STACK EMISSIONS MONITORING REPORT

SOCOTEC

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Operator & Address:
Harsco Metals Group Limited Steelphalt Slag Reduction Co The Ickles Sheffield Road Rotherham South Yorkshire S60 1DR

Permit Reference:
N/A - Investigative Test

Release Point:
Coating Plant

Sampling Date(s):
9th November 2019

SOCOTEC Job Number: Report Date: Version:	LNO 15414 9th November 2019 1
Report By: MCERTS Number: MCERTS Level: Technical Endorsements:	Keith Bird MM 07 825 MCERTS Level 2 - Team Leader 1, 2, 3 & 4
Report Approved By: MCERTS Number: Business Title: Technical Endorsements: Signature:	Gary Orley MM 13 1223 MCERTS Level 2 - Team Leader 1, 2, 3 & 4 G. Orley

UKAS TESTING 1015

MCERTS THE ENVIRONMENT AGENCY'S MONITORING CERTIFICATION SCHEME

CONTENTS

EXECUTIVE SUMMARY

MONITORING OBJECTIVES

Harsco Metals Group Limited operates a roadstone coating process at Steelphalt

SOCOTEC LTD were commissioned by Harsco Metals Group Limited to carry out stack emissions monitoring to determine the release of prescribed pollutants from the following Plant under normal operating conditions.

Plant

Coating Plant

Operator

Harsco Metals Group Limited
Steelphalt Slag Reduction Co
The Ickles
Sheffield Road
Rotherham
South Yorkshire
S60 1DR

No Permit Applicable: Investigative

Stack Emissions Monitoring Test House

SOCOTEC - Stockport Laboratory
Unit 5 Crown Industrial Estate
Kenwood Road
Stockport
SK5 6PH
UKAS and MCERTS Accreditation Number: 1015

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.
MCERTS accredited results will only be claimed where both the sampling and analytical stages are UKAS accredited.
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EXECUTIVE SUMMARY

EMISSIONS SUMMARY					
Parameter	Units	Result	Calculated Uncertainty +/-	Emission Limit Value (ELV)	MCERTS accredited result
Oxides of Nitrogen (as NO_2)	mg/m³	7.7	2.4	-	✓
Oxides of Nitrogen (as NO_2) Emission Rate	g/hr	314	97	-	
Stack Gas Temperature	°C	102	-	-	✓
Stack Gas Velocity	m/s	12.7	0.30	-	
Gas Volumetric Flow Rate (Actual)	m³/hr	56303	2881	-	
Gas Volumetric Flow Rate (STP, Wet)	m³/hr	40506	2073	-	
Gas Volumetric Flow Rate (STP, Dry)	m³/hr	38885	1990	-	
Gas Volumetric Flow Rate at Reference Conditions	m³/hr	40506	2073	-	

ND = None Detected,

Results at or below the limit of detection are highlighted by bold italic text.

The above volumetric flow rate is calculated using data from the preliminary survey. Mass emissions for non isokinetic tests are calculated using these values. For all isokinetic testing the mass emission is calculated using test specific flow data and not the above values.

Reference conditions are 273K, 101.3kPa without correction for water vapour

EXECUTIVE SUMMARY

MONITORING TIMES			
Parameter	Sampling Date(s)	Sampling Times	Sampling Duration
Combustion Gases	09 November 2019	07:35 - 08:35	60 minutes
Preliminary Stack Traverse	09 November 2019	08:40	-

EXECUTIVE SUMMARY

PROCESS DETAILS

Parameter	Process Details
Description of process	Roadstone coating
Continuous or batch	Batch
Product Details	Limestone
Part of batch to be monitored (if applicable)	During Mixing
Normal load, throughput or continuous rating	100 Tonnes per hour
Fuel used during monitoring	Natural Gas
Abatement	Bag Filter
Plume Appearance	Steam plume visible

EXECUTIVE SUMMARY

Monitoring Methods

The selection of standard reference / alternative methods employed by SOCOTEC is determined, wherever possible by the hierarchy of method selection outlined in Environment Agency Technical Guidance Note (Monitoring) M2.

