Schedule of Accreditation

issued by

United Kingdom Accreditation Service

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

1927

Accredited to ISO/IEC 17025:2017

EffecTech Limited

Issue No: 032 **Issue date:** 16 January 2025

Dove House
Dove Fields
Uttoxeter
Staffordshire
ST14 8HU

Contact: Steve Price
Tel: +44 (0)1889 569229
Fax: +44 (0)1889 569220
E-Mail: steve.price@effectech.co.uk
Website: www.effectech.co.uk

Testing performed at the above address only

DETAIL OF ACCREDITATION

Materials/Products tested	Type of test/Properties measured/Range of measurement		Standard specifications/ Equipment/Techniques used
	Chemical Analysis		
NATURAL GAS	amount fraction	(%mol/mol)	**In-house method TM001/UT**
	nitrogen	0.1 to 22	Analysis of natural gas using gas chromatography (GC-TCD and GC-FID)
	carbon dioxide	0.05 to 15	
	methane	34 to 100	
	ethane	0.1 to 35	
	propane	0 to 15	Where the lower limit of the range is given as nil or zero amount fraction then, if the component is not detected in the sample, the certificate shall include the amount fraction in the form <x.xxxxxx where x.xxxxx is a value at or above the limit of quantification (LoQ) determined for that component.
	iso-butane	0 to 2	
	n-butane	0 to 2	
	neo-pentane	0 to 0.35	
	iso-pentane	0 to 0.35	
	n-pentane	0 to 0.35	
	2-methylpentane	0 to 0.1	
	3-methylpentane	0 to 0.1	
	2,2-dimethylbutane	0 to 0.1	
	n-hexane	0 to 0.1	
	hexanes [1]	0 to 0.1	Note [1]: the amount fraction of a grouped component is the sum of all isomers in that group except for those identified separately
	benzene	0 to 0.1	
	cyclohexane	0 to 0.1	
	n-heptane	0 to 0.1	
	heptanes [1]	0 to 0.1	
	toluene	0 to 0.1	
	methylcyclohexane	0 to 0.1	
	n-octane	0 to 0.05	
	octanes [1]	0 to 0.05	
	n-nonane	0 to 0.02	
	nonanes [1]	0 to 0.02	
	n-decane	0 to 0.005	
	decanes [1]	0 to 0.005	
	helium	0 to 0.2	
	hydrogen	0 to 0.2	
	oxygen	0 to 1	
	argon	0 to 0.05	
	C_6+[2]	0 to 0.35	Note [2]: the sum of all hydrocarbons containing six carbon atoms or greater

1927

Accredited to ISO/IEC 17025:2017

Schedule of Accreditation

issued by

United Kingdom Accreditation Service

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

EffecTech Limited

Issue No: 032 **Issue date:** 16 January 2025

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
NATURAL GAS	Calculated values from composition	**In-house method TM001/UT**
	superior calorific value inferior calorific value relative density density superior Wobbe index inferior Wobbe index molar mass compression factor	Values calculated according to **ISO 6976:1995** (including amendment No 1, May 1998) on a *real* or *ideal* gas basis assuming mixture is dry (free from water) Combustion properties can be expressed in units of the Joule (J) or in kilowatt hours (kWh)
	gross calorific value net calorific value relative density density gross Wobbe index net Wobbe index molar mass compression factor	Values calculated according to **ISO 6976:2016** on a *real* or *ideal* gas basis assuming mixture is dry (free from water) Combustion properties can be expressed in units of the Joule (J) or in kilowatt hours (kWh)
	gross heating value net heating value relative density compressibility factor	Calculated values according to methods given in **GPA 2172-19** (2019) using data tables from **GPA 2145-16**
	gross heating value net heating value relative density compressibility factor	Calculated values according to methods given in **ASTM D3588-98** (2017) using data tables from **GPA 2145-16**
	Calculated values from composition	**In-house method TM001/UT**
	carbon dioxide emission factor (gross combustion energy basis) carbon dioxide emission factor (net combustion energy basis) carbon dioxide emission factor (volume basis)	Calculated values in support of the COMMISSION REGULATION (EU) No 601/2012 of 21 June 2012 on the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council of Brussels, 18/VII/2007 C (2007) 3416 final (publ EU Commission 18th July 2007)

1927

Accredited to ISO/IEC 17025:2017

Schedule of Accreditation

issued by

United Kingdom Accreditation Service

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

EffecTech Limited

Issue No: 032 **Issue date:** 16 January 2025

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement		Standard specifications/ Equipment/Techniques used
	Chemical Analysis		
NATURAL GAS	amount fraction	(mol/mol)	**In-house method TM002/UT**
	hydrogen sulphide	0 to 10	Analysis of sulphur components in natural gas using gas chromatography with sulphur chemiluminescence detection (SCD)
	carbonyl sulphide	0 to 10	
	methanethiol (methyl mercaptan)	0 to 10	
	ethanethiol (ethyl mercaptan)	0 to 10	Where the lower limit of the range is given as nil or zero amount fraction then, if the component is not detected in the sample, the certificate shall include the amount fraction in the form <x.xx where x.xx is a value at or above the limit of quantification (LoQ) determined for that component.
	2-methyl-2-propanethiol (tert-butyl mercaptan)	0 to 10	
	propanethiol (n-propyl mercaptan)	0 to 10	
	butanethiol (n-butyl mercaptan)	0 to 10	
	2-propanethiol (iso-propyl mercaptan)	0 to 10	
	dimethyl sulphide	0 to 10	
	ethyl methyl sulphide (methyl ethyl sulphide)	0 to 10	
	diethyl sulphide	0 to 10	
	tetrahydrothiophene (THT)	0 to 10	

END