	8/8	2/8
Total	64/64	72/72	66/72	64/64	72/72	66/72
Repeatability (%)	**100,0**	**100,0**	**91,7**	**100,0**	**100,0**	**91,7**

Table 22: ***Repeatability of penicillin G (ANSES, 2013).***

Labs	(Number of analysis for **same sample** / Number of total sample) x 100 (%)			(Number of analysis for **identical sample** / Number of total sample) x 100 (%)		
	AMPOULES	PLATES		AMPOULES	PLATES	
	Visual	Visual	Delvo®Scan	Visual	Visual	Delvo®Scan
AA	6/6	6/6	5/6	6/6	6/6	5/6
AB	6/6	6/6	6/6	6/6	6/6	6/6
AD	6/6	6/6	6/6	6/6	6/6	6/6
AE	6/6	6/6	6/6	6/6	6/6	6/6
AF	6/6	6/6	6/6	6/6	6/6	6/6
AG	6/6	6/6	6/6	4/6	6/6	6/6
AH	6/6	6/6	6/6	6/6	6/6	4/6
AI	Excluded (1 analysis *vs* 2)	6/6	6/6	Excluded (1 analysis *vs* 2)	4/6	4/6
AK	6/6	2/6	6/6	6/6	4/6	6/6
Total	48/48	50/54	53/54	46/48	50/54	49/54
Repeatability (%)	**100,0**	**92,6**	**98,1**	**95,8**	**92,6**	**90,7**

Table 23: ***Repeatability of cefquinome (ANSES, 2013).***

Labs	(Number of analysis for **same sample** / Number of total sample) x 100 (%)			(Number of analysis for **identical sample** / Number of total sample) x 100 (%)		
	AMPOULES	PLATES		AMPOULES	PLATES	
	Visual	Visual	Delvo®Scan	Visual	Visual	Delvo®Scan
AA	6/6	6/6	5/6	6/6	4/6	5/6
AB	6/6	6/6	6/6	6/6	6/6	6/6
AD	6/6	6/6	6/6	6/6	4/6	6/6
AE	6/6	5/6	6/6	6/6	5/6	6/6
AF	6/6	6/6	6/6	6/6	6/6	6/6
AG	6/6	6/6	6/6	6/6	6/6	6/6
AH	6/6	5/6	6/6	4/6	4/6	6/6
AI	Excluded (1 analysis *vs* 2)	6/6	6/6	Excluded (1 analysis *vs* 2)	6/6	6/6
AK	6/6	4/6	6/6	6/6	4/6	6/6
Total	48/48	50/54	53/54	46/48	45/54	53/54
Repeatability (%)	**100,0**	**92,6**	**98,1**	**95,8**	**83,3**	**98,1**

Table 24: ***Repeatability of tylosin A (ANSES, 2013).***

Labs	(Number of analysis for **same sample** / Number of total sample) x 100 (%)			(Number of analysis for **identical sample** / Number of total sample) x 100 (%)		
	AMPOULES	PLATES		AMPOULES	PLATES	
	Visual	Visual	Delvo®Scan	Visual	Visual	Delvo®Scan
AA	6/6	6/6	6/6	6/6	6/6	6/6
AB	6/6	6/6	6/6	6/6	6/6	6/6
AD	6/6	6/6	6/6	6/6	6/6	4/6
AE	5/6	6/6	6/6	5/6	6/6	6/6
AF	6/6	6/6	6/6	6/6	6/6	6/6
AG	6/6	6/6	6/6	6/6	6/6	6/6
AH	6/6	6/6	6/6	4/6	4/6	6/6
AI	Excluded (1 analysis *vs* 2)	6/6	6/6	Excluded (1 analysis *vs* 2)	6/6	6/6
AK	6/6	4/6	6/6	6/6	4/6	4/6
Total	47/48	52/54	54/54	45/48	50/54	50/54
Repeatability (%)	**97,9**	**96,3**	**100,0**	**93,8**	**92,6**	**92,6**

Table 25: ***Repeatability of blank milk (ACTALIA Cecalait, 2021).***

Labs	Number of analysis for **same sample** / Number of total sample) x 100 (%)				(Number of analysis for **identical sample** / Number of total sample) x 100 (%)			
	AMPOULES		PLATES		AMPOULES		PLATESS	
	Visual	Delvo®Scan	Visual	Delvo®Scan	Visual	Delvo®Scan	Visual	Delvo®Scan
ACTALIA	6/6	6/6	6/6	6/6	3/3	3/3	3/3	3/3
1	6/6	6/6	6/6	6/6	3/3	3/3	3/3	3/3
2	6/6	6/6	6/6	6/6	3/3	3/3	3/3	3/3
3	6/6	6/6	6/6	6/6	3/3	3/3	3/3	3/3
4	6/6	6/6	6/6	6/6	3/3	3/3	3/3	3/3
5	6/6	Software problem	6/6	6/6	3/3	Software problem	3/3	3/3
6	6/6	6/6	6/6	6/6	3/3	3/3	3/3	3/3
7	6/6	6/6	5/5	5/5	3/3	3/3	2/2	2/2
8	6/6	6/6	6/6	6/6	3/3	3/3	3/3	3/3
9	6/6	6/6	6/6	6/6	3/3	3/3	3/3	3/3
Total	54/54	48/48	53/53	53/53	27/27	24/24	26/26	26/26
Repeatability (%)	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**

Table 26: ***Repeatability of gentamycin (ACTALIA Cecalait, 2021).***

Labs	(Number of analysis for **same sample** / Number of total sample) x 100 (%)				(Number of analysis for **identical sample** / Number of total sample) x 100 (%)			
	AMPOULES		PLATES		AMPOULES		PLATES	
	Visual	Delvo®Scan	Visual	Delvo®Scan	Visual	Delvo®Scan	Visual	Delvo®Scan
ACTALIA	6/6	6/6	6/6	6/6	3/3	3/3	3/3	3/3
1	6/6	6/6	6/6	6/6	3/3	3/3	3/3	3/3
2	6/6	6/6	6/6	6/6	3/3	3/3	3/3	3/3
3	6/6	6/6	6/6	6/6	3/3	2/3	3/3	3/3
4	6/6	6/6	6/6	6/6	3/3	3/3	3/3	3/3
5	6/6	Software problem	6/6	6/6	3/3	Software problem	3/3	3/3
6	6/6	6/6	6/6	6/6	3/3	3/3	3/3	3/3
7	6/6	4/6	6/6	6/6	3/3	2/3	3/3	3/3
8	6/6	6/6	6/6	5/6	3/3	3/3	3/3	2/3
9	6/6	6/6	6/6	6/6	3/3	3/3	3/3	3/3
Total	54/54	46/48	54/54	47/48	27/27	22/24	27/27	26/27
Repeatability (%)	**100,0**	**95,8**	**100,0**	**97,9**	**100,0**	**91,7**	**100,0**	**96,3**

Table 27: ***Repeatability of sulfadimethoxine (ACTALIA Cecalait, 2021).***

Labs	(Number of analysis for **same sample** / Number of total sample) x 100 (%)				(Number of analysis for **identical sample** / Number of total sample) x 100 (%)			
	AMPOULES		PLATES		AMPOULES		PLATES	
	Visual	Delvo®Scan	Visual	Delvo®Scan	Visual	Delvo®Scan	Visual	Delvo®Scan
ACTALIA	6/6	6/6	6/6	5/6	3/3	3/3	3/3	2/3
1	6/6	6/6	6/6	5/6	3/3	3/3	3/3	2/3
2	6/6	6/6	6/6	6/6	3/3	3/3	2/3	3/3
3	6/6	6/6	6/6	6/6	3/3	3/3	3/3	3/3
4	6/6	6/6	6/6	6/6	3/3	3/3	3/3	3/3
5	6/6	Software problem	6/6	6/6	3/3	Software problem	3/3	3/3
6	6/6	6/6	6/6	6/6	3/3	3/3	3/3	2/3
7	6/6	5/6	6/6	5/6	3/3	2/3	3/3	2/3
8	6/6	6/6	6/6	4/6	3/3	3/3	3/3	2/3
9	6/6	6/6	6/6	5/6	3/3	3/3	3/3	2/3
Total	54/54	47/48	54/54	49/54	27/27	23/24	26/27	22/27
Repeatability (%)	**100,0**	**97,9**	**100,0**	**90,7**	**100,0**	**95,8**	**96,3**	**81,5**

Table 28: Repeatability of tetracycline (ACTALIA Cecalait, 2021).

Labs	(Number of analysis for **same sample** / Number of total sample) x 100 (%)				(Number of analysis for **identical sample** / Number of total sample) x 100 (%)			
	AMPOULES		PLATES		AMPOULES		PLATES	
	Visual	Delvo®Scan	Visual	Delvo®Scan	Visual	Delvo®Scan	Visual	Delvo®Scan
ACTALIA	6/6	6/6	6/6	6/6	3/3	3/3	3/3	3/3
1	6/6	5/6	6/6	6/6	3/3	2/3	3/3	3/3
2	6/6	6/6	6/6	6/6	3/3	3/3	3/3	3/3
3	6/6	6/6	6/6	6/6	3/3	3/3	3/3	3/3
4	6/6	6/6	6/6	6/6	3/3	2/3	3/3	3/3
5	6/6	Software problem	6/6	5/6	3/3	Software problem	3/3	2/3
6	6/6	6/6	6/6	6/6	3/3	3/3	3/3	3/3
7	5/6	6/6	5/6	6/6	2/3	3/3	2/3	3/3
8	6/6	6/6	6/6	4/6	3/3	3/3	3/3	2/3
9	6/6	6/6	6/6	6/6	3/3	3/3	3/3	3/3
Total	53/54	47/48	53/54	51/54	26/27	22/24	26/27	25/27
Repeatability (%)	**98,1**	**97,9**	**98,1**	**94,4**	**96,3**	**91,7**	**96,3**	**92,6**

5.3.3. Reproducibility

For both interlaboratory studies performed by ANSES and by ACTALIA Cecalait, the reproducibility was calculated for each level of antibiotic (L0, L1, L2 and L3).

The interlaboratory reproducibility (%) is the ratio of the number of identical and excepted results (negative for blank samples and positive when antibiotic was added) on the total number of results. For L1 level, the most frequent results were taken into account, because positive and negative results were obtained at this level under the detection capability of the method.

Table 29, Table 30, Table 31 and **Table 32** present the reproducibility for each format (ampoules and plates) and for each type of reading (visual and by Delvo®Scan) for the 6 antibiotics.

The reproducibility for blank milk was equal to 100 %, except for 3 antibiotics analyzed in 2013 with Delvo®Scan reading in plates format (reproducibility higher than 94 %).

L1 level showed a reproducibility between 71 and 77 %. These results can be explained by a level under the detection capabilities of the method.

All L2 and L3 levels had reproducibility equal to 100 % for ampoules format with both readings. With plates format (visual and Delvo®Scan readings), the reproducibility was close to 100% (L2 > 96 %; L3 > 98 %).

The global reproducibility (L1+L2+L3) is between 89 and 92 %. This decrease is due to the low reproducibility of L1 level.

*Table 29: **Reproducibility for Delvotest® T in ampoules format with visual reading**.*

Sample type (blank milk or antibiotic)	Levels	Concentrations (µg/kg)	Number of identical results	Total of results	**Reproducibility (%)**
Blank milk	L0 (penicillin G)	-	32	32	100,0
	L0 (cefquinome)	-	32	32	100,0
	L0 (tylosin A)	-	32	32	100,0
	L0 (gentamycin)	-	36	36	100,0
	L0 (sulfadimethoxine)	-	36	36	100,0
	L0 (tetracycline)	-	36	36	100,0
Total (L0) :			204	204	**100,0**
Penicillin G	L1	1	30*	32	93,8
	L2	4	32	32	100,0
	L3	6	32	32	100,0
Cefquinome	L1	20	30*	32	93,8
	L2	80	32	32	100,0
	L3	300	32	32	100,0
Tylosin A	L1	20	17*	32	53,1
	L2	50	32	32	100,0
	L3	300	32	32	100,0
Gentamycin	L1	50	32	36	88,9
	L2	120	36	36	100,0
	L3	150	36	36	100,0
Sulfadimethoxine	L1	20	28	36	77,8
	L2	48	36	36	100,0
	L3	60	36	36	100,0
Tetracycline	L1	40	21*	36	58,3
	L2	96	36	36	100,0
	L3	150	36	36	100,0
Total (L1) :			158	204	**77,5**
Total (L2) :			204	204	**100,0**
Total (L3) :			204	204	**100,0**
Total (L1+L2+L3) :			566	612	**92,5**

*: Negative results were taken into account.

Table 30: ***Reproducibility for Delvotest® T in ampoules format with Delvo®Scan reading.***

Sample type (blank milk or antibiotic)	Levels	Concentrations (µg/kg)	Number of identical results	Total of results	**Reproducibility (%)**
Blank milk	L0 (gentamycin)	-	32	32	100,0
	L0 (sulfadimethoxine)	-	32	32	100,0
	L0 (tetracycline)	-	32	32	100,0
		Total (L0) :	96	96	**100,0**
Gentamycin	L1	50	20	32	62,5
	L2	120	32	32	100,0
	L3	150	32	32	100,0
Sulfadimethoxine	L1	20	23	32	71,9
	L2	48	32	32	100,0
	L3	60	32	32	100,0
Tetracycline	L1	40	27*	32	84,4
	L2	96	32	32	100,0
	L3	150	32	32	100,0
		Total (L1) :	70	96	**72,9**
		Total (L2) :	96	96	**100,0**
		Total (L3) :	96	96	**100,0**
		Total (L1+L2+L3) :	262	288	**91,0**

*: Negative results were taken into account.

Table 31: ***Reproducibility for Delvotest® T in plates format with visual reading.***

Sample type (blank milk or antibiotic)	Levels	Concentrations (µg/kg)	Number of identical results	Total of results	**Reproducibility (%)**
Blank milk	L0 (penicillin G)	-	36	36	100,0
	L0 (cefquinome)	-	36	36	100,0
	L0 (tylosin A)	-	36	36	100,0
	L0 (gentamycin)	-	36	36	100,0
	L0 (sulfadimethoxine)	-	36	36	100,0
	L0 (tetracycline)	-	34	34	100,0
		Total (L0) :	214	214	**100,0**
Penicillin G	L1	1	30*	36	83,3
	L2	4	32	36	88,9
	L3	6	36	36	100,0
Cefquinome	L1	20	25*	36	69,4
	L2	80	36	36	100,0
	L3	300	36	36	100,0
Tylosin A	L1	20	24	36	66,7
	L2	50	34	36	94,4
	L3	300	36	36	100,0
Gentamycin	L1	50	24*	36	66,7
	L2	120	36	36	100,0
	L3	150	36	36	100,0
Sulfadimethoxine	L1	20	28	36	77,8
	L2	48	36	36	100,0
	L3	60	34	36	94,4
Tetracycline	L1	40	23*	36	63,9
	L2	96	36	36	100,0
	L3	150	36	36	100,0
		Total (L1) :	154	216	**71,3**
		Total (L2) :	210	216	**97,2**
		Total (L3) :	214	216	**99,1**
		Total (L1+L2+L3) :	578	648	**89,2**

*: Negative results were taken into account.

*Table 32: **Reproducibility for Delvotest® T in plates format with Delvo®Scan reading**.*

Sample type (blank milk or antibiotic)	Levels	Concentration (µg/kg)	Number of identical results	Total of results	**Reproducibility (%)**
Blank milk	L0 (penicillin G)	-	34	36	94,4
	L0 (cefquinome)	-	35	36	97,2
	L0 (tylosin A)	-	35	36	97,2
	L0 (gentamycin)	-	36	36	100,0
	L0 (sulfadimethoxine)	-	36	36	100,0
	L0 (tetracycline)	-	34	34	100,0
		Total (L0) :	210	214	**98,1**
Penicillin G	L1	1	32*	36	88,9
	L2	4	34	36	94,4
	L3	6	35	36	97,2
Cefquinome	L1	20	28*	36	77,8
	L2	80	33	36	91,7
	L3	300	34	36	94,4
Tylosin A	L1	20	20*	36	55,6
	L2	50	35	36	97,2
	L3	300	35	36	97,2
Gentamycin	L1	50	31*	36	86,1
	L2	120	36	36	100,0
	L3	150	36	36	100,0
Sulfadimethoxine	L1	20	20*	36	55,6
	L2	48	35	36	97,2
	L3	60	36	36	100,0
Tetracycline	L1	40	30*	36	83,3
	L2	96	36	36	100,0
	L3	150	36	36	100,0
		Total (L1) :	161	216	**74,5**
		Total (L2) :	208	216	**96,8**
		Total (L3) :	212	216	**98,1**
		Total (L1+L2+L3) :	581	648	**89,8**

*: Negative results were taken into account.

5.4. Conclusion of interlaboratory studies (2013 and 2021 studies)

The renewal interlaboratory study was conducted on raw cow's milk.

Specificity, sensitivity and global sensitivity were very satisfactory (100% or close to 100%) Percentage of positive results at L1 level (lower than detection capability) were between 25 and 46%.

Repeatability was between 80 % and 100 %.

The reproducibility for blank milk was equal or close to 100 %.

The global reproducibility (L1+L2+L3) was between 89 and 93 %, due to the low reproducibility of L1 level.

In general, all results were satisfactory, but we can observe that:

- better results were obtained with Delvotest® T in ampoules than in plates format;
- the results were slightly better with visual reading than with Delvo®Scan.

6. Applicability study: Use of DAS for incubation and reading of Plate format

6.1. Criterion evaluated

The criterion evaluated for this extension study was the raw cow milk without preservative.

6.2. Conditions of the study

For each batch of Delvotest® T, a control time must be determined for the duration of incubation. In this extension study, all incubations will be performed at control time for visual and Delvo®Scan readings. The Delvo®Scan software will use the version 5.08 with an EPSON V600 scanner and the cut-off between positive and negative samples is equal to 0. In other hand, the DAS determine automatically the specific control time for each run of plate.

The raw milk used had 3 different origins (called milk #1; milk #2 and milk #3) and was come from commingled milk from at least 10 animals not treated with veterinary drugs within the last 8 weeks before milking. The raw milks were stored at 3°C ± 2°C for a maximum of 56 hours.

Negative status of each milk was checked with DAS and with another method:

- BioEasy® β-lactam – Tetracycline – Cefalexine

For each matrix, at least 10 blank milk samples were tested.

One or two representative compounds for each antibiotic family was freshly spiked to CCβ level + 20% (**Table 33**). AFNOR rules specify that quinolones (enrofloxacin and ciprofloxacin) have to be tested. The quinolones are not detected by Delvotest® T, therefore they will be not tested in this extension study.

*Table 33: **List of compounds tested in the extension study.***

Antibiotics family	Molecules to test	MRL in milk (ppb)	CCβ (ppb)	
			Validated on plate format (cow milk)	+20% of CCβ level = concentrations tested
Penicillins	Amoxicillin	4	2	2,4
	Cloxacillin	30	10	12
Tetracyclines	Oxytetracycline	100	80	96
	Chlortetracycline	100	150	180
Sulfonamides	Sulfadimethoxine	100	40	48
	Sulfadiazine	100	50	60
Macrolides	Tylosin A	50	35	42
	Erythromycin A	40	200	240
Aminoglycosides	Dihydrostreptomycin	200	800	960
Cephalosporins	Cefalexin	100	30	36
Lincosamides	Lincomycin	150	220	264

Ten milk samples supplemented with antibiotics were tested. If all samples are positive then the applicability is verified. If only one sample supplemented with antibiotic was negative, 10 additional samples are tested. If all these new samples are positive, the applicability was confirmed otherwise the applicability was not accepted for the DAS.

Three DAS system were used in parallel:

- DAS 1: Reference 1051 (144)
- DAS 2: Reference 1129 (184)
- DAS 3: Reference 1067 (127).

Results were read:

1. Immediately after the end of the DAS run by the DAS;
2. After being cooled down in cold water (to stop the reaction) with Delvo®Scan reading;
3. For discordant results between the 2 previous readings or expected results, visual reading was added.

6.3. Results

All milk used for the study were negative for the natural presence of β-lactam – Tetracycline – Cefalexine (results of BioEasy® tests not shown).

Global composition of the milks used in this study was presented in **Table 34**. For the milk #2, the concentration of somatic cells determined is slightly higher than the AFNOR limits, but considering the uncertainty of the quantification method, this concentration observed can be considered in conformity within AFNOR range. For the fat contents of the milk #3 which is lower than the AFNOR range, the basic fat content of the entire herd (from payment data) is around 35 g/L (representative of the milks produced in Franche-Comté region). In addition, the selection of few animals (10) without any treatment can provide a bulk milk with some differences in composition (due to individual milks influence). Therefore, this milk can be considered as in conformity regarding the objective of this study and taking into account far validation process.

All others parameters are in the AFNOR scope for this milk and this lower content in fats did not affect results. Therefore, results obtained with these milks were interpreted and included in this study.

*Table 34: **Global composition of milks used in the extended study.***

Milk	Fat	Protein	Cells/mL	pH	Total bacterial count (CFU/mL)
#1	36.2	34.9	179 000	6.86	10 000
#2	37.4	33.2	413 000	6.91	8 000
#3	29.1	33.6	83 000	6.88	43 000
AFNOR Scope	**35-45**	**30-36**	**< 400 000**	**6,6-6,9**	**< 100 000**

Results of applicability of the use of the DAS to incubate and read Delvotest® T (96-wells plate format) for the detection of antimicrobial substances in raw cow milk are presented in **Table 35** for each milk and each DAS tested. **No impact of the origin of milk or of the DAS used was observed on the results.**

The global results are presented in **Table 36**. All the tested antimicrobial substances were detected with the 3 DAS in the 3 milks. No false positive were detected. **The applicability was therefore demonstrated with the CCβ+20% of the initial validation study concerning the microplate format incubated in water bath and read with Delvo®scan.**

Table 35: ***Results of applicability study for the use of DAS to detect antimicrobial substances in raw cow milk for each milk and for each DAS.***

Antibiotics family	Molecules tested	MRL in milk (ppb)	Tested concentrations (CCβ level + 20%)	Milk	DAS	Number of positive samples		
						Visual reading	Delvo®scan	DAS
Penicillins	Amoxicillin	4	2,4	#1	1	10/10	10/10	10/10
					2	10/10	10/10	10/10
					3	10/10	10/10	10/10
				#2	1	10/10	10/10	10/10
					2	10/10	10/10	10/10
					3	10/10	10/10	10/10
				#3	1	10/10	10/10	10/10
					2	10/10	10/10	10/10
					3	10/10	10/10	10/10
	Cloxacillin	30	12	#1	1	10/10	10/10	10/10
					2	10/10	10/10	10/10
					3	10/10	10/10	10/10
				#2	1	10/10	10/10	10/10
					2	10/10	10/10	10/10
					3	10/10	10/10	10/10
				#3	1	10/10	10/10	10/10
					2	10/10	10/10	10/10
					3	10/10	10/10	10/10
Tetracyclines	Oxytetracycline	100	96	#1	1	10/10	10/10	10/10
					2	10/10	10/10	10/10
					3	10/10	10/10	10/10
				#2	1	10/10	10/10	10/10
					2	10/10	10/10	10/10
					3	10/10	10/10	10/10
				#3	1	10/10	10/10	10/10
					2	10/10	10/10	10/10
					3	10/10	10/10	10/10
	Chlortetracycline	100	180	#1	1	10/10	10/10	10/10
					2	10/10	10/10	10/10
					3	10/10	10/10	10/10
				#2	1	10/10	10/10	10/10
					2	10/10	10/10	10/10
					3	10/10	10/10	10/10
				#3	1	10/10	10/10	10/10
					2	10/10	10/10	10/10
					3	10/10	10/10	10/10
Sulfonamides	Sulfadimethoxine	100	48	#1	1	10/10	10/10	10/10
					2	10/10	10/10	10/10
					3	10/10	10/10	10/10
				#2	1	10/10	10/10	10/10
					2	10/10	10/10	10/10
					3	10/10	10/10	10/10
				#3	1	10/10	10/10	10/10
					2	10/10	10/10	10/10
					3	10/10	10/10	10/10
	Sulfadiazine	100	60	#1	1	10/10	10/10	10/10
					2	10/10	10/10	10/10
					3	10/10	10/10	10/10
				#2	1	10/10	10/10	10/10
					2	10/10	10/10	10/10
					3	10/10	10/10	10/10
				#3	1	10/10	10/10	10/10
					2	10/10	10/10	10/10
					3	10/10	10/10	10/10

Antibiotics family	Molecules tested	MRL in milk (ppb)	Tested concentrations (CCβ level + 20%)	Milk	DAS	Number of positive samples		
						Visual reading	Delvo®scan	DAS
Macrolides	Tylosin A	50	42	#1	1	10/10	10/10	10/10
					2	10/10	10/10	10/10
					3	10/10	10/10	10/10
				#2	1	10/10	10/10	10/10
					2	10/10	10/10	10/10
					3	10/10	10/10	10/10
				#3	1	10/10	10/10	10/10
					2	10/10	10/10	10/10
					3	10/10	10/10	10/10
	Erythromycin A	40	240	#1	1	10/10	10/10	10/10
					2	10/10	10/10	10/10
					3	10/10	10/10	10/10
				#2	1	10/10	10/10	10/10
					2	10/10	10/10	10/10
					3	10/10	10/10	10/10
				#3	1	10/10	10/10	10/10
					2	10/10	10/10	10/10
					3	10/10	10/10	10/10
Aminoglycosides	Dihydrostreptomycin	200	960	#1	1	10/10	10/10	10/10
					2	10/10	10/10	10/10
					3	10/10	10/10	10/10
				#2	1	10/10	10/10	10/10
					2	10/10	10/10	10/10
					3	10/10	10/10	10/10
				#3	1	10/10	9/10	10/10
					2	10/10	10/10	10/10
					3	10/10	10/10	10/10
Cephalosporins	Cefalexin	100	36	#1	1	10/10	10/10	10/10
					2	10/10	10/10	10/10
					3	10/10	10/10	10/10
				#2	1	10/10	10/10	10/10
					2	10/10	10/10	10/10
					3	10/10	10/10	10/10
				#3	1	10/10	10/10	10/10
					2	10/10	10/10	10/10
					3	10/10	10/10	10/10
Lincosamides	Lincomycin	150	264	#1	1	10/10	10/10	10/10
					2	10/10	10/10	10/10
					3	10/10	10/10	10/10
				#2	1	10/10	10/10	10/10
					2	10/10	10/10	10/10
					3	10/10	10/10	10/10
				#3	1	10/10	10/10	10/10
					2	10/10	10/10	10/10
					3	10/10	10/10	10/10

*Table 36: **Global results of applicability study**.*

Antibiotics family	Molecules tested	MRL in milk (ppb)	Tested concentrations (CCβ level + 20%)	Number of positive samples			
				Visual reading	Delvo®scan	DAS	
						Positive	Applicability
Penicillins	Amoxicillin	4	2,4	30/30	30/30	30/30	YES
	Cloxacillin	30	12	30/30	30/30	30/30	YES
Tetracyclines	Oxytetracycline	100	96	30/30	30/30	30/30	YES
	Chlortetracycline	100	180	30/30	30/30	30/30	YES
Sulfonamides	Sulfadimethoxine	100	48	30/30	30/30	30/30	YES
	Sulfadiazine	100	60	30/30	30/30	30/30	YES
Macrolides	Tylosin A	50	42	30/30	30/30	30/30	YES
	Erythromycin A	40	240	30/30	30/30	30/30	YES
Aminoglycosides	Dihydrostreptomycin	200	960	30/30	29/30	30/30	YES
Cephalosporins	Cefalexin	100	36	30/30	30/30	30/30	YES
Lincosamides	Lincomycin	150	264	30/30	30/30	30/30	YES

6.4. Conclusion of the applicability study for DAS

No difference was observed in CCβ between the results obtained with DAS (incubation and reading) and with Delvo®Scan reading (with DAS incubation). **Applicability of the method is verified with the use of the DAS for the incubation and the reading of results.**

7. GENERAL CONCLUSION

The Delvo®Scan software used was the version 5.08 (ampoules and plates) with an EPSON V600 scanner and cut-off equal to 0.

All incubations were performed at control time except when the incubation time was tested in robustness (incubation of 3h15).

The rules of AFNOR have been changed in 2017, so the preliminary study was performed again in the second renewal study in 2020 according these new rules.

The results of the preliminary study on Delvotest® T with 2 formats (plates and ampoules) and with 2 readings (visual and Delvo®Scan) are summarized in **Table 37**, and were satisfactory.

During this second renewal study conducted by ACTALIA Cecalait, an interlaboratory study was carried out in 2021 in addition to the one already performed by ANSES expert laboratory in 2013. Global results of these interlaboratory studies are presented in the **Table 38**, and were satisfactory.

The extension study conducted in 2022 on raw cow milk showed that the DAS can be used for incubation and reading of Delvotest® T plate format.