MONITORING METHODS							
Species	Method Standard Reference Method / Alternative Method	SOCOTEC Technical Procedure	UKAS Lab Number	MCERTS Accredited Method	Limit of Detection (LOD)	Calculated MU +/- % Result	Calculated MU +/- % ELV
Oxides of Nitrogen	SRM - BS EN 14792:2017	AE 102	1015	Yes	0.2 mg/m³	31.0%	N/A - No ELV
Velocity	SRM - BS EN ISO 16911-1	AE 154	1015	Yes	5 Pa	2.4%	N/A - No ELV
Volumetric Flow Rate	SRM - BS EN ISO 16911-1	AE 154	1015	Yes	-	5.1%	N/A - No ELV

EXECUTIVE SUMMARY

Analytical Methods

The following tables list the analytical methods employed together with the custody details. Unless otherwise stated the samples are archived at the analysis lab location.

SAMPLING METHODS WITH SUBSEQUENT ANALYSIS							
Species	Analytical Technique	Analytical Procedure	UKAS Lab Number	UKAS Accredited Lab Analysis	Analysis Lab	Analysis Report number	Archive Period
-	-	-	-	-	-	-	-

ON-SITE TESTING							
Species	Analytical Technique	Analytical Procedure	UKAS Lab Number	MCERTS Accredited Analysis	Laboratory	Data Archive Location	Archive Period
Oxides of Nitrogen	Chemiluminescence	AE 102	1015	Yes	SOCOTEC (Stockport)	SOCOTEC (Stockport)	5 years

EXECUTIVE SUMMARY

SAMPLING LOCATION					
Sampling Plane Validation Criteria	**Value**	**Units**	**Requirement**	**Compliant**	**Method**
Lowest Differential Pressure	98	Pa	>= 5 Pa	Yes	BS EN 15259
Lowest Gas Velocity	12.3	m/s	-	-	-
Highest Gas Velocity	13.3	m/s	-	-	-
Ratio of Gas Velocities	1.1	: 1	< 3 : 1	Yes	BS EN 15259
Mean Velocity	12.7	m/s	-	-	-
Maximum angle of flow with regard to duct axis	<15	^{o}	< 15^{o}	Yes	BS EN 15259
No local negative flow	Yes	-	-	Yes	BS EN 15259

DUCT CHARACTERISTICS		
	Value	**Units**
Shape	Circular	-
Depth	1.25	m
Width	-	m
Area	1.23	m^2
Port Depth	90	mm

SAMPLING LINES & POINTS		
	Isokinetic	**Non-Iso & Gases**
Sample port size	-	5 Inch
Number of lines used	-	1
Number of points / line	-	1
Duct orientation	-	Vertical

SAMPLING PLATFORM	
General Platform Information	
Permanent / Temporary Platform / Ground level / Floor Level / Roof	Permanent
Inside / Outside	Outside

M1 Platform requirements	
Is there a sufficient working area so work can be performed in a compliant manner	Yes
Platform has 2 levels of handrails (approximately 0.5 m & 1.0 m high)	Yes
Platform has vertical base boards (approximately 0.25 m high)	Yes
Platform has removable chains / self closing gates at the top of ladders	Yes
Handrail / obstructions do not hamper insertion of sampling equipment	Yes
Depth of Platform = >Stack depth / diameter + wall and port thickness + 1.5m	Yes

Sampling Platform Improvement Recommendations (if applicable)

The sampling location meets all the requirements as specified in EA Guidance Note M1.

EXECUTIVE SUMMARY

Sampling & Analytical Method Deviations

In this instance there were no deviations from the sampling and analytical methods employed.

