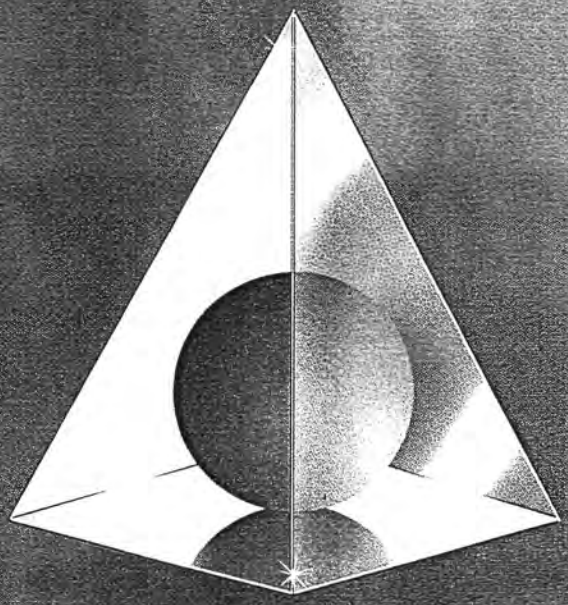

# OEH
## GROUP LTD

Understanding your environment

# MEASUREMENT OF ENVIRONMENTAL EMISSIONS

# FROM

# INK MANUFACTURE OPERATIONS

# at

**LINX PRINTING TECHNOLOGIES PLC**
**BURREL ROAD**
**ST. IVES**
**HUNTINGDON**
**CAMBRIDGESHIRE**
**PE27 3LA**

| | | | |
|---|---|---|---|
| **REPORT NO:** | OEH/STAK/33231/SL27 | **CLIENT REF:** | Purchase Order No: 066206 |
| **DATE OF VISIT:** | 19 October 2004 | **CONTACT ON SITE:** | Mr M Swindell |
| **DATE OF REPORT:** | 10 November 2004 | **DISK REFERENCE:** | N:\Consultants$\Air Quality\Paul Calland\Jobs 2003-2004\33231 Linx\OEH33231 CS F.doc |

DATA PROTECTION ACT REGISTRATION NO: B0479 03 4

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***CONFIDENTIALITY UNDERTAKING***

*We undertake that we will not knowingly make use or disclose any confidential information or photographs relating to your business which may have come to our knowledge or attention as a result of our visit on site or otherwise as a result of the work carried out by us in connection with the preparation of this report. If you have any queries or comments regarding this report, please contact the Customer Services, OEH Group Limited Tel: 0121 359 5361.*

# TABLE OF CONTENTS

# EXECUTIVE SUMMARY

| | |
|---|---|
| **Test Areas** | Monitoring of the stack serving the Ink manufacture plant. |
| **Date Of Test** | 19th October 2004. |
| **Test Conditions** | Testing was performed while the plant was operating under normal conditions, over a period of 6.5 hours. |
| **Compliance** | Full compliance with the specified release limits was achieved on this occasion.<br><br>Emissions of both particulate matter and Volatile Organic Compounds were below the authorised limits. |

Reported By:

Paul Calland
Environmental Scientist

Verified by:

Andy Barnes *BSc (Hons)*
Environmental Scientist

**for and on behalf of OEH Group Limited**

*If you have any queries or comments regarding this report, please contact Customer Services, OEH Group Ltd. Tel: 0121 359 5361.*

# 1 INTRODUCTION

## 1.1 Purpose of Survey

The aim of the survey described in this report was to verify compliance with the requirements of the process authorisation. The process monitored is covered by PG6/11(97) - Secretary of States Guidance – Manufacture of Printing Ink.

## 1.2 Terms of Reference

Linx Printing Technologies Limited, Burrel Road, St Ives, Huntingdon, Cambridgeshire, PE27 3LA has commissioned OEH Group Limited to carry out the work described in this report. Monitoring was carried out on the 19th October 2004 by Paul Calland at the request of Mr Martin Swindell.

The work was carried out in accordance with OEH Proposal ref: AL-11172 dated 23rd September 2004, and with the client's written instructions as set out in Purchase Order Number 066206.

OEH Group is accredited under ISO-9002 for the provision of health, safety and environmental consultancy services. The work described in this report was carried out in accord with our ISO-9000 Standard Operating Procedures and Level III: Consultancy Work Instructions. The field sampling and interpretations made in this report are not covered by the scope of OEH's accreditation under UKAS.

## 1.3 Plant conditions

Production schedules on the date of the survey were described as normal. Thus, the data reported herein must be considered typical and representative of the environmental levels experienced during normal daily workloads on this site.

# 2 METHODS

## 2.1 Stack Sampling

### 2.1.1 Stack Velocity & Temperature Measurements

Stack velocity was investigated using an ellipsoidal nosed pitot tube coupled to an electronic manometer. Temperature measurements were taken using a K-type thermocouple connected to an electronic thermometer.

The manometer and thermometer are subject to regular calibration by a UKAS accredited test house using NPL traceable standards.

### 2.1.2 Total Particulate Matter

Periodic extractive sampling for total particulate matter was conducted using a Stackmite 9096 sampling train. Duplicate samples were taken at each position. Within the limitations of the stack and field conditions the sampling protocol was in accordance with the main procedural requirements of BS EN 13284-1:2002. The sampling train was set up and checked for leaks before commencement of the survey and between each sample. The Stackmite unit is calibrated annually and is traceable to NPL standards. Calibration dated February 2004.

### 2.1.3 Volatile Organic Compounds

Continuous extractive sampling for VOCs was conducted using a Research Engineers Flame Ionisation Detector. Calibration was performed onsite prior to the start and on completion of the test periods, using standard Methane span gas at nominal 1000 ppm concentration, traceable to UKAS and NPL standards. The calibration gases are re-certified every two years in accordance with the manufacturer's requirements. The sampling protocol was in accordance with the main procedural requirements of BS EN 13526:2002.

Continuous extractive sampling was backed up by periodic extractive sampling for VOCs using a calibrated pump connected to charcoal adsorption tubes. The method is based on, and intended to satisfy the main procedural requirements of BS EN 13649:2002. The results of this tube sampling were used to provide a correction factor for the FID sampling.

## 2.2 Analysis

### 2.2.1 Techniques & Detection Limits

| Analyte | Analysis Technique | Detection Limit | Analytical Precision, % | Method Reference |
|---|---|---|---|---|
| TPM | Gravimetric | 20 µg | 1 | LSOP 202 |
| Continuous VOC | Flame Ionisation Detector | 0.2 $mg.m^{-3}$ as carbon | 5 | BS EN 13526 |
| Period voc | Gas Chromatography | 1 mg as carbon | 1 | LSOP 402 |

### 2.2.2 Accreditation

| Service Category | ISO-9002 | UKAS[1] |
|---|---|---|
| Consultancy – Field sampling and interpretation | Yes | No |
| Analysis | | |
| - Dusts (air filter samples); Lab Method LSOP 202, based on MDHS14 (latest issue) | Yes | Yes |
| - Solvents (B, T, X 111-T, TCE, PERC); Lab Method LSOP402, based on Various NIOSH | Yes | Yes |
| - Solvents (all other species); Based on Various NIOSH | Yes | No |
| ***[1]UKAS lab number 1821*** | | |
| ***Stack sampling team is a member of the Source Testing Association*** | | |

## 3 PRESENTATION OF RESULTS

The following table gives summary details of the mean emission concentrations measured.

| Sampling Position | Mean Particulate Emission ($mg.m^{-3}$) | Mean VOC Emission ($mgC.m^{-3}$) |
|---|---|---|
| Ink Manufacture | 1.7 | 4.1 |

Results reported at Standard Conditions of 273K and 101.3kPa, no correction for water vapour content.

Detailed results are included in the Appendices of this report as follows:

Appendix I lists, in tabular form further details of the particulate and volumetric flow data for the Ink Manufacture Stack, including additional data from the pitot traverses.

VOC Profiling Data is presented in graphical form in Appendix II.

## 4 DISCUSSION

The process monitored is covered by PG6/11(97) - Secretary of States Guidance – Manufacture of Printing Ink. This document states the following applicable limits:

| Parameter | | Emissions Limit |
|---|---|---|
| Volatile Organic Compounds (expressed as total carbon excluding particulate matter): | | |
| i) | for emissions from fixed and Change Pan processes where the mass emission of volatile organic compounds from an individual source exceeds 1kg in any 8 hour period | 150 $mg.m^{-3}$ |
| ii) | for emissions from pan washing processes | 50 $mg.m^{-3}$ |
| iii) | for emissions from the manufacture of exempted inks. | no limit |
| Particulate Matter | | 20 $mg.m^{-3}$ |

### 4.1 TPM

Particulate monitoring was undertaken at times when powder was been added to the mixing vessel, which would give the maximum particulate discharge from the process.

The levels of particulate matter monitored averaged 1.7$mg.m^{-3}$, with a maximum figure of 2.0$mg.m^{-3}$. These figures are well below the 20$mg.m^{-3}$ emissions limit and are broadly similar to the levels encountered on the previous visit.

### 4.2 VOC

VOC emissions monitoring was carried out continuously for 6.5 hours.

The average VOC level was measured at 4.1mg.m$^{-3}$ this is well below the 150mg.m$^{-3}$ emissions limit and is significantly lower than the average level encountered on the previous visit.

## 5 CONCLUSIONS

Both VOC and particulate emissions were well below the current authorised limits.

## 6 APPENDICES

Appendix I: Detailed Flow rate & Particulate Results Tables

Appendix II: VOC Profiling Data

Appendix III: Calibration Certificates

# APPENDIX I

# DETAILED FLOW RATE & PARTICULATE RESULTS TABLES

| | | | |
|---|---|---|---|
| Plant Type | **Ink Manufacture Stack** | Stack Area ($m^2$) | 0.196 |
| Job Number | **OEH 33231** | Meter Temp (°C) | 30 |
| Client Name | ***Linx Printing Technologies*** | Stack Diameter (cm) | 50 |
| Date | **19-Oct-04** | Pitot Factor | 1.00 |
| | | Pitot Factor (sqrt) | 1.00 |
| | | Stack Pressure (Pa) | 26 |
| | | Ambient Pressure (kPa) | 101.3 |
| | | Nozzle Size (mm) | 4 |

**PITOT SURVEY**

| Traverse Point | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 | A10 |
|---|---|---|---|---|---|---|---|---|---|---|
| Distance From Near Wall (D) | 0.065 | 0.150 | 0.250 | 0.350 | 0.450 | 0.550 | 0.650 | 0.750 | 0.850 | 0.935 |
| Pitot Reading (Pa) | *130* | *135* | *145* | *150* | *155* | *160* | *165* | *150* | *140* | *120* |
| Temperature (°C) | *6* | *6* | *6* | *6* | *6* | *6* | *6* | *6* | *6* | *6* |
| Duct Velocity (m/s) | 14.3 | 14.6 | 15.1 | 15.4 | 15.7 | 15.9 | 16.2 | 15.4 | 14.9 | 13.8 |
| Traverse Point | B1 | B2 | B3 | B4 | B5 | B6 | B7 | B8 | B9 | B10 |
| Distance From Near Wall (D) | 0.065 | 0.150 | 0.250 | 0.350 | 0.450 | 0.550 | 0.650 | 0.750 | 0.850 | 0.935 |
| Pitot Reading (Pa) | *140* | *150* | *150* | *152* | *155* | *162* | *165* | *150* | *140* | *110* |
| Temperature (°C) | *6* | *6* | *6* | *6* | *6* | *6* | *6* | *6* | *6* | *6* |
| Duct Velocity (m/s) | 14.9 | 15.4 | 15.4 | 15.5 | 15.7 | 16.0 | 16.2 | 15.4 | 14.9 | 13.2 |

| | |
|---|---|
| **Absolute Mean Duct Velocity (m/s)** | **15.2** |
| **Absolute Flow Rate ($m^3$/hr)** | **10741** |
| **Normalised Flow Rate ($Nm^3$/hr)** | **10510** |

**Sampling Run 1** **Time: 11:24 - 12:24**

| Sampling Point | A2 | A9 | B2 | B9 |
|---|---|---|---|---|
| Sampling Rate (l/min) | *12.0* | *12.2* | *12.6* | *12.2* |
| Sampling Duration (mins) | *15.0* | *15.0* | *15.0* | *15.0* |
| Filter N° | *9009* | | | |
| Volume Sampled ($m^3$) | Meter | 0.720 | Expected | 0.734 |

| | |
|---|---|
| Initial Meter Reading (l) | 350000 |
| Final Meter Reading (l) | 350720 |
| Volume Sampled (l) | 720 |
| Isokineticity Error (%) | -2.0 |
| *(Maximum Allowed Error = 10%)* | |

Corrected Volume = 0.65 $Nm^3$ (at NTP)

**Sampling Run 2** **Time: 12:30 - 13:30**

| Sampling Point | A2 | A9 | B2 | B9 |
|---|---|---|---|---|
| Sampling Rate (l/min) | *12.0* | *12.2* | *12.6* | *12.2* |
| Sampling Duration (mins) | *15.0* | *15.0* | *15.0* | *15.0* |
| Filter N° | *9010* | | | |
| Volume Sampled ($m^3$) | Meter | 0.720 | Expected | 0.734 |

| | |
|---|---|
| Initial Meter Reading (l) | 350725 |
| Final Meter Reading (l) | 351445 |
| Volume Sampled (l) | 720 |
| Isokineticity Error (%) | -2.0 |
| *(Maximum Allowed Error = 10%)* | |

Corrected Volume = 0.65 $Nm^3$ (at NTP)

