Covrad Heat Transfer Limited Permit No.: PPC/067 Variation Ref: 002

Report for Periodic Monitoring of Emissions to Atmosphere

Part 1:

**Executive Summary** 

Permit Number:

PPC/067 Variation Ref: 002

Operator:

**Covrad Heat Transfer Ltd** 

Installation:

Canley, Coventry

**Emission Points:** 

Industrial Spray Booth 1 (LHS) Industrial Spray Booth 1 (RHS) Industrial Spray Booth 2 (LHS) Industrial Spray Booth 2 (LHS) Assembly Shop Spray Booth (1) Assembly Shop Spray Booth (2) Assembly Shop Spray Booth (3)

**Monitoring Dates:** 

15th, 16th & 22nd December 2008

Contract Reference:

FTBS 7645

Operator:

Covrad Heat Transfer Ltd

Address:

Sir Henry Parkes Road

Canley Coventry CV5 6BN

Monitoring Organisation:

RPS Health, Safety & Environment

Address:

Steadings Barn, Pury Hill Business Park, nr Alderton,

Towcester, Northamptonshire, NN12 7LS

Report Date:

19th January 2009

Report Approved By:

Richard Harvey

Position:

**Principal Consultant** 

MCERTS Registration No.:

MM 02 020

Signature:

RPS Health, Safety and Environment has produced this report within the term of the contract with the client and taking account of the resources devoted to it by agreement with the client.

We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above. This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.

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#### **Monitoring Objectives**

At the request of Mr Bob Holmes of Covrad Heat Transfer Limited, RPS Health, Safety and Environment conducted air emission monitoring at the Canley site, Coventry in December 2008.

The monitoring programme at this installation was carried out to provide data on emissions to atmosphere for comparison with the limits specified in the air emission criteria for this site.

The parameters requested for monitoring at each emission point and the actual monitoring conducted are detailed below.

Table 1

The same of the sa		Katolika Yeli.	Em	ission Poir	ıts	odna džaš	de la
Parameters Requested to be Monitored		al Spray th 1		al Spray th 2	P(C) = SS(A)	y Shop Spi	375273
to be wontored	Left Exhaust	Right Exhaust	Left Exhaust	Right Exhaust	Exhaust #1	Exhaust #2	Exhaust #3
Total Particulate Matter	1	1	1	✓	<b>✓</b>	✓	✓
Specific Requirements			Normal C	perating Co	onditions		

#### Notes:

- ✓ Represents the actual parameters monitored
- Represent parameters requested but not actually monitored

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### **Monitoring Results**

Table 2 - Monitoring Results from the Industrial Spray Booth 1 - Left Exhaust at Covrad Heat Transfer Ltd., Canley, Coventry in December 2008

Substance Monitored	Emission Limit Value	Periodic Monitoring Result	Units	Uncertainty (mg/m³)#		Sampling Date	Sampling Times	Monitoring Reference Method	Accreditation Status	Operating Status
Total Particulate Matter	50	0.94	mg/m³	± 0.10	wet gas, without correction for oxygen	16-Dec-08	13:50 – 14:51	BS-EN 13284-1 2002	MCERTS	Normal

Notes:

Table 3 - Monitoring Results from the Industrial Spray Booth 1 - Right Exhaust at Covrad Heat Transfer Ltd., Canley, Coventry in December 2008

Substance Monitored	Emission Limit Value	Periodic Monitoring Result	Units	Uncertainty (mg/m³)#	Reference Conditions 273K, 101.3kPa	Sampling Date	Sampling Times	Monitoring Reference Method	Accreditation Status	Operating Status
Total Particulate Matter	50	3.2	mg/m³	± 0.35	wet gas, without correction for oxygen	16-Dec-08	12:03 – 13:03	BS-EN 13284-1 2002	MCERTS	Normal

Notes:

<sup>#</sup> The uncertainty associated with the quoted result is at the 95% confidence interval

<sup>#</sup> The uncertainty associated with the quoted result is at the 95% confidence interval

Table 4 - Monitoring Results from the Industrial Spray Booth 2 - Left Exhaust at Covrad Heat Transfer Ltd., Canley, Coventry in December 2008