APPENDICES

CONTENTS

APPENDIX 1 - Monitoring Schedule, Calibration Checklist & Monitoring Team

MONITORING SCHEDULE					
Species	Method Standard Reference Method / Alternative Method	SOCOTEC Technical Procedure	UKAS Lab Number	MCERTS Accredited Method	Number of Samples
Oxides of Nitrogen	SRM - BS EN 14792:2017	AE 102	1015	Yes	1
Velocity	SRM - BS EN ISO 16911-1	AE 154	1015	Yes	1

APPENDIX 1 - Monitoring Schedule, Calibration Checklist & Monitoring Team

CALIBRATEABLE EQUIPMENT CHECKLIST

Extractive Sampling		Instrumental Analyser/s		Miscellaneous	
Equipment	Equipment I.D.	Equipment	Equipment I.D.	Equipment	Equipment I.D.
Control Box DGM	-	Horiba PG-250 Analyser	LNO 21-45	Laboratory Balance	-
Box Thermocouples	-	FT-IR Gasmet	-	Tape Measure	LNO 24-KB
Meter In Thermocouple	-	FT-IR Oven Box	-	Stopwatch	LNO 17-KB
Meter Out Thermocouple	-	Bernath 3006 FID	-	Protractor	-
Control Box Timer	-	Signal 3030 FID	-	Barometer	LNO 08-KB
Oven Box	-	Servomex	-	Digital Micromanometer	LNO 01-KB
Probe	LNO 11-41	JCT Heated Head Filter	-	Digital Temperature Meter	LNO 03-KB
Probe Thermocouple	LNO 10-41	Thermo FID	-	Stack Thermocouple	-
Probe	-	Stackmaster	-	Mass Flow Controller	-
Probe Thermocouple	-	FTIR Heater Box for Heated Line	-	MFC Display module	-
S-Pitot	LNO 06-KB	Anemometer	-	1m Heated Line (1)	-
L-Pitot	-	Ecophysics NOx Analyser	-	1m Heated Line (2)	-
Site Balance	-	Chiller (JCT/MAK 10)	LNO 21-48	1m Heated Line (3)	-
Last Impinger Arm	-	Heated Line Controller (1)	LNO 03-110	5m Heated Line (1)	-
Dioxins Cond. Thermocouple	-	Heated Line Controller (2)	-	10m Heated Line (1)	-
Callipers	-	Site temperature Logger	-	10m Heated Line (2)	-
Small DGM	-		-	15m Heated Line (1)	-
Heater Controller	-		-	20m Heated Line (1)	LNO 18-131
Inclinometer (Swirl Device)	LNO 23-KB		-	20m Heated Line (2)	-

NOTE: If the equipment I.D is represented by a dash (-), then this piece of equipment has not been used for this test.

CALIBRATION GASES

Gas (traceable to ISO 17025)	Cylinder I.D Number	Supplier	ppm	%	Analytical Tolerance +/- %
Nitric Oxide	HPC 2021	BOC	80.3	-	2.0

STACK EMISSIONS MONITORING TEAM

MONITORING TEAM								
Personnel	MCERTS Number	MCERTS		TE / H&S Qualifications and Expiry Date				
		Level	Expiry	TE1	TE2	TE3	TE4	H&S
Keith Bird	MM 07 825	MCERTS Level 2	Sep-20	Dec-23	Dec-24	Sep-20	Sep-24	Feb-22
Mike Howell	MM 13 1226	MCERTS Level 1	Jun-20	Jul-20	Mar-21	Jun-22	-	Jun-20

APPENDIX 2 - Summaries, Calculations, Raw Data and Charts

COMBUSTION GASES SUMMARY

Test	Sampling Time and Date	Concentration mg/m³	LOD mg/m³	ELV mg/m³	Emission Rate g/hr
Oxides of Nitrogen	07:35 - 08:35 09 November 2019	7.7	0.20	-	314

