

International Accreditation Service
CERTIFICATE OF ACCREDITATION

This is to signify that

AL-HOTY ANALYTICAL SERVICES

MINA SULMAN INDUSTRIAL AREA

PO BOX 26577

MANAMA

KINGDOM OF BAHRAIN

Testing Laboratory TL-398

has met the requirements of the IAS Accreditation Criteria for Testing Laboratories (AC89), has demonstrated compliance with ISO/IEC Standard 17025:2005, *General requirements for the competence of testing and calibration laboratories*, and has been accredited, commencing January 29, 2014, for the test methods listed in the approved scope of accreditation.



Patrick V. McCullen
Vice President



C. P. Ramani, P.E.
President



(see attached scope of accreditation for fields of testing and accredited test methods)

Print Date: 2/6/2014

This accreditation certificate supersedes any IAS accreditation certificate bearing an earlier date. The certificate becomes invalid upon suspension, cancellation or revocation of accreditation.
See the IAS Accreditation Listings on the web at www.iasonline.org for current accreditation information, or contact IAS directly at (562) 364-8201.

Page 1 of 7

International Accreditation Service
SCOPE OF ACCREDITATION

Al-Hoty Analytical Services TL-398
 (Revised January 29, 2014)

Al-Hoty Analytical Services
 Mina Sulman Industrial Area
 PO Box 26577
 Manama
 Kingdom of Bahrain

Kester Singh
 Technical Leader
 +973-17727450

FIELDS OF TESTING	ACCREDITED TEST METHODS
Cement, Concrete, Aggregates	<p>Cement British Standards BS EN 196-1, BS EN 196-3, Clauses 5 and 6 and BS EN 196-6</p> <p>Concrete ASTM Standard C 1202 BS EN Standards 12390-3, BS EN 12504-1, BS EN 12390-2, BS EN 12350-1, BS EN 12390-7, BS EN 12390-3, and BS EN 12504-2 British Standards BS 1881-116, BS 1881-20, BS 1881-108, BS 1881-101, BS 1881-114, BS 1881-122, and BS 1881-201(BRE Digest 405) German Standard DIN 1048</p>

January 29, 2014
 Commencement Date

Print Date: 2/6/2014



C. P. Ramani
 C. P. Ramani, P.E.
 President

Page 2 of 7

This accreditation certificate supersedes any IAS accreditation certificate bearing an earlier date. The certificate becomes invalid upon suspension, cancellation or revocation of accreditation.
 See the IAS Accreditation Listings on the web at www.iasonline.org for current accreditation information, or contact IAS directly at (562) 364-8201.

International Accreditation Service
SCOPE OF ACCREDITATION

Al-Hoty Analytical Services TL-398
 (Revised January 29, 2014)

FIELDS OF TESTING	ACCREDITED TEST METHODS
Cement, Concrete, Aggregates(continued)	Aggregates ASTM Standards C 131, C 142/C 142M and C 535 BS EN Standard 933-1 British Standards BS 812-2, BS 812-105.1, and BS 812-105.2
Soils and Rocks	Soil British Standards BS 1377-2, Clauses 3.2, 4.5, 4.6, 5.0, 9.2 and 9.3, BS 1377-4 Clauses 3.3, to 3.6, and BS 1377-9 Clauses 2.1 and 2.5 Rocks ASTM Standard D 5731
Masonry	Masonry Blocks and Paving Units ASTM Standard C 140 BS EN Standards 772-1, BS EN 772-13 and BS EN 772-16 British Standard BS 6717
Steel and Alloys	ASTM Standard 350/351/353(ICP-AES; Manganese, Molybdenum, Nickel, Aluminum, Antimony, Chromium, Cobalt, Copper, Iron, Lead, Vanadium, Zinc, Phosphorous, Titanium, Tin; Combustion/ IR Detection for Carbon and Sulphur

January 29, 2014
 Commencement Date



C. P. Ramani
 C. P. Ramani, P.E.
 President

Print Date: 2/6/2014

Page 3 of 7

This accreditation certificate supersedes any IAS accreditation certificate bearing an earlier date. The certificate becomes invalid upon suspension, cancellation or revocation of accreditation.
 See the IAS Accreditation Listings on the web at www.iasonline.org for current accreditation information, or contact IAS directly at (562) 364-8201.

