


Schedule of Accreditation

issued by

United Kingdom Accreditation Service

2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

 0172 Accredited to ISO/IEC 17025:2017	Element Materials Technology Oil and Gas UK Limited Trading as Element Materials Technology Edinburgh	
	Issue No: 054 Issue date: 16 April 2021	
	Lochend Industrial Estate Newbridge Midlothian Scotland EH28 8PL	Contact: Mr A MacFarlane Tel: +44 (0)131 333 4360 Fax: +44 (0)131 333 5135 E-Mail: allan.macfarlane@element.com Website: www.element.com
Testing performed by the Organisation at the locations specified		

Locations covered by the organisation and their relevant activities

Element Materials Technology Oil and Gas UK Limited, Trading as Element Materials Technology Edinburgh is accredited for a flexible scope that enables them to establish new and amended test methods, modification of existing methods and include newly revised or technically equivalent methods to conduct the activities detailed below, in accordance with their documented in-house procedure EX-OG-QU-X-EDM SOP 26007.

Laboratory locations:

Location details	Activity	Location code
Address Lochend Industrial Estate Newbridge Midlothian Scotland EH28 8PL	Local contact Mr A MacFarlane Tel: +44 (0)131 333 4360 Fax: +44 (0)131 333 5135 E-Mail: allan.macfarlane@element.com	Head Office Support Functions Metals & Weldments - Corrosion Metals & Weldments - Mechanical Metals & Weldments - Metallurgical A

Site activities performed away from the locations listed above:

Location details	Activity	Location code
Address Customer and Industrial Premises	Local contact Mr A MacFarlane Tel: +44 (0)131 333 4360 Fax: +44 (0)131 333 5135 E-Mail: allan.macfarlane@element.com	Categorisation of Alloys (Positive Material Identification by portable XRF & portable OES) B



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DETAIL OF ACCREDITATION

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
METALS, ALLOYS and METAL PRODUCTS	<u>Corrosion Tests</u>		
Austenitic stainless steels and wrought, nickel-rich, chromium-bearing alloys	Susceptibility to intergranular attack	ASTM A262 Practices A, B, C & E ASTM G28 Method A BS EN ISO 3651-2	A
Stainless steels and related alloys	Pitting corrosion resistance	ASTM G48) Method A	A
Duplex stainless Steels	Detrimental Intermetallic Phases	ASTM A923 (Method C)	A
	<u>Mechanical Tests</u>		
	Bend	BS EN ISO 7438 DNV-OS-F101 (Appendix C para F309 to F311)	A
	Fracture toughness:		
	CTOD J _{critical} (Temperature range -196°C and -120°C to ambient)	BS 7448:Part 1 BS EN ISO 15653 BS EN ISO 12135 ASTM E1820 DNVGL ST F101	A
	Hardness:		
	Brinell hardness (1/30 and 10/3000)	ASTM E10 BS EN ISO 6506-1	A
	Rockwell (B and C scales)	ASTM E18 BS EN ISO 6508-1	A
	Vickers (HV5, 10, 30)	ASTM E92 BS EN ISO 6507-1	A
		Documented In-house Method – EL-31286 Fracture Standards Overview	



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METALS, ALLOYS and METAL PRODUCTS (cont'd)	<u>Mechanical Tests (cont'd)</u>		
	Impact: Charpy (V notch) (Temperature range -196°C and -120°C to ambient)	BS EN ISO 148-1 ASTM E23 ASTM A370	A
	Lateral expansion and percent shear	BS EN ISO 148-1 ASTM E23 ASTM A370	A
	Tensile (Ambient temperature to 300°C) (Loads up to 1200 kN)	ASTM E8/E8M ASTM E21 ASTM A370 BS EN ISO 6892-1 BS EN ISO 6892-2 DNV-OS-F101	A
	Through thickness tensile	BS EN 10164 ASTM A770/A770M	A
Pipe	Ring flattening (Loads up to 1200 kN)	BS EN ISO 8492 ASTM A370 ASTM A530/A530M	A
Clad Material	Shear	ASTM A264 ASTM A265	A
	<u>Metallurgical Tests</u>		
	Average grain size (comparison method)	ASTM E112	A
	Inclusion content	ASTM E45 Method A and D	A
	Volume fraction by point count	ASTM E562	A
Nickel based alloy 718	Macrostructure and Microstructure examination of microstructure	API 6ACRA	A
Ferrous and Non-ferrous products	Microstructural examination	Documented In-House Method EX-G-OP-MET-X-MD25217	A



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Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
METALS, ALLOYS and METAL PRODUCTS (cont'd) Weldments	<u>Mechanical and Metallurgical Tests</u> Tests in accordance with specified welding codes: Bend, Fracture, Hardness, CTOD, Tensile, Impact, Macro examination	BS EN ISO 4136 BS EN ISO 5173 BS EN ISO 9015-1 BS EN ISO 9016 BS EN ISO 9017 BS EN ISO 17639 API Spec. 5L API 1104 ASME BPVC Section IX AWS D1.1/D1.1M DNV-OS-F101 Appendix C – F309 to F311 BS 4515-1 BS 4515-2 BS EN 287-1 BS EN ISO 9606-1 BS EN ISO 9606-2 BS EN ISO 15614-1 BS EN ISO 15614-2 BS EN ISO 15653 BS 7448-2:1997 (Withdrawn)	A
Ferrous and Non-ferrous products	Categorisation of alloys (Positive Material Identification)	Documented In-House Method EX-OG-OP-CH-EDM-MD 26402 using portable XRF	A, B
Low Alloy Carbon & Stainless Steels	Categorisation of alloys (Positive Material Identification)	Documented In-House Method EX-OG-OP-CH-EDM-MD 26630 using portable OES	A, B
ORGANIC COATINGS AND PAINTS	Salt Spray	ISO 9227 ASTM B117 ISO 12944-6 ISO 12944-9 Norsok M-501	A
	Determination of resistance to humidity (Continuous Condensation)	ISO 6270-1 ISO 12944-6	A



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ORGANIC COATINGS AND PAINTS (Cont'd)	Determination of resistance to liquids (Water Immersion)	ISO 2812-2 ISO 12944-6 ISO 12944-9 Norsok M-501	A
	Cathodic Disbonding	ISO 15711 ISO 12944-9 Norsok M-501	A
	UV/Condensation	ISO 16474-3 ISO 12944-6 ISO 12944-9 Norsok M-501	A
	Pull-off Adhesion	ISO 4624 ISO 12944-6 ISO 12944-9 Norsok M-501	A
	Assessment of Degree of Blistering	ISO 4628-2 ISO 12944-6 ISO 12944-9 Norsok M-501	A
	Assessment of Degree of Rusting	ISO 4628-3 ISO 12944-6 ISO 12944-9 Norsok M-501	A
	Assessment of Degree of Cracking	ISO 4628-4 ISO 12944-6 ISO 12944-9 Norsok M-501	A
	Assessment of Degree of Flaking	ISO 4628-5 ISO 12944-6 ISO 12944-9 Norsok M-501	A
	Assessment of Degree of Chalking	ISO 4628-6 ISO 12944-6 ISO 12944-9 Norsok M-501	A
END			