Reference conditions are 273K, 101.3kPa without correction for water vapour

PRE-SAMPLING CALIBRATION DATA

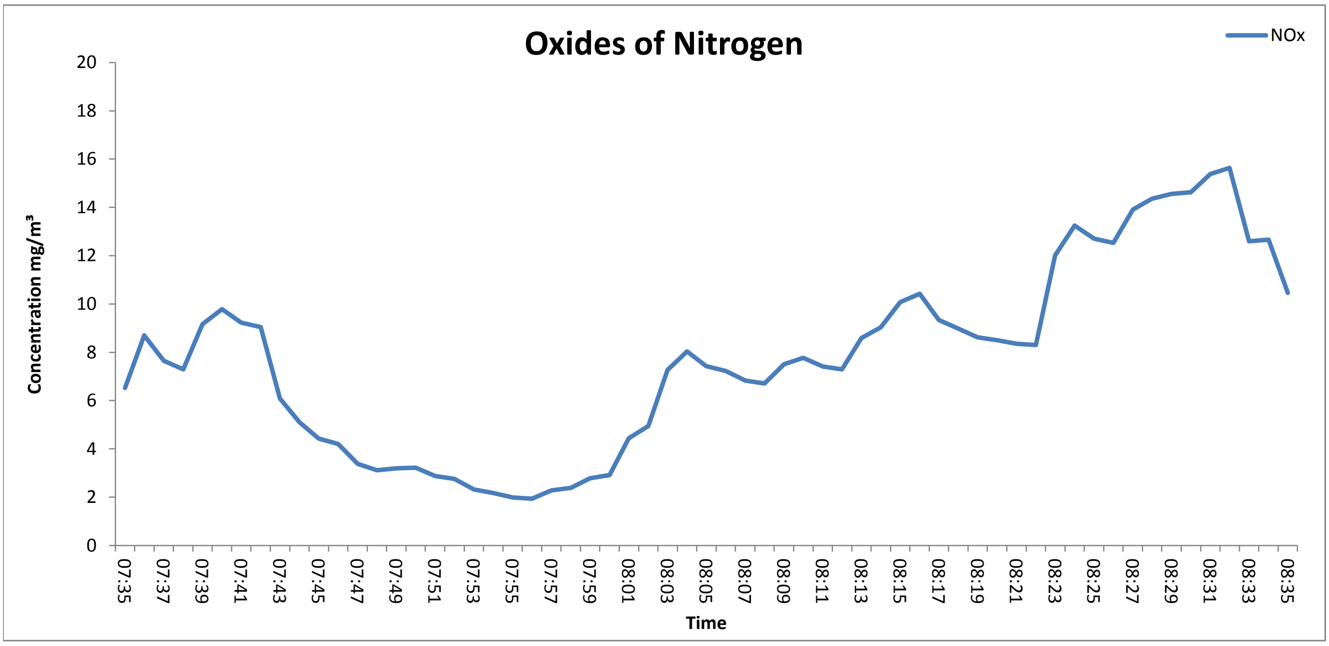
Date	09 November 2019
Start Time	07:20
End Time	07:30

Chiller Temperature (°C)	2.5
Requirement	< 4°C
Compliant	Yes

Gas	Range (ppm / %)	Zero Reading at analyser	Span Reading at analyser	Zero Check at analyser	Zero Check down line	Span Check down line	Response Time (Secs)	Leak Rate %
Nitric Oxide	100	0.00	80.3	0.00	0.10	80.0	50	0.37

APPENDIX 2 - Summaries, Calculations, Raw Data and Charts

OXIDES OF NITROGEN (as NO_2) EMISSIONS CHART



PRELIMINARY STACK SURVEY

Stack Characteristics		
Stack Diameter / Depth, D	1.25	m
Stack Width, W	-	m
Stack Area, A	1.23	m^2
Average stack gas temperature	102	^oC
Stack static pressure	0.08	kPa
Barometric Pressure	100	kPa

Stack Gas Composition & Molecular Weights

Component	Molar Mass M	Density kg/m^3 p	Conc Dry % Vol	Dry Volume Fraction r	Dry Conc kg/m^3 pi	Conc Wet % Vol	Wet Volume Fraction r	Wet Conc kg/m^3 pi
CO_2	44	1.963059	9.219048	0.092190	0.180975	8.850286	0.088503	0.173736
O_2	32	1.427679	20.950000	0.209500	0.299099	20.112000	0.201120	0.287135
N_2	28	1.249219	69.830952	0.698310	0.872342	67.037714	0.670377	0.837448
H_2O	18	0.803070	-	-	-	4.000000	0.040000	0.032123

Where: p = M / 22.41 p*i* = r x p

Calculation of Stack Gas Densities

Determinand	Result	Units
Dry Density (STP), P_{STD}	1.3524	kg/m^3
Wet Density (STP), P_{STW}	1.3304	kg/m^3
Dry Density (Actual), P_{Actual}	0.9730	kg/m^3
Average Wet Density (Actual), $P_{ActualW}$	0.957	kg/m^3