**FILTER WEIGHTS**

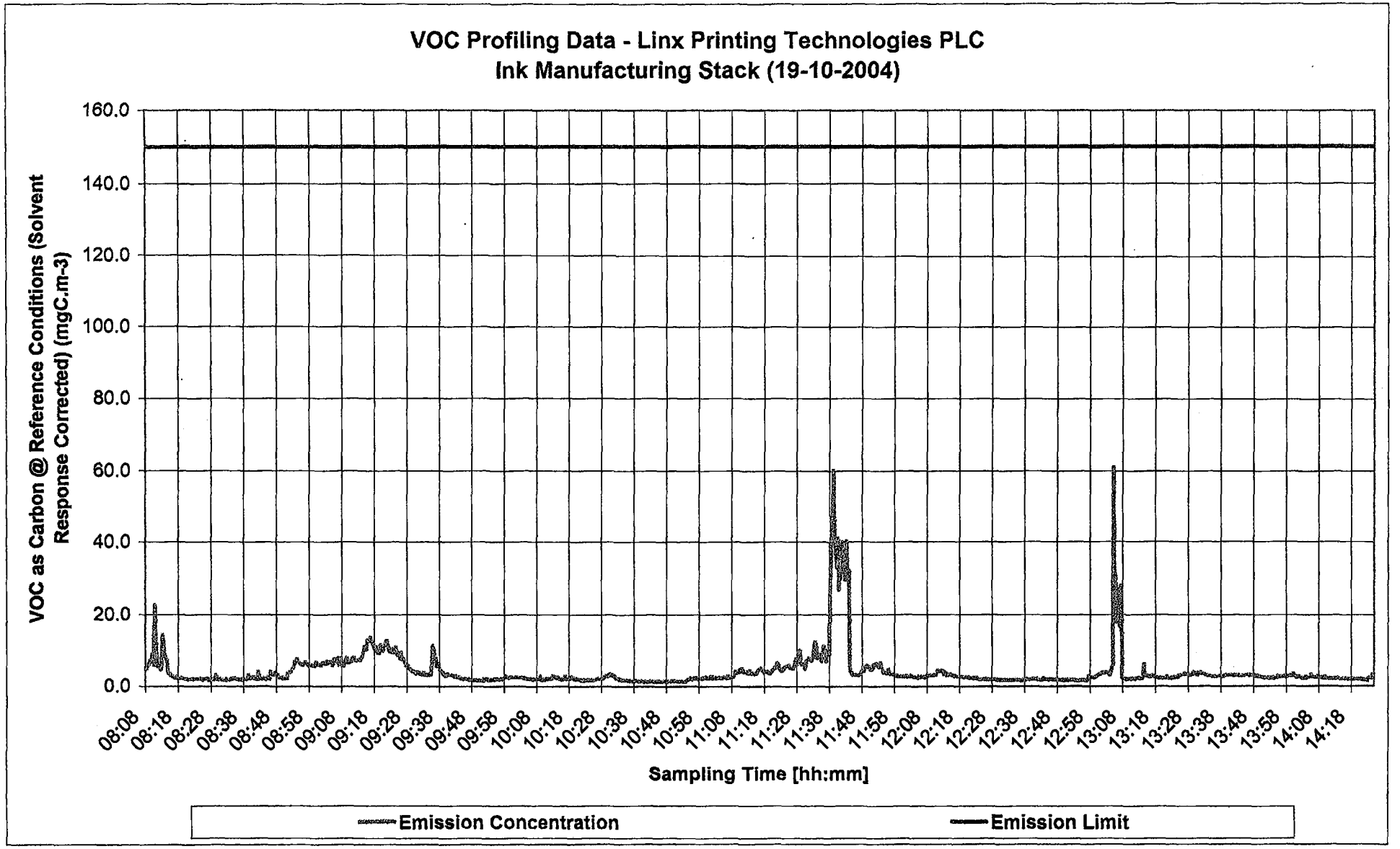
| Test Number | Filter N° | Pre-Weight (mg) | Post-Weight (mg) | Acetone Rinse (mg) | Gain (mg) |
|---|---|---|---|---|---|
| 1 | 9009 | 56.91 | 58.19 | 0.00 | 1.28 |
| 2 | 9010 | 57.27 | 58.17 | 0.00 | 0.90 |

**TEST RESULTS**

| | Test 1 | Test 2 | Mean |
|---|---|---|---|
| **Particulate Concentration(mg/$Nm^3$)** | **2.0** | **1.4** | **1.7** |
| **Mass Emission (g/hr)** | **20.7** | **14.6** | **17.7** |

# APPENDIX II

# VOC PROFILING DATA


VOC Profiling Data - Linx Printing Technologies PLC
Ink Manufacturing Stack (19-10-2004)
VOC as Carbon @ Reference Conditions (Solvent Response Corrected) (mgC.m-3)
160.0
140.0
120.0
100.0
80.0
60.0
40.0
20.0
0.0
08:08
08:18
08:28
08:38
08:48
08:58
09:08
09:18
09:28
09:38
09:48
09:58
10:08
10:18
10:28
10:38
10:48
10:58
11:08
11:18
11:28
11:38
11:48
11:58
12:08
12:18
12:28
12:38
12:48
12:58
13:08
13:18
13:28
13:38
13:48
13:58
14:08
14:18
Sampling Time [hh:mm]
Emission Concentration
Emission Limit

# VOC Emission Data



| | |
|---|---|
| **Job Ref:** | **OEH 33231** |
| **Client Name:** | **Linx Printing Technologies** |
| **Location:** | **Main Exhaust** |
| **Date:** | **19-Oct-04** |
| **Scientist:** | **P Calland** |

**Technical Details**

| | |
|---|---|
| **Instrument Type** | **FID** |
| **Calibration Gas** | **Methane** |
| **% Carbon:** | **75%** |
| **Sample Number:** | **9722/3** |
| **Instrument Range:** | **331** |
| **Emission Limit:** | **150** |

| Sampling Time | VOC as Methane Equivalent@ Reference Conditions ($mgC.m^{-3}$) | Stack Temp (°C) | VOC as Carbon @ Reference Conditions (Solvent Response Corrected) ($mgC.m^{-3}$) |
|---|---|---|---|
| 8:08:00 | 5.9 | 6 | 4.87 |
| 8:08:20 | 5.7 | 6 | 4.77 |
| 8:08:40 | 6.5 | 6 | 5.43 |
| 8:09:00 | 7.8 | 6 | 6.43 |
| 8:09:20 | 8.7 | 6 | 7.20 |
| 8:09:40 | 8.3 | 6 | 6.87 |
| 8:10:00 | 10.8 | 6 | 8.98 |
| 8:10:20 | 7.1 | 6 | 5.87 |
| 8:10:40 | 27.5 | 6 | 22.83 |
| 8:11:00 | 18.4 | 6 | 15.29 |
| 8:11:20 | 7.8 | 6 | 6.43 |
| 8:11:40 | 6.4 | 6 | 5.31 |
| 8:12:00 | 6.8 | 6 | 5.65 |
| 8:12:20 | 6.0 | 6 | 4.99 |
| 8:12:40 | 5.5 | 6 | 4.55 |
| 8:13:00 | 17.5 | 6 | 14.51 |
| 8:13:20 | 15.5 | 6 | 12.85 |
| 8:13:40 | 11.4 | 6 | 9.42 |
| 8:14:00 | 8.9 | 6 | 7.42 |
| 8:14:20 | 8.8 | 6 | 7.32 |
| 8:14:40 | 4.9 | 6 | 4.09 |
| 8:15:00 | 4.4 | 6 | 3.65 |
| 8:15:20 | 4.1 | 6 | 3.43 |
| 8:15:40 | 3.7 | 6 | 3.11 |
| 8:16:00 | 3.5 | 6 | 2.88 |
| 8:16:20 | 3.2 | 6 | 2.66 |
| 8:16:40 | 3.2 | 6 | 2.66 |
| 8:17:00 | 2.8 | 6 | 2.33 |
| 8:17:20 | 3.2 | 6 | 2.66 |
| 8:17:40 | 2.8 | 6 | 2.33 |
| 8:18:00 | 2.7 | 6 | 2.21 |
| 8:18:20 | 2.7 | 6 | 2.21 |
| 8:18:40 | 2.8 | 6 | 2.33 |
| 8:19:00 | 2.8 | 6 | 2.33 |
| 8:19:20 | 2.8 | 6 | 2.33 |
| 8:19:40 | 2.7 | 6 | 2.21 |
| 8:20:00 | 2.4 | 6 | 1.99 |
| 8:20:20 | 2.5 | 6 | 2.10 |
| 8:20:40 | 2.4 | 6 | 1.99 |
| 8:21:00 | 2.3 | 6 | 1.88 |
| 8:21:20 | 2.4 | 6 | 1.99 |
| 8:21:40 | 2.3 | 6 | 1.88 |
| 8:22:00 | 2.4 | 6 | 1.99 |
| 8:22:20 | 2.5 | 6 | 2.10 |

# VOC Emission Data



| | |
|---|---|
| **Job Ref:** | **OEH 33231** |
| **Client Name:** | **Linx Printing Technologies** |
| **Location:** | **Main Exhaust** |
| **Date:** | **19-Oct-04** |
| **Scientist:** | **P Calland** |

**Technical Details**

| | |
|---|---|
| **Instrument Type** | **FID** |
| **Calibration Gas** | **Methane** |
| **% Carbon:** | **75%** |
| **Sample Number:** | **9722/3** |
| **Instrument Range:** | **331** |
| **Emission Limit:** | **150** |

| Sampling Time | VOC as Methane Equivalent@ Reference Conditions (mgC.m$^{-3}$) | Stack Temp (°C) | VOC as Carbon @ Reference Conditions (Solvent Response Corrected) (mgC.m$^{-3}$) |
|---|---|---|---|
| 8:22:40 | 2.3 | 6 | 1.88 |
| 8:23:00 | 2.5 | 6 | 2.10 |
| 8:23:20 | 2.4 | 6 | 1.99 |
| 8:23:40 | 2.4 | 6 | 1.99 |
| 8:24:00 | 2.4 | 6 | 1.99 |
| 8:24:20 | 2.5 | 6 | 2.10 |
| 8:24:40 | 2.5 | 6 | 2.10 |
| 8:25:00 | 2.4 | 6 | 1.99 |
| 8:25:20 | 2.1 | 6 | 1.77 |
| 8:25:40 | 2.5 | 6 | 2.10 |
| 8:26:00 | 2.4 | 6 | 1.99 |
| 8:26:20 | 2.5 | 6 | 2.10 |
| 8:26:40 | 2.5 | 6 | 2.10 |
| 8:27:00 | 2.5 | 6 | 2.10 |
| 8:27:20 | 2.0 | 6 | 1.66 |
| 8:27:40 | 2.1 | 6 | 1.77 |
| 8:28:00 | 2.7 | 6 | 2.21 |
| 8:28:20 | 2.3 | 6 | 1.88 |
| 8:28:40 | 2.3 | 6 | 1.88 |
| 8:29:00 | 2.5 | 6 | 2.10 |
| 8:29:20 | 3.9 | 6 | 3.21 |
| 8:29:40 | 2.7 | 6 | 2.21 |
| 8:30:00 | 2.3 | 6 | 1.88 |
| 8:30:20 | 2.3 | 6 | 1.88 |
| 8:30:40 | 2.3 | 6 | 1.88 |
| 8:31:00 | 2.3 | 6 | 1.88 |
| 8:31:20 | 2.1 | 6 | 1.77 |
| 8:31:40 | 2.1 | 6 | 1.77 |
| 8:32:00 | 2.3 | 6 | 1.88 |
| 8:32:20 | 2.0 | 6 | 1.66 |
| 8:32:40 | 2.7 | 6 | 2.21 |
| 8:33:00 | 2.3 | 6 | 1.88 |
| 8:33:20 | 2.3 | 6 | 1.88 |
| 8:33:40 | 2.3 | 6 | 1.88 |
| 8:34:00 | 2.8 | 6 | 2.33 |
| 8:34:20 | 2.4 | 6 | 1.99 |
| 8:34:40 | 2.5 | 6 | 2.10 |
| 8:35:00 | 2.5 | 6 | 2.10 |
| 8:35:20 | 2.5 | 6 | 2.10 |
| 8:35:40 | 2.7 | 6 | 2.21 |
| 8:36:00 | 2.3 | 6 | 1.88 |
| 8:36:20 | 2.3 | 6 | 1.88 |
| 8:36:40 | 2.1 | 6 | 1.77 |
| 8:37:00 | 2.4 | 6 | 1.99 |

# VOC Emission Data



| | |
|---|---|
| **Job Ref:** | **OEH 33231** |
| **Client Name:** | **Linx Printing Technologies** |
| **Location:** | **Main Exhaust** |
| **Date:** | **19-Oct-04** |
| **Scientist:** | **P Calland** |

**Technical Details**

| | |
|---|---|
| **Instrument Type** | **FID** |
| **Calibration Gas** | **Methane** |
| **% Carbon:** | **75%** |
| **Sample Number:** | **9722/3** |
| **Instrument Range:** | **331** |
| **Emission Limit:** | **150** |

| Sampling Time | VOC as Methane Equivalent@ Reference Conditions ($mgC.m^{-3}$) | Stack Temp (°C) | VOC as Carbon @ Reference Conditions (Solvent Response Corrected) ($mgC.m^{-3}$) |
|---|---|---|---|
| 8:37:20 | 2.1 | 6 | 1.77 |
| 8:37:40 | 2.7 | 6 | 2.21 |
| 8:38:00 | 2.7 | 6 | 2.21 |
| 8:38:20 | 2.4 | 6 | 1.99 |
| 8:38:40 | 2.3 | 6 | 1.88 |
| 8:39:00 | 2.4 | 6 | 1.99 |
| 8:39:20 | 3.9 | 6 | 3.21 |
| 8:39:40 | 3.2 | 6 | 2.66 |
| 8:40:00 | 2.7 | 6 | 2.21 |
| 8:40:20 | 2.9 | 6 | 2.44 |
| 8:40:40 | 2.9 | 6 | 2.44 |
| 8:41:00 | 2.9 | 6 | 2.44 |
| 8:41:20 | 2.7 | 6 | 2.21 |
| 8:41:40 | 2.4 | 6 | 1.99 |
| 8:42:00 | 2.3 | 6 | 1.88 |
| 8:42:20 | 4.7 | 6 | 3.87 |
| 8:42:40 | 3.3 | 6 | 2.77 |
| 8:43:00 | 2.4 | 6 | 1.99 |
| 8:43:20 | 2.4 | 6 | 1.99 |
| 8:43:40 | 2.5 | 6 | 2.10 |
| 8:44:00 | 2.5 | 6 | 2.10 |
| 8:44:20 | 2.5 | 6 | 2.10 |
| 8:44:40 | 2.3 | 6 | 1.88 |
| 8:45:00 | 2.4 | 6 | 1.99 |
| 8:45:20 | 3.1 | 6 | 2.55 |
| 8:45:40 | 2.4 | 6 | 1.99 |
| 8:46:00 | 4.9 | 6 | 4.09 |
| 8:46:20 | 4.0 | 6 | 3.33 |
| 8:46:40 | 3.9 | 6 | 3.21 |
| 8:47:00 | 3.9 | 6 | 3.21 |
| 8:47:20 | 3.9 | 6 | 3.21 |
| 8:47:40 | 4.7 | 6 | 3.87 |
| 8:48:00 | 3.9 | 6 | 3.21 |
| 8:48:20 | 3.6 | 6 | 2.99 |
| 8:48:40 | 3.1 | 6 | 2.55 |
| 8:49:00 | 2.9 | 6 | 2.44 |
| 8:49:20 | 2.9 | 6 | 2.44 |
| 8:49:40 | 2.9 | 6 | 2.44 |
| 8:50:00 | 2.7 | 6 | 2.21 |
| 8:50:20 | 2.5 | 6 | 2.10 |
| 8:50:40 | 2.5 | 6 | 2.10 |
| 8:51:00 | 2.5 | 6 | 2.10 |
| 8:51:20 | 4.3 | 6 | 3.55 |
| 8:51:40 | 4.4 | 6 | 3.65 |

# VOC Emission Data

*OEH Group Limited*

| | |
|---|---|
| **Job Ref:** | **OEH 33231** |
| **Client Name:** | **Linx Printing Technologies** |
| **Location:** | **Main Exhaust** |
| **Date:** | **19-Oct-04** |
| **Scientist:** | **P Calland** |

