CONTROLO QUALIDADE

CRIADO EM: 11-11-08
REVISTO EM: Nov-08
VERSÃO: 1.0

PCQA - Plano Controlo Qualidade da Água para Consumo Humano

1º Trimestre

Data										14/jan			21/jan		28/jan				11/fev			18/fev		25/fev			10/mar			17/mar		24/mar		
Zona Abastecimento										ZA1_TC_2016	ZA2_TC_2016	ZA4_TC_2016	ZA2_TC_2016	ZA3_TC_2016	ZA1_TC_2016	ZA2_TC_2016	ZA2_TC_2016	ZA4_TC_2016	ZA1_TC_2016	ZA2_TC_2016	ZA4_TC_2016	ZA2_TC_2016	ZA3_TC_2016	ZA1_TC_2016	ZA2_TC_2016	ZA4_TC_2016	ZA1_TC_2016	ZA2_TC_2016	ZA4_TC_2016	ZA2_TC_2016	ZA3_TC_2016	ZA1_TC_2016	ZA2_TC_2016	ZA4_TC_2016
Parâmetro		Nº Análises Previstas no PCQA	% de Análises Realizadas	Unidades	Valor Paramétrico	Valor Recomendado	Valores Máximos Obtidos	Valores Mínimos Obtidos	% de Análises que cumprem a legislação	ZA1_TC_1A_ Mini mercado Marimel	ZA2_TC_14A_ Casa Sr Mário Salvador	ZA4_TC_5A_ Florista Palmeira	ZA2_TC_12A_ Casa Sr Arselino Correia	ZA3_TC_25A_ Casa Sr Alexandre Manuel B Silva	ZA1_TC_34A_ Casa Sr João Gonçalves Pacheco	ZA2_TC_12A_ Casa Sr Arselino Correia	ZA2_TC_16A_ Casa Dª Maria Alice Ribeiro	ZA4_TC_7A_ Casa Sr António Manuel Carvalho Martins	ZA1_TC_2A_ Casa Sr Carlos Estrelinha Borges	ZA2_TC_24A_ Casa Dª Maria Manuela Nôbre Fonseca Santos	ZA4_TC_8A_ Cabeleireiro João Fernando	ZA2_TC_19A_Casa Sr Joaquim João Julião	ZA3_TC_4A_ Casa Dª Maria Clotilde C Daniel	ZA1_TC_3A_ ADEPE Associação para o Desenvolvimento de Peniche	ZA2_TC_10A_ Casa Sr João Manuel Cruz	ZA4_TC_9A_ Célia - Cabeleireira	ZA1_TC_1A_ Casa Sr António Soares	ZA2_TC_23A_ Casa Sr José Santos Correia	ZA4_TC_5A_ Casa Dª Zélia Maria Bruno Martins	ZA2_TC_18A_ Casa Sr Vitor Manuel Gil Faísca	ZA3_TC_26A_ Casa Sr Carlos José Marques Teodoro	ZA1_TC_34A_ Casa Sr João António Marreiros	ZA2_TC_15A_ Casa Sr Alberto Joaquim Teixeira	ZA4_TC_6A_ Gabinete de Estética de Vila Maria
CR1	Bacterias coliformes	24	100	UFC/100ml	0	---	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	E. coli	24	100	N/100 ml	0	---	0	0	100	0	0	0	0	0	0	---	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cloro residual livre	24	100	mg/l	---	> 0,2 e < 0,6	0,6	<0,16	100	0,16	<0,16	0,23	0,50	0,40	0,23	0,50	0,50	0,36	0,35	0,37	0,31	0,40	0,27	<0,16	0,60	0,35	0,30	0,34	0,29	0,40	0,40	<0,16	0,34	0,25
CR2	Alumínio	11	100	µg/l Al	200	---	58	13	100	---	---	---	42	---	23	---	---	13	---	---	---	58	---	17	---	24	---	24	---	---	39	17	20	15
	Amónio	11	100	mg/l NH4	0,50	---	<0,05	<0,05	100	---	---	---	<0,05	---	<0,05	---	---	<0,05	---	---	---	<0,05	---	<0,05	---	<0,05	---	<0,05	---	---	<0,05	<0,05	<0,05	<0,05