Substance Monitored	Emission Limit Value	Periodic Monitoring Result	Units	Uncertainty (mg/m³) #	T'ANAISIANC'774K	Sampling Date	Sampling Times	Monitoring Reference Method	Accreditation Status	Operating Status
Total Particulate Matter	50	0.96	mg/m³	± 0.10	wet gas, without correction for oxygen	16-Dec-08	10:55 – 11:56	BS-EN 13284-1 2002	MCERTS	Normal

#### Notes:

Table 5 - Monitoring Results from the Industrial Spray Booth 2 - Right Exhaust at Covrad Heat Transfer Ltd., Canley, Coventry in December 2008

Substance Monitored	Emission Limit Value	Periodic Monitoring Result	Units	Uncertainty (mg/m³) #	Reference Conditions 273K, 101.3kPa	Sampling Date	Sampling Times	Monitoring Reference Method	Accreditation Status	Operating Status
Total Particulate Matter	50	< 0.41	mg/m³	± < 0.045	wet gas, without correction for oxygen	15-Dec-08	14:37 – 15:39	BS-EN 13284-1 2002	MCERTS	Normal

#### Notes:

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<sup>#</sup> The uncertainty associated with the quoted result is at the 95% confidence interval

<sup>#</sup> The uncertainty associated with the quoted result is at the 95% confidence interval

Table 6 - Monitoring Results from the Assembly Shop Booth - Left Exhaust 1 at Covrad Heat Transfer Ltd., Canley, Coventry in December 2008

Substance Monitored	Emission Limit Value	Periodic Monitoring Result	Units	Uncertainty (mg/m³) #	Reference Conditions 273K, 101.3kPa	Sampling Date	Sampling Times	Monitoring Reference Method	Accreditation Status	Operating Status
Total Particulate Matter	50	8.7	mg/m³	± 0.95	wet gas, without correction for oxygen	22-Dec-08	13:40 – 14:22	BS-EN 13284-1 2002	MCERTS	Normal

#### Notes:

# The uncertainty associated with the quoted result is at the 95% confidence interval

Table 7 - Monitoring Results from the Assembly Shop Booth - Middle Exhaust 2 at Covrad Heat Transfer Ltd., Canley, Coventry in December 2008

Substance Monitored	Emission Limit Value	Periodic Monitoring Result	Units	Uncertainty (mg/m³) #	Reference Conditions 273K, 101.3kPa	Sampling Date	Sampling Times	Monitoring Reference Method	Accreditation Status	Operating Status
Total Particulate Matter	50	4.5	mg/m³	± 0.49	wet gas, without correction for oxygen	22-Dec-08	14:37 – 15:40	BS-EN 13284-1 2002	MCERTS	Normal

#### Notes:

# The uncertainty associated with the quoted result is at the 95% confidence interval

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Table 8 - Monitoring Results from the Assembly Shop Booth - Right Exhaust 3 at Covrad Heat Transfer Ltd., Canley, Coventry in December 2008

Substance Monitored	Emission Limit Value	Periodic Monitoring Result	Units	Uncertainty (mg/m³)#	Reference Conditions 273K, 101.3kPa	Sampling Date	Sampling Times	Monitoring	Accreditation Status	Operating Status
Total Particulate Matter	50	0.99	mg/m³	*	wet gas, without correction for oxygen	22-Dec-08	15:49 – 16:29	BS-EN 13284-1 2002	MCERTS	Normal

#### Notes:

# The uncertainty associated with the quoted result is at the 95% confidence interval

\* Uncertainty of measurement calculation cannot be applied (see table 10)

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# **Operating Information**

Table 9 - Operating Information During Monitoring of the Specified Spray Booth Exhausts at Covrad Heat Transfer Ltd., Canley, Coventry in December 2008