International Accreditation Service
SCOPE OF ACCREDITATION

Al-Hoty Analytical Services TL-398
 (Revised January 29, 2014)

FIELDS OF TESTING	ACCREDITED TEST METHODS
Steel	A 370 (Sections 5 to 13 and 18), A 833 and E 110 BS EN Standard 124 BS EN/ISO Standards 10002-1 and 15630-1 British Standard BS 4449
Chemistry – Soil, Cement, Concrete, Aggregates and Masonry	Soil British Standard BS 1377 (Clauses 5.5, 6 and 7.3) Concrete British Standards BS 1881, Part 124 (Clauses 10.2 and 10.3), and BS 3148 Aggregate British Standards BS 812-118 and BS 812-119
Environmental Chemistry – Water and Waste Water	APHA 2120 C, APHA 2130B, APHA 2320B, APHA 2340 B/C, APHA 2510 B, APHA 2520 B APHA 2540B, APHA 2540C, APHA 2540D, APHA 2540 E, APHA 2540 F, APHA 2540 G, APHA 2550 B, APHA 2580 B, APHA 3120 B/USEPA 6010 C, APHA 3500CaB, APHA 3500MgB, APHA 4500 B-B, APHA 4500 Br-B, APHA 4500Cl ⁻ B, APHA 4500 Cl-B&C, APHA 4500 Cl-B,C&G, APHA 4500 CO ₂ -C, APHA 4500 CN-C,D and E, APHA 4500H ⁺ B and APHA 4500SO ₄ ²⁻ E,

January 29, 2014
 Commencement Date

Print Date: 2/6/2014



C. P. Ramani
 C. P. Ramani, P.E.
 President

Page 4 of 7

*This accreditation certificate supersedes any IAS accreditation certificate bearing an earlier date. The certificate becomes invalid upon suspension, cancellation or revocation of accreditation.
 See the IAS Accreditation Listings on the web at www.iasonline.org for current accreditation information, or contact IAS directly at (562) 364-8201.*

International Accreditation Service
SCOPE OF ACCREDITATION

Al-Hoty Analytical Services TL-398
 (Revised January 29, 2014)

FIELDS OF TESTING	ACCREDITED TEST METHODS
Environmental Chemistry – Water and Waste Water (continued)	APHA 4500 F-B&D, APHA 4500 I-B, APHA 4500 N _{org} -B, APHA 4500 NH ₃ -N-B&C, APHA 4500 NO ₂ -B, APHA 4500 NO ₃ -E, APHA 4500 O-C&G, APHA 4500 P-C&E, APHA 4500 P-J, APHA 4500 SiO ₂ -C&D, APHA 4500 S ₂ -D&F, APHA 4500 SO ₃ -B, APHA 4500 SO ₄ -C&E, APHA 5210 BOD-B&D, APHA 5220 COD-C&D, APHA 5310 B/USEPA 9060a, APHA 5520B/EPA 1664a, APHA 5530 C&D, APHA 5540 C, APHA 4500-N C and Sampling and Transportation HACH 8075
Water and Waste Water & Sediment Microbiology	APHA 9213-B, APHA 9213-F, APHA 9213-E, APHA 9215-B, APHA 9215-C, APHA 9215-D, APHA 9221-B, APHA 9221-D, APHA 9221-E, APHA 9222-B, APHA 9222-D, APHA 9221-F, APHA 9222-G, APHA 9230-B, APHA 9230-C, APHA 9240-D, APHA 9260-B, APHA 9260-E, APHA 9260-E and APHA 9610-C; ISO 11731-part-2; WHO 1996
Food Microbiology	BAM-January-2001, Chapter-03; BAM-January-2001, Chapter-12; BAM-January-2001, Chapter-14; BAM-April-2011, Chapter-10; BAM-April-2001, Chapter-18 BAM-September-2002, Chapter-4 (Escherichia Coli and Total Coliforms) and BAM - November - 2011, Chapter-5; ISO 21528-1,2004 and ISO 21528-2,2004; EN-ISO 18593-2004(E) (Surface Swab and Hand Swab)

January 29, 2014
 Commencement Date



C. P. Ramani
 C. P. Ramani, P.E.
 President

Print Date: 2/6/2014

Page 5 of 7

*This accreditation certificate supersedes any IAS accreditation certificate bearing an earlier date. The certificate becomes invalid upon suspension, cancellation or revocation of accreditation.
 See the IAS Accreditation Listings on the web at www.iasonline.org for current accreditation information, or contact IAS directly at (562) 364-8201.*