Where:

P_{STD} = sum of component concentrations, kg/m^3 (not including water vapour)

$P_{STW} = (P_{STD} + pi \text{ of } H_2O) / (1 + (pi \text{ of } H_2O / 0.8036))$

$P_{Actual} = P_{STD} \times (Ts / Ps) \times (Pa / Ta)$

$P_{ActualW} = P_{STW} \times (Ts / Ps) \times (Pa / Ta)$

APPENDIX 2 - Summaries, Calculations, Raw Data and Charts

PRELIMINARY STACK SURVEY

TRAVERSE 1

Date of Survey	09 November 2019
Time of Survey	08:40
Velocity Measurement Device:	S-Type Pitot

Sampling Line A								
Traverse Point	Distance into duct (m)	DP pt Pa (average of 3 readings)	DP pt mmH_2O (average of 3 readings)	Temp °C	Velocity m/s	Volumetric Flow Rate (actual) m³/s	O_2 % Vol	Angle of Swirl °
1	0.03	98.7	10.1	101	12.3	15.2	-	<15
2	0.10	99.3	10.1	102	12.4	15.2	-	<15
3	0.18	105.2	10.7	102	12.7	15.6	-	<15
4	0.28	106.2	10.8	102	12.8	15.7	-	<15
5	0.43	115.0	11.7	102	13.3	16.4	-	<15
6	0.82	115.0	11.7	102	13.3	16.4	-	<15
7	0.97	107.5	11.0	102	12.9	15.8	-	<15
8	1.07	105.8	10.8	102	12.8	15.7	-	<15
9	1.15	100.3	10.2	102	12.4	15.3	-	<15
10	1.22	99.0	10.1	102	12.4	15.2	-	<15
Mean	-	105.2	10.7	102	12.7	15.6	-	-

Sampling Line B								
Traverse Point	Distance into duct (m)	DP pt Pa (average of 3 readings)	DP pt mmH_2O (average of 3 readings)	Temp °C	Velocity m/s	Volumetric Flow Rate (actual) m³/s	O_2 % Vol	Angle of Swirl °
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
Mean	-	-	-	-	-	-	-	-

PRELIMINARY STACK SURVEY QUALITY ASSURANCE CHECKLIST

PITOT LEAK CHECK								
Run	Pre Traverse Leak Rate				Post Traverse Leak Rate			
	Start Value mmH2O	End Value mmH2O	Difference %	Outcome	Start Value mmH2O	End Value mmH2O	Difference %	Outcome
Run 1	112	111	0.9	Pass	104	103	1.0	Pass

To complete a compliant pitot leak check a pressure of over 80 mmH_2O (or 800 Pa) is applied and the pressure drop monitored over 5 mins. A drop of less than 5% must be observed.

S-Type Pitot Stagnation Check				
Run	Stagnation (Pa)	Reference (Pa)	Difference (Pa)	Outcome (Permitted +/- 10 Pa)
Run 1	80	80	0.0	Pass

APPENDIX 2 - Summaries, Calculations, Raw Data and Charts

PRELIMINARY STACK SURVEY (CONTINUED)

Sampling Plane Validation Criteria				
EA Technical Guidance Note (Monitoring) M1	Result	Units	Requirement	Compliant
Lowest Differential Pressure	99	Pa	>= 5 Pa	Yes
Lowest Gas Velocity	12.3	m/s	-	-
Highest Gas Velocity	13.3	m/s	-	-
Ratio of Gas Velocities	1.1	-	< 3 : 1	Yes
Maximum angle of flow with regard to duct axis	<15	o	< 15^{o}	Yes
No local negative flow	Yes	-	-	Yes

Calculation of Stack Gas Velocity, V

Velocity at Traverse Point, V = K_{pt} x (1-e) * O(2 * DP_{pt} / $P_{ActualW}$)

Where:

K_{pt} = Pitot tube calibration coefficient

(1-e) = Compressibility correction factor, assumed at a constant 0.998

Average Stack Gas Velocity, Va	12.7	m/s

Calculation of Stack Gas Volumetric Flowrate, Q			
Duct gas flow conditions	Actual	Reference	Units
Temperature	102	0	^{o}C
Total Pressure	100.08	101.3	kPa
Oxygen	21.0	21	%
Moisture	4.00	4.00	%
Pitot tube calibration coefficient, K_{pt}	0.86		

Gas Volumetric Flowrate	Result	Units
Average Stack Gas Velocity (Va)	12.74	m/s
Stack Area (A)	1.23	m^2
Gas Volumetric Flowrate (Actual), Q_{Actual}	56303	m^3/hr
Gas Volumetric Flowrate (STP, Wet), Q_{STP}	40506	m^3/hr
Gas Volumetric Flowrate (STP, Dry), $Q_{STP,Dry}$	38885	m^3/hr
Gas Volumetric Flowrate (REF), Q_{Ref}	40506	m^3/hr

Where:

Q_{Actual} = Va x A x 3600

Q_{STP} = Q (Actual) x (Ts / Ta) x (Pa / Ps) x 3600

$Q_{STP,Dry}$ = Q (STP) / (100 - (100 / Ma)) x 3600

Q_{Ref} = Q (STP) x ((100 - Ma) / (100 - Ms)) x ((21 - O_2a) / (21 - O_2s))

Nomenclature:

Ts = Absolute Temperature, Standard Conditions, 273 K

Ps = Absolute Pressure, Standard Conditions, 101.3 kPa

Ta = Absolute Temperature, Actual Conditions, K

Pa = Absolute Pressure, Actual Conditions, kPa

Ma = Water vapour, Actual Conditions, % Vol

Ms = Water vapour, Reference Conditions, % Vol

O_2a = Oxygen, Actual Conditions, % Vol

O_2s = Oxygen, Reference Conditions, % Vol

APPENDIX 2 - Summaries, Calculations, Raw Data and Charts

STACK DIAGRAM

	Value	Units
Stack Depth	1.25	m
Stack Width	-	m
Area	1.23	m^2

Non-Isokinetic/Gases Sampling			
Sampling Point	Distance (% of Depth)	Distance into Stack	Units
A	50	0.63	m

Isokinetic Sampling			
Sampling Point	Distance (% of Depth)	Distance into Stack (m)	Swirl °
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
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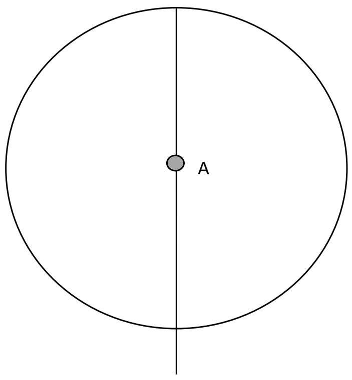

Non Isokinetic/Gases sampling point

SAMPLING LOCATION

APPENDIX 3 - Measurement Uncertainty Budget Calculations

MEASUREMENT UNCERTAINTY BUDGET - OXIDES OF NITROGEN

Limit value	-	mg/m^3
Concentration @ Ref conditions	7.7	mg/m^3
Cal gas conc	165	mg/m^3
Analyser Full Scale	205	mg/m^3

	Value	Units	specification	MU Met?
Response time	50	seconds	180	Yes
Logger sampling interval	60	seconds	-	-
Measurement period	60	minutes	-	-
Number of readings in measurement	60	-	-	-
Repeatability at zero	0.11	% full scale	<1 % range	Yes
Repeatability at span level	0.1	% full scale	<2 % range	Yes
Deviation from linearity	-0.40	% of value	<2 % range	Yes
Zero drift	0.12	% full scale	<2% range / 24hr	Yes
Span drift	-0.62	% full scale	<2% range/24hr	Yes
volume or pressure flow dependence	0.1	% of full scale/3 kPa	<2 % / 3 kPa	Yes
atmospheric pressure dependence	0.10	% of full scale/2 kPa	<3% / 2 kPa	Yes
ambient temperature dependence zero / span	0.10	% full scale/10K	<3% range / 10 K	Yes
Combined interference	1.20	% range	<4% of Range	Yes
dependence on voltage	0.00	% full scale/10V	< 0.1%vol /10 volt	Yes
Influence of Vibration	N/A	% of upper limit of Cal range	<2%	-
losses in the line (leak)	0.00	% of value	< 2% of value	Yes