Table 37: ***Summary of preliminary study performed in 2020 at control time by visually and by Delvo®Scan readings in raw cow milk.***

CHARACTERISTICS OF PERFORMANCE		CONCLUSION		MRL in milk (ppb)
		AMPOULES	PLATES	
False positive (%)		0	0	
Detection capability	CCβ Amoxicillin (ppb)	2	2	4
	CCβ Ampicillin (ppb)	2	2	4
	CCβ Penicillin G (ppb)	3	1	4
	CCβ Cloxacillin (ppb)	10	10	30
	CCβ Oxacillin (ppb)	3	3	30
	CCβ Nafcillin (ppb)	3	3	30
	CCβ Oxytetracycline (ppb)	100	80	100
	CCβ 4-epioxytetracycline (ppb)	600	800	100
	CCβ Chloretetracycline (ppb)	150	150	100
	CCβ 4-epichlortetracycline (ppb)	600	600	100
	CCβ Tetracycline (ppb)	80	100	100
	CCβ 4-epitetracycline (ppb)	800	1 000	100
	CCβ Doxycycline (ppb)	50	50	[a]
	CCβ Sulfamethazine (ppb)	125	125	100
	CCβ Sulfathiazole (ppb)	30	30	100
	CCβ Sulfadimethoxine (ppb)	40	40	100
	CCβ Sulfadiazine (ppb)	55	50	100
	CCβ Sulfadoxine (ppb)	80	80	100
	CCβ Tilmicosin (ppb)	60	100	50
	CCβ Tylosin A (ppb)	35	35	50
	CCβ Erythromycin A(ppb)	160	200	40
	CCβ Spiramycin (ppb)	1 500	2 000	200
	CCβ Neomycin B (ppb)	140	140	1500
	CCβ Gentamycin (ppb)	100	100	100
	CCβ Streptomycin (ppb)	700	1 000	200
	CCβ Dihydrostreptomycin(ppb)	700	800	200
	CCβ Cephapirin (ppb)	5	5	60
	CCβ Desacetylcephapirin (ppb)	2	2	60
	CCβ Ceftiofur (ppb)	20	20	100
	CCβ Desfuroylceftiofur (ppb)	45	80	100
	CCβ Cefoperazine (ppb)	20	20	50
	CCβ Cefalexin (ppb)	30	30	100
	CCβ Cefquinome (ppb)	50	60	20
	CCβ Cefalonium (ppb)	5	5	20
	CCβ Cefazolin (ppb)	3	3	50
	CCβ Chloramphénicol (ppb)	4 000	3 500	0,3 [b]
	CCβ Trimethoprim (ppb)	110	120	50
	CCβ Dapsone (ppb)	10	10	5 [c]
	CCβ Lincomycin (ppb)	275	220	150
	CCβ Rifaximin (ppb)	40	40	60
	CCβ Pirlimicin (ppb)	300	300	100
	CCβ Clavulanic acid (ppb)	700	800	200
Applicability	Individual cow milk	Suitable		
Robustness	Sample volume	Robust		
	Incubation time	Robust	Not robust [d]	
	Incubation temperature	Robust		
	Delay of reading	Robust		
	pH	Not robust for low pH [e]		
	Total Bact Count	Robust		
	Frozen milk	Robust		
	Milk temperature	Robust		
	Age of batches	Robust		

[a] *No MRL in milk*
[b] *MRPL (Minimum Required Performance Limit)*
[c] *MMPR (Minimum Method Performance Requirements)*
[d] *There are false negative results for 2 antibiotics (dihydrostreptomycin and lincomycin) on plates only.*
[e] *There are false negative results for 4 antibiotics (tylosin A, erythromycin, dihydrostreptomycin and lincomycin).*

Table 38: ***Results of interlaboratory studies (2013 and 2021) on Delvotest® T.***

Delvotest® T format		AMPOULES				PLATES			
Type of reading		Visual		Delvo®Scan		Visual		Delvo®Scan	
Specificity (L0)		100,0		100,0		100,0		97,8	
% positive results (L1)		46,1		39,6		43,5		25,5	
Global sensitivity (L2+L3)		100,0		100,0		98,1		97,5	
Repeatability	Type of repeatability	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
	Blank	100,0	100,0	100,0	100,0	100,0	100,0	95,2	93,9
	Gentamycin	100,0	100,0	95,8	91,7	100,0	100,0	97,9	96,3
	Sulfadimethoxine	100,0	100,0	97,9	95,8	90,7	96,3	100,0	81,5
	Tetracycline	98,1	96,3	97,9	91,7	98,1	96,3	94,4	92,6
	Penicillin G	100,0	95,8			92,6	92,6	98,1	90,7
	Cefquinome	100,0	95,8			92,6	83,3	98,1	98,1
	Tylosin A	97,9	93,8			96,3	92,6	100,0	92,6
Reproducibility (L0)		100,0		100,0		100,0		98,1	
Reproducibility (L1+L2+L3)		92,5		91,0		89,2		89,8	

(1) : Repeatability of same samples
(2) : Repeatability of identical sample

8. BIBLIOGRAPHIC REFERENCES

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Romero, T. Van Weyenberg, S. Molina, M.P. Reybroeck, W. 2016. Detection of antibiotics in goat's milk: comparison of different commercial microbial inhibitor tests developed for the testing of cows' milk. International Dairy Journal: 62:39-42.

9. Appendix

Appendix 1: Details on antibiotics used in preliminary study

Drug Family	Compounds detected	Supplier	Reference	Batch number
Penicillins	Amoxicillin	Sigma-Aldrich	A8523-1G A8523	000008566 108M4891V
	Ampicillin	Sigma-Aldrich	31591	BCBZ5016
	Penicillin G	Sigma-Aldrich	P3032	059M4827V
	Cloxacillin	Sigma-Aldrich	46140	BCBW1061
	Oxacillin	Sigma-Aldrich	46589	BCBT8512
	Nafcillin	Sigma-Aldrich	32071	BCCC5791
Tetracyclines	Oxytetracycline	Sigma-Aldrich	46598	BCCC5114 BCBZ6310
	4-Epioxytetracycline	Acros organics	25771	A0415682
	Chlortetracycline	Sigma-Aldrich	C4881	069M4122V
	4-Epichlortetracycline	Acros organics	26823	A0423144
	Tetracycline	Sigma-Aldrich	T3383 31741	049M4834V BCBX5586
	4-Epitetracycline	Sigma-Aldrich	37918	BCBZ7193 BCCB7706 BCCD0437
	Doxycycline	Sigma-Aldrich	D3447	109M4082V
Sulfonamides	Sulfamethazine	Sigma-Aldrich	S6256	048M4017V
	Sulfathiazole	Sigma-Aldrich	46902	BCBW1884
	Sulfadimethoxine	Sigma-Aldrich	S7007	059M4032V
	Sulfadiazine	Sigma-Aldrich	S8626	069M4751V
	Sulfadoxine	Sigma-Aldrich	31736	BCBV7742
Macrolides	Tilmicosin	Sigma-Aldrich	33864	BCCB4507
	Tylosin A	Sigma-Aldrich	33847	BCCD1311 BCBX4839 BCCB6064
	Erythromycin A	Sigma-Aldrich	E5389	WXBD0760 WXBC7091
	Spiramycin	Sigma-Aldrich	S9132	MKCG3562
Aminoglycosides	Neomycin B	Sigma-Aldrich	N6386	036K0078
	Gentamycin	Sigma-Aldrich	46305	BCCB6394
	Streptomycin	Sigma-Aldrich	46738 S6501	SZBF194XV SLBP6412V
	Dihydrostreptomycin	Sigma-Aldrich	D7253	117M4820V
Cephalosporins	Cephapirin	Sigma-Aldrich	43989	BCCC5208 BCBW7147
	Desacetylcephapirin	Toronto Research Chimicals	D288970	16-AKS-79-4
	Ceftiofur	Sigma-Aldrich	32422	BCCB8697
	Desfuroylceftiofur	Toronto Research Chimicals	D289980	5-WBZ-57-5
	Cefoperazone	Sigma-Aldrich	C4292	118M4841V

	Cefalexin	Sigma-Aldrich	33989	BCBW7031
	Cefquinome	Sigma-Aldrich	32472	BCBW2550
	Cefalonium	Sigma-Aldrich	32904	BCBV1595
	Cefazolin	Sigma-Aldrich	C5020	019M4852V
	Chloramphenicol	Sigma-Aldrich	C0378	SLCD7425
	Trimethoprim	Sigma-Aldrich	T7883	019M4019V
	Dapsone	Sigma-Aldrich	A74807	STBJ1870
	Lincomycin	Sigma-Aldrich	31727	BCBW4661
	Rifaximin	Sigma-Aldrich	33999	BCBT5109
	Pirlimicin	Cayman Chemical	20138	0574568
	Clavulanic acid	Sigma-Aldrich	33454	STBJ0056

Appendix 2: Results of robustness study (2020)

1. Results of robustness study for ampoules

1.1. Influence of protocol

1.1.1. Sample volume

1.1.1.1. Penicillins

1.1.1.1.1. Amoxicillin

Date : 13/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 90 µL	6	90µL - A17	-	-5,22	-
Milk 1 Neg - 110 µL	6	110µL - A2	-	-2,4	-
Milk 2 Neg - 90 µL	6	90µL - A20	-	-2,96	-
Milk 2 Neg - 110 µL	6	110µL - A3	-	-0,41	-
Milk 3 Neg - 90 µL	6	90µL - A23	-	-3,63	-
Milk 3 Neg - 110 µL	6	110µL - A9	-	-2,28	-

Date : 13/07/2020
Amoxicilline 2 ppb — Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Amox2 - 90 µL	6	90µL - A3	+	5,14	+
Milk 1 Amox2 - 110 µL	6	110µL - A1	+	7,36	+
Milk 2 Amox2 - 90 µL	6	90µL - A8	+	4,32	+
Milk 2 Amox2 - 110 µL	6	110µL - A8	+	6,53	+
Milk 3 Amox2 - 90 µL	6	90µL - A9	+	3,83	+
Milk 3 Amox2 - 110 µL	6	110µL - A4	+	7,13	+

1.1.1.1.2. Cloxacillin

Date : 13/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 90 µL	6	90µL - A17	-	-5,22	-
Milk 1 Neg - 110 µL	6	110µL - A2	-	-2,4	-
Milk 2 Neg - 90 µL	6	90µL - A20	-	-2,96	-
Milk 2 Neg - 110 µL	6	110µL - A3	-	-0,41	-
Milk 3 Neg - 90 µL	6	90µL - A23	-	-3,63	-
Milk 3 Neg - 110 µL	6	110µL - A9	-	-2,28	-

Date : 13/07/2020
Cloxacilline 10 ppb — Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Cloxa10 - 90 µL	6	90µL - A12	+	7	+
Milk 1 Cloxa10 - 110 µL	6	110µL - A6	+	5,88	+
Milk 2 Cloxa10 - 90 µL	6	90µL - A15	+	5,76	+
Milk 2 Cloxa10 - 110 µL	6	110µL - A13	+	6,86	+
Milk 3 Cloxa10 - 90 µL	6	90µL - A18	+	6,12	+
Milk 3 Cloxa10 - 110 µL	6	110µL - A11	+	6,65	+

1.1.1.2. Tetracyclines

1.1.1.2.1. Oxytetracycline

Date : 13/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 90 µL	6	90µL - A17	-	-5,22	-
Milk 1 Neg - 110 µL	6	110µL - A2	-	-2,4	-
Milk 2 Neg - 90 µL	6	90µL - A20	-	-2,96	-
Milk 2 Neg - 110 µL	6	110µL - A3	-	-0,41	-
Milk 3 Neg - 90 µL	6	90µL - A23	-	-3,63	-
Milk 3 Neg - 110 µL	6	110µL - A9	-	-2,28	-

Date : 13/07/2020

Oxytetracycline 110 ppb — Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Oxytetra110 - 90 µL	6	90µL - A10	+	4,95	+
Milk 1 Oxytetra110 - 110 µL	6	110µL - A20	+	5,27	+
Milk 2 Oxytetra110 - 90 µL	6	90µL - A4	+	4,48	+
Milk 2 Oxytetra110 - 110 µL	6	110µL - A12	+	5,05	+
Milk 3 Oxytetra110 - 90 µL	6	90µL - A6	+	5,27	+
Milk 3 Oxytetra110 - 110 µL	6	110µL - A5	+	6,51	+

1.1.1.2.2. Chlortetracycline

Date : 13/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 90 µL	6	90µL - A17	-	-5,22	-
Milk 1 Neg - 110 µL	6	110µL - A2	-	-2,4	-
Milk 2 Neg - 90 µL	6	90µL - A20	-	-2,96	-
Milk 2 Neg - 110 µL	6	110µL - A3	-	-0,41	-
Milk 3 Neg - 90 µL	6	90µL - A23	-	-3,63	-
Milk 3 Neg - 110 µL	6	110µL - A9	-	-2,28	-

Date : 13/07/2020

Chlortetracycline 150 ppb — Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Chlortetra150 - 90 µL	6	90µL - A1	+	5,82	+
Milk 1 Chlortetra150 - 110 µL	6	110µL - A7	+	6,37	+
Milk 2 Chlortetra150 - 90 µL	6	90µL - A2	+	5,65	+
Milk 2 Chlortetra150 - 110 µL	6	110µL - A15	+	6,07	+
Milk 3 Chlortetra150 - 90 µL	6	90µL - A5	+	5,58	+
Milk 3 Chlortetra150 - 110 µL	6	110µL - A17	+	6,15	+

1.1.1.3. Sulfonamides

1.1.1.3.1. Sulfadimethoxine

Date : 13/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 90 µL	6	90µL - A17	-	-5,22	-
Milk 1 Neg - 110 µL	6	110µL - A2	-	-2,4	-
Milk 2 Neg - 90 µL	6	90µL - A20	-	-2,96	-
Milk 2 Neg - 110 µL	6	110µL - A3	-	-0,41	-
Milk 3 Neg - 90 µL	6	90µL - A23	-	-3,63	-
Milk 3 Neg - 110 µL	6	110µL - A9	-	-2,28	-

Date : 13/07/2020

Sulfadimethoxine 40 ppb — Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadimet40 - 90 µL	6	90µL - A7	+	5,78	+
Milk 1 Sulfadimet40 - 110 µL	6	110µL - A18	+	6,5	+
Milk 2 Sulfadimet40 - 90 µL	6	90µL - A14	+	5,73	+
Milk 2 Sulfadimet40 - 110 µL	6	110µL - A24	+	5,96	+
Milk 3 Sulfadimet40 - 90 µL	6	90µL - A11	+	5,81	+
Milk 3 Sulfadimet40 - 110 µL	6	110µL - A25	+	5,73	+

1.1.1.3.2. Sulfadiazine

Date : 15/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 90 µL	6	90µL - A18	-	-5,58	-
Milk 1 Neg - 110 µL	6	110µL - B22	-	-4,92	-
Milk 2 Neg - 90 µL	6	90µL - A26	-	-4,74	-
Milk 2 Neg - 110 µL	6	110µL - B18	-	-5,97	-
Milk 3 Neg - 90 µL	6	90µL - A23	-	-3,57	-
Milk 3 Neg - 110 µL	6	110µL - B27	-	-4,75	-

Date : 15/07/2020

Sulfadiazine 55 ppb — Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadiaz55 - 90 µL	6	90µL - A1	+	5,02	+
Milk 1 Sulfadiaz55 - 110 µL	6	110µL - B4	+	5,61	+
Milk 2 Sulfadiaz55 - 90 µL	6	90µL - A5	+	5,08	+
Milk 2 Sulfadiaz55 - 110 µL	6	110µL - B11	+	5,01	+
Milk 3 Sulfadiaz55 - 90 µL	6	90µL - A10	+	5,02	+
Milk 3 Sulfadiaz55 - 110 µL	6	110µL - B13	+	4,73	+

Date : 20/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 90 µL	5	90µL - A1	-	-6,78	-
Milk 1 Neg - 110 µL	5	110µL - B2	-	-7,27	-
Milk 2 Neg - 90 µL	5	90µL - A4	-	-5,28	-
Milk 2 Neg - 110 µL	5	110µL - B5	-	-6,63	-
Milk 3 Neg - 90 µL	5	90µL - A5	-	-7,06	-
Milk 3 Neg - 110 µL	5	110µL - B3	-	-7,24	-

Date : 20/08/2020

Sulfadiazine 50 ppb — Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadiaz50 - 90 µL	5	90µL - A2	+	5,22	+
Milk 1 Sulfadiaz50 - 110 µL	5	110µL - B4	+	4,3	+
Milk 2 Sulfadiaz50 - 90 µL	5	90µL - A3	+	4,72	+
Milk 2 Sulfadiaz50 - 110 µL	5	110µL - B6	+	4,56	+
Milk 3 Sulfadiaz50 - 90 µL	5	90µL - A6	+	4,19	+
Milk 3 Sulfadiaz50 - 110 µL	5	110µL - B1	+	4,05	+

1.1.1.4. Macrolides

1.1.1.4.1. Tylosin A

Date : 15/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 90 µL	6	90µL - A18	-	-5,58	-
Milk 1 Neg - 110 µL	6	110µL - B22	-	-4,92	-
Milk 2 Neg - 90 µL	6	90µL - A26	-	-4,74	-
Milk 2 Neg - 110 µL	6	110µL - B18	-	-5,97	-
Milk 3 Neg - 90 µL	6	90µL - A23	-	-3,57	-
Milk 3 Neg - 110 µL	6	110µL - B27	-	-4,75	-

Date : 15/07/2020

Tylosine 35 ppb — Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Tylo35 - 90 µL	6	90µL - A15	+	4,22	+
Milk 1 Tylo35 - 110 µL	6	110µL - B5	+	4,5	+
Milk 2 Tylo35 - 90 µL	6	90µL - A7	+	3,33	+
Milk 2 Tylo35 - 110 µL	6	110µL - B2	+	4,62	+
Milk 3 Tylo35 - 90 µL	6	90µL - A2	+	3,83	+
Milk 3 Tylo35 - 110 µL	6	110µL - B6	+	4,69	+

1.1.1.4.2. Erythromycin A

Date : 15/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 90 µL	6	90µL - A18	-	-5,58	-
Milk 1 Neg - 110 µL	6	110µL - B22	-	-4,92	-
Milk 2 Neg - 90 µL	6	90µL - A26	-	-4,74	-
Milk 2 Neg - 110 µL	6	110µL - B18	-	-5,97	-
Milk 3 Neg - 90 µL	6	90µL - A23	-	-3,57	-
Milk 3 Neg - 110 µL	6	110µL - B27	-	-4,75	-

Date : 15/07/2020

Erythromycine 160 ppb — Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Erythro160 - 90 µL	6	90µL - A3	+	4,85	+
Milk 1 Erythro160 - 110 µL	6	110µL - B3	+	5,5	+
Milk 2 Erythro160 - 90 µL	6	90µL - A12	+	3,9	+
Milk 2 Erythro160 - 110 µL	6	110µL - B8	+	4,55	+
Milk 3 Erythro160 - 90 µL	6	90µL - A16	+	4,85	+
Milk 3 Erythro160 - 110 µL	6	110µL - B19	+	5,03	+

1.1.1.5. Aminoglycosides : dihydrostreptomycin

Date : 15/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 90 µL	6	90µL - A18	-	-5,58	-
Milk 1 Neg - 110 µL	6	110µL - B22	-	-4,92	-
Milk 2 Neg - 90 µL	6	90µL - A26	-	-4,74	-
Milk 2 Neg - 110 µL	6	110µL - B18	-	-5,97	-
Milk 3 Neg - 90 µL	6	90µL - A23	-	-3,57	-
Milk 3 Neg - 110 µL	6	110µL - B27	-	-4,75	-

Date : 15/07/2020

Dihydrostreptomycine 700 ppb — Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Dihydrostrepto700 - 90 µL	6	90µL - A13	+	4,73	+
Milk 1 Dihydrostrepto700 - 110 µL	6	110µL - B14	+	5,68	+
Milk 2 Dihydrostrepto700 - 90 µL	6	90µL - A25	+	3,9	+
Milk 2 Dihydrostrepto700 - 110 µL	6	110µL - B15	+	5,04	+
Milk 3 Dihydrostrepto700 - 90 µL	6	90µL - A20	+	4,16	+
Milk 3 Dihydrostrepto700 - 110 µL	6	110µL - B24	+	4,99	+

1.1.1.6. Cephalosporins : céfalexine

Date : 15/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 90 µL	6	90µL - A18	-	-5,58	-
Milk 1 Neg - 110 µL	6	110µL - B22	-	-4,92	-
Milk 2 Neg - 90 µL	6	90µL - A26	-	-4,74	-
Milk 2 Neg - 110 µL	6	110µL - B18	-	-5,97	-
Milk 3 Neg - 90 µL	6	90µL - A23	-	-3,57	-
Milk 3 Neg - 110 µL	6	110µL - B27	-	-4,75	-

Date : 15/07/2020

Cefalexine 30 ppb — Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Cefal30 - 90 µL	6	90µL - A21	+	5,67	+
Milk 1 Cefal30 - 110 µL	6	110µL - B21	+	5,6	+
Milk 2 Cefal30 - 90 µL	6	90µL - A27	+	5,21	+
Milk 2 Cefal30 - 110 µL	6	110µL - B26	+	5,61	+
Milk 3 Cefal30 - 90 µL	6	90µL - A24	+	5,54	+
Milk 3 Cefal30 - 110 µL	6	110µL - B25	+	6,29	+

1.1.1.7. Lincosamides : lincomycine

Date : 13/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 90 µL	6	90µL - A17	-	-5,22	-
Milk 1 Neg - 110 µL	6	110µL - A2	-	-2,4	-
Milk 2 Neg - 90 µL	6	90µL - A20	-	-2,96	-
Milk 2 Neg - 110 µL	6	110µL - A3	-	-0,41	-
Milk 3 Neg - 90 µL	6	90µL - A23	-	-3,63	-
Milk 3 Neg - 110 µL	6	110µL - A9	-	-2,28	-

Date : 13/07/2020

Lincomycine 275 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Linco275 - 90 µL	6	90µL - A16	+	2	+
Milk 1 Linco275 - 110 µL	6	110µL - A23	+	3,98	+
Milk 2 Linco275 - 90 µL	6	90µL - A24	+	2,15	+
Milk 2 Linco275 - 110 µL	6	110µL - A27	+	2,97	+
Milk 3 Linco275 - 90 µL	6	90µL - A21	+	3,37	+
Milk 3 Linco275 - 110 µL	6	110µL - A19	+	3,7	+

1.1.2. Incubation time

1.1.2.1. Penicillins

1.1.2.1.1. Amoxicillin

Date : 20/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 3h15	6	3h15 - A3	-	-12,74	-
Milk 2 Neg - 3h15	6	3h15 - A1	-	-13,07	-
Milk 3 Neg - 3h15	6	3h15 - A5	-	-14,56	-

Date : 20/07/2020

Amoxicilline 2 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Amox2 - 3h15	6	3h15 - A2	+	5,32	+
Milk 2 Amox2 - 3h15	6	3h15 - A8	+	3,69	+
Milk 3 Amox2 - 3h15	6	3h15 - A6	+	4,19	+

1.1.2.1.2. Cloxacillin

Date : 20/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 3h15	6	3h15 - A3	-	-12,74	-
Milk 2 Neg - 3h15	6	3h15 - A1	-	-13,07	-
Milk 3 Neg - 3h15	6	3h15 - A5	-	-14,56	-

Date : 20/07/2020

Cloxacilline 30 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Cloxa10 - 3h15	6	3h15 - A7	+	6,43	+
Milk 2 Cloxa10 - 3h15	6	3h15 - A4	+	5,25	+
Milk 3 Cloxa10 - 3h15	6	3h15 - A9	+	5,15	+

1.1.2.2. Tetracyclines

1.1.2.2.1. Oxytetracycline

Date : 20/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 3h15	6	3h15 - A3	-	-12,74	-
Milk 2 Neg - 3h15	6	3h15 - A1	-	-13,07	-
Milk 3 Neg - 3h15	6	3h15 - A5	-	-14,56	-

Date : 20/07/2020

Oxytetracycline 110 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Oxytetra110 - 3h15	6	3h15 - A11	+	0,52	+
Milk 2 Oxytetra110 - 3h15	6	3h15 - A10	+	0,38	+
Milk 3 Oxytetra110 - 3h15	6	3h15 - A12	+	0,72	+

1.1.2.2.2. Chlortetracycline

Date : 19/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 3h15	4	3H15 - A1	-	-14,35	-
Milk 2 Neg - 3h15	4	3H15 - A10	-	-12,77	-
Milk 3 Neg - 3h15	4	3H15 - A8	-	-15,13	-

Date : 19/08/2020

Chlortetracycline 150 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Chlortetra150 - 3h15	4	3H15 - A5	+	1,17	+
Milk 2 Chlortetra150 - 3h15	4	3H15 - A16	+	2,64	+
Milk 3 Chlortetra150 - 3h15	4	3H15 - A20	+	3,86	+

1.1.2.3. Sulfonamides

1.1.2.3.1. Sulfadimethoxine

Date : 24/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 3h15	5	3h15 - A1	-	-16,25	-
Milk 2 Neg - 3h15	5	3h15 - A6	-	-14,37	-
Milk 3 Neg - 3h15	5	3h15 - A9	-	-14,88	-

Sulfadimethoxine 40 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadimet40 - 3h15	5	3h15 - A7	+	3,21	+
Milk 2 Sulfadimet40 - 3h15	5	3h15 - A15	+	2,86	+
Milk 3 Sulfadimet40 - 3h15	5	3h15 - A10	+	2,25	+

1.1.2.3.2. Sulfadiazine

Date : 25/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 3h15	4	3h15 - E6	-	-14,65	-
Milk 2 Neg - 3h15	4	3h15 - E1	-	-15,17	-
Milk 3 Neg - 3h15	4	3h15 - E3	-	-15,22	-

Date : 25/08/2020

Sulfadiazine 55 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadiaz55 - 3h15	4	3h15 - A3	+	0,95	+
Milk 2 Sulfadiaz55 - 3h15	4	3h15 - A8	+	0,9	+
Milk 3 Sulfadiaz55 - 3h15	4	3h15 - A14	+	2,29	+

Date : 01/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 3h15	5	3h15 - D7	-	-13,15	-
Milk 2 Neg - 3h15	5	3h15 - D8	-	-13,75	-
Milk 3 Neg - 3h15	5	3h15 - D9	-	-15,72	-

Date : 01/09/2020

Sulfadiazine 60 ppb — **Validated +20%**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadiaz60 - 3h15	5	3h15-D1	+	5,71	+
Milk 2 Sulfadiaz60 - 3h15	5	3h15-D2	+	5,36	+
Milk 3 Sulfadiaz60 - 3h15	5	3h15-D3	+	5,75	+

1.1.2.4. Macrolides

1.1.2.4.1. Tylosin A

Date : 26/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 3h15	4	3h15 - A1	-	-11,99	-
Milk 2 Neg - 3h15	4	3h15 - A6	-	-13,02	-
Milk 3 Neg - 3h15	4	3h15 - A9	-	-15,35	-

Date : 26/08/2020

Tylosine 42 ppb — **Validated +20%**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Tylo42 - 3h15	4	3h15 - A12	+	3,66	+
Milk 2 Tylo42 - 3h15	4	3h15 - A14	+	2,15	+
Milk 3 Tylo42 - 3h15	4	3h15 - A15	+	2,19	+

1.1.2.4.2. Erythromycin A

Date : 25/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 3h15	4	3h15 - E6	-	-14,65	-
Milk 2 Neg - 3h15	4	3h15 - E1	-	-15,17	-
Milk 3 Neg - 3h15	4	3h15 - E3	-	-15,22	-

Date : 25/08/2020

Erythromycine 192 ppb — **Validated +20%**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Erythro192 - 3h15	4	3h15 - E5	+	1,84	+
Milk 2 Erythro192 - 3h15	4	3h15 - E11	+	2,04	+
Milk 3 Erythro192 - 3h15	4	3h15 - E10	+	2,41	+

1.1.2.5. Aminoglycosides : dihydrostreptomycin

Date : 25/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 3h15	4	3h15 - E6	-	-14,65	-
Milk 2 Neg - 3h15	4	3h15 - E1	-	-15,17	-
Milk 3 Neg - 3h15	4	3h15 - E3	-	-15,22	-

Date : 25/08/2020
Dihydrostreptomycine 840 ppb

Samples	Batch	Code	Visual reading	Delvoscan reading	
		Validated +20%			
Milk 1 Dihydrostrepto840 - 3h15	4	3h15 - E14	+	2,85	+
Milk 2 Dihydrostrepto840 - 3h15	4	3h15 - E17	+	3,18	+
Milk 3 Dihydrostrepto840 - 3h15	4	3h15 - E20	+	3,38	+

1.1.2.6. Cephalosporins : céfalexine

Date : 26/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 3h15	4	3h15 - A1	-	-11,99	-
Milk 2 Neg - 3h15	4	3h15 - A6	-	-13,02	-
Milk 3 Neg - 3h15	4	3h15 - A9	-	-15,35	-

