


STANTON TERRITORIAL HEALTH AUTHORITY

Yellowknife, Northwest Territories

TITLE: Water Testing – Presence/Absence Colilert-18	Revision Date: 20-April-2018	Issue Date: 20-April-2016
Document Number: MIC52630	Status: Approved	
Distribution: Microbiology Test Manual	Page: 1 of 3	
Approved by: S. Asmussen, Manager of Diagnostic Services	Signed by: 	

PURPOSE:

Colilert-18 detects the presence of coliforms as well as *E.coli*. The reagent powder contains the nutrient-indicators ONPG and MUG. When the ONPG is metabolized by coliforms, the sample will turn yellow. If *E.coli* is also present, MUG is metabolized and the sample fluoresces under a UV light.

SAMPLE INFORMATION:

Type	Water
Volume	100mL minimum
Storage Requirements	48hrs if refrigerated 2-8°C
Criteria for rejection and follow up action	>48hrs

REAGENTS and/or MEDIA:

- Colilert 18 – Cat#WP200I-18; Store at 2-25°C away from light

SUPPLIES:

- UV lamp
- Colilert Presence/Absence Comparator – Cat#WP104

QUALITY CONTROL:

Performed per shipment or lot number

- Please refer to QC Procedure **MIC60400 Water QC**

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PROCEDURE INSTRUCTIONS:

Step	Action
Performing Total Coliform and <i>E. coli</i> Water Testing	
1	Accession waters and generate labels
2	Label requisition and sample containers
3	If HPC or Endotoxin Testing is also required – they must be performed prior to the addition of the Colilert-18 reagent
4	Pour off excess water until the volume is ~100mLs
5	Incubate at 35°C for 1 hour – write the time of day on one of the water vessels
6	Add Colilert-18 reagent powder to each water vessel – look for a blue flash – if seen this indicates excessive chlorine and the test is invalid. Shake to mix well
7	Allow to incubate for 18-22 hrs (included in the 18hrs is the 1 hour pre-incubation period)
8	Compare each water sample against the Colilert Presence/Absence Comparator
9	If the sample is equally or more yellow than the comparator – it is considered POSITIVE for coliforms <ul style="list-style-type: none"> • It must then be viewed under the UV light for the presence of <i>E.coli</i> • Add WKLDC using the keypad while on the PACOL media line
10	Results are definitive at 18-22hrs <ul style="list-style-type: none"> • Positives observed BEFORE 18hrs are valid • Negatives observed AFTER 22hrs are valid
11	See below for interpretation and reporting

Interpretation and Reporting:

IF	THEN
Less yellow than comparator	Negative for Coliforms and <i>E.coli</i> (Colilert A/A) Report: “TOTAL COLIFORM: absent, E.COLI: absent”
Equally Yellow or Greater than	Positive for Coliforms, Negative for <i>E.coli</i> (Colilert P/A)

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comparator No UV fluorescence	Report: “TOTAL COLIFORM: present, E.COLI: absent”
Equally Yellow or Greater than comparator Positive UV fluorescence	Positive for Coliforms and <i>E.coli</i> (Colilert P/P) Report: “TOTAL COLIFORM: present, E.COLI: present” * Positive <i>E.coli</i> drinking water samples (with the exception of private residences) must have the result phoned to the EHO on call 867-445-8761 * Log the call into the Call Box

REFERENCES:

- IDEXX. (2011). Colilert-18 Test Kit.

REVISION HISTORY:

REVISION	DATE	Description of Change	REQUESTED BY
1.0	31Dec2013	Initial Release	A.Darrach
1.1	31Mar2016	Reviewed – Minor Formatting Changes	C. Russell