

Hellenic Accreditation System



Annex F1/13 to the Certificate No. **16-4**

SCOPE of ACCREDITATION

of the

Testing Laboratory

“A. TSAKALIDIS Inc.”

Tested Materials/Products	Types of test/Properties measured	Applied methods/Techniques used
Chemical tests		
1. Water and wastewater	1. Determination of Conductivity (*)	APHA 2510 B
	2. Determination of Alkalinity	In house method O.106 based on APHA 2320 B
	3. Determination of pH (*)	APHA 4500-H ⁺
	4A. Determination of Ammonium (*)	APHA 4500-NH ₃ F
	4B. Determination of Ammonium (*)	In house method O.304 based on DIN 38406-E5-1 and ISO 7150-1
	5. Determination of Calcium	APHA 3111 B
	6. Determination of Sulfates (*)	In house method O.306 based on APHA 4500-SO ₄
	7. Determination of Nitrates (*)	In house method O.305 based on DIN 38405-D9-2 & ISO 7890-1-2
	8. Determination of Nitrites (*)	In house method O.301 based on APHA 4500-NO ₂ B
	9. Determination of Potassium (*)	APHA 3500-K B
	10. Determination of Magnesium	APHA 3111 B
	11. Determination of Sodium (*)	APHA 3500-Na B
	12. Determination of Zinc	APHA 3111B
	13. Determination of Silicates	APHA 4500-SiO ₂ C
	14. Determination of Chloride (*)	APHA 4500-Cl B
	15. Determination of Turbidity (*)	In house method O.114 based on APHA 2130 B
	16. Determination of Cadmium (*)	ISO 15586:2003
	17. Determination of Lead (*)	
	18. Determination of Iron (*)	
	19. Determination of Copper (*)	
20. Determination of Aluminum (*)		

Tested Materials/Products	Types of test/Properties measured	Applied methods/Techniques used
	21. Determination of Nickel (*)	
	22. Determination of Manganese (*)	
	23. Determination of Chromium (*)	
	24. Determination of Cobalt	
	25. Determination of Molybdenum	
	26. Determination of Arsenic (*)	In house method O.507 / Hydride-A.A.S.
	27. Determination of Antimony (*)	
	28. Determination of Mercury (*)	In house method O.506 / Hydride-A.A.S.
	29. Determination of C.O.D.	In house method O.308 based on DIN 38409-H41 & ISO 6060
	30. Determination of Cyanides (*) (total, free)	In house method O.309
	31. Determination of Selenium (*)	In house method O.509
	32. Determination of Carbonate	APHA 2320 B
	33. Determination of Bicarbonate	APHA 2320 B
	34. Determination of Total Solids (*)	APHA 2540B
	35. Determination of Total Dissolved Solids	APHA 2540C
	36. Determination of Total Suspended Solids	APHA 2540D
	37. Determination of Total Nitrogen	In house method O.314/photometry
	38. Determination of Total Phosphorus	In house method O.315/photometry
2. Potable, surface and groundwater	1. Determination of Total Hardness (as CaCO ₃)	ELOT 170:1980
	2. Determination of Fluoride (*)	In house method O.307 based on APHA 4500-F D
	3. Determination of Boron (*)	APHA 4500-B B
	4. Determination of Bromates (*)	In house method O.624
	5. Determination of Acrylamide (*)	In house method O.625
	6. Determination of Cr (VI)	EPA 7196 A
	7. Determination of Trialomethanes (*) (Chloroform, Dichlorobromomethane, Chlorodibromomethane, Bromoform)	In house method O.617
	8. Determination of 1,2-Dichloroethane (*)	
	9. Determination of Trichloroethene (*)	
	10. Determination of Tetrachloroethene (*) (*)	
	11. Determination of Benzene (*)	