**Technical Details**

| | |
|---|---|
| **Instrument Type** | **FID** |
| **Calibration Gas** | **Methane** |
| **% Carbon:** | **75%** |
| **Sample Number:** | **9722/3** |
| **Instrument Range:** | **331** |
| **Emission Limit:** | **150** |

| Sampling Time | VOC as Methane Equivalent@ Reference Conditions ($mgC.m^{-3}$) | Stack Temp (°C) | VOC as Carbon @ Reference Conditions (Solvent Response Corrected) ($mgC.m^{-3}$) |
|---|---|---|---|
| 8:52:00 | 4.7 | 6 | 3.87 |
| 8:52:20 | 4.8 | 6 | 3.99 |
| 8:52:40 | 5.5 | 6 | 4.55 |
| 8:53:00 | 6.0 | 6 | 4.99 |
| 8:53:20 | 7.9 | 6 | 6.54 |
| 8:53:40 | 8.1 | 6 | 6.76 |
| 8:54:00 | 9.2 | 6 | 7.64 |
| 8:54:20 | 8.4 | 6 | 6.98 |
| 8:54:40 | 7.9 | 6 | 6.54 |
| 8:55:00 | 7.3 | 6 | 6.09 |
| 8:55:20 | 7.2 | 6 | 5.98 |
| 8:55:40 | 7.1 | 6 | 5.87 |
| 8:56:00 | 6.8 | 6 | 5.65 |
| 8:56:20 | 7.3 | 6 | 6.09 |
| 8:56:40 | 7.9 | 6 | 6.54 |
| 8:57:00 | 7.8 | 6 | 6.43 |
| 8:57:20 | 7.3 | 6 | 6.09 |
| 8:57:40 | 6.9 | 6 | 5.76 |
| 8:58:00 | 6.7 | 6 | 5.53 |
| 8:58:20 | 6.8 | 6 | 5.65 |
| 8:58:40 | 6.5 | 6 | 5.43 |
| 8:59:00 | 6.5 | 6 | 5.43 |
| 8:59:20 | 6.5 | 6 | 5.43 |
| 8:59:40 | 6.8 | 6 | 5.65 |
| 9:00:00 | 7.9 | 6 | 6.54 |
| 9:00:20 | 6.9 | 6 | 5.76 |
| 9:00:40 | 7.1 | 6 | 5.87 |
| 9:01:00 | 6.8 | 6 | 5.65 |
| 9:01:20 | 7.2 | 6 | 5.98 |
| 9:01:40 | 6.7 | 6 | 5.53 |
| 9:02:00 | 7.8 | 6 | 6.43 |
| 9:02:20 | 7.2 | 6 | 5.98 |
| 9:02:40 | 7.3 | 6 | 6.09 |
| 9:03:00 | 7.2 | 6 | 5.98 |
| 9:03:20 | 8.3 | 6 | 6.87 |
| 9:03:40 | 7.6 | 6 | 6.31 |
| 9:04:00 | 8.0 | 6 | 6.65 |
| 9:04:20 | 8.0 | 6 | 6.65 |
| 9:04:40 | 7.9 | 6 | 6.54 |
| 9:05:00 | 6.8 | 6 | 5.65 |
| 9:05:20 | 8.9 | 6 | 7.42 |
| 9:05:40 | 9.1 | 6 | 7.54 |
| 9:06:00 | 8.3 | 6 | 6.87 |
| 9:06:20 | 8.1 | 6 | 6.76 |

# VOC Emission Data



| | |
|---|---|
| **Job Ref:** | **OEH 33231** |
| **Client Name:** | **Linx Printing Technologies** |
| **Location:** | **Main Exhaust** |
| **Date:** | **19-Oct-04** |
| **Scientist:** | **P Calland** |

**Technical Details**

| | |
|---|---|
| **Instrument Type** | **FID** |
| **Calibration Gas** | **Methane** |
| **% Carbon:** | **75%** |
| **Sample Number:** | **9722/3** |
| **Instrument Range:** | **331** |
| **Emission Limit:** | **150** |

| Sampling Time | VOC as Methane Equivalent@ Reference Conditions ($mgC.m^{-3}$) | Stack Temp (°C) | VOC as Carbon @ Reference Conditions (Solvent Response Corrected) ($mgC.m^{-3}$) |
|---|---|---|---|
| 9:06:40 | 9.5 | 6 | 7.86 |
| 9:07:00 | 7.1 | 6 | 5.87 |
| 9:07:20 | 8.3 | 6 | 6.87 |
| 9:07:40 | 9.5 | 6 | 7.86 |
| 9:08:00 | 6.8 | 6 | 5.65 |
| 9:08:20 | 6.5 | 6 | 5.43 |
| 9:08:40 | 7.9 | 6 | 6.54 |
| 9:09:00 | 8.3 | 6 | 6.87 |
| 9:09:20 | 9.6 | 6 | 7.98 |
| 9:09:40 | 8.0 | 6 | 6.65 |
| 9:10:00 | 7.6 | 6 | 6.31 |
| 9:10:20 | 8.3 | 6 | 6.87 |
| 9:10:40 | 8.0 | 6 | 6.65 |
| 9:11:00 | 9.3 | 6 | 7.76 |
| 9:11:20 | 9.1 | 6 | 7.54 |
| 9:11:40 | 9.5 | 6 | 7.86 |
| 9:12:00 | 8.4 | 6 | 6.98 |
| 9:12:20 | 8.8 | 6 | 7.32 |
| 9:12:40 | 8.6 | 6 | 7.09 |
| 9:13:00 | 8.8 | 6 | 7.32 |
| 9:13:20 | 8.8 | 6 | 7.32 |
| 9:13:40 | 8.6 | 6 | 7.09 |
| 9:14:00 | 10.0 | 6 | 8.32 |
| 9:14:20 | 10.7 | 6 | 8.86 |
| 9:14:40 | 13.5 | 6 | 11.19 |
| 9:15:00 | 12.6 | 6 | 10.42 |
| 9:15:20 | 12.3 | 6 | 10.19 |
| 9:15:40 | 15.6 | 6 | 12.97 |
| 9:16:00 | 15.1 | 6 | 12.53 |
| 9:16:20 | 15.2 | 6 | 12.63 |
| 9:16:40 | 16.4 | 6 | 13.63 |
| 9:17:00 | 15.4 | 6 | 12.75 |
| 9:17:20 | 14.5 | 6 | 12.07 |
| 9:17:40 | 13.2 | 6 | 10.97 |
| 9:18:00 | 12.0 | 6 | 9.96 |
| 9:18:20 | 13.4 | 6 | 11.08 |
| 9:18:40 | 11.5 | 6 | 9.52 |
| 9:19:00 | 10.9 | 6 | 9.08 |
| 9:19:20 | 10.9 | 6 | 9.08 |
| 9:19:40 | 13.9 | 6 | 11.53 |
| 9:20:00 | 11.9 | 6 | 9.86 |
| 9:20:20 | 11.7 | 6 | 9.74 |
| 9:20:40 | 12.4 | 6 | 10.30 |
| 9:21:00 | 13.6 | 6 | 11.30 |

# VOC Emission Data



**Job Ref:** OEH 33231
**Client Name:** Linx Printing Technologies
**Location:** Main Exhaust
**Date:** 19-Oct-04
**Scientist:** P Calland

## Technical Details

**Instrument Type** FID
**Calibration Gas** Methane
**% Carbon:** 75%
**Sample Number:** 9722/3
**Instrument Range:** 331
**Emission Limit:** 150

| Sampling Time | VOC as Methane Equivalent@ Reference Conditions ($mgC.m^{-3}$) | Stack Temp (°C) | VOC as Carbon @ Reference Conditions (Solvent Response Corrected) ($mgC.m^{-3}$) |
|---|---|---|---|
| 9:21:20 | 14.8 | 6 | 12.31 |
| 9:21:40 | 15.4 | 6 | 12.75 |
| 9:22:00 | 13.5 | 6 | 11.19 |
| 9:22:20 | 11.9 | 6 | 9.86 |
| 9:22:40 | 11.5 | 6 | 9.52 |
| 9:23:00 | 12.7 | 6 | 10.52 |
| 9:23:20 | 11.2 | 6 | 9.30 |
| 9:23:40 | 11.1 | 6 | 9.20 |
| 9:24:00 | 12.3 | 6 | 10.19 |
| 9:24:20 | 13.2 | 6 | 10.97 |
| 9:24:40 | 10.7 | 6 | 8.86 |
| 9:25:00 | 10.3 | 6 | 8.54 |
| 9:25:20 | 11.4 | 6 | 9.42 |
| 9:25:40 | 9.2 | 6 | 7.64 |
| 9:26:00 | 11.5 | 6 | 9.52 |
| 9:26:20 | 8.8 | 6 | 7.32 |
| 9:26:40 | 9.1 | 6 | 7.54 |
| 9:27:00 | 8.3 | 6 | 6.87 |
| 9:27:20 | 7.2 | 6 | 5.98 |
| 9:27:40 | 6.9 | 6 | 5.76 |
| 9:28:00 | 7.2 | 6 | 5.98 |
| 9:28:20 | 6.1 | 6 | 5.09 |
| 9:28:40 | 5.7 | 6 | 4.77 |
| 9:29:00 | 5.6 | 6 | 4.65 |
| 9:29:20 | 5.2 | 6 | 4.33 |
| 9:29:40 | 4.9 | 6 | 4.09 |
| 9:30:00 | 4.9 | 6 | 4.09 |
| 9:30:20 | 4.8 | 6 | 3.99 |
| 9:30:40 | 4.1 | 6 | 3.43 |
| 9:31:00 | 4.8 | 6 | 3.99 |
| 9:31:20 | 4.4 | 6 | 3.65 |
| 9:31:40 | 4.4 | 6 | 3.65 |
| 9:32:00 | 4.0 | 6 | 3.33 |
| 9:32:20 | 4.1 | 6 | 3.43 |
| 9:32:40 | 3.9 | 6 | 3.21 |
| 9:33:00 | 4.4 | 6 | 3.65 |
| 9:33:20 | 3.6 | 6 | 2.99 |
| 9:33:40 | 3.6 | 6 | 2.99 |
| 9:34:00 | 3.7 | 6 | 3.11 |
| 9:34:20 | 3.7 | 6 | 3.11 |
| 9:34:40 | 3.6 | 6 | 2.99 |
| 9:35:00 | 4.0 | 6 | 3.33 |
| 9:35:20 | 3.9 | 6 | 3.21 |
| 9:35:40 | 13.6 | 6 | 11.30 |

# VOC Emission Data



| | |
|---|---|
| **Job Ref:** | **OEH 33231** |
| **Client Name:** | **Linx Printing Technologies** |
| **Location:** | **Main Exhaust** |
| **Date:** | **19-Oct-04** |
| **Scientist:** | **P Calland** |

**Technical Details**

| | |
|---|---|
| **Instrument Type** | **FID** |
| **Calibration Gas** | **Methane** |
| **% Carbon:** | **75%** |
| **Sample Number:** | **9722/3** |
| **Instrument Range:** | **331** |
| **Emission Limit:** | **150** |

| Sampling Time | VOC as Methane Equivalent@ Reference Conditions ($mgC.m^{-3}$) | Stack Temp (°C) | VOC as Carbon @ Reference Conditions (Solvent Response Corrected) ($mgC.m^{-3}$) |
|---|---|---|---|
| 9:36:00 | 12.7 | 6 | 10.52 |
| 9:36:20 | 10.0 | 6 | 8.32 |
| 9:36:40 | 9.1 | 6 | 7.54 |
| 9:37:00 | 6.4 | 6 | 5.31 |
| 9:37:20 | 7.6 | 6 | 6.31 |
| 9:37:40 | 6.7 | 6 | 5.53 |
| 9:38:00 | 5.5 | 6 | 4.55 |
| 9:38:20 | 5.2 | 6 | 4.33 |
| 9:38:40 | 4.7 | 6 | 3.87 |
| 9:39:00 | 4.3 | 6 | 3.55 |
| 9:39:20 | 3.7 | 6 | 3.11 |
| 9:39:40 | 3.7 | 6 | 3.11 |
| 9:40:00 | 3.3 | 6 | 2.77 |
| 9:40:20 | 4.1 | 6 | 3.43 |
| 9:40:40 | 3.7 | 6 | 3.11 |
| 9:41:00 | 3.7 | 6 | 3.11 |
| 9:41:20 | 3.6 | 6 | 2.99 |
| 9:41:40 | 3.7 | 6 | 3.11 |
| 9:42:00 | 3.5 | 6 | 2.88 |
| 9:42:20 | 3.5 | 6 | 2.88 |
| 9:42:40 | 3.1 | 6 | 2.55 |
| 9:43:00 | 3.2 | 6 | 2.66 |
| 9:43:20 | 3.2 | 6 | 2.66 |
| 9:43:40 | 2.9 | 6 | 2.44 |
| 9:44:00 | 3.1 | 6 | 2.55 |
| 9:44:20 | 2.8 | 6 | 2.33 |
| 9:44:40 | 2.7 | 6 | 2.21 |
| 9:45:00 | 2.5 | 6 | 2.10 |
| 9:45:20 | 2.4 | 6 | 1.99 |
| 9:45:40 | 2.7 | 6 | 2.21 |
| 9:46:00 | 2.5 | 6 | 2.10 |
| 9:46:20 | 2.4 | 6 | 1.99 |
| 9:46:40 | 2.5 | 6 | 2.10 |
| 9:47:00 | 2.3 | 6 | 1.88 |
| 9:47:20 | 2.1 | 6 | 1.77 |
| 9:47:40 | 2.1 | 6 | 1.77 |
| 9:48:00 | 2.0 | 6 | 1.66 |
| 9:48:20 | 2.0 | 6 | 1.66 |
| 9:48:40 | 2.0 | 6 | 1.66 |
| 9:49:00 | 2.0 | 6 | 1.66 |
| 9:49:20 | 2.0 | 6 | 1.66 |
| 9:49:40 | 2.0 | 6 | 1.66 |
| 9:50:00 | 1.9 | 6 | 1.55 |
| 9:50:20 | 2.0 | 6 | 1.66 |

# VOC Emission Data

*OEH Group Limited*

| | |
|---|---|
| **Job Ref:** | **OEH 33231** |
| **Client Name:** | **Linx Printing Technologies** |
| **Location:** | **Main Exhaust** |
| **Date:** | **19-Oct-04** |
| **Scientist:** | **P Calland** |

**Technical Details**

| | |
|---|---|
| **Instrument Type** | **FID** |
| **Calibration Gas** | **Methane** |
| **% Carbon:** | **75%** |
| **Sample Number:** | **9722/3** |
| **Instrument Range:** | **331** |
| **Emission Limit:** | **150** |

| Sampling Time | VOC as Methane Equivalent@ Reference Conditions ($mgC.m^{-3}$) | Stack Temp (°C) | VOC as Carbon @ Reference Conditions (Solvent Response Corrected) ($mgC.m^{-3}$) |
|---|---|---|---|
| 9:50:40 | 1.9 | 6 | 1.55 |
| 9:51:00 | 1.9 | 6 | 1.55 |
| 9:51:20 | 1.9 | 6 | 1.55 |
| 9:51:40 | 2.4 | 6 | 1.99 |
| 9:52:00 | 2.4 | 6 | 1.99 |
| 9:52:20 | 2.5 | 6 | 2.10 |
| 9:52:40 | 2.5 | 6 | 2.10 |
| 9:53:00 | 2.3 | 6 | 1.88 |
| 9:53:20 | 2.0 | 6 | 1.66 |
| 9:53:40 | 2.0 | 6 | 1.66 |
| 9:54:00 | 2.3 | 6 | 1.88 |
| 9:54:20 | 2.1 | 6 | 1.77 |
| 9:54:40 | 2.3 | 6 | 1.88 |
| 9:55:00 | 2.5 | 6 | 2.10 |
| 9:55:20 | 2.3 | 6 | 1.88 |
| 9:55:40 | 2.4 | 6 | 1.99 |
| 9:56:00 | 2.4 | 6 | 1.99 |
| 9:56:20 | 2.3 | 6 | 1.88 |
| 9:56:40 | 2.4 | 6 | 1.99 |
| 9:57:00 | 2.4 | 6 | 1.99 |
| 9:57:20 | 2.7 | 6 | 2.21 |
| 9:57:40 | 2.5 | 6 | 2.10 |
| 9:58:00 | 2.9 | 6 | 2.44 |
| 9:58:20 | 3.3 | 6 | 2.77 |
| 9:58:40 | 3.1 | 6 | 2.55 |
| 9:59:00 | 2.9 | 6 | 2.44 |
| 9:59:20 | 2.8 | 6 | 2.33 |
| 9:59:40 | 3.1 | 6 | 2.55 |
| 10:00:00 | 3.1 | 6 | 2.55 |
| 10:00:20 | 3.1 | 6 | 2.55 |
| 10:00:40 | 2.9 | 6 | 2.44 |
| 10:01:00 | 2.9 | 6 | 2.44 |
| 10:01:20 | 2.9 | 6 | 2.44 |
| 10:01:40 | 2.9 | 6 | 2.44 |
| 10:02:00 | 2.9 | 6 | 2.44 |
| 10:02:20 | 3.1 | 6 | 2.55 |
| 10:02:40 | 2.9 | 6 | 2.44 |
| 10:03:00 | 2.9 | 6 | 2.44 |
| 10:03:20 | 2.9 | 6 | 2.44 |
| 10:03:40 | 2.9 | 6 | 2.44 |
| 10:04:00 | 2.7 | 6 | 2.21 |
| 10:04:20 | 2.8 | 6 | 2.33 |
| 10:04:40 | 2.5 | 6 | 2.10 |
| 10:05:00 | 2.5 | 6 | 2.10 |

