Certificate of Analysis

eurofins | Environment Testing

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025–Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Douglas Partners (Syd)
96 Hermitage Road
West Ryde
NSW 2114

Attention:	[redacted]
Report	685026-AFC
Project Name	GOULBURN HOSPITAL
Project ID	SYD191088.P003
Received Date	Oct 29, 2019
Date Reported	Oct 29, 2019

METHODOLOGY:

Asbestos Sampling	Sampling as per the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]
Pump Calibration	Defender 520M: Calibrated against National Institute of Standards & Technology (NIST) SOP 13 Standard Operating Procedure for Calibration of Volumetric Ware, Gravimetric Method utilising a 1000 mL burette with a digital stop watch.
Asbestos Counting	Conducted in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] and in-house Method LTM-ASB-8010.

Project Name GOULBURN HOSPITAL
Project ID SYD191088.P003
Date Sampled Oct 28, 2019
Report 685026-AFC

Eurofins Sample No.	Client Sample ID	Pump ID	Location	Start (time)	End (time)	Start Flow Rate (L/min)	End Flow Rate (L/min)	Result (Fibres/Fields)	Result (Fibres/mL)
19-Oc43779	CO865427	DP10	PEDESTRIAN ENTRY NEAR BH64	10:50	16:29	2.0	2.0	0/100	< 0.01
19-Oc43780	CO865556	DP20	VEHICLE ENTRY NEAR BH80	10:56	16:26	2.0	2.0	0/100	< 0.01
19-Oc43781	CO865404	DP19	FENCE ADJ NORTH BH44	11:00	16:24	2.0	2.0	0/100	< 0.01
19-Oc43782	CO865625	DP06	FENCE ADJ BH43	11:10	16:22	2.0	2.0	0/100	< 0.01
19-Oc43783	CO865430	DP15	FENCE ADJ BH20	11:15	16:21	2.0	2.0	0/100	< 0.01
19-Oc43784	CO865478	DP18	FENCE ADJ BH12	11:19	16:19	2.0	2.0	0/100	< 0.01
19-Oc43785	CO865462	DP04	FENCE ADJ BH53	11:27	16:17	2.0	2.0	0/100	< 0.01
19-Oc43786	CO865572	DP11	FENCE ADJ BH75	11:30	16:16	2.0	2.0	0/100	< 0.01

Eurofins Sample No.	Client Sample ID	Pump ID	Location	Start (time)	End (time)	Start Flow Rate (L/min)	End Flow Rate (L/min)	Result (Fibres/Fields)	Result (Fibres/mL)
19-Oc43787	CO865469	DP05	INTERIOR LUNCH ROOM	11:35	16:35	2.0	2.0	17.5/100	0.01
19-Oc43788	CO865227	DP12	WALKWAY ADJ NORTH LUNCHROOM	12:30	16:42	2.0	2.0	0/100	< 0.01
19-Oc43789	CO901467	BLANK	BLANK	--	--	--	--	0/100	--

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos - LTM-ASB-8010	Sydney	Oct 29, 2019	Indefinite
Asbestos - LTM-ASB-8010	Sydney	Oct 29, 2019	Indefinite

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Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

Company Name:	Douglas Partners (Syd)	**Order No.:**	
Address:	96 Hermitage Road West Ryde NSW 2114	**Report #:** **Phone:** **Fax:**	685026 02 9809 0666
Project Name:	GOULBURN HOSPITAL		
Project ID:	SYD191088.P003		

Received:	Oct 29, 2019 10:26 AM
Due:	Oct 29, 2019
Priority:	Same day
Contact Name:	[redacted]

Eurofins Analytical Services Manager : [redacted]

Sample Detail						Asbestos (concentration of fibres in air)
Melbourne Laboratory - NATA Site # 1254 & 14271						
Sydney Laboratory - NATA Site # 18217						X
Brisbane Laboratory - NATA Site # 20794						
Perth Laboratory - NATA Site # 23736						
External Laboratory						
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**	
1	CO865427	Oct 28, 2019	4:29PM	Air	S19-Oc43779	X
2	CO865556	Oct 28, 2019	4:26PM	Air	S19-Oc43780	X
3	CO865404	Oct 28, 2019	4:24PM	Air	S19-Oc43781	X
4	CO865625	Oct 28, 2019	4:22PM	Air	S19-Oc43782	X
5	CO865430	Oct 28, 2019	4:21PM	Air	S19-Oc43783	X
6	CO865478	Oct 28, 2019	4:19PM	Air	S19-Oc43784	X
7	CO865462	Oct 28, 2019	4:17PM	Air	S19-Oc43785	X
8	CO865572	Oct 28, 2019	4:16PM	Air	S19-Oc43786	X
9	CO865469	Oct 28, 2019	4:35PM	Air	S19-Oc43787	X

Company Name:	Douglas Partners (Syd)	**Order No.:**	
Address:	96 Hermitage Road West Ryde NSW 2114	**Report #:** **Phone:** **Fax:**	685026 02 9809 0666
Project Name:	GOULBURN HOSPITAL		
Project ID:	SYD191088.P003		

Received:	Oct 29, 2019 10:26 AM
Due:	Oct 29, 2019
Priority:	Same day
Contact Name:	[redacted]

Eurofins Analytical Services Manager : [redacted]

Sample Detail						Asbestos (concentration of fibres in air)
Melbourne Laboratory - NATA Site # 1254 & 14271						
Sydney Laboratory - NATA Site # 18217						X
Brisbane Laboratory - NATA Site # 20794						
Perth Laboratory - NATA Site # 23736						
10	CO865227	Oct 28, 2019	4:42PM	Air	S19-Oc43788	X
11	CO901467	Oct 28, 2019		Air	S19-Oc43789	X
Test Counts						11

Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. Information identified on this report with blue colour, indicates data provided by customer, that may have an impact on the results.
5. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Advice.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

Units

% w/w weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

Terms

Dry	Sample is dried by heating prior to analysis
LOR	Limit of Reporting
COC	Chain of Custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Reference document for the NEPM. Government of Western Australia, Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia (2009), including supporting document Recommended Procedures for Laboratory Analysis of Asbestos in Soil (2011)
NEPM	National Environment Protection (Assessment of Site Contamination) Measure, 2013 (as amended)
ACM	Asbestos Containing Materials. Asbestos contained within a non-asbestos matrix, typically presented in bonded and/or sound condition. For the purposes of the NEPM, ACM is generally restricted to those materials that do not pass a 7mm x 7mm sieve.
AF	Asbestos Fines. Asbestos containing materials, including friable, weathered and bonded materials, able to pass a 7mm x 7mm sieve. Considered under the NEPM as equivalent to “non-bonded / friable”.
FA	Fibrous Asbestos. Asbestos containing materials in a friable and/or severely weathered condition. For the purposes of the NEPM, FA is generally restricted to those materials that do not pass a 7mm x 7mm sieve.
Friable	Asbestos-containing materials of any size that may be broken or crumbled by hand pressure. For the purposes of the NEPM, this includes both AF and FA. It is outside of the laboratory’s remit to assess degree of friability.
Trace Analysis	Analytical procedure used to detect the presence of respirable fibres in the matrix.

Comments

Volume Measurement : [redacted], Douglas Partners (Syd), has been trained by Eurofins and they conducted the sampling in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]methodology. Sampling pumps used by Douglas Partners (Syd) were calibrated by Eurofins | mgt and therefore volume measurements contained in this report are traceable back to Eurofins | mgt. Eurofins | mgt are responsible for all data contained in this report.

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	N/A
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Asbestos Counter/Identifier:

[redacted] Senior Analyst-Asbestos (NSW)

Authorised by:

[redacted] Senior Analyst-Asbestos (NSW)

[redacted]

[redacted]

General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

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East Perth, WA 6004
+61 8 9225 5810
ABN 65 133 060 787

Accreditation No. 20283
Site No. 24180
Accredited for compliance with ISO/IEC 17025 - Testing

Laboratory Report

Client:	Eurofins | Mgt
Client address:	6 Monterey Road, DANDENONG SOUTH VIC 3175
Job number:	19_1868
Revision No.	0
Lab ID:	19_1868_01
Client ID:	CO865469 (S19-Oc44406)
Date received:	30/10/19
Date analysed:	01/11/19
Date reported:	01/11/19
Analysis:	Fibre characterisation by scanning electron microscopy (SEM) with elemental analysis by energy dispersive spectroscopy (EDS)

Executive summary

The sample was determined to **not contain** asbestos mineral fibre.

Sample preparation

The sampling was not conducted by Microanalysis Australia staff. The sample was supplied to Microanalysis Australia as a loaded 25 mm diameter MCE membrane. The membrane had been cut prior to receipt and only half was received.

A representative wedge-shaped sub-sample was cut from the filter membrane of about 1/6th of the total membrane size. The sub-sample was placed on top of a double-sided carbon tab before being coated with approximately 10 nm of carbon. Non-conducting samples require coating prior to SEM analysis to prevent charging whilst being analysed by the electron beam.

Analysis

The SEM/EDS analysis was conducted in accordance with ISO14966-2002 (modified for non-gold coated MCE membranes) and VDI3492-2004.

The sample was analysed using a Carl Zeiss EVO50 scanning electron microscope (SEM) fitted with an Oxford INCA X-Max energy dispersive spectrometer (EDS).

EDS is a semi-quantitative technique (at best) on well prepared, optically flat samples. Factors such as sample unevenness may adversely bias elemental concentration interpretation. EDS has a spatial resolution of ~5 µm meaning spectra from particles less than this size may contain elemental concentrations biased by their surroundings.

All images were acquired using backscatter electrons. Image brightness is proportional to average atomic number – the brighter the pixel, the higher the atomic number of the element.

Summary

Following NOHSC:3003 "The Membrane Filter Method" (2005), a fibre is countable if its diameter is < 3 µm and its length is > 5 µm and has an aspect ratio of greater than 3 to 1. Following the DMP document "Management of Asbestos in Mining Operations" page 3, referencing Section 9.33.3 of Mines, Safety and Inspection Regulations 1995, a fibre is countable if its diameter is < 1 µm and its length is > 5 µm. For the purposes of this analysis the NOHSC document definition has been used.

A total of **100** images/fields were examined. Each field was approximately 70 µm by 55 µm - a total area of 3.85×10^{-3} mm^2.

In the **100** images/fields examined, a total of **less than 3** countable fibres were observed. **None of the observed countable fibres had an elemental composition indicative of asbestos mineral fibre.**

A selection of images/fields and associated elemental spectra are reported below. The fields are not representative of the 100 fields analysed. Asbestos mineral fibre or other inorganic mineral fibre has been preferentially shown.

Fibre #	Image/Field #	Diameter (µm)	Length (µm)	Aspect ratio	Major Elements	Minor Elements	Morphology	Assigned mineralogy
1	1/1	1.9	30.1	16 :1	O, C	-	Non-parallel sides	Organic
2	2/1	1.2	2.5	2 :1	O, Ti	-	Non-parallel sides	Rutile
3	3/1	0.5	2.6	5 :1	O, Si, Al	Fe, Mg, K	Non-parallel sides	Mica
4	4/1	1.2	5.5	5 :1	O, C	-	Non-parallel sides	Organic
5	5/1	0.8	3.1	4 :1	O, Ca, C	-	Non-parallel sides	Calcite

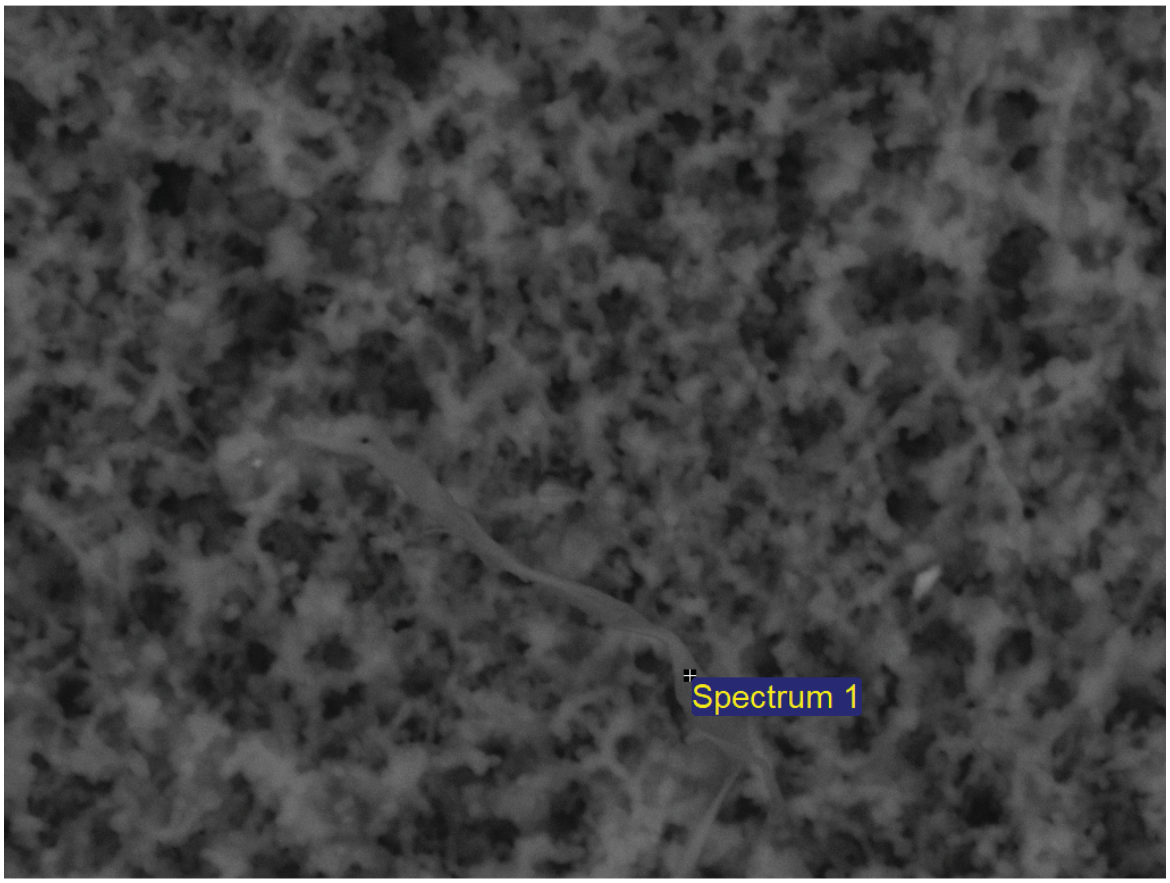
It should be noted that the higher resolution of the SEM may increase the number of fibres observed when compared with optical microscopy (as specified in the Membrane Filter Method). The results are representative only of the sample received.

Analyst: Sandy Lam, B.Sc.(Multidisciplinary)

Reported: Sandy Lam, B.Sc.(Multidisciplinary)

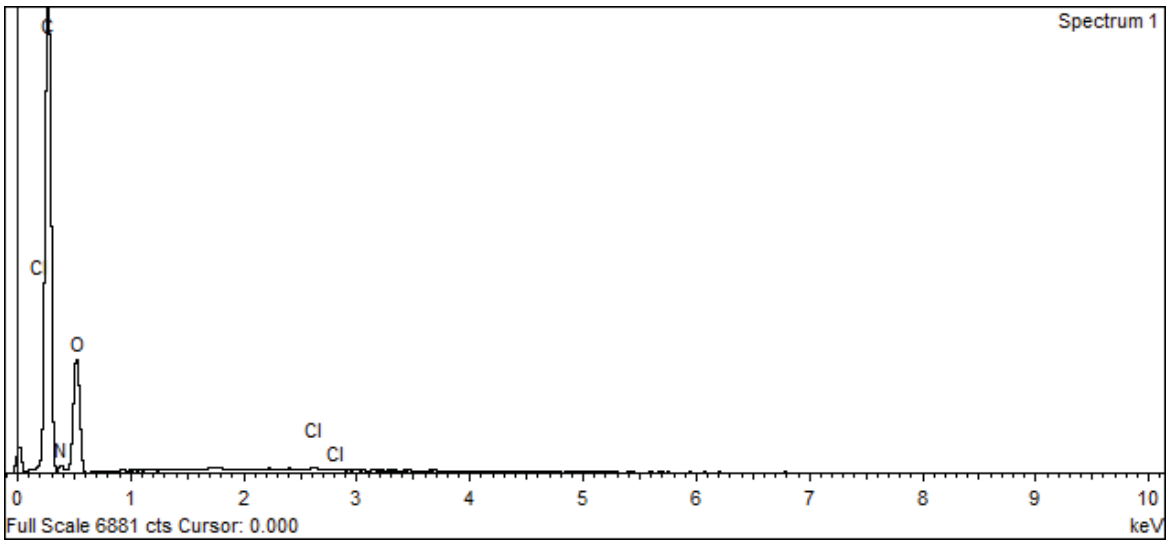
Authorised: Nimue Pendragon, B.Sc.(Nanotechnology)

Sample: 19_1868_01 Type: Default ID: CO865469 (S19-Oc44406)	Project: 19_1868 Owner: lab Site: Site of Interest 1