Tested Materials/Products	Types of test/Properties measured	Applied methods/Techniques used	
	12. Determination of Vinyl chloride (*)		
	13. Determination of Epichlorohydrin (*)	In house method O.630 based on EN 14207	
	14. Determination of Color	APHA 2120 C	
	15. Determination of Chlorine residual (total, free) (*)	In house method O.312	
	16. Determination of Oxidisability (*) (Permanganate index value)	ELOT 827	
	17. Determination of Bromide (*)	In house method O.628 by Ion Chromatography	
	18. Determination of Nitrate (*)		
	19. Determination of Sulphate (*)		
	20. Determination of Fluoride (*)		
	21. Determination of Phosphate (*)		
	22. Determination of Chloride (*)		
		23. Determination of 16 Polycyclic Aromatic Hydrocarbons: Acenaphthene, Acenaphthylene, Anthracene, Benzo[a]anthracene, Benzo[a]pyrene(*), Benzo[b]fluoranthene(*), Benzo[ghi]perylene(*), Benzo[k]fluoranthene(*), Chrysene, Dibenzo[a.h]anthracene, Fluoranthene, Fluorene, Indeno[1.2.3-cd]pyrene(*), Naphthalene, Phenanthrene, Pyrene	In house method O.631 based on EPA 525.3
		3. Products of animal and vegetable origin	1. Determination of Nitrogen
4. Foodstuffs		1. Determination of Moisture and Dry total matter	Greek Food Code, Volume II, Part B, Γ1
		2. Determination of Ash	Greek Food Code, Volume II, Part B, Γ2

Tested Materials/Products	Types of test/Properties measured	Applied methods/Techniques used
	3. Determination of Fat	In house method O.140 based on Weibull-Stoldt
	4. Determination of Cadmium	In house method O.511 based on AOAC 999.10 according to method specification requirements of regulation EC 333/2007 and as amended by regulation EC 836/2011
	5. Determination of Lead	In house method O.511 based on AOAC 999.10
	6. Determination of Sodium	In house method O.514
5. Foodstuffs and drinks	1. Determination of Sorbic and Benzoic acid	In house method O.608 / HPLC
6. Dried nuts, cereals and their products	1. Determination of Aflatoxins B1, B2, G1, G2	In house method O.603 based on AOAC 991.31:2000
7. High carbohydrate content food , Wine	1. Determination of Ochratoxin A	In house method O.622
8. Meat, fish and their products, high water content food, cereals and products, dried nuts	1. Determination of Mercury	In house method O.512 based on AOAC 999.10 according to method specification requirements of regulation EC 333/2007 and as amended by regulation EC 836/2011
9. Foodstuffs of vegetable origin, fresh and processed	1. Determination of Dietary fibres	In house method O.118 based on AOAC 991.43
10. Cereals and their products	1. Determination of Propionic acid	In house method O.600
11. Animal feeds	1. Determination of Total Fat	Regulation (EC) 152/2009, Method H, 2.2
	2. Determination of directly extractable Fats	Regulation (EC) 152/2009, Method H, 2.1
12. Materials in contact with foodstuffs	1. Overall migration into aqueous simulants (A, B,C) and simulant D1 (50% ethanol) by total immersion	EN 1186-3:2002
	2. Overall migration into aqueous simulants (A, B,C) and simulant D1 (50% ethanol) by article filling	EN 1186-9:2002
	3. Overall migration into aqueous simulants (A, B,C) and simulant D1 (50% ethanol) using a pouch	EN 1186-7:2002
	4. Overall migration into aqueous simulants (A, B,C) and simulant D1 (50% ethanol) by cell	EN 1186-5:2002
	5. Overall migration into simulant D2 (vegetable oil) by total immersion	In house method O.626 based on EN 1186-2:2002
	6. Overall migration into simulant D2 (vegetable oil) by article filling	EN 1186-8:2002

Tested Materials/Products	Types of test/Properties measured	Applied methods/Techniques used
	7. Overall migration into simulant D2 (vegetable oil) using a pouch	In house method O.627 based on EN 1186-6:2002
	8. Overall migration into simulant D2 (vegetable oil) by cell	In house method O.633 based on EN 1186-4:2002
	9. Overall migration using simulant E (adsorption by poly(2,6-diphenyl-p-phenylene oxide)- Tenax®)	In house method O.125 based on EN 1186-13 B:2002 & EN 14338:2003
	10. Specific migration of Primary Aromatic Amines into aqueous simulants (A, B,C)	BVL L 00.00-6
	11. Specific migration of Bisphenol A into aqueous simulants (A, B,C) and simulant D ₁ (50% ethanol) and simulant D ₂ (vegetable oil)	In house method O.634/HPLC-FLD
13. Materials in contact with foodstuffs- Paper and board	1. Determination of Pentachlorophenol	In house method O.635 based on ISO 15320:2011
	2. Determination of Cadmium	In house method O.518 atomic absorption hydride technique
	3. Determination of Lead	In house method O.518 atomic absorption hydride technique
	4. Determination of Mercury	In house method O.519 atomic absorption hydride technique
Microbiological tests		
1. Water for human consumption, surface water, groundwater, pool water, sea water,	1. Detection and enumeration of <i>Escherichia coli</i> and coliform bacteria	ISO 9308-1:2014
2. Water for human consumption, surface water, groundwater, pool water, sea water	1. Detection and enumeration of intestinal enterococci	ISO 7899-2:2000
	2. Enumeration of culturable micro-organisms at 22±2 °C and at 36±2 °C	ISO 6222:1999
3. Water for human consumption, surface water, groundwater, pool water	1. Detection and enumeration of the spores of sulfite reducing anaerobes (clostridia)	ISO 6461-2:1986
	2. Detection and enumeration of <i>Pseudomonas aeruginosa</i>	ISO 16266:2006
	3. Detection and enumeration of <i>Cl. perfringens</i> (including spores)	Annex III of J.M.D. Y2/2600/2001, as modified, completed and valid until now
	4. Detection and enumeration of <i>Cl. perfringens</i> (including spores)	ISO 14189:2013