Date : 26/08/2020
Cefalexine 36 ppb

Samples	Batch	Code	Visual reading	Delvoscan reading	
		Validated +20%			
Milk 1 Cefal36 - 3h15	4	3h15 - A4	+	4,02	+
Milk 2 Cefal36 - 3h15	4	3h15 - A11	+	5,08	+
Milk 3 Cefal36 - 3h15	4	3h15 - A13	+	4,66	+

1.1.2.7. Lincosamides : lincomycine

Date : 26/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 3h15	4	3h15 - A1	-	-11,99	-
Milk 2 Neg - 3h15	4	3h15 - A6	-	-13,02	-
Milk 3 Neg - 3h15	4	3h15 - A9	-	-15,35	-

Date : 26/08/2020
Lincomycine 330 ppb

Samples	Batch	Code	Visual reading	Delvoscan reading	
			Validated +20%		
Milk 1 Linco330 - 3h15	4	3h15 - A3	+	1,74	+
Milk 2 Linco330 - 3h15	4	3h15 - A7	+	0,36	+
Milk 3 Linco330 - 3h15	4	3h15 - A10	+	0,61	+

1.1.3. Incubation temperature

1.1.3.1. Penicillins

1.1.3.1.1. Amoxicillin

Date : 20/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 62°C	6	62°C - A8	-	-1,98	-
Milk 1 Neg - 66°C	6	66°C - A1	-	-7,3	-
Milk 2 Neg - 62°C	6	62°C - A4	-	-2,64	-
Milk 2 Neg - 66°C	6	66°C - A4	-	-5,78	-
Milk 3 Neg - 62°C	6	62°C - A6	-	-5,35	-
Milk 3 Neg - 66°C	6	66°C - A8	-	-7,02	-

Date :20/07/2020
Amoxicilline 2 ppb

Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Amox2 - 62°C	6	62°C - A2	+	7,02	+
Milk 1 Amox2 - 66°C	6	66°C - A5	+	5,67	+
Milk 2 Amox2 - 62°C	6	62°C - A1	+	6,1	+
Milk 2 Amox2 - 66°C	6	66°C - A9	+	5,44	+
Milk 3 Amox2 - 62°C	6	62°C - A14	+	5,82	+
Milk 3 Amox2 - 66°C	6	66°C - A3	+	5,31	+

1.1.3.1.2. Cloxacillin

Date : 20/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 62°C	6	62°C - A8	-	-1,98	-
Milk 1 Neg - 66°C	6	66°C - A1	-	-7,3	-
Milk 2 Neg - 62°C	6	62°C - A4	-	-2,64	-
Milk 2 Neg - 66°C	6	66°C - A4	-	-5,78	-
Milk 3 Neg - 62°C	6	62°C - A6	-	-5,35	-
Milk 3 Neg - 66°C	6	66°C - A8	-	-7,02	-

Date :20/07/2020
Cloxacilline 10 ppb

Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Cloxa10 - 62°C	6	62°C - A3	+	7,78	+
Milk 1 Cloxa10 - 66°C	6	66°C - A12	+	6,33	+
Milk 2 Cloxa10 - 62°C	6	62°C - A11	+	7,09	+
Milk 2 Cloxa10 - 66°C	6	66°C - A15	+	3,53	+
Milk 3 Cloxa10 - 62°C	6	62°C - A13	+	7,31	+
Milk 3 Cloxa10 - 66°C	6	66°C - A14	+	4,27	+

1.1.3.2. Tetracyclines

1.1.3.2.1. Oxytetracycline

Date : 20/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 62°C	6	62°C - A8	-	-1,98	-
Milk 1 Neg - 66°C	6	66°C - A1	-	-7,3	-
Milk 2 Neg - 62°C	6	62°C - A4	-	-2,64	-
Milk 2 Neg - 66°C	6	66°C - A4	-	-5,78	-
Milk 3 Neg - 62°C	6	62°C - A6	-	-5,35	-
Milk 3 Neg - 66°C	6	66°C - A8	-	-7,02	-

Date :20/07/2020
Oxytetracycline 110 ppb

Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Oxytetra110 - 62°C	6	62°C - A12	+	6,15	+
Milk 1 Oxytetra110 - 66°C	6	66°C - A7	+	4,75	+
Milk 2 Oxytetra110 - 62°C	6	62°C - A15	+	4,9	+
Milk 2 Oxytetra110 - 66°C	6	66°C - A13	+	3,77	+
Milk 3 Oxytetra110 - 62°C	6	62°C - A10	+	5,07	+
Milk 3 Oxytetra110 - 66°C	6	66°C - A11	+	4,22	+

1.1.3.2.2. Chlortetracycline

Date : 22/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 62°C	5	62°C - B1	-	-4,66	-
Milk 1 Neg - 66°C	5	66°C - C2	-	-5,95	-
Milk 2 Neg - 62°C	3	62°C - A1	-	-3,54	-
Milk 2 Neg - 66°C	3	66°C - A7	-	-7,38	-
Milk 3 Neg - 62°C	3	62°C - A4	-	-5,63	-
Milk 3 Neg - 66°C	3	66°C - A5	-	-7,55	-

Date : 22/07/2020

Chlortetracycline 150 ppb **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Chlortetra150 - 62°C	5	62°C - B9	+	**5,99**	+
Milk 1 Chlortetra150 - 66°C	5	66°C - C7	+	**5,24**	+
Milk 2 Chlortetra150 - 62°C	3	62°C - A6	+	**6,47**	+
Milk 2 Chlortetra150 - 66°C	3	66°C - A2	+	**4,61**	+
Milk 3 Chlortetra150 - 62°C	3	62°C - A8	+	**6**	+
Milk 3 Chlortetra150 - 66°C	3	66°C - A8	+	**5,15**	+

1.1.3.3. Sulfonamides

1.1.3.3.1. Sulfadimethoxine

Date : 22/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 62°C	5	62°C - B1	-	-4,66	-
Milk 1 Neg - 66°C	5	66°C - C2	-	-5,95	-
Milk 2 Neg - 62°C	3	62°C - A1	-	-3,54	-
Milk 2 Neg - 66°C	3	66°C - A7	-	-7,38	-
Milk 3 Neg - 62°C	3	62°C - A4	-	-5,63	-
Milk 3 Neg - 66°C	3	66°C - A5	-	-7,55	-

Date : 22/07/2020

Sulfadimethoxine 40 ppb **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadimet40 - 62°C	5	62°C - B2	+	**5,72**	+
Milk 1 Sulfadimet40 - 66°C	5	66°C - C1	+	**4,62**	+
Milk 2 Sulfadimet40 - 62°C	3	62°C - A9	+	**6,01**	+
Milk 2 Sulfadimet40 - 66°C	3	66°C - A9	+	**4,75**	+
Milk 3 Sulfadimet40 - 62°C	3	62°C - A5	+	**6,24**	+
Milk 3 Sulfadimet40 - 66°C	3	66°C - A1	+	**5,03**	+

1.1.3.3.2. Sulfadiazine

Date : 24/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 62°C	5	62°C - B1	-	-4,66	-
Milk 1 Neg - 66°C	5	66°C - C2	-	-5,95	-
Milk 2 Neg - 62°C	5	62°C - B4	-	-3,86	-
Milk 2 Neg - 66°C	5	66°C - C3	-	-6,11	-
Milk 3 Neg - 62°C	5	62°C - B6	-	-4,34	-
Milk 3 Neg - 66°C	5	66°C - C4	-	-6,39	-

Date : 24/08/2020

Sulfadiazine 55 ppb — Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadiaz55 - 62°C	5	62°C - B3	+	5,37	+
Milk 1 Sulfadiaz55 - 66°C	5	66°C - C6	+	4,3	+
Milk 2 Sulfadiaz55 - 62°C	5	62°C - B5	+	5,03	+
Milk 2 Sulfadiaz55 - 66°C	5	66°C - C8	+	4,05	+
Milk 3 Sulfadiaz55 - 62°C	5	62°C - B7	+	5,24	+
Milk 3 Sulfadiaz55 - 66°C	5	66°C - C11	+	3,9	+

Date : 24/08/2020

Sulfadiazine 50 ppb — Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadiaz50 - 62°C	5	62°C - B8	+	4,7	+
Milk 1 Sulfadiaz50 - 66°C	5	66°C - C9	+	3,4	+
Milk 2 Sulfadiaz50 - 62°C	5	62°C - B11	+	5,33	+
Milk 2 Sulfadiaz50 - 66°C	5	66°C - C5	+	4,08	+
Milk 3 Sulfadiaz50 - 62°C	5	62°C - B10	+	4,81	+
Milk 3 Sulfadiaz50 - 66°C	5	66°C - C10	+	3,61	+

1.1.3.4. Macrolides

1.1.3.4.1. Tylosin A

Date : 25/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 62°C	4	62°C - A2	-	-4,33	-
Milk 1 Neg - 66°C	4	66°C - B1	-	-6,89	-
Milk 2 Neg - 62°C	4	62°C - A6	-	-4,52	-
Milk 2 Neg - 66°C	4	66°C - B10	-	-6,31	-
Milk 3 Neg - 62°C	4	62°C - A3	-	-4,79	-
Milk 3 Neg - 66°C	4	66°C - B7	-	-7,06	-

Date : 25/08/2020

Tylosine 35 ppb — Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Tylo35 - 62°C	4	62°C - A1	+	3,39	+
Milk 1 Tylo35 - 66°C	4	66°C - B2	+	4,49	+
Milk 2 Tylo35 - 62°C	4	62°C - A5	+	3,81	+
Milk 2 Tylo35 - 66°C	4	66°C - B3	+	4,68	+
Milk 3 Tylo35 - 62°C	4	62°C - A4	+	4,3	+
Milk 3 Tylo35 - 66°C	4	66°C - B5	+	6,05	+

1.1.3.4.2. Erythromycin A

Date : 25/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 62°C	4	62°C - A2	-	-4,33	-
Milk 1 Neg - 66°C	4	66°C - B1	-	-6,89	-
Milk 2 Neg - 62°C	4	62°C - A6	-	-4,52	-
Milk 2 Neg - 66°C	4	66°C - B10	-	-6,31	-
Milk 3 Neg - 62°C	4	62°C - A3	-	-4,79	-
Milk 3 Neg - 66°C	4	66°C - B7	-	-7,06	-

Date : 25/08/2020

Erythromycine 160 ppb — Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Erythro160 - 62°C	4	62°C - A8	+	4,91	+
Milk 1 Erythro160 - 66°C	4	66°C - B12	+	4,25	+
Milk 2 Erythro160 - 62°C	4	62°C - A10	+	5,5	+
Milk 2 Erythro160 - 66°C	4	66°C - B6	+	5,12	+
Milk 3 Erythro160 - 62°C	4	62°C - A12	+	5,71	+
Milk 3 Erythro160 - 66°C	4	66°C - B8	+	4,72	+

1.1.3.5. Aminoglycosides : dihydrostreptomycin

Date : 25/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 62°C	4	62°C - A2	-	-4,33	-
Milk 1 Neg - 66°C	4	66°C - B1	-	-6,89	-
Milk 2 Neg - 62°C	4	62°C - A6	-	-4,52	-
Milk 2 Neg - 66°C	4	66°C - B10	-	-6,31	-
Milk 3 Neg - 62°C	4	62°C - A3	-	-4,79	-
Milk 3 Neg - 66°C	4	66°C - B7	-	-7,06	-

Date : 25/08/2020

Dihydrostreptomycine 700 ppb — Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Dihydrostrepto700 - 62°C	4	62°C - A15	+	2,43	+
Milk 1 Dihydrostrepto700 - 66°C	4	66°C - B14	+	5,4	+
Milk 2 Dihydrostrepto700 - 62°C	4	62°C - A21	+	2,52	+
Milk 2 Dihydrostrepto700 - 66°C	4	66°C - B19	+	5,35	+
Milk 3 Dihydrostrepto700 - 62°C	4	62°C - A18	+	1,86	+
Milk 3 Dihydrostrepto700 - 66°C	4	66°C - B15	+	5	+

1.1.3.6. Cephalosporins : céfalexine

Date : 26/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 62°C	4	62°C - B1	-	-2,07	-
Milk 1 Neg - 66°C	4	66°C - C4	-	-4,19	-
Milk 2 Neg - 62°C	4	62°C - B2	-	-3,96	-
Milk 2 Neg - 66°C	4	66°C - C1	-	-6,3	-
Milk 3 Neg - 62°C	4	62°C - B3	-	-5,81	-
Milk 3 Neg - 66°C	4	66°C - C2	-	-7,01	-

Date : 26/08/2020

Cefalexine 30 ppb — Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Cefal30 - 62°C	4	62°C - B4	+	**6,89**	+
Milk 1 Cefal30 - 66°C	4	66°C - C3	+	**0,11**	+
Milk 2 Cefal30 - 62°C	4	62°C - B8	+	**6,57**	+
Milk 2 Cefal30 - 66°C	4	66°C - C5	+	**0,67**	+
Milk 3 Cefal30 - 62°C	4	62°C - B6	+	**6,4**	+
Milk 3 Cefal30 - 66°C	4	66°C - C9	+	**0,67**	+

1.1.3.7. Lincosamides : lincomycine

Date : 12/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 62°C	5	62°C - D8	-	-4,09	-
Milk 1 Neg - 66°C	5	66°C - E1	-	-4,78	-
Milk 2 Neg - 62°C	5	62°C - D1	-	-4,01	-
Milk 2 Neg - 66°C	5	66°C - E6	-	-5,48	-
Milk 3 Neg - 62°C	5	62°C - D3	-	-2,36	-
Milk 3 Neg - 66°C	5	66°C - E9	-	-5,69	-

Date : 12/08/2020
Lincomycine 275 ppb

Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Linco275 - 62°C	5	62°C - D4	+	**3,29**	+
Milk 1 Linco275 - 66°C	5	66°C - E7	+	**3,53**	+
Milk 2 Linco275 - 62°C	5	62°C - D7	+	**4,25**	+
Milk 2 Linco275 - 66°C	5	66°C - E2	+	**3,74**	+
Milk 3 Linco275 - 62°C	5	62°C - D9	+	**4,13**	+
Milk 3 Linco275 - 66°C	5	66°C - E8	+	**3,78**	+

1.1.4. Delay of reading

1.1.4.1. Penicillins

1.1.4.1.1. Amoxicillin

Date : 20/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 4°C	3	4°C - A9	-	-9,21	-
Milk 1 Neg - TA	3	TA - A1	-	-10,56	-
Milk 2 Neg - 4°C	3	4°C - A11	-	-8,68	-
Milk 2 Neg - TA	3	TA - A4	-	-9,1	-
Milk 3 Neg - 4°C	3	4°C - A14	-	-10,6	-
Milk 3 Neg - TA	3	TA - A9	-	-10,38	-

Date : 20/07/2020
Amoxicilline 2 ppb

Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Amox2 - 4°C	3	4°C - A7	+	**4,92**	+
Milk 1 Amox2 - TA	3	TA - A2	+	**4,67**	+
Milk 2 Amox2 - 4°C	3	4°C - A1	+	**0,58**	+
Milk 2 Amox2 - TA	3	TA - A6	+	**4,9**	+
Milk 3 Amox2 - 4°C	3	4°C - A12	+	**5,34**	+
Milk 3 Amox2 - TA	3	TA - A3	+	**4,04**	+

1.1.4.1.2. Cloxacillin

Date : 20/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 4°C	5	4°C - C1	-	-8,87	-
Milk 1 Neg - TA	5	TA - D2	-	-7,19	-
Milk 2 Neg - 4°C	5	4°C - C6	-	-6,78	-
Milk 2 Neg - TA	5	TA - D1	-	-6,75	-
Milk 3 Neg - 4°C	5	4°C - C5	-	-9,4	-
Milk 3 Neg - TA	5	TA - D4	-	-7,7	-

Date : 20/08/2020

Cloxacilline 12 ppb — **Validated +20%**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Cloxa12 - 4°C	5	4°C - C11	+	6,8	+
Milk 1 Cloxa12 - TA	5	TA - D11	+	6,49	+
Milk 2 Cloxa12 - 4°C	5	4°C - C12	+	6,75	+
Milk 2 Cloxa12 - TA	5	TA - D13	+	7,07	+
Milk 3 Cloxa12 - 4°C	5	4°C - C13	+	6,72	+
Milk 3 Cloxa12 - TA	5	TA - D12	+	6,87	+

1.1.4.2. Tetracycline

1.1.4.2.1. Oxytetracycline

Date : 20/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 4°C	3	4°C - A9	-	-9,21	-
Milk 1 Neg - TA	3	TA - A1	-	-10,56	-
Milk 2 Neg - 4°C	3	4°C - A11	-	-8,68	-
Milk 2 Neg - TA	3	TA - A4	-	-9,1	-
Milk 3 Neg - 4°C	3	4°C - A14	-	-10,6	-
Milk 3 Neg - TA	3	TA - A9	-	-10,38	-

Date : 20/07/2020

Oxytetracycline 110 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Oxytetra110 - 4°C	3	4°C - A4	+	3,48	+
Milk 1 Oxytetra110 - TA	3	TA - A14	+	4,02	+
Milk 2 Oxytetra110 - 4°C	3	4°C - A5	+	3,55	+
Milk 2 Oxytetra110 - TA	3	TA - A15	+	3,19	+
Milk 3 Oxytetra110 - 4°C	3	4°C - A6	+	3,27	+
Milk 3 Oxytetra110 - TA	3	TA - A13	+	3,2	+

1.1.4.3. Chlortetracycline

Date : 22/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 4°C	4	4°C - D2	-	-7,71	-
Milk 1 Neg - TA	4	TA - C1	-	-8,68	-
Milk 2 Neg - 4°C	3	4°C - A6	-	-7,76	-
Milk 2 Neg - TA	3	TA - A7	-	-8,81	-
Milk 3 Neg - 4°C	3	4°C - A2	-	-7,82	-
Milk 3 Neg - TA	3	TA - A3	-	-8,53	-

Date : 22/07/2020

Chlortetracycline 150 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Chlortetra150 - 4°C	4	4°C - B12	+	3,83	+
Milk 1 Chlortetra150 - TA	4	TA - C13	+	3,31	+
Milk 2 Chlortetra150 - 4°C	3	4°C - A4	+	5,96	+
Milk 2 Chlortetra150 - TA	3	TA - A4	+	5,14	+
Milk 3 Chlortetra150 - 4°C	3	4°C - A7	+	5,25	+
Milk 3 Chlortetra150 - TA	3	TA - A5	+	5,01	+

1.1.4.4. Sulfonamides

1.1.4.4.1. Sulfadimethoxine

Date : 22/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 4°C	5	4°C - C1	-	-8,87	-
Milk 1 Neg - TA	5	TA - D2	-	-7,19	-
Milk 2 Neg - 4°C	3	4°C - A6	-	-7,76	-
Milk 2 Neg - TA	3	TA - A7	-	-8,81	-
Milk 3 Neg - 4°C	3	4°C - A2	-	-7,82	-
Milk 3 Neg - TA	3	TA - A3	-	-8,53	-

Date : 22/07/2020

Sulfadimethoxine 40 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadimet40 - 4°C	5	4°C - C9	+	5,19	+
Milk 1 Sulfadimet40 - TA	5	TA - D10	+	5,85	+
Milk 2 Sulfadimet40 - 4°C	3	4°C - A3	+	6,04	+
Milk 2 Sulfadimet40 - TA	3	TA - A8	+	5,39	+
Milk 3 Sulfadimet40 - 4°C	3	4°C - A5	+	5,08	+
Milk 3 Sulfadimet40 - TA	3	TA - A2	+	4,96	+

1.1.4.4.2. Sulfadiazine

Date : 20/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 4°C	5	4°C - C1	-	-8,87	-
Milk 1 Neg - TA	5	TA - D2	-	-7,19	-
Milk 2 Neg - 4°C	5	4°C - C6	-	-6,78	-
Milk 2 Neg - TA	5	TA - D1	-	-6,75	-
Milk 3 Neg - 4°C	5	4°C - C5	-	-9,4	-
Milk 3 Neg - TA	5	TA - D4	-	-7,7	-

Date : 20/08/2020

Sulfadiazine 50 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadiaz50 - 4°C	5	4°C - C3	+	3,64	+
Milk 1 Sulfadiaz50 - TA	5	TA - D9	+	4,16	+
Milk 2 Sulfadiaz50 - 4°C	5	4°C - C8	+	4,05	+
Milk 2 Sulfadiaz50 - TA	5	TA - D8	+	4,43	+
Milk 3 Sulfadiaz50 - 4°C	5	4°C - C4	+	3,63	+
Milk 3 Sulfadiaz50 - TA	5	TA - D6	+	4,1	+

Date : 20/08/2020

Sulfadiazine 55 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadiaz55 - 4°C	5	4°C - C2	+	4,03	+
Milk 1 Sulfadiaz55 - TA	5	TA - D5	+	4,66	+
Milk 2 Sulfadiaz55 - 4°C	5	4°C - C7	+	4,17	+
Milk 2 Sulfadiaz55 - TA	5	TA - D3	+	4,43	+
Milk 3 Sulfadiaz55 - 4°C	5	4°C - C10	+	4,18	+
Milk 3 Sulfadiaz55 - TA	5	TA - D7	+	3,98	+

1.1.4.5. Macrolides

1.1.4.5.1. Tylosin A

Date : 25/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 4°C	4	4°C - D2	-	-7,71	-
Milk 1 Neg - TA	4	TA - C1	-	-8,68	-
Milk 2 Neg - 4°C	4	4°C - D3	-	-7,54	-
Milk 2 Neg - TA	4	TA - C3	-	-7,35	-
Milk 3 Neg - 4°C	4	4°C - D1	-	-8,48	-
Milk 3 Neg - TA	4	TA - C2	-	-7,76	-

Date : 25/08/2020
Tylosine 35 ppb

Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Tylo35 - 4°C	4	4°C - D7	+	**2,82**	+
Milk 1 Tylo35 - TA	4	TA - C7	+	**2,13**	+
Milk 2 Tylo35 - 4°C	4	4°C - D4	+	**3,29**	+
Milk 2 Tylo35 - TA	4	TA - C10	+	**2,48**	+
Milk 3 Tylo35 - 4°C	4	4°C - D10	+	**3,64**	+
Milk 3 Tylo35 - TA	4	TA - C8	+	**4,18**	+

1.1.4.5.2. Erythromycin A

Date : 19/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 4°C	4	4°C - B1	-	-10,66	-
Milk 1 Neg - TA	4	TA - C4	-	-10,5	-
Milk 2 Neg - 4°C	4	4°C - B5	-	-9,29	-
Milk 2 Neg - TA	4	TA - C5	-	-9,6	-
Milk 3 Neg - 4°C	4	4°C - B6	-	-11	-
Milk 3 Neg - TA	4	TA - C6	-	-10,86	-

Date : 19/08/2020
Erythromycine 160 ppb

Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Erythro160 - 4°C	4	4°C - B14	+	4,02	+
Milk 1 Erythro160 - TA	4	TA - C14	+	4,55	+
Milk 2 Erythro160 - 4°C	4	4°C - B18	+	3,81	+
Milk 2 Erythro160 - TA	4	TA - C19	+	3,92	+
Milk 3 Erythro160 - 4°C	4	4°C - B19	+	3,26	+
Milk 3 Erythro160 - TA	4	TA - C15	+	3,59	+

1.1.4.6. Aminoglycosides : dihydrostreptomycin

Date : 19/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 4°C	4	4°C - B1	-	-10,66	-
Milk 1 Neg - TA	4	TA - C4	-	-10,5	-
Milk 2 Neg - 4°C	4	4°C - B5	-	-9,29	-
Milk 2 Neg - TA	4	TA - C5	-	-9,6	-
Milk 3 Neg - 4°C	4	4°C - B6	-	-11	-
Milk 3 Neg - TA	4	TA - C6	-	-10,86	-

Date : 19/08/2020
Dihydrostreptomycine 700 ppb

Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Dihydrostrepto700 - 4°C	4	4°C - B4	+	1,48	+
Milk 1 Dihydrostrepto700 - TA	4	TA - C11	+	2,27	+
Milk 2 Dihydrostrepto700 - 4°C	4	4°C - B10	+	3,66	+
Milk 2 Dihydrostrepto700 - TA	4	TA - C8	+	2,51	+
Milk 3 Dihydrostrepto700 - 4°C	4	4°C - B16	+	3,34	+
Milk 3 Dihydrostrepto700 - TA	4	TA - C9	+	3,35	+

1.1.4.7. Cephalosporins : céfalexine

Date : 19/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 4°C	4	4°C - B1	-	-10,66	-
Milk 1 Neg - TA	4	TA - C4	-	-10,5	-
Milk 2 Neg - 4°C	4	4°C - B5	-	-9,29	-
Milk 2 Neg - TA	4	TA - C5	-	-9,6	-
Milk 3 Neg - 4°C	4	4°C - B6	-	-11	-
Milk 3 Neg - TA	4	TA - C6	-	-10,86	-

Date : 19/08/2020
Cefalexine 30 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Cefal30 - 4°C	4	4°C - B3	+	1,72	+
Milk 1 Cefal30 - TA	4	TA - C2	+	0,86	+
Milk 2 Cefal30 - 4°C	4	4°C - B7	+	4,69	+
Milk 2 Cefal30 - TA	4	TA - C3	+	4,01	+
Milk 3 Cefal30 - 4°C	4	4°C - B8	+	3,19	+
Milk 3 Cefal30 - TA	4	TA - C1	+	1,7	+

1.1.4.8. Lincosamides : lincomycine

Date : 12/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 4°C	5	4°C - B1	-	-8,26	-
Milk 1 Neg - TA	5	TA - C2	-	-8,06	-
Milk 2 Neg - 4°C	5	4°C - B2	-	-8,44	-
Milk 2 Neg - TA	5	TA - C5	-	-9,34	-
Milk 3 Neg - 4°C	5	4°C - B3	-	-5,77	-
Milk 3 Neg - TA	5	TA - C6	-	-8,55	-

Date : 12/08/2020
Lincomycine 275 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Linco275 - 4°C	5	4°C - B7	+	**1,13**	+
Milk 1 Linco275 - TA	5	TA - C3	+	**1,16**	+
Milk 2 Linco275 - 4°C	5	4°C - B8	+	**1,53**	+
Milk 2 Linco275 - TA	5	TA - C4	+	**1,07**	+
Milk 3 Linco275 - 4°C	5	4°C - B9	+	**1,77**	+
Milk 3 Linco275 - TA	5	TA - C9	+	**1,43**	+

1.2. Matrix quality

1.2.1. pH

1.2.1.1. Penicillins

1.2.1.1.1. Amoxicillin

Date : 01/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - weak pH	4	**pH-D1**	-	-13,09	-
Milk 1 Neg - high pH	5	pH fort - B2	-	-5,78	-
Milk 2 Neg - weak pH	4	**pH-D8**	-	-9,99	-
Milk 2 Neg - high pH	5	pH fort - B13	-	-4,45	-
Milk 3 Neg - weak pH	4	**pH-D2**	-	-11,42	-
Milk 3 Neg - high pH	5	pH fort - B18	-	-6,09	-

Date : 01/09/2020
Amoxicilline 2 ppb and 2,4 ppb

Validated +20% weak pH
Validated high pH

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Amox2,4 - weak pH	4	**pH-D22**	+	2,69	+
Milk 1 Amox2 - high pH	5	**pH fort - B4**	+	8,05	+
Milk 2 Amox2,4 - weak pH	4	**pH-D23**	+	3,29	+
Milk 2 Amox2 - high pH	5	**pH fort - B25**	+	8,6	+
Milk 3 Amox2,4 - weak pH	4	**pH-D24**	+	3,47	+
Milk 3 Amox2 - high pH	5	**pH fort - B26**	+	3,76	+

1.2.1.1.2. Cloxacillin

Date : 02/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - weak pH	5	**pH faible - A1**	-	-10,6	-
Milk 1 Neg - high pH	5	**pH fort - B7**	-	-5,16	-
Milk 2 Neg - weak pH	5	**pH faible - A13**	-	-8,43	-
Milk 2 Neg - high pH	5	**pH fort - B8**	-	-4,79	-
Milk 3 Neg - weak pH	5	**pH faible - A15**	-	-9,72	-
Milk 3 Neg - high pH	5	**pH fort - B27**	-	-7,79	-

Date : 02/09/2020
Cloxacilline 10 ppb

Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Cloxa10 - weak pH	5	**pH faible - A7**	+	**3,21**	+
Milk 1 Cloxa10 - high pH	5	**pH fort - B23**	+	**8,83**	+
Milk 2 Cloxa10 - weak pH	5	**pH faible - A4**	+	**3,87**	+
Milk 2 Cloxa10 - high pH	5	**pH fort - B3**	+	**8,85**	+
Milk 3 Cloxa10 - weak pH	5	**pH faible - A9**	+	**3,39**	+
Milk 3 Cloxa10 - high pH	5	**pH fort - B21**	+	**9,13**	+

1.2.1.2. Tetracyclines

1.2.1.2.1. Oxytetracycline

Date : 02/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - weak pH	5	**pH faible - A1**	-	-10,6	-
Milk 1 Neg - high pH	5	**pH fort - B7**	-	-5,16	-
Milk 2 Neg - weak pH	5	**pH faible - A13**	-	-8,43	-
Milk 2 Neg - high pH	5	**pH fort - B8**	-	-4,79	-
Milk 3 Neg - weak pH	5	**pH faible - A15**	-	-9,72	-
Milk 3 Neg - high pH	5	**pH fort - B27**	-	-7,79	-