	Cheiro	11	100	Factor de diluição	3	---	<1	<1	100	---	---	---	<1	---	<1	---	---	<1	---	---	---	<1	---	<1	---	<1	---	<1	---	---	<1	<1	<1	<1
	Clostridium perfringens (incluindo esporos)	11	109,1	N/100ml	0	---	1	0	91,67	---	---	---	1	---	0	0	---	0	---	---	---	0	---	0	---	0	---	0	---	---	0	0	0	0
	Condutividade	11	100	µS/cm a 20ºC	2500	---	635	137	100	---	---	---	197	---	635	---	---	400	---	---	---	137	---	628	---	401	---	209	---	---	140	616	174	360
	Cor	11	100	mg/l PtCo	20	---	<3,0	<3,0	100	---	---	---	<3,0	---	<3,0	---	---	<3,0	---	---	---	<3,0	---	<3,0	---	<3,0	---	<3,0	---	---	<3,0	<3,0	<3,0	<3,0
	Manganês	11	100	µg/l Mn	50	---	6,6	<2,0	100	---	---	---	<2,0	---	<2,0	---	---	<2,0	---	---	---	<2,0	---	6,6	---	3,2	---	<2,0	---	---	<2,0	<2,0	<2,0	<2,0
	Nitratos	11	100	mg/l NO3	50	---	8,6	<3,0	100	---	---	---	4,7	---	7,2	---	---	4,6	---	---	---	3,9	---	<3,0	---	7,9	---	6,8	---	---	<3,0	<3,0	<3,0	8,6
	Número total de Germes a 22ºC	11	100	UFC/ 1ml	SAA	100	>300	0	100	---	---	---	11	---	>300	0	---	0	---	---	---	1	---	0	---	1	---	1	---	---	0	39	0	0
	Número total de Germes a 37ºC	11	100	UFC/1 ml	SAA	20	>300	0	100	---	---	---	0	---	>300	0	---	0	---	---	---	1	---	1	---	4	---	4	---	---	0	22	0	0
	pH	11	100	Unidades de pH	>=6,5 e < 9	---	8,4	7,4	100	---	---	---	8,1	---	7,5	---	---	7,4	---	---	---	7,8	---	7,5	---	7,7	---	8	---	---	8,4	7,6	7,8	7,6
	Turvação	11	100	NTU	4	---	<1,0	<1,0	100	---	---	---	<1,0	---	<1,0	---	---	<1,0	---	---	---	<1,0	---	<1,0	---	<1,0	---	<1,0	---	---	<1,0	<1,0	<1,0	<1,0
	Oxidabilidade	11	100	mg/ L	5	---	3,1	<1,0	100	---	---	---	1,5	---	3,1	---	---	1,2	---	---	---	1,3	---	<1,0	---	1,1	---	1,2	---	---	1,7	1,6	1,6	1,6
	Sabor	11	100	Factor de diluição	3	---	<1	<1	100	---	---	---	<1	---	<1	---	---	<1	---	---	---	<1	---	<1	---	<1	---	<1	---	---	<1	<1	<1	<1
CI	1,2-dicloroetano	1	100	µg/l	---	---	<0,25	<0,25	100	---	---	---	---	---	---	---	---	---	---	---	---	<0,25	---		---		---		---	---	---	---	---	---
	Acrilamida	1	100	µg/l	0,1	---	<0,050	<0,050	100	---	---	---	---	---	---	---	---	---	---	---	---	<0,050	---		---		---		---	---	---	---	---	---
	Antimónio	1	100	µg/l Sb	5,0	---	<4	<4	100	---	---	---	---	---	---	---	---	---	---	---	---	<4	---		---		---		---	---	---	---	---	---
	Arsénio	1	100	µg/l As	10	---	<3,0	<3,0	100	---	---	---	---	---	---	---	---	---	---	---	---	<3,0	---		---		---		---	---	---	---	---	---
	Benzeno	1	100	µg/l	1,0	---	<0,26	<0,26	100	---	---	---	---	---	---	---	---	---	---	---	---	<0,26	---		---		---		---	---	---	---	---	---
	Benzo(a)pireno	1	100	µg/l	0,010	---	<0,005	<0,005	100	---	---	---	---	---	---	---	---	---	---	---	---	<0,005	---		---		---		---	---	---	---	---	---
