On-site Determination of Ammonia and Chlorine (Check Kit Method)

A. PURPOSE AND SCOPE

This procedure details the on site determination of Ammonia and Chlorine via the Palintest Check - Kit method.

B. CONTENTS

A. PURPOSE AND SCOPE 1
B. CONTENTS 1
C. CHANGES IN THIS DOCUMENT 1
D. RECORDS / FORMS / LOGS 1
E. REFERENCES 1
F. PROCEDURE 2
1. Obtaining The Sample 2
2. Determination 2
2.1. Ammonia Test 2
2.2. Free Chlorine Residual Test 2
2.3. Total Chlorine Residual Test 3
3. Recording Results 3
4. Replacement 3

C. CHANGES IN THIS DOCUMENT

DESCRIPTION OF CHANGE
Job Title change in section 3

D. RECORDS / FORMS / LOGS

REFERENCE	TITLE	LOCATION
FM-QSC-0003	New Connections On Site Test Log Sheet	

E. REFERENCES

REFERENCE	TITLE	LOCATION
QSC-005	New Connections Clearance	

F. PROCEDURE

1. Obtaining The Sample.

Flush the sample point in order to obtain a representative sample of water in the main.

2. Determination

2.1. Ammonia Test

- Fill both cells in the test kit to the 10 mls mark with the water under test.
- Drop one Ammonia No.1 tablet into the first cell and allow tablet to disintegrate and dissolve (if necessary crush with rod).
- Drop one Ammonia No.2 tablet in with the No.1 tablet allow tablet to disintegrate and dissolve (if necessary crush with rod). Wait for at least **10 minutes**.
- Match the colour between the sample and the colour card by holding towards a white light source.
- The blank cell should be placed on the left behind the shaded colours.
- The cell containing the ammonia tablets (No1 & No2) should be placed on the right behind the clear panel.
- Read the number from the card's indicator window.

This equates to the Ammonia concentration in mg/l (or parts per million). The cell should be yellow in colour and Ammonia not present.

2.2. Free Chlorine Residual Test

- Fill one cell to the 10 ml mark.
- Rinse the second cell with water and empty.
- Drop one DPD No.1 tablet into the empty cell and only just cover with water. Allow tablet to disintegrate and dissolve (if necessary crush with rod).
- Top up cell to the 10 ml mark, mix with the rod.

- Immediately match the colour between the sample and the colour card by holding towards a white light source.
- The blank cell should be placed on the left behind the shaded colours.
- The cell containing the DPD No.1 should be placed on the right behind the clear panel.
- Read the number from the card's indicator window. This equates to the free residual chlorine concentration in mg/l (or parts per million).

2.3. Total Chlorine Residual Test

- This analysis continues from the free residual chlorine concentration procedure.
- Add one DPD No. 3 tablet to solution containing the dissolved No.1 tablet.
- Allow tablet to disintegrate and dissolve in the solution (if necessary crush with rod).
- Once the tablet has dissolved, wait for at least **2 minutes** to allow full colour development.
- Match the colour on the colour card while holding towards a white light source.
- Read the number from the colour card's indicator window. This equates to total residual chlorine concentration in mg/l.

3. Recording Results

Record the results of all determinations on the *New Connections On Site Test Log Sheet* FM-QSC-0003 or other appropriate document.

If any determinations give unusual results report to **Water Quality Scientist** as soon as possible and if undertaking test prior to connecting service pipe QSC-005 do not proceed with connection and inform **Water Distribution Manager.**

4. Replacement

Once all tablets in each Check - Kit have been used replace kit.