

( )

( )

2009 ( )

417

/ 5590-3320

/ 1500

975-532 / 294.9-244.2

/

0.0032

0.001-0.0004

0.53-0.033 0.66-0

/ 30.6-20.9

/ 36.66-23.33

-56.5

Salmonella, coliforms, *E-coli*, fecal coliforms.

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(5)

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.30/ (

(6)

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8)

(9)

(5).

2009

500

100

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105

10 \* =

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25 (7)

1

0.1

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$$V_{\text{WATER}} / 1000 * 1000 * 0.03546 * V_{\text{AgNO}_3} =$$

$$= V_{\text{AgNO}_3}$$

$$= V_{\text{WATER}}$$

:

50 (1)

0.02N EDTA

NaOH 1 10

·  
:

$$C_{\text{Ca}} = V_{\text{EDTA}} * 0.4008 * 1000 / 50$$

Ammonia buffer

10

50

EDTA 0.02

total hardness tablet

: ( / )

$$V_{(\text{Mg}+\text{Ca})} - V_{\text{Ca}} = V_{\text{Mg}}$$

$$C_{\text{Mg}} = V_{\text{Mg}} * 0.2432 * 1000 / 50$$

: ( / )

$$\text{Total hardness} = C_{\text{Ca}} * 2.497 + C_{\text{Mg}} * 4.116$$

:

$$\text{EDTA} = V_{\text{EDTA}}$$

:

(4)

2

(Fe, Pb, Cu, Cr, Cd, Zn, Mg)

1000

10

( )

500

10

5

50

40

1000 :1

:(Ca, Na)

)

5 (12 6)

25

(

2

25

( )

:

/ \* =( / )

:

(2)

10

500

10

10

:

$$V * N * M.wt * 100 / Wt =$$

:

$$= V$$

$$= N$$

$$= Mwt$$

$$= Wt$$

$$(0.039 N)$$

(341)

:

:

1 (7)

15-10

46-44

48 37

)

1

24-18

37

( /

(7)

MacConkey Broth

(13)

(7)

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(1 )

3320

/ 5590

/ 1500

/

/ 294.9 -244

/ 500

975 620 532

(1 )

620

975

600

:(1)

/		/		/			
532	600	274.2	500	3650	1500		-1
532	600	275.2	500	3320	1500		-2
620	600	259.1	500	3850	1500		-3
532	600	276.3	500	4220	1500		-4
532	600	261.2	500	3840	1500		-5
975	600	294.9	500	5590	1500		-6
532	600	270.3	500	4470	1500		-7
620	600	256.3	500	3650	1500		-8
620	600	246.1	500	3520	1500		-9
620	600	244.2	500	3600	1500		-10

(3)

276 / 294.9

(3)

/ 975

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(2 )

( ) : (2)

Zn	Cr	Cd	Pb	Fe	Cu		
3	0.05	0.003	0.01	0.3	1		
0.66	nil	0.0008	nil	0.1	nil		1
0.04	nil	0.0008	nil	0.033	nil		2
0.1	nil	0.0006	nil	0.09	0.0032		3
0.035	nil	0.001	nil	0.53	nil		4
nil	nil	0.0013	nil	0.053	nil		5
0.014	nil	0.0008	nil	0.058	nil		6
0.014	nil	0.0004	nil	0.045	nil		7
0.058	nil	0.0015	nil	0.063	nil		8
0.021	nil	0.0008	nil	0.08	nil		9
0.1	nil	0.0006	nil	0.05	nil		10

(2 )

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0.53

(

/ 200،200،150

( 3 4 5 ) .

:(3)

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28.33	30.6		-1
25.8	28.5		-2
28.33	26		-3
27.5	27.7		-4
25.8	27		-5
36.66	28.2		-6
23.33	27.7		-7
24.16	24.8		-8
29.16	25.3		-9
25.38	20.9		-10

(3 )

(5)

/

:(4)

58.8	59.3		-1
65	63.3		-2
60	56.5		-3
64.5	64.9		-4
62	60.1		-5
80	81.8		-6
61.5	62.5		-7
62	61.7		-8
59	56.5		-9
61	63.3		-10

(4 )

/ 81

(5):

58.8		-1
66.3		-2
58.8		-3
71.3		-4
61.3		-5
85		-6
63.8		-7
60		-8
55		-9
53.8		-10

( 5 )

/ 85

/ 71.3

. / 53.8

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:(6)

	100 /		
	10	Coliforms	1
	2	<u>E.coli</u>	2
	2-1	<u>E.coli</u>	3
	3	Coliforms	
		Fecal coliforms	4
		Salmonella	5

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(6

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( )

- .1 .(2000) . 417
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## Study in fact of drinking water in some regions of Baghdad city

H. Y. Ahmed  
COSQC

I. H. Muhammed  
COSQC

### ABSTRACT

This study was conducted to determine total hardness ,total dissolved salts, chloride, microbial tests and many elements concentrations were determined (lead, copper, iron, zinc, cadmium, chromium magnesium, calcium, and sodium) in ten samples of drinking tap water from different regions of Baghdad city .the study's regions are (talbia, Cairo Q., aladamia, alzarfania, alsadar city, aldora, alhureaa, alqadesia, alturath Q.and aljamiaa Q.) during September 2009,and comparison the results with the requirements of the Iraqi standard specification 417 for drinking water, the results showed a rising in the rate of total dissolved solids more than the acceptable limits of Iraqi specification ,it was in the range (3320-5590) ppm ,the rates of total hardness, and chloride were in the range (244.2-294.9) ppm and (532-975) ppm respectively .there wasn't any concentration of lead, Chromium and Copper in each of test's samples except one sample of aladamia region was reach to (0.0032) ppm. Cadmium concentration was in the range (0.0004-0.001) ppm and Zinc concentration was in the range (0-0.66) ppm. and Iron concentration was in the range (0.033-0.53) ppm. Magnesium concentration that determinate by titration method was in the range(20.9-30.6) ppm that was disperate with the values of Magnesium concentrations that determinate by using atomic absorption apparatus in the range (23.33-36.66) ppm. Calcium concentration determinate by titration method was approach to the Calcium concentration that determinate by flame photometer and it was in the range (56.5-81.8) ppm. Sodium concentration was in the range (53.8-85) ppm .active material and microbial contamination with coliforms ,E-coli ,fecal coliforms , and Salomnella wasn't found in all samples of this study.