	Boro	1	100	mg/l B	1,0	---	<0,10	<0,10	100	---	---	---	---	---	---	---	---	---	---	---	---	<0,10	---		---		---		---	---	---	---	---	---
	Bromatos	1	100	µg/l BrO3	10	---	<5	<5	100	---	---	---	---	---	---	---	---	---	---	---	---	<5	---		---		---		---	---	---	---	---	---
	Bromodiclorometano *b*	1	100	µg/l	---	---	11	11	100	---	---	---	---	---	---	---	---	---	---	---	---	11	---		---		---		---	---	---	---	---	---
	Bromofórmio *b*	1	100	µg/l	---	---	<0,5	<0,5	100	---	---	---	---	---	---	---	---	---	---	---	---	<0,5	---		---		---		---	---	---	---	---	---
	Cádmio	1	100	µg/l Cd	5,0	---	<1,0	<1,0	100	---	---	---	---	---	---	---	---	---	---	---	---	<1,0	---		---		---		---	---	---	---	---	---
	Cálcio	1	100	mg/l Ca	---	<100	9,2	9,2	100	---	---	---	---	---	---	---	---	---	---	---	---	9,2	---		---		---		---	---	---	---	---	---
	Carbono orgânico total (COT)	1	100	mg/l	---	SAA	1,3	1,3	100	---	---	---	---	---	---	---	---	---	---	---	---	1,3	---		---		---		---	---	---	---	---	---
	Chumbo	1	100	µg/l Pb	25	---	<7	<7	100	---	---	---	---	---	---	---	---	---	---	---	---	<7	---		---		---		---	---	---	---	---	---
	Cianetos	1	100	µg/l CN	50	---	<20	<20	100	---	---	---	---	---	---	---	---	---	---	---	---	<20	---		---		---		---	---	---	---	---	---
	Cloretos	1	100	mg/l	250	---	11	11	100	---	---	---	---	---	---	---	---	---	---	---	---	11	---		---		---		---	---	---	---	---	---
	Clorofórmio *b*	1	100	µg/l	---	---	20	20	100	---	---	---	---	---	---	---	---	---	---	---	---	20	---		---		---		---	---	---	---	---	---
	Cobre	1	100	mg/l	2.0	---	2,2e-3	2,2e-3	100	---	---	---	---	---	---	---	---	---	---	---	---	0,0022	---		---		---		---	---	---	---	---	---
	Crómio	1	100	µg/l Cr	50	---	<5	<5	100	---	---	---	---	---	---	---	---	---	---	---	---	<5	---		---		---		---	---	---	---	---	---
	Dibromoclorometano *b*	1	100	µg/l	---	---	3,5	3,5	100	---	---	---	---	---	---	---	---	---	---	---	---	3,5	---		---		---		---	---	---	---	---	---
	Dureza total	1	100	mg/l CaCO3	---	---	49,8	49,8	100	---	---	---	---	---	---	---	---	---	---	---	---	49,8	---		---		---		---	---	---	---	---	---
	Enterococos	1	100	N/100 ml	0	---	0	0	100	---	---	---	---	---	---	---	---	---	---	---	---	0	---		---		---		---	---	---	---	---	---
	Ferro	1	100	µg/l Fe	200	---	<10	<10	100	---	---	---	---	---	---	---	---	---	---	---	---	<10	---		---		---		---	---	---	---	---	---
	Fluoretos	1	100	mg/l F	1,5	---	<0,10	<0,10	100	---	---	---	---	---	---	---	---	---	---	---	---	<0,10	---		---		---		---	---	---	---	---	---