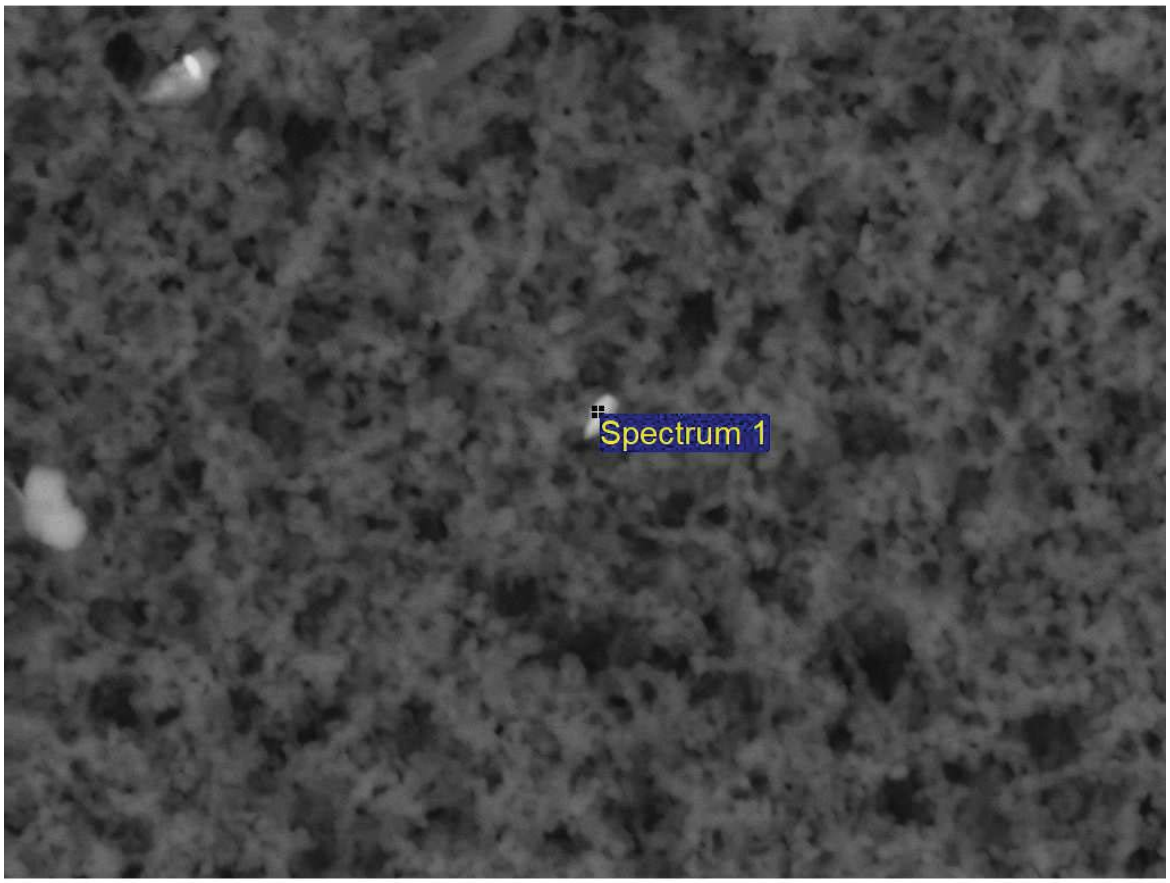


20µm

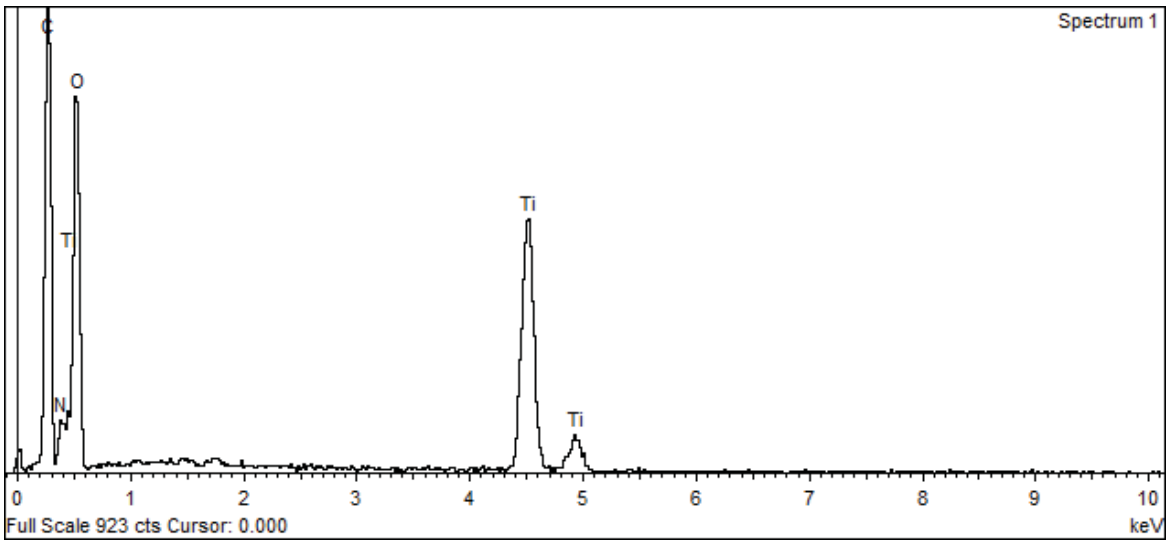
Electron Image 1



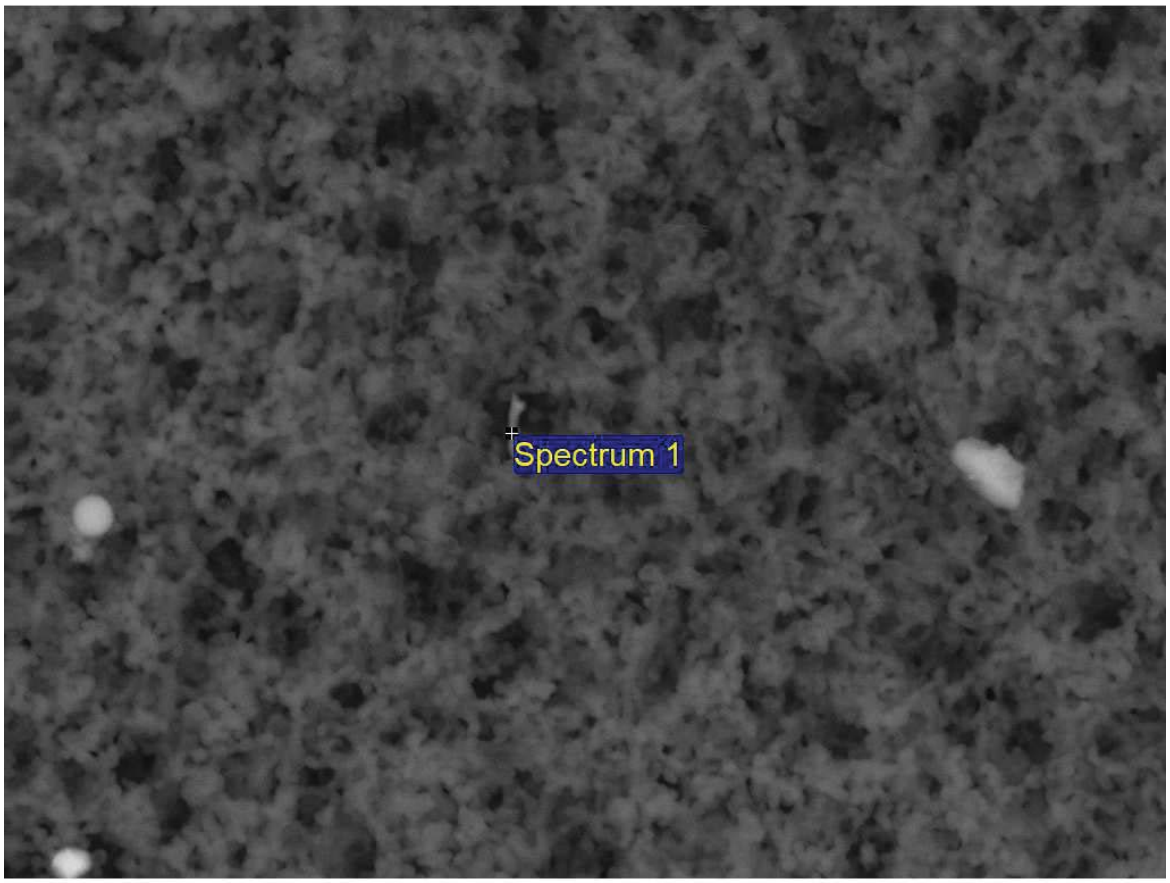
Sample: 19_1868_01 Type: Default ID: CO865469 (S19-Oc44406)	Project: 19_1868 Owner: lab Site: Site of Interest 2



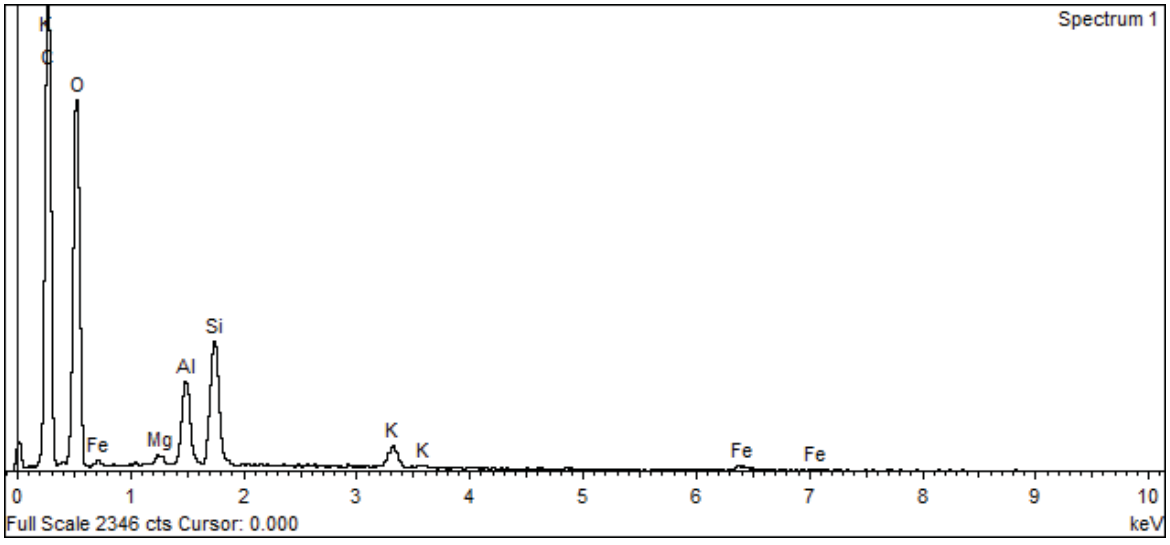
Electron Image 1



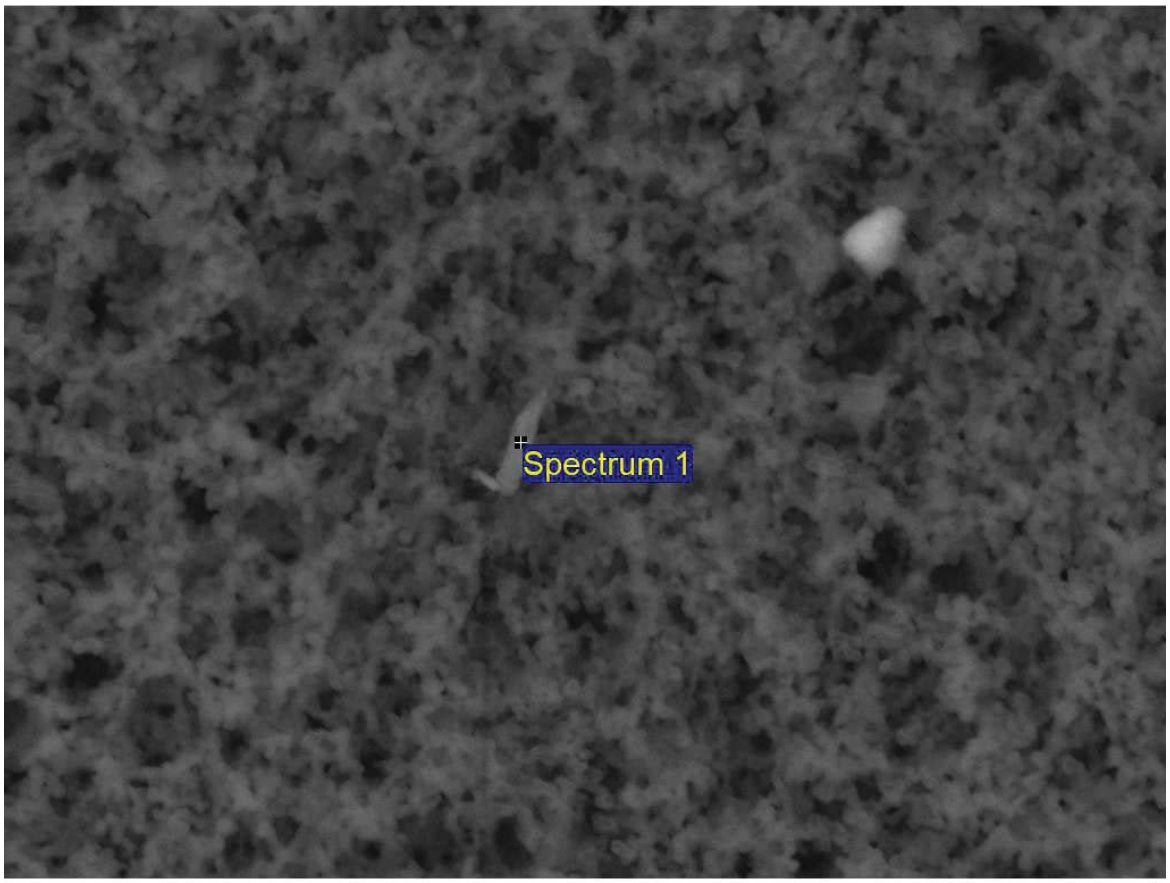
Sample: 19_1868_01 Type: Default ID: CO865469 (S19-Oc44406)	Project: 19_1868 Owner: lab Site: Site of Interest 3



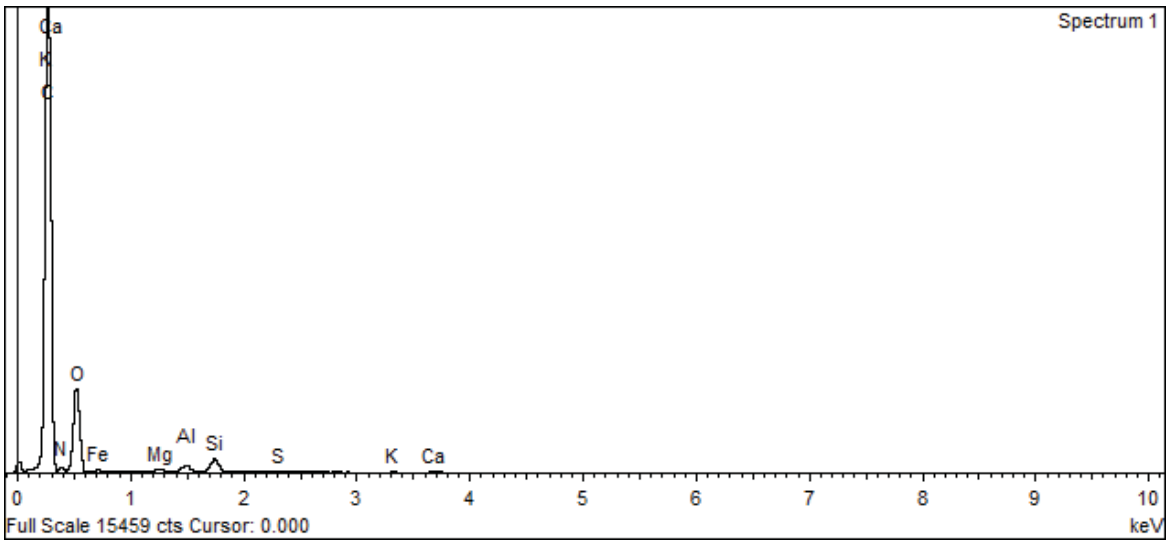
Electron Image 1



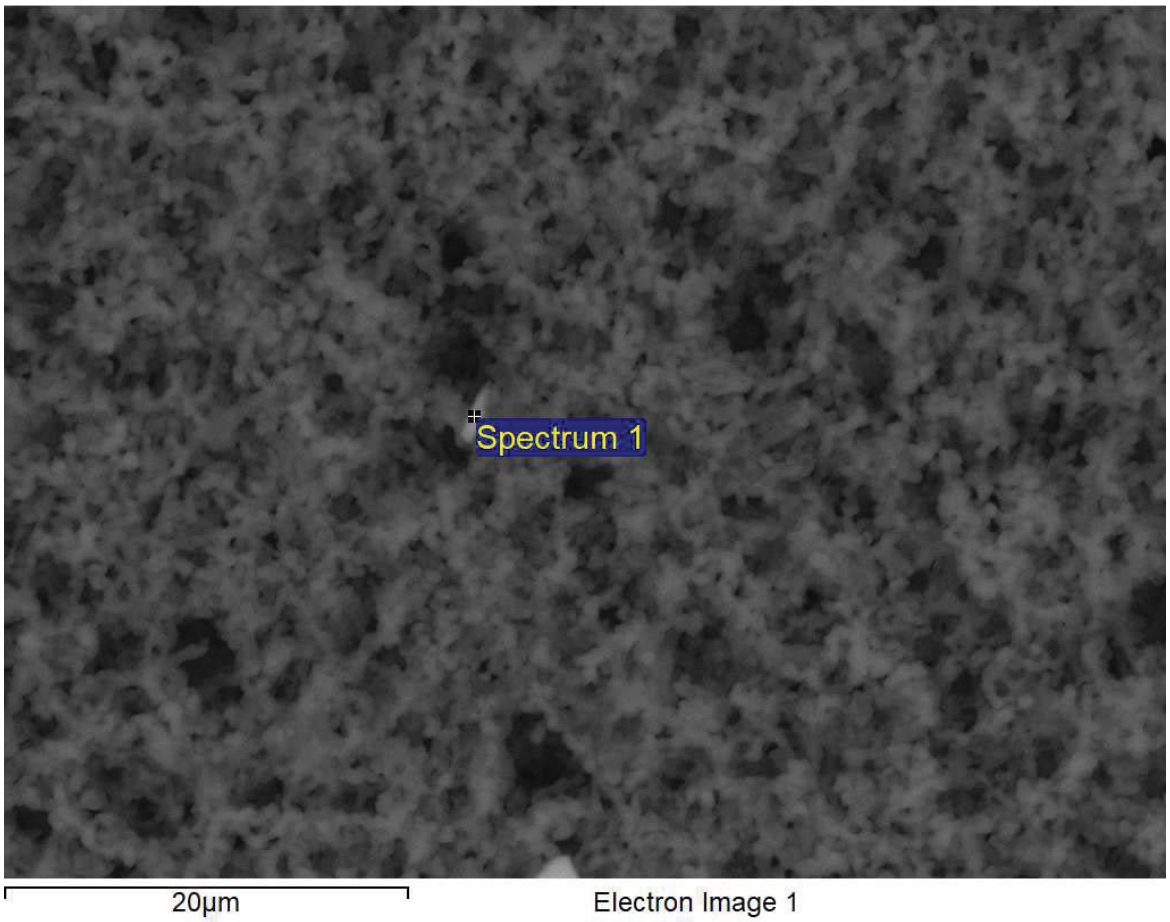
Sample: 19_1868_01 Type: Default ID: CO865469 (S19-Oc44406)	Project: 19_1868 Owner: lab Site: Site of Interest 4

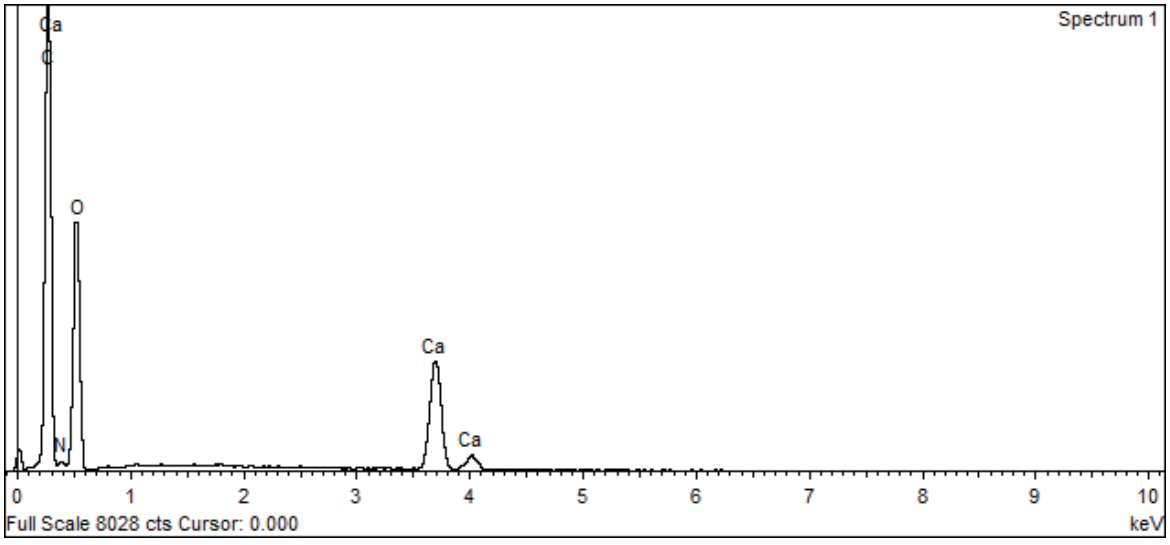


Electron Image 1



Sample: 19_1868_01 Type: Default ID: CO865469 (S19-Oc44406)	Project: 19_1868 Owner: lab Site: Site of Interest 5





Certificate of Analysis

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Accreditation Number 1261
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Accredited for compliance with ISO/IEC 17025–Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Douglas Partners (Syd)
96 Hermitage Road
West Ryde
NSW 2114

Attention:	[redacted]
Report	686151-V2-AFC
Project Name	GOULBURN
Project ID	94054
Received Date	Nov 04, 2019
Date Reported	Nov 05, 2019

METHODOLOGY:

Asbestos Sampling	Sampling as per the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]
Pump Calibration	Defender 520M: Calibrated against National Institute of Standards & Technology (NIST) SOP 13 Standard Operating Procedure for Calibration of Volumetric Ware, Gravimetric Method utilising a 1000 mL burette with a digital stop watch.
Asbestos Counting	Conducted in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] and in-house Method LTM-ASB-8010.