Date : 02/09/2020
Oxytetracycline 110 ppb

Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Oxytetra110 - weak pH	5	**pH faible - A11**	+	**3,25**	+
Milk 1 Oxytetra110 - high pH	5	**pH fort - B22**	+	**5,39**	+
Milk 2 Oxytetra110 - weak pH	5	**pH faible - A3**	+	**2,22**	+
Milk 2 Oxytetra110 - high pH	5	**pH fort - B24**	+	**4,9**	+
Milk 3 Oxytetra110 - weak pH	5	**pH faible - A10**	+	**2,97**	+
Milk 3 Oxytetra110 - high pH	5	**pH fort - B2**	+	**4,93**	+

1.2.1.2.2. Chlortetracycline

Date : 02/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - weak pH	5	pH faible - A1	-	-10,6	-
Milk 1 Neg - high pH	5	pH fort - B7	-	-5,16	-
Milk 2 Neg - weak pH	5	pH faible - A13	-	-8,43	-
Milk 2 Neg - high pH	5	pH fort - B8	-	-4,79	-
Milk 3 Neg - weak pH	5	pH faible - A15	-	-9,72	-
Milk 3 Neg - high pH	5	pH fort - B27	-	-7,79	-

Date : 02/09/2020

Chlortetracycline 150 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Chlortetra150 - weak pH	5	pH faible - A16	+	**4,14**	+
Milk 1 Chlortetra150 - high pH	5	pH fort - B18	+	**5,91**	+
Milk 2 Chlortetra150 - weak pH	5	pH faible - A23	+	**3,74**	+
Milk 2 Chlortetra150 - high pH	5	pH fort - B6	+	**5,95**	+
Milk 3 Chlortetra150 - weak pH	5	pH faible - A21	+	**3,99**	+
Milk 3 Chlortetra150 - high pH	5	pH fort - B20	+	**5,76**	+

1.2.1.3. Sulfonamides

1.2.1.3.1. Sulfadimethoxine

Date : 02/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - weak pH	5	pH faible - A1	-	-10,6	-
Milk 1 Neg - high pH	5	pH fort - B7	-	-5,16	-
Milk 2 Neg - weak pH	5	pH faible - A13	-	-8,43	-
Milk 2 Neg - high pH	5	pH fort - B8	-	-4,79	-
Milk 3 Neg - weak pH	5	pH faible - A15	-	-9,72	-
Milk 3 Neg - high pH	5	pH fort - B27	-	-7,79	-

Date : 02/09/2020

Sulfadimethoxine 40 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadimet40 - weak pH	5	pH faible - A18	+	**3,3**	+
Milk 1 Sulfadimet40 - high pH	5	pH fort - B10	+	**7,8**	+
Milk 2 Sulfadimet40 - weak pH	5	pH faible - A24	+	**4,9**	+
Milk 2 Sulfadimet40 - high pH	5	pH fort - B16	+	**7,53**	+
Milk 3 Sulfadimet40 - weak pH	5	pH faible - A27	+	**2,62**	+
Milk 3 Sulfadimet40 - high pH	5	pH fort - B9	+	**7,54**	+

1.2.1.3.2. Sulfadiazine

Date : 01/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - weak pH	4	pH faible - A1	-	-11,21	-
Milk 1 Neg - high pH	4	pH fort - B2	-	-5,78	-
Milk 2 Neg - weak pH	4	pH faible - A5	-	-10,37	-
Milk 2 Neg - high pH	4	pH fort - B13	-	-4,45	-
Milk 3 Neg - weak pH	4	pH faible - A2	-	-10,66	-
Milk 3 Neg - high pH	4	pH fort - B18	-	-6,09	-

Date : 01/09/2020
Sulfadiazine 50 ppb

Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadiaz50 - weak pH	4	pH faible - A4	+	1,02	+
Milk 1 Sulfadiaz50 - high pH	4	pH fort - B5	+	7,28	+
Milk 2 Sulfadiaz50 - weak pH	4	pH faible - A6	+	0,93	+
Milk 2 Sulfadiaz50 - high pH	4	pH fort - B4	+	6,75	+
Milk 3 Sulfadiaz50 - weak pH	4	pH faible - A9	+	0,38	+
Milk 3 Sulfadiaz50 - high pH	4	pH fort - B6	+	6,51	+

Date : 01/09/2020
Sulfadiazine 55 ppb

Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadiaz55 - weak pH	4	pH faible - A7	+	1,5	+
Milk 1 Sulfadiaz55 - high pH	4	pH fort - B3	+	6,38	+
Milk 2 Sulfadiaz55 - weak pH	4	pH faible - A3	+	1,63	+
Milk 2 Sulfadiaz55 - high pH	4	pH fort - B7	+	6,83	+
Milk 3 Sulfadiaz55 - weak pH	4	pH faible - A8	+	1,6	+
Milk 3 Sulfadiaz55 - high pH	4	pH fort - B1	+	6,55	+

1.2.1.4. Macrolides

1.2.1.4.1. Tylosin A

Date : 01/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - weak pH	4	pH-D1	-	-13,09	-
Milk 1 Neg - high pH	4	pH fort - B2	-	-5,78	-
Milk 2 Neg - weak pH	4	pH-D8	-	-9,99	-
Milk 2 Neg - high pH	4	pH fort - B13	-	-4,45	-
Milk 3 Neg - weak pH	4	pH-D2	-	-11,42	-
Milk 3 Neg - high pH	4	pH fort - B18	-	-6,09	-

Date : 01/09/2020
Tylosine 35 ppb and 42 ppb

Not Validated weak pH
Validated high pH

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Tylo42 - weak pH	4	pH-D11	-	-3,3	-
Milk 1 Tylo35 - high pH	4	pH fort - B8	+	6,15	+
Milk 2 Tylo42 - weak pH	4	pH-D5	-	-2,25	-
Milk 2 Tylo35 - high pH	4	pH fort - B10	+	7,29	+
Milk 3 Tylo42 - weak pH	4	pH-D9	-	-2,34	-
Milk 3 Tylo35 - high pH	4	pH fort - B9	+	6,84	+

1.2.1.4.2. Erythromycin A

Date : 01/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - weak pH	4	pH-D1	-	-13,09	-
Milk 1 Neg - high pH	4	pH fort - B2	-	-5,78	-
Milk 2 Neg - weak pH	4	pH-D8	-	-9,99	-
Milk 2 Neg - high pH	4	pH fort - B13	-	-4,45	-
Milk 3 Neg - weak pH	4	pH-D2	-	-11,42	-
Milk 3 Neg - high pH	4	pH fort - B18	-	-6,09	-

Date : 01/09/2020
Erythromycine 160 ppb and 192 ppb

Not Validated weak pH
Validated high pH

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Erythro160 - high pH	4	pH fort - B12	+	6,82	+
Milk 1 Erythro192 - weak pH	4	pH-D13	-	-2,21	-
Milk 2 Erythro160 - high pH	4	pH fort - B11	+	6,66	+
Milk 2 Erythro192 - weak pH	4	pH-D4	-	-2,22	-
Milk 3 Erythro160 - high pH	4	pH fort - B14	+	7,21	+
Milk 3 Erythro192 - weak pH	4	pH-D12	-	-1,6	-

1.2.1.5. Aminoglycosides : dihydrostreptomycin

Date : 01/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - weak pH	4	pH-D1	-	-13,09	-
Milk 1 Neg - high pH	4	pH fort - B2	-	-5,78	-
Milk 2 Neg - weak pH	4	pH-D8	-	-9,99	-
Milk 2 Neg - high pH	4	pH fort - B13	-	-4,45	-
Milk 3 Neg - weak pH	4	pH-D2	-	-11,42	-
Milk 3 Neg - high pH	4	pH fort - B18	-	-6,09	-

Date : 01/09/2020
Dihydrostreptomycine 700 ppb and 840 ppb

Not Validated weak pH
Validated high pH

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Dihydrostrepto840 - weak pH	4	pH-D18	-	-2,43	-
Milk 1 Dihydrostrepto700 - high pH	4	pH fort - B21	+	6,62	+
Milk 2 Dihydrostrepto840 - weak pH	4	pH-D14	-	-2,9	-
Milk 2 Dihydrostrepto700 - high pH	4	pH fort - B20	+	7,12	+
Milk 3 Dihydrostrepto840 - weak pH	4	pH-D19	-	-0,83	-
Milk 3 Dihydrostrepto700 - high pH	4	pH fort - B24	+	6,76	+

1.2.1.6. Cephalosporins : céfalexine

Date : 01/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - weak pH	4	pH faible - A1	-	-11,21	-
Milk 1 Neg - high pH	4	pH fort - B2	-	-5,78	-
Milk 2 Neg - weak pH	4	pH faible - A5	-	-10,37	-
Milk 2 Neg - high pH	4	pH fort - B13	-	-4,45	-
Milk 3 Neg - weak pH	4	pH faible - A2	-	-10,66	-
Milk 3 Neg - high pH	4	pH fort - B18	-	-6,09	-

Date : 01/09/2020
Cefalexine 30 ppb

Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Cefal30 - weak pH	4	pH faible - A25	+	**2,04**	+
Milk 1 Cefal30 - high pH	4	pH fort - B26	+	**7,86**	+
Milk 2 Cefal30 - weak pH	4	pH faible - A26	+	**1,64**	+
Milk 2 Cefal30 - high pH	4	pH fort - B25	+	**5,35**	+
Milk 3 Cefal30 - weak pH	4	pH faible - A27	+	**0,31**	+
Milk 3 Cefal30 - high pH	4	pH fort - B27	+	**8,95**	+

1.2.1.7. Lincosamides : lincomycine

Date : 02/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - weak pH	5	pH faible - A1	-	-10,6	-
Milk 1 Neg - high pH	5	pH fort - B7	-	-5,16	-
Milk 2 Neg - weak pH	5	pH faible - A13	-	-8,43	-
Milk 2 Neg - high pH	5	pH fort - B8	-	-4,79	-
Milk 3 Neg - weak pH	5	pH faible - A15	-	-9,72	-
Milk 3 Neg - high pH	5	pH fort - B27	-	-7,79	-

Date : 02/09/2020
Lincomycine 275 ppb and 330 ppb

Not Validated weak pH
Validated strong pH

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Linco330 - weak pH	5	pH faible - A17	-	-4,33	-
Milk 1 Linco275 - high pH	5	pH fort - B17	+	6,49	+
Milk 2 Linco330- weak pH	5	pH faible - A20	-	-3,82	-
Milk 2 Linco275 - high pH	5	pH fort - B12	+	6,75	+
Milk 3 Linco330 - weak pH	5	pH faible - A25	-	-4,56	-
Milk 3 Linco275 - high pH	5	pH fort - B14	+	7,03	+

1.2.2. Total Bacteria Count

1.2.2.1. Penicillins

1.2.2.1.1. Amoxicillin

Date : 02/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - high TBC	5	Mat - C10	-	-8,08	-
Milk 2 Neg - high TBC	5	Mat - C1	-	-8,69	-
Milk 3 Neg - high TBC	5	Mat - C3	-	-8,64	-

Date : 02/09/2020
Amoxicilline 2 ppb

Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Amox2 - high TBC	5	Mat - C2	+	4,43	+
Milk 2 Amox2 - high TBC	5	Mat - C8	+	5,03	+
Milk 3 Amox2 - high TBC	5	Mat - C7	+	4,31	+

1.2.2.1.2. Cloxacillin

Date : 02/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - high TBC	5	Mat - C10	-	-8,08	-
Milk 2 Neg - high TBC	5	Mat - C1	-	-8,69	-
Milk 3 Neg - high TBC	5	Mat - C3	-	-8,64	-

Date : 02/09/2020
Cloxacilline 30 ppb

Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Cloxa10 - high TBC	5	Mat - C14	+	8,07	+
Milk 2 Cloxa10 - high TBC	5	Mat - C6	+	9,27	+
Milk 3 Cloxa10 - high TBC	5	Mat - C12	+	8,58	+

1.2.2.2. Tetracyclines

1.2.2.2.1. Oxytetracycline

Date : 02/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - high TBC	5	Mat - C10	-	-8,08	-
Milk 2 Neg - high TBC	5	Mat - C1	-	-8,69	-
Milk 3 Neg - high TBC	5	Mat - C3	-	-8,64	-

Date : 02/09/2020

Oxytetracycline 110 ppb — Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Oxytetra110 - high TBC	5	Mat - C17	+	3,74	+
Milk 2 Oxytetra110 - high TBC	5	Mat - C11	+	4,05	+
Milk 3 Oxytetra110 - high TBC	5	Mat - C15	+	3,95	+

1.2.2.2.2. Chlortetracycline

Date : 02/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - high TBC	5	Mat - C10	-	-8,08	-
Milk 2 Neg - high TBC	5	Mat - C1	-	-8,69	-
Milk 3 Neg - high TBC	5	Mat - C3	-	-8,64	-

Date : 02/09/2020

Chlortetracycline 150 ppb — Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Chlortetra150 - high TBC	5	Mat - C20	+	5	+
Milk 2 Chlortetra150 - high TBC	5	Mat - C5	+	5,88	+
Milk 3 Chlortetra150 - high TBC	5	Mat - C24	+	5,57	+

1.2.2.3. Sulfonamides

1.2.2.3.1. Sulfadimethoxine

Date : 02/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - high TBC	5	Mat - C10	-	-8,08	-
Milk 2 Neg - high TBC	5	Mat - C1	-	-8,69	-
Milk 3 Neg - high TBC	5	Mat - C3	-	-8,64	-

Date : 02/09/2020

Sulfadimethoxine 40 ppb — Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadimet40 - high TBC	5	Mat - C25	+	5,72	+
Milk 2 Sulfadimet40 - high TBC	5	Mat - C18	+	5,49	+
Milk 3 Sulfadimet40 - high TBC	5	Mat - C22	+	5,79	+

1.2.2.3.2. Sulfadiazine

Date : 01/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - high TBC	4	Mat - C14	-	-7,95	-
Milk 2 Neg - high TBC	4	Mat - C1	-	-8,11	-
Milk 3 Neg - high TBC	4	Mat - C11	-	-7,95	-

Date : 01/09/2020

Sulfadiazine 50 ppb — Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadiaz50 - high TBC	4	Mat - C4	+	5,47	+
Milk 2 Sulfadiaz50 - high TBC	4	Mat - C8	+	4,94	+
Milk 3 Sulfadiaz50 - high TBC	4	Mat - C3	+	5,68	+

Date : 01/09/2020

Sulfadiazine 55 ppb — Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadiaz55 - high TBC	4	Mat - C5	+	6,03	+
Milk 2 Sulfadiaz55 - high TBC	4	Mat - C10	+	5,1	+
Milk 3 Sulfadiaz55 - high TBC	4	Mat - C2	+	5,19	+

1.2.2.4. Macrolides

1.2.2.4.1. Tylosin A

Date : 01/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - high TBC	4	Mat - C14	-	-7,95	-
Milk 2 Neg - high TBC	4	Mat - C1	-	-8,11	-
Milk 3 Neg - high TBC	4	Mat - C11	-	-7,95	-

Date : 01/09/2020

Tylosine 35 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Tylo35 - high TBC	4	Mat - C12	+	**4,42**	+
Milk 2 Tylo35 - high TBC	4	Mat - C13	+	**3,66**	+
Milk 3 Tylo35 - high TBC	4	Mat - C7	+	**5,09**	+

1.2.2.4.2. Erythromycin A

Date : 01/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - high TBC	4	Mat - C14	-	-7,95	-
Milk 2 Neg - high TBC	4	Mat - C1	-	-8,11	-
Milk 3 Neg - high TBC	4	Mat - C11	-	-7,95	-

Date : 01/09/2020

Erythromycine A (3 éch) 160 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Erythro160 - high TBC	4	Mat - C17	+	**4,88**	+
Milk 2 Erythro160 - high TBC	4	Mat - C6	+	**5,58**	+
Milk 3 Erythro160 - high TBC	4	Mat - C15	+	**4,97**	+

1.2.2.5. Aminoglycosides : dihydrostreptomycin

Date : 01/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - high TBC	4	Mat - C14	-	-7,95	-
Milk 2 Neg - high TBC	4	Mat - C1	-	-8,11	-
Milk 3 Neg - high TBC	4	Mat - C11	-	-7,95	-

Date : 01/09/2020

Dihydrostreptomycine 700 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Dihydrostrepto700 - high TBC	4	Mat - C23	+	**4,66**	+
Milk 2 Dihydrostrepto700 - high TBC	4	Mat - C18	+	**4,87**	+
Milk 3 Dihydrostrepto700 - high TBC	4	Mat - C26	+	**5,27**	+

1.2.2.6. Cephalosporins : céfalexine

Date : 01/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - high TBC	4	Mat - C14	-	-7,95	-
Milk 2 Neg - high TBC	4	Mat - C1	-	-8,11	-
Milk 3 Neg - high TBC	4	Mat - C11	-	-7,95	-

Date : 01/09/2020

Cefalexine 30 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Cefal30 - high TBC	4	Mat - C25	+	**4,1**	+
Milk 2 Cefal30 - high TBC	4	Mat - C27	+	**4,95**	+
Milk 3 Cefal30 - high TBC	4	Mat - C24	+	**3,51**	+

1.2.2.7. Lincosamides : lincomycine

Date : 02/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - high TBC	5	Mat - C10	-	-8,08	-
Milk 2 Neg - high TBC	5	Mat - C1	-	-8,69	-
Milk 3 Neg - high TBC	5	Mat - C3	-	-8,64	-

Date : 02/09/2020
Lincomycine 275 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Linco275 - high TBC	**5**	Mat - C19	+	**2,55**	+
Milk 2 Linco275 - high TBC	**5**	Mat - C26	+	**3,76**	+
Milk 3 Linco275 - high TBC	**5**	Mat - C27	+	**3,32**	+

1.2.3. Frozen milk

1.2.3.1. Penicillins

1.2.3.1.1. Amoxicillin

Date : 07/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - frozen	3	1-A4	-	-7,32	-
Milk 2 Neg - frozen	3	2-B2	-	-5,95	-
Milk 3 Neg - frozen	3	3-C8	-	-8,02	-

Date : 07/08/2020
Amoxicilline 2 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Amox2 - frozen	**3**	1-A1	+	**4,87**	+
Milk 2 Amox2 - frozen	**3**	2-B4	+	**4,76**	+
Milk 3 Amox2 - frozen	**3**	3-C9	+	**4,67**	+

1.2.3.1.2. Cloxacillin

Date : 14/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - frozen	3	1-D3	-	-4,73	-
Milk 2 Neg - frozen	3	2-E5	-	-5,31	-
Milk 3 Neg - frozen	3	3-F2	-	-7	-

Date : 14/08/2020
Cloxacilline 30 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Cloxa10 - frozen	**3**	1-D2	+	**6,47**	+
Milk 2 Cloxa10 - frozen	**3**	2-E9	+	**6,52**	+
Milk 3 Cloxa10 - frozen	**3**	3-F9	+	**5,77**	+

1.2.3.2. Tetracyclines

1.2.3.2.1. Oxytetracycline

Date : 07/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - frozen	3	1-A4	-	-7,32	-
Milk 2 Neg - frozen	3	2-B2	-	-5,95	-
Milk 3 Neg - frozen	3	3-C8	-	-8,02	-

Date : 07/08/2020

Oxytetracycline 110 ppb — Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Oxytetra110 - frozen	3	1-A5	+	4,2	+
Milk 2 Oxytetra110 - frozen	3	2-B6	+	4,28	+
Milk 3 Oxytetra110 - frozen	3	3-C7	+	4,4	+

1.2.3.2.2. Chlortetracycline

Date : 14/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - frozen	3	1-D3	-	-4,73	-
Milk 2 Neg - frozen	3	2-E5	-	-5,31	-
Milk 3 Neg - frozen	3	3-F2	-	-7	-

Date : 14/08/2020

Chlortetracycline 150 ppb — Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Chlortetra150 - frozen	3	1-D9	+	5,92	+
Milk 2 Chlortetra150 - frozen	3	2-E8	+	5,46	+
Milk 3 Chlortetra150 - frozen	3	3-F8	+	5,82	+

1.2.3.3. Sulfonamides

1.2.3.3.1. Sulfadimethoxine

Date : 07/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - frozen	3	1-A4	-	-7,32	-
Milk 2 Neg - frozen	3	2-B2	-	-5,95	-
Milk 3 Neg - frozen	3	3-C8	-	-8,02	-

Date : 07/08/2020

Sulfadimethoxine 40 ppb — Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadimet40 - frozen	3	1-A3	+	5,67	+
Milk 2 Sulfadimet40 - frozen	3	2-B5	+	5,68	+
Milk 3 Sulfadimet40 - frozen	3	3-C3	+	5,63	+

1.2.3.3.2. Sulfadiazine

Date : 14/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - frozen	3	1-D3	-	-4,73	-
Milk 2 Neg - frozen	3	2-E5	-	-5,31	-
Milk 3 Neg - frozen	3	3-F2	-	-7	-

Date : 14/08/2020

Sulfadiazine 50 ppb — Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadiaz50 - frozen	3	1-D5	+	4,62	+
Milk 2 Sulfadiaz50 - frozen	3	2-E3	+	4,5	+
Milk 3 Sulfadiaz50 - frozen	3	3-F4	+	4,29	+

Date : 14/08/2020

Sulfadiazine 55 ppb — Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadiaz55 - frozen	3	1-D4	+	4,5	+
Milk 2 Sulfadiaz55 - frozen	3	2-E2	+	4,75	+
Milk 3 Sulfadiaz55 - frozen	3	3-F3	+	4,52	+

1.2.3.4. Macrolides

1.2.3.4.1. Tylosin A

Date : 07/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - frozen	3	1-A4	-	-7,32	-
Milk 2 Neg - frozen	3	2-B2	-	-5,95	-
Milk 3 Neg - frozen	3	3-C8	-	-8,02	-

Date : 07/08/2020

Tylosine 35 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Tylo35 - frozen	**3**	1-A9	+	**4,14**	+
Milk 2 Tylo35 - frozen	**3**	2-B7	+	**2,67**	+
Milk 3 Tylo35 - frozen	**3**	3-C1	+	**4,27**	+

1.2.3.4.2. Erythromycin A

Date : 14/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - frozen	3	1-D3	-	-4,73	-
Milk 2 Neg - frozen	3	2-E5	-	-5,31	-
Milk 3 Neg - frozen	3	3-F2	-	-7	-

Date : 14/08/2020

Erythromycine A (3 éch) 160 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Erythro160 - frozen	**3**	1-D8	+	**4,94**	+
Milk 2 Erythro160 - frozen	**3**	2-E7	+	**4,81**	+
Milk 3 Erythro160 - frozen	**3**	3-F1	+	**4,84**	+

1.2.3.5. Aminoglycosides : dihydrostreptomycin

Date : 07/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - frozen	3	1-A4	-	-7,32	-
Milk 2 Neg - frozen	3	2-B2	-	-5,95	-
Milk 3 Neg - frozen	3	3-C8	-	-8,02	-

Date : 07/08/2020

Dihydrostreptomycine 700 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Dihydrostrepto700 - frozen	**3**	1-A8	+	**5,84**	+
Milk 2 Dihydrostrepto700 - frozen	**3**	2-B9	+	**5,37**	+
Milk 3 Dihydrostrepto700 - frozen	**3**	3-C6	+	**5,33**	+

1.2.3.6. Cephalosporins : céfalexine

Date : 07/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - frozen	3	1-A4	-	-7,32	-
Milk 2 Neg - frozen	3	2-B2	-	-5,95	-
Milk 3 Neg - frozen	3	3-C8	-	-8,02	-

Date : 07/08/2020

Cefalexine 30 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Cefal30 - frozen	**3**	1-A7	+	**3,89**	+
Milk 2 Cefal30 - frozen	**3**	2-B3	+	**4,13**	+
Milk 3 Cefal30 - frozen	**3**	3-C2	+	**2,55**	+

1.2.3.7. Lincosamides : lincomycine

Date : 14/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - frozen	3	1-D3	-	-4,73	-
Milk 2 Neg - frozen	3	2-E5	-	-5,31	-
Milk 3 Neg - frozen	3	3-F2	-	-7	-

Date : 14/08/2020

Lincomycine 275 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Linco275 - frozen	3	1-D6	+	3,89	+
Milk 2 Linco275 - frozen	3	2-E6	+	3,19	+
Milk 3 Linco275 - frozen	3	3-F5	+	3,24	+

1.2.4. Milk temperature

1.2.4.1. Penicillins

1.2.4.1.1. Amoxicillin

Date : 13/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - room temperature	6	TA - C7	-	-6,88	-
Milk 1 Neg - cold	6	4°C - D1	-	-7,53	-
Milk 2 Neg - room temperature	6	TA - C21	-	-3,46	-
Milk 2 Neg - cold	6	4°C - D10	-	-3,9	-
Milk 3 Neg - room temperature	6	TA - C19	-	-4,25	-
Milk 3 Neg - cold	6	4°C - D3	-	-5,05	-

Date : 13/07/2020

Amoxicilline 2 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Amox2 - room temperature	6	TA - C1	+	3,34	+
Milk 1 Amox2 - cold	6	4°C - D6	+	5,71	+
Milk 2 Amox2 - room temperature	6	TA - C8	+	4,31	+
Milk 2 Amox2 - cold	6	4°C - D4	+	4,67	+
Milk 3 Amox2 - room temperature	6	TA - C13	+	4,98	+
Milk 3 Amox2 - cold	6	4°C - D7	+	4,4	+

1.2.4.1.2. Cloxacillin

Date : 13/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - room temperature	6	TA - C7	-	-6,88	-
Milk 1 Neg - cold	6	4°C - D1	-	-7,53	-
Milk 2 Neg - room temperature	6	TA - C21	-	-3,46	-
Milk 2 Neg - cold	6	4°C - D10	-	-3,9	-
Milk 3 Neg - room temperature	6	TA - C19	-	-4,25	-
Milk 3 Neg - cold	6	4°C - D3	-	-5,05	-

Date : 13/07/2020

Cloxacilline 10 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Cloxa10 - room temperature	6	TA - C12	+	6,48	+
Milk 1 Cloxa10 - cold	6	4°C - D16	+	6,11	+
Milk 2 Cloxa10 - room temperature	6	TA - C5	+	6,24	+
Milk 2 Cloxa10 - cold	6	4°C - D2	+	5,49	+
Milk 3 Cloxa10 - room temperature	6	TA - C3	+	5,56	+
Milk 3 Cloxa10 - cold	6	4°C - D9	+	5,1	+

1.2.4.2. Tetracyclines

1.2.4.2.1. Oxytetracycline

Date : 13/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - room temperature	6	TA - C7	-	-6,88	-
Milk 1 Neg - cold	6	**4°C - D1**	-	-7,53	-
Milk 2 Neg - room temperature	6	TA - C21	-	-3,46	-
Milk 2 Neg - cold	6	**4°C - D10**	-	-3,9	-
Milk 3 Neg - room temperature	6	TA - C19	-	-4,25	-
Milk 3 Neg - cold	6	**4°C - D3**	-	-5,05	-

Date : 13/07/2020
Oxytetracycline 110 ppb

Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Oxytetra110 - room temperature	6	TA - C6	+	**3,74**	+
Milk 1 Oxytetra110 - cold	6	**4°C - D11**	+	**4,9**	+
Milk 2 Oxytetra110 - room temperature	6	TA - C23	+	**4,39**	+
Milk 2 Oxytetra110 - cold	6	**4°C - D13**	+	**4,79**	+
Milk 3 Oxytetra110 - room temperature	6	TA - C24	+	**4,41**	+
Milk 3 Oxytetra110 - cold	6	**4°C - D5**	+	**5,34**	+

1.2.4.2.2. Chlortetracycline

Date : 15/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - room temperature	6	TA - C28	-	-5,14	-
Milk 1 Neg - cold	6	**4°C - D29**	-	-8,14	-
Milk 2 Neg - room temperature	6	TA - C30	-	-6,63	-
Milk 2 Neg - cold	6	**4°C - D28**	-	-4,85	-
Milk 3 Neg - room temperature	6	TA - C29	-	-4,08	-
Milk 3 Neg - cold	6	**4°C - D30**	-	-7,33	-

Date : 15/07/2020
Chlortetracycline 150 ppb

Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Chlortetra150 - room temperature	6	TA - C27	+	**5,45**	+
Milk 1 Chlortetra150 - cold	6	**4°C - D27**	+	**5,54**	+
Milk 2 Chlortetra150 - room temperature	6	TA - C24	+	**5,95**	+
Milk 2 Chlortetra150 - cold	6	**4°C - D26**	+	**4,96**	+
Milk 3 Chlortetra150 - room temperature	6	TA - C26	+	**5,92**	+
Milk 3 Chlortetra150 - cold	6	**4°C - D21**	+	**5,44**	+