Tested Materials/Products	Types of test/Properties measured	Applied methods/Techniques used
4. Potable, surface, groundwater, pool and air conditioning systems water	1. Detection and enumeration of <i>Legionella</i>	ISO 11731:1998
5. Food and animal feeding stuffs	1. Enumeration of total coliforms	ISO 4832:2006
	2. Enumeration of <i>Escherichia coli</i>	ISO 7251:2005
	3. Detection of <i>Listeria monocytogenes</i>	ISO 11290-1:1996/Amd 1:2004
	4. Detection of <i>Salmonella</i> spp.	ISO 6579:2002 Cor1:2004
	5. Enumeration of coagulase positive <i>Staphylococcus</i>	ISO 6888-2:1999
	6. Enumeration of microorganisms -- Colony-count technique at 30 ⁰ C	ISO 4833-1:2013
	7. Enumeration of <i>Bacillus cereus</i>	ISO 7932:2004
	8. Enumeration of <i>Clostridium perfringens</i>	ISO 7937:2004
	9. Enumeration of Enterobacteriaceae	ISO 21528-2:2004
	10. Enumeration of <i>Escherichia coli</i>	ISO 16649-2:2001
	11. Enumeration of <i>Listeria monocytogenes</i>	ISO 11290-2:1998 / Amd 1: 2004
	12. Enumeration of beta-glucuronidase-positive <i>Escherichia coli</i> (MPN technique)	ISO 16649-3:2005
6. Food and animal feeding stuffs with $a_w > 0,95$	1. Enumeration of yeasts and moulds	ISO 21527-1:2008
7. Food and animal feeding stuffs with $a_w \leq 0,95$	1. Enumeration of yeasts and moulds	ISO 21527-2:2008
8. Human food products and environmental samples	1. Detection of <i>Listeria monocytogenes</i> with VIDAS	Validation certificate AFAQ/ AFNOR Bio 12/11-03/04
9. Human and animal food products and environmental samples (except stock farming environment)	1. Detection of <i>Salmonella</i> spp. with VIDAS	Validation Certificate AFAQ/AFNOR Bio 12/16-09/05
10. Animal faeces and environmental samples from the primary production stage	1. Detection of <i>Salmonella</i> spp.	ISO 6579:2002/Amd. 1:2007, annex D
Sampling		
1. Water for human consumption	1. Determination of chemical and microbiological parameters	ISO 5667-1:2006 ISO 5667-3:2012 ISO 5667-5:2006 ISO 5667-14:2014 ISO 19458:2006

Tested Materials/Products	Types of test/Properties measured	Applied methods/Techniques used
2. Samples from surfaces using contact plates and swabs	1. Horizontal methods for sampling techniques for microbiology tests	ISO 18593:2004

**Methods marked with (*) are in accordance with the method specification of Common Ministerial Decision Y2/2600/2001 (regulation EC 98/83 and its amendments) concerning the quality of drinking water.*

1. American Public Health Association, American Water Works Association, Water Environment Federation, “Standard Methods for the Examination of Water and Wastewater”, 22nd Edition, 2012

2.AOAC: Association of Analytical Communities

Site of assessment: **Permanent laboratory premises, 12 Tsamadou Str., Piraeus, Attiki, Greece.**

Approved signatories: **A. Tsakalidis, A. Gagomoiros, P. Drillia.**

This scope of Accreditation replaces the previous one dated 12.12.2014

The Accreditation Certificate No.16-4, to ELOT EN ISO/IEC 17025:2005, is valid until 12.03.2017.

Athens, 5.12.2016

Ioannis Sitaras

Director of the Laboratories Accreditation Division