# VOC Emission Data



**Job Ref:** OEH 33231
**Client Name:** Linx Printing Technologies
**Location:** Main Exhaust
**Date:** 19-Oct-04
**Scientist:** P Calland

**Technical Details**

| | |
|---|---|
| Instrument Type | FID |
| Calibration Gas | Methane |
| % Carbon: | 75% |
| Sample Number: | 9722/3 |
| Instrument Range: | 331 |
| Emission Limit: | 150 |

| Sampling Time | VOC as Methane Equivalent@ Reference Conditions ($mgC.m^{-3}$) | Stack Temp (°C) | VOC as Carbon @ Reference Conditions (Solvent Response Corrected) ($mgC.m^{-3}$) |
|---|---|---|---|
| 10:05:20 | 2.4 | 6 | 1.99 |
| 10:05:40 | 2.4 | 6 | 1.99 |
| 10:06:00 | 2.7 | 6 | 2.21 |
| 10:06:20 | 2.5 | 6 | 2.10 |
| 10:06:40 | 2.3 | 6 | 1.88 |
| 10:07:00 | 2.5 | 6 | 2.10 |
| 10:07:20 | 2.4 | 6 | 1.99 |
| 10:07:40 | 2.4 | 6 | 1.99 |
| 10:08:00 | 2.4 | 6 | 1.99 |
| 10:08:20 | 2.4 | 6 | 1.99 |
| 10:08:40 | 2.4 | 6 | 1.99 |
| 10:09:00 | 3.3 | 6 | 2.77 |
| 10:09:20 | 2.1 | 6 | 1.77 |
| 10:09:40 | 2.4 | 6 | 1.99 |
| 10:10:00 | 2.3 | 6 | 1.88 |
| 10:10:20 | 2.1 | 6 | 1.77 |
| 10:10:40 | 2.4 | 6 | 1.99 |
| 10:11:00 | 2.4 | 6 | 1.99 |
| 10:11:20 | 2.7 | 6 | 2.21 |
| 10:11:40 | 2.4 | 6 | 1.99 |
| 10:12:00 | 2.4 | 6 | 1.99 |
| 10:12:20 | 2.5 | 6 | 2.10 |
| 10:12:40 | 3.3 | 6 | 2.77 |
| 10:13:00 | 3.2 | 6 | 2.66 |
| 10:13:20 | 3.2 | 6 | 2.66 |
| 10:13:40 | 2.9 | 6 | 2.44 |
| 10:14:00 | 2.8 | 6 | 2.33 |
| 10:14:20 | 3.1 | 6 | 2.55 |
| 10:14:40 | 2.7 | 6 | 2.21 |
| 10:15:00 | 2.5 | 6 | 2.10 |
| 10:15:20 | 2.4 | 6 | 1.99 |
| 10:15:40 | 2.3 | 6 | 1.88 |
| 10:16:00 | 2.3 | 6 | 1.88 |
| 10:16:20 | 2.5 | 6 | 2.10 |
| 10:16:40 | 3.2 | 6 | 2.66 |
| 10:17:00 | 2.4 | 6 | 1.99 |
| 10:17:20 | 2.4 | 6 | 1.99 |
| 10:17:40 | 2.3 | 6 | 1.88 |
| 10:18:00 | 2.5 | 6 | 2.10 |
| 10:18:20 | 3.1 | 6 | 2.55 |
| 10:18:40 | 3.1 | 6 | 2.55 |
| 10:19:00 | 2.9 | 6 | 2.44 |
| 10:19:20 | 2.7 | 6 | 2.21 |
| 10:19:40 | 2.3 | 6 | 1.88 |

# VOC Emission Data



| | |
|---|---|
| **Job Ref:** | **OEH 33231** |
| **Client Name:** | **Linx Printing Technologies** |
| **Location:** | **Main Exhaust** |
| **Date:** | **19-Oct-04** |
| **Scientist:** | **P Calland** |

**Technical Details**

| | |
|---|---|
| **Instrument Type** | **FID** |
| **Calibration Gas** | **Methane** |
| **% Carbon:** | **75%** |
| **Sample Number:** | **9722/3** |
| **Instrument Range:** | **331** |
| **Emission Limit:** | **150** |

| Sampling Time | VOC as Methane Equivalent@ Reference Conditions ($mgC.m^{-3}$) | Stack Temp (°C) | VOC as Carbon @ Reference Conditions (Solvent Response Corrected) ($mgC.m^{-3}$) |
|---|---|---|---|
| 10:20:00 | 2.4 | 6 | 1.99 |
| 10:20:20 | 2.4 | 6 | 1.99 |
| 10:20:40 | 2.3 | 6 | 1.88 |
| 10:21:00 | 2.3 | 6 | 1.88 |
| 10:21:20 | 2.1 | 6 | 1.77 |
| 10:21:40 | 2.0 | 6 | 1.66 |
| 10:22:00 | 2.1 | 6 | 1.77 |
| 10:22:20 | 1.9 | 6 | 1.55 |
| 10:22:40 | 2.3 | 6 | 1.88 |
| 10:23:00 | 2.0 | 6 | 1.66 |
| 10:23:20 | 2.1 | 6 | 1.77 |
| 10:23:40 | 2.3 | 6 | 1.88 |
| 10:24:00 | 2.0 | 6 | 1.66 |
| 10:24:20 | 2.3 | 6 | 1.88 |
| 10:24:40 | 2.0 | 6 | 1.66 |
| 10:25:00 | 2.0 | 6 | 1.66 |
| 10:25:20 | 2.0 | 6 | 1.66 |
| 10:25:40 | 2.1 | 6 | 1.77 |
| 10:26:00 | 2.3 | 6 | 1.88 |
| 10:26:20 | 2.5 | 6 | 2.10 |
| 10:26:40 | 2.7 | 6 | 2.21 |
| 10:27:00 | 2.5 | 6 | 2.10 |
| 10:27:20 | 2.4 | 6 | 1.99 |
| 10:27:40 | 2.5 | 6 | 2.10 |
| 10:28:00 | 2.5 | 6 | 2.10 |
| 10:28:20 | 2.7 | 6 | 2.21 |
| 10:28:40 | 3.1 | 6 | 2.55 |
| 10:29:00 | 3.1 | 6 | 2.55 |
| 10:29:20 | 3.5 | 6 | 2.88 |
| 10:29:40 | 3.2 | 6 | 2.66 |
| 10:30:00 | 3.5 | 6 | 2.88 |
| 10:30:20 | 3.9 | 6 | 3.21 |
| 10:30:40 | 4.1 | 6 | 3.43 |
| 10:31:00 | 3.9 | 6 | 3.21 |
| 10:31:20 | 3.7 | 6 | 3.11 |
| 10:31:40 | 3.7 | 6 | 3.11 |
| 10:32:00 | 3.1 | 6 | 2.55 |
| 10:32:20 | 2.7 | 6 | 2.21 |
| 10:32:40 | 2.5 | 6 | 2.10 |
| 10:33:00 | 2.5 | 6 | 2.10 |
| 10:33:20 | 2.3 | 6 | 1.88 |
| 10:33:40 | 2.3 | 6 | 1.88 |
| 10:34:00 | 2.3 | 6 | 1.88 |
| 10:34:20 | 2.0 | 6 | 1.66 |

# VOC Emission Data



| | |
|---|---|
| **Job Ref:** | **OEH 33231** |
| **Client Name:** | **Linx Printing Technologies** |
| **Location:** | **Main Exhaust** |
| **Date:** | **19-Oct-04** |
| **Scientist:** | **P Calland** |

**Technical Details**

| | |
|---|---|
| **Instrument Type** | **FID** |
| **Calibration Gas** | **Methane** |
| **% Carbon:** | **75%** |
| **Sample Number:** | **9722/3** |
| **Instrument Range:** | **331** |
| **Emission Limit:** | **150** |

| Sampling Time | VOC as Methane Equivalent@ Reference Conditions ($mgC.m^{-3}$) | Stack Temp (°C) | VOC as Carbon @ Reference Conditions (Solvent Response Corrected) ($mgC.m^{-3}$) |
|---|---|---|---|
| 10:34:40 | 2.1 | 6 | 1.77 |
| 10:35:00 | 2.0 | 6 | 1.66 |
| 10:35:20 | 2.0 | 6 | 1.66 |
| 10:35:40 | 2.0 | 6 | 1.66 |
| 10:36:00 | 1.9 | 6 | 1.55 |
| 10:36:20 | 1.9 | 6 | 1.55 |
| 10:36:40 | 1.9 | 6 | 1.55 |
| 10:37:00 | 1.9 | 6 | 1.55 |
| 10:37:20 | 1.7 | 6 | 1.44 |
| 10:37:40 | 1.9 | 6 | 1.55 |
| 10:38:00 | 1.9 | 6 | 1.55 |
| 10:38:20 | 1.9 | 6 | 1.55 |
| 10:38:40 | 1.9 | 6 | 1.55 |
| 10:39:00 | 1.9 | 6 | 1.55 |
| 10:39:20 | 1.7 | 6 | 1.44 |
| 10:39:40 | 1.7 | 6 | 1.44 |
| 10:40:00 | 1.7 | 6 | 1.44 |
| 10:40:20 | 1.7 | 6 | 1.44 |
| 10:40:40 | 1.7 | 6 | 1.44 |
| 10:41:00 | 1.6 | 6 | 1.32 |
| 10:41:20 | 1.7 | 6 | 1.44 |
| 10:41:40 | 1.6 | 6 | 1.32 |
| 10:42:00 | 1.6 | 6 | 1.32 |
| 10:42:20 | 1.7 | 6 | 1.44 |
| 10:42:40 | 1.7 | 6 | 1.44 |
| 10:43:00 | 1.7 | 6 | 1.44 |
| 10:43:20 | 1.6 | 6 | 1.32 |
| 10:43:40 | 1.9 | 6 | 1.55 |
| 10:44:00 | 1.6 | 6 | 1.32 |
| 10:44:20 | 1.7 | 6 | 1.44 |
| 10:44:40 | 1.7 | 6 | 1.44 |
| 10:45:00 | 1.7 | 6 | 1.44 |
| 10:45:20 | 1.7 | 6 | 1.44 |
| 10:45:40 | 1.7 | 6 | 1.44 |
| 10:46:00 | 1.7 | 6 | 1.44 |
| 10:46:20 | 1.7 | 6 | 1.44 |
| 10:46:40 | 1.7 | 6 | 1.44 |
| 10:47:00 | 1.7 | 6 | 1.44 |
| 10:47:20 | 1.7 | 6 | 1.44 |
| 10:47:40 | 1.9 | 6 | 1.55 |
| 10:48:00 | 1.7 | 6 | 1.44 |
| 10:48:20 | 1.7 | 6 | 1.44 |
| 10:48:40 | 1.7 | 6 | 1.44 |
| 10:49:00 | 1.7 | 6 | 1.44 |

# VOC Emission Data



| | |
|---|---|
| **Job Ref:** | **OEH 33231** |
| **Client Name:** | **Linx Printing Technologies** |
| **Location:** | **Main Exhaust** |
| **Date:** | **19-Oct-04** |
| **Scientist:** | **P Calland** |

**Technical Details**

| | |
|---|---|
| **Instrument Type** | **FID** |
| **Calibration Gas** | **Methane** |
| **% Carbon:** | **75%** |
| **Sample Number:** | **9722/3** |
| **Instrument Range:** | **331** |
| **Emission Limit:** | **150** |

| Sampling Time | VOC as Methane Equivalent@ Reference Conditions ($mgC.m^{-3}$) | Stack Temp (°C) | VOC as Carbon @ Reference Conditions (Solvent Response Corrected) ($mgC.m^{-3}$) |
|---|---|---|---|
| 10:49:20 | 1.7 | 6 | 1.44 |
| 10:49:40 | 1.7 | 6 | 1.44 |
| 10:50:00 | 1.9 | 6 | 1.55 |
| 10:50:20 | 1.7 | 6 | 1.44 |
| 10:50:40 | 1.7 | 6 | 1.44 |
| 10:51:00 | 1.7 | 6 | 1.44 |
| 10:51:20 | 1.7 | 6 | 1.44 |
| 10:51:40 | 1.7 | 6 | 1.44 |
| 10:52:00 | 1.7 | 6 | 1.44 |
| 10:52:20 | 1.7 | 6 | 1.44 |
| 10:52:40 | 1.7 | 6 | 1.44 |
| 10:53:00 | 1.6 | 6 | 1.32 |
| 10:53:20 | 1.7 | 6 | 1.44 |
| 10:53:40 | 1.6 | 6 | 1.32 |
| 10:54:00 | 1.9 | 6 | 1.55 |
| 10:54:20 | 2.1 | 6 | 1.77 |
| 10:54:40 | 2.3 | 6 | 1.88 |
| 10:55:00 | 2.5 | 6 | 2.10 |
| 10:55:20 | 2.7 | 6 | 2.21 |
| 10:55:40 | 2.3 | 6 | 1.88 |
| 10:56:00 | 2.7 | 6 | 2.21 |
| 10:56:20 | 2.5 | 6 | 2.10 |
| 10:56:40 | 2.8 | 6 | 2.33 |
| 10:57:00 | 2.4 | 6 | 1.99 |
| 10:57:20 | 2.8 | 6 | 2.33 |
| 10:57:40 | 2.4 | 6 | 1.99 |
| 10:58:00 | 2.9 | 6 | 2.44 |
| 10:58:20 | 2.7 | 6 | 2.21 |
| 10:58:40 | 2.7 | 6 | 2.21 |
| 10:59:00 | 2.4 | 6 | 1.99 |
| 10:59:20 | 2.9 | 6 | 2.44 |
| 10:59:40 | 2.5 | 6 | 2.10 |
| 11:00:00 | 3.1 | 6 | 2.55 |
| 11:00:20 | 2.5 | 6 | 2.10 |
| 11:00:40 | 2.5 | 6 | 2.10 |
| 11:01:00 | 2.5 | 6 | 2.10 |
| 11:01:20 | 3.2 | 6 | 2.66 |
| 11:01:40 | 2.5 | 6 | 2.10 |
| 11:02:00 | 3.2 | 6 | 2.66 |
| 11:02:20 | 2.7 | 6 | 2.21 |
| 11:02:40 | 2.9 | 6 | 2.44 |
| 11:03:00 | 2.9 | 6 | 2.44 |
| 11:03:20 | 2.5 | 6 | 2.10 |
| 11:03:40 | 2.7 | 6 | 2.21 |