	Industrial S <sub>I</sub>	oray Booth 1	Industrial S	oray Booth 2	Asser	ably Shop Spray l	Booth
Parameter	Left Exhaust	Right Exhaust	Left Exhaust	Right Exhaust	Left Exhaust #1	Middle Exhaust#2	Right Exhaust#8
Sample Date	16-Dec-08	16-Dec-08	16-Dec-08	15-Dec-08	22-Dec-08	22-Dec-08	22-Dec-08
Process Type	Manual spraying of solvent free paint onto radiator parts	Manual spraying of solvent free paint onto radiator parts	Manual spraying of solvent free paint onto radiator parts	Manual spraying of solvent free paint onto radiator parts	Manual spraying of solvent free paint onto radiator parts and completed units	Manual spraying of solvent free paint onto radiator parts and completed units	solvent free paint onto radiator parts
Process Duration	Variable depending on size of part	Variable depending on size of part	Variable depending on size of part				
If 'Batch', was monitoring carried out over the whole batch?	Yes – several parts sprayed during monitoring period	Yes – several parts sprayed during monitoring period	Yes – several parts sprayed during monitoring period				
If 'No', give details	-	-	-	-	-	-	-
Abatement/Operational?	Filters - Yes	Filters - Yes	Filters - Yes				
Feedstock	Radiator Components and parts	Radiator Components and parts	Radiator Components and parts				
Throughput	Varies	Varies	Varies	Varies	Varies	Varies	Varies

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## **Monitoring Deviations**

Table 10 – Monitoring Deviations During Monitoring of the Spray Booth Exhausts at Covrad Heat Transfer Ltd., Canley, Coventry in December 2008

Substance Deviations	Monitoring Deviations	Other Relevant Issues
NA	Industrial Spray Booth 1 (Right Exhaust)  Total Particulate Matter (Monitored to BS-EN 13284-1 (2002) It was not possible to monitor the sample points along sample plane B. This is because the distance between the monitoring port and floor of the scaffold was too short to allow the sample probe to be used.  BS-EN 13284-1 stipulates a requirement for ducts with a diameter of this size to be monitored from a total of four	NA
	sample points. (two sample points on two sample lines at 90 deg. to each other).  As a result, an uncertainty of measurement calculation cannot be applied.  Assembly Shop Spray Booth (Right Exhaust)	
	Total Particulate Matter (Monitored to BS-EN 13284-1 (2002) It was not possible to monitor the sample points along sample plane B.  This is because the sampling probe would have obstructed the access to the monitoring platform.  BS-EN 13284-1 stipulates a requirement for ducts with a diameter of this size to be monitored from a total of four sample points. (two sample points on two sample lines at 90 deg. to each other.  As a result, an uncertainty of measurement calculation cannot be applied.	

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Report for Periodic Monitoring of Emissions to Atmosphere

Part 2:

**Supporting Information** 

Permit Number:

PPC/067 Variation Ref: 002

Operator:

Covrad Heat Transfer Ltd

Installation:

Canley, Coventry

**Emission Points:** 

**Industrial Spray Booth 1 (LHS) Industrial Spray Booth 1 (RHS) Industrial Spray Booth 2 (LHS) Industrial Spray Booth 2 (LHS)** Assembly Shop Spray Booth (1) Assembly Shop Spray Booth (2) Assembly Shop Spray Booth (3)

**Monitoring Dates:** 

15th, 16th & 22nd December 2008





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Contract Reference:

FTBS 7645

Operator:

Covrad Heat Transfer Ltd

Address:

Sir Henry Parkes Road

Canley Coventry CV5 6BN

Monitoring Organisation:

RPS Health, Safety & Environment

Address:

Steadings Barn, Pury Hill Business Park, nr Alderton, Towcester,

Northamptonshire, NN12 7LS

Report Date:

19th January 2009

Report Approved By:

Richard Harvey

Position:

**Principal Consultant** 

MCERTS Registration No.:

MM 02 020

Signature:

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**APPENDIX 1: General Information** 

# **Monitoring Organisation Staff Details**

Table 11

Site Team	Position	Date(s) On Site	MCERTS Level	Technical Endorsements	MCERTS Registration Number
Matthew Sumner	Consultant	15-16-Dec-08	2	1, 2, 3 & 4	MM 05 622
Katie Smart	Technician	15-16-Dec-08	Trainee	-	MM 08 936
Carl Redgrove	Consultant	22-Dec-08	2	1, 2, 3 & 4	MM 03 173
Edwin Powell	Consultant	22-Dec-08	2	1, 2, 3 & 4	MM 05 621

