

**Sika Australia Pty Ltd, Wetherill Park  
Emission Testing Report  
Report Number R014740-1**

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## Document Information

Template Version 130223

Client Name: Sika Australia Pty Ltd  
Report Number: R014740-1  
Date of Issue: 14 August 2023  
Attention: Tanya Ballantyne  
Address: 55 Elizabeth St  
Wetherill Park NSW 2164  
Testing Laboratory: Ektimo Pty Ltd, ABN 86 600 381 413

## Report Authorisation



**Steven Cooper**  
**Senior Air Monitoring**  
**Consultant**

NATA Accredited Laboratory  
No. 14601

Accredited for compliance with ISO/IEC 17025 - Testing. NATA is a signatory to the ILAC mutual recognition arrangement for the mutual recognition of the equivalence of testing, calibration and inspection reports.

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*Please note that only numerical results pertaining to measurements conducted directly by Ektimo are covered by Ektimo's terms of NATA accreditation as described in the Test Methods table. This does not include calculations that use data supplied by third-parties, comments, conclusions, or recommendations based upon the results. Refer to 'Test Methods' for full details of testing covered by NATA accreditation.*

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## 1 Executive Summary

### 1.1 Background

Ektimo was engaged by Sika Australia Pty Ltd to perform emission testing at their Wetherill Park plant.

### 1.2 Project Objective & Overview

The objective of the project was to conduct a monitoring programme to speciate and quantify volatile organic compound concentrations in the liquid adhesives area.

Monitoring was performed as follows:

Location	Test Date	Test Parameters
Liquid Adhesives Area (static)	5 May 2023	Speciated volatile organic compounds

All results are reported on a dry basis at STP.

Plant operating conditions have been noted in the report.

As the ducting had been previously removed from the baghouse exhaust a static sample was taken in a central location of the liquid adhesives area adjacent to the control desk on the mezzanine level.

## 2 Results

### 2.1 Liquid Adhesives Area (static)

Date	5/05/2023	Client	Sika Australia
Report	R014740	Stack ID	Liquid Adhesives Area
Licence No.	6459	Location	Wetherill Park
Ektimo Staff	Steven Cooper	State	NSW
Process Conditions	Please refer to client records.		

<b>Comments</b>
The sample was taken from the mezzanine level adjacent to the control desk. The discharge is assumed to be composed of dry air and moisture

Total VOCs (as n-Propane)	Results
	Concentration mg/m <sup>3</sup>
Total	1.4

VOC (speciated)	Results
Sampling time	0907-1307
	Concentration mg/m <sup>3</sup>
Detection limit <sup>(1)</sup>	<0.04
Acetone	1.6
Toluene	0.15
Residuals as Toluene	0.15

**(1) Unless otherwise reported, the following target compounds were found to be below detection:**

Ethanol, Isopropanol, Pentane, 1,1-Dichloroethene, Acrylonitrile, Dichloromethane, trans-1,2-Dichloroethene, Methyl ethyl ketone, n-Hexane, cis-1,2-Dichloroethene, Ethyl acetate, Chloroform, 1,1,1-Trichloroethane, 1,2-Dichloroethane, Cyclohexane, Benzene, Carbon tetrachloride, Butanol, Isopropyl acetate, 2-Methylhexane, 2,3-Dimethylpentane, 1-Methoxy-2-propanol, 3-Methylhexane, Heptane, Ethyl acrylate, Trichloroethylene, Methyl methacrylate, Propyl acetate, Methylcyclohexane, Methyl Isobutyl Ketone, 1,1,2-Trichloroethane, 2-Hexanone, Octane, Tetrachloroethene, Butyl acetate, Chlorobenzene, Ethylbenzene, m + p-Xylene, 1-Methoxy-2-propyl acetate, Styrene, o-Xylene, Butyl acrylate, Nonane, 2-Butoxyethanol, Cellosolve acetate, 1,1,2,2-Tetrachloroethane, Isopropylbenzene, alpha-Pinene, Propylbenzene, 1,3,5-Trimethylbenzene, beta-Pinene, tert-Butylbenzene, 1,2,4-Trimethylbenzene, Decane, 3-Carene, 1,2,3-Trimethylbenzene, D-Limonene, Undecane, Dodecane, Tridecane, Tetradecane

### 3 Plant Operating Conditions

See Sika Australia Pty Ltd records for complete process conditions. Sika personnel confirmed that production on that day is considered normal.

### 4 Test Methods

All sampling and analysis performed by Ektimo unless otherwise specified. Specific details of the methods are available upon request.

Parameter	Sampling method	Analysis method	Uncertainty*	NATA accredited	
				Sampling	Analysis
Speciated volatile organic compounds (VOCs)	NSW EPA TM-34 <sup>d</sup> (USEPA Method 18)	Ektimo 344	19%	✓	✓ <sup>†</sup>

230320

\* Uncertainties cited in this table are estimated using typical values and are calculated at the 95% confidence level (coverage factor = 2).