# VOC Emission Data



| | |
|---|---|
| **Job Ref:** | **OEH 33231** |
| **Client Name:** | **Linx Printing Technologies** |
| **Location:** | **Main Exhaust** |
| **Date:** | **19-Oct-04** |
| **Scientist:** | **P Calland** |

**Technical Details**

| | |
|---|---|
| **Instrument Type** | **FID** |
| **Calibration Gas** | **Methane** |
| **% Carbon:** | **75%** |
| **Sample Number:** | **9722/3** |
| **Instrument Range:** | **331** |
| **Emission Limit:** | **150** |

| Sampling Time | VOC as Methane Equivalent@ Reference Conditions ($mgC.m^{-3}$) | Stack Temp (°C) | VOC as Carbon @ Reference Conditions (Solvent Response Corrected) ($mgC.m^{-3}$) |
|---|---|---|---|
| 11:04:00 | 2.9 | 6 | 2.44 |
| 11:04:20 | 2.8 | 6 | 2.33 |
| 11:04:40 | 2.7 | 6 | 2.21 |
| 11:05:00 | 2.8 | 6 | 2.33 |
| 11:05:20 | 2.9 | 6 | 2.44 |
| 11:05:40 | 2.9 | 6 | 2.44 |
| 11:06:00 | 2.9 | 6 | 2.44 |
| 11:06:20 | 2.8 | 6 | 2.33 |
| 11:06:40 | 3.2 | 6 | 2.66 |
| 11:07:00 | 2.8 | 6 | 2.33 |
| 11:07:20 | 3.2 | 6 | 2.66 |
| 11:07:40 | 2.8 | 6 | 2.33 |
| 11:08:00 | 3.3 | 6 | 2.77 |
| 11:08:20 | 3.2 | 6 | 2.66 |
| 11:08:40 | 3.5 | 6 | 2.88 |
| 11:09:00 | 4.9 | 6 | 4.09 |
| 11:09:20 | 4.3 | 6 | 3.55 |
| 11:09:40 | 4.4 | 6 | 3.65 |
| 11:10:00 | 4.8 | 6 | 3.99 |
| 11:10:20 | 5.6 | 6 | 4.65 |
| 11:10:40 | 4.9 | 6 | 4.09 |
| 11:11:00 | 6.0 | 6 | 4.99 |
| 11:11:20 | 4.7 | 6 | 3.87 |
| 11:11:40 | 4.9 | 6 | 4.09 |
| 11:12:00 | 4.5 | 6 | 3.77 |
| 11:12:20 | 4.7 | 6 | 3.87 |
| 11:12:40 | 4.3 | 6 | 3.55 |
| 11:13:00 | 4.1 | 6 | 3.43 |
| 11:13:20 | 5.2 | 6 | 4.33 |
| 11:13:40 | 4.1 | 6 | 3.43 |
| 11:14:00 | 4.4 | 6 | 3.65 |
| 11:14:20 | 4.1 | 6 | 3.43 |
| 11:14:40 | 4.3 | 6 | 3.55 |
| 11:15:00 | 3.9 | 6 | 3.21 |
| 11:15:20 | 4.0 | 6 | 3.33 |
| 11:15:40 | 4.8 | 6 | 3.99 |
| 11:16:00 | 5.5 | 6 | 4.55 |
| 11:16:20 | 5.5 | 6 | 4.55 |
| 11:16:40 | 6.0 | 6 | 4.99 |
| 11:17:00 | 5.5 | 6 | 4.55 |
| 11:17:20 | 5.1 | 6 | 4.21 |
| 11:17:40 | 5.1 | 6 | 4.21 |
| 11:18:00 | 4.5 | 6 | 3.77 |
| 11:18:20 | 4.5 | 6 | 3.77 |

# VOC Emission Data



| | |
|---|---|
| **Job Ref:** | **OEH 33231** |
| **Client Name:** | **Linx Printing Technologies** |
| **Location:** | **Main Exhaust** |
| **Date:** | **19-Oct-04** |
| **Scientist:** | **P Calland** |

**Technical Details**

| | |
|---|---|
| **Instrument Type** | **FID** |
| **Calibration Gas** | **Methane** |
| **% Carbon:** | **75%** |
| **Sample Number:** | **9722/3** |
| **Instrument Range:** | **331** |
| **Emission Limit:** | **150** |

| Sampling Time | VOC as Methane Equivalent@ Reference Conditions ($mgC.m^{-3}$) | Stack Temp (°C) | VOC as Carbon @ Reference Conditions (Solvent Response Corrected) ($mgC.m^{-3}$) |
|---|---|---|---|
| 11:18:40 | 4.9 | 6 | 4.09 |
| 11:19:00 | 4.7 | 6 | 3.87 |
| 11:19:20 | 4.1 | 6 | 3.43 |
| 11:19:40 | 4.1 | 6 | 3.43 |
| 11:20:00 | 4.9 | 6 | 4.09 |
| 11:20:20 | 5.1 | 6 | 4.21 |
| 11:20:40 | 5.6 | 6 | 4.65 |
| 11:21:00 | 6.3 | 6 | 5.21 |
| 11:21:20 | 6.0 | 6 | 4.99 |
| 11:21:40 | 7.8 | 6 | 6.43 |
| 11:22:00 | 6.8 | 6 | 5.65 |
| 11:22:20 | 6.7 | 6 | 5.53 |
| 11:22:40 | 5.9 | 6 | 4.87 |
| 11:23:00 | 5.1 | 6 | 4.21 |
| 11:23:20 | 4.9 | 6 | 4.09 |
| 11:23:40 | 5.6 | 6 | 4.65 |
| 11:24:00 | 6.1 | 6 | 5.09 |
| 11:24:20 | 6.3 | 6 | 5.21 |
| 11:24:40 | 6.7 | 6 | 5.53 |
| 11:25:00 | 6.5 | 6 | 5.43 |
| 11:25:20 | 7.1 | 6 | 5.87 |
| 11:25:40 | 6.3 | 6 | 5.21 |
| 11:26:00 | 6.0 | 6 | 4.99 |
| 11:26:20 | 5.9 | 6 | 4.87 |
| 11:26:40 | 5.7 | 6 | 4.77 |
| 11:27:00 | 6.5 | 6 | 5.43 |
| 11:27:20 | 9.3 | 6 | 7.76 |
| 11:27:40 | 7.2 | 6 | 5.98 |
| 11:28:00 | 8.1 | 6 | 6.76 |
| 11:28:20 | 9.9 | 6 | 8.20 |
| 11:28:40 | 12.2 | 6 | 10.08 |
| 11:29:00 | 8.1 | 6 | 6.76 |
| 11:29:20 | 7.2 | 6 | 5.98 |
| 11:29:40 | 7.2 | 6 | 5.98 |
| 11:30:00 | 7.6 | 6 | 6.31 |
| 11:30:20 | 5.6 | 6 | 4.65 |
| 11:30:40 | 8.6 | 6 | 7.09 |
| 11:31:00 | 8.6 | 6 | 7.09 |
| 11:31:20 | 9.3 | 6 | 7.76 |
| 11:31:40 | 9.5 | 6 | 7.86 |
| 11:32:00 | 9.1 | 6 | 7.54 |
| 11:32:20 | 8.4 | 6 | 6.98 |
| 11:32:40 | 9.2 | 6 | 7.64 |
| 11:33:00 | 12.2 | 6 | 10.08 |

# VOC Emission Data



| | |
|---|---|
| **Job Ref:** | **OEH 33231** |
| **Client Name:** | **Linx Printing Technologies** |
| **Location:** | **Main Exhaust** |
| **Date:** | **19-Oct-04** |
| **Scientist:** | **P Calland** |

**Technical Details**

| | |
|---|---|
| **Instrument Type** | **FID** |
| **Calibration Gas** | **Methane** |
| **% Carbon:** | **75%** |
| **Sample Number:** | **9722/3** |
| **Instrument Range:** | **331** |
| **Emission Limit:** | **150** |

| Sampling Time | VOC as Methane Equivalent@ Reference Conditions ($mgC.m^{-3}$) | Stack Temp (°C) | VOC as Carbon @ Reference Conditions (Solvent Response Corrected) ($mgC.m^{-3}$) |
|---|---|---|---|
| 11:33:20 | 15.0 | 6 | 12.41 |
| 11:33:40 | 13.4 | 6 | 11.08 |
| 11:34:00 | 9.3 | 6 | 7.76 |
| 11:34:20 | 10.4 | 6 | 8.64 |
| 11:34:40 | 10.8 | 6 | 8.98 |
| 11:35:00 | 10.3 | 6 | 8.54 |
| 11:35:20 | 8.3 | 6 | 6.87 |
| 11:35:40 | 10.6 | 6 | 8.76 |
| 11:36:00 | 13.5 | 6 | 11.19 |
| 11:36:20 | 9.7 | 6 | 8.08 |
| 11:36:40 | 8.3 | 6 | 6.87 |
| 11:37:00 | 11.9 | 6 | 9.86 |
| 11:37:20 | 12.4 | 6 | 10.30 |
| 11:37:40 | 10.7 | 6 | 8.86 |
| 11:38:00 | 31.1 | 6 | 25.82 |
| 11:38:20 | 57.0 | 6 | 47.31 |
| 11:38:40 | 53.0 | 6 | 43.98 |
| 11:39:00 | 72.6 | 6 | 60.28 |
| 11:39:20 | 49.7 | 6 | 41.21 |
| 11:39:40 | 46.1 | 6 | 38.23 |
| 11:40:00 | 39.8 | 6 | 33.02 |
| 11:40:20 | 49.4 | 6 | 40.99 |
| 11:40:40 | 32.4 | 6 | 26.92 |
| 11:41:00 | 37.1 | 6 | 30.81 |
| 11:41:20 | 40.9 | 6 | 33.90 |
| 11:41:40 | 48.2 | 6 | 39.99 |
| 11:42:00 | 45.0 | 6 | 37.34 |
| 11:42:20 | 37.9 | 6 | 31.47 |
| 11:42:40 | 35.7 | 6 | 29.59 |
| 11:43:00 | 48.5 | 6 | 40.21 |
| 11:43:20 | 37.7 | 6 | 31.25 |
| 11:43:40 | 38.9 | 6 | 32.23 |
| 11:44:00 | 7.3 | 6 | 6.09 |
| 11:44:20 | 4.9 | 6 | 4.09 |
| 11:44:40 | 4.4 | 6 | 3.65 |
| 11:45:00 | 3.7 | 6 | 3.11 |
| 11:45:20 | 3.7 | 6 | 3.11 |
| 11:45:40 | 3.6 | 6 | 2.99 |
| 11:46:00 | 3.7 | 6 | 3.11 |
| 11:46:20 | 3.6 | 6 | 2.99 |
| 11:46:40 | 3.5 | 6 | 2.88 |
| 11:47:00 | 3.6 | 6 | 2.99 |
| 11:47:20 | 4.1 | 6 | 3.43 |
| 11:47:40 | 4.7 | 6 | 3.87 |

# VOC Emission Data



| | |
|---|---|
| **Job Ref:** | **OEH 33231** |
| **Client Name:** | **Linx Printing Technologies** |
| **Location:** | **Main Exhaust** |
| **Date:** | **19-Oct-04** |
| **Scientist:** | **P Calland** |

**Technical Details**

| | |
|---|---|
| **Instrument Type** | **FID** |
| **Calibration Gas** | **Methane** |
| **% Carbon:** | **75%** |
| **Sample Number:** | **9722/3** |
| **Instrument Range:** | **331** |
| **Emission Limit:** | **150** |

| Sampling Time | VOC as Methane Equivalent@ Reference Conditions ($mgC.m^{-3}$) | Stack Temp (°C) | VOC as Carbon @ Reference Conditions (Solvent Response Corrected) ($mgC.m^{-3}$) |
|---|---|---|---|
| 11:48:00 | 5.1 | 6 | 4.21 |
| 11:48:20 | 4.7 | 6 | 3.87 |
| 11:48:40 | 5.5 | 6 | 4.55 |
| 11:49:00 | 6.4 | 6 | 5.31 |
| 11:49:20 | 7.1 | 6 | 5.87 |
| 11:49:40 | 6.3 | 6 | 5.21 |
| 11:50:00 | 6.5 | 6 | 5.43 |
| 11:50:20 | 5.6 | 6 | 4.65 |
| 11:50:40 | 5.3 | 6 | 4.43 |
| 11:51:00 | 5.7 | 6 | 4.77 |
| 11:51:20 | 7.3 | 6 | 6.09 |
| 11:51:40 | 6.9 | 6 | 5.76 |
| 11:52:00 | 7.6 | 6 | 6.31 |
| 11:52:20 | 7.6 | 6 | 6.31 |
| 11:52:40 | 7.2 | 6 | 5.98 |
| 11:53:00 | 6.3 | 6 | 5.21 |
| 11:53:20 | 7.9 | 6 | 6.54 |
| 11:53:40 | 6.8 | 6 | 5.65 |
| 11:54:00 | 6.1 | 6 | 5.09 |
| 11:54:20 | 4.8 | 6 | 3.99 |
| 11:54:40 | 4.3 | 6 | 3.55 |
| 11:55:00 | 4.3 | 6 | 3.55 |
| 11:55:20 | 4.5 | 6 | 3.77 |
| 11:55:40 | 4.1 | 6 | 3.43 |
| 11:56:00 | 5.6 | 6 | 4.65 |
| 11:56:20 | 4.3 | 6 | 3.55 |
| 11:56:40 | 4.1 | 6 | 3.43 |
| 11:57:00 | 4.0 | 6 | 3.33 |
| 11:57:20 | 3.9 | 6 | 3.21 |
| 11:57:40 | 3.9 | 6 | 3.21 |
| 11:58:00 | 3.7 | 6 | 3.11 |
| 11:58:20 | 3.2 | 6 | 2.66 |
| 11:58:40 | 3.2 | 6 | 2.66 |
| 11:59:00 | 3.3 | 6 | 2.77 |
| 11:59:20 | 3.1 | 6 | 2.55 |
| 11:59:40 | 3.2 | 6 | 2.66 |
| 12:00:00 | 3.2 | 6 | 2.66 |
| 12:00:20 | 3.3 | 6 | 2.77 |
| 12:00:40 | 3.1 | 6 | 2.55 |
| 12:01:00 | 3.2 | 6 | 2.66 |
| 12:01:20 | 3.2 | 6 | 2.66 |
| 12:01:40 | 3.3 | 6 | 2.77 |
| 12:02:00 | 2.9 | 6 | 2.44 |
| 12:02:20 | 3.1 | 6 | 2.55 |

# VOC Emission Data



| | |
|---|---|
| **Job Ref:** | **OEH 33231** |
| **Client Name:** | **Linx Printing Technologies** |
| **Location:** | **Main Exhaust** |
| **Date:** | **19-Oct-04** |
| **Scientist:** | **P Calland** |