Report Author	Position	MCERTS Level	Technical Endorsements	MCERTS Registration Number	
Carl Redgrove	Consultant	2	1, 2, 3 & 4	MM 03 173	

Report Reviewer	Position	MCERTS Level	Technical Endorsements	MCERTS Registration Number
Richard Harvey	Principal Consultant	2	1, 2, 3 & 4	MM 02 020

# **Monitoring Organisation Method Details**

#### Table 12

Emission Parameter	Standard Method	Monitoring Procedure No.	Monitoring Accreditation Status	Analysis Technique	Analysis Procedure No.	Analytical Laboratory	Analysis Accreditaton Status
Practical Considerations Prior to Monitoring	N/A	RPSCE/1/I	MCERTS	N/A	N/A	N/A	N/A
Gas Flows	BS-EN 13284- 1:2001	RPSCE/1/2	MCERTS	N/A	N/A	N/A	N/A
Gas Temperatures	BS-EN 13284- 1:2001	RPSCE/1/2	MCERTS	N/A	N/A	N/A	N/A
Total Particulate Matter	BS EN 13284- 1:2001	RPSCE/1/7c	MCERTS	Gravimetric	D9	RPS Laboratories, Manchester	UKAS

APPENDIX 2: Emission Points - Industrial Spray Booth 1, Industrial Spray Booth 2,
Assembly Shop Spray Booth

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#### **Stack Gas Measurements**

#### Table 13 - Temperature and Velocity Profile

Results of Gas Flows and Gas Temperatures Measured from the Industrial Spray Booth 1 - Left Exhaust at Covrad Heat Transfer Ltd., Canley, Coventry on the 16<sup>th</sup> December 2008

Traverse		Sample	Line A			Sample	Line B	
Point (m)	T(°C)	ΔP (mm H <sub>2</sub> O)	Neg. Flow?	Spin <15°	T(°C)	ΔP (mm <b>H</b> ₃O)	Neg. Flow?	Spin <15°
0.09	17	5.4	No	Yes	17	3.6	No	Yes
0.51	17	1.8	No	Yes	17	5.4	No	Yes

Barometric pressure (kPa)	100.5
Static Pressure (mm H <sub>2</sub> O)	+ve 8.2
Stack Dimension Ø (m)	0.60

## Table 14 - Temperature and Velocity Profile

Results of Gas Flows and Gas Temperatures Measured from the Industrial Spray Booth 1 - Right Exhaust at Covrad Heat Transfer Ltd., Canley, Coventry on the 16<sup>th</sup> December 2008

Traverse		Sample	Line A		Sample Line B			
Point (m)	T (°C)	ΔP (mm H <sub>2</sub> O)	Neg. Flow?	Spin <15°	T (°C) ΔP (mm Neg, Flow?		Spin <15°	
0.05	13	1.4	No	Yes				
0.15	13	1.8	No	Yes	Sample line not accessible			ble
0.45	13	4.0	No	Yes				UIC
0.55	13	11.4	No	Yes				

Barometric pressure (kPa)	100.5
Static Pressure (mm H <sub>2</sub> O)	+ve 8.2
Stack Dimension Ø (m)	0.60

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Table 15 - Temperature and Velocity Profile

Results of Gas Flows and Gas Temperatures Measured from the Industrial Spray Booth 2 - Left Exhaust at Covrad Heat Transfer Ltd., Canley, Coventry on the 16<sup>th</sup> December 2008

Traverse		Sample	Line A			Sample	Line B	
Point (m)	T (°C)	ΔP (mm H <sub>2</sub> O)	Neg. Flow?	Spin <15°	T(°C)	ΔP (mm H <sub>2</sub> O)	Neg. Flow?	Spin≪15°
0.09	17	5.2	No	Yes	17	6.8	No	Yes
0.51	17	6.2	No	Yes	17	9.8	No	Yes

Barometric pressure (kPa)	100.5
Static Pressure (mm H <sub>2</sub> O)	+ve 9.4
Stack Dimension Ø (m)	0.60