Project Name GOULBURN
Project ID 94054
Date Sampled Nov 01, 2019
Report 686151-V2-AFC

Eurofins Sample No.	Client Sample ID	Pump ID	Location	Start (time)	End (time)	Start Flow Rate (L/min)	End Flow Rate (L/min)	Result (Fibres/Fields)	Result (Fibres/mL)
19-No04350	BH53-SW	DP10	BOUNDARY FENCE	8:05	10:10	4.0	4.0	0/100	< 0.01
19-No04351	BH53-NW	DP19	BOUNDARY FENCE	8:06	10:11	4.0	4.0	0/100	< 0.01
19-No04352	BH53-N	DP11	PICKET	8:07	10:12	4.0	4.0	0/100	< 0.01
19-No04353	BH53-E	DP18	PICKET	8:09	10:40	4.0	4.0	0/100	< 0.01
19-No04354	BH53-S	DP20	PICKET	8:10	10:45	4.0	4.0	0/100	< 0.01
19-No04355	BH53-CLR	DP12	PICKET	8:50	11:10	4.0	4.0	0/100	< 0.01
19-No04356	BH56-SE	DP04	TEMP FENCE OUTSIDE SITE OFFICE	9:10	11:18	4.0	4.0	0/100	< 0.01
19-No04357	BH56-W	DP15	PICKET	9:09	11:16	4.0	4.0	0/100	< 0.01

Eurofins Sample No.	Client Sample ID	Pump ID	Location	Start (time)	End (time)	Start Flow Rate (L/min)	End Flow Rate (L/min)	Result (Fibres/Fields)	Result (Fibres/mL)
19-No04358	BH56-E	DP05	PICKET	9:10	11:18	4.0	4.0	0/100	< 0.01
19-No04359	BH56-CLR	DP18	PICKET	10:50	12:55	4.0	4.0	0/100	< 0.01
19-No04360	BH44-S	DP10	PICKET	10:13	15:50	4.0	4.0	0/100	< 0.01
19-No04361	BH44-E	DP19	BOUNDARY FENCE	10:14	15:29	4.0	4.0	0/100	< 0.01
19-No04362	BH44-N	DP11	BOUNDARY FENCE	10:15	12:39	4.0	4.0	0/100	< 0.01
19-No04363	BH44-CLR	DP20	STAR PICKET	11:25	13:50	4.0	4.0	0/100	< 0.01
19-No04364	BH-65-W	DP12	STAR PICKET	11:30	15:30	4.0	4.0	0/100	< 0.01
19-No04365	BH-65-E	DP05	VEHICLE ENTRY	11:35	15:59	4.0	4.0	0/100	< 0.01
19-No04366	BH-65-N	DP04	STAR PICKET	11:41	14:26	4.0	4.0	0/100	< 0.01
19-No04367	BH-65-S	DP11	FENCE TEMP	13:10	15:40	4.0	4.0	0/100	< 0.01
19-No04368	BH-65-SW	DP15	FENCE TEMP	13:11	15:36	4.0	4.0	0/100	< 0.01

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos - LTM-ASB-8010	Sydney	Nov 04, 2019	Indefinite
Asbestos - LTM-ASB-8010	Sydney	Nov 04, 2019	Indefinite

eurofins | Environment Testing
ABN – 50 005 085 521
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Melbourne
6 Monterey Road
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Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

Company Name:	Douglas Partners (Syd)	**Order No.:**	
Address:	96 Hermitage Road West Ryde NSW 2114	**Report #:**	686151
		Phone:	02 9809 0666
		Fax:	
Project Name:	GOULBURN		
Project ID:	94054		

Received:	Nov 4, 2019 3:22 PM
Due:	Nov 4, 2019
Priority:	Same day
Contact Name:	Tim Kulmar

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Asbestos (concentration of fibres in air)
Melbourne Laboratory - NATA Site # 1254 & 14271						
Sydney Laboratory - NATA Site # 18217						X
Brisbane Laboratory - NATA Site # 20794						
Perth Laboratory - NATA Site # 23736						
External Laboratory						
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**	
1	BH53-SW	Nov 01, 2019	10:10AM	Air	S19-No04350	X
2	BH53-NW	Nov 01, 2019	10:11AM	Air	S19-No04351	X
3	BH53-N	Nov 01, 2019	10:12AM	Air	S19-No04352	X
4	BH53-E	Nov 01, 2019	10:40AM	Air	S19-No04353	X
5	BH53-S	Nov 01, 2019	10:45AM	Air	S19-No04354	X
6	BH53-CLR	Nov 01, 2019	11:10AM	Air	S19-No04355	X
7	BH56-SE	Nov 01, 2019	11:18AM	Air	S19-No04356	X
8	BH56-W	Nov 01, 2019	11:16AM	Air	S19-No04357	X
9	BH56-E	Nov 01, 2019	11:18AM	Air	S19-No04358	X

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Melbourne
6 Monterey Road
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Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

Company Name:	Douglas Partners (Syd)	**Order No.:**	
Address:	96 Hermitage Road West Ryde NSW 2114	**Report #:** **Phone:** **Fax:**	686151 02 9809 0666
Project Name:	GOULBURN		
Project ID:	94054		

Received:	Nov 4, 2019 3:22 PM
Due:	Nov 4, 2019
Priority:	Same day
Contact Name:	[redacted]

Eurofins Analytical Services Manager : [redacted]

Sample Detail						Asbestos (concentration of fibres in air)
Melbourne Laboratory - NATA Site # 1254 & 14271						
Sydney Laboratory - NATA Site # 18217						X
Brisbane Laboratory - NATA Site # 20794						
Perth Laboratory - NATA Site # 23736						
10	BH56-CLR	Nov 01, 2019	12:55PM	Air	S19-No04359	X
11	BH44-S	Nov 01, 2019	3:50PM	Air	S19-No04360	X
12	BH44-E	Nov 01, 2019	3:29PM	Air	S19-No04361	X
13	BH44-N	Nov 01, 2019	12:39PM	Air	S19-No04362	X
14	BH44-CLR	Nov 01, 2019	1:50PM	Air	S19-No04363	X
15	BH-65-W	Nov 01, 2019	1:30PM	Air	S19-No04364	X
16	BH-65-E	Nov 01, 2019	3:59PM	Air	S19-No04365	X
17	BH-65-N	Nov 01, 2019	2:26PM	Air	S19-No04366	X
18	BH-65-S	Nov 01, 2019	3:40PM	Air	S19-No04367	X
19	BH-65-SW	Nov 01, 2019	3:36PM	Air	S19-No04368	X
Test Counts						19

Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. Information identified on this report with blue colour, indicates data provided by customer, that may have an impact on the results.
5. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Advice.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

Units

% w/w weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

Terms

Dry	Sample is dried by heating prior to analysis
LOR	Limit of Reporting
COC	Chain of Custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Reference document for the NEPM. Government of Western Australia, Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia (2009), including supporting document Recommended Procedures for Laboratory Analysis of Asbestos in Soil (2011)
NEPM	National Environment Protection (Assessment of Site Contamination) Measure, 2013 (as amended)
ACM	Asbestos Containing Materials. Asbestos contained within a non-asbestos matrix, typically presented in bonded and/or sound condition. For the purposes of the NEPM, ACM is generally restricted to those materials that do not pass a 7mm x 7mm sieve.
AF	Asbestos Fines. Asbestos containing materials, including friable, weathered and bonded materials, able to pass a 7mm x 7mm sieve. Considered under the NEPM as equivalent to “non-bonded / friable”.
FA	Fibrous Asbestos. Asbestos containing materials in a friable and/or severely weathered condition. For the purposes of the NEPM, FA is generally restricted to those materials that do not pass a 7mm x 7mm sieve.
Friable	Asbestos-containing materials of any size that may be broken or crumbled by hand pressure. For the purposes of the NEPM, this includes both AF and FA. It is outside of the laboratory’s remit to assess degree of friability.
Trace Analysis	Analytical procedure used to detect the presence of respirable fibres in the matrix.

Comments

Volume Measurement : [redacted], Douglas Partners (Syd), has been trained by Eurofins and they conducted the sampling in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]methodology. Sampling pumps used by Douglas Partners (Syd) were calibrated by Eurofins | mgt and therefore volume measurements contained in this report are traceable back to Eurofins | mgt. Eurofins | mgt are responsible for all data contained in this report.

This report has been amended (V2) to amend sample names.

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	N/A
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Asbestos Counter/Identifier:

[redacted] Senior Analyst-Asbestos (NSW)

Authorised by:

[redacted] Senior Analyst-Asbestos (NSW)

[redacted]

[redacted]

General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

Certificate of Analysis

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NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025–Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Douglas Partners (Syd)
96 Hermitage Road
West Ryde
NSW 2114

Attention:	[redacted]
Report	686304-AFC
Project Name	GOULBURN HOSPITAL
Project ID	94054
Received Date	Nov 05, 2019
Date Reported	Nov 05, 2019

METHODOLOGY:

Asbestos Sampling	Sampling as per the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]
Pump Calibration	Defender 520M: Calibrated against National Institute of Standards & Technology (NIST) SOP 13 Standard Operating Procedure for Calibration of Volumetric Ware, Gravimetric Method utilising a 1000 mL burette with a digital stop watch.
Asbestos Counting	Conducted in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] and in-house Method LTM-ASB-8010.

Project Name GOULBURN HOSPITAL
Project ID 94054
Date Sampled Oct 31, 2019
Report 686304-AFC

Eurofins Sample No.	Client Sample ID	Pump ID	Location	Start (time)	End (time)	Start Flow Rate (L/min)	End Flow Rate (L/min)	Result (Fibres/Fields)	Result (Fibres/mL)
19-No05635	INTERIOR EAST END LUNCHROOM	DP18	INTERIOR EAST END LUNCHROOM	11:06	14:00	4.0	4.0	18/100	0.01
19-No05636	INTERIOR WEST END LUNCHROOM	DP19	INTERIOR WEST END LUNCHROOM	11:07	14:01	4.0	4.0	22/100	0.01
19-No05637	FIELD BLANK	BLANK	BLANK	--	--	--	--	0/100	--

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos - LTM-ASB-8010	Sydney	Nov 05, 2019	Indefinite
Asbestos - LTM-ASB-8010	Sydney	Nov 05, 2019	Indefinite

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Melbourne
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Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

Company Name:	Douglas Partners (Syd)	**Order No.:**	
Address:	96 Hermitage Road West Ryde NSW 2114	**Report #:** **Phone:** **Fax:**	686304 02 9809 0666
Project Name:	GOULBURN HOSPITAL		
Project ID:	94054		

Received:	Nov 5, 2019 12:40 PM
Due:	Nov 5, 2019
Priority:	Same day
Contact Name:	[redacted]

Eurofins Analytical Services Manager : [redacted]

Sample Detail						Asbestos (concentration of fibres in air)
Melbourne Laboratory - NATA Site # 1254 & 14271						
Sydney Laboratory - NATA Site # 18217						X
Brisbane Laboratory - NATA Site # 20794						
Perth Laboratory - NATA Site # 23736						
External Laboratory						
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**	
1	INTERIOR EAST END LUNCHROOM	Oct 31, 2019	2:00PM	Air	S19-No05635	X
2	INTERIOR WEST END LUNCHROOM	Oct 31, 2019	2:01PM	Air	S19-No05636	X
3	FIELD BLANK	Oct 31, 2019		Air	S19-No05637	X
Test Counts						3

Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. Information identified on this report with blue colour, indicates data provided by customer, that may have an impact on the results.
5. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Advice.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

Units

% w/w weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

Terms

Dry	Sample is dried by heating prior to analysis
LOR	Limit of Reporting
COC	Chain of Custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Reference document for the NEPM. Government of Western Australia, Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia (2009), including supporting document Recommended Procedures for Laboratory Analysis of Asbestos in Soil (2011)
NEPM	National Environment Protection (Assessment of Site Contamination) Measure, 2013 (as amended)
ACM	Asbestos Containing Materials. Asbestos contained within a non-asbestos matrix, typically presented in bonded and/or sound condition. For the purposes of the NEPM, ACM is generally restricted to those materials that do not pass a 7mm x 7mm sieve.
AF	Asbestos Fines. Asbestos containing materials, including friable, weathered and bonded materials, able to pass a 7mm x 7mm sieve. Considered under the NEPM as equivalent to “non-bonded / friable”.
FA	Fibrous Asbestos. Asbestos containing materials in a friable and/or severely weathered condition. For the purposes of the NEPM, FA is generally restricted to those materials that do not pass a 7mm x 7mm sieve.
Friable	Asbestos-containing materials of any size that may be broken or crumbled by hand pressure. For the purposes of the NEPM, this includes both AF and FA. It is outside of the laboratory’s remit to assess degree of friability.
Trace Analysis	Analytical procedure used to detect the presence of respirable fibres in the matrix.

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Comments

Volume Measurement : [redacted], Douglas Partners (Syd), has been trained by Eurofins and they conducted the sampling in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]methodology. Sampling pumps used by Douglas Partners (Syd) were calibrated by Eurofins | mgt and therefore volume measurements contained in this report are traceable back to Eurofins | mgt. Eurofins | mgt are responsible for all data contained in this report.

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	N/A
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Asbestos Counter/Identifier:

[redacted] Senior Analyst-Asbestos (NSW)

Authorised by:

[redacted] Senior Analyst-Asbestos (NSW)

[redacted]

[redacted]

General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

Certificate of Analysis

eurofins | Environment Testing

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025–Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Douglas Partners (Syd)
96 Hermitage Road
West Ryde
NSW 2114

Attention:	[redacted]
Report	686305-AFC
Project Name	GOULBURN HOSPITAL
Project ID	94054
Received Date	Nov 05, 2019
Date Reported	Nov 05, 2019

METHODOLOGY:

Asbestos Sampling	Sampling as per the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]
Pump Calibration	Defender 520M: Calibrated against National Institute of Standards & Technology (NIST) SOP 13 Standard Operating Procedure for Calibration of Volumetric Ware, Gravimetric Method utilising a 1000 mL burette with a digital stop watch.
Asbestos Counting	Conducted in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] and in-house Method LTM-ASB-8010.

Project Name GOULBURN HOSPITAL
Project ID 94054
Date Sampled Oct 31, 2019
Report 686305-AFC

Eurofins Sample No.	Client Sample ID	Pump ID	Location	Start (time)	End (time)	Start Flow Rate (L/min)	End Flow Rate (L/min)	Result (Fibres/Fields)	Result (Fibres/mL)
19-No05639	NE CORNER LUNCHROOM	DP11	NE CNR LUNCHROOM	9:38	14:02	2.0	2.0	1/100	< 0.01
19-No05640	NW CORNER LUNCHROOM	DP05	NW CNR LUNCHROOM	9:39	14:03	2.0	2.0	0/100	< 0.01
19-No05641	SE CORNER LUNCHROOM	DP04	SE CNR LUNCHROOM	9:40	14:04	2.0	2.0	2/100	< 0.01
19-No05642	SW CORNER LUNCHROOM	DP15	SW CNR LUNCHROOM	9:41	14:05	2.0	2.0	0/100	< 0.01
19-No05643	FIELD BLANK	BLANK	BLANK	--	--	--	--	0/100	--

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos - LTM-ASB-8010	Sydney	Nov 05, 2019	Indefinite
Asbestos - LTM-ASB-8010	Sydney	Nov 05, 2019	Indefinite

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ABN – 50 005 085 521
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web : www.eurofins.com.au

Melbourne
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NATA # 1261
Site # 1254 & 14271

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Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
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Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

Company Name:	Douglas Partners (Syd)	**Order No.:**	
Address:	96 Hermitage Road West Ryde NSW 2114	**Report #:** **Phone:** **Fax:**	686305 02 9809 0666
Project Name:	GOULBURN HOSPITAL		
Project ID:	94054		

Received:	Nov 5, 2019 12:40 PM
Due:	Nov 5, 2019
Priority:	Same day
Contact Name:	[redacted]

Eurofins Analytical Services Manager [redacted]

Sample Detail						Asbestos (concentration of fibres in air)
Melbourne Laboratory - NATA Site # 1254 & 14271						
Sydney Laboratory - NATA Site # 18217						X
Brisbane Laboratory - NATA Site # 20794						
Perth Laboratory - NATA Site # 23736						
External Laboratory						
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**	
1	NE CORNER LUNCHROOM	Oct 31, 2019	2:02PM	Air	S19-No05639	X
2	NW CORNER LUNCHROOM	Oct 31, 2019	2:03PM	Air	S19-No05640	X
3	SE CORNER LUNCHROOM	Oct 31, 2019	2:04PM	Air	S19-No05641	X
4	SW CORNER LUNCHROOM	Oct 31, 2019	2:05PM	Air	S19-No05642	X
5	FIELD BLANK	Oct 31, 2019		Air	S19-No05643	X
Test Counts						5

Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. Information identified on this report with blue colour, indicates data provided by customer, that may have an impact on the results.
5. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Advice.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

Units

% w/w weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

Terms

Dry	Sample is dried by heating prior to analysis
LOR	Limit of Reporting
COC	Chain of Custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Reference document for the NEPM. Government of Western Australia, Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia (2009), including supporting document Recommended Procedures for Laboratory Analysis of Asbestos in Soil (2011)
NEPM	National Environment Protection (Assessment of Site Contamination) Measure, 2013 (as amended)
ACM	Asbestos Containing Materials. Asbestos contained within a non-asbestos matrix, typically presented in bonded and/or sound condition. For the purposes of the NEPM, ACM is generally restricted to those materials that do not pass a 7mm x 7mm sieve.
AF	Asbestos Fines. Asbestos containing materials, including friable, weathered and bonded materials, able to pass a 7mm x 7mm sieve. Considered under the NEPM as equivalent to “non-bonded / friable”.
FA	Fibrous Asbestos. Asbestos containing materials in a friable and/or severely weathered condition. For the purposes of the NEPM, FA is generally restricted to those materials that do not pass a 7mm x 7mm sieve.
Friable	Asbestos-containing materials of any size that may be broken or crumbled by hand pressure. For the purposes of the NEPM, this includes both AF and FA. It is outside of the laboratory’s remit to assess degree of friability.
Trace Analysis	Analytical procedure used to detect the presence of respirable fibres in the matrix.

Comments

Volume Measurement : [redacted], Douglas Partners (Syd), has been trained by Eurofins and they conducted the sampling in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]methodology. Sampling pumps used by Douglas Partners (Syd) were calibrated by Eurofins | mgt and therefore volume measurements contained in this report are traceable back to Eurofins | mgt. Eurofins | mgt are responsible for all data contained in this report.

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	N/A
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Asbestos Counter/Identifier:

[redacted] Senior Analyst-Asbestos (NSW)

Authorised by:

[redacted] Senior Analyst-Asbestos (NSW)

[redacted]

[redacted]

General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

Certificate of Analysis

eurofins | Environment Testing

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025–Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Douglas Partners (Syd)
96 Hermitage Road
West Ryde
NSW 2114

Attention:	[redacted]
Report	686443-AFC
Project Name	GOULBURN
Project ID	94054
Received Date	Nov 06, 2019
Date Reported	Nov 06, 2019

METHODOLOGY:

Asbestos Sampling	Sampling as per the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]
Pump Calibration	Defender 520M: Calibrated against National Institute of Standards & Technology (NIST) SOP 13 Standard Operating Procedure for Calibration of Volumetric Ware, Gravimetric Method utilising a 1000 mL burette with a digital stop watch.
Asbestos Counting	Conducted in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] and in-house Method LTM-ASB-8010.

Project Name GOULBURN
Project ID 94054
Date Sampled Nov 05, 2019
Report 686443-AFC

Eurofins Sample No.	Client Sample ID	Pump ID	Location	Start (time)	End (time)	Start Flow Rate (L/min)	End Flow Rate (L/min)	Result (Fibres/Fields)	Result (Fibres/mL)
19-No06671	BH67-N	DP11	LONG WALL	7:02	13:48	2.0	2.0	0/100	< 0.01
19-No06672	BH67-SW	DP05	FENCE	6:55	13:49	2.0	2.0	0/100	< 0.01
19-No06673	BH67-SE	DP20	FENCE	7:03	13:50	2.0	2.0	0/100	< 0.01
19-No06674	BH67-W	DP04	TRUCK TURN	7:05	13:52	2.0	2.0	0/100	< 0.01
19-No06675	BH67-CLR	DP10	EXCAVATOR	11:40	14:05	4.0	4.0	0/100	< 0.01
19-No06676	FIELD BLANK	BLANK	BLANK	--	--	--	--	0/100	--

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos - LTM-ASB-8010	Sydney	Nov 06, 2019	Indefinite
Asbestos - LTM-ASB-8010	Sydney	Nov 06, 2019	Indefinite

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web : www.eurofins.com.au

Melbourne
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Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

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16 Mars Road
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Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

Company Name:	Douglas Partners (Syd)	**Order No.:**	
Address:	96 Hermitage Road West Ryde NSW 2114	**Report #:** **Phone:** **Fax:**	686443 02 9809 0666
Project Name:	GOULBURN		
Project ID:	94054		

Received:	Nov 6, 2019 10:01 AM
Due:	Nov 6, 2019
Priority:	Same day
Contact Name:	[redacted]

Eurofins Analytical Services Manager : [redacted]

Sample Detail						Asbestos (concentration of fibres in air)
Melbourne Laboratory - NATA Site # 1254 & 14271						
Sydney Laboratory - NATA Site # 18217						X
Brisbane Laboratory - NATA Site # 20794						
Perth Laboratory - NATA Site # 23736						
External Laboratory						
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**	
1	BH67-N	Nov 05, 2019	1:48PM	Air	S19-No06671	X
2	BH67-SW	Nov 05, 2019	1:49PM	Air	S19-No06672	X
3	BH67-SE	Nov 05, 2019	1:50PM	Air	S19-No06673	X
4	BH67-W	Nov 05, 2019	1:52PM	Air	S19-No06674	X
5	BH67-CLR	Nov 05, 2019	2:05PM	Air	S19-No06675	X
6	FIELD BLANK	Nov 05, 2019		Air	S19-No06676	X
Test Counts						6

Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. Information identified on this report with blue colour, indicates data provided by customer, that may have an impact on the results.
5. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Advice.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

Units

% w/w weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

Terms

Dry	Sample is dried by heating prior to analysis
LOR	Limit of Reporting
COC	Chain of Custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Reference document for the NEPM. Government of Western Australia, Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia (2009), including supporting document Recommended Procedures for Laboratory Analysis of Asbestos in Soil (2011)
NEPM	National Environment Protection (Assessment of Site Contamination) Measure, 2013 (as amended)
ACM	Asbestos Containing Materials. Asbestos contained within a non-asbestos matrix, typically presented in bonded and/or sound condition. For the purposes of the NEPM, ACM is generally restricted to those materials that do not pass a 7mm x 7mm sieve.
AF	Asbestos Fines. Asbestos containing materials, including friable, weathered and bonded materials, able to pass a 7mm x 7mm sieve. Considered under the NEPM as equivalent to “non-bonded / friable”.
FA	Fibrous Asbestos. Asbestos containing materials in a friable and/or severely weathered condition. For the purposes of the NEPM, FA is generally restricted to those materials that do not pass a 7mm x 7mm sieve.
Friable	Asbestos-containing materials of any size that may be broken or crumbled by hand pressure. For the purposes of the NEPM, this includes both AF and FA. It is outside of the laboratory’s remit to assess degree of friability.
Trace Analysis	Analytical procedure used to detect the presence of respirable fibres in the matrix.

Comments

Volume Measurement : [redacted], Douglas Partners (Syd), has been trained by Eurofins and they conducted the sampling in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]methodology. Sampling pumps used by Douglas Partners (Syd) were calibrated by Eurofins | mgt and therefore volume measurements contained in this report are traceable back to Eurofins | mgt. Eurofins | mgt are responsible for all data contained in this report.