**Technical Details**

| | |
|---|---|
| **Instrument Type** | **FID** |
| **Calibration Gas** | **Methane** |
| **% Carbon:** | **75%** |
| **Sample Number:** | **9722/3** |
| **Instrument Range:** | **331** |
| **Emission Limit:** | **150** |

| Sampling Time | VOC as Methane Equivalent@ Reference Conditions ($mgC.m^{-3}$) | Stack Temp (°C) | VOC as Carbon @ Reference Conditions (Solvent Response Corrected) ($mgC.m^{-3}$) |
|---|---|---|---|
| 12:02:40 | 3.1 | 6 | 2.55 |
| 12:03:00 | 3.5 | 6 | 2.88 |
| 12:03:20 | 3.2 | 6 | 2.66 |
| 12:03:40 | 3.2 | 6 | 2.66 |
| 12:04:00 | 2.9 | 6 | 2.44 |
| 12:04:20 | 2.9 | 6 | 2.44 |
| 12:04:40 | 3.1 | 6 | 2.55 |
| 12:05:00 | 2.8 | 6 | 2.33 |
| 12:05:20 | 3.2 | 6 | 2.66 |
| 12:05:40 | 2.9 | 6 | 2.44 |
| 12:06:00 | 3.2 | 6 | 2.66 |
| 12:06:20 | 3.1 | 6 | 2.55 |
| 12:06:40 | 2.9 | 6 | 2.44 |
| 12:07:00 | 3.2 | 6 | 2.66 |
| 12:07:20 | 2.8 | 6 | 2.33 |
| 12:07:40 | 3.1 | 6 | 2.55 |
| 12:08:00 | 3.5 | 6 | 2.88 |
| 12:08:20 | 3.3 | 6 | 2.77 |
| 12:08:40 | 3.7 | 6 | 3.11 |
| 12:09:00 | 3.3 | 6 | 2.77 |
| 12:09:20 | 3.6 | 6 | 2.99 |
| 12:09:40 | 3.3 | 6 | 2.77 |
| 12:10:00 | 3.6 | 6 | 2.99 |
| 12:10:20 | 3.7 | 6 | 3.11 |
| 12:10:40 | 3.7 | 6 | 3.11 |
| 12:11:00 | 5.3 | 6 | 4.43 |
| 12:11:20 | 4.8 | 6 | 3.99 |
| 12:11:40 | 4.7 | 6 | 3.87 |
| 12:12:00 | 5.2 | 6 | 4.33 |
| 12:12:20 | 5.2 | 6 | 4.33 |
| 12:12:40 | 5.1 | 6 | 4.21 |
| 12:13:00 | 3.9 | 6 | 3.21 |
| 12:13:20 | 4.8 | 6 | 3.99 |
| 12:13:40 | 4.0 | 6 | 3.33 |
| 12:14:00 | 3.3 | 6 | 2.77 |
| 12:14:20 | 3.6 | 6 | 2.99 |
| 12:14:40 | 3.6 | 6 | 2.99 |
| 12:15:00 | 3.6 | 6 | 2.99 |
| 12:15:20 | 3.7 | 6 | 3.11 |
| 12:15:40 | 3.3 | 6 | 2.77 |
| 12:16:00 | 3.2 | 6 | 2.66 |
| 12:16:20 | 3.5 | 6 | 2.88 |
| 12:16:40 | 3.3 | 6 | 2.77 |
| 12:17:00 | 3.2 | 6 | 2.66 |

# VOC Emission Data



| | |
|---|---|
| **Job Ref:** | **OEH 33231** |
| **Client Name:** | **Linx Printing Technologies** |
| **Location:** | **Main Exhaust** |
| **Date:** | **19-Oct-04** |
| **Scientist:** | **P Calland** |

**Technical Details**

| | |
|---|---|
| **Instrument Type** | **FID** |
| **Calibration Gas** | **Methane** |
| **% Carbon:** | **75%** |
| **Sample Number:** | **9722/3** |
| **Instrument Range:** | **331** |
| **Emission Limit:** | **150** |

| Sampling Time | VOC as Methane Equivalent@ Reference Conditions ($mgC.m^{-3}$) | Stack Temp (°C) | VOC as Carbon @ Reference Conditions (Solvent Response Corrected) ($mgC.m^{-3}$) |
|---|---|---|---|
| 12:17:20 | 3.1 | 6 | 2.55 |
| 12:17:40 | 3.2 | 6 | 2.66 |
| 12:18:00 | 3.1 | 6 | 2.55 |
| 12:18:20 | 3.1 | 6 | 2.55 |
| 12:18:40 | 3.1 | 6 | 2.55 |
| 12:19:00 | 3.2 | 6 | 2.66 |
| 12:19:20 | 2.8 | 6 | 2.33 |
| 12:19:40 | 2.9 | 6 | 2.44 |
| 12:20:00 | 2.9 | 6 | 2.44 |
| 12:20:20 | 2.9 | 6 | 2.44 |
| 12:20:40 | 3.1 | 6 | 2.55 |
| 12:21:00 | 2.7 | 6 | 2.21 |
| 12:21:20 | 2.8 | 6 | 2.33 |
| 12:21:40 | 2.7 | 6 | 2.21 |
| 12:22:00 | 2.8 | 6 | 2.33 |
| 12:22:20 | 2.7 | 6 | 2.21 |
| 12:22:40 | 2.5 | 6 | 2.10 |
| 12:23:00 | 2.9 | 6 | 2.44 |
| 12:23:20 | 2.4 | 6 | 1.99 |
| 12:23:40 | 2.4 | 6 | 1.99 |
| 12:24:00 | 2.3 | 6 | 1.88 |
| 12:24:20 | 2.1 | 6 | 1.77 |
| 12:24:40 | 2.3 | 6 | 1.88 |
| 12:25:00 | 2.3 | 6 | 1.88 |
| 12:25:20 | 2.3 | 6 | 1.88 |
| 12:25:40 | 2.4 | 6 | 1.99 |
| 12:26:00 | 2.4 | 6 | 1.99 |
| 12:26:20 | 2.1 | 6 | 1.77 |
| 12:26:40 | 2.1 | 6 | 1.77 |
| 12:27:00 | 2.3 | 6 | 1.88 |
| 12:27:20 | 2.1 | 6 | 1.77 |
| 12:27:40 | 2.3 | 6 | 1.88 |
| 12:28:00 | 2.3 | 6 | 1.88 |
| 12:28:20 | 2.1 | 6 | 1.77 |
| 12:28:40 | 2.1 | 6 | 1.77 |
| 12:29:00 | 2.1 | 6 | 1.77 |
| 12:29:20 | 2.0 | 6 | 1.66 |
| 12:29:40 | 2.3 | 6 | 1.88 |
| 12:30:00 | 2.1 | 6 | 1.77 |
| 12:30:20 | 2.3 | 6 | 1.88 |
| 12:30:40 | 2.0 | 6 | 1.66 |
| 12:31:00 | 2.1 | 6 | 1.77 |
| 12:31:20 | 2.0 | 6 | 1.66 |
| 12:31:40 | 2.0 | 6 | 1.66 |

# VOC Emission Data



| | |
|---|---|
| **Job Ref:** | **OEH 33231** |
| **Client Name:** | **Linx Printing Technologies** |
| **Location:** | **Main Exhaust** |
| **Date:** | **19-Oct-04** |
| **Scientist:** | **P Calland** |

**Technical Details**

| | |
|---|---|
| **Instrument Type** | **FID** |
| **Calibration Gas** | **Methane** |
| **% Carbon:** | **75%** |
| **Sample Number:** | **9722/3** |
| **Instrument Range:** | **331** |
| **Emission Limit:** | **150** |

| Sampling Time | VOC as Methane Equivalent@ Reference Conditions ($mgC.m^{-3}$) | Stack Temp (°C) | VOC as Carbon @ Reference Conditions (Solvent Response Corrected) ($mgC.m^{-3}$) |
|---|---|---|---|
| 12:32:00 | 2.0 | 6 | 1.66 |
| 12:32:20 | 2.0 | 6 | 1.66 |
| 12:32:40 | 2.1 | 6 | 1.77 |
| 12:33:00 | 2.0 | 6 | 1.66 |
| 12:33:20 | 2.0 | 6 | 1.66 |
| 12:33:40 | 2.0 | 6 | 1.66 |
| 12:34:00 | 2.0 | 6 | 1.66 |
| 12:34:20 | 2.0 | 6 | 1.66 |
| 12:34:40 | 2.0 | 6 | 1.66 |
| 12:35:00 | 2.1 | 6 | 1.77 |
| 12:35:20 | 2.1 | 6 | 1.77 |
| 12:35:40 | 2.0 | 6 | 1.66 |
| 12:36:00 | 2.0 | 6 | 1.66 |
| 12:36:20 | 2.0 | 6 | 1.66 |
| 12:36:40 | 2.0 | 6 | 1.66 |
| 12:37:00 | 1.9 | 6 | 1.55 |
| 12:37:20 | 2.0 | 6 | 1.66 |
| 12:37:40 | 2.1 | 6 | 1.77 |
| 12:38:00 | 2.0 | 6 | 1.66 |
| 12:38:20 | 2.1 | 6 | 1.77 |
| 12:38:40 | 2.4 | 6 | 1.99 |
| 12:39:00 | 2.3 | 6 | 1.88 |
| 12:39:20 | 2.1 | 6 | 1.77 |
| 12:39:40 | 2.3 | 6 | 1.88 |
| 12:40:00 | 2.3 | 6 | 1.88 |
| 12:40:20 | 2.3 | 6 | 1.88 |
| 12:40:40 | 2.3 | 6 | 1.88 |
| 12:41:00 | 2.3 | 6 | 1.88 |
| 12:41:20 | 2.4 | 6 | 1.99 |
| 12:41:40 | 2.3 | 6 | 1.88 |
| 12:42:00 | 2.1 | 6 | 1.77 |
| 12:42:20 | 2.1 | 6 | 1.77 |
| 12:42:40 | 2.1 | 6 | 1.77 |
| 12:43:00 | 2.3 | 6 | 1.88 |
| 12:43:20 | 2.3 | 6 | 1.88 |
| 12:43:40 | 2.9 | 6 | 2.44 |
| 12:44:00 | 2.3 | 6 | 1.88 |
| 12:44:20 | 2.4 | 6 | 1.99 |
| 12:44:40 | 2.3 | 6 | 1.88 |
| 12:45:00 | 2.3 | 6 | 1.88 |
| 12:45:20 | 2.1 | 6 | 1.77 |
| 12:45:40 | 2.3 | 6 | 1.88 |
| 12:46:00 | 2.3 | 6 | 1.88 |
| 12:46:20 | 2.1 | 6 | 1.77 |

# VOC Emission Data



| | |
|---|---|
| **Job Ref:** | **OEH 33231** |
| **Client Name:** | **Linx Printing Technologies** |
| **Location:** | **Main Exhaust** |
| **Date:** | **19-Oct-04** |
| **Scientist:** | **P Calland** |

**Technical Details**

| | |
|---|---|
| **Instrument Type** | **FID** |
| **Calibration Gas** | **Methane** |
| **% Carbon:** | **75%** |
| **Sample Number:** | **9722/3** |
| **Instrument Range:** | **331** |
| **Emission Limit:** | **150** |

| Sampling Time | VOC as Methane Equivalent@ Reference Conditions ($mgC.m^{-3}$) | Stack Temp (°C) | VOC as Carbon @ Reference Conditions (Solvent Response Corrected) ($mgC.m^{-3}$) |
|---|---|---|---|
| 12:46:40 | 2.3 | 6 | 1.88 |
| 12:47:00 | 2.1 | 6 | 1.77 |
| 12:47:20 | 2.1 | 6 | 1.77 |
| 12:47:40 | 2.1 | 6 | 1.77 |
| 12:48:00 | 2.0 | 6 | 1.66 |
| 12:48:20 | 2.1 | 6 | 1.77 |
| 12:48:40 | 2.0 | 6 | 1.66 |
| 12:49:00 | 2.0 | 6 | 1.66 |
| 12:49:20 | 2.0 | 6 | 1.66 |
| 12:49:40 | 2.0 | 6 | 1.66 |
| 12:50:00 | 1.9 | 6 | 1.55 |
| 12:50:20 | 2.0 | 6 | 1.66 |
| 12:50:40 | 2.0 | 6 | 1.66 |
| 12:51:00 | 1.9 | 6 | 1.55 |
| 12:51:20 | 2.3 | 6 | 1.88 |
| 12:51:40 | 2.0 | 6 | 1.66 |
| 12:52:00 | 2.1 | 6 | 1.77 |
| 12:52:20 | 2.0 | 6 | 1.66 |
| 12:52:40 | 2.0 | 6 | 1.66 |
| 12:53:00 | 2.1 | 6 | 1.77 |
| 12:53:20 | 1.9 | 6 | 1.55 |
| 12:53:40 | 1.9 | 6 | 1.55 |
| 12:54:00 | 1.9 | 6 | 1.55 |
| 12:54:20 | 1.7 | 6 | 1.44 |
| 12:54:40 | 1.9 | 6 | 1.55 |
| 12:55:00 | 1.9 | 6 | 1.55 |
| 12:55:20 | 2.0 | 6 | 1.66 |
| 12:55:40 | 2.0 | 6 | 1.66 |
| 12:56:00 | 2.0 | 6 | 1.66 |
| 12:56:20 | 2.0 | 6 | 1.66 |
| 12:56:40 | 1.9 | 6 | 1.55 |
| 12:57:00 | 2.0 | 6 | 1.66 |
| 12:57:20 | 3.3 | 6 | 2.77 |
| 12:57:40 | 3.2 | 6 | 2.66 |
| 12:58:00 | 3.2 | 6 | 2.66 |
| 12:58:20 | 2.9 | 6 | 2.44 |
| 12:58:40 | 3.1 | 6 | 2.55 |
| 12:59:00 | 2.8 | 6 | 2.33 |
| 12:59:20 | 2.9 | 6 | 2.44 |
| 12:59:40 | 3.2 | 6 | 2.66 |
| 13:00:00 | 3.5 | 6 | 2.88 |
| 13:00:20 | 3.6 | 6 | 2.99 |
| 13:00:40 | 4.0 | 6 | 3.33 |
| 13:01:00 | 4.0 | 6 | 3.33 |

# VOC Emission Data



| | |
|---|---|
| **Job Ref:** | **OEH 33231** |
| **Client Name:** | **Linx Printing Technologies** |
| **Location:** | **Main Exhaust** |
| **Date:** | **19-Oct-04** |
| **Scientist:** | **P Calland** |