Performance characteristic	Uncertainty	Value of uncertainty quantity
repeatability	$U_r = S_r$	0.004
lack of fit	U_{lof}	-0.231
short term zero drift	$U_{d,z}$	0.072
short term span drift	$U_{d,s}$	-0.359
influence of Ambient Temp at Zero	$U_{t,z}$	0.045
influence of Ambient Temp at Span	$U_{t,s}$	0.812
influence of sample gas pressure	U_p	0.000
influence of sample gas flow	U_{fit}	0.069
influence of supply voltage	U_v	0.003
Combined Interfence	U_i	0.004
Uncertainty of Cal gas	U_{adj}	0.803

Measurement uncertainty (Concentration Measured)	7.74	mg/m^3
Combined uncertainty	1.22	mg/m^3
Expanded at a 95% confidence interval	2.40	mg/m^3

Expanded uncertainty expressed with a level of confidence of 95%	**-**	**% ELV**
Expanded uncertainty expressed with a level of confidence of 95%	**2.4**	**mg/m^3**
Expanded uncertainty expressed with a level of confidence of 95%	**31.0**	**% value**

Developed for the STA by R Robinson, NPL

APPENDIX 3 - Measurement Uncertainty Budget Calculations

MEASUREMENT UNCERTAINTY BUDGET - VELOCITY & VOLUMETRIC FLOW RATE

Measured Velocity at Actual Conditions	12.7	m/s
Measured Volumetric Flow rate at Actual Conditions	56303	m^3/hr

Performance Characteristics & Source of Value	Units	Values	Requirement	Compliant
Uncertainty of Local Gas Velocity Determination				
Uncertainty of pitot tube coefficient	-	0.010		
Uncertainty of mean local dynamic pressures	-	0.93		
Factor loading, function of the number of measurements.	3 readings	0.591	minimum 3	Yes
Range of measurment device	pa	1000		
Resolution	pa	1.00		
Calibration uncertainty	pa	17.11	<1% of Value or 20 Pa whichever is greater	Yes
Drift	% range	0.10		
Linearity	% range	0.06	<2% of value	Yes
Uncertainty of gas density determination				
Uncertainty of molar mass determination	kg/mol	0.00003		
Uncertainty of temperature measurement	K	1.91	<1% of value	Yes
Uncertainty of absolute pressure in the duct	pa	511		
Uncertainty associated with the estimate of density	-	0.007		
Uncertainty associated with the measurement of local velocity	-	0.0001		
Uncertainty associated with the measurement of mean velocity	-	0.0001		

Measurement Uncertainty - Velocity	m/s
Combined uncertainty	0.16
Expanded uncertainty at a 95% Confidence Interval	0.30

Note - The expanded uncertainty uses a coverage factor of k = 2.

Expanded Measurement Uncertainty of Velocity at a 95% Confidence Interval	%
Expressed as a % of the Measured Velocity	1.2
Expanded uncertainty at a 95% Confidence Interval	2.4

Measurement Uncertainty Volumetric Flow Rate	m^3/hr
Combined uncertainty	1470
Expanded uncertainty at a 95% Confidence Interval	2881

Note - The expanded uncertainty uses a coverage factor of k = 2.

Expanded Measurement Uncertainty of Volumetric Flow Rate at a 95% Confidence Interval	%
Expressed as a % of the Measured Volumetric Flow Rate	2.6
Expanded uncertainty at a 95% Confidence Interval	5.1

Reference – SOCOTEC Technical Procedure AE150 Estimation of Uncertainty of Measurement

END OF REPORT

Thank you for choosing SOCOTEC for your environmental monitoring needs. We hope our services have met your requirements and that you are fully satisfied with your experience of working with us, we really do value your custom and would welcome your feedback. We would appreciate it if you could take a moment to complete a short online questionnaire so that we can improve our operations and address any areas that have not met with your expectations, by clicking on the following

https://www.surveymonkey.co.uk/r/CAE_customer_feedback_weblink