<sup>†</sup> Analysis performed by Ektimo. Results were reported to Ektimo on 24 May 2023 in report LV-004445.

<sup>d</sup> Excludes recovery study as specified in section 8.4.3 of USEPA Test Method 18.

#### 4.1 Deviations to Test Methods

##### TM-34 VOLATILE ORGANIC COMPOUNDS

Ektimo notes that the sampling and analysis of Volatile Organic Compounds (VOCs), per USEPA Method 18 has excluded the recovery study as specified in Section 8.4.3. Performing the recovery study described in Section 8.4.3 of USEPA Method 18 for analytes present at low levels is problematic. Given this, Ektimo applies a threshold of 50µg as a lower-bound mass, below which the 'spiking' of specific volatile organic compounds is not performed. For the purposes of this round of monitoring, the following compounds were present above the detection limit (0.1 µg) but were below 50µg. Therefore, recovery studies for the following analytes were not performed:

- Acetone
- Toluene

### 5 Quality Assurance/Quality Control Information

Ektimo is accredited by the National Association of Testing Authorities (NATA) for the sampling and analysis of air pollutants from industrial sources. Unless otherwise stated test methods used are accredited with the National Association of Testing Authorities. For full details, search for Ektimo at NATA's website [www.nata.com.au](http://www.nata.com.au).

Ektimo is accredited by NATA to ISO/IEC 17025 - Testing. ISO/IEC 17025 - Testing requires that a laboratory have adequate equipment to perform the testing, as well as laboratory personnel with the competence to perform the testing. This quality assurance system is administered and maintained by the Quality Director.

NATA is a member of APAC (Asia Pacific Accreditation Co-operation) and of ILAC (International Laboratory Accreditation Co-operation). Through mutual recognition arrangements with these organisations, NATA accreditation is recognised worldwide.

## 6 Definitions

The following symbols and abbreviations may be used in this test report:

% v/v	Volume to volume ratio, dry or wet basis
~	Approximately
<	Less than
>	Greater than
≥	Greater than or equal to
AS	Australian Standard
CEM/CEMS	Continuous Emission Monitoring/Continuous Emission Monitoring System
CTM	Conditional test method
D	Duct diameter or equivalent duct diameter for rectangular ducts
DECC	Department of Environment & Climate Change (NSW)
Disturbance	A flow obstruction or instability in the direction of the flow which may impede accurate flow determination. This includes centrifugal fans, axial fans, partially closed or closed dampers, louvres, bends, connections, junctions, direction changes or changes in pipe diameter.
EPA	Environment Protection Authority
FTIR	Fourier Transform Infra-red
ISC	Intersociety Committee, Methods of Air Sampling and Analysis
ISO	International Organisation for Standardisation
ITE	Individual threshold estimate
Lower bound	When an analyte is not present above the detection limit, the result is assumed to be equal to zero.
Medium bound	When an analyte is not present above the detection limit, the result is assumed to be equal to half of the detection limit.
NA	Not applicable
NATA	National Association of Testing Authorities
NT	Not tested or results not required
STP	Standard temperature and pressure. Gas volumes and concentrations are expressed on a dry basis at 0°C, at discharge oxygen concentration and an absolute pressure of 101.325 kPa, unless otherwise specified.
TM	Test method
TOC	The sum of all compounds of carbon which contain at least one carbon-to-carbon bond, plus methane and its derivatives.
USEPA	United States Environmental Protection Agency
Velocity difference	The percentage difference between the average of initial flows and after flows.
Upper bound	When an analyte is not present above the detection limit, the result is assumed to be equal to the detection limit.
95% confidence interval	Range of values that contains the true result with 95% certainty. This means there is a 5% risk that the true result is outside this range.

## **7 Appendices**

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**7.1 Appendix 1: Site Photos**

**7.2 Appendix 2: Chain of Custody**

**7.3 Appendix 3: Laboratory Results**



7.1 Appendix 1: Site Photos



Figure 1. Liquid Adhesives Area

7.2 Appendix 2: Chain of Custody

Ektimo		Checked at Ektimo Dispatch by: <u>8-5-23- [Signature]</u>		Samples received in good order: _____				
Sample ID	Job No.	Analysis Required	Units Required	Analytical Lab	Purchase Order No.	Ektimo Contact	Notes	TAT Required (days)
N 18255	R014740	VOCs	ug/sample	Ektimo		Steven Cooper	Tube A	
N 18256	R014740	VOCs	ug/sample	Ektimo		Steven Cooper	Blank Tube	

logged Also 9/5/23

**7.3 Appendix 3: Laboratory Results**



## CERTIFICATE OF ANALYSIS

Testing Laboratory: Ektimo  
26 Redland Drive  
Mitcham, VIC 3132

Report Number: LV-004445  
Job Number: R014740  
Date of Issue: 24/05/2023

Attention: Sika Australia  
Address: 55 Elizabeth St  
Wetherill Park NSW 2164

Date samples received: 9/05/2023  
Number of samples received: 2  
Date samples analysed: 24/05/2023  
No of samples analysed: 2