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	N/A
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Asbestos Counter/Identifier:

[redacted] Senior Analyst-Asbestos (NSW)

Authorised by:

[redacted] Senior Analyst-Asbestos (NSW)

[redacted]

[redacted]
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

Certificate of Analysis

eurofins | Environment Testing

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025–Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Douglas Partners (Syd)
96 Hermitage Road
West Ryde
NSW 2114

Attention:	[redacted]
Report	686445-AFC
Project Name	GOULBURN
Project ID	94054
Received Date	Nov 06, 2019
Date Reported	Nov 06, 2019

METHODOLOGY:

Asbestos Sampling	Sampling as per the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]
Pump Calibration	Defender 520M: Calibrated against National Institute of Standards & Technology (NIST) SOP 13 Standard Operating Procedure for Calibration of Volumetric Ware, Gravimetric Method utilising a 1000 mL burette with a digital stop watch.
Asbestos Counting	Conducted in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] and in-house Method LTM-ASB-8010.

Project Name GOULBURN
Project ID 94054
Date Sampled Nov 04, 2019
Report 686445-AFC

Eurofins Sample No.	Client Sample ID	Pump ID	Location	Start (time)	End (time)	Start Flow Rate (L/min)	End Flow Rate (L/min)	Result (Fibres/Fields)	Result (Fibres/mL)
19-No06682	BH65-SE	DP20	GH02	7:19	16:01	2.0	2.0	4/100	< 0.01
19-No06683	BH65-NE	DP12	GH01	7:18	16:07	2.0	2.0	0/100	< 0.01
19-No06684	BH65/66-S	DP11	P66	7:21	16:02	2.0	2.0	4/100	< 0.01
19-No06685	BH66-S	DP18	GH03	7:22	16:03	2.0	2.0	0/100	< 0.01
19-No06686	BH67-SW	DP05	P50	7:14	16:04	2.0	2.0	2.5/100	< 0.01
19-No06687	BH67-N	DP19	2	7:16	16:06	2.0	2.0	1/100	< 0.01
19-No06688	BH65/66-CLR	DP04	GH06	8:14	12:40	4.0	4.0	0/100	< 0.01
19-No06689	BH56-E	DP15	GH07	11:51	16:05	4.0	4.0	0/100	< 0.01

Eurofins Sample No.	Client Sample ID	Pump ID	Location	Start (time)	End (time)	Start Flow Rate (L/min)	End Flow Rate (L/min)	Result (Fibres/Fields)	Result (Fibres/mL)
19-No06690	BH66-CLR	DP10	GHO5	14:00	16:15	4.0	4.0	4.5/100	< 0.01

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos - LTM-ASB-8010	Sydney	Nov 06, 2019	Indefinite
Asbestos - LTM-ASB-8010	Sydney	Nov 06, 2019	Indefinite

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web : www.eurofins.com.au

Melbourne
6 Monterey Road
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Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

Company Name:	Douglas Partners (Syd)	**Order No.:**	
Address:	96 Hermitage Road West Ryde NSW 2114	**Report #:** **Phone:** **Fax:**	686445 02 9809 0666
Project Name:	GOULBURN		
Project ID:	94054		

Received:	Nov 6, 2019 10:01 AM
Due:	Nov 6, 2019
Priority:	Same day
Contact Name:	[redacted]

Eurofins Analytical Services Manager : [redacted]

Sample Detail						CANCELLED	Asbestos (concentration of fibres in air)
Melbourne Laboratory - NATA Site # 1254 & 14271							
Sydney Laboratory - NATA Site # 18217						X	X
Brisbane Laboratory - NATA Site # 20794							
Perth Laboratory - NATA Site # 23736							
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	BH65-SE	Nov 04, 2019	4:01PM	Air	S19-No06682		X
2	BH65-NE	Nov 04, 2019	4:07PM	Air	S19-No06683		X
3	BH65/66-S	Nov 04, 2019	4:02PM	Air	S19-No06684		X
4	BH66-S	Nov 04, 2019	4:03PM	Air	S19-No06685		X
5	BH67-SW	Nov 04, 2019	4:04PM	Air	S19-No06686		X
6	BH67-N	Nov 04, 2019	4:06PM	Air	S19-No06687		X
7	BH65/66-CLR	Nov 04, 2019	12:40PM	Air	S19-No06688		X
8	BH56-E	Nov 04, 2019	4:05PM	Air	S19-No06689		X
9	BH66-CLR	Nov 04, 2019	4:15PM	Air	S19-No06690		X

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ABN – 50 005 085 521
e.mail : EnviroSales@eurofins.com
web : www.eurofins.com.au

Melbourne
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Site # 1254 & 14271

Sydney
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Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
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Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

Company Name:	Douglas Partners (Syd)	**Order No.:**	
Address:	96 Hermitage Road West Ryde NSW 2114	**Report #:** **Phone:** **Fax:**	686445 02 9809 0666
Project Name:	GOULBURN		
Project ID:	94054		

Received:	Nov 6, 2019 10:01 AM
Due:	Nov 6, 2019
Priority:	Same day
Contact Name:	[redacted]

Eurofins Analytical Services Manager : [redacted]

Sample Detail						CANCELLED	Asbestos (concentration of fibres in air)
Melbourne Laboratory - NATA Site # 1254 & 14271							
Sydney Laboratory - NATA Site # 18217						X	X
Brisbane Laboratory - NATA Site # 20794							
Perth Laboratory - NATA Site # 23736							
10	FIELD BLANK	Nov 04, 2019		Air	S19-No06691	X	
Test Counts						1	9

Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. Information identified on this report with blue colour, indicates data provided by customer, that may have an impact on the results.
5. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Advice.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

Units

% w/w weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

Terms

Dry	Sample is dried by heating prior to analysis
LOR	Limit of Reporting
COC	Chain of Custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Reference document for the NEPM. Government of Western Australia, Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia (2009), including supporting document Recommended Procedures for Laboratory Analysis of Asbestos in Soil (2011)
NEPM	National Environment Protection (Assessment of Site Contamination) Measure, 2013 (as amended)
ACM	Asbestos Containing Materials. Asbestos contained within a non-asbestos matrix, typically presented in bonded and/or sound condition. For the purposes of the NEPM, ACM is generally restricted to those materials that do not pass a 7mm x 7mm sieve.
AF	Asbestos Fines. Asbestos containing materials, including friable, weathered and bonded materials, able to pass a 7mm x 7mm sieve. Considered under the NEPM as equivalent to “non-bonded / friable”.
FA	Fibrous Asbestos. Asbestos containing materials in a friable and/or severely weathered condition. For the purposes of the NEPM, FA is generally restricted to those materials that do not pass a 7mm x 7mm sieve.
Friable	Asbestos-containing materials of any size that may be broken or crumbled by hand pressure. For the purposes of the NEPM, this includes both AF and FA. It is outside of the laboratory’s remit to assess degree of friability.
Trace Analysis	Analytical procedure used to detect the presence of respirable fibres in the matrix.

Comments

Volume Measurement : Tim Kulmar, Douglas Partners (Syd), has been trained by Eurofins and they conducted the sampling in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]methodology. Sampling pumps used by Douglas Partners (Syd) were calibrated by Eurofins | mgt and therefore volume measurements contained in this report are traceable back to Eurofins | mgt. Eurofins | mgt are responsible for all data contained in this report.

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	N/A
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Asbestos Counter/Identifier:

[redacted] Senior Analyst-Asbestos (NSW)

Authorised by:

[redacted] Senior Analyst-Asbestos (NSW)

[redacted]

[redacted]

General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

Certificate of Analysis

eurofins | Environment Testing

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025–Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Douglas Partners (Syd)
96 Hermitage Road
West Ryde
NSW 2114

Attention:	[redacted]
Report	687268-AFC
Project Name	GOULBURN HOSPITAL
Project ID	94054
Received Date	Nov 11, 2019
Date Reported	Nov 11, 2019

METHODOLOGY:

Asbestos Sampling	Sampling as per the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]
Pump Calibration	Defender 520M: Calibrated against National Institute of Standards & Technology (NIST) SOP 13 Standard Operating Procedure for Calibration of Volumetric Ware, Gravimetric Method utilising a 1000 mL burette with a digital stop watch.
Asbestos Counting	Conducted in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] and in-house Method LTM-ASB-8010.

Project Name GOULBURN HOSPITAL
Project ID 94054
Date Sampled Nov 08, 2019
Report 687268-AFC

Eurofins Sample No.	Client Sample ID	Pump ID	Location	Start (time)	End (time)	Start Flow Rate (L/min)	End Flow Rate (L/min)	Result (Fibres/Fields)	Result (Fibres/mL)
19-No13064	BH71-EAST	DP05	BH71-EAST	9:26	14:45	2.0	2.0	0/100	< 0.01
19-No13065	BH71-NORTH	DP11	BH71-NORTH	9:26	14:43	2.0	2.0	0/100	< 0.01
19-No13066	BH71-SOUTH	DP04	BH71-SOUTH	9:22	14:40	2.0	2.0	0/100	< 0.01
19-No13067	BH71-WEST	DP20	BH71-WEST	9:24	14:41	2.0	2.0	0/100	< 0.01
19-No13068	FIELD BLANK	BLANK	BLANK	--	--	--	--	0/100	--
19-No13069	BH44-EAST	DP12	BH44-EAST	7:32	14:31	2.0	2.0	4.5/100	< 0.01
19-No13070	BH44-CLR	DP10	BH44-CLR	8:58	14:38	2.0	2.0	0/100	< 0.01
19-No13071	BH44-NORTH	DP18	BH44-NORTH	7:30	14:30	2.0	2.0	1/100	< 0.01

Eurofins Sample No.	Client Sample ID	Pump ID	Location	Start (time)	End (time)	Start Flow Rate (L/min)	End Flow Rate (L/min)	Result (Fibres/Fields)	Result (Fibres/mL)
19-No13072	BH44-SOUTH	DP15	BH44-SOUTH	7:34	14:33	2.0	2.0	4/100	< 0.01
19-No13073	BH44-WEST	DP19	BH44-WEST	7:36	14:35	2.0	2.0	0/100	< 0.01

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos - LTM-ASB-8010	Sydney	Nov 11, 2019	Indefinite
Asbestos - LTM-ASB-8010	Sydney	Nov 11, 2019	Indefinite

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Melbourne
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Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
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Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
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Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

Company Name:	Douglas Partners (Syd)	**Order No.:**	
Address:	96 Hermitage Road West Ryde NSW 2114	**Report #:** **Phone:** **Fax:**	687268 02 9809 0666
Project Name:	GOULBURN HOSPITAL		
Project ID:	94054		

Received:	Nov 11, 2019 9:00 AM
Due:	Nov 11, 2019
Priority:	Same day
Contact Name:	[redacted]

Eurofins Analytical Services Manager : [redacted]

Sample Detail						Asbestos (concentration of fibres in air)
Melbourne Laboratory - NATA Site # 1254 & 14271						
Sydney Laboratory - NATA Site # 18217						X
Brisbane Laboratory - NATA Site # 20794						
Perth Laboratory - NATA Site # 23736						
External Laboratory						
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**	
1	BH71-EAST	Nov 08, 2019	2:45PM	Air	S19-No13064	X
2	BH71-NORTH	Nov 08, 2019	2:43PM	Air	S19-No13065	X
3	BH71-SOUTH	Nov 08, 2019	2:40PM	Air	S19-No13066	X
4	BH71-WEST	Nov 08, 2019	2:41PM	Air	S19-No13067	X
5	FIELD BLANK	Nov 08, 2019		Air	S19-No13068	X
6	BH44-EAST	Nov 08, 2019	2:31PM	Air	S19-No13069	X
7	BH44-CLR	Nov 08, 2019	2:38PM	Air	S19-No13070	X
8	BH44-NORTH	Nov 08, 2019	2:30PM	Air	S19-No13071	X
9	BH44-SOUTH	Nov 08, 2019	2:33PM	Air	S19-No13072	X

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Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
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Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
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Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

Company Name:	Douglas Partners (Syd)	**Order No.:**		**Received:**	Nov 11, 2019 9:00 AM
Address:	96 Hermitage Road West Ryde NSW 2114	**Report #:**	687268	**Due:**	Nov 11, 2019
		Phone:	02 9809 0666	**Priority:**	Same day
		Fax:		**Contact Name:**	[redacted]
Project Name:	GOULBURN HOSPITAL				
Project ID:	94054				

Eurofins Analytical Services Manager : [redacted]

Sample Detail						Asbestos (concentration of fibres in air)
Melbourne Laboratory - NATA Site # 1254 & 14271						
Sydney Laboratory - NATA Site # 18217						X
Brisbane Laboratory - NATA Site # 20794						
Perth Laboratory - NATA Site # 23736						
10	BH44-WEST	Nov 08, 2019	2:35PM	Air	S19-No13073	X
Test Counts						10

Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. Information identified on this report with blue colour, indicates data provided by customer, that may have an impact on the results.
5. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Advice.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

Units

% w/w weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

Terms

Dry	Sample is dried by heating prior to analysis
LOR	Limit of Reporting
COC	Chain of Custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Reference document for the NEPM. Government of Western Australia, Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia (2009), including supporting document Recommended Procedures for Laboratory Analysis of Asbestos in Soil (2011)
NEPM	National Environment Protection (Assessment of Site Contamination) Measure, 2013 (as amended)
ACM	Asbestos Containing Materials. Asbestos contained within a non-asbestos matrix, typically presented in bonded and/or sound condition. For the purposes of the NEPM, ACM is generally restricted to those materials that do not pass a 7mm x 7mm sieve.
AF	Asbestos Fines. Asbestos containing materials, including friable, weathered and bonded materials, able to pass a 7mm x 7mm sieve. Considered under the NEPM as equivalent to “non-bonded / friable”.
FA	Fibrous Asbestos. Asbestos containing materials in a friable and/or severely weathered condition. For the purposes of the NEPM, FA is generally restricted to those materials that do not pass a 7mm x 7mm sieve.
Friable	Asbestos-containing materials of any size that may be broken or crumbled by hand pressure. For the purposes of the NEPM, this includes both AF and FA. It is outside of the laboratory’s remit to assess degree of friability.
Trace Analysis	Analytical procedure used to detect the presence of respirable fibres in the matrix.

Comments

Volume Measurement : Grant Russell, Douglas Partners (Syd), has been trained by Eurofins and they conducted the sampling in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]methodology. Sampling pumps used by Douglas Partners (Syd) were calibrated by Eurofins | mgt and therefore volume measurements contained in this report are traceable back to Eurofins | mgt. Eurofins | mgt are responsible for all data contained in this report.

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	N/A
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Asbestos Counter/Identifier:

[redacted] Senior Analyst-Asbestos (NSW)

Authorised by:

[redacted] Senior Analyst-Asbestos (NSW)

[redacted]

General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

Certificate of Analysis

eurofins | Environment Testing

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025–Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Douglas Partners (Syd)
96 Hermitage Road
West Ryde
NSW 2114

Attention:	[redacted]r
Report	687579-AFC
Project Name	GOULBURN HOSPITAL
Project ID	94054
Received Date	Nov 12, 2019
Date Reported	Nov 12, 2019

METHODOLOGY:

Asbestos Sampling	Sampling as per the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]
Pump Calibration	Defender 520M: Calibrated against National Institute of Standards & Technology (NIST) SOP 13 Standard Operating Procedure for Calibration of Volumetric Ware, Gravimetric Method utilising a 1000 mL burette with a digital stop watch.
Asbestos Counting	Conducted in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] and in-house Method LTM-ASB-8010.

Project Name GOULBURN HOSPITAL
Project ID 94054
Date Sampled Nov 11, 2019
Report 687579-AFC

Eurofins Sample No.	Client Sample ID	Pump ID	Location	Start (time)	End (time)	Start Flow Rate (L/min)	End Flow Rate (L/min)	Result (Fibres/Fields)	Result (Fibres/mL)
19-No15964	CO865931	DP19	BH47 SOUTH	7:18	11:10	3.0	3.0	0/100	< 0.01
19-No15965	CO866103	DP12	BH47 WEST	7:20	11:12	3.0	3.0	0/100	< 0.01
19-No15966	CO866038	DP18	BH47 EAST	7:22	11:14	3.0	3.0	0/100	< 0.01
19-No15967	CO866075	DP15	BH47 NORTH	7:24	11:16	3.0	3.0	1/100	< 0.01
19-No15968	CO865929	DP20	BH71 SOUTH	8:23	11:18	3.0	3.0	0/100	< 0.01
19-No15969	CO865959	DP10	BH71 WEST	8:25	11:20	3.0	3.0	0/100	< 0.01
19-No15970	CO865897	DP11	BH71 BASE	8:41	11:23	3.0	3.0	0/100	< 0.01
19-No15971	CO865908	DP05	65/66 SOUTH	8:32	11:26	3.0	3.0	0/100	< 0.01

Eurofins Sample No.	Client Sample ID	Pump ID	Location	Start (time)	End (time)	Start Flow Rate (L/min)	End Flow Rate (L/min)	Result (Fibres/Fields)	Result (Fibres/mL)
19-No15972	CO866044	DP04	65/66 EAST	8:34	11:29	3.0	3.0	0/100	< 0.01
19-No15973	CO866141	BLANK	BLANK	--	--	--	--	0/100	--

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos - LTM-ASB-8010	Sydney	Nov 12, 2019	Indefinite
Asbestos - LTM-ASB-8010	Sydney	Nov 12, 2019	Indefinite

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Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

Company Name:	Douglas Partners (Syd)	**Order No.:**	
Address:	96 Hermitage Road West Ryde NSW 2114	**Report #:** **Phone:** **Fax:**	687579 02 9809 0666
Project Name:	GOULBURN HOSPITAL		
Project ID:	94054		

Received:	Nov 12, 2019 2:25 PM
Due:	Nov 12, 2019
Priority:	Same day
Contact Name:	[redacted]

Eurofins Analytical Services Manager : [redacted]

Sample Detail						Asbestos (concentration of fibres in air)
Melbourne Laboratory - NATA Site # 1254 & 14271						
Sydney Laboratory - NATA Site # 18217						X
Brisbane Laboratory - NATA Site # 20794						
Perth Laboratory - NATA Site # 23736						
External Laboratory						
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**	
1	CO865931	Nov 11, 2019	11:10AM	Air	S19-No15964	X
2	CO866103	Nov 11, 2019	11:12AM	Air	S19-No15965	X
3	CO866038	Nov 11, 2019	11:14AM	Air	S19-No15966	X
4	CO866075	Nov 11, 2019	11:16AM	Air	S19-No15967	X
5	CO865929	Nov 11, 2019	11:18AM	Air	S19-No15968	X
6	CO865959	Nov 11, 2019	11:20AM	Air	S19-No15969	X
7	CO865897	Nov 11, 2019	11:23AM	Air	S19-No15970	X
8	CO865908	Nov 11, 2019	11:26AM	Air	S19-No15971	X
9	CO866044	Nov 11, 2019	11:29AM	Air	S19-No15972	X

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Sydney
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NATA # 1261 Site # 18217

Brisbane
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Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
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Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

Company Name:	Douglas Partners (Syd)	**Order No.:**		**Received:**	Nov 12, 2019 2:25 PM
Address:	96 Hermitage Road West Ryde NSW 2114	**Report #:**	687579	**Due:**	Nov 12, 2019
		Phone:	02 9809 0666	**Priority:**	Same day
		Fax:		**Contact Name:**	[redacted]
Project Name:	GOULBURN HOSPITAL				
Project ID:	94054			**Eurofins Analytical Services Manager :**	[redacted]

Sample Detail						Asbestos (concentration of fibres in air)
Melbourne Laboratory - NATA Site # 1254 & 14271						
Sydney Laboratory - NATA Site # 18217						X
Brisbane Laboratory - NATA Site # 20794						
Perth Laboratory - NATA Site # 23736						
10	CO866141	Nov 11, 2019		Air	S19-No15973	X
Test Counts						10

Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. Information identified on this report with blue colour, indicates data provided by customer, that may have an impact on the results.
5. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Advice.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

Units

% w/w weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

Terms

Dry	Sample is dried by heating prior to analysis
LOR	Limit of Reporting
COC	Chain of Custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Reference document for the NEPM. Government of Western Australia, Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia (2009), including supporting document Recommended Procedures for Laboratory Analysis of Asbestos in Soil (2011)
NEPM	National Environment Protection (Assessment of Site Contamination) Measure, 2013 (as amended)
ACM	Asbestos Containing Materials. Asbestos contained within a non-asbestos matrix, typically presented in bonded and/or sound condition. For the purposes of the NEPM, ACM is generally restricted to those materials that do not pass a 7mm x 7mm sieve.
AF	Asbestos Fines. Asbestos containing materials, including friable, weathered and bonded materials, able to pass a 7mm x 7mm sieve. Considered under the NEPM as equivalent to “non-bonded / friable”.
FA	Fibrous Asbestos. Asbestos containing materials in a friable and/or severely weathered condition. For the purposes of the NEPM, FA is generally restricted to those materials that do not pass a 7mm x 7mm sieve.
Friable	Asbestos-containing materials of any size that may be broken or crumbled by hand pressure. For the purposes of the NEPM, this includes both AF and FA. It is outside of the laboratory’s remit to assess degree of friability.
Trace Analysis	Analytical procedure used to detect the presence of respirable fibres in the matrix.