1.2.4.3. Sulfonamides

1.2.4.3.1. Sulfadimethoxine

Date : 13/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - room temperature	6	TA - C7	-	-6,88	-
Milk 1 Neg - cold	6	**4°C - D1**	-	-7,53	-
Milk 2 Neg - room temperature	6	TA - C21	-	-3,46	-
Milk 2 Neg - cold	6	**4°C - D10**	-	-3,9	-
Milk 3 Neg - room temperature	6	TA - C19	-	-4,25	-
Milk 3 Neg - cold	6	**4°C - D3**	-	-5,05	-

Date : 13/07/2020

Sulfadimethoxine 40 ppb

Samples	Batch	Validated Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadimet40 - room temperature	6	TA - C2	+	5,56	+
Milk 1 Sulfadimet40 - cold	6	4°C - D12	+	6,1	+
Milk 2 Sulfadimet40 - room temperature	6	TA - C4	+	5,41	+
Milk 2 Sulfadimet40 - cold	6	4°C - D17	+	5,85	+
Milk 3 Sulfadimet40 - room temperature	6	TA - C9	+	5,46	+
Milk 3 Sulfadimet40 - cold	6	4°C - D22	+	5,3	+

1.2.4.3.2. Sulfadiazine

Date : 20/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - room temperature	5	Milk TA - E1	-	-7,2	-
Milk 1 Neg - cold	5	Milk 4°C - F1	-	-6,78	-
Milk 2 Neg - room temperature	5	Milk TA - E4	-	-6,45	-
Milk 2 Neg - cold	5	Milk 4°C - F2	-	-6,65	-
Milk 3 Neg - room temperature	5	Milk TA - E6	-	-7,89	-
Milk 3 Neg - cold	5	Milk 4°C - F3	-	-7,32	-

Date : 20/08/2020

Sulfadiazine 50 ppb

Samples	Batch	Validated Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadiaz50 - room temperature	5	Milk TA - E2	+	3,93	+
Milk 1 Sulfadiaz50 - cold	5	Milk 4°C - F4	+	4,29	+
Milk 2 Sulfadiaz50 - room temperature	5	Milk TA - E5	+	4,47	+
Milk 2 Sulfadiaz50 - cold	5	Milk 4°C - F5	+	4,9	+
Milk 3 Sulfadiaz50 - room temperature	5	Milk TA - E3	+	4,11	+
Milk 3 Sulfadiaz50 - cold	5	Milk 4°C - F6	+	4,39	+

1.2.4.4. Macrolides

1.2.4.4.1. Tylosin A

Date : 15/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - room temperature	6	TA - C28	-	-5,14	-
Milk 1 Neg - cold	6	4°C - D29	-	-8,14	-
Milk 2 Neg - room temperature	6	TA - C30	-	-6,63	-
Milk 2 Neg - cold	6	4°C - D28	-	-4,85	-
Milk 3 Neg - room temperature	6	TA - C29	-	-4,08	-
Milk 3 Neg - cold	6	4°C - D30	-	-7,33	-

Date : 15/07/2020

Tylosine 35 ppb

Samples	Batch	Validated Code	Visual reading	Delvoscan reading	
Milk 1 Tylo35 - room temperature	6	TA - C13	+	3,72	+
Milk 1 Tylo35 - cold	6	4°C - D5	+	4,74	+
Milk 2 Tylo35 - room temperature	6	TA - C12	+	3,67	+
Milk 2 Tylo35 - cold	6	4°C - D14	+	4,27	+
Milk 3 Tylo35 - room temperature	6	TA - C4	+	4,38	+
Milk 3 Tylo35 - cold	6	4°C - D11	+	4,69	+

1.2.4.4.2. Erythromycin A

Date : 15/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - room temperature	6	TA - C28	-	-5,14	-
Milk 1 Neg - cold	6	4°C - D29	-	-8,14	-
Milk 2 Neg - room temperature	6	TA - C30	-	-6,63	-
Milk 2 Neg - cold	6	4°C - D28	-	-4,85	-
Milk 3 Neg - room temperature	6	TA - C29	-	-4,08	-
Milk 3 Neg - cold	6	4°C - D30	-	-7,33	-

Date : 15/07/2020

Erythromycine 160 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Erythro160 - room temperature	6	TA - C11	+	4,86	+
Milk 1 Erythro160 - cold	6	4°C - D17	+	5,75	+
Milk 2 Erythro160 - room temperature	6	TA - C20	+	4,1	+
Milk 2 Erythro160 - cold	6	4°C - D23	+	4,65	+
Milk 3 Erythro160 - room temperature	6	TA - C16	+	4,43	+
Milk 3 Erythro160 - cold	6	4°C - D16	+	5,15	+

1.2.4.5. Aminoglycosides : dihydrostreptomycin

Date : 15/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - room temperature	6	TA - C28	-	-5,14	-
Milk 1 Neg - cold	6	4°C - D29	-	-8,14	-
Milk 2 Neg - room temperature	6	TA - C30	-	-6,63	-
Milk 2 Neg - cold	6	4°C - D28	-	-4,85	-
Milk 3 Neg - room temperature	6	TA - C29	-	-4,08	-
Milk 3 Neg - cold	6	4°C - D30	-	-7,33	-

Date : 15/07/2020

Dihydrostreptomycine 700 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Dihydrostrepto700 - room temperature	6	TA - C17	+	5,02	+
Milk 1 Dihydrostrepto700 - cold	6	4°C - D22	+	4,69	+
Milk 2 Dihydrostrepto700 - room temperature	6	TA - C21	+	3,18	+
Milk 2 Dihydrostrepto700 - cold	6	4°C - D15	+	4,23	+
Milk 3 Dihydrostrepto700 - room temperature	6	TA - C19	+	4,57	+
Milk 3 Dihydrostrepto700 - cold	6	4°C - D13	+	4,9	+

1.2.4.6. Cephalosporins : céfalexine

Date : 15/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - room temperature	6	TA - C28	-	-5,14	-
Milk 1 Neg - cold	6	4°C - D29	-	-8,14	-
Milk 2 Neg - room temperature	6	TA - C30	-	-6,63	-
Milk 2 Neg - cold	6	4°C - D28	-	-4,85	-
Milk 3 Neg - room temperature	6	TA - C29	-	-4,08	-
Milk 3 Neg - cold	6	4°C - D30	-	-7,33	-

Date : 15/07/2020

Cefalexine 30 ppb — **Validated +20%**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Cefal30 - room temperature	6	TA - C23	+	5,39	+
Milk 1 Cefal30 - cold	6	4°C - D24	+	5,35	+
Milk 2 Cefal30 - room temperature	6	TA - C25	+	5,57	+
Milk 2 Cefal30 - cold	6	4°C - D19	+	4,06	+
Milk 3 Cefal30 - room temperature	6	TA - C22	+	5,66	+
Milk 3 Cefal30 - cold	6	4°C - D25	+	4,26	+

1.2.4.7. Lincosamides : lincomycine

Date : 13/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - room temperature	6	TA - C7	-	-6,88	-
Milk 1 Neg - cold	6	4°C - D1	-	-7,53	-
Milk 2 Neg - room temperature	6	TA - C21	-	-3,46	-
Milk 2 Neg - cold	6	4°C - D10	-	-3,9	-
Milk 3 Neg - room temperature	6	TA - C19	-	-4,25	-
Milk 3 Neg - cold	6	4°C - D3	-	-5,05	-

Date : 13/07/2020

Lincomycine 275 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Linco275 - room temperature	6	TA - C10	+	3,55	+
Milk 1 Linco275 - cold	6	4°C - D24	+	3,42	+
Milk 2 Linco275 - room temperature	6	TA - C20	+	3,31	+
Milk 2 Linco275 - cold	6	4°C - D21	+	3,38	+
Milk 3 Linco275 - room temperature	6	TA - C18	+	4,3	+
Milk 3 Linco275 - cold	6	4°C - D19	+	3,9	+

2. Results of robustness study for plates

2.1. Influence of protocol

2.1.1. Sample volume

2.1.1.1. Penicillins

2.1.1.1.1. Amoxicillin

Date : 13/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 90 µL	6	90µL - A17	-	-5,22	-
Milk 1 Neg - 110 µL	6	110µL - A2	-	-2,4	-
Milk 2 Neg - 90 µL	6	90µL - A20	-	-2,96	-
Milk 2 Neg - 110 µL	6	110µL - A3	-	-0,41	-
Milk 3 Neg - 90 µL	6	90µL - A23	-	-3,63	-
Milk 3 Neg - 110 µL	6	110µL - A9	-	-2,28	-

Date : 13/07/2020

Amoxicilline 2 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Amox2 - 90 µL	6	90µL - A3	+	5,14	+
Milk 1 Amox2 - 110 µL	6	110µL - A1	+	7,36	+
Milk 2 Amox2 - 90 µL	6	90µL - A8	+	4,32	+
Milk 2 Amox2 - 110 µL	6	110µL - A8	+	6,53	+
Milk 3 Amox2 - 90 µL	6	90µL - A9	+	3,83	+
Milk 3 Amox2 - 110 µL	6	110µL - A4	+	7,13	+

2.1.1.1.2. Cloxacillin

Date : 13/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 90 µL	6	90µL - A17	-	-5,22	-
Milk 1 Neg - 110 µL	6	110µL - A2	-	-2,4	-
Milk 2 Neg - 90 µL	6	90µL - A20	-	-2,96	-
Milk 2 Neg - 110 µL	6	110µL - A3	-	-0,41	-
Milk 3 Neg - 90 µL	6	90µL - A23	-	-3,63	-
Milk 3 Neg - 110 µL	6	110µL - A9	-	-2,28	-

Date : 13/07/2020

Cloxacilline 10 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Cloxa10 - 90 µL	6	90µL - A12	+	7	+
Milk 1 Cloxa10 - 110 µL	6	110µL - A6	+	5,88	+
Milk 2 Cloxa10 - 90 µL	6	90µL - A15	+	5,76	+
Milk 2 Cloxa10 - 110 µL	6	110µL - A13	+	6,86	+
Milk 3 Cloxa10 - 90 µL	6	90µL - A18	+	6,12	+
Milk 3 Cloxa10 - 110 µL	6	110µL - A11	+	6,65	+

2.1.1.2. Tetracyclines

2.1.1.2.1. Oxytetracycline

Date : 13/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 90 µL	6	90µL - A17	-	-5,22	-
Milk 1 Neg - 110 µL	6	110µL - A2	-	-2,4	-
Milk 2 Neg - 90 µL	6	90µL - A20	-	-2,96	-
Milk 2 Neg - 110 µL	6	110µL - A3	-	-0,41	-
Milk 3 Neg - 90 µL	6	90µL - A23	-	-3,63	-
Milk 3 Neg - 110 µL	6	110µL - A9	-	-2,28	-

Date : 13/07/2020

Oxytetracycline 110 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Oxytetra110 - 90 µL	6	90µL - A10	+	4,95	+
Milk 1 Oxytetra110 - 110 µL	6	110µL - A20	+	5,27	+
Milk 2 Oxytetra110 - 90 µL	6	90µL - A4	+	4,48	+
Milk 2 Oxytetra110 - 110 µL	6	110µL - A12	+	5,05	+
Milk 3 Oxytetra110 - 90 µL	6	90µL - A6	+	5,27	+
Milk 3 Oxytetra110 - 110 µL	6	110µL - A5	+	6,51	+

2.1.1.2.2. Chlortetracycline

Date : 13/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 90 µL	6	90µL - A17	-	-5,22	-
Milk 1 Neg - 110 µL	6	110µL - A2	-	-2,4	-
Milk 2 Neg - 90 µL	6	90µL - A20	-	-2,96	-
Milk 2 Neg - 110 µL	6	110µL - A3	-	-0,41	-
Milk 3 Neg - 90 µL	6	90µL - A23	-	-3,63	-
Milk 3 Neg - 110 µL	6	110µL - A9	-	-2,28	-

Date : 13/07/2020

Chlortetracycline 150 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Chlortetra150 - 90 µL	6	90µL - A1	+	5,82	+
Milk 1 Chlortetra150 - 110 µL	6	110µL - A7	+	6,37	+
Milk 2 Chlortetra150 - 90 µL	6	90µL - A2	+	5,65	+
Milk 2 Chlortetra150 - 110 µL	6	110µL - A15	+	6,07	+
Milk 3 Chlortetra150 - 90 µL	6	90µL - A5	+	5,58	+
Milk 3 Chlortetra150 - 110 µL	6	110µL - A17	+	6,15	+

2.1.1.3. Sulfonamides

2.1.1.3.1. Sulfadimethoxine

Date : 13/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 90 µL	6	90µL - A17	-	-5,22	-
Milk 1 Neg - 110 µL	6	110µL - A2	-	-2,4	-
Milk 2 Neg - 90 µL	6	90µL - A20	-	-2,96	-
Milk 2 Neg - 110 µL	6	110µL - A3	-	-0,41	-
Milk 3 Neg - 90 µL	6	90µL - A23	-	-3,63	-
Milk 3 Neg - 110 µL	6	110µL - A9	-	-2,28	-

Date : 13/07/2020

Sulfadimethoxine 40 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadimet40 - 90 µL	6	90µL - A7	+	5,78	+
Milk 1 Sulfadimet40 - 110 µL	6	110µL - A18	+	6,5	+
Milk 2 Sulfadimet40 - 90 µL	6	90µL - A14	+	5,73	+
Milk 2 Sulfadimet40 - 110 µL	6	110µL - A24	+	5,96	+
Milk 3 Sulfadimet40 - 90 µL	6	90µL - A11	+	5,81	+
Milk 3 Sulfadimet40 - 110 µL	6	110µL - A25	+	5,73	+

2.1.1.3.2. Sulfadiazine

Date : 15/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 90 µL	6	90µL - A18	-	-5,58	-
Milk 1 Neg - 110 µL	6	110µL - B22	-	-4,92	-
Milk 2 Neg - 90 µL	6	90µL - A26	-	-4,74	-
Milk 2 Neg - 110 µL	6	110µL - B18	-	-5,97	-
Milk 3 Neg - 90 µL	6	90µL - A23	-	-3,57	-
Milk 3 Neg - 110 µL	6	110µL - B27	-	-4,75	-

Date : 15/07/2020

Sulfadiazine 50 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadiaz50 - 90 µL	6	90µL - A2	+	5,22	+
Milk 1 Sulfadiaz50 - 110 µL	6	110µL - B4	+	4,3	+
Milk 2 Sulfadiaz50 - 90 µL	6	90µL - A3	+	4,72	+
Milk 2 Sulfadiaz50 - 110 µL	6	110µL - B6	+	4,56	+
Milk 3 Sulfadiaz50 - 90 µL	6	90µL - A6	+	4,19	+
Milk 3 Sulfadiaz50 - 110 µL	6	110µL - B1	+	4,05	+

Date : 15/07/2020

Sulfadiazine 55 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadiaz55 - 90 µL	6	90µL - A1	+	5,02	+
Milk 1 Sulfadiaz55 - 110 µL	6	110µL - B4	+	5,61	+
Milk 2 Sulfadiaz55 - 90 µL	6	90µL - A5	+	5,08	+
Milk 2 Sulfadiaz55 - 110 µL	6	110µL - B11	+	5,01	+
Milk 3 Sulfadiaz55 - 90 µL	6	90µL - A10	+	5,02	+
Milk 3 Sulfadiaz55 - 110 µL	6	110µL - B13	+	4,73	+

2.1.1.4. Macrolides

2.1.1.4.1. Tylosin A

Date : 15/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 90 µL	6	90µL - A18	-	-5,58	-
Milk 1 Neg - 110 µL	6	110µL - B22	-	-4,92	-
Milk 2 Neg - 90 µL	6	90µL - A26	-	-4,74	-
Milk 2 Neg - 110 µL	6	110µL - B18	-	-5,97	-
Milk 3 Neg - 90 µL	6	90µL - A23	-	-3,57	-
Milk 3 Neg - 110 µL	6	110µL - B27	-	-4,75	-

Date : 15/07/2020

Tylosine 35 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Tylo35 - 90 µL	6	90µL - A15	+	**4,22**	+
Milk 1 Tylo35 - 110 µL	6	110µL - B5	+	**4,5**	+
Milk 2 Tylo35 - 90 µL	6	90µL - A7	+	**3,33**	+
Milk 2 Tylo35 - 110 µL	6	110µL - B2	+	**4,62**	+
Milk 3 Tylo35 - 90 µL	6	90µL - A2	+	**3,83**	+
Milk 3 Tylo35 - 110 µL	6	110µL - B6	+	**4,69**	+

2.1.1.4.2. Erythromycin A

Date : 15/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 90 µL	6	90µL - A18	-	-5,58	-
Milk 1 Neg - 110 µL	6	110µL - B22	-	-4,92	-
Milk 2 Neg - 90 µL	6	90µL - A26	-	-4,74	-
Milk 2 Neg - 110 µL	6	110µL - B18	-	-5,97	-
Milk 3 Neg - 90 µL	6	90µL - A23	-	-3,57	-
Milk 3 Neg - 110 µL	6	110µL - B27	-	-4,75	-

Date : 15/07/2020

Erythromycine 160 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Erythro160 - 90 µL	6	90µL - A3	+	**4,85**	+
Milk 1 Erythro160 - 110 µL	6	110µL - B3	+	**5,5**	+
Milk 2 Erythro160 - 90 µL	6	90µL - A12	+	**3,9**	+
Milk 2 Erythro160 - 110 µL	6	110µL - B8	+	**4,55**	+
Milk 3 Erythro160 - 90 µL	6	90µL - A16	+	**4,85**	+
Milk 3 Erythro160 - 110 µL	6	110µL - B19	+	**5,03**	+

2.1.1.5. Aminoglycosides : dihydrostreptomycin

Date : 15/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 90 µL	6	90µL - A18	-	-5,58	-
Milk 1 Neg - 110 µL	6	110µL - B22	-	-4,92	-
Milk 2 Neg - 90 µL	6	90µL - A26	-	-4,74	-
Milk 2 Neg - 110 µL	6	110µL - B18	-	-5,97	-
Milk 3 Neg - 90 µL	6	90µL - A23	-	-3,57	-
Milk 3 Neg - 110 µL	6	110µL - B27	-	-4,75	-

Date : 15/07/2020

Dihydrostreptomycine 700 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Dihydrostrepto700 - 90 µL	6	90µL - A13	+	4,73	+
Milk 1 Dihydrostrepto700 - 110 µL	6	110µL - B14	+	5,68	+
Milk 2 Dihydrostrepto700 - 90 µL	6	90µL - A25	+	3,9	+
Milk 2 Dihydrostrepto700 - 110 µL	6	110µL - B15	+	5,04	+
Milk 3 Dihydrostrepto700 - 90 µL	6	90µL - A20	+	4,16	+
Milk 3 Dihydrostrepto700 - 110 µL	6	110µL - B24	+	4,99	+

2.1.1.6. Cephalosporins : céfalexine

Date : 15/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 90 µL	6	90µL - A18	-	-5,58	-
Milk 1 Neg - 110 µL	6	110µL - B22	-	-4,92	-
Milk 2 Neg - 90 µL	6	90µL - A26	-	-4,74	-
Milk 2 Neg - 110 µL	6	110µL - B18	-	-5,97	-
Milk 3 Neg - 90 µL	6	90µL - A23	-	-3,57	-
Milk 3 Neg - 110 µL	6	110µL - B27	-	-4,75	-

Date : 15/07/2020

Cefalexine 30 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Cefal30 - 90 µL	6	90µL - A21	+	5,67	+
Milk 1 Cefal30 - 110 µL	6	110µL - B21	+	5,6	+
Milk 2 Cefal30 - 90 µL	6	90µL - A27	+	5,21	+
Milk 2 Cefal30 - 110 µL	6	110µL - B26	+	5,61	+
Milk 3 Cefal30 - 90 µL	6	90µL - A24	+	5,54	+
Milk 3 Cefal30 - 110 µL	6	110µL - B25	+	6,29	+

2.1.1.7. Lincosamides : lincomycine

Date : 13/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 90 µL	6	90µL - A17	-	-5,22	-
Milk 1 Neg - 110 µL	6	110µL - A2	-	-2,4	-
Milk 2 Neg - 90 µL	6	90µL - A20	-	-2,96	-
Milk 2 Neg - 110 µL	6	110µL - A3	-	-0,41	-
Milk 3 Neg - 90 µL	6	90µL - A23	-	-3,63	-
Milk 3 Neg - 110 µL	6	110µL - A9	-	-2,28	-

Date : 13/07/2020

Lincomycine 275 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Linco275 - 90 µL	6	90µL - A16	+	2	+
Milk 1 Linco275 - 110 µL	6	110µL - A23	+	3,98	+
Milk 2 Linco275 - 90 µL	6	90µL - A24	+	2,15	+
Milk 2 Linco275 - 110 µL	6	110µL - A27	+	2,97	+
Milk 3 Linco275 - 90 µL	6	90µL - A21	+	3,37	+
Milk 3 Linco275 - 110 µL	6	110µL - A19	+	3,7	+

2.1.2. Incubation time

2.1.2.1. Penicillins

2.1.2.1.1. Amoxicillin

Date : 20/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 3h15	6	3h15 - A3	-	-12,74	-
Milk 2 Neg - 3h15	6	3h15 - A1	-	-13,07	-
Milk 3 Neg - 3h15	6	3h15 - A5	-	-14,56	-

Date : 20/07/2020

Amoxicilline 2 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Amox2 - 3h15	6	3h15 - A2	+	5,32	+
Milk 2 Amox2 - 3h15	6	3h15 - A8	+	3,69	+
Milk 3 Amox2 - 3h15	6	3h15 - A6	+	4,19	+

2.1.2.1.2. Cloxacillin

Date : 20/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 3h15	6	3h15 - A3	-	-12,74	-
Milk 2 Neg - 3h15	6	3h15 - A1	-	-13,07	-
Milk 3 Neg - 3h15	6	3h15 - A5	-	-14,56	-

Date : 20/07/2020

Cloxacilline 30 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Cloxa10 - 3h15	6	3h15 - A7	+	6,43	+
Milk 2 Cloxa10 - 3h15	6	3h15 - A4	+	5,25	+
Milk 3 Cloxa10 - 3h15	6	3h15 - A9	+	5,15	+

2.1.2.2. Tetracyclines

2.1.2.2.1. Oxytetracycline

Date : 20/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 3h15	6	3h15 - A3	-	-12,74	-
Milk 2 Neg - 3h15	6	3h15 - A1	-	-13,07	-
Milk 3 Neg - 3h15	6	3h15 - A5	-	-14,56	-

Date : 20/07/2020

Oxytetracycline 110 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Oxytetra110 - 3h15	6	3h15 - A11	+	0,52	+
Milk 2 Oxytetra110 - 3h15	6	3h15 - A10	+	0,38	+
Milk 3 Oxytetra110 - 3h15	6	3h15 - A12	+	0,72	+

2.1.2.2.2. Chlortetracycline

Date : 19/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 3h15	4	3H15 - A1	-	-14,35	-
Milk 2 Neg - 3h15	4	3H15 - A10	-	-12,77	-
Milk 3 Neg - 3h15	4	3H15 - A8	-	-15,13	-

Date : 19/08/2020

Chlortetracycline 150 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Chlortetra150 - 3h15	4	3H15 - A5	+	1,17	+
Milk 2 Chlortetra150 - 3h15	4	3H15 - A16	+	2,64	+
Milk 3 Chlortetra150 - 3h15	4	3H15 - A20	+	3,86	+

2.1.2.3. Sulfonamides

2.1.2.3.1. Sulfadimethoxine

Date : 24/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 3h15	5	3h15 - A1	-	-16,25	-
Milk 2 Neg - 3h15	5	3h15 - A6	-	-14,37	-
Milk 3 Neg - 3h15	5	3h15 - A9	-	-14,88	-

Date : 24/08/2020

Sulfadimethoxine 40 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadimet40 - 3h15	5	3h15 - A7	+	**3,21**	+
Milk 2 Sulfadimet40 - 3h15	5	3h15 - A15	+	**2,86**	+
Milk 3 Sulfadimet40 - 3h15	5	3h15 - A10	+	**2,25**	+

2.1.2.3.2. Sulfadiazine

Date : 25/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 3h15	4	3h15 - E6	-	-14,65	-
Milk 2 Neg - 3h15	4	3h15 - E1	-	-15,17	-
Milk 3 Neg - 3h15	4	3h15 - E3	-	-15,22	-

Date : 25/08/2020

Sulfadiazine 55 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadiaz55 - 3h15	4	3h15 - A3	+	**0,95**	+
Milk 2 Sulfadiaz55 - 3h15	4	3h15 - A8	+	**0,9**	+
Milk 3 Sulfadiaz55 - 3h15	4	3h15 - A14	+	**2,29**	+

Date : 01/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 3h15	5	3h15 - D7	-	-13,15	-
Milk 2 Neg - 3h15	5	3h15 - D8	-	-13,75	-
Milk 3 Neg - 3h15	5	3h15 - D9	-	-15,72	-

Date : 01/09/2020

Sulfadiazine 60 ppb — **Validated +20%**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadiaz60 - 3h15	5	3h15-D1	+	**5,71**	+
Milk 2 Sulfadiaz60 - 3h15	5	3h15-D2	+	**5,36**	+
Milk 3 Sulfadiaz60 - 3h15	5	3h15-D3	+	**5,75**	+

2.1.2.4. Macrolides

2.1.2.4.1. Tylosin A

Date : 26/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 3h15	4	3h15 - A1	-	-11,99	-
Milk 2 Neg - 3h15	4	3h15 - A6	-	-13,02	-
Milk 3 Neg - 3h15	4	3h15 - A9	-	-15,35	-

Date : 26/08/2020

Tylosine 42 ppb — **Validated +20%**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Tylo42 - 3h15	4	3h15 - A12	+	**3,66**	+
Milk 2 Tylo42 - 3h15	4	3h15 - A14	+	**2,15**	+
Milk 3 Tylo42 - 3h15	4	3h15 - A15	+	**2,19**	+

2.1.2.4.2. Erythromycin A

Date : 25/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 3h15	4	3h15 - E6	-	-14,65	-
Milk 2 Neg - 3h15	4	3h15 - E1	-	-15,17	-
Milk 3 Neg - 3h15	4	3h15 - E3	-	-15,22	-

Date : 25/08/2020
Erythromycine 192 ppb
Validated +20%

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Erythro192 - 3h15	4	3h15 - E5	+	**1,84**	+
Milk 2 Erythro192 - 3h15	4	3h15 - E11	+	**2,04**	+
Milk 3 Erythro192 - 3h15	4	3h15 - E10	+	**2,41**	+

2.1.2.5. Aminoglycosides : dihydrostreptomycin

Date : 25/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 3h15	4	3h15 - E6	-	-14,65	-
Milk 2 Neg - 3h15	4	3h15 - E1	-	-15,17	-
Milk 3 Neg - 3h15	4	3h15 - E3	-	-15,22	-

Date : 25/08/2020
Dihydrostreptomycine 840 ppb
Validated +20%

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Dihydrostrepto840 - 3h15	4	3h15 - E14	+	**2,85**	+
Milk 2 Dihydrostrepto840 - 3h15	4	3h15 - E17	+	**3,18**	+
Milk 3 Dihydrostrepto840 - 3h15	4	3h15 - E20	+	**3,38**	+

2.1.2.6. Cephalosporins : céfalexine

Date : 26/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 3h15	4	3h15 - A1	-	-11,99	-
Milk 2 Neg - 3h15	4	3h15 - A6	-	-13,02	-
Milk 3 Neg - 3h15	4	3h15 - A9	-	-15,35	-

Date : 26/08/2020
Cefalexine 36 ppb
Validated +20%

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Cefal36 - 3h15	4	3h15 - A4	+	**4,02**	+
Milk 2 Cefal36 - 3h15	4	3h15 - A11	+	**5,08**	+
Milk 3 Cefal36 - 3h15	4	3h15 - A13	+	**4,66**	+

2.1.2.7. Lincosamides : lincomycine

Date : 26/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 3h15	4	3h15 - A1	-	-11,99	-
Milk 2 Neg - 3h15	4	3h15 - A6	-	-13,02	-
Milk 3 Neg - 3h15	4	3h15 - A9	-	-15,35	-

Date : 26/08/2020
Lincomycine 330 ppb
Validated +20%

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Linco330 - 3h15	4	3h15 - A3	+	**1,74**	+
Milk 2 Linco330 - 3h15	4	3h15 - A7	+	**0,36**	+
Milk 3 Linco330 - 3h15	4	3h15 - A10	+	**0,61**	+

2.1.3. Incubation temperature

2.1.3.1. Penicillins

2.1.3.1.1. Amoxicillin

Date : 20/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 62°C	5	62°C - A8	-	-1,98	-
Milk 1 Neg - 66°C	5	66°C - A1	-	-7,3	-
Milk 2 Neg - 62°C	5	62°C - A4	-	-2,64	-
Milk 2 Neg - 66°C	5	66°C - A4	-	-5,78	-
Milk 3 Neg - 62°C	5	62°C - A6	-	-5,35	-
Milk 3 Neg - 66°C	5	66°C - A8	-	-7,02	-