International Accreditation Service
SCOPE OF ACCREDITATION

Al-Hoty Analytical Services TL-398
 (Revised January 29, 2014)

FIELDS OF TESTING	ACCREDITED TEST METHODS
Air Microbiology	Hi-Petri Air Sampler Method for Aerobic Plate Count (Total Plate Count) and Fungi (Yeast and Molds); BSEN ISO 10545-13: 1997 and BSEN ISO 10545-14: 1997
Soil / Sludge/Sediment	USEPA 3050B/6010B for ICP-AES, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silica, Silver, Sodium, Strontium, Vanadium, Zinc, Mercury, Titanium, Tin, Phosphorous; APHA 5210 BOD-B/D, APHA 5220 COD-C/D, USEPA 9060a, EPA 1664A, APHA 5520 F and USEPA TCLP 1311/ USEPA 6010 B (TCLP Extraction & analysis of metals (Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium & Silver)
Cement/Flyash/Microsilica	GSO 938- 2009 (E)/ ASTM C-114-00/ BSEN 196, ASTM C311-13 [Loss on Ignition (LOI), Iron Oxide (Fe ₂ O ₃), Aluminium Oxide (Al ₂ O ₃), Calcium Oxide (CaO), Magnesium Oxide (MgO), Sodium Oxide (Na ₂ O), Potassium Oxide (K ₂ O), Insoluble Residue (IR), Sulphur Trioxide (SO ₃) and Chloride (Cl)]
Limestone/Rock/Aggregate	ASTM Stsndard C 25 [Loss on Ignition (LOI), Iron Oxide (Fe ₂ O ₃), Aluminium Oxide (Al ₂ O ₃), Calcium Oxide (CaO), Magnesium Oxide (MgO), Sodium Oxide (Na ₂ O), Potassium Oxide (K ₂ O), Insoluble Residue (IR), Sulphur Trioxide (SO ₃) and Chloride (Cl)]

January 29, 2014
 Commencement Date



C. P. Ramani
 C. P. Ramani, P.E.
 President

Print Date: 2/6/2014

Page 6 of 7

This accreditation certificate supersedes any IAS accreditation certificate bearing an earlier date. The certificate becomes invalid upon suspension, cancellation or revocation of accreditation.
 See the IAS Accreditation Listings on the web at www.iasonline.org for current accreditation information, or contact IAS directly at (562) 364-8201.

International Accreditation Service

SCOPE OF ACCREDITATION

Al-Hoty Analytical Services TL-398
(Revised January 29, 2014)

FIELDS OF TESTING	ACCREDITED TEST METHODS
Stack Emission Monitoring	USEPA CTM 034 [Oxygen (O ₂), Carbon Dioxide (CO ₂), Sulphur Dioxide (SO ₂), Carbon Monoxide (CO) and Nitric Oxide (NO), Nitrogen Dioxide (NO ₂), Oxides of Nitrogen (NO _x), Hydrogen Sulphide (H ₂ S), Hydrocarbons, Ambient Temperature and Gas Temperature]
Indoor Air Quality/Personal Hygiene Monitoring	OSHA - Sampling and Analytical Methods [Temperature, Relative Humidity (RH), Oxygen (O ₂), Ozone (O ₃), Carbon Dioxide (CO ₂), Carbon Monoxide (CO), Sulphur Dioxide (SO ₂), Nitrogen Dioxide (NO ₂), Nitric Oxide (NO), Hydrogen Sulphide (H ₂ S), TVOC, Formaldehyde (HCHO), Fluorine, Hydrogen Fluoride, Particulate Matter and Noise Level]
Tiles	BSEN ISO 10545-13 (Chemical Resistance) and BSEN ISO 10545-14: (Resistance to Stains)
Non-Destructive Testing	ASME Sections V and IX (Radiographic Examination only)

January 29, 2014
Commencement Date



C. P. Ramani
C. P. Ramani, P.E.
President

Print Date: 2/6/2014

Page 7 of 7

This accreditation certificate supersedes any IAS accreditation certificate bearing an earlier date. The certificate becomes invalid upon suspension, cancellation or revocation of accreditation.
See the IAS Accreditation Listings on the web at www.iasonline.org for current accreditation information, or contact IAS directly at (562) 364-8201.