Hidrocarbonetos Aromáticos Policíclicos (HAP)	4	1	100	µg/l	0,10	---	<0,025	<0,025	100	---	---	---	---	---	---	---	---	---	---	---	---	<0,025	---	---	---	---	---	---	---	---	---	---
Magnésio		1	100	mg/l	---	50	2,96	2,96	100	---	---	---	---	---	---	---	---	---	---	---	---	2,96	---	---	---	---	---	---	---	---	---	---
Mercúrio		1	100	µg/l Hg	1	---	<0,3	<0,3	100	---	---	---	---	---	---	---	---	---	---	---	---	<0,3	---	---	---	---	---	---	---	---	---	---
Níquel		1	100	µg/l Ni	---	---	<6	<6	100	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---	---	---	---	---	---	---	---
Nitritos		1	100	mg/L NO2	0,5	---	<0,05	<0,05	100	---	---	---	---	---	---	---	---	---	---	---	---	<0,05	---	---	---	---	---	---	---	---	---	---
Selénio		1	100	µg/l Se	10	---	<3	<3	100	---	---	---	---	---	---	---	---	---	---	---	---	<3	---	---	---	---	---	---	---	---	---	---
Sódio		1	100	mg/l Na	200	---	9,26	9,26	100	---	---	---	---	---	---	---	---	---	---	---	---	9,26	---	---	---	---	---	---	---	---	---	---
Sulfatos		1	100	mg/l SO4	250	---	12	12	100	---	---	---	---	---	---	---	---	---	---	---	---	12	---	---	---	---	---	---	---	---	---	---
Tetracloroeteno		1	100	µg/l	---	---	<0,5	<0,5	100	---	---	---	---	---	---	---	---	---	---	---	---	<0,5	---	---	---	---	---	---	---	---	---	---
Tricloroeteno		1	100	µg/l	---	---	<0,5	<0,5	100	---	---	---	---	---	---	---	---	---	---	---	---	<0,5	---	---	---	---	---	---	---	---	---	---
Trihalometanos Total	5	1	100	µg/l	100	---	35	35	100	---	---	---	---	---	---	---	---	---	---	---	---	35	---	---	---	---	---	---	---	---	---	---
Alfa total	d	1	100	Bq/L	0,1 Bq/L	---	<0,05	<0,05	100	---	---	---	---	---	---	---	---	---	---	---	---	<0,05	---	---	---	---	---	---	---	---	---	---
Beta total	d	1	100	Bq/L	1 Bq/L	---	<0,10	<0,10	100	---	---	---	---	---	---	---	---	---	---	---	---	<0,10	---	---	---	---	---	---	---	---	---	---
Dose Indicativa total	8	1	100	mSv/ano	0,1 mSv/ano	---	<0,03	<0,03	100	---	---	---	---	---	---	---	---	---	---	---	---	<0,03	---	---	---	---	---	---	---	---	---	---
Radão		1	100	Bq/L	500 Bq/L	---	<5,8	<5,8	100	---	---	---	---	---	---	---	---	---	---	---	---	<5,8	---	---	---	---	---	---	---	---	---	---
Diurão	c	1	100	µg/l	---	---	<0,08	<0,08	100	---	---	---	---	---	---	---	---	---	---	---	---	<0,08	---	---	---	---	---	---	---	---	---	---
Linurão	c	1	100	µg/l	0,10	---	<0,08	<0,08	100	---	---	---	---	---	---	---	---	---	---	---	---	<0,08	---	---	---	---	---	---	---	---	---	---
Terbutilazina	c	1	100	µg/l	0,10	---	<0,08	<0,08	100	---	---	---	---	---	---	---	---	---	---	---	---	<0,08	---	---	---	---	---	---	---	---	---	---
Desetilterbutilazina	c	1	100	µg/l	0,1	---	<0,08	<0,08	100	---	---	---	---	---	---	---	---	---	---	---	---	<0,08	---	---	---	---	---	---	---	---	---	---
Tebucozanol	c	1	100	µg/l	0,10	---	<0,025	<0,025	100	---	---	---	---	---	---	---	---	---	---	---	---	<0,08	---	---	---	---	---	---	---	---	---	---
Benzo(b)fluoranteno	a	1	100	µg/l	---	---	<0,005	<0,005	100	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0,025	---	---
Benzo(g,h,i)perileno	a	1	100	µg/l	---	---	<0,005	<0,005	100	---	---	---	---	---	---	---	---	---	---	---	---	<0,005	---	---	---	---	---	---	---	---	---	---
Benzo(k)fluoranteno	a	1	100	µg/l	---	---	<0,005	<0,005	100	---	---	---	---	---	---	---	---	---	---	---	---	<0,005	---	---	---	---	---	---	---	---	---	---
Indeno(1,2,3-cd)pireno	a	1	100	µg/l	---	---	<0,010	<0,010	100	---	---	---	---	---	---	---	---	---	---	---	---	<0,005	---	---	---	---	---	---	---	---	---	---
Pesticidas totais	7	1	100	µg/l	0,50	---	<0,08	<0,025	100	---	---	---	---	---	---	---	---	---	---	---	---	<0,010	---	---	---	---	---	---	---	---	---	---
TOTAL		49																				<0,08	---	---	---	---	---	---	---	<0,025	---	---