**Technical Details**

| | |
|---|---|
| **Instrument Type** | **FID** |
| **Calibration Gas** | **Methane** |
| **% Carbon:** | **75%** |
| **Sample Number:** | **9722/3** |
| **Instrument Range:** | **331** |
| **Emission Limit:** | **150** |

| Sampling Time | VOC as Methane Equivalent@ Reference Conditions ($mgC.m^{-3}$) | Stack Temp (°C) | VOC as Carbon @ Reference Conditions (Solvent Response Corrected) ($mgC.m^{-3}$) |
|---|---|---|---|
| 13:01:20 | 4.1 | 6 | 3.43 |
| 13:01:40 | 4.5 | 6 | 3.77 |
| 13:02:00 | 4.4 | 6 | 3.65 |
| 13:02:20 | 4.3 | 6 | 3.55 |
| 13:02:40 | 4.7 | 6 | 3.87 |
| 13:03:00 | 4.5 | 6 | 3.77 |
| 13:03:20 | 4.5 | 6 | 3.77 |
| 13:03:40 | 4.0 | 6 | 3.33 |
| 13:04:00 | 3.7 | 6 | 3.11 |
| 13:04:20 | 5.2 | 6 | 4.33 |
| 13:04:40 | 6.8 | 6 | 5.65 |
| 13:05:00 | 73.7 | 6 | 61.16 |
| 13:05:20 | 39.1 | 6 | 32.47 |
| 13:05:40 | 35.0 | 6 | 29.03 |
| 13:06:00 | 21.6 | 6 | 17.94 |
| 13:06:20 | 32.7 | 6 | 27.14 |
| 13:06:40 | 26.0 | 6 | 21.61 |
| 13:07:00 | 20.3 | 6 | 16.84 |
| 13:07:20 | 33.8 | 6 | 28.03 |
| 13:07:40 | 2.8 | 6 | 2.33 |
| 13:08:00 | 2.7 | 6 | 2.21 |
| 13:08:20 | 2.4 | 6 | 1.99 |
| 13:08:40 | 2.3 | 6 | 1.88 |
| 13:09:00 | 2.3 | 6 | 1.88 |
| 13:09:20 | 2.4 | 6 | 1.99 |
| 13:09:40 | 2.3 | 6 | 1.88 |
| 13:10:00 | 2.4 | 6 | 1.99 |
| 13:10:20 | 2.4 | 6 | 1.99 |
| 13:10:40 | 2.3 | 6 | 1.88 |
| 13:11:00 | 2.5 | 6 | 2.10 |
| 13:11:20 | 2.4 | 6 | 1.99 |
| 13:11:40 | 2.3 | 6 | 1.88 |
| 13:12:00 | 2.5 | 6 | 2.10 |
| 13:12:20 | 2.7 | 6 | 2.21 |
| 13:12:40 | 2.5 | 6 | 2.10 |
| 13:13:00 | 2.5 | 6 | 2.10 |
| 13:13:20 | 2.4 | 6 | 1.99 |
| 13:13:40 | 2.4 | 6 | 1.99 |
| 13:14:00 | 3.1 | 6 | 2.55 |
| 13:14:20 | 7.6 | 6 | 6.31 |
| 13:14:40 | 3.7 | 6 | 3.11 |
| 13:15:00 | 3.3 | 6 | 2.77 |
| 13:15:20 | 3.7 | 6 | 3.11 |
| 13:15:40 | 3.2 | 6 | 2.66 |

# VOC Emission Data



| | |
|---|---|
| **Job Ref:** | **OEH 33231** |
| **Client Name:** | **Linx Printing Technologies** |
| **Location:** | **Main Exhaust** |
| **Date:** | **19-Oct-04** |
| **Scientist:** | **P Calland** |

**Technical Details**

| | |
|---|---|
| **Instrument Type** | **FID** |
| **Calibration Gas** | **Methane** |
| **% Carbon:** | **75%** |
| **Sample Number:** | **9722/3** |
| **Instrument Range:** | **331** |
| **Emission Limit:** | **150** |

| Sampling Time | VOC as Methane Equivalent@ Reference Conditions ($mgC.m^{-3}$) | Stack Temp (°C) | VOC as Carbon @ Reference Conditions (Solvent Response Corrected) ($mgC.m^{-3}$) |
|---|---|---|---|
| 13:16:00 | 3.5 | 6 | 2.88 |
| 13:16:20 | 3.1 | 6 | 2.55 |
| 13:16:40 | 3.5 | 6 | 2.88 |
| 13:17:00 | 3.5 | 6 | 2.88 |
| 13:17:20 | 3.5 | 6 | 2.88 |
| 13:17:40 | 3.2 | 6 | 2.66 |
| 13:18:00 | 3.1 | 6 | 2.55 |
| 13:18:20 | 2.9 | 6 | 2.44 |
| 13:18:40 | 2.9 | 6 | 2.44 |
| 13:19:00 | 2.7 | 6 | 2.21 |
| 13:19:20 | 2.8 | 6 | 2.33 |
| 13:19:40 | 2.5 | 6 | 2.10 |
| 13:20:00 | 2.7 | 6 | 2.21 |
| 13:20:20 | 2.5 | 6 | 2.10 |
| 13:20:40 | 2.5 | 6 | 2.10 |
| 13:21:00 | 2.7 | 6 | 2.21 |
| 13:21:20 | 3.3 | 6 | 2.77 |
| 13:21:40 | 2.5 | 6 | 2.10 |
| 13:22:00 | 2.5 | 6 | 2.10 |
| 13:22:20 | 2.8 | 6 | 2.33 |
| 13:22:40 | 2.8 | 6 | 2.33 |
| 13:23:00 | 2.7 | 6 | 2.21 |
| 13:23:20 | 3.2 | 6 | 2.66 |
| 13:23:40 | 2.8 | 6 | 2.33 |
| 13:24:00 | 2.9 | 6 | 2.44 |
| 13:24:20 | 3.1 | 6 | 2.55 |
| 13:24:40 | 2.9 | 6 | 2.44 |
| 13:25:00 | 3.5 | 6 | 2.88 |
| 13:25:20 | 3.5 | 6 | 2.88 |
| 13:25:40 | 3.7 | 6 | 3.11 |
| 13:26:00 | 3.7 | 6 | 3.11 |
| 13:26:20 | 3.9 | 6 | 3.21 |
| 13:26:40 | 4.3 | 6 | 3.55 |
| 13:27:00 | 4.3 | 6 | 3.55 |
| 13:27:20 | 3.9 | 6 | 3.21 |
| 13:27:40 | 4.3 | 6 | 3.55 |
| 13:28:00 | 3.9 | 6 | 3.21 |
| 13:28:20 | 3.5 | 6 | 2.88 |
| 13:28:40 | 3.6 | 6 | 2.99 |
| 13:29:00 | 3.9 | 6 | 3.21 |
| 13:29:20 | 4.7 | 6 | 3.87 |
| 13:29:40 | 4.7 | 6 | 3.87 |
| 13:30:00 | 4.1 | 6 | 3.43 |
| 13:30:20 | 4.3 | 6 | 3.55 |

# VOC Emission Data



| | |
|---|---|
| **Job Ref:** | **OEH 33231** |
| **Client Name:** | **Linx Printing Technologies** |
| **Location:** | **Main Exhaust** |
| **Date:** | **19-Oct-04** |
| **Scientist:** | **P Calland** |

**Technical Details**

| | |
|---|---|
| **Instrument Type** | **FID** |
| **Calibration Gas** | **Methane** |
| **% Carbon:** | **75%** |
| **Sample Number:** | **9722/3** |
| **Instrument Range:** | **331** |
| **Emission Limit:** | **150** |

| Sampling Time | VOC as Methane Equivalent@ Reference Conditions ($mgC.m^{-3}$) | Stack Temp (°C) | VOC as Carbon @ Reference Conditions (Solvent Response Corrected) ($mgC.m^{-3}$) |
|---|---|---|---|
| 13:30:40 | 3.7 | 6 | 3.11 |
| 13:31:00 | 4.5 | 6 | 3.77 |
| 13:31:20 | 4.4 | 6 | 3.65 |
| 13:31:40 | 4.7 | 6 | 3.87 |
| 13:32:00 | 4.3 | 6 | 3.55 |
| 13:32:20 | 4.1 | 6 | 3.43 |
| 13:32:40 | 4.1 | 6 | 3.43 |
| 13:33:00 | 4.0 | 6 | 3.33 |
| 13:33:20 | 3.6 | 6 | 2.99 |
| 13:33:40 | 3.6 | 6 | 2.99 |
| 13:34:00 | 3.3 | 6 | 2.77 |
| 13:34:20 | 3.3 | 6 | 2.77 |
| 13:34:40 | 3.3 | 6 | 2.77 |
| 13:35:00 | 3.2 | 6 | 2.66 |
| 13:35:20 | 3.3 | 6 | 2.77 |
| 13:35:40 | 3.2 | 6 | 2.66 |
| 13:36:00 | 3.2 | 6 | 2.66 |
| 13:36:20 | 3.3 | 6 | 2.77 |
| 13:36:40 | 3.2 | 6 | 2.66 |
| 13:37:00 | 3.3 | 6 | 2.77 |
| 13:37:20 | 3.3 | 6 | 2.77 |
| 13:37:40 | 3.5 | 6 | 2.88 |
| 13:38:00 | 3.6 | 6 | 2.99 |
| 13:38:20 | 3.2 | 6 | 2.66 |
| 13:38:40 | 3.2 | 6 | 2.66 |
| 13:39:00 | 3.6 | 6 | 2.99 |
| 13:39:20 | 3.7 | 6 | 3.11 |
| 13:39:40 | 3.7 | 6 | 3.11 |
| 13:40:00 | 3.6 | 6 | 2.99 |
| 13:40:20 | 3.7 | 6 | 3.11 |
| 13:40:40 | 3.6 | 6 | 2.99 |
| 13:41:00 | 3.7 | 6 | 3.11 |
| 13:41:20 | 3.7 | 6 | 3.11 |
| 13:41:40 | 3.6 | 6 | 2.99 |
| 13:42:00 | 3.5 | 6 | 2.88 |
| 13:42:20 | 4.0 | 6 | 3.33 |
| 13:42:40 | 3.5 | 6 | 2.88 |
| 13:43:00 | 3.7 | 6 | 3.11 |
| 13:43:20 | 3.6 | 6 | 2.99 |
| 13:43:40 | 3.3 | 6 | 2.77 |
| 13:44:00 | 3.3 | 6 | 2.77 |
| 13:44:20 | 3.5 | 6 | 2.88 |
| 13:44:40 | 3.3 | 6 | 2.77 |
| 13:45:00 | 3.5 | 6 | 2.88 |

# VOC Emission Data



**Job Ref:** OEH 33231
**Client Name:** Linx Printing Technologies
**Location:** Main Exhaust
**Date:** 19-Oct-04
**Scientist:** P Calland

## Technical Details

**Instrument Type** FID
**Calibration Gas** Methane
**% Carbon:** 75%
**Sample Number:** 9722/3
**Instrument Range:** 331
**Emission Limit:** 150

| Sampling Time | VOC as Methane Equivalent@ Reference Conditions ($mgC.m^{-3}$) | Stack Temp (°C) | VOC as Carbon @ Reference Conditions (Solvent Response Corrected) ($mgC.m^{-3}$) |
|---|---|---|---|
| 13:45:20 | 3.6 | 6 | 2.99 |
| 13:45:40 | 3.6 | 6 | 2.99 |
| 13:46:00 | 3.9 | 6 | 3.21 |
| 13:46:20 | 3.6 | 6 | 2.99 |
| 13:46:40 | 3.3 | 6 | 2.77 |
| 13:47:00 | 3.9 | 6 | 3.21 |
| 13:47:20 | 3.6 | 6 | 2.99 |
| 13:47:40 | 3.5 | 6 | 2.88 |
| 13:48:00 | 4.0 | 6 | 3.33 |
| 13:48:20 | 3.6 | 6 | 2.99 |
| 13:48:40 | 3.2 | 6 | 2.66 |
| 13:49:00 | 3.7 | 6 | 3.11 |
| 13:49:20 | 3.3 | 6 | 2.77 |
| 13:49:40 | 3.1 | 6 | 2.55 |
| 13:50:00 | 3.2 | 6 | 2.66 |
| 13:50:20 | 3.2 | 6 | 2.66 |
| 13:50:40 | 2.9 | 6 | 2.44 |
| 13:51:00 | 3.1 | 6 | 2.55 |
| 13:51:20 | 2.8 | 6 | 2.33 |
| 13:51:40 | 2.8 | 6 | 2.33 |
| 13:52:00 | 2.9 | 6 | 2.44 |
| 13:52:20 | 3.1 | 6 | 2.55 |
| 13:52:40 | 2.7 | 6 | 2.21 |
| 13:53:00 | 2.9 | 6 | 2.44 |
| 13:53:20 | 3.1 | 6 | 2.55 |
| 13:53:40 | 2.7 | 6 | 2.21 |
| 13:54:00 | 2.7 | 6 | 2.21 |
| 13:54:20 | 3.1 | 6 | 2.55 |
| 13:54:40 | 2.8 | 6 | 2.33 |
| 13:55:00 | 2.9 | 6 | 2.44 |
| 13:55:20 | 3.6 | 6 | 2.99 |
| 13:55:40 | 3.5 | 6 | 2.88 |
| 13:56:00 | 3.1 | 6 | 2.55 |
| 13:56:20 | 3.2 | 6 | 2.66 |
| 13:56:40 | 3.2 | 6 | 2.66 |
| 13:57:00 | 3.2 | 6 | 2.66 |
| 13:57:20 | 3.7 | 6 | 3.11 |
| 13:57:40 | 3.3 | 6 | 2.77 |
| 13:58:00 | 3.1 | 6 | 2.55 |
| 13:58:20 | 3.6 | 6 | 2.99 |
| 13:58:40 | 3.5 | 6 | 2.88 |
| 13:59:00 | 3.3 | 6 | 2.77 |
| 13:59:20 | 3.6 | 6 | 2.99 |
| 13:59:40 | 3.3 | 6 | 2.77 |

# VOC Emission Data



| | |
|---|---|
| **Job Ref:** | **OEH 33231** |
| **Client Name:** | **Linx Printing Technologies** |
| **Location:** | **Main Exhaust** |
| **Date:** | **19-Oct-04** |
| **Scientist:** | **P Calland** |

**Technical Details**

| | |
|---|---|
| **Instrument Type** | **FID** |
| **Calibration Gas** | **Methane** |
| **% Carbon:** | **75%** |
| **Sample Number:** | **9722/3** |
| **Instrument Range:** | **331** |
| **Emission Limit:** | **150** |

| Sampling Time | VOC as Methane Equivalent@ Reference Conditions ($mgC.m^{-3}$) | Stack Temp (°C) | VOC as Carbon @ Reference Conditions (Solvent Response Corrected) ($mgC.m^{-3}$) |
|---|---|---|---|
| 14:00:00 | 4.3 | 6 | 3.55 |
| 14:00:20 | 3.6 | 6 | 2.99 |
| 14:00:40 | 3.5 | 6 | 2.88 |
| 14:01:00 | 2.9 | 6 | 2.44 |
| 14:01:20 | 3.2 | 6 | 2.66 |
| 14:01:40 | 3.5 | 6 | 2.88 |
| 14:02:00 | 3.1 | 6 | 2.55 |
| 14:02:20 | 3.1 | 6 | 2.55 |
| 14:02:40 | 2.8 | 6 | 2.33 |
| 14:03:00 | 2.5 | 6 | 2.10 |
| 14:03:20 | 2.8 | 6 | 2.33 |
| 14:03:40 | 3.2 | 6 | 2.66 |
| 14:04:00 | 2.7 | 6 | 2.21 |
| 14:04:20 | 2.9 | 6 | 2.44 |
| 14:04:40 | 3.1 | 6 | 2.55 |
| 14:05:00 | 3.2 | 6 | 2.66 |
| 14:05:20 | 4.0 | 6 | 3.33 |
| 14:05:40 | 3.1 | 6 | 2.55 |
| 14:06:00 | 3.1 | 6 | 2.55 |
| 14:06:20 | 3.2 | 6 | 2.66 |
| 14:06:40 | 3.1 | 6 | 2.55 |
| 14:07:00 | 2.9 | 6 | 2.44 |
| 14:07:20 | 3.1 | 6 | 2.55 |
| 14:07:40 | 3.5 | 6 | 2.88 |
| 14:08:00 | 2.9 | 6 | 2.44 |
| 14:08:20 | 2.8 | 6 | 2.33 |
| 14:08:40 | 3.1 | 6 | 2.55 |
| 14:09:00 | 2.8 | 6 | 2.33 |
| 14:09:20 | 2.5 | 6 | 2.10 |
| 14:09:40 | 3.3 | 6 | 2.77 |
| 14:10:00 | 3.1 | 6 | 2.55 |
| 14:10:20 | 2.7 | 6 | 2.21 |
| 14:10:40 | 2.5 | 6 | 2.10 |
| 14:11:00 | 2.7 | 6 | 2.21 |
| 14:11:20 | 2.8 | 6 | 2.33 |
| 14:11:40 | 2.4 | 6 | 1.99 |
| 14:12:00 | 2.5 | 6 | 2.10 |
| 14:12:20 | 2.4 | 6 | 1.99 |
| 14:12:40 | 2.4 | 6 | 1.99 |
| 14:13:00 | 2.8 | 6 | 2.33 |
| 14:13:20 | 2.5 | 6 | 2.10 |
| 14:13:40 | 2.5 | 6 | 2.10 |
| 14:14:00 | 2.9 | 6 | 2.44 |
| 14:14:20 | 2.5 | 6 | 2.10 |