Comments

Volume Measurement : Grant Russell, Douglas Partners (Syd), has been trained by Eurofins and they conducted the sampling in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]methodology. Sampling pumps used by Douglas Partners (Syd) were calibrated by Eurofins | mgt and therefore volume measurements contained in this report are traceable back to Eurofins | mgt. Eurofins | mgt are responsible for all data contained in this report.

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	N/A
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Asbestos Counter/Identifier:

[redacted] Senior Analyst-Asbestos (NSW)

Authorised by:

[redacted] Senior Analyst-Asbestos (NSW)

[redacted]

[redacted]

General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

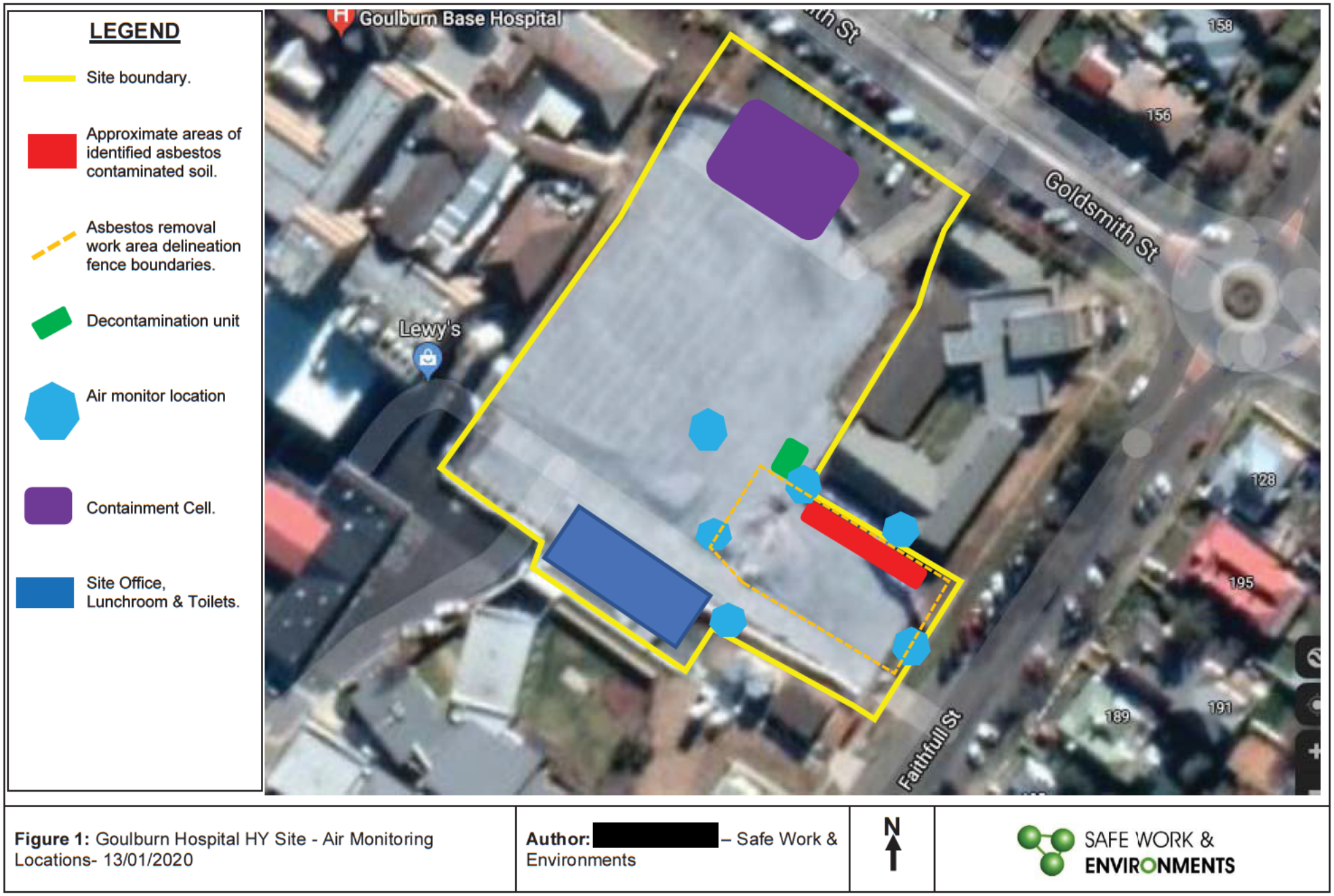

Figure 1: Goulburn Hospital HY Site - Air Monitoring Locations- 13/01/2020

Author: [redacted] – Safe Work & Environments

N

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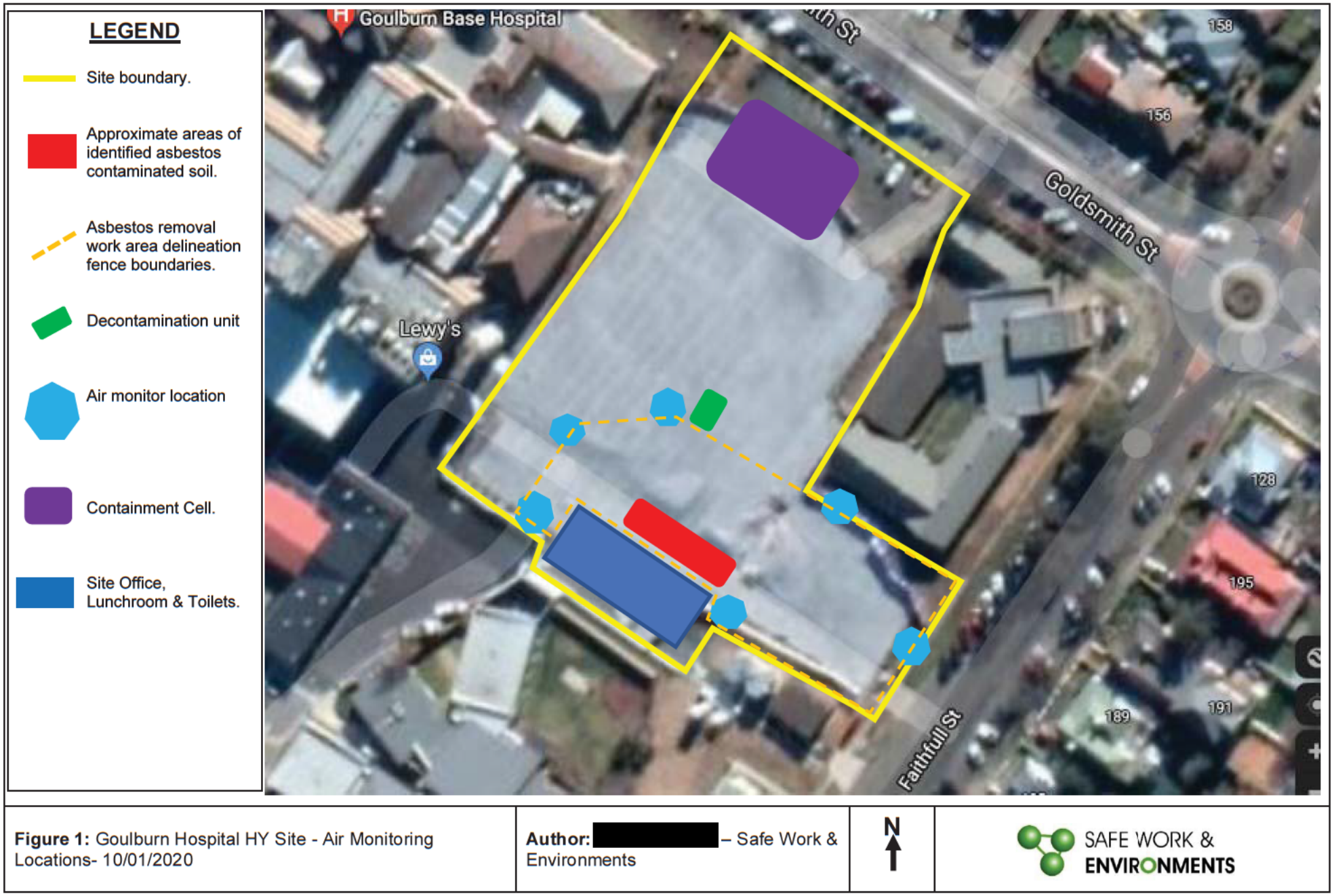

Figure 1: Goulburn Hospital HY Site - Air Monitoring Locations- 10/01/2020

Author: [redacted] – Safe Work & Environments

SAFE WORK & ENVIRONMENTS

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CONTROL AIR MONITORING FOR ASBESTOS FIBRES RESULTS

NATA
WORLD RECOGNISED ACCREDITATION

Accredited for compliance with ISO/IEC 17025 - Testing

05 December 2019

Attention: [redacted]
Company: Douglas Partners Pty Ltd
Email: [redacted]

SWE Report Reference: C108603-AAM1.v1-041219
Site Address: Goulburn Hospital Redevelopment, Faithfull Street, Goulburn.
Sampling Date: 4 December 2019
Period of Sampling[1]: 07:31 – 14:18
Scope: Air monitoring during excavation of asbestos hotspots in fleet carpark area.
SWE Laboratory: Suite S1, 25 Dickson Chambers, Dickson Place, Dickson ACT 2602

Accreditation number: 17092 **Site number:** 23867

1. Introduction: Control monitoring for airborne asbestos fibres where undertaken by Safe Work and Environments Pty Ltd (SWE) is used to verify the effectiveness of control measures implemented to prevent fibre release as a result of asbestos removal/related work.

2. Methods: Airborne asbestos fibre monitoring was carried out in accordance with the Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres, 2nd Edition [NOHSC:3003 (2005)] and SWE's In-House Method 2 – Air Volume Measurement. Analysis of collected filter membrane samples was performed in accordance with NOHSC:3003 (2005) and SWE's In-House Method 1 – Asbestos Air Fibre Mount and Count.

3. Results:

SWE REF.	LOCATION OF SAMPLE	FIBRES/ FIELDS	CONCENTRATION (FIBRES/mL)
C108603/S421/041219	Site boundary fence, adj. community health centre, north of removal area	0.0/100	<0.01
C108603/S564/041219	Site boundary fence, adj. fire hydrant, east of removal area	2.0/100	<0.01
C108603/W01/041219	Site boundary fence, adj. Faithful Street site vehicle entry, southeast of removal area	0.0/100	<0.01
C108603/A1305/041219	External, north wall of lunchroom, southwest of removal area	2.0/100	<0.01
C108603/S521/041219	Site boundary fence, adj. concrete emergency exit stairwell, northwest of removal area	1.0/100	<0.01
C108603/S581/041219	Site boundary fence, west corner of site	1.0/100	<0.01
C108603/S393/041219	Field Control (Blank)	1.0/100	N/A

4. Conclusion: All air monitoring analytical results reported on in this report are below the lowest detectable level of 0.01 fibres/mL of air.

Analysed and reported by:

J. Barnes
[redacted]
Analyst

[redacted]
[redacted]
Approved Issuer of Report

[1] Period of Sampling defined by the on-time of the first air monitoring sample to the off-time of the last air monitoring sample.

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SAFE WORK & ENVIRONMENTS

BACKGROUND MONITORING FOR ASBESTOS FIBRES RESULTS

NATA
WORLD RECOGNISED ACCREDITATION

Accredited for compliance with ISO/IEC 17025 - Testing

10 December 2019

Attention: Tim Kulmar
Company: Douglas Partners Pty Ltd
Email: Tim.Kulmar@douglaspartners.com.au

SWE Report Reference: C108603-AAM1.v1-091219
Site Address: Goulburn Hospital Redevelopment, Faithfull Street, Goulburn.
Sampling Date: 9 December 2019
Period of Sampling[1]: 07:35 – 16:20
Scope: Air monitoring during excavation works in unknown fill.
SWE Laboratory: Suite S1, 25 Dickson Chambers, Dickson Place, Dickson ACT 2602

Accreditation number: 17092 **Site number:** 23867

1. Introduction: Background monitoring for airborne asbestos fibres where undertaken by Safe Work and Environments Pty Ltd (SWE) is used to assess the concentration of background airborne asbestos fibres during site works.

2. Methods: Airborne asbestos fibre monitoring was carried out in accordance with the Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres, 2nd Edition [NOHSC:3003 (2005)] and SWE's In-House Method 2 – Air Volume Measurement. Analysis of collected filter membrane samples was performed in accordance with NOHSC:3003 (2005) and SWE's In-House Method 1 – Asbestos Air Fibre Mount and Count.

3. Results:

SWE REF.	LOCATION OF SAMPLE	FIBRES/ FIELDS	CONCENTRATION (FIBRES/mL)
C108603/S106/091219	Site boundary fence, adj. Community Health centre	0.0/100	<0.01
C108603/S572/091219	Site boundary fence, adj. Faithfull St vehicle entry.	0.0/100	<0.01
C108603/S422/091219	Site boundary fence, adj. firefighting water tanks.	0.0/100	<0.01
C108603/S514/091219	Truck route to containment cell, west edge of fleet carpark.	0.0/100	<0.01
C108603/S332/091219	ATF fence on east wall of containment cell.	1.0/100	<0.01
C108603/S547/091219	ATF fence on south wall of containment cell.	0.0/100	<0.01
C108603/S386/091219	Site boundary fence, west of containment cell.	0.0/100	<0.01
C108603/W46/091219	Exterior, site lunchroom, north wall.	0.0/100	<0.01
C108603/S637/091219	Site boundary fence, adj. Goldsmith St, north of containment cell.	2.0/100	<0.01
C108603/S374/091219	Field Control (Blank).	0.0/100	<0.01

[1] Period of Sampling defined by the on-time of the first air monitoring sample to the off-time of the last air monitoring sample.

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SAFE WORK & ENVIRONMENTS

BACKGROUND MONITORING FOR ASBESTOS FIBRES RESULTS

10 December 2019

NATA WORLD RECOGNISED ACCREDITATION

4. Conclusion: All reportable air fibre levels reported on within this report are below the lowest detectable level of 0.01 fibres/mL of air.

Analysed and reported by:

[redacted]

Analyst

[redacted]

Approved Issuer of Report

[1] Period of Sampling defined by the on-time of the first air monitoring sample to the off-time of the last air monitoring sample.

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SAFE WORK & ENVIRONMENTS

BACKGROUND MONITORING FOR ASBESTOS FIBRES RESULTS

NATA WORLD RECOGNISED ACCREDITATION

Accredited for compliance with ISO/IEC 17025 - Testing

13 January 2020

Attention: [redacted]
Company: Douglas Partners Pty Ltd
Email: [redacted]
SWE Report Reference: C108603-AAM1.v1-100120
Site Address: Goulburn Hospital Redevelopment, Faithfull Street.
Sampling Date: 10 January 2020
Period of Sampling[1]: 08:06 – 16:20
Scope: Air monitoring during excavation work in containment cell 3.
SWE Laboratory: Suite S1, 25 Dickson Chambers, Dickson Place, Dickson ACT 2602

Accreditation number: 17092 **Site number:** 23867

1. Introduction: Background monitoring for airborne asbestos fibres where undertaken by Safe Work and Environments Pty Ltd (SWE) is used to assess the concentration of background airborne asbestos fibres.

2. Methods: Airborne asbestos fibre monitoring was carried out in accordance with the Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres, 2nd Edition [NOHSC:3003 (2005)] and SWE's In-House Method 2 – Air Volume Measurement. Analysis of collected filter membrane samples was performed in accordance with NOHSC:3003 (2005) and SWE's In-House Method 1 – Asbestos Air Fibre Mount and Count.

3. Results:

SWE REF.	LOCATION OF SAMPLE	FIBRES/ FIELDS	CONCENTRATION (FIBRES/mL)
C108603/W19/100120	East of site office and containment cell 3, adj. fire fighting water tanks, site perimeter fence.	1.0/100	<0.01
C108603/W40/100120	Eastern perimeter fence (Faithfull St), adj. fire hydrant, east of proposed fleet carpark.	0.0/100	<0.01
C108603/S250/100120	Northern perimeter fence, adj. Community Health Centre.	1.0/100	<0.01
C108603/A012/100120	West of site office, south-west perimeter fence.	0.0/100	<0.01
C108603/S575/100120	Western delineation fence, adj. vehicle load out area.	1.0/100	<0.01
C108603/W36/100120	North western delineation fence, adj. decon unit.	0.0/100	<0.01
C108603/S597/100120	Field Control (Blank).	0.0/100	<0.01

4. Conclusion: All reportable air fibre levels reported on within this report are below the lowest detectable level of 0.01 fibres/mL of air.

Analysed and reported by:

[redacted] Analyst

[redacted] Approved Issuer of Report

[1] Period of Sampling defined by the on-time of the first air monitoring sample to the off-time of the last air monitoring sample.

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SAFE WORK & ENVIRONMENTS

BACKGROUND MONITORING FOR ASBESTOS FIBRES RESULTS

NATA
WORLD RECOGNISED ACCREDITATION
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12 December 2019

Attention: [redacted]
Company: Douglas Partners Pty Ltd
Email: [redacted]

SWE Report Reference: C108603-AAM1.v1-101219
Site Address: Goulburn Hospital Redevelopment, Faithfull Street, Goulburn.
Sampling Date: 10 December 2019
Period of Sampling[1]: 06:27 – 16:12
Scope: Air monitoring during excavation works in unknown fill.
SWE Laboratory: Suite S1, 25 Dickson Chambers, Dickson Place, Dickson ACT 2602

Accreditation number: 17092 **Site number:** 23867

1. Introduction: Background monitoring for airborne asbestos fibres where undertaken by Safe Work and Environments Pty Ltd (SWE) is used to assess the concentration of background airborne asbestos fibres during site works.

2. Methods: Airborne asbestos fibre monitoring was carried out in accordance with the Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres, 2nd Edition [NOHSC:3003 (2005)] and SWE's In-House Method 2 – Air Volume Measurement. Analysis of collected filter membrane samples was performed in accordance with NOHSC:3003 (2005) and SWE's In-House Method 1 – Asbestos Air Fibre Mount and Count.

3. Results:

SWE REF.	LOCATION OF SAMPLE	FIBRES/ FIELDS	CONCENTRATION (FIBRES/mL)
C108603/S227/101219	Site boundary fence, adj. Community Health centre	0.0/100	<0.01
C108603/S582/101219	Site boundary fence, adj. Faithfull St vehicle entry.	2.5/100	<0.01
C108603/W40/101219	Site boundary fence, adj. firefighting water tanks.	0.0/100	Reject*
C108603/S500/101219	Truck route to containment cell, west edge of fleet carpark.	0.0/100	<0.01
C108603/S576/101219	ATF fence on east wall of containment cell.	1.0/100	<0.01
C108603/A012/101219	ATF fence on south wall of containment cell.	0.0/100	<0.01
C108603/S250/101219	Site boundary fence, west of containment cell.	1.0/100	<0.01
C108603/S448/101219	Exterior, site lunchroom, north wall.	0.0/100	<0.01
C108603/W19/101219	Site boundary fence, adj. Goldsmith St, north of containment cell.	1.0/100	<0.01
C108603/W30/101219	Field Control (Blank).	0.0/100	<0.01

* Sample rejected due to initial/final air flow rate outside of allowed flow variation of 10%.

[1] Period of Sampling defined by the on-time of the first air monitoring sample to the off-time of the last air monitoring sample.

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SAFE WORK & ENVIRONMENTS

BACKGROUND MONITORING FOR ASBESTOS FIBRES RESULTS

12 December 2019

4. Conclusion: All reportable air fibre levels reported on within this report are below the lowest detectable level of 0.01 fibres/mL of air.

Analysed and reported by:

[redacted]

Analyst and Approved Issuer of Report

[1] Period of Sampling defined by the on-time of the first air monitoring sample to the off-time of the last air monitoring sample.

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SAFE WORK & ENVIRONMENTS

BACKGROUND MONITORING FOR ASBESTOS FIBRES RESULTS

NATA WORLD RECOGNISED ACCREDITATION

Accredited for compliance with ISO/IEC 17025 - Testing

12 December 2019

Attention: [redacted]
Company: Douglas Partners Pty Ltd
Email: [redacted]

SWE Report Reference: C108603-AAM1.v1-111219
Site Address: Goulburn Hospital Redevelopment, Faithfull Street, Goulburn.
Sampling Date: 11 December 2019
Period of Sampling[1]: 07:25 – 16:23
Scope: Air monitoring during excavation works in unknown fill.
SWE Laboratory: Suite S1, 25 Dickson Chambers, Dickson Place, Dickson ACT 2602

Accreditation number: 17092 **Site number:** 23867

1. Introduction: Background monitoring for airborne asbestos fibres where undertaken by Safe Work and Environments Pty Ltd (SWE) is used to assess the concentration of background airborne asbestos fibres during site works.

2. Methods: Airborne asbestos fibre monitoring was carried out in accordance with the Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres, 2nd Edition [NOHSC:3003 (2005)] and SWE's In-House Method 2 – Air Volume Measurement. Analysis of collected filter membrane samples was performed in accordance with NOHSC:3003 (2005) and SWE's In-House Method 1 – Asbestos Air Fibre Mount and Count.