Table 16 - Temperature and Velocity Profile

Results of Gas Flows and Gas Temperatures Measured from the Industrial Spray Booth 2 - Right Exhaust at Covrad Heat Transfer Ltd., Canley, Coventry on the 15<sup>th</sup> December 2008

Traverse Sample Line A					ample Line A Sample Lin				
Point (m)	T (°C)	ΔP (mm H <sub>2</sub> O)	Neg. Flow?	Spin <15°	T (°C)	ΔP (mm H <sub>2</sub> O)	Neg. Flow?	Spin <15°	
0.09	11	4.0	No	Yes	13	9.0	No	Yes	
0.51	12	8.4	No	Yes	14	10.6	No	Yes	

Barometric pressure (kPa)	100.8
Static Pressure (mm H <sub>2</sub> O)	+ve 7.6
Stack Dimension Ø (m)	0.60

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Table 17 - Temperature and Velocity Profile

Results of Gas Flows and Gas Temperatures Measured from the Assembly Shop Spray Booth – Left Exhaust (1) at Covrad Heat Transfer Ltd., Canley, Coventry on the 22<sup>nd</sup> December 2008

Traverse		Sample	Line A			Sample	Line B	
Point (m)	T(°C)	ΔP (mm H;0)	Neg. Flow?	Spin <15°	T (°C)	ΔP (mm H <sub>2</sub> O)	Neg. Flow?	Spin <15°
0.12	13	4.6	No	Yes	13	3.8	No	Yes
0.68	13	3.1	No	Yes	13	5.3	No	Yes

Barometric pressure (kPa)	102.1
Static Pressure (mm H <sub>2</sub> O)	+ve 0.20
Stack Dimension Ø (m)	0.60

Table 18 - Temperature and Velocity Profile

Results of Gas Flows and Gas Temperatures Measured from the Assembly Shop Spray Booth - Middle Exhaust (2) at Covrad Heat Transfer Ltd., Canley, Coventry on the 22<sup>nd</sup> December 2008

Traverse	Sample Line A				Sample Line B			
Point (m)	T (°C)	ΔP (mm H <sub>2</sub> O)	Neg. Flow?	Spin <15°	T (°C)	ΔP (mm H <sub>2</sub> O)	Neg. Flow?	Spin <15°
0.12	13	7.6	No	Yes	14	2.5	No	Yes
0.68	13	8.1	No	Yes	14	15.0	No	Yes

Barometric pressure (kPa)	102.1
Static Pressure (mm H <sub>2</sub> 0)	-ve 2.0
Stack Dimension Ø (m)	0.80

**Table 19 - Temperature and Velocity Profile** 

Results of Gas Flows and Gas Temperatures Measured from the Assembly Shop Spray Booth - Right Exhaust (3) at Covrad Heat Transfer Ltd., Canley, Coventry on the 22<sup>nd</sup> December 2008

Traverse		Sample	Line A		Sample Line B		
Point (m)	T(°C)	ΔP (mm H <sub>2</sub> O)	Neg. Flow?	Spin <15°	T((°C) ΔP (mm Neg. Spin <15°		
0.12	14	4.8	No	Yes			
0.68	14	16.0	No	Yes	Sample line not accessible		

Barometric pressure (kPa)	102.1
Static Pressure (mm H₂O)	+ve 1.6
Stack Dimension Ø (m)	0.80

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Table 20 - Gas Measurements (continued)

# Results of Total Particulate Matter and General Emission Parameters Measured from the Specified Spray Booth Exhausts at Covrad Heat Transfer Ltd., Canley, Coventry in December 2008