Date : 20/07/2020
Amoxicilline 2 ppb

Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Amox2 - 62°	5	62°C - A2	+	8,94	+
Milk 1 Amox2 - 66°	5	66°C - A5	+	7,82	+
Milk 2 Amox2 - 62°	5	62°C - A1	+	8,41	+
Milk 2 Amox2 - 66°	5	66°C - A9	+	6,98	+
Milk 3 Amox2 - 62°	5	62°C - A14	+	8,08	+
Milk 3 Amox2 - 66°	5	66°C - A3	+	6,74	+

2.1.3.1.2. Cloxacillin

Date : 20/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 62°C	5	62°C - A8	-	-1,98	-
Milk 1 Neg - 66°C	5	66°C - A1	-	-7,3	-
Milk 2 Neg - 62°C	5	62°C - A4	-	-2,64	-
Milk 2 Neg - 66°C	5	66°C - A4	-	-5,78	-
Milk 3 Neg - 62°C	5	62°C - A6	-	-5,35	-
Milk 3 Neg - 66°C	5	66°C - A8	-	-7,02	-

Date : 20/07/2020
Cloxacilline 10 ppb

Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Cloxa10 - 62°	5	62°C - A3	+	7,93	+
Milk 1 Cloxa10 - 66°	5	66°C - A12	+	4,96	+
Milk 2 Cloxa10 - 62°	5	62°C - A11	+	7,68	+
Milk 2 Cloxa10 - 66°	5	66°C - A15	+	4,01	+
Milk 3 Cloxa10 - 62°	5	62°C - A13	+	7,58	+
Milk 3 Cloxa10 - 66°	5	66°C - A14	+	4,29	+

2.1.3.2. Tetracyclines

2.1.3.2.1. Oxytetracycline

Date : 20/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 62°C	5	62°C - A8	-	-1,98	-
Milk 1 Neg - 66°C	5	66°C - A1	-	-7,3	-
Milk 2 Neg - 62°C	5	62°C - A4	-	-2,64	-
Milk 2 Neg - 66°C	5	66°C - A4	-	-5,78	-
Milk 3 Neg - 62°C	5	62°C - A6	-	-5,35	-
Milk 3 Neg - 66°C	5	66°C - A8	-	-7,02	-

Date : 20/07/2020

Oxytetracycline 80 ppb

Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Oxytetra80 - 62°	5	62°C - A7	+	5,72	+
Milk 1 Oxytetra80 - 66°	5	66°C - A2	+	4,07	+
Milk 2 Oxytetra80 - 62°	5	62°C - A5	+	5,19	+
Milk 2 Oxytetra80 - 66°	5	66°C - A10	+	3,34	+
Milk 3 Oxytetra80 - 62°	5	62°C - A9	+	5,2	+
Milk 3 Oxytetra80 - 66°	5	66°C - A6	+	4,84	+

2.1.3.2.2. Chlortetracycline

Date : 22/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 62°C	5	62°C - B1	-	-3,33	-
Milk 1 Neg - 66°C	5	66°C - C2	-	-7,05	-
Milk 2 Neg - 62°C	4	62°C - A1	-	-2,37	-
Milk 2 Neg - 66°C	4	66°C - A7	-	-2,82	-
Milk 3 Neg - 62°C	4	62°C - A4	-	-2,52	-
Milk 3 Neg - 66°C	4	66°C - A5	-	-3,13	-

Date : 22/07/2020

Chlortetracycline 150 ppb

Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Chlortetra150 - 62°C	5	62°C - B9	+	6,95	+
Milk 1 Chlortetra150 - 66°C	5	66°C - C7	+	5,74	+
Milk 2 Chlortetra150 - 62°	4	62°C - A6	+	7,11	+
Milk 2 Chlortetra150 - 66°	4	66°C - A2	+	6,35	+
Milk 3 Chlortetra150 - 62°	4	62°C - A8	+	6,84	+
Milk 3 Chlortetra150 - 66°	4	66°C - A8	+	4,82	+

2.1.3.3. Sulfonamides

2.1.3.3.1. Sulfadimethoxine

Date : 22/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 62°C	5	62°C - B1	-	-3,33	-
Milk 1 Neg - 66°C	5	66°C - C2	-	-7,05	-
Milk 2 Neg - 62°C	4	62°C - A1	-	-2,37	-
Milk 2 Neg - 66°C	4	66°C - A7	-	-2,82	-
Milk 3 Neg - 62°C	4	62°C - A4	-	-2,52	-
Milk 3 Neg - 66°C	4	66°C - A5	-	-3,13	-

Date : 22/07/2020

Sulfadimethoxine 40 ppb

Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadimet40 - 62°C	5	62°C - B2	+	4,86	+
Milk 1 Sulfadimet40 - 66°C	5	66°C - C1	+	3,81	+
Milk 2 Sulfadimet40 - 62°	4	62°C - A9	+	5,69	+
Milk 2 Sulfadimet40 - 66°	4	66°C - A9	+	5,05	+
Milk 3 Sulfadimet40 - 62°	4	62°C - A5	+	5,88	+
Milk 3 Sulfadimet40 - 66°	4	66°C - A1	+	5,56	+

2.1.3.3.2. Sulfadiazine

Date : 24/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 62°C	5	62°C - B1	-	-3,33	-
Milk 1 Neg - 66°C	5	66°C - C2	-	-7,05	-
Milk 2 Neg - 62°C	5	62°C - B4	-	-3,86	-
Milk 2 Neg - 66°C	5	66°C - C3	-	-7,99	-
Milk 3 Neg - 62°C	5	62°C - B6	-	-2,7	-
Milk 3 Neg - 66°C	5	66°C - C4	-	-7,28	-

Date : 24/08/2020
Sulfadiazine 50 ppb

Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadiaz50 - 62°C	5	62°C - B8	+	5,35	+
Milk 1 Sulfadiaz50 - 66°C	5	66°C - C9	+	3,77	+
Milk 2 Sulfadiaz50 - 62°C	5	62°C - B11	+	5,83	+
Milk 2 Sulfadiaz50 - 66°C	5	66°C - C5	+	2,82	+
Milk 3 Sulfadiaz50 - 62°C	5	62°C - B10	+	6,23	+
Milk 3 Sulfadiaz50 - 66°C	5	66°C - C10	+	4,04	+

2.1.3.4. Macrolides

2.1.3.4.1. Tylosin A

Date : 25/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 62°C	5	62°C - A2	-	-5,75	-
Milk 1 Neg - 66°C	4	66°C - C4	-	-7,77	-
Milk 2 Neg - 62°C	5	62°C - A6	-	-3,37	-
Milk 2 Neg - 66°C	4	66°C - C1	-	-10,76	-
Milk 3 Neg - 62°C	5	62°C - A3	-	-5,68	-
Milk 3 Neg - 66°C	4	66°C - C2	-	-10,28	-

Date : 25/08/2020
Tylosine 35 ppb and 42 ppb

Validated 66°C +2
Validated 62°C

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Tylo35 - 62°C	5	62°C - A1	+	1,35	+
Milk 1 Tylo42 - 66°C	4	66°C - C6	+	4,03	+
Milk 2 Tylo35 - 62°C	5	62°C - A5	+	2,73	+
Milk 2 Tylo42 - 66°C	4	66°C - C8	+	2,94	+
Milk 3 Tylo35 - 62°C	5	62°C - A4	+	2,89	+
Milk 3 Tylo42 - 66°C	4	66°C - C7	+	3,63	+

2.1.3.4.2. Erythromycin A

Date : 25/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 62°C	5	62°C - A2	-	-5,75	-
Milk 1 Neg - 66°C	5	66°C - B1	-	-9,08	-
Milk 2 Neg - 62°C	5	62°C - A6	-	-3,37	-
Milk 2 Neg - 66°C	5	66°C - B10	-	-8,32	-
Milk 3 Neg - 62°C	5	62°C - A3	-	-5,68	-
Milk 3 Neg - 66°C	5	66°C - B7	-	7,53	-

Date : 25/08/2020

Erythromycine A (6 éch) 200 ppb

Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Erythro200 - 62°C	5	62°CC - A7	+	5,5	+
Milk 1 Erythro200 - 66°C	5	66°CC - B4	+	1,85	+
Milk 2 Erythro200 - 62°C	5	62°CC - A9	+	5,17	+
Milk 2 Erythro200 - 66°C	5	66°CC - B9	+	2,34	+
Milk 3 Erythro200 - 62°C	5	62°CC - A11	+	5,26	+
Milk 3 Erythro200 - 66°C	5	66°CC - B11	+	3,16	+

2.1.3.5. Aminoglycosides : dihydrostreptomycin

Date : 25/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 62°C	5	62°C - A2	-	-5,75	-
Milk 1 Neg - 66°C	5	66°C - B1	-	-9,08	-
Milk 2 Neg - 62°C	5	62°C - A6	-	-3,37	-
Milk 2 Neg - 66°C	5	66°C - B10	-	-8,32	-
Milk 3 Neg - 62°C	5	62°C - A3	-	-5,68	-
Milk 3 Neg - 66°C	5	66°C - B7	-	7,53	-

Date : 25/08/2020

Dihydrostreptomycine 800 ppb

Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Dihydrostrepto800 - 62°C	5	62°CC - A14	+	1,99	+
Milk 1 Dihydrostrepto800 - 66°C	5	66°CC - B17	+	4,46	+
Milk 2 Dihydrostrepto800 - 62°C	5	62°CC - A17	+	1,96	+
Milk 2 Dihydrostrepto800 - 66°C	5	66°CC - B13	+	4,69	+
Milk 3 Dihydrostrepto800 - 62°C	5	62°CC - A19	+	2,54	+
Milk 3 Dihydrostrepto800 - 66°C	5	66°CC - B18	+	5,17	+

2.1.3.6. Cephalosporins : céfalexine

Date : 26/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 62°C	4	62°C - B1	-	-5,87	-
Milk 1 Neg - 66°C	8	66°C-E5	-	-7,25	-
Milk 2 Neg - 62°C	4	62°C - B2	-	-6,7	-
Milk 2 Neg - 66°C	8	66°C-E1	-	-7,1	-
Milk 3 Neg - 62°C	4	62°C - B3	-	-7,77	-
Milk 3 Neg - 66°C	8	66°C-E3	-	-6,39	-

Date : 26/08/2020

Cefalexine 30 ppb and 36 ppb

Validated 62°C
Validated +20% 66°C

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Cefal30 - 62°C	4	62°C - B4	+	6,88	+
Milk 1 Cefal36 - 66°C	8	66°C-E2	+	4,44	+
Milk 2 Cefal30 - 62°C	4	62°C - B8	+	7,48	+
Milk 2 Cefal36 - 66°C	8	66°C-E6	+	7,96	+
Milk 3 Cefal30 - 62°C	4	62°C - B6	+	7,76	+
Milk 3 Cefal36 - 66°C	8	66°C-E4	+	4,27	+

2.1.3.7. Lincosamides : lincomycine

Date : 12/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 62°C	5	62°C - D8	-	-0,17	-
Milk 1 Neg - 66°C	5	66°C - E1	-	-4,85	-
Milk 2 Neg - 62°C	5	62°C - D1	-	-2,21	-
Milk 2 Neg - 66°C	5	66°C - E6	-	-5	-
Milk 3 Neg - 62°C	5	62°C - D3	-	-1,03	-
Milk 3 Neg - 66°C	5	66°C - E9	-	-4,86	-

Date : 12/08/2020
Lincomycine 220 ppb

Samples	Batch	Validated Code	Visual reading	Delvoscan reading	
Milk 1 Linco220 - 62°C	5	62°C - D2	+	3,46	+
Milk 1 Linco220 - 66°C	5	66°C - E4	+	1,72	+
Milk 2 Linco220 - 62°C	5	62°C - D5	+	3,98	+
Milk 2 Linco220 - 66°C	5	66°C - E5	+	2,26	+
Milk 3 Linco220 - 62°C	5	62°C - D6	+	4,62	+
Milk 3 Linco220 - 66°C	5	66°C - E3	+	1,04	+

2.1.4. Delay of reading

2.1.4.1. Penicillins

2.1.4.1.1. Amoxicillin

Date : 20/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 4°C	5	4°C - A9	-	-9,21	-
Milk 1 Neg - TA	5	TA - A1	-	-10,56	-
Milk 2 Neg - 4°C	5	4°C - A11	-	-8,68	-
Milk 2 Neg - TA	5	TA - A4	-	-9,1	-
Milk 3 Neg - 4°C	5	4°C - A14	-	-10,6	-
Milk 3 Neg - TA	5	TA - A9	-	-10,38	-

Date : 20/07/2020
Amoxicilline 2 ppb

Samples	Batch	Validated Code	Visual reading	Delvoscan reading	
Milk 1 Amox2 - 4°C	5	4°C - A7	+	6,38	+
Milk 1 Amox2 - TA	5	TA - A2	+	8,06	+
Milk 2 Amox2 - 4°C	5	4°C - A1	+	5,13	+
Milk 2 Amox2 - TA	5	TA - A6	+	7,31	+
Milk 3 Amox2 - 4°C	5	4°C - A12	+	6,28	+
Milk 3 Amox2 - TA	5	TA - A3	+	7,04	+

2.1.4.1.2. Cloxacillin

Date : 13/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - room temperature	6	TA - C7	-	-6,13	-
Milk 1 Neg - cold	6	4°C - D1	-	-6,91	-
Milk 2 Neg - room temperature	6	TA - C21	-	-6,74	-
Milk 2 Neg - cold	6	4°C - D10	-	-6,06	-
Milk 3 Neg - room temperature	6	TA - C19	-	-5,72	-
Milk 3 Neg - cold	6	4°C - D3	-	-5,12	-

Date : 13/07/2020

Cloxacilline 12 ppb — **Validated +20%**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Cloxa12 - 4°C	5	4°C - C11	+	6,7	+
Milk 1 Cloxa12 - TA	5	TA - D11	+	7,34	+
Milk 2 Cloxa12 - 4°C	5	4°C - C12	+	6,38	+
Milk 2 Cloxa12 - TA	5	TA - D13	+	6,56	+
Milk 3 Cloxa12 - 4°C	5	4°C - C13	+	6,74	+
Milk 3 Cloxa12 - TA	5	TA - D12	+	5,96	+

2.1.4.2. Tetracyclines

2.1.4.2.1. Oxytetracycline

Date : 20/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 4°C	5	4°C - A9	-	-9,21	-
Milk 1 Neg - TA	5	TA - A1	-	-10,56	-
Milk 2 Neg - 4°C	5	4°C - A11	-	-8,68	-
Milk 2 Neg - TA	5	TA - A4	-	-9,1	-
Milk 3 Neg - 4°C	5	4°C - A14	-	-10,6	-
Milk 3 Neg - TA	5	TA - A9	-	-10,38	-

Date : 20/07/2020

Oxytetracycline 80 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Oxytetra80 - 4°C	5	4°C - A8	+	3	+
Milk 1 Oxytetra80 - TA	5	TA - A5	+	5,08	+
Milk 2 Oxytetra80 - 4°C	5	4°C - A15	+	2,2	+
Milk 2 Oxytetra80 - TA	5	TA - A10	+	2,74	+
Milk 3 Oxytetra80 - 4°C	5	4°C - A10	+	2,72	+
Milk 3 Oxytetra80 - TA	5	TA - A11	+	3,48	+

2.1.4.2.2. Chlortetracycline

Date : 22/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 4°C	5	4°C - B1	-	-7,71	-
Milk 1 Neg - TA	5	TA - C4	-	-5,22	-
Milk 2 Neg - 4°C	4	4°C - A6	-	-4,37	-
Milk 2 Neg - TA	4	TA - A7	-	-4,56	-
Milk 3 Neg - 4°C	4	4°C - A2	-	-4,8	-
Milk 3 Neg - TA	4	TA - A3	-	-4,88	-

Date : 22/07/2020

Chlortetracycline 150 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Chlortetra150 - 4°C	5	4°C - B12	+	4,68	+
Milk 1 Chlortetra150 - TA	5	TA - C13	+	5,36	+
Milk 2 Chlortetra150 - 4°C	4	4°C - A4	+	6,57	+
Milk 2 Chlortetra150 - TA	4	TA - A4	+	5,39	+
Milk 3 Chlortetra150 - 4°C	4	4°C - A7	+	6,21	+
Milk 3 Chlortetra150 - TA	4	TA - A5	+	5,91	+

2.1.4.3. Sulfonamides

2.1.4.3.1. Sulfadimethoxine

Date : 22/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 4°C	5	4°C - B1	-	-7,71	-
Milk 1 Neg - TA	5	TA - C4	-	-5,22	-
Milk 2 Neg - 4°C	4	4°C - A6	-	-4,37	-
Milk 2 Neg - TA	4	TA - A7	-	-4,56	-
Milk 3 Neg - 4°C	4	4°C - A2	-	-4,8	-
Milk 3 Neg - TA	4	TA - A3	-	-4,88	-

Date : 22/07/2020

Sulfadimethoxine 40 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadimet40 - 4°C	5	4°C - C9	+	4,95	+
Milk 1 Sulfadimet40 - TA	5	TA - D10	+	5,6	+
Milk 2 Sulfadimet40 - 4°C	4	4°C - A3	+	5,48	+
Milk 2 Sulfadimet40 - TA	4	TA - A8	+	5,18	+
Milk 3 Sulfadimet40 - 4°C	4	4°C - A5	+	5,61	+
Milk 3 Sulfadimet40 - TA	4	TA - A2	+	4,87	+

2.1.4.3.2. Sulfadiazine

Date : 15/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - room temperature	5	TA - C28	-	-5,27	-
Milk 1 Neg - cold	5	4°C - D29	-	-5,71	-
Milk 2 Neg - room temperature	5	TA - C30	-	-4,22	-
Milk 2 Neg - cold	5	4°C - D28	-	-5,58	-
Milk 3 Neg - room temperature	5	TA - C29	-	-4,98	-
Milk 3 Neg - cold	5	4°C - D30	-	-4,91	-

Date : 15/07/2020

Sulfadiazine 50 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadiaz50 - 4°C	5	4°C - C2	+	2,36	+
Milk 1 Sulfadiaz50 - TA	5	TA - D5	+	3,69	+
Milk 2 Sulfadiaz50 - 4°C	5	4°C - C7	+	3,88	+
Milk 2 Sulfadiaz50 - TA	5	TA - D3	+	5,07	+
Milk 3 Sulfadiaz50 - 4°C	5	4°C - C10	+	4,91	+
Milk 3 Sulfadiaz50 - TA	5	TA - D7	+	4,49	+

2.1.4.4. Macrolides

2.1.4.4.1. Tylosin A

Date : 26/08/2020

Tylosine 42 ppb — **Validated +20%**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Tylo42 - 4°C	4	4°C - E9	+	3,46	+
Milk 1 Tylo42 - TA	4	TA - D7	+	2,67	+
Milk 2 Tylo42 - 4°C	4	4°C - E7	+	5,09	+
Milk 2 Tylo42 - TA	4	TA - D8	+	3,07	+
Milk 3 Tylo42 - 4°C	4	4°C - E8	+	2,96	+
Milk 3 Tylo42 - TA	4	TA - D9	+	3,71	+

Date : 26/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 4°C	4	4°C - E1	-	-6,84	-
Milk 1 Neg - TA	4	TA - D1	-	-6,45	-
Milk 2 Neg - 4°C	4	4°C - E4	-	-6,81	-
Milk 2 Neg - TA	4	TA - D6	-	-7,59	-
Milk 3 Neg - 4°C	4	4°C - E6	-	-5,91	-
Milk 3 Neg - TA	4	TA - D3	-	-6,86	-

2.1.4.4.2. Erythromycin A

Date : 15/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - room temperature	5	TA - C28	-	-5,27	-
Milk 1 Neg - cold	5	4°C - D29	-	-5,71	-
Milk 2 Neg - room temperature	5	TA - C30	-	-4,22	-
Milk 2 Neg - cold	5	4°C - D28	-	-5,58	-
Milk 3 Neg - room temperature	5	TA - C29	-	-4,98	-
Milk 3 Neg - cold	5	4°C - D30	-	-4,91	-

Date : 15/07/2020
Erythromycine 200 ppb

		Validated			
Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Erythro200 - 4°C	5	4°C - B13	+	3,79	+
Milk 1 Erythro200 - TA	5	TA - C16	+	3,54	+
Milk 2 Erythro200 - 4°C	5	4°C - B15	+	4,27	+
Milk 2 Erythro200 - TA	5	TA - C18	+	4,8	+
Milk 3 Erythro200 - 4°C	5	4°C - B17	+	4,52	+
Milk 3 Erythro200 - TA	5	TA - C17	+	4,58	+

2.1.4.5. Aminoglycosides : dihydrostreptomycin

Date : 19/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 4°C	5	4°C - B1	-	-7,71	-
Milk 1 Neg - TA	5	TA - C4	-	-5,22	-
Milk 2 Neg - 4°C	5	4°C - B5	-	-5,85	-
Milk 2 Neg - TA	5	TA - C5	-	-4,87	-
Milk 3 Neg - 4°C	5	4°C - B6	-	-7,07	-
Milk 3 Neg - TA	5	TA - C6	-	-5,66	-

Date : 19/08/2020
Dihydrostreptomycine 800 ppb

		Validated			
Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Dihydrostrepto800 - 4°C	5	4°C - B2	+	1,53	+
Milk 1 Dihydrostrepto800 - TA	5	TA - C12	+	2,02	+
Milk 2 Dihydrostrepto800 - 4°C	5	4°C - B9	+	4,08	+
Milk 2 Dihydrostrepto800 - TA	5	TA - C10	+	3,81	+
Milk 3 Dihydrostrepto800 - 4°C	5	4°C - B11	+	2,67	+
Milk 3 Dihydrostrepto800 - TA	5	TA - C7	+	3,27	+

2.1.4.6. Cephalosporins : céfalexine

Date : 19/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 4°C	5	4°C - B1	-	-7,71	-
Milk 1 Neg - TA	5	TA - C4	-	-5,22	-
Milk 2 Neg - 4°C	5	4°C - B5	-	-5,85	-
Milk 2 Neg - TA	5	TA - C5	-	-4,87	-
Milk 3 Neg - 4°C	5	4°C - B6	-	-7,07	-
Milk 3 Neg - TA	5	TA - C6	-	-5,66	-

Date : 19/08/2020
Cefalexine 30 ppb

Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Cefal30 - 4°C	5	4°C - B3	+	4,78	+
Milk 1 Cefal30 - TA	5	TA - C2	+	6,43	+
Milk 2 Cefal30 - 4°C	5	4°C - B7	+	6,68	+
Milk 2 Cefal30 - TA	5	TA - C3	+	6,48	+
Milk 3 Cefal30 - 4°C	5	4°C - B8	+	5,69	+
Milk 3 Cefal30 - TA	5	TA - C1	+	5,38	+

2.1.4.7. Lincosamides : lincomycine

Date : 26/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - 4°C	4	4°C - E1	-	-6,84	-
Milk 1 Neg - TA	4	**TA - D1**	-	-6,45	-
Milk 2 Neg - 4°C	4	4°C - E4	-	-6,81	-
Milk 2 Neg - TA	4	**TA - D6**	-	-7,59	-
Milk 3 Neg - 4°C	4	4°C - E6	-	-5,91	-
Milk 3 Neg - TA	4	**TA - D3**	-	-6,86	-

Date : 26/08/2020
Lincomycine 264 ppb

Validated +20%

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Linco264 - 4°C	4	4°C - E2	+	**3,53**	+
Milk 1 Linco264 - TA	4	**TA - D2**	+	**2,05**	+
Milk 2 Linco264 - 4°C	4	4°C - E5	+	**1,98**	+
Milk 2 Linco264 - TA	4	**TA - D5**	+	**1,04**	+
Milk 3 Linco264 - 4°C	4	4°C - E3	+	**2,31**	+
Milk 3 Linco264 - TA	4	**TA - D4**	+	**0,77**	+

2.2. Matrix quality

2.2.1. pH

2.2.1.1. Penicillins

2.2.1.1.1. Amoxicillin

Date : 02/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - weak pH	5	pH faible - A1	-	-11,14	-
Milk 1 Neg - high pH	5	pH fort - B7	-	-4,58	-
Milk 2 Neg - weak pH	5	pH faible - A13	-	-8,55	-
Milk 2 Neg - high pH	5	pH fort - B8	-	-4,2	-
Milk 3 Neg - weak pH	5	pH faible - A15	-	-9,04	-
Milk 3 Neg - high pH	5	pH fort - B27	-	-3,25	-

Date : 02/09/2020
Amoxicilline 2 ppb

Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Amox2 - weak pH	5	pH faible - A5	+	3,66	+
Milk 1 Amox2 - high pH	5	pH fort - B4	+	11,4	+
Milk 2 Amox2 - weak pH	5	pH faible - A12	+	2,47	+
Milk 2 Amox2 - high pH	5	pH fort - B25	+	11,85	+
Milk 3 Amox2 - weak pH	5	pH faible - A14	+	2,35	+
Milk 3 Amox2 - high pH	5	pH fort - B26	+	12,21	+

2.2.1.1.2. Cloxacillin

Date : 02/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - weak pH	5	pH faible - A1	-	-11,14	-
Milk 1 Neg - high pH	5	pH fort - B7	-	-4,58	-
Milk 2 Neg - weak pH	5	pH faible - A13	-	-8,55	-
Milk 2 Neg - high pH	5	pH fort - B8	-	-4,2	-
Milk 3 Neg - weak pH	5	pH faible - A15	-	-9,04	-
Milk 3 Neg - high pH	5	pH fort - B27	-	-3,25	-

Date : 02/09/2020
Cloxacilline 10 ppb

Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Cloxa10 - weak pH	5	pH faible - A7	+	1,97	+
Milk 1 Cloxa10 - high pH	5	pH fort - B23	+	11,4	+
Milk 2 Cloxa10 - weak pH	5	pH faible - A4	+	1,95	+
Milk 2 Cloxa10 - high pH	5	pH fort - B3	+	10,96	+
Milk 3 Cloxa10 - weak pH	5	pH faible - A9	+	1,59	+
Milk 3 Cloxa10 - high pH	5	pH fort - B21	+	3,46	+

2.2.1.2. Tetracyclines

2.2.1.2.1. Oxytetracycline

Date : 02/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - weak pH	8	pH-D5	-	-9,14	-
Milk 1 Neg - high pH	5	pH fort - B7	-	-4,58	-
Milk 2 Neg - weak pH	8	pH-D9	-	-7,85	-
Milk 2 Neg - high pH	5	pH fort - B8	-	-4,2	-
Milk 3 Neg - weak pH	8	pH-D1	-	-8,28	-
Milk 3 Neg - high pH	5	pH fort - B27	-	-3,25	-

Date : 02/09/2020
)xytetracycline 80 ppb and 96 ppb

Validated high pH and weak pH +20%

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Oxytera96 - weak pH	8	pH-D11	+	1,96	+
Milk 1 Oxytetra80 - high pH	5	pH fort - B1	+	4,58	+
Milk 2 Oxytera96 - weak pH	8	pH-D14	+	2,5	+
Milk 2 Oxytetra80 - high pH	5	pH fort - B13	+	5,47	+
Milk 3 Oxytera96 - weak pH	8	pH-D10	+	3,44	+
Milk 3 Oxytetra80 - high pH	5	pH fort - B5	+	5,68	+

2.2.1.2.2. Chlortetracycline

Date : 02/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - weak pH	5	pH faible - A1	-	-11,14	-
Milk 1 Neg - high pH	5	pH fort - B7	-	-4,58	-
Milk 2 Neg - weak pH	5	pH faible - A13	-	-8,55	-
Milk 2 Neg - high pH	5	pH fort - B8	-	-4,2	-
Milk 3 Neg - weak pH	5	pH faible - A15	-	-9,04	-
Milk 3 Neg - high pH	5	pH fort - B27	-	-3,25	-

Date : 02/09/2020

Chlortetracycline 150 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Chlortetra150 - weak pH	5	pH faible - A16	+	2,99	+
Milk 1 Chlortetra150 - high pH	5	pH fort - B18	+	8,3	+
Milk 2 Chlortetra150 - weak pH	5	pH faible - A23	+	3,37	+
Milk 2 Chlortetra150 - high pH	5	pH fort - B6	+	6,51	+
Milk 3 Chlortetra150 - weak pH	5	pH faible - A21	+	3,46	+
Milk 3 Chlortetra150 - high pH	5	pH fort - B20	+	8,11	+

2.2.1.3. Sulfonamides

2.2.1.3.1. Sulfadimethoxine

Date : 02/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - weak pH	8	pH-D5	-	-9,14	-
Milk 1 Neg - high pH	5	pH fort - B7	-	-4,58	-
Milk 2 Neg - weak pH	8	pH-D9	-	-7,85	-
Milk 2 Neg - high pH	5	pH fort - B8	-	-4,2	-
Milk 3 Neg - weak pH	8	pH-D1	-	-8,28	-
Milk 3 Neg - high pH	5	pH fort - B27	-	-3,25	-