3. Results:

SWE REF.	LOCATION OF SAMPLE	FIBRES/ FIELDS	CONCENTRATION (FIBRES/mL)
C108603/S722/111219	Site boundary fence, west of containment cell.	1.0/100	Reject*
C108603/S208/111219	Site boundary fence, adj. Goldsmith St, north of containment cell.	1.0/100	<0.01
C108603/S595/111219	Site boundary fence, adj. Community Health Centre, north of fleet car park area.	0.0/100	<0.01
C108603/S466/111219	Site boundary fence, adj. Faithfull St site vehicle entry, east of fleet carpark area.	0.0/100	<0.01
C108603/S597/111219	Site boundary fence, adj. water tanks, south of fleet carpark area.	0.0/100	<0.01
C108603/S592/111219	Star picket, west of fleet carpark area, adj. truck route.	0.0/100	<0.01
C108603/S512/111219	ATF fence east side of containment cell.	0.0/100	<0.01
C108603/W36111219	ATF fence on south side of containment cell.	1.0/100	<0.01
C108603/S13/111219	Western site boundary fence, adj. concrete emergency exit stairwell, west of truck route.	1.0/100	<0.01
C108603/S387/111219	Field Control (Blank).	0.0/100	N/A

* Sample rejected due to initial/final air flow rate outside of allowed flow variation of 10%.

[1] Period of Sampling defined by the on-time of the first air monitoring sample to the off-time of the last air monitoring sample.

Safe Work and Environments Pty Ltd 88127010995
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SAFE WORK & ENVIRONMENTS

BACKGROUND MONITORING FOR ASBESTOS FIBRES RESULTS

12 December 2019

NATA WORLD RECOGNISED ACCREDITATION

4. Conclusion: All reportable air fibre levels reported on within this report are below the lowest detectable level of 0.01 fibres/mL of air.

Analysed and reported by:

[redacted] [redacted]

[redacted] [redacted]

Analyst Approved Issuer of Report

[1] Period of Sampling defined by the on-time of the first air monitoring sample to the off-time of the last air monitoring sample.

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SAFE WORK & ENVIRONMENTS

BACKGROUND MONITORING FOR ASBESTOS FIBRES RESULTS

NATA
WORLD RECOGNISED ACCREDITATION
Accredited for compliance with ISO/IEC 17025 - Testing

13 December 2019

Attention: [redacted]
Company: Douglas Partners Pty Ltd
Email: [redacted]

SWE Report Reference: C108603-AAM1.v1-121219
Site Address: Goulburn Hospital Redevelopment, Faithfull Street, Goulburn.
Sampling Date: 12 December 2019
Period of Sampling[1]: 06:28 – 16:33
Scope: Air monitoring during excavation works in unknown fill.
SWE Laboratory: Suite S1, 25 Dickson Chambers, Dickson Place, Dickson ACT 2602

Accreditation number: 17092 **Site number:** 23867

1. Introduction: Background monitoring for airborne asbestos fibres where undertaken by Safe Work and Environments Pty Ltd (SWE) is used to assess the concentration of background airborne asbestos fibres during site works.

2. Methods: Airborne asbestos fibre monitoring was carried out in accordance with the Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres, 2nd Edition [NOHSC:3003 (2005)] and SWE's In-House Method 2 – Air Volume Measurement. Analysis of collected filter membrane samples was performed in accordance with NOHSC:3003 (2005) and SWE's In-House Method 1 – Asbestos Air Fibre Mount and Count.

3. Results:

SWE REF.	LOCATION OF SAMPLE	FIBRES/ FIELDS	CONCENTRATION (FIBRES/mL)
C108603/S547/121219	Site boundary fence, north-west of containment cell.	1.0/100	<0.01
C108603/S515/121219	Site boundary fence, north-east of containment cell.	1.0/100	<0.01
C108603/S590/121219	Site boundary fence, adj. Community Health Centre BLD, north of excavation.	0.0/100	<0.01
C108603/S575/121219	Site boundary fence, adj. Faithfull St site vehicle entry, east of excavation.	0.0/100	<0.01
C108603/S421/121219	Site boundary fence, adj. water tanks, south of excavation.	0.0/100	<0.01
C108603/S393/121219	Star picket, adj. site office and truck transport route.	2.0/100	<0.01
C108603/S571/121219	ATF fence on south-east corner of containment cell.	0.0/100	<0.01
C108603/S588/121219	Star picket adj. decontamination area and south-west of containment cell	0.0/100	<0.01
C108603/S755/121219	Site boundary fence, west of truck transport route.	1.0/100	<0.01
C108603/S566/121219	Field Control (Blank).	0.0/100	N/A

[1] Period of Sampling defined by the on-time of the first air monitoring sample to the off-time of the last air monitoring sample.

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SAFE WORK & ENVIRONMENTS

BACKGROUND MONITORING FOR ASBESTOS FIBRES RESULTS

13 December 2019

NATA WORLD RECOGNISED ACCREDITATION

4. Conclusion: All reportable air fibre levels reported on within this report are below the lowest detectable level of 0.01 fibres/mL of air.

Analysed and reported by:

[redacted]
Analyst

[redacted]
Approved Issuer of Report

[1] Period of Sampling defined by the on-time of the first air monitoring sample to the off-time of the last air monitoring sample.

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SAFE WORK & ENVIRONMENTS

BACKGROUND MONITORING FOR ASBESTOS FIBRES RESULTS

NATA
WORLD RECOGNISED ACCREDITATION

Accredited for compliance with ISO/IEC 17025 - Testing

14 January 2020

Attention: [redacted]
Company: Douglas Partners Pty Ltd
Email: [redacted]
SWE Report Reference: C108603-AAM1.v1-130120
Site Address: Goulburn Hospital Redevelopment, Faithfull Street.
Sampling Date: 13 January 2020
Period of Sampling[1]: 07:29 – 15:52
Scope: Air monitoring during excavation works along northern embankment.
SWE Laboratory: Suite S1, 25 Dickson Chambers, Dickson Place, Dickson ACT 2602

Accreditation number: 17092 **Site number:** 23867

1. Introduction: Background monitoring for airborne asbestos fibres where undertaken by Safe Work and Environments Pty Ltd (SWE) is used to assess the concentration of background airborne asbestos fibres.

2. Methods: Airborne asbestos fibre monitoring was carried out in accordance with the Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres, 2nd Edition [NOHSC:3003 (2005)] and SWE's In-House Method 2 – Air Volume Measurement. Analysis of collected filter membrane samples was performed in accordance with NOHSC:3003 (2005) and SWE's In-House Method 1 – Asbestos Air Fibre Mount and Count.

3. Results:

SWE REF.	LOCATION OF SAMPLE	FIBRES/ FIELDS	CONCENTRATION (FIBRES/mL)
C108603/S566/130120	Eastern perimeter fence (Faithfull St), adj. fire hydrant, east of proposed fleet carpark.	0.0/100	<0.01
C108603/S722/130120	Northern perimeter fence, adj. Community Health Centre.	2.0/100	<0.01
C108603/S590/130120	North-western perimeter fence, adj. Community Health Centre, load out area and decon unit.	0.0/100	<0.01
C108603/W30/130120	Southern perimeter fence, east of site office and south of work area, adj. fire fighting water tanks.	0.0/100	<0.01
C108603/S466/130120	Western delineation fence, west of work area.	0.0/100	<0.01
C108603/S448/130120	North-western delineation fence, adj. load out area.	1.0/100	<0.01
C108603/S515/130120	Field Control (Blank).	0.0/100	N/A

4. Conclusion: All reportable air fibre levels reported on within this report are below the lowest detectable level of 0.01 fibres/mL of air.

Analysed and reported by:

[redacted]
Analyst

[redacted]
Approved Issuer of Report

[1] Period of Sampling defined by the on-time of the first air monitoring sample to the off-time of the last air monitoring sample.

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SAFE WORK & ENVIRONMENTS

CONTROL MONITORING FOR ASBESTOS FIBRES RESULTS

NATA
WORLD RECOGNISED ACCREDITATION
Accredited for compliance with ISO/IEC 17025 - Testing

17 December 2019

Attention: [redacted]
Company: Douglas Partners Pty Ltd
Email: [redacted]

SWE Report Reference: C108603-AAM1.v1-161219
Site Address: Goulburn Hospital Redevelopment, Faithfull Street, Goulburn.
Sampling Date: 16 December 2019
Period of Sampling[1]: 07:05 – 17:19
Scope: Air monitoring during excavation works in fill known to contain asbestos.
SWE Laboratory: Suite S1, 25 Dickson Chambers, Dickson Place, Dickson ACT 2602

Accreditation number: 17092 **Site number:** 23867

1. Introduction: Control monitoring for airborne asbestos fibres where undertaken by Safe Work and Environments Pty Ltd (SWE) is used to verify the effectiveness of control measures implemented to prevent fibre release as a result of asbestos removal/related work.

2. Methods: Airborne asbestos fibre monitoring was carried out in accordance with the Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres, 2nd Edition [NOHSC:3003 (2005)] and SWE's In-House Method 2 – Air Volume Measurement. Analysis of collected filter membrane samples was performed in accordance with NOHSC:3003 (2005) and SWE's In-House Method 1 – Asbestos Air Fibre Mount and Count.

3. Results:

SWE REF.	LOCATION OF SAMPLE	FIBRES/ FIELDS	CONCENTRATION (FIBRES/mL)
C108603/S106/161219	South-west corner of Community Health Services BLD, attached to boundary fence.	0.0/100	<0.01
C108603/S109/161219	Southern end of Community Health Services BLD, adj. to excavation area, attached to boundary fence.	0.0/100	<0.01
C108603/S523/161219	South-east corner of site, eastern side of excavation area, attached to boundary fence.	0.0/100	<0.01
C108603/S564/161219	South-east corner of site, south-west corner of excavation area, attached to delineation fencing.	0.0/100	<0.01
C108603/S572/161219	Attached to delineation fencing between site office and remediation area.	0.0/100	<0.01
C108603/S596/161219	Attached to delineation fencing, adj. to site office.	2.0/100	<0.01
C108603/S633/161219	Attached to delineation fencing at decontamination unit.	2.0/100	<0.01
C108603/S637/161219	Western side of containment cell, attached to boundary fence, 20m from north-west corner of site.	0.0/100	<0.01
C108603/S647/161219	Northern side of containment cell, attached to boundary fence.	0.0/100	<0.01
C108603/A1305/161219	Field Control (Blank).	1.0/100	N/A

[1] Period of Sampling defined by the on-time of the first air monitoring sample to the off-time of the last air monitoring sample.

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SAFE WORK & ENVIRONMENTS

CONTROL MONITORING FOR ASBESTOS FIBRES RESULTS

17 December 2019

NATA WORLD RECOGNISED ACCREDITATION

4. Conclusion: All reportable air fibre levels reported on within this report are below the lowest detectable level of 0.01 fibres/mL of air.

Analysed and reported by:

[redacted]
Analyst

[redacted]
Approved Issuer of Report

[1] Period of Sampling defined by the on-time of the first air monitoring sample to the off-time of the last air monitoring sample.

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SAFE WORK & ENVIRONMENTS

CONTROL MONITORING FOR ASBESTOS FIBRES RESULTS

19 December 2019

WORLD RECOGNISED ACCREDITATION

Accredited for compliance with ISO/IEC 17025 - Testing

Attention: [redacted]
Company: Douglas Partners Pty Ltd
Email: [redacted]

SWE Report Reference: C108603-AAM1.v1-171219
Site Address: Goulburn Hospital Redevelopment, Faithfull Street, Goulburn.
Sampling Date: 17 December 2019
Period of Sampling[1]: 06:57 – 16:54
Scope: Air monitoring during excavation works in fill known to contain asbestos.
SWE Laboratory: Suite S1, 25 Dickson Chambers, Dickson Place, Dickson ACT 2602

Accreditation number: 17092 **Site number:** 23867

1. Introduction: Control monitoring for airborne asbestos fibres where undertaken by Safe Work and Environments Pty Ltd (SWE) is used to verify the effectiveness of control measures implemented to prevent fibre release as a result of asbestos removal/related work.

2. Methods: Airborne asbestos fibre monitoring was carried out in accordance with the Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres, 2nd Edition [NOHSC:3003 (2005)] and SWE's In-House Method 2 – Air Volume Measurement. Analysis of collected filter membrane samples was performed in accordance with NOHSC:3003 (2005) and SWE's In-House Method 1 – Asbestos Air Fibre Mount and Count.

3. Results:

SWE REF.	LOCATION OF SAMPLE	FIBRES/ FIELDS	CONCENTRATION (FIBRES/mL)
C108603/W01/171219	Western side of containment cell, attached to boundary fence, 20m from NW corner of site.	1.0/100	<0.01
C108603/W50/171219	Northern side of containment cell, attached to northern boundary fence, mid-way along.	4.0/100	<0.01
C108603/S332/171219	South-west corner of Community Health Services building, attached to boundary fence.	0.5/100	<0.01
C108603/S516/171219	South of Community Health Services building, attached to boundary fence adj. to excavation area.	1.0/100	Rejected*
C108603/S449/171219	South-east corner of site, attached to boundary fence on east side of excavation area.	2.0/100	Rejected**
C108603/S581/171219	Attached to delineation fencing, between site office and remediation area.	0.0/100	<0.01
C108603/S583/171219	Attached to delineation fencing and gate to asbestos work area, adj. to site office.	0.0/100	<0.01
C108603/S587/171219	Attached to delineation fencing at decontamination unit.	0.0/100	<0.01
C108603/S591/171219	Attached to delineation fencing adj. to NW corner of Community Health Services building.	0.0/100	<0.01
C108603/S521/171219	Field Control (Blank).	0.0/100	N/A

[1] Period of Sampling defined by the on-time of the first air monitoring sample to the off-time of the last air monitoring sample.

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SAFE WORK & ENVIRONMENTS

CONTROL MONITORING FOR ASBESTOS FIBRES RESULTS

19 December 2019

* Sample rejected due to pump battery failure- time on screen 498min

** Sample rejected due to initial/final flow rate outside of allowed flow variation of 10%.

4. Conclusion: All reportable air fibre levels reported on within this report are below the lowest detectable level of 0.01 fibres/mL of air.

Analysed and reported by:

[redacted] Analyst

[redacted] Approved Issuer of Report

Attached: Site Plan with Air Monitoring Locations

[1] Period of Sampling defined by the on-time of the first air monitoring sample to the off-time of the last air monitoring sample.

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Figure 1: Goulburn Hospital HY Site - Air Monitoring Locations- 17/12/2019

Author: [redacted] – Safe Work & Environments

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SAFE WORK & ENVIRONMENTS

INTERIM ASBESTOS VISUAL CLEARANCE CERTIFICATE C108603 / CLR6.v1

13 January 2020

Attention: [redacted]
Company: Douglas Partners
Email: [redacted]
Client Reference: 94054.06 – Goulburn Hospital Redevelopment

SWE Project No.: C108603
Date of works: 10 January 2020
Asbestos Removalist: Affective Services
Site Address: Goulburn Hospital Redevelopment, Faithfull Street, Goulburn NSW

Dear [redacted]

RE: C108603 – Visual Clearance Certificate for Asbestos Removal Works: Part of Old Containment Pit 3.

Introduction

Safe Work and Environments Pty Ltd (SWE) was engaged by Douglas Partners to undertake an Asbestos Clearance Inspection following the removal of in-situ soil containing non-friable asbestos cement sheeting from part of old containment pit 3. The works were conducted to facilitate redevelopment works of Goulburn Hospital. Licenced Asbestos Assessor David Langston (LAA001429) carried out an inspection of the removal area following completion of the removal works at 4:00pm on the 10 January 2020.

The scope of work involved the following:

- Visual Inspection of the subject areas following the asbestos removal works as per the scope of removal;
- Preparation of an Asbestos Clearance Report outlining the site data, conclusions and recommendations (if necessary).

Scope of Removal

Soil and asbestos containing material (ACM) was removed from part of old containment pit 3. An approximate area measuring 10x30m was excavated from old containment pit 3 down to a depth between 0.5-1.1m below ground level. The depth of excavation was undertaken to approximately 300mm below bulk earthworks depth. Once the excavation was complete a geotextile marker layer was installed on the base and walls of the excavation and approximately 300mm of clean fill placed over the marker layer. An approximate location of the removal works area is included in *Figure 1*.

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Inspection Details

Areas inspected within the asbestos removal area by the assessor included:

- Visible and accessible surface soils within old containment pit 3.

No suspect asbestos material or debris associated with the scope of removal was identified by the assessor during the inspection. Photos of the removal area are included in *Appendix 1*.

Control air monitoring was undertaken during removal works, all airborne fibre concentrations were below the reporting limit of 0.01 fibres/mL of air.

It is the opinion of the assessor the removal works undertaken by Affective Services is of appropriate industry standard and in accordance with adopted Code of Practice*: How to Safely Remove Asbestos* (2019).

Conclusions & Recommendations

Based on the data presented in this report, it is the opinion of Safe Work & Environments Pty Ltd that:

- Soils impacted with asbestos cement sheeting have been removed from the surface of the old containment pit 3.
- The assessor found no visible asbestos debris from asbestos removal work in the area, or in the vicinity of the area, where the work was carried out.
- It is the opinion of the assessor the inspected area is safe, in regards to asbestos, to be re-occupied by unprotected persons (providing surface soils are not disturbed).
- Soils within the old containment pit 3 are likely to contain asbestos material beneath the marker layer. Soil disturbance within the area of the old containment pit should be undertaken with appropriate asbestos work controls in place (in accordance with the sites asbestos management plan).
- If any additional asbestos materials are identified within the site at a later date, works must cease for the asbestos materials to be removed. All asbestos removal of works should be carried out in accordance with the NSW SafeWork Australia 2019 Code of Practice*: How to Safely Remove Asbestos* or as directed by the task specific asbestos safe works procedure.

Should you have any queries regarding this certificate, please do not hesitate to contact the undersigned for further information or assistance.

Yours faithfully,

[redacted]
Environmental Consultant
Email: [redacted]
Safe Work and Environments Pty Ltd
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Figure 1: Asbestos Removal Work Area
Appendix 1: Site Photographs

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Figure 1: Asbestos Removal Work Area

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Appendix 1: Site Photographs

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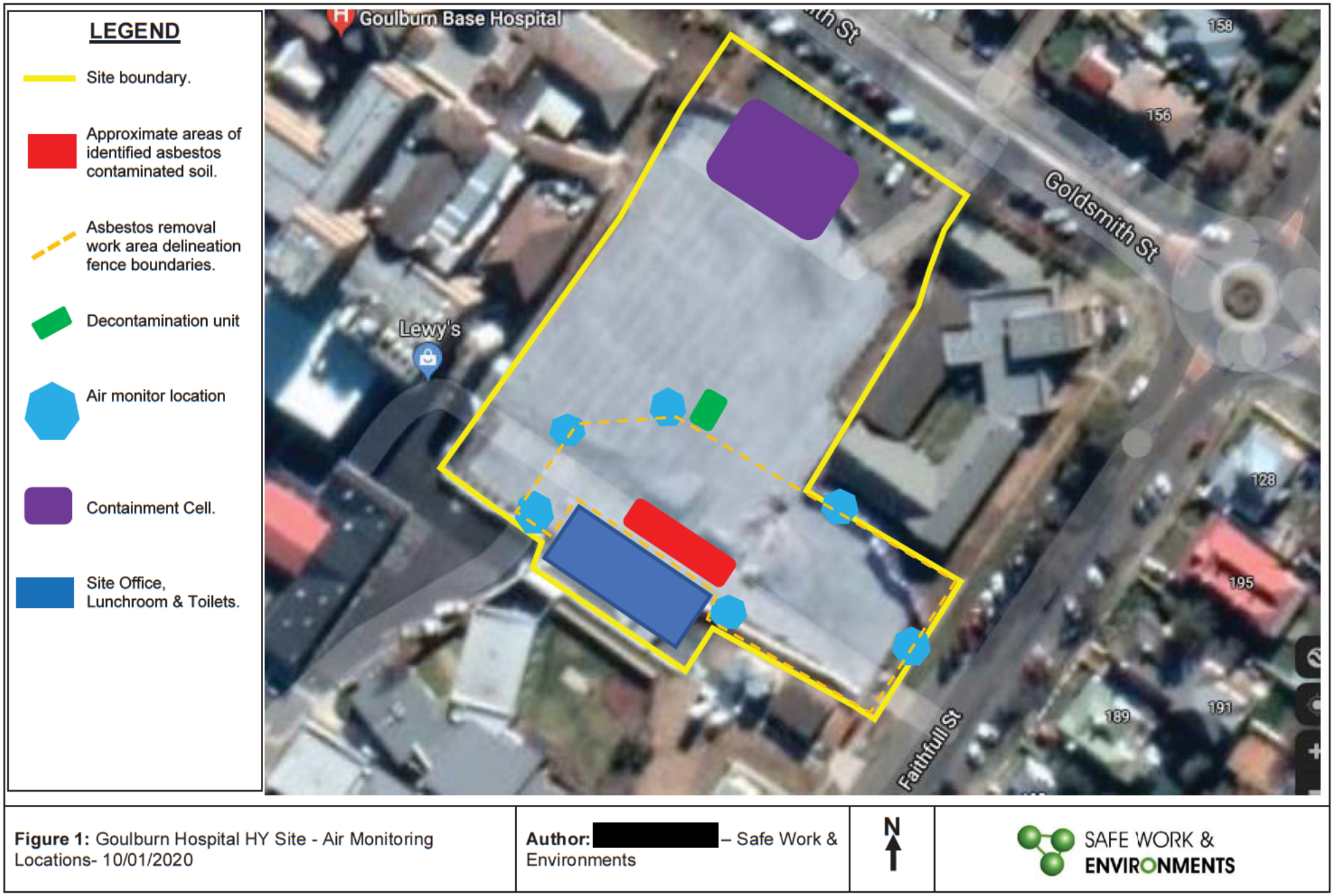

Figure 1: Goulburn Hospital HY Site - Air Monitoring Locations- 10/01/2020

Author: [redacted] – Safe Work & Environments

SAFE WORK & ENVIRONMENTS

Photographs 1: prior to containment cell excavation. Note black plastic on site office and entry was restricted.