Legenda

> Valor superior ao Limite de Quantificação
< Valor inferior ao Limite de Quantificação
Abc Valor superior ao limite permitido por lei (valor paramétrico)
Abc Valor superior / inferior ao recomendado por lei (parâmetros indicadores)

1 Valor inferior ao Limite de Detecção
2 Sem alteração anormal
3 Parâmetros não obrigatórios

4 Somatório das espécies (a)
5 Somatório das espécies (b)
6 Somatório das 2 espécies

7 Somatório das espécies (c)
8 Somatório das espécies (d)

Metodologia de averiguação de causas relativas a incumprimentos:

Realização de análises de verificação.

Causas relativas a incumprimentos:

F - Não foram identificadas. (nomenclatura ERSAR)

Medidas corretivas implementadas:

N4 - Não foram tomadas medidas porque as análises posteriores não confirmaram i incumprimento. (nomenclatura ERSAR)

Observações:

Os valores a laranja referentes a **Cloro Residual Livre** não representam incumprimentos mas sim desvios aos valores recomendados (indicadores) para o parâmetro.

O valor inferior ao recomendado obtido no dia 14 de janeiro, na ZA1, não é concordante com o valor de 0,25 mg/L, obtido no ponto de controlo operacional, na rede de distribuição, na mesma data. O valor obtido na ZA2, inferior ao recomendado é concordante com o valor <0,16 mg/L, obtido na rede de distribuição correspondente.

No dia 25 de fevereiro, o valor inferior ao recomendado não é corroborado pelo valor de 0,35 mg/L obtido no ponto de controlo operacional correspondente, na rede de distribuição, da zona de abastecimento respetiva.

O valor inferior ao recomendado, obtido no dia 24 de março, na ZA1, não é concordante com o valor de 0,27 mg/L, obtido no ponto de controlo operacional, na rede de distribuição da correspondente Zona de Abastecimento.

Os valores referentes aos parâmetros **Número total de Germes a 22 °C** e **Número total de Germes a 37 °C** obtidos no dia 28 de janeiro, na ZA1, não constituem incumprimentos, mas sim desvios ao valor recomendado. Estes resultados, superiores ao valor recomendado, não são corroborados pelos valores obtidos no ambito do controlo operacional, na rede de distribuição, na correspondente zona de abastecimento cujos resultados foram, para ambos os parâmetros, igual a zero (0). Esta situação está considerada no Plano de Controlo Operacional dos SMAS, de modo a evidenciar, junto do cliente, a necessidade de intervenção na instalação predial.

O Presidente do Conselho de Administração

António José Correia (Dr)

Técnico Responsável

Márcia Reis (Engª)

Data Emissão: 31/05/2016 12:03