Test method(s) used: Ektimo 344

### Comments

QC Acceptance Criteria:	Parameter	Criteria	Pass/Fail
	Standard Curve	$R^2 > 0.99$	Pass
	Range	All samples <110% of highest standard	Pass
	Repeat samples	Between 80% - 120%	Pass
	Method Blanks	All method blanks < PQL	Pass
	QC sample	2 standard deviations of theoretical	Pass
	Chemical Expiry	All chemicals within expiry date	NA

This report supersedes any previous report(s) with this reference. Sample(s) have been analysed as received.

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A formal Quality Control program is in place at Ektimo to monitor analyses performed in the laboratory and sampling conducted in the field. The program is designed to check where appropriate; the sampling reproducibility, analytical method, accuracy, precision and the performance of the analyst. The Laboratory Manager is responsible for the administration and maintenance of this program.

### REPORT AUTHORISATION

Version 230420



Matthew Cook  
Laboratory Chemist



Daniel Balaam  
Senior Laboratory Chemist



NATA Accredited Laboratory 14601

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**Brisbane, QLD**  
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Morningside, QLD 4170

Report No. LV-004445

Job No. R014740

Client Name: Sika Australia

Parameter	Units	N18255 R014740	N18256 R014740
	<b>PQL:</b>	<b>2.0</b>	<b>2.0</b>
Ethanol	µg	<2	<2
Acetone	µg	90	<2
Isopropanol	µg	<2	<2
Pentane	µg	<2	<2
1,1-Dichloroethene	µg	<2	<2
Acrylonitrile	µg	<2	<2
Dichloromethane	µg	<2	<2
trans-1,2-Dichloroethene	µg	<2	<2
Methyl ethyl ketone	µg	<2	<2
n-Hexane	µg	<2	<2
cis-1,2-Dichloroethene	µg	<2	<2
Ethyl acetate	µg	<2	<2
Chloroform	µg	<2	<2
1,1,1-Trichloroethane	µg	<2	<2
1,2-Dichloroethane	µg	<2	<2
Cyclohexane	µg	<2	<2
Benzene	µg	<2	<2
Carbon tetrachloride	µg	<2	<2
Butanol	µg	<2	<2
Isopropyl acetate	µg	<2	<2
2-Methylhexane	µg	<2	<2
2,3-Dimethylpentane	µg	<2	<2
1-Methoxy-2-propanol	µg	<2	<2
3-Methylhexane	µg	<2	<2
Heptane	µg	<2	<2
Ethyl acrylate	µg	<2	<2
Trichloroethylene	µg	<2	<2
Methyl methacrylate	µg	<2	<2
Propyl acetate	µg	<2	<2
Methylcyclohexane	µg	<2	<2
Methyl Isobutyl Ketone	µg	<2	<2
Toluene	µg	8.3	<2
1,1,2-Trichloroethane	µg	<2	<2
2-Hexanone	µg	<2	<2
Octane	µg	<2	<2
Tetrachloroethene	µg	<2	<2
Butyl acetate	µg	<2	<2
Chlorobenzene	µg	<2	<2
Ethylbenzene	µg	<2	<2
m + p-Xylene	µg	<2	<2
1-Methoxy-2-propyl acetate	µg	<2	<2
Styrene	µg	<2	<2
o-Xylene	µg	<2	<2
Butyl acrylate	µg	<2	<2
Nonane	µg	<2	<2

\* Results marked with an asterisk are outside the acceptable calibration range of the instrument.



Report No. LV-004445

Job No. R014740

Client Name: Sika Australia

Parameter	Units	N18255 R014740	N18256 R014740
	<b>PQL:</b>	<b>2.0</b>	<b>2.0</b>
2-Butoxyethanol	µg	<2	<2
Cellosolve acetate	µg	<2	<2
1,1,2,2-Tetrachloroethane	µg	<2	<2
Isopropylbenzene	µg	<2	<2
alpha-Pinene	µg	<2	<2
Propylbenzene	µg	<2	<2
1,3,5-Trimethylbenzene	µg	<2	<2
beta-Pinene	µg	<2	<2
tert-Butylbenzene	µg	<2	<2
1,2,4-Trimethylbenzene	µg	<2	<2
Decane	µg	<2	<2
3-Carene	µg	<2	<2
1,2,3-Trimethylbenzene	µg	<2	<2
D-Limonene	µg	<2	<2
Undecane	µg	<2	<2
Dodecane	µg	<2	<2
Tridecane	µg	<2	<2
Tetradecane	µg	<2	<2
Residuals as Toluene	µg	8.5	<2

\* Results marked with an asterisk are outside the acceptable calibration range of the instrument.



# Ektimo

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