Emission Parameter	Units		Assembly Shop Spray Booth			
Eimssion Faranteier	Units	Left Exhaust (1)	Middle Exhaust (2)	Right Exhaust (3)		
Sample Date	-	22-Dec-08	22-Dec-08	22-Dec-08		
Sample Period	-	13:40 – 14:22	14:37 – 15:40	15:49 – 16:29		
Barometric Pressure	kPa	102.1	102.1	102.1		
Internal Area Of Duct	m <sup>2</sup>	0.28	0.50	0.50		
Isokinectic Ratio	%	104	102	101		
Stack Moisture Content	%	< 1.0	< 1.0	< 1.0		
Stack Temperature	℃	20	18	17		
Gas Velocity (as measured at sampling plane)	m/sec	9.1	7.7	9.7		
Volumetric Flowrate (as measured)	m³/sec	2.6	3.9	4.9		
Volumetric Flowrate (at reference conditions)	m³/sec*	2.4	3.7	4.6		
Total Particulate Matter Mass Emission	kg/hr	0.075	0.060	0.016		
Total Particulate Matter Concentration	mg/m³*	8.7	4.5	0.99		

Notes: Reference conditions expressed as 273 K, 101.3 kPa, wet gas, without correction oxygen.

Table 21 - Gas Measurements (continued)

# Results of Total Particulate Matter and General Emission Parameters Measured from the Specified Spray Booth Exhausts at Covrad Heat Transfer Ltd., Canley, Coventry in December 2008

The fact of the same of the sa	TT24-	Industrial S	pray Booth 1	Industrial Spray Booth 2		
Emission Parameter	Units	Left Exhaust	Right Exhaust	Left Exhaust	Right Exhaust	
Sample Date	-	16-Dec-08	16-Dec-08	16-Dec-08	15-Dec-08	
Sample Period	_	13:50 – 14:51	12:03 – 13:03	10:55 – 11:56	14:37 – 15:39	
Barometric Pressure	kPa	100.5	100.5	100.5	100.8	
Internal Area Of Duct	m²	0.28	0.28	0.28	0.28	
Isokinectic Ratio	%	104	106	105	104	
Stack Moisture Content	%	1.3	1.4	1.3	1.3	
Stack Temperature	°C	17	14	17	13	
Gas Velocity (as measured at sampling plane)	m/sec	7.0	7.1	9.1	9.8	
Volumetric Flowrate (as measured)	m³/sec	2.0	2.0	2.6	2.8	
Volumetric Flowrate (at reference conditions)	m³/sec*	1.8	1.9	2.4	2.6	
				Farance of States		
Total Particulate Matter Mass Emission	kg/hr	0.0061	0.022	0.0083	< 0.0039	
Total Particulate Matter Concentration	mg/m³*	0.94	3.2	0.96	< 0.41	

Notes: Reference conditions expressed as 273 K, 101.3 kPa, wet gas, without correction oxygen.

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## Reportable Blank Results

Table 22 - Results of the Reportable Blank Concentrations for Total Particulate Matter taken for the Specified Spray Booth Exhausts at Covrad Heat Transfer Ltd., Canley, Coventry in December 2008

Emission Reference	Emission Parameter	Sample Date	Units*	Blank Concentration
Industrial Spray Booth 1  – Left Exhaust	Total Particulate Matter	16-Dec-08	mg/m³	< 0.44
Industrial Spray Booth 1  - Right Exhaust	Total Particulate Matter	16-Dec-08	mg/m³	< 0.42
Industrial Spray Booth 2  – Left Exhaust	Total Particulate Matter	16-Dec-08	mg/m³	< 0.44
Industrial Spray Booth 2  - Right Exhaust	Total Particulate Matter	15-Dec-08	mg/m³	< 0.41
Assembly Shop Spray Booth Left Exhaust (1)	Total Particulate Matter	22-Dec-08	mg/m³	< 0.51
Assembly Shop Spray Booth Middle Exhaust (2)	Total Particulate Matter	22-Dec-08	mg/m³	0.77
Assembly Shop Spray Booth Right Exhaust (3)	Total Particulate Matter	22-Dec-08	mg/m³	0.63

#### Notes:

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<sup>\*</sup> Reference conditions expressed as 273 K, 101.3 kPa,, wet gas, without correction for oxygen.