# VOC Emission Data



| | |
|---|---|
| **Job Ref:** | **OEH 33231** |
| **Client Name:** | **Linx Printing Technologies** |
| **Location:** | **Main Exhaust** |
| **Date:** | **19-Oct-04** |
| **Scientist:** | **P Calland** |

**Technical Details**

| | |
|---|---|
| **Instrument Type** | **FID** |
| **Calibration Gas** | **Methane** |
| **% Carbon:** | **75%** |
| **Sample Number:** | **9722/3** |
| **Instrument Range:** | **331** |
| **Emission Limit:** | **150** |

| Sampling Time | VOC as Methane Equivalent@ Reference Conditions ($mgC.m^{-3}$) | Stack Temp (°C) | VOC as Carbon @ Reference Conditions (Solvent Response Corrected) ($mgC.m^{-3}$) |
|---|---|---|---|
| 14:14:40 | 2.4 | 6 | 1.99 |
| 14:15:00 | 2.5 | 6 | 2.10 |
| 14:15:20 | 2.7 | 6 | 2.21 |
| 14:15:40 | 2.4 | 6 | 1.99 |
| 14:16:00 | 2.8 | 6 | 2.33 |
| 14:16:20 | 2.7 | 6 | 2.21 |
| 14:16:40 | 2.4 | 6 | 1.99 |
| 14:17:00 | 2.3 | 6 | 1.88 |
| 14:17:20 | 2.5 | 6 | 2.10 |
| 14:17:40 | 2.4 | 6 | 1.99 |
| 14:18:00 | 2.3 | 6 | 1.88 |
| 14:18:20 | 2.7 | 6 | 2.21 |
| 14:18:40 | 2.3 | 6 | 1.88 |
| 14:19:00 | 2.4 | 6 | 1.99 |
| 14:19:20 | 2.5 | 6 | 2.10 |
| 14:19:40 | 2.4 | 6 | 1.99 |
| 14:20:00 | 2.3 | 6 | 1.88 |
| 14:20:20 | 2.4 | 6 | 1.99 |
| 14:20:40 | 2.5 | 6 | 2.10 |
| 14:21:00 | 2.1 | 6 | 1.77 |
| 14:21:20 | 2.4 | 6 | 1.99 |
| 14:21:40 | 2.3 | 6 | 1.88 |
| 14:22:00 | 2.1 | 6 | 1.77 |
| 14:22:20 | 2.0 | 6 | 1.66 |
| 14:22:40 | 1.9 | 6 | 1.55 |
| 14:23:00 | 2.7 | 6 | 2.21 |
| 14:23:20 | 2.9 | 6 | 2.44 |
| 14:23:40 | 2.8 | 6 | 2.33 |
| 14:24:00 | 2.5 | 6 | 2.10 |
| 14:24:20 | 4.0 | 6 | 3.33 |
| 14:24:40 | 2.9 | 6 | 2.44 |
| **Average** | **4.9** | | **4.1** |

# APPENDIX III

# CALIBRATION CERTIFICATES

# CERTIFICATE OF CALIBRATION

DATE OF ISSUE 10 August 2004 CERTIFICATE NUMBER N1125960P

UKAS CALIBRATION

0072

**ASAP Calibration Services Ltd**
**Romsey Laboratory**
UNIVERSAL HOUSE
ROMSEY INDUSTRIAL ESTATE
ROMSEY
HAMPSHIRE
SO51 0HR
Telephone 01794 523935
Facsimile 01794 523910
Email info@asap-cal.co.uk
Website www.asap-cal.co.uk



APPROVED SIGNATORY
[✓]M. Flux
[ ]N.Wheeler
[ ]
[ ]

Customer : OEH GROUP LTD
Address : 253-255 GREAT LISTER STREET
BIRMINGHAM
B7 4BS

Order No : 4078

Apparatus Tested - DIGITAL MANOMETER

Type No : P200UL

Serial No : 076/51

Inventory No : AQ005

Manufacturer : DIGITRON

Range/Scale : 0 to 100 mbar
RESOLUTION: 0.1 mbar

Test Conditions -

Date Instrument Received : 04 August 2004

Date Calibration Completed : 10 August 2004

Ambient Temperature : 20 ± 2 °C

Reference No : 1125960

Certified by

| | | | |
|---|---|---|---|
| **Stackmite Reference:** | ***AQ 001*** | **Reference Gas Meter No:** | AQ 046 |
| **Test Date:** | 26/02/2004 | **Reference Gas Meter Certificate:** | N 1096766F |
| | | **Reference Gas Meter Calibration Date:** | 04/03/2003 |

## Section 1: Calibration Record

**Leak Check (Y/N)** Y **Warm up Period Start:** 09:40 **Finish:** 09:53

| Flow Setting, lpm | Time Period, min | | | Test Stackmite Gas Meter Reading, litres | | | Reference Gas Meter Readings, litres | | | Rotameter Flow, lpm | | Test Stackmite Gas Meter Temperature (◦C) | | Reference Gas Meter Temperature (◦C) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Start | Finish | Δ | Start | Finish | Δ (NTP) | Start | Finish | Δ (NTP) | Stackmite | Reference (Calculated) | Start | Finish | Start | Finish |
| 20 | 09:55 | 10:25 | 30 | 279200 | 279785 | 523 | 16650 | 17240 | 532 | 20 | 19.67 | 32 | 33 | 29 | 30 |
| 15 | 10:30 | 11:00 | 30 | 279790 | 280230 | 393 | 17245 | 17690 | 400 | 15 | 14.83 | 33 | 33 | 30 | 31 |
| 10 | 11:05 | 13:05 | 120 | 280240 | 281435 | 1064 | 17700 | 18880 | 1060 | 10 | 9.83 | 33 | 34 | 31 | 31 |
| 5 | 13:10 | 14:20 | 70 | 281440 | 281783 | 306 | 18885 | 19230 | 309 | 5 | 4.93 | 33 | 33 | 32 | 31 |

## Section 2: Calculations

| | | | | | |
|---|---|---|---|---|---|
| **Stackmite flow setting, lpm** | 20 | 15 | 10 | 5 | |
| **Indicated rotameter flow, lpm** | 20 | 15 | 10 | 5 | |
| **Actual rotameter flow, lpm** | 19.67 | 14.83 | 9.83 | 4.93 | |
| **% Difference Test:Reference** | 1.69% | 1.12% | 1.69% | 1.45% | **All must be < +/- 2%** |
| **Stackmite gas meter volume, l** | 523 | 393 | 1064 | 306 | |
| **Reference gas meter volume, l** | 532.46 | 400.28 | 1059.67 | 309.31 | |
| **% Difference Test:Reference** | -1.82% | -1.93% | 0.45% | -1.07% | **All must be < +/- 2%** |

**Calibrated By:** W Roberts

**Signature:** W Roberts

Form No BED.008
ISSUE. 3

# CERTIFICATE OF ANALYSIS

| Date of Issue 8th May 2003 | Certificate No 030508-1-CC |
|---|---|

| | | | |
|---|---|---|---|
| **Customer** | OEH Group | **Analyst** | N. Jones |
| **Customer Order No** | 3605 | **Method of Analysis** | G. C. |
| **Cylinder Type/Size** | 103 Litre | **Accuracy** | +/-2% |
| **Cylinder No** | 3815 | **Std. Used** | 2334 |

| Component | Required Concentration | Actual Concentration |
|---|---|---|
| Methane | 1000ppm | 1010ppm |
| **Balance** Air | | |

*Analyst* *Supervisor*

**Traceability Statement**

*All equipment used is traceable to NPL standards*
*{National Physics Laboratory Ref No. 086006 / MW 468-109}*

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**105 Laker Road**
**Rochester Airport Ind.Est.**
**Rochester**
**Kent**
**ME1 3QX**

## NOZZLE CALIBRATION DATA SHEET

Name: ANDY BARNES

Signed: [signature]

Date: 09/05/03

Test Nozzle Set Ref: AQ 051

Reference Calipers Ref: AQ AQ044

Reference Calipers Calibration Date: 25/02/03

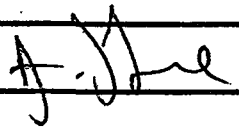
Reference Calipers Calibration Certificate No: X11 113

| Nozzle Ref | Nominal Diameter (mm) | Measurements of Diameters | | | Mean Diameter (mm) | Maximum Deviation From Mean (mm) | | Pass /Fail |
|---|---|---|---|---|---|---|---|---|
| | | D1 | D2 | D3 | | Allowed | Measured | |
| 3A | 3 | 3.01 | 3.02 | 2.99 | 3.007 | 0.1 | 0.013 | P |
| 4A | 4 | 3.99 | 4.01 | 4.00 | 4.000 | 0.1 | 0.01 | P |
| 5A | 5 | 5.03 | 5.01 | 5.02 | 5.020 | 0.1 | 0.01 | P |
| 6A | 6 | 6.05 | 6.04 | 6.03 | 6.040 | 0.1 | 0.01 | P |
| 7A | 7 | 7.02 | 7.04 | 7.03 | 7.030 | 0.1 | 0.01 | P. |
| | | | | | | | | |
| | | | | | | | | |

| | |
|---|---|
| **Test Thermocouple Reader Reference:** | **AQ 042** |
| **Calibration Date:** | **18/05/04** |

| | |
|---|---|
| **Reference Thermocouple Simulator No:** | **AQ 67** |
| **Calibrated Date:** | **11/05/04** |
| **Simulator Calibration Certificate No:** | **22350** |

| Simulator Temperature (degrees C) | Test Reader Response (degrees C) | % Difference (Test:Ref) (Maximum Allowed +/- 1.0%) (Kelvin) | Pass/Fail |
|---|---|---|---|
| 0 | 0.1 | 0.04 | Pass |
| 100 | 100 | 0.00 | Pass |
| 500 | 499.7 | -0.04 | Pass |
| 1000 | 999.5 | -0.04 | Pass |

| | |
|---|---|
| **Calibrated By:** | **Andy Barnes** |
| **Signature:** |  |

**EQUIPMENT CALIBRATION**
**SAMPLING NOZZLES - TPM**

*OEH Group Limited*

| | |
|---|---|
| **Nozzle Set Reference:** | AQ 51 |
| **Calibration Date:** | 07/05/2004 |

| | |
|---|---|
| **Reference Calipers No:** | AQ 044 |
| **Calipers Calibration Date:** | 06/05/2004 |
| **Calipers Certificate No:** | N 1121 228 D |

| Nozzle Ref | Nominal Diameter, mm | Diameter Measurements, mm | | | Mean Diameter, mm | % Difference Actual Diameter:Nominal Diameter | | Diameter to be used in calculations | Maximum Deviation from Mean Diameter, mm | | Pass/Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 0° | 120° | 240° | | Measured | Allowed | | Measured | Allowed | |
| 3A | 3.0 | 3.04 | 3.06 | 3.06 | 3.05 | 1.78 | 2.00 | 3.00 | 0.01 | 0.1 | PASS |
| 4A | 4.0 | 3.95 | 3.99 | 4.00 | 3.98 | -0.50 | 2.00 | 4.00 | 0.03 | 0.1 | PASS |
| 5A | 5.0 | 5.03 | 5.03 | 5.02 | 5.03 | 0.53 | 2.00 | 5.00 | 0.01 | 0.1 | PASS |
| 6A | 6.0 | 6.05 | 6.02 | 6.02 | 6.03 | 0.50 | 2.00 | 6.00 | 0.02 | 0.1 | PASS |
| 7A | 7.0 | 7.00 | 6.99 | 6.96 | 6.98 | -0.24 | 2.00 | 7.00 | 0.02 | 0.1 | PASS |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

**Calibrated By:** A. D. BARNES

**Signature:**

# EQUIPMENT CALIBRATION - TYPE AS-500 LOW FLOW SAMPLING PUMP

*OEH Group Limited*

| | |
|---|---|
| **AS 500 Pump Reference:** | **AQ 026** |
| **Date of Calibration:** | 26-27/08/04 |

| | |
|---|---|
| **Reference Dry Gas Meter Number:** | AQ 046 |
| **Reference Dry Gas Meter Calibration Certificate:** | N1125959F |
| **Reference Dry Gas Meter Calibration Date:** | 20/08/2004 |

**Section 1: Calibration Record**

| Flow Rate Setting (%) | Leak Check (Y/N) | AS 500 Stroke Counter Reading | | | Time Period | | | Reference Dry Gas Meter Readings (litres) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Start | Finish | Δ | Start | Finish | Δ (hrs:min) | Start | Finish | Volume Measured |
| 40 | y | 211480 | 293100 | 81620 | 8:57 | 13:57 | 05:00 | 28337.0 | 28378.0 | 41.0 |
| 10 | y | 293110 | 403000 | 109890 | 14:00 | 7:30 | 17:30:00 | 28378.0 | 28431.4 | 53.4 |
| 25 | y | 403005 | 437326 | 34321 | 7:35 | 12:35 | 05:00 | 28432.0 | 28448.8 | 16.8 |

**Section 2: Calculations**

| Flow Rate Setting (%) | 40 | 10 | 25 |
|---|---|---|---|
| Calibrated Volume, ml | 41000 | 53400 | 16800 |
| Test Period, (hh:mm) | 05:00 | 17:30 | 05:00 |
| No of Strokes | 81620 | 109890 | 34321 |
| Volume:Stroke Ratio | 0.50 | 0.49 | 0.49 |

| | |
|---|---|
| **Mean Volume:Stroke (ml/stroke)** | **0.49** |
| **Maximum Volume:Stroke (ml/stroke)** | **0.50** |
| **Minimum Volume:Stroke (ml/stroke)** | **0.49** |
| **Is either max or min Volume:Stroke ratio more than 0.02 from the mean?** | **N** |

**If yes then pump needs overhaul.**

| | |
|---|---|
| **Calibrated By:** | A. D. BARNES |
| **Signature:** | |