Date : 02/09/2020

ılfadimethoxine 40 ppb and 48ppb — **Validated high pH and +20% weak pH**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadimet48 - weak pH	8	pH-D15	+	0,19	+
Milk 1 Sulfadimet40 - high pH	5	pH fort - B10	+	9,26	+
Milk 2 Sulfadimet48 - weak pH	8	pH-D2	+	1,3	+
Milk 2 Sulfadimet40 - high pH	5	pH fort - B16	+	10,23	+
Milk 3 Sulfadimet48 - weak pH	8	pH-D12	+	2,86	+
Milk 3 Sulfadimet40 - high pH	5	pH fort - B9	+	8,97	+

2.2.1.3.2. Sulfadiazine

Date : 01/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - weak pH	8	pH-D5	-	-9,14	-
Milk 1 Neg - high pH	8	pH fort - B2	-	-7,47	-
Milk 2 Neg - weak pH	8	pH-D9	-	-7,85	-
Milk 2 Neg - high pH	8	pH fort - B13	-	-5,43	-
Milk 3 Neg - weak pH	8	pH-D1	-	-8,28	-
Milk 3 Neg - high pH	8	pH fort - B18	-	-3,35	-

Date : 01/09/2020

Sulfadiazine 50 ppb — **Validated high pH and +20% weak pH**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadiaz60 - weak pH	8	pH-D21	+	1,21	+
Milk 1 Sulfadiaz50 - high pH	8	pH fort - B5	+	9,08	+
Milk 2 Sulfadiaz60 - weak pH	8	pH-D7	+	0,09	+
Milk 2 Sulfadiaz50 - high pH	8	pH fort - B4	+	7,26	+
Milk 3 Sulfadiaz60 - weak pH	8	pH-D20	+	1,28	+
Milk 3 Sulfadiaz50 - high pH	8	pH fort - B6	+	9,33	+

2.2.1.4. Macrolides

2.2.1.4.1. Tylosin A

Date : 01/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - weak pH	4	pH-D1	-	-11,16	-
Milk 1 Neg - high pH	8	pH fort - B2	-	-7,47	-
Milk 2 Neg - weak pH	4	pH-D8	-	-9,18	-
Milk 2 Neg - high pH	8	pH fort - B13	-	-5,43	-
Milk 3 Neg - weak pH	4	pH-D2	-	-10,67	-
Milk 3 Neg - high pH	8	pH fort - B18	-	-3,35	-

Date : 01/09/2020 — **Not Validated weak pH** / **Validated high pH**

Tylosine 35 ppb and 42ppb

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Tylo42 - weak pH	4	pH-D11	-	-5,38	-
Milk 1 Tylo35 - high pH	8	pH fort - B8	+	8,99	+
Milk 2 Tylo42 - weak pH	4	pH-D5	-	-5,47	-
Milk 2 Tylo35 - high pH	8	pH fort - B10	+	9,13	+
Milk 3 Tylo42 - weak pH	4	pH-D9	-	-4,33	-
Milk 3 Tylo35 - high pH	8	pH fort - B9	+	9,84	+

2.2.1.4.2. Erythromycin A

Date : 01/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - weak pH	4	pH-D1	-	-11,16	-
Milk 1 Neg - high pH	8	pH fort - B2	-	-7,47	-
Milk 2 Neg - weak pH	4	pH-D8	-	-9,18	-
Milk 2 Neg - high pH	8	pH fort - B13	-	-5,43	-
Milk 3 Neg - weak pH	4	pH-D2	-	-10,67	-
Milk 3 Neg - high pH	8	pH fort - B18	-	-3,35	-

Date : 01/09/2020 — **Not Validated weak pH** / **Validated high pH**

Erythromycine 200 ppb and 240 ppb

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Erythro240 - pH weak	4	pH-D6	-	-4,77	-
Milk 1 Erythro200 - pH high	8	pH fort - B15	+	9,06	+
Milk 2 Erythro240 - pH weak	4	pH-D15	-	-3,13	-
Milk 2 Erythro200 - pH high	8	pH fort - B22	+	11,03	+
Milk 3 Erythro240 - pH weak	4	pH-D3	-	-4,21	-
Milk 3 Erythro200 - pH high	8	pH fort - B17	+	10,59	+

2.2.1.5. Aminoglycosides : dihydrostreptomycin

Date : 01/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - weak pH	4	pH-D1	-	-11,16	-
Milk 1 Neg - high pH	8	pH fort - B2	-	-7,47	-
Milk 2 Neg - weak pH	4	pH-D8	-	-9,18	-
Milk 2 Neg - high pH	8	pH fort - B13	-	-5,43	-
Milk 3 Neg - weak pH	4	pH-D2	-	-10,67	-
Milk 3 Neg - high pH	8	pH fort - B18	-	-3,35	-

Date : 01/09/2020
Dihydrostreptomycine 800 ppb and 960 ppb

Not Validated weak pH
Validated high pH

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Dihydrostrepto960 - weak pH	4	pH-D16	-	-5,65	-
Milk 1 Dihydrostrepto800 - high pH	8	pH fort - B19	+	10,52	+
Milk 2 Dihydrostrepto960 - weak pH	4	pH-D10	-	-4,46	-
Milk 2 Dihydrostrepto800 - high pH	8	pH fort - B16	+	10,1	+
Milk 3 Dihydrostrepto960 - weak pH	4	pH-D17	-	-3,35	-
Milk 3 Dihydrostrepto800 - high pH	8	pH fort - B23	+	10,84	+

2.2.1.6. Cephalosporins : cefalexine

Date : 01/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - weak pH	8	pH faible - A1	-	-11,04	-
Milk 1 Neg - high pH	8	pH fort - B2	-	-7,47	-
Milk 2 Neg - weak pH	8	pH faible - A5	-	-9,23	-
Milk 2 Neg - high pH	8	pH fort - B13	-	-5,43	-
Milk 3 Neg - weak pH	8	pH faible - A2	-	-10,68	-
Milk 3 Neg - high pH	8	pH fort - B18	-	-3,35	-

Date : 01/09/2020
Cefalexine 30 ppb

Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Cefal30 - weak pH	8	pH faible - A25	+	2	+
Milk 1 Cefal30 - high pH	8	pH fort - B26	+	7,86	+
Milk 2 Cefal30 - weak pH	8	pH faible - A26	+	3,32	+
Milk 2 Cefal30 - high pH	8	pH fort - B25	+	8,12	+
Milk 3 Cefal30 - weak pH	8	pH faible - A27	+	3,47	+
Milk 3 Cefal30 - high pH	8	pH fort - B27	+	8,95	+

2.2.1.7. Lincosamides : lincomycine

Date : 02/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - weak pH	8	pH-D5	-	-9,14	-
Milk 1 Neg - high pH	5	pH fort - B7	-	-4,58	-
Milk 2 Neg - weak pH	8	pH-D9	-	-7,85	-
Milk 2 Neg - high pH	5	pH fort - B8	-	-4,2	-
Milk 3 Neg - weak pH	8	pH-D1	-	-8,28	-
Milk 3 Neg - high pH	5	pH fort - B27	-	-3,25	-

Date : 02/09/2020
Lincomycine 220 ppb

Not Validated weak pH
Validated high pH

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Linco264 - weak pH	8	pH-D7	-	-6,41	-
Milk 1 Linco220 - high pH	5	pH fort - B11	+	6,98	+
Milk 2 Linco264 - weak pH	8	pH-D4	-	-3,49	-
Milk 2 Linco220 - high pH	5	pH fort - B19	+	8,62	+
Milk 3 Linco264 - weak pH	8	pH-D8	-	-4,91	-
Milk 3 Linco220 - high pH	5	pH fort - B15	+	8,77	+

2.2.2. Total Bacteria Count

2.2.2.1. Penicillins

2.2.2.1.1. Amoxicillin

Date : 02/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - high TBC	5	Mat - C10	-	-6,99	-
Milk 2 Neg - high TBC	5	Mat - C1	-	-7,98	-
Milk 3 Neg - high TBC	5	Mat - C3	-	-6,77	-

Date : 02/09/2020
Amoxicilline 2 ppb

Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Amox2 - high TBC	5	Mat - C2	+	8,13	+
Milk 2 Amox2 - high TBC	5	Mat - C8	+	9,77	+
Milk 3 Amox2 - high TBC	5	Mat - C7	+	10,43	+

2.2.2.1.2. Cloxacillin

Date : 02/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - high TBC	5	Mat - C10	-	-6,99	-
Milk 2 Neg - high TBC	5	Mat - C1	-	-7,98	-
Milk 3 Neg - high TBC	5	Mat - C3	-	-6,77	-

Date : 02/09/2020
Cloxacilline 30 ppb

Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Cloxa10 - high TBC	5	Mat - C14	+	8,34	+
Milk 2 Cloxa10 - high TBC	5	Mat - C6	+	10,02	+
Milk 3 Cloxa10 - high TBC	5	Mat - C12	+	7,91	+

2.2.2.2. Tetracyclines

2.2.2.2.1. Oxytetracycline

Date : 02/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - high TBC	5	Mat - C10	-	-6,99	-
Milk 2 Neg - high TBC	5	Mat - C1	-	-7,98	-
Milk 3 Neg - high TBC	5	Mat - C3	-	-6,77	-

Date : 02/09/2020
Oxytetracycline 80 ppb

Validated

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Oxytetra80 - high TBC	5	Mat - C4	+	3,57	+
Milk 2 Oxytetra80 - high TBC	5	Mat - C13	+	5,09	+
Milk 3 Oxytetra80 - high TBC	5	Mat - C9	+	2,34	+

2.2.2.2.2. Chlortetracycline

Date : 02/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - high TBC	5	Mat - C10	-	-6,99	-
Milk 2 Neg - high TBC	5	Mat - C1	-	-7,98	-
Milk 3 Neg - high TBC	5	Mat - C3	-	-6,77	-

Date : 02/09/2020

Chlortetracycline 150 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Chlortetra150 - high TBC	**5**	Mat - C20	+	**5,74**	+
Milk 2 Chlortetra150 - high TBC	**5**	Mat - C5	+	**7,06**	+
Milk 3 Chlortetra150 - high TBC	**5**	Mat - C24	+	**5,61**	+

2.2.2.3. Sulfonamides

2.2.2.3.1. Sulfadimethoxine

Date : 02/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - high TBC	5	Mat - C10	-	-6,99	-
Milk 2 Neg - high TBC	5	Mat - C1	-	-7,98	-
Milk 3 Neg - high TBC	5	Mat - C3	-	-6,77	-

Date : 02/09/2020

Sulfadimethoxine 40 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadimet40 - high TBC	**5**	Mat - C25	+	**3,92**	+
Milk 2 Sulfadimet40 - high TBC	**5**	Mat - C18	+	**5,32**	+
Milk 3 Sulfadimet40 - high TBC	**5**	Mat - C22	+	**3,13**	+

2.2.2.3.2. Sulfadiazine

Date : 01/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - high TBC	8	Mat - C14	-	-7,86	-
Milk 2 Neg - high TBC	8	Mat - C1	-	-8,72	-
Milk 3 Neg - high TBC	8	Mat - C11	-	-7,11	-

Date : 01/09/2020

Sulfadiazine 50 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadiaz50 - high TBC	8	Mat - C4	**+**	**4,51**	+
Milk 2 Sulfadiaz50 - high TBC	8	Mat - C8	**+**	**4,79**	+
Milk 3 Sulfadiaz50 - high TBC	8	Mat - C3	**+**	**3,83**	+

2.2.2.4. Macrolides

2.2.2.4.1. Tylosin A

Date : 01/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - high TBC	8	Mat - C14	-	-7,86	-
Milk 2 Neg - high TBC	8	Mat - C1	-	-8,72	-
Milk 3 Neg - high TBC	8	Mat - C11	-	-7,11	-

Date : 01/09/2020

Tylosine 35 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Tylo35 - high TBC	8	Mat - C12	+	4,49	+
Milk 2 Tylo35 - high TBC	8	Mat - C13	+	2,41	+
Milk 3 Tylo35 - high TBC	8	Mat - C7	+	4,71	+

2.2.2.4.2. Erythromycin A

Date : 01/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - high TBC	8	Mat - C14	-	-7,86	-
Milk 2 Neg - high TBC	8	Mat - C1	-	-8,72	-
Milk 3 Neg - high TBC	8	Mat - C11	-	-7,11	-

Date : 01/09/2020

Erythromycine A (3 éch) 200 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Erythro200 - high TBC	8	Mat - C19	+	6,59	+
Milk 2 Erythro200 - high TBC	8	Mat - C9	+	5,58	+
Milk 3 Erythro200 - high TBC	8	Mat - C16	+	5,79	+

2.2.2.5. Aminoglycosides : dihydrostreptomycin

Date : 01/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - high TBC	8	Mat - C14	-	-7,86	-
Milk 2 Neg - high TBC	8	Mat - C1	-	-8,72	-
Milk 3 Neg - high TBC	8	Mat - C11	-	-7,11	-

Date : 01/09/2020

Dihydrostreptomycine 800 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Dihydrostrepto800 - high TBC	8	Mat - C21	+	6,77	+
Milk 2 Dihydrostrepto800 - high TBC	8	Mat - C20	+	6,25	+
Milk 3 Dihydrostrepto800 - high TBC	8	Mat - C22	+	7,42	+

2.2.2.6. Cephalosporins : céfalexine

Date : 01/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - high TBC	8	Mat - C14	-	-7,86	-
Milk 2 Neg - high TBC	8	Mat - C1	-	-8,72	-
Milk 3 Neg - high TBC	8	Mat - C11	-	-7,11	-

Date : 01/09/2020

Cefalexine 30 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Cefal30 - high TBC	8	Mat - C25	+	6,4	+
Milk 2 Cefal30 - high TBC	8	Mat - C27	+	6,81	+
Milk 3 Cefal30 - high TBC	8	Mat - C24	+	5,47	+

2.2.2.7. Lincosamides : lincomycine

Date : 02/09/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - high TBC	5	Mat - C10	-	-6,99	-
Milk 2 Neg - high TBC	5	Mat - C1	-	-7,98	-
Milk 3 Neg - high TBC	5	Mat - C3	-	-6,77	-

Date : 02/09/2020

Lincomycine 220 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Linco220 - high TBC	**5**	Mat - C16	+	**1,56**	+
Milk 2 Linco220 - high TBC	**5**	Mat - C21	+	**0,47**	+
Milk 3 Linco220 - high TBC	**5**	Mat - C23	+	**1,16**	+

2.2.3. Frozen milk

2.2.3.1. Penicillins

2.2.3.1.1. Amoxicillin

Date : 07/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - frozen	4	1-A4	-	-4,71	-
Milk 2 Neg - frozen	4	2-B2	-	-5,26	-
Milk 3 Neg - frozen	4	3-C8	-	-8,02	-

Date : 07/08/2020

Amoxicilline 2 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Amox2 - frozen	4	1-A1	+	7,48	+
Milk 2 Amox2 - frozen	4	2-B4	+	7,83	+
Milk 3 Amox2 - frozen	4	3-C9	+	7,81	+

2.2.3.1.2. Cloxacillin

Date : 14/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - frozen	4	1-D3	-	-5,91	-
Milk 2 Neg - frozen	4	2-E5	-	-6,54	-
Milk 3 Neg - frozen	4	3-F2	-	-7,17	-

Date : 14/08/2020

Cloxacilline 10 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Cloxa10 - frozen	4	1-D2	+	5,86	+
Milk 2 Cloxa10 - frozen	4	2-E9	+	6,52	+
Milk 3 Cloxa10 - frozen	4	3-F9	+	5,77	+

2.2.3.2. Tetracyclines

2.2.3.2.1. Oxytetracycline

Date : 07/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - frozen	4	1-A4	-	-4,71	-
Milk 2 Neg - frozen	4	2-B2	-	-5,26	-
Milk 3 Neg - frozen	4	3-C8	-	-8,02	-

Date : 07/08/2020

Oxytetracycline 80 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Oxytetra80 - frozen	4	1-A2	+	4,35	+
Milk 2 Oxytetra80 - frozen	4	2-B1	+	2,41	+
Milk 3 Oxytetra80 - frozen	4	3-C5	+	4,14	+

2.2.3.2.2. Chlortetracycline

Date : 14/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - frozen	4	1-D3	-	-5,91	-
Milk 2 Neg - frozen	4	2-E5	-	-6,54	-
Milk 3 Neg - frozen	4	3-F2	-	-7,17	-

Date : 14/08/2020

Chlortetracycline 150 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Chlortetra150 - frozen	4	1-D9	+	5,92	+
Milk 2 Chlortetra150 - frozen	4	2-E8	+	5,46	+
Milk 3 Chlortetra150 - frozen	4	3-F8	+	5,82	+

2.2.3.3. Sulfonamides

2.2.3.3.1. Sulfadimethoxine

Date : 07/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - frozen	4	1-A4	-	-4,71	-
Milk 2 Neg - frozen	4	2-B2	-	-5,26	-
Milk 3 Neg - frozen	4	3-C8	-	-8,02	-

Date : 07/08/2020

Sulfadimethoxine 40 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadimet40 - frozen	4	1-A3	+	5,4	+
Milk 2 Sulfadimet40 - frozen	4	2-B5	+	5,5	+
Milk 3 Sulfadimet40 - frozen	4	3-C3	+	5,3	+

2.2.3.3.2. Sulfadiazine

Date : 14/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - frozen	4	1-D3	-	-5,91	-
Milk 2 Neg - frozen	4	2-E5	-	-6,54	-
Milk 3 Neg - frozen	4	3-F2	-	-7,17	-

Date : 14/08/2020

Sulfadiazine 50 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadiaz50 - frozen	4	1-D5	+	4,62	+
Milk 2 Sulfadiaz50 - frozen	4	2-E3	+	4,5	+
Milk 3 Sulfadiaz50 - frozen	4	3-F4	+	4,29	+

2.2.3.4. Macrolides

2.2.3.4.1. Tylosin A

Date : 07/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - frozen	4	1-A4	-	-4,71	-
Milk 2 Neg - frozen	4	2-B2	-	-5,26	-
Milk 3 Neg - frozen	4	3-C8	-	-8,02	-

Date : 07/08/2020

Tylosine 35 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Tylo35 - frozen	4	1-A9	+	3,31	+
Milk 2 Tylo35 - frozen	4	2-B7	+	1,84	+
Milk 3 Tylo35 - frozen	4	3-C1	+	2,71	+

2.2.3.4.2. Erythromycin A

Date : 14/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - frozen	4	1-D3	-	-5,91	-
Milk 2 Neg - frozen	4	2-E5	-	-6,54	-
Milk 3 Neg - frozen	4	3-F2	-	-7,17	-

Date : 14/08/2020

Erythromycine A (3 éch) 200 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Erythro200 - frozen	4	1-D1	+	4,37	+
Milk 2 Erythro200 - frozen	4	2-E4	+	3,34	+
Milk 3 Erythro200 - frozen	4	3-F7	+	4,59	+

2.2.3.5. Aminoglycosides : dihydrostreptomycin

Date : 07/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - frozen	4	1-A4	-	-4,71	-
Milk 2 Neg - frozen	4	2-B2	-	-5,26	-
Milk 3 Neg - frozen	4	3-C8	-	-8,02	-

Date : 07/08/2020

Dihydrostreptomycine 800 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Dihydrostrepto800 - frozen	4	1-A6	+	5,08	+
Milk 2 Dihydrostrepto800 - frozen	4	2-B8	+	4,71	+
Milk 3 Dihydrostrepto800 - frozen	4	3-C4	+	4,89	+

2.2.3.6. Cephalosporins : cefalexine

Date : 07/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - frozen	4	1-A4	-	-4,71	-
Milk 2 Neg - frozen	4	2-B2	-	-5,26	-
Milk 3 Neg - frozen	4	3-C8	-	-8,02	-

Date : 07/08/2020

Cefalexine 30 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Cefal30 - frozen	4	1-A7	+	6,42	+
Milk 2 Cefal30 - frozen	4	2-B3	+	5,35	+
Milk 3 Cefal30 - frozen	4	3-C2	+	5,53	+

2.2.3.7. Lincosamides : lincomycine

Date : 14/08/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - frozen	4	1-D3	-	-5,91	-
Milk 2 Neg - frozen	4	2-E5	-	-6,54	-
Milk 3 Neg - frozen	4	3-F2	-	-7,17	-

Date : 14/08/2020

Lincomycine 220 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Linco220 - frozen	4	1-D7	+	2,05	+
Milk 2 Linco220 - frozen	4	2-E1	+	0,49	+
Milk 3 Linco220 - frozen	4	3-F6	+	1,74	+

2.2.4. Milk temperature

2.2.4.1. Penicillins

2.2.4.1.1. Amoxicillin

Date : 13/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - room temperature	6	TA - C7	-	-6,13	-
Milk 1 Neg - cold	6	**4°C - D1**	-	-6,91	-
Milk 2 Neg - room temperature	6	TA - C21	-	-6,74	-
Milk 2 Neg - cold	6	**4°C - D10**	-	-6,06	-
Milk 3 Neg - room temperature	6	TA - C19	-	-5,72	-
Milk 3 Neg - cold	6	**4°C - D3**	-	-5,12	-

Date : 13/07/2020

Amoxicilline 2 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Amox2 - room temperature	6	TA - C1	+	**8,73**	+
Milk 1 Amox2 - cold	6	**4°C - D6**	+	**9,55**	+
Milk 2 Amox2 - room temperature	6	TA - C8	+	**8,29**	+
Milk 2 Amox2 - cold	6	**4°C - D4**	+	**8**	+
Milk 3 Amox2 - room temperature	6	TA - C13	+	**9,15**	+
Milk 3 Amox2 - cold	6	**4°C - D7**	+	**8,63**	+

2.2.4.1.2. Cloxacillin

Date : 13/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - room temperature	6	TA - C7	-	-6,13	-
Milk 1 Neg - cold	6	**4°C - D1**	-	-6,91	-
Milk 2 Neg - room temperature	6	TA - C21	-	-6,74	-
Milk 2 Neg - cold	6	**4°C - D10**	-	-6,06	-
Milk 3 Neg - room temperature	6	TA - C19	-	-5,72	-
Milk 3 Neg - cold	6	**4°C - D3**	-	-5,12	-

Date : 13/07/2020
Cloxacilline 10 ppb

Samples	Batch	Validated Code	Visual reading	Delvoscan reading	
Milk 1 Cloxa10 - room temperature	6	TA - C12	+	7,33	+
Milk 1 Cloxa10 - cold	6	4°C - D16	+	8,49	+
Milk 2 Cloxa10 - room temperature	6	TA - C5	+	6,69	+
Milk 2 Cloxa10 - cold	6	4°C - D2	+	5,96	+
Milk 3 Cloxa10 - room temperature	6	TA - C3	+	7,24	+
Milk 3 Cloxa10 - cold	6	4°C - D9	+	7,25	+

2.2.4.2. Tetracyclines

2.2.4.2.1. Oxytetracycline

Date : 13/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - room temperature	6	TA - C7	-	-6,13	-
Milk 1 Neg - cold	6	4°C - D1	-	-6,91	-
Milk 2 Neg - room temperature	6	TA - C21	-	-6,74	-
Milk 2 Neg - cold	6	4°C - D10	-	-6,06	-
Milk 3 Neg - room temperature	6	TA - C19	-	-5,72	-
Milk 3 Neg - cold	6	4°C - D3	-	-5,12	-

Date : 13/07/2020
Oxytetracycline 80 ppb

Samples	Batch	Validated Code	Visual reading	Delvoscan reading	
Milk 1 Oxytetra80 - room temperature	6	TA - C17	+	4,73	+
Milk 1 Oxytetra80 - cold	6	4°C - D8	+	5,29	+
Milk 2 Oxytetra80 - room temperature	6	TA - C14	+	4,51	+
Milk 2 Oxytetra80 - cold	6	4°C - D18	+	5,6	+
Milk 3 Oxytetra80 - room temperature	6	TA - C16	+	5,05	+
Milk 3 Oxytetra80 - cold	6	4°C - D14	+	3,97	+

2.2.4.2.2. Chlortetracycline

Date : 15/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - room temperature	6	TA - C28	-	-5,27	-
Milk 1 Neg - cold	6	4°C - D29	-	-5,71	-
Milk 2 Neg - room temperature	6	TA - C30	-	-4,22	-
Milk 2 Neg - cold	6	4°C - D28	-	-5,58	-
Milk 3 Neg - room temperature	6	TA - C29	-	-4,98	-
Milk 3 Neg - cold	6	4°C - D30	-	-4,91	-

Date : 15/07/2020
Chlortetracycline 150 ppb

Samples	Batch	Validated Code	Visual reading	Delvoscan reading	
Milk 1 Chlortetra150 - room temperature	6	TA - C27	+	5,78	+
Milk 1 Chlortetra150 - cold	6	4°C - D27	+	5,46	+
Milk 2 Chlortetra150 - room temperature	6	TA - C24	+	6,41	+
Milk 2 Chlortetra150 - cold	6	4°C - D26	+	5,35	+
Milk 3 Chlortetra150 - room temperature	6	TA - C26	+	6,67	+
Milk 3 Chlortetra150 - cold	6	4°C - D21	+	5,8	+

2.2.4.3. Sulfonamides

2.2.4.3.1. Sulfadimethoxine

Date : 13/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - room temperature	6	TA - C7	-	-6,13	-
Milk 1 Neg - cold	6	**4°C - D1**	-	-6,91	-
Milk 2 Neg - room temperature	6	TA - C21	-	-6,74	-
Milk 2 Neg - cold	6	**4°C - D10**	-	-6,06	-
Milk 3 Neg - room temperature	6	TA - C19	-	-5,72	-
Milk 3 Neg - cold	6	**4°C - D3**	-	-5,12	-

Date : 13/07/2020

Sulfadimethoxine 40 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadimet40 - room temperature	6	TA - C2	+	**6,78**	+
Milk 1 Sulfadimet40 - cold	6	**4°C - D12**	+	**6,25**	+
Milk 2 Sulfadimet40 - room temperature	6	TA - C4	+	**6,39**	+
Milk 2 Sulfadimet40 - cold	6	**4°C - D17**	+	**7,29**	+
Milk 3 Sulfadimet40 - room temperature	6	TA - C9	+	**6,53**	+
Milk 3 Sulfadimet40 - cold	6	**4°C - D22**	+	**6,52**	+

2.2.4.3.2. Sulfadiazine

Date : 15/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - room temperature	6	TA - C28	-	-5,27	-
Milk 1 Neg - cold	6	**4°C - D29**	-	-5,71	-
Milk 2 Neg - room temperature	6	TA - C30	-	-4,22	-
Milk 2 Neg - cold	6	**4°C - D28**	-	-5,58	-
Milk 3 Neg - room temperature	6	TA - C29	-	-4,98	-
Milk 3 Neg - cold	6	**4°C - D30**	-	-4,91	-

Date : 15/07/2020

Sulfadiazine 50 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Sulfadiaz50 - room temperature	6	TA - C3	+	**3,79**	+
Milk 1 Sulfadiaz50 - cold	6	**4°C - D1**	+	**4,44**	+
Milk 2 Sulfadiaz50 - room temperature	6	TA - C1	+	**4,51**	+
Milk 2 Sulfadiaz50 - cold	6	**4°C - D4**	+	**4,26**	+
Milk 3 Sulfadiaz50 - room temperature	6	TA - C14	+	**4,7**	+
Milk 3 Sulfadiaz50 - cold	6	**4°C - D8**	+	**5,42**	+

2.2.4.4. Macrolides

2.2.4.4.1. Tylosin A

Date : 15/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - room temperature	6	TA - C28	-	-5,27	-
Milk 1 Neg - cold	6	**4°C - D29**	-	-5,71	-
Milk 2 Neg - room temperature	6	TA - C30	-	-4,22	-
Milk 2 Neg - cold	6	**4°C - D28**	-	-5,58	-
Milk 3 Neg - room temperature	6	TA - C29	-	-4,98	-
Milk 3 Neg - cold	6	**4°C - D30**	-	-4,91	-

Date : 15/07/2020

Tylosine 35 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Tylo35 - room temperature	6	TA - C13	+	2	+
Milk 1 Tylo35 - cold	6	4°C - D5	+	2,7	+
Milk 2 Tylo35 - room temperature	6	TA - C12	+	2,85	+
Milk 2 Tylo35 - cold	6	4°C - D14	+	1,82	+
Milk 3 Tylo35 - room temperature	6	TA - C4	+	2,74	+
Milk 3 Tylo35 - cold	6	4°C - D11	+	2,98	+

2.2.4.4.2. Erythromycin A

Date : 15/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - room temperature	6	TA - C28	-	-5,27	-
Milk 1 Neg - cold	6	4°C - D29	-	-5,71	-
Milk 2 Neg - room temperature	6	TA - C30	-	-4,22	-
Milk 2 Neg - cold	6	4°C - D28	-	-5,58	-
Milk 3 Neg - room temperature	6	TA - C29	-	-4,98	-
Milk 3 Neg - cold	6	4°C - D30	-	-4,91	-

Date : 15/07/2020

Erythromycine 200 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Erythro200 - room temperature	6	TA - C5	+	4,85	+
Milk 1 Erythro200 - cold	6	4°C - D7	+	5,32	+
Milk 2 Erythro200 - room temperature	6	TA - C7	+	5	+
Milk 2 Erythro200 - cold	6	4°C - D10	+	4,92	+
Milk 3 Erythro200 - room temperature	6	TA - C8	+	5,45	+
Milk 3 Erythro200 - cold	6	4°C - D6	+	5,08	+

2.2.4.5. Aminoglycosides : dihydrostreptomycin

Date : 15/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - room temperature	6	TA - C28	-	-5,27	-
Milk 1 Neg - cold	6	4°C - D29	-	-5,71	-
Milk 2 Neg - room temperature	6	TA - C30	-	-4,22	-
Milk 2 Neg - cold	6	4°C - D28	-	-5,58	-
Milk 3 Neg - room temperature	6	TA - C29	-	-4,98	-
Milk 3 Neg - cold	6	4°C - D30	-	-4,91	-

Date : 15/07/2020

Dihydrostreptomycine 800 ppb — **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Dihydrostrepto800 - room temperature	6	TA - C15	+	4,32	+
Milk 1 Dihydrostrepto800 - cold	6	4°C - D12	+	4,28	+
Milk 2 Dihydrostrepto800 - room temperature	6	TA - C10	+	4,36	+
Milk 2 Dihydrostrepto800 - cold	6	4°C - D18	+	3,58	+
Milk 3 Dihydrostrepto800 - room temperature	6	TA - C18	+	4,69	+
Milk 3 Dihydrostrepto800 - cold	6	4°C - D20	+	5,04	+

2.2.4.6. Cephalosporins : céfalexine

Date : 15/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - room temperature	6	TA - C28	-	-5,27	-
Milk 1 Neg - cold	6	**4°C - D29**	-	-5,71	-
Milk 2 Neg - room temperature	6	TA - C30	-	-4,22	-
Milk 2 Neg - cold	6	**4°C - D28**	-	-5,58	-
Milk 3 Neg - room temperature	6	TA - C29	-	-4,98	-
Milk 3 Neg - cold	6	**4°C - D30**	-	-4,91	-

Date : 15/07/2020

Cefalexine 30 ppb and 36 ppb **Validated +20% 4°C**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Cefal30 - room temperature	6	TA - C23	+	7,43	+
Milk 1 Cefal36 - cold	6	4°C- D3	+	6,88	+
Milk 2 Cefal30 - room temperature	6	TA - C25	+	6,99	+
Milk 2 Cefal36 - cold	6	4°C- D1	+	6,28	+
Milk 3 Cefal30 - room temperature	6	TA - C22	+	7,1	+
Milk 3 Cefal36 - cold	6	4°C- D6	+	7,23	+

2.2.4.7. Lincosamides : lincomycine

Date : 13/07/2020

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Neg - room temperature	6	TA - C7	-	-6,13	-
Milk 1 Neg - cold	6	**4°C - D1**	-	-6,91	-
Milk 2 Neg - room temperature	6	TA - C21	-	-6,74	-
Milk 2 Neg - cold	6	**4°C - D10**	-	-6,06	-
Milk 3 Neg - room temperature	6	TA - C19	-	-5,72	-
Milk 3 Neg - cold	6	**4°C - D3**	-	-5,12	-

Date : 13/07/2020

Lincomycine 220 ppb **Validated**

Samples	Batch	Code	Visual reading	Delvoscan reading	
Milk 1 Linco220 - room temperature	6	TA - C11	+	**2,68**	+
Milk 1 Linco220 - cold	6	**4°C - D15**	+	**4,17**	+
Milk 2 Linco220 - room temperature	6	TA - C15	+	**2,37**	+
Milk 2 Linco220 - cold	6	**4°C - D20**	+	**2,18**	+
Milk 3 Linco220 - room temperature	6	TA - C22	+	**1,35**	+
Milk 3 Linco220 - cold	6	**4°C - D23**	+	**6,95**	+

Appendix 3 : Results of preliminary and interlaboratory studies in 2013 (ANSES)

Detection capabilities of antibiotics on raw cow milk.