# RPS Laboratories



			Test Certificate		Date 09/01/20
Clent	RPS To	pacester		Order No.	FTBS7645
	Steadir	ngs Barn		Certificate No.	W709-0071
	-	II Business Park			
	Nr Alde			Issue No.	1
	Towce				
	NN127	rts			
Contact	Richa	and Center		Data Received	05/01/2009
Description	13 filte	rs and 13 washes for TPM		Technique	Gravimetric
Sample No.	532543	043225			Method
Total particula	te matter	<0.04 mg			D9(U)
Sampla No.	532544	T113888			Method
Total particula	to mattor	<0.5 mg			D9(U)
Sample No.	532545	043226			Method
Total particula	to matter	<0.04 mg			D9(U)
Sample No.	532548	T113565			Method
Total particula	to matter	<0.5 mg			D9(U)
Sample No.	532547	043230		-	Method
Total particula	to matter	<0.04 mg			D9(U)
Sample No.	532548	T113566			Method
Total particula	to matter	<0.5 mg			D8(U)
Sample No.	532549	043223			Method
Total particula	te matter	0.69 mg			D9(U)
Sample No.	532550	T113568			Method
Total particula	to matter	<0.5 mg			D9(U)

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RPS Laboratorios Ltd. Unit 12. Waters Edge Business Park. Modwen Road. Selford. MS 3EZ Tel: (0161) 872 2443 Fox: (0161) 877 3959

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			Test Certificate			Date 09/01/200
Client	RPS	Towcester		Certificate No.	WK09-0071	
				Issue No.	1	
Sample No.	532551	043443			Method	j
Total particulate	matter	3.41 mg			D9(U)	
Sample No.	532552	T113569		<u> </u>	Method	
Total particulate	matter	0.7 mg			D9(U)	
Sample No.	532553	043442			Method	
Total particulate	matter	<0.04 mg			D9(U)	
Sample No.	532554	T113567			Method	<u> </u>
Total particulate	matter	<0.5 mg			D9(U)	
Sample No.	532555	043438			Metho	1
Total particulate	matter	0.66 mg			D9(U)	ı
Sample No.	532556	T113570			Metho	1
Total particulate	matter	<0.5 mg	-		D9(U)	,
Sample No.	532557	046813		-	Metho	1
Total particulate	matter	<0.04 mg			D9(U)	)
Sample No.	532558	T113585			Metho	1
Total particulate	matter	<0.5 mg			D9(U)	
Sample No.	532559	044545			Matho	<u> </u>
Total particulate	matter	3.19 mg			D9(U)	)
Sample No.	532560	T1135 <del>88</del>			Metho	4
Total particulate	matter	6.1 mg			D9(U)	•

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6.1 mg

Reference No.: FTBS 7645 Visit No.: Annual (2008)

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			Test Certificate		Data 09/01/200
Client	RPS Towcester			Certificate No.	WK09-0071
				lasus No.	1
Sample No.	532581	046814			Method
Total particula	ite matter	0.05 mg			D9(U)
Sample No.	532582	T113587			Method
Total particula	ite matter	<0.5 mg			D9(U)
Sample No.	532563	044541			Method
Total particula	nto matter	1.51 mg			D8(U)
Sample No.	532564	T113588			Method
Total particula	nte matter	1.7 mg			D9(U)
Sample No.	532565	044540			Method
Total particula	ite matter	0.07 mg			D9(U)
Sample No.	532586	T113589			Method
Total particula	sto matter	<0.5 mg			D9(U)
Sample No.	532567	044542			Method
Total particula	ate matter	0.38 mg		-	D9(U)
Sample No.	532568	T113590			Method
Total particula	ito matter	<0.5 mg			D9(U)

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Test Certificate

Ctient

RPS Towcester

Ctient

Ctient

RPS Towcester

Certificate No. WK09-0071

Issue No. 1

Tested By

Simone Rutter

Date

09/01/2009

Annound By

Androw Chalmers

Date

09/01/2009

Andrew Chalmers

Senior Chemist

For and on sufficiency of RPS Laboratories Ltd.
Standard terms and conditions are applicable, a copy is available on request.

Method Symbols

(U) Analysis is UKAS Accredited

(H) Analysis is not UKAS According

(S) Analysis is Subcontracted

Concentration values (molm3 and opm) are provided to assist with interpretation only, they are not covered by the scope of LRAS accorditation

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