Photographs 2: Post excavation and geotextile marker evident on pit walls.

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Photographs 3: Post excavation and geotextile marker evident on pit walls. Not varying depth of excavation to accommodate future site works.

Photographs 4: Post excavation and geotextile marker evident and use of clean fill.

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ASBESTOS VISUAL CLEARANCE CERTIFICATE
C108603 / CLR7.v1

14 January 2020

Attention: [redacted]
Company: Douglas Partners
Fax/email: [redacted]

SWE Project No.: C108603
Date of works: 13 January 2020
Asbestos Removalist: Affective Services
Site Address: Goulburn Hospital Redevelopment, Faithfull Street, Goulburn NSW

Dear [redacted]

RE: C108603 – Visual Clearance Certificate for Asbestos Decontamination Works: Decontamination Unit Deconta #C5000 A, Goulburn Hospital Redevelopment, Faithfull Street, Goulburn NSW.

Introduction

Safe Work and Environments Pty Ltd (SWE) was engaged by Douglas Partners to undertake a Visual Asbestos Clearance Inspection following decontamination works on a Decontamination Unit (Deconta #C5000 A). Licenced Asbestos Assessor David Langston (LAA001429) carried out an inspection of the works area following decontamination works at 4:00pm on the 13 January 2020.

The scope of work involved the following:

- Visual Inspection of the subject areas following the asbestos removal works as per the scope of removal;
- Preparation of an Asbestos Clearance Report outlining the site data, conclusions and recommendations (if necessary).

Photographs of the Decontamination Unit area included in Appendix A.

Scope of Removal

The removal of asbestos debris from Decontamination Unit Deconta #C5000 A.

Inspection Details

Areas inspected by the assessor included the visible and accessible internal and external wall and floor surfaces of the decontamination unit. No suspect asbestos material or debris was identified by the assessor during the inspection.

It must be noted that the clearance inspection did not include inaccessible surfaces and materials such as drainage pipes and filters.

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It is the opinion of the assessor the removal/decontamination works undertaken by Affective Services is of appropriate industry standard and in accordance with adopted Code of Practice*: How to Safely Remove Asbestos* (2018).

Conclusions & Recommendations

Based on the data presented in this report, it is the opinion of Safe Work & Environments Pty Ltd that:

- The assessor found no visible asbestos materials within Decontamination Unit Deconta #C5000 A;
- The visible and accessible surfaces of the Unit Deconta #C5000 A have been successfully decontaminated of asbestos material;
- The scope of this clearance report does not cover inaccessible surfaces and materials such as drainage pipes and filters;
- Based on the results of the inspection; it is the opinion of the assessor the inspected area is safe in regard to the asbestos risk and may be used by unprotected persons;
- The decontamination unit internal negative air filter was left in place and is to be replaced by the hire company. All asbestos removal of works should be carried out in accordance with the SafeWork Australia 2018 Code of Practice*: How to Safely Remove Asbestos* or as directed by the task specific asbestos safe works procedure.

Should you have any queries regarding this certificate, please do not hesitate to contact the undersigned for further information or assistance.

Yours faithfully,

David Langston
Environmental Consultant
Email: dlangston@swe.com.au

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Attachment A – Photographs

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Attachment A – Photograpahs

Photograph 1. Decontamination unit

Photograph 2. Interior of Decontamination unit.

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Photograph 3. Interior of Decontamination unit

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INTERIM ASBESTOS VISUAL CLEARANCE CERTIFICATE C108603 / CLR8.v1

14 January 2020

Attention: [redacted]
Company: Douglas Partners
Email: [redacted]
Client Reference: 94054.06 – Goulburn Hospital Redevelopment

SWE Project No.: C108603
Date of works: 13 January 2020
Asbestos Removalist: Affective Services
Site Address: Goulburn Hospital Redevelopment, Faithfull Street, Goulburn NSW

Dear [redacted],

RE: C108603 – Visual Clearance Certificate for Asbestos Removal Works: Excavation works of northern embankment adjacent to Community Health Centre.

Introduction

Safe Work and Environments Pty Ltd (SWE) was engaged by Douglas Partners to undertake an Asbestos Clearance Inspection following the excavation, battering and encapsulation of in-situ soil containing non-friable asbestos cement sheeting from northern embankment located south of the Community Health Centre. The works were conducted to facilitate redevelopment works of Goulburn Hospital. Licenced Asbestos Assessor David Langston (LAA001429) carried out an inspection of the removal area following completion of the removal works at 4:00pm on the 13 January 2020.

The scope of work involved the following:

- Visual Inspection of the subject areas following the asbestos removal works as per the scope of removal and remediation;
- Preparation of an Asbestos Clearance Report outlining the site data, conclusions and recommendations (if necessary).

Scope of Removal

To excavate and remove from site soils containing asbestos containing material from the northern section of the fleet carpark (as far as practicable) to facilitate building works. Temporarily encapsulate soils remaining in-situ suspected of containing asbestos material until further remediation work can occur.

. An approximate location of the removal works area is included in *Figure 1*.

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Inspection Details

Areas inspected within the asbestos removal area by the assessor included:

- Visible and accessible surface soils within the northern embankment and load out area.

During the inspection the assessor noted the northern embankment area measuring 30x2m had soils suspected of containing ACM which continues under the work boundary. At the time of inspection the embankment area had a temporarily geotextile marker layer and clean fill to temporarily encapsulate the embankment until further excavation and remediation can occur.

No other suspect asbestos material or debris associated with the scope of removal was identified by the assessor during the inspection. Photos of the removal area are included in *Appendix 1*.

Control air monitoring was undertaken during removal works, all airborne fibre concentrations were below the reporting limit of 0.01 fibres/mL of air.

It is the opinion of the assessor the removal works undertaken by Affective Services is of appropriate industry standard and in accordance with adopted Code of Practice*: How to Safely Remove Asbestos* (2019).

Conclusions & Recommendations

Based on the data presented in this report, it is the opinion of Safe Work & Environments Pty Ltd that:

- Soils impacted with asbestos containing material within the northern embankment have been excavated and temporarily encapsulated where fill was identified.
- The assessor found no visible asbestos debris from asbestos removal work in the area, or in the vicinity of the area, where the work was carried out.
- It is the opinion of the assessor the inspected area is safe, in regards to asbestos, to be re-occupied by unprotected persons (providing surface soils are not disturbed).
- Soils within the embankment below the marker horizon are likely to contain asbestos material. Soil disturbance within the area are to occur at a later date and should be undertaken with appropriate asbestos work controls in place (in accordance with the sites asbestos management plan).
- If any additional asbestos materials are identified within the site at a later date, works must cease for the asbestos materials to be removed. All asbestos removal of works should be carried out in accordance with the NSW SafeWork Australia 2019 Code of Practice*: How to Safely Remove Asbestos* or as directed by the task specific asbestos safe works procedure.

Should you have any queries regarding this certificate, please do not hesitate to contact the undersigned for further information or assistance.

Yours faithfully,

[redacted]
Environmental Consultant
Email [redacted]
Safe Work and Environments Pty Ltd
PO Box 230, Dickson ACT 2602
P: 02 6247 0022
www.swe.com.au

Attachments:
Figure 1: Asbestos Removal Work Area
Appendix 1: Site Photographs

Safe Work and Environments Pty Ltd ABN 88127010995
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Concord NSW 2137
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Figure 1: Asbestos Removal Work Area

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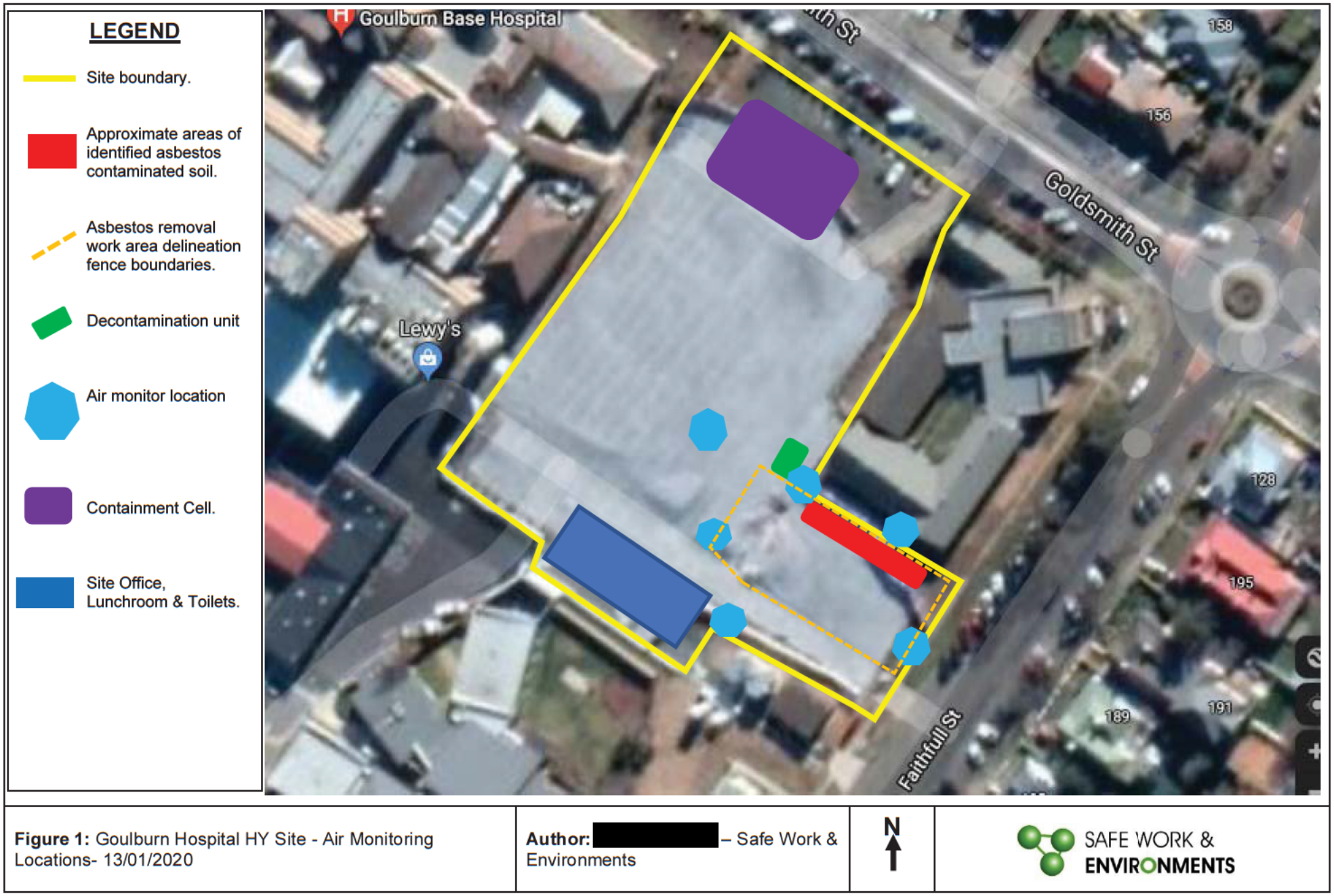

Figure 1: Goulburn Hospital HY Site - Air Monitoring Locations- 13/01/2020

Author: [redacted] – Safe Work & Environments

N

SAFE WORK & ENVIRONMENTS

Appendix 1: Site Photographs

Safe Work and Environments Pty Ltd ABN 88127010995
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Photograph 1: Prior to additional excavation on the northern embankment, located south of the Community Health Centre.

Photograph 2: Post additional excavation and battering.

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Photograph 3: Post excavation and geotextile marker evident on battered walls. Note varying depth of excavation to accommodate future site works.

Photograph 4: Post excavation and geotextile marker evident and use of clean fill.

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Douglas Partners
Geotechnics / Environment / Groundwater

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West Ryde NSW 2114
PO Box 472
West Ryde NSW 1685
Phone (02) 9809 0666

Memorandum

To	[redacted] Hansen Yuncken Pty Ltd	[redacted]	
From	[redacted]	**Date**	29 Jan 2020
Subject	Vibration Monitoring Report 1 Goulburn Base Hospital Redevelopment	**Project No.** **Doc. No.**	94054.07 94054.07.R.001.Rev0

Installation and Monitoring

On 9 December 2019 Texcel Construction Vibration Monitors #7221 and #7153 were installed at ground level at monitoring locations A (adjacent to the community health centre) and B (adjacent to the nearest hospital building), respectively (see attached Monitor Location Plan). The monitors were installed to monitor vibrations generated during compaction works in the adjacent borrow pit.

With reference to the CNVMP, an "Allowed Vibration Limit" of 5 mm/s vector sum peak particle velocity (VSPPV) was assigned by DP, based on the potential for damage to the adjacent structures and the comfort of the occupants. The monitors were configured for continuous monitoring 6 am - 6 pm Mon - Sat, with SMS (text message) alarms to be sent automatically to Eugene Godfrey and DP in the event of vibration exceedances (vibration levels exceeding 4.5 mm/s VSPPV, as a contingency for the Allowed Limit of 5 mm/s VSPPV).

Monitoring was suspended on 13 January 2020 upon completion of compaction works in the borrow pit.

Outcome this period: 9-December 2019 to 13-January 2020

Location	Monitor	Exceedances		Time of maximum exceedance
		No.	Max (VSPPV)	
Monitoring Location A	7221	0	n/a	n/a
Monitoring Location B	7153	0	n/a	n/a

Douglas Partners Pty Ltd

[redacted]

Senior Geophysicist

Reviewed by

[redacted]

Principal

Attachments: Graphs of Vibration Levels, Monitor Location Plan, About This Report

Limitations

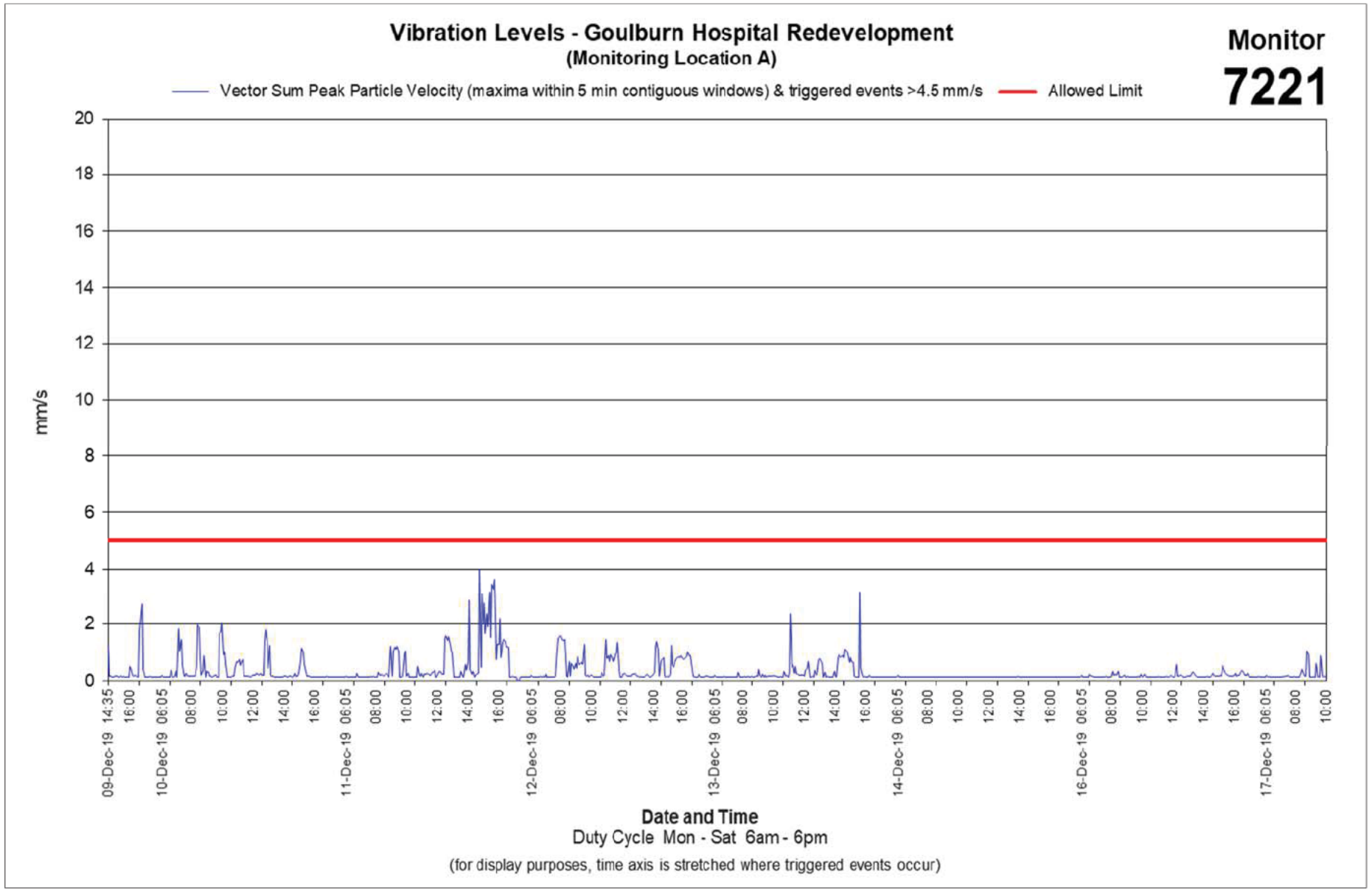
Douglas Partners Pty Ltd (DP) has prepared this report for Hansen Yuncken Pty Ltd. The report is provided for the exclusive use of Hansen Yuncken Pty Ltd for this project only and for the purpose(s) described in the report. It should not be used for other projects or by a third party. In preparing this report DP has necessarily relied upon information provided by the client and/or their agents.

DP's advice may be based on observations, measurements, tests, or derived interpretations. The accuracy of the advice provided by DP in this report may be affected by unobserved features and variations in ground conditions and conditions affecting vibration across the site, between and beyond the testing locations or by variations with time. Vibration monitoring and advice may also be limited by budget constraints imposed by others or by site accessibility.

The results provided in the report are indicative of the vibration levels at the sensor location(s) only and only during the specified period of monitoring. Vibration levels in other locations may therefore differ from those reported herein.

As neither estimations of safe operating distances for vibrations (if provided) nor the presence of an unattended vibration monitor can prevent exceedances, the real-time management of vibration remains the responsibility of Hansen Yuncken Pty Ltd and its plant operators. Interference with (e.g. movement or damage to) the monitoring equipment may influence readings and the Client is responsible for advising DP immediately to assess whether readings are affected, re-installation and/or repair is required.

This report must be read in conjunction with all of the attached notes and should be kept in its entirety without separation of individual pages or sections. DP cannot be held responsible for interpretations or conclusions made by others unless they are supported by an expressed statement, interpretation, outcome or conclusion given in this report.


Vibration Levels - Goulburn Hospital Redevelopment
(Monitoring Location A)
Monitor
7221
Vector Sum Peak Particle Velocity (maxima within 5 min contiguous windows) & triggered events >4.5 mm/s
Allowed Limit
mm/s
20
18
16
14
12
10
8
6
4
2
0
09-Dec-19 14:35
16:00
10-Dec-19 06:05
08:00
10:00
12:00
14:00
16:00
11-Dec-19 06:05
08:00
10:00
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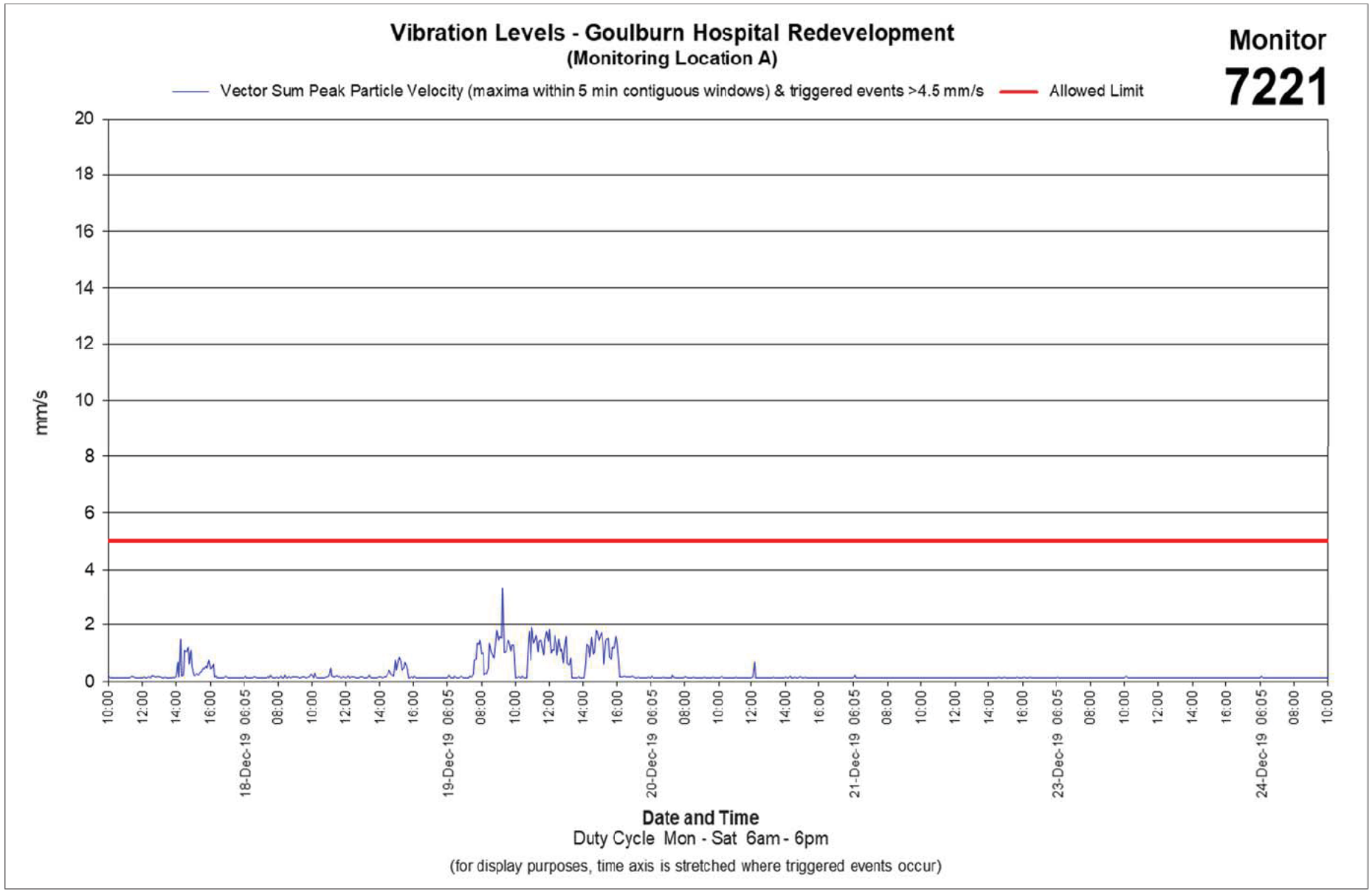
Date and Time
Duty Cycle Mon - Sat 6am - 6pm
(for display purposes, time axis is stretched where triggered events occur)


Vibration Levels - Goulburn Hospital Redevelopment
(Monitoring Location A)
Monitor
7221
Vector Sum Peak Particle Velocity (maxima within 5 min contiguous windows) & triggered events >4.5 mm/s
Allowed Limit
mm/s
20
18
16
14
12
10
8
6
4
2
0
10:00
12:00
14:00
16:00
18-Dec-19 06:05
08:00
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19-Dec-19 06:05
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20-Dec-19 06:05
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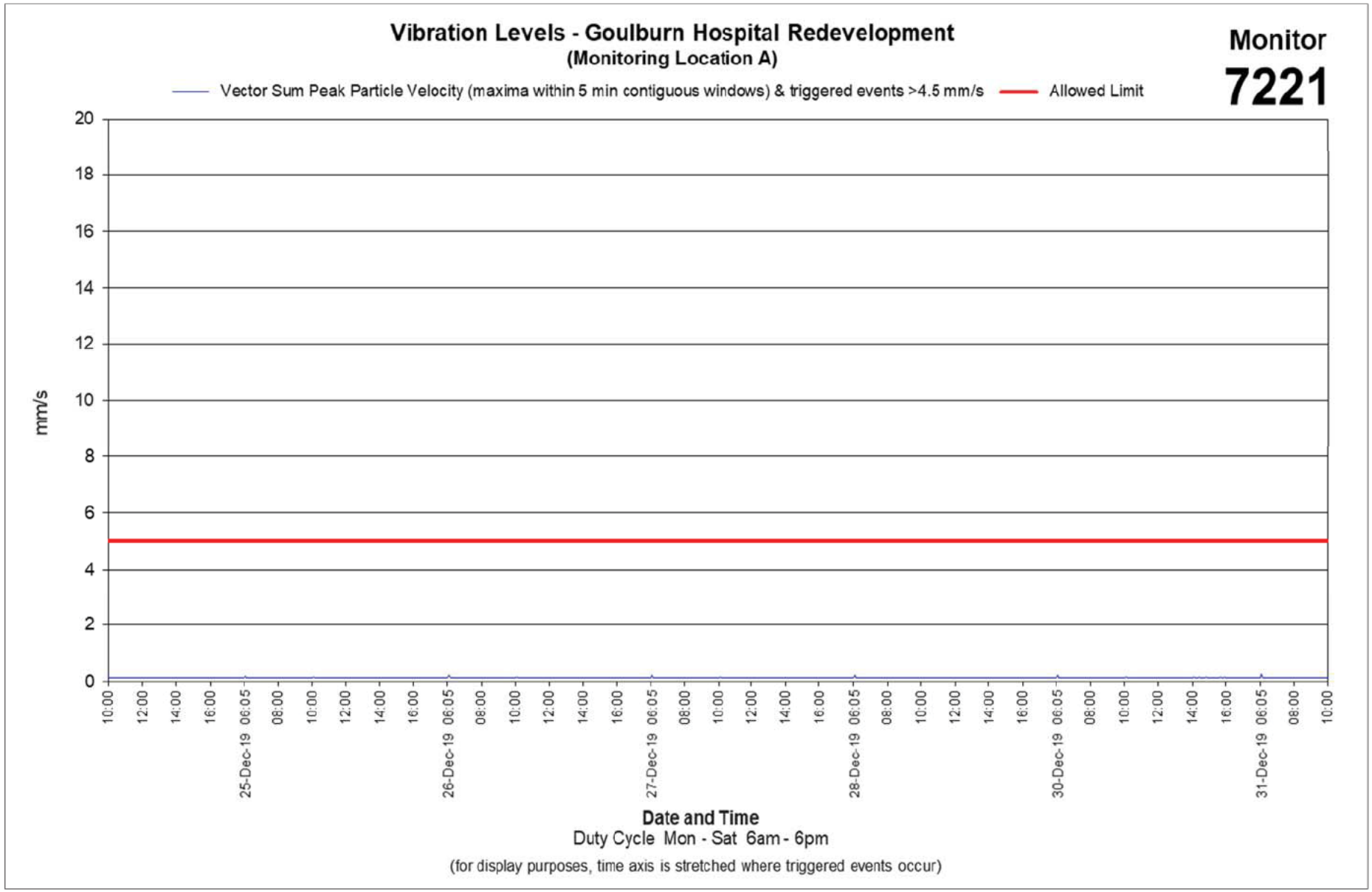
Date and Time
Duty Cycle Mon - Sat 6am - 6pm
(for display purposes, time axis is stretched where triggered events occur)


Vibration Levels - Goulburn Hospital Redevelopment
(Monitoring Location A)
Monitor
7221
Vector Sum Peak Particle Velocity (maxima within 5 min contiguous windows) & triggered events >4.5 mm/s
Allowed Limit
mm/s
20
18
16
14
12
10
8
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26-Dec-19 06:05
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27-Dec-19 06:05
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28-Dec-19 06:05
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30-Dec-19 06:05
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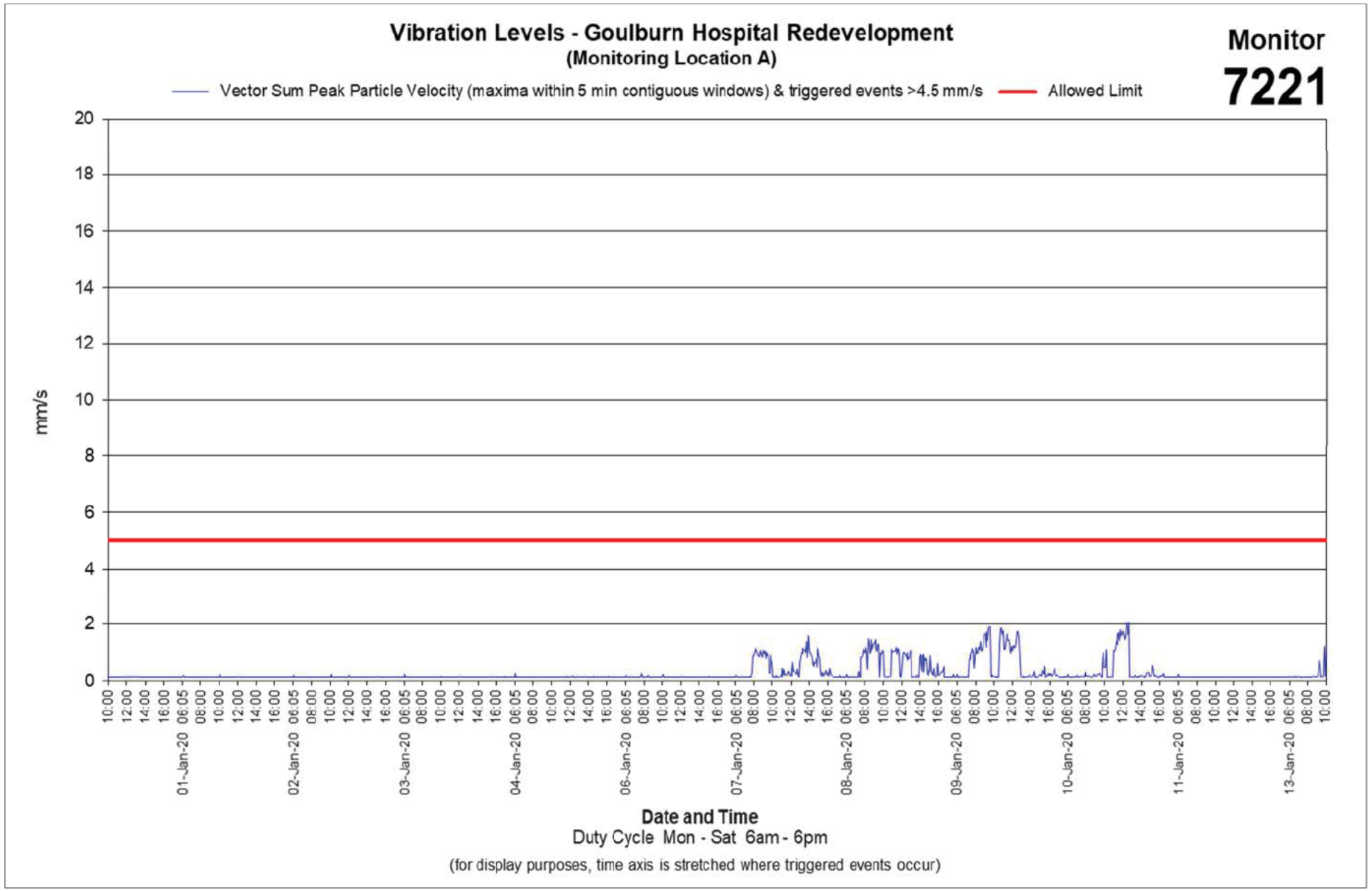
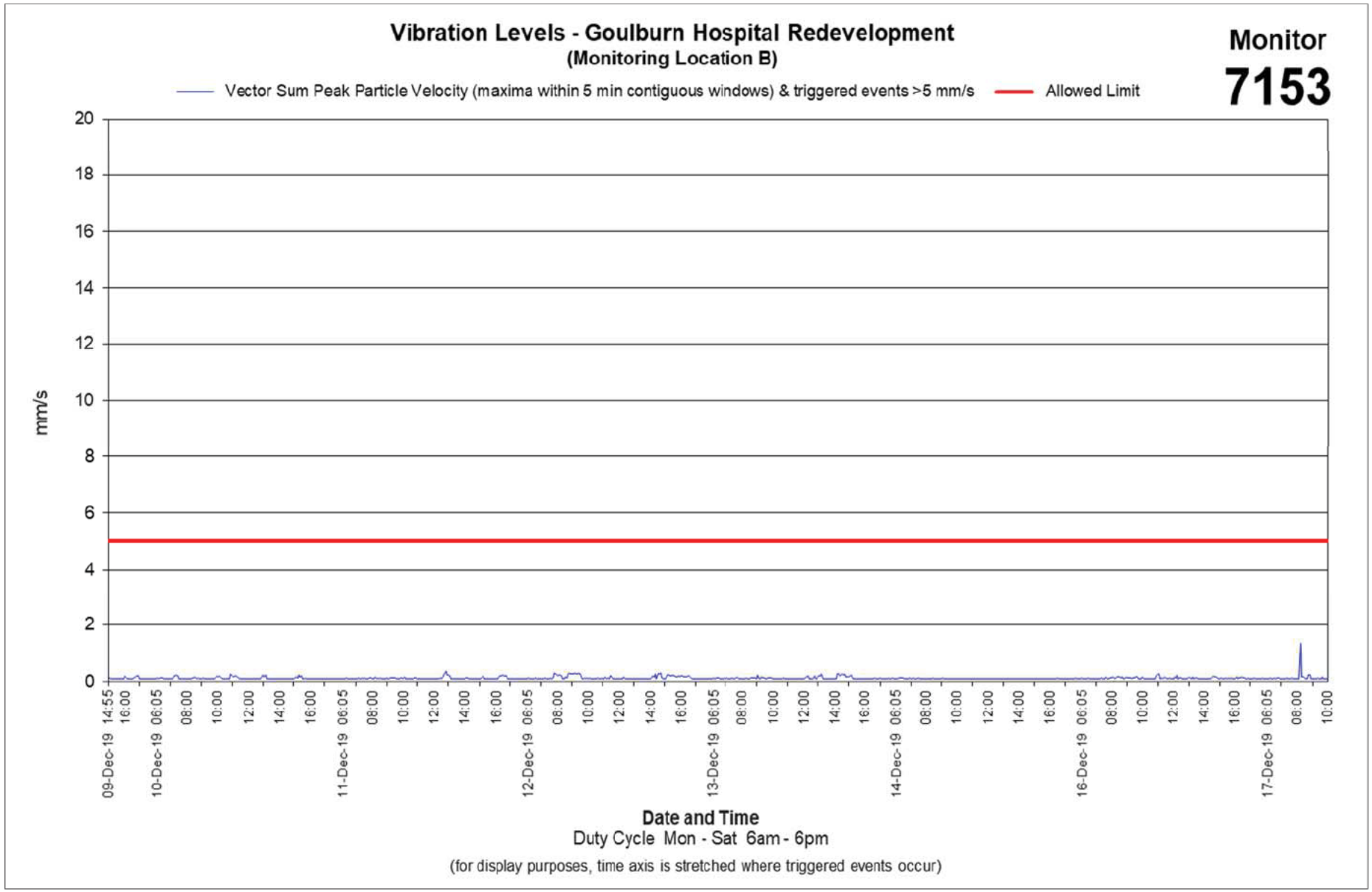
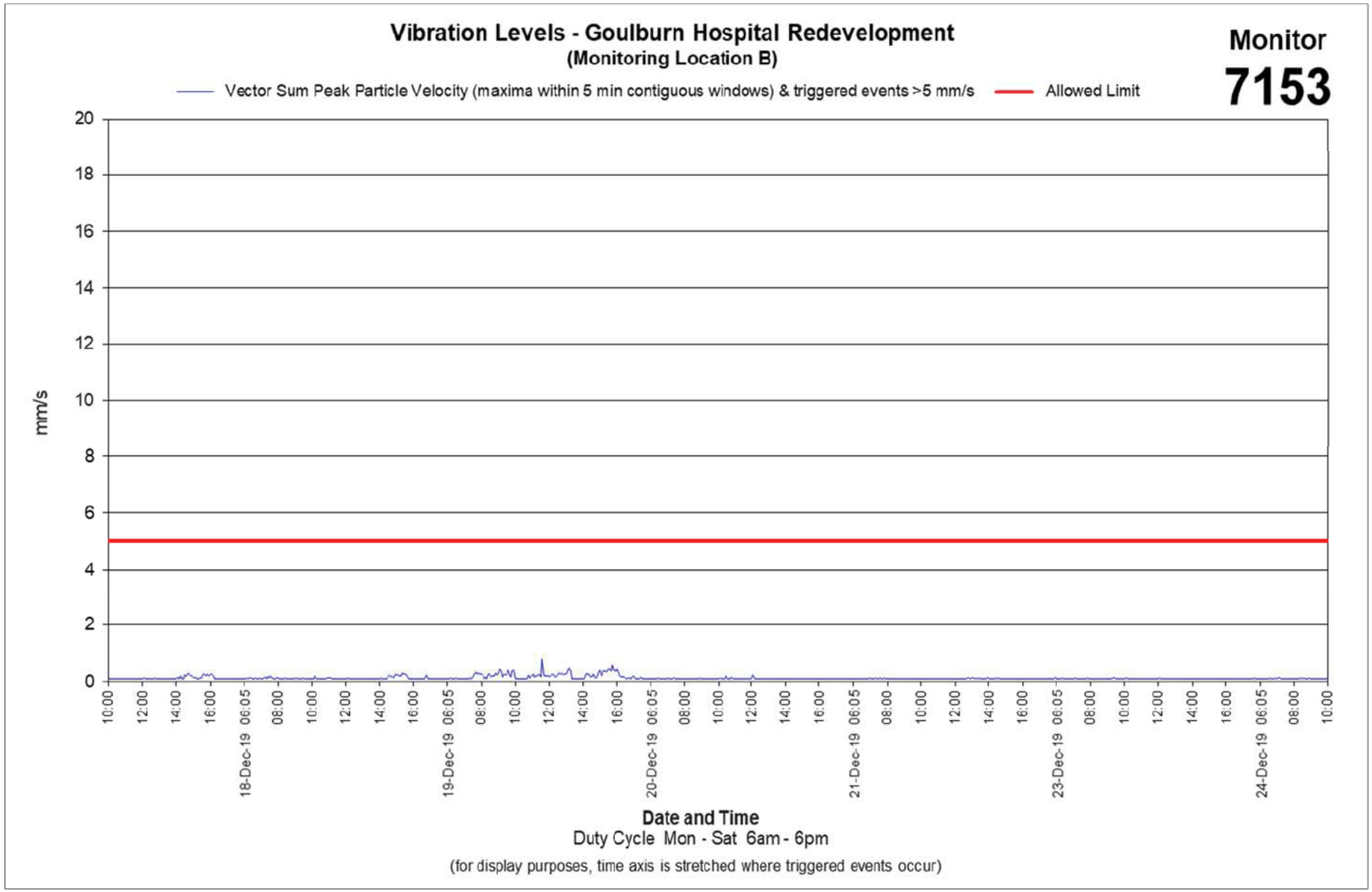
Date and Time
Duty Cycle Mon - Sat 6am - 6pm
(for display purposes, time axis is stretched where triggered events occur)


Vibration Levels - Goulburn Hospital Redevelopment
(Monitoring Location A)
Monitor
7221
Vector Sum Peak Particle Velocity (maxima within 5 min contiguous windows) & triggered events >4.5 mm/s
Allowed Limit
mm/s
20
18
16
14
12
10
8
6
4
2
0
01-Jan-20
02-Jan-20
03-Jan-20
04-Jan-20
06-Jan-20
07-Jan-20
08-Jan-20
09-Jan-20
10-Jan-20
11-Jan-20
13-Jan-20
Date and Time
Duty Cycle Mon - Sat 6am - 6pm
(for display purposes, time axis is stretched where triggered events occur)


Vibration Levels - Goulburn Hospital Redevelopment
(Monitoring Location B)
Monitor
7153
Vector Sum Peak Particle Velocity (maxima within 5 min contiguous windows) & triggered events >5 mm/s
Allowed Limit
mm/s
20
18
16
14
12
10
8
6
4
2
0
09-Dec-19 14:55
10-Dec-19 06:05
11-Dec-19 06:05
12-Dec-19 06:05
13-Dec-19 06:05
14-Dec-19 06:05
16-Dec-19 06:05
17-Dec-19 06:05
Date and Time
Duty Cycle Mon - Sat 6am - 6pm
(for display purposes, time axis is stretched where triggered events occur)


Vibration Levels - Goulburn Hospital Redevelopment
(Monitoring Location B)
Monitor
7153
Vector Sum Peak Particle Velocity (maxima within 5 min contiguous windows) & triggered events >5 mm/s
Allowed Limit
mm/s
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18-Dec-19 06:05
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19-Dec-19 06:05
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21-Dec-19 06:05
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23-Dec-19 06:05
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