Antibiotic family	Antibiotic	LMR in milk (ppb)	AMPOULES (ppb)	PLATES (ppb)	
				Visual reading	Delvoscan reading
Penicillins	Penicillin G	4	≤ 4	≤ 2	≤ 2
	Amoxicilline	4	> 6	≤ 4	≤ 4
	Ampicilline	4	≤ 6	≤ 4	≤ 4
Cephalosporins	Cloxacilline	30	≤ 30	≤ 30	≤ 30
	Cefquinome	20	≤ 40	≤ 40	≤ 40
	Cefalonium	20	≤ 30	≤ 30	≤ 30
	Cefapirine	60	≤ 15	≤ 15	≤ 15
	Ceftiofur	100	≤ 20	≤ 20	≤ 20
Tetracyclines	Tetracycline	100	≤ 200	≤ 200	≤ 200
Macrolides	Tylosin A	50	≤ 50	≤ 50	≤ 50
Aminoglycosides	Gentamycine	100	≤ 80	≤ 100	≤ 100

Results of interlaboratory study on raw cow milk for ampoules.

	TTC															
	0				40				200				300			
Lab	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse
AA	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AB	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AD	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AE	0	0	0	0	1	0	0	0	1	1	1	1	1	1	1	1
AF	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AG	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AH	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
AK	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
			nb + L0	0			nb + L1	5			nb + L2	32			nb + L3	32

	Pénicilline G															
	0				1				4				6			
Lab	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse
AA	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AB	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AD	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AE	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AF	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AG	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
AH	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AK	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
			nb + L0	0			nb + L1	2			nb + L2	32			nb + L3	32

	Tylosine															
	0				20				50				300			
Lab	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse
AA	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AB	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AD	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
AE	0	0	0	0	1	0	1	1	1	1	1	1	1	1	1	1
AF	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AG	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
AH	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
AK	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
			nb + L0	0			nb + L1	15			nb + L2	32			nb + L3	32

	Cefquinome															
	0				20				80				300			
Lab	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse
AA	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AB	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AD	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AE	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AF	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AG	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AH	0	0	0	0	1	1	0	0	1	1	1	1	1	1	1	1
AK	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
			nb + L0	0			nb + L1	2			nb + L2	32			nb + L3	32

Results of interlaboratory study on raw cow milk for plates (visual reading)

	Pénicilline G															
	0				1				4				6			
Lab	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse
AA	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
AB	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AD	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AE	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AF	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AG	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AH	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AI	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
AK	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1

nb + L0 0 nb + L1 6 nb + L2 32 nb + L3 36

	Cefquinome															
	0				20				80				300			
Lab	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse
AA	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
AB	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AD	0	0	0	0	1	1	0	0	1	1	1	1	1	1	1	1
AE	0	0	0	0	1	0	1	1	1	1	1	1	1	1	1	1
AF	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AG	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AH	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AI	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
AK	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1

nb + L0 0 nb + L1 11 nb + L2 36 nb + L3 36

	TTC															
	0				40				200				300			
Lab	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse
AA	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
AB	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AD	0	0	0	0	1	1	0	0	1	1	1	1	1	1	1	1
AE	0	0	0	0	1	1	0	0	1	1	1	1	1	1	1	1
AF	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AG	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AH	0	0	0	0	1	1	0	0	1	1	1	1	1	1	1	1
AI	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
AK	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1

nb + L0 0 nb + L1 14 nb + L2 36 nb + L3 36

	Tylosine															
	0				20				50				300			
Lab	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse
AA	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
AB	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AD	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
AE	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
AF	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AG	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
AH	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
AI	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
AK	0	0	0	0	0	0	0	0	1	1	0	0	1	1	1	1

nb + L0 0 nb + L1 24 nb + L2 34 nb + L3 36

Results of interlaboratory study on raw cow milk for plates (Delvo®Scan)

	Pénicilline G															
	0				1				4				6			
Lab	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse
AA	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AB	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AD	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AE	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AF	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AG	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
AH	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AK	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1

nb + L0 0 nb + L1 2 nb + L2 32 nb + L3 32

	Cefquinome															
	0				20				80				300			
Lab	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse
AA	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AB	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AD	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AE	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AF	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AG	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AH	0	0	0	0	1	1	0	0	1	1	1	1	1	1	1	1
AK	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1

nb + L0 0 nb + L1 2 nb + L2 32 nb + L3 32

	TTC															
	0				40				200				300			
Lab	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse
AA	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AB	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AD	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AE	0	0	0	0	1	0	0	0	1	1	1	1	1	1	1	1
AF	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AG	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AH	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
AK	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1

nb + L0 0 nb + L1 5 nb + L2 32 nb + L3 32

	Tylosine															
	0				20				50				300			
Lab	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse	1ere analyse	2e analyse
AA	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AB	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AD	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
AE	0	0	0	0	1	0	1	1	1	1	1	1	1	1	1	1
AF	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
AG	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
AH	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
AK	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1

nb + L0 0 nb + L1 15 nb + L2 32 nb + L3 32

Appendix 4 : Details on antibiotics used in interlaboratory study (2021)

Antibiotic	Brand	Reference	Batch
Tetracycline	Sigma-Aldrich	T7660-5G	0000115278V
Gentamycin	Sigma-Aldrich	G1914-250MG	0000110726
Sulfadimethoxine	Sigma-Aldrich	S7007-10G	059M4032V

Appendix 5 : Raw data for homogeneity (2021)

AMPOULES

Samples	Code	HOMOGENEITY - BLANK MILK - AMPOULE			
		1st analysis		2nd analysis	
		Visual reading	Z-values	Visual reading	Z-values
Ctrl -	Ctrl -	-	-7,35	-	-6,45
Ctrl +	Ctrl +	+	6,16	+	7,01

Samples	Code	HOMOGENEITY - GENTAMYCIN - AMPOULE			
		1st analysis		2nd analysis	
		Visual reading	Z-values	Visual reading	Z-values
H-G01	1	+	5,92	+	5,96
H-G02	2	+	6,33	+	5,95
H-G03	3	+	6,11	+	6,15
H-G04	4	+	6,56	+	6,39
H-G05	5	+	6,66	+	6,64
H-G06	6	+	6,08	+	5,73
H-G07	7	+	5,54	+	5,75
H-G08	8	+	6,35	+	6,27
H-G09	9	+	6,52	+	6,5
H-G10	10	+	6,7	+	6,07

Samples	Code	HOMOGENEITY - SULFADIMETHOXINE - AMP			
		1st analysis		2nd analysis	
		Visual reading	Z-values	Visual reading	Z-values
H-S01	21	+	3,2	+	3,42
H-S02	22	+	3,07	+	3,48
H-S03	23	+	2,6	+	3,5
H-S04	24	+	3,21	+	3,12
H-S05	25	+	4	+	3,85
H-S06	26	+	3,35	+	3,82
H-S07	27	+	3,56	+	3,91
H-S08	28	+	3,25	+	3,29
H-S09	29	+	3,36	+	4,11
H-S10	30	+	3,69	+	3,64

Samples	Code	HOMOGENEITY - TETRACYCLINE - AMPOULE			
		1st analysis		2nd analysis	
		Visual reading	Z-values	Visual reading	Z-values
H-Ta01	41	+	4,49	+	4,15
H-Ta02	42	+	4,9	+	4,81
H-Ta03	43	+	4,47	+	4,78
H-Ta04	44	+	4,72	+	4,62
H-Ta05	45	+	5,18	+	4,38
H-Ta06	46	+	4,17	+	4,07
H-Ta07	47	+	4,83	+	4,68
H-Ta08	48	+	4,35	+	4,17
H-Ta09	49	+	4,51	+	4,02
H-Ta10	50	+	5,28	+	3,96

PLATES

Samples	Code	HOMOGENEITY - BLANK MILK - PLATE			
		1st analysis		2nd analysis	
		Visual reading	Z-values	Visual reading	Z-values
Ctrl -	Ctrl -	-	-6,96	-	-7,51
Ctrl +	Ctrl +	+	5,56	+	6,41

Samples	Code	HOMOGENEITY - GENTAMYCIN - PLATE			
		1st analysis		2nd analysis	
		Visual reading	Z-values	Visual reading	Z-values
H-G01	1	+	4,6	+	6,1
H-G02	2	+	5,34	+	5,69
H-G03	3	+	5,75	+	5,99
H-G04	4	+	5,5	+	6,65
H-G05	5	+	5,62	+	6,95
H-G06	6	+	6,07	+	6,38
H-G07	7	+	6,28	+	5,28
H-G08	8	+	5,95	+	5,83
H-G09	9	+	4,92	+	5,81
H-G10	10	+	5,62	+	6,29

Samples	Code	HOMOGENEITY - SULFADIMETHOXINE - PLATE			
		1st analysis		2nd analysis	
		Visual reading	Z-values	Visual reading	Z-values
H-S01	21	+	4,71	+	5,27
H-S02	22	+	4,77	+	4,87
H-S03	23	+	5,14	+	3,53
H-S04	24	+	4,28	+	4,46
H-S05	25	+	4,17	+	4,52
H-S06	26	+	4,24	+	4,72
H-S07	27	+	4,75	+	4,35
H-S08	28	+	5,42	+	4,94
H-S09	29	+	4,87	+	4,78
H-S10	30	+	4,85	+	3,97

Samples	Code	HOMOGENEITY - TETRACYCLINE - PLATE			
		1st analysis		2nd analysis	
		Visual reading	Z-values	Visual reading	Z-values
H-Tm01	61	+	4,6	+	5,73
H-Tm02	62	+	5,66	+	5,73
H-Tm03	63	+	5,66	+	5,51
H-Tm04	64	+	5,98	+	5,98
H-Tm05	65	+	5,84	+	5,83
H-Tm06	66	+	5,88	+	5,26
H-Tm07	67	+	5,71	+	5,22
H-Tm08	68	+	5,13	+	6,36
H-Tm09	69	+	4,49	+	5,8
H-Tm10	70	+	5,47	+	6,16

Appendix 6 : Raw data for stability study

AMPOULES **PLATES**

T0 = after 24h in freezer

Samples	Code	STABILITY - BLANK MILK - AMPOULE			
		1st analysis		2nd analysis	
		Visual reading	Z-values	Visual reading	Z-values
Ctrl -	Ctrl -	-	-6,63	-	-6,51
Ctrl +	Ctrl +	+	5,97	+	7,06

Samples	Code	STABILITY - BLANK MILK - PLATE			
		1st analysis		2nd analysis	
		Visual reading	Z-values	Visual reading	Z-values
Ctrl -	Ctrl -	-	-7,5	-	-8,19
Ctrl +	Ctrl +	+	6,82	+	6,09

Samples	Code	STABILITY - GENTAMYCIN - AMPOULE			
		1st analysis		2nd analysis	
		Visual reading	Z-values	Visual reading	Z-values
S1-G01	81	+	6,17	+	7,3
S1-G02	82	+	5,52	+	6,03
S1-G03	83	+	5,57	+	5,68

Samples	Code	STABILITY - GENTAMYCIN - PLATE			
		1st analysis		2nd analysis	
		Visual reading	Z-values	Visual reading	Z-values
S1-G01	81	+	6,13	+	6,69
S1-G02	82	+	6,79	+	6,6
S1-G03	83	+	6,37	+	6,78

Samples	Code	STABILITY - SULFADIMETHOXINE - AMPOULE			
		1st analysis		2nd analysis	
		Visual reading	Z-values	Visual reading	Z-values
S1-S01	87	+	2,66	+	3,2
S1-S02	88	+	3,7	+	3,4
S1-S03	89	+	3,46	+	3,97

Samples	Code	STABILITY - SULFADIMETHOXINE - PLATE			
		1st analysis		2nd analysis	
		Visual reading	Z-values	Visual reading	Z-values
S1-S01	87	+	5,76	+	5,96
S1-S02	88	+	5,05	+	5,77
S1-S03	89	+	5,63	+	5,55

Samples	Code	STABILITY - TETRACYCLINE - AMPOULE			
		1st analysis		2nd analysis	
		Visual reading	Z-values	Visual reading	Z-values
S1-Ta01	93	+	4,69	+	4,95
S1-Ta02	94	+	4,01	+	4,91
S1-Ta03	95	+	3,56	+	4,67

Samples	Code	STABILITY - TETRACYCLINE - PLATE			
		1st analysis		2nd analysis	
		Visual reading	Z-values	Visual reading	Z-values
S1-Tm01	99	+	5,69	+	5,5
S1-Tm02	100	+	6,03	+	5,94
S1-Tm03	101	+	6,69	+	6,98

AMPOULES **PLATES**

T1 = day of shipment

Samples	Code	STABILITY - BLANK MILK - AMPOULE			
		1st analysis		2nd analysis	
		Visual reading	Z-values	Visual reading	Z-values
Ctrl -	Ctrl -	-	-9,72	-	-10,31
Ctrl +	Ctrl +	+	6,72	+	6,82

Samples	Code	STABILITY - BLANK MILK - PLATE			
		1st analysis		2nd analysis	
		Visual reading	Z-values	Visual reading	Z-values
Ctrl -	Ctrl -	-	-4,67	-	-7,46
Ctrl +	Ctrl +	+	5,84	+	6,39

Samples	Code	STABILITY - GENTAMYCIN - AMPOULE			
		1st analysis		2nd analysis	
		Visual reading	Z-values	Visual reading	Z-values
S2-G01	1	+	6,57	+	6,39
S2-G02	2	+	6,71	+	6,63
S2-G03	3	+	6,73	+	6,66

Samples	Code	STABILITY - GENTAMYCIN - PLATE			
		1st analysis		2nd analysis	
		Visual reading	Z-values	Visual reading	Z-values
S2-G01	1	+	5,77	+	6,68
S2-G02	2	+	6,51	+	7,08
S2-G03	3	+	6,96	+	7,31

Samples	Code	STABILITY - SULFADIMETHOXINE - AMPOULE			
		1st analysis		2nd analysis	
		Visual reading	Z-values	Visual reading	Z-values
S2-S01	7	+	4,74	+	4,62
S2-S02	8	+	4,37	+	4,44
S2-S03	9	+	4,39	+	4,66

Samples	Code	STABILITY - SULFADIMETHOXINE - PLATE			
		1st analysis		2nd analysis	
		Visual reading	Z-values	Visual reading	Z-values
S2-S01	7	+	6,84	+	6,62
S2-S02	8	+	5,57	+	5,67
S2-S03	9	+	5,38	+	6,01

Samples	Code	STABILITY - TETRACYCLINE - AMPOULE			
		1st analysis		2nd analysis	
		Visual reading	Z-values	Visual reading	Z-values
S2-Ta01	13	+	4,96	+	4,79
S2-Ta02	14	+	4,78	+	4,91
S2-Ta03	15	+	5,02	+	5,25

Samples	Code	STABILITY - TETRACYCLINE - PLATE			
		1st analysis		2nd analysis	
		Visual reading	Z-values	Visual reading	Z-values
S2-Tm01	19	+	6,07	+	6,6
S2-Tm02	20	+	6,53	+	7,48
S2-Tm03	21	+	6,26	+	7,03

AMPOULES

PLATES

T2 = day of sample analysis

Samples	Code	STABILITY - BLANK MILK - AMPOULE			
		1st analysis		2nd analysis	
		Visual reading	Z-values	Visual reading	Z-values
Ctrl -	Ctrl -	-	-10,88	-	-9,345
Ctrl +	Ctrl +	+	6,38	+	6,05

Samples	Code	STABILITY - BLANK MILK - PLATE			
		1st analysis		2nd analysis	
		Visual reading	Z-values	Visual reading	Z-values
Ctrl -	Ctrl -	-	-8,3	-	-10,68
Ctrl +	Ctrl +	+	5,39	+	5,35

Samples	Code	STABILITY - GENTAMYCIN - AMPOULE			
		1st analysis		2nd analysis	
		Visual reading	Z-values	Visual reading	Z-values
S3-G01	33	+	6,77	+	6,93
S3-G02	34	+	6,66	+	6,56
S3-G03	35	+	7,09	+	6,71

Samples	Code	STABILITY - GENTAMYCIN - PLATE			
		1st analysis		2nd analysis	
		Visual reading	Z-values	Visual reading	Z-values
S3-G01	33	+	3,78	+	4,65
S3-G02	34	+	4,14	+	5,05
S3-G03	35	+	4,52	+	5,44

Samples	Code	STABILITY - SULFADIMETHOXINE - AMPOULE			
		1st analysis		2nd analysis	
		Visual reading	Z-values	Visual reading	Z-values
S3-S01	39	+	4,28	+	5,27
S3-S02	40	+	4,24	+	5,03
S3-S03	41	+	4,69	+	4,31

Samples	Code	STABILITY - SULFADIMETHOXINE - PLATE			
		1st analysis		2nd analysis	
		Visual reading	Z-values	Visual reading	Z-values
S3-S01	39	+	4,56	+	3,74
S3-S02	40	+	4,5	+	4,3
S3-S03	41	+	3,23	+	4,14

Samples	Code	STABILITY - TETRACYCLINE - AMPOULE			
		1st analysis		2nd analysis	
		Visual reading	Z-values	Visual reading	Z-values
S3-Ta01	45	+	4,57	+	5,55
S3-Ta02	46	+	5,21	+	4,85
S3-Ta03	47	+	5,55	+	4,66

Samples	Code	STABILITY - TETRACYCLINE - PLATE			
		1st analysis		2nd analysis	
		Visual reading	Z-values	Visual reading	Z-values
S3-Tm01	51	+	3,9	+	4,77
S3-Tm02	52	+	4,05	+	0,58
S3-Tm03	53	+	4,47	+	2,15

Appendix 7: Results of interlaboratory study in 2021 (ACTALIA Cecalait)

Number of positive results obtained with Delvotest® T in ampoules format for gentamycin

GENTAMYCIN

VISUAL

Labs	Levels			
	L0	L1	L2	L3
ACTALIA	0/4	0/4	4/4	4/4
1	0/4	4/4	4/4	4/4
2	0/4	4/4	4/4	4/4
3	0/4	4/4	4/4	4/4
4	0/4	4/4	4/4	4/4
5	0/4	0/4	4/4	4/4
6	0/4	4/4	4/4	4/4
7	0/4	4/4	4/4	4/4
8	0/4	4/4	4/4	4/4
9	0/4	4/4	4/4	4/4
Total of positive results	**0/36**	**32/36**	**36/36**	**36/36**

DELVO®SCAN

Labs	Levels			
	L0	L1	L2	L3
ACTALIA	0/4	0/4	4/4	4/4
1	0/4	4/4	4/4	4/4
2	0/4	4/4	4/4	4/4
3	0/4	2/4	4/4	4/4
4	0/4	4/4	4/4	4/4
5	Software problem			
6	0/4	0/4	4/4	4/4
7	0/4	2/4	4/4	4/4
8	0/4	4/4	4/4	4/4
9	0/4	0/4	4/4	4/4
Total of positive results	**0/32**	**20/32**	**32/32**	**32/32**

Number of positive results obtained with Delvotest® T in ampoules format for sulfadimethoxine

SULFADIMETHOXINE

VISUAL

Labs	Levels			
	L0	L1	L2	L3
ACTALIA	0/4	0/4	4/4	4/4
1	0/4	4/4	4/4	4/4
2	0/4	4/4	4/4	4/4
3	0/4	0/4	4/4	4/4
4	0/4	4/4	4/4	4/4
5	0/4	0/4	4/4	4/4
6	0/4	4/4	4/4	4/4
7	0/4	4/4	4/4	4/4
8	0/4	4/4	4/4	4/4
9	0/4	4/4	4/4	4/4
Total of positive results	**0/36**	**28/36**	**36/36**	**36/36**

DELVO®SCAN

Labs	Levels			
	L0	L1	L2	L3
ACTALIA	0/4	0/4	4/4	4/4
1	0/4	4/4	4/4	4/4
2	0/4	0/4	4/4	4/4
3	0/4	0/4	4/4	4/4
4	0/4	4/4	4/4	4/4
5	Software problem			
6	0/4	0/4	4/4	4/4
7	0/4	1/4	4/4	4/4
8	0/4	4/4	4/4	4/4
9	0/4	0/4	4/4	4/4
Total of positive results	**0/32**	**13/32**	**32/32**	**32/32**

Number of positive results obtained with Delvotest® T in ampoules format for tetracycline

TETRACYCLINE

VISUAL

Labs	Levels			
	L0	L1	L2	L3
ACTALIA	0/4	0/4	4/4	4/4
1	0/4	4/4	4/4	4/4
2	0/4	0/4	4/4	4/4
3	0/4	0/4	4/4	4/4
4	0/4	0/4	4/4	4/4
5	0/4	0/4	4/4	4/4
6	0/4	4/4	4/4	4/4
7	0/4	3/4	4/4	4/4
8	0/4	4/4	4/4	4/4
9	0/4	0/4	4/4	4/4
Total of positive results	**0/36**	**15/36**	**36/36**	**36/36**

DELVO®SCAN

Labs	Levels			
	L0	L1	L2	L3
ACTALIA	0/4	0/4	4/4	4/4
1	0/4	1/4	4/4	4/4
2	0/4	0/4	4/4	4/4
3	0/4	0/4	4/4	4/4
4	0/4	0/4	4/4	4/4
5	Software problem			
6	0/4	0/4	4/4	4/4
7	0/4	0/4	4/4	4/4
8	0/4	4/4	4/4	4/4
9	0/4	0/4	4/4	4/4
Total of positive results	**0/32**	**5/32**	**32/32**	**32/32**

Number of positive results obtained with Delvotest® T in plates format for gentamycin

GENTAMYCIN

VISUAL

Labs	Levels			
	L0	L1	L2	L3
ACTALIA	0/4	0/4	4/4	4/4
1	0/4	0/4	4/4	4/4
2	0/4	0/4	4/4	4/4
3	0/4	0/4	4/4	4/4
4	0/4	4/4	4/4	4/4
5	0/4	0/4	4/4	4/4
6	0/4	4/4	4/4	4/4
7	0/4	0/4	4/4	4/4
8	0/4	4/4	4/4	4/4
9	0/4	0/4	4/4	4/4
Total of positive results	**0/36**	**12/36**	**36/36**	**36/36**

DELVO®SCAN

Labs	Levels			
	L0	L1	L2	L3
ACTALIA	0/4	0/4	4/4	4/4
1	0/4	0/4	4/4	4/4
2	0/4	0/4	4/4	4/4
2	0/4	0/4	4/4	4/4
4	0/4	4/4	4/4	4/4
5	0/4	0/4	4/4	4/4
6	0/4	0/4	4/4	4/4
5	0/4	0/4	4/4	4/4
8	0/4	1/4	4/4	4/4
9	0/4	0/4	4/4	4/4
Total of positive results	**0/36**	**5/36**	**36/36**	**36/36**

Number of positive results obtained with Delvotest® T in plates format for sulfadimethoxine

SULFADIMETHOXINE

VISUAL

Labs	Levels			
	L0	L1	L2	L3
ACTALIA	0/4	0/4	4/4	4/4
1	0/4	0/4	4/4	4/4
2	0/4	0/4	4/4	**2/4**
3	0/4	4/4	4/4	4/4
4	0/4	4/4	4/4	4/4
5	0/4	4/4	4/4	4/4
6	0/4	4/4	4/4	4/4
7	0/4	4/4	4/4	4/4
8	0/4	4/4	4/4	4/4
9	0/4	4/4	4/4	4/4
Total of positive results	**0/36**	**28/36**	**36/36**	**34/36**

DELVO®SCAN

Labs	Levels			
	L0	L1	L2	L3
ACTALIA	0/4	0/4	**3/4**	4/4
1	0/4	0/4	**3/4**	4/4
2	0/4	0/4	4/4	4/4
3	0/4	0/4	4/4	4/4
4	0/4	4/4	4/4	4/4
5	0/4	4/4	4/4	4/4
6	0/4	0/4	4/4	4/4
7	0/4	3/4	4/4	4/4
8	0/4	2/4	4/4	4/4
9	0/4	3/4	4/4	4/4
Total of positive results	**0/36**	**16/36**	**35/36**	**36/36**

Number of positive results obtained with Delvotest® T in plates format for tetracycline

TETRACYCLINE

VISUAL

Labs	Levels			
	L0	L1	L2	L3
ACTALIA	0/4	0/4	4/4	4/4
1	0/4	0/4	4/4	4/4
2	0/4	0/4	4/4	4/4
3	0/4	0/4	4/4	4/4
4	0/4	4/4	4/4	4/4
5	0/4	0/4	4/4	4/4
6	0/4	4/4	4/4	4/4
7	**0/2***	1/4	4/4	4/4
8	0/4	4/4	4/4	4/4
9	0/4	0/4	4/4	4/4
Total of positive results	**0/34**	**13/36**	**36/36**	**36/36**

DELVO®SCAN

Labs	Levels			
	L0	L1	L2	L3
ACTALIA	0/4	0/4	4/4	4/4
1	0/4	0/4	4/4	4/4
2	0/4	0/4	4/4	4/4
3	0/4	0/4	4/4	4/4
4	0/4	4/4	4/4	4/4
5	0/4	0/4	4/4	4/4
6	0/4	0/4	4/4	4/4
7	**0/2***	0/4	4/4	4/4
8	0/4	2/4	4/4	4/4
9	0/4	0/4	4/4	4/4
Total of positive results	**0/34**	**6/36**	**36/36**	**36/36**

*: Exclusion of sample “26PLA” for the collaborative laboratory n°7 because they noticed a problem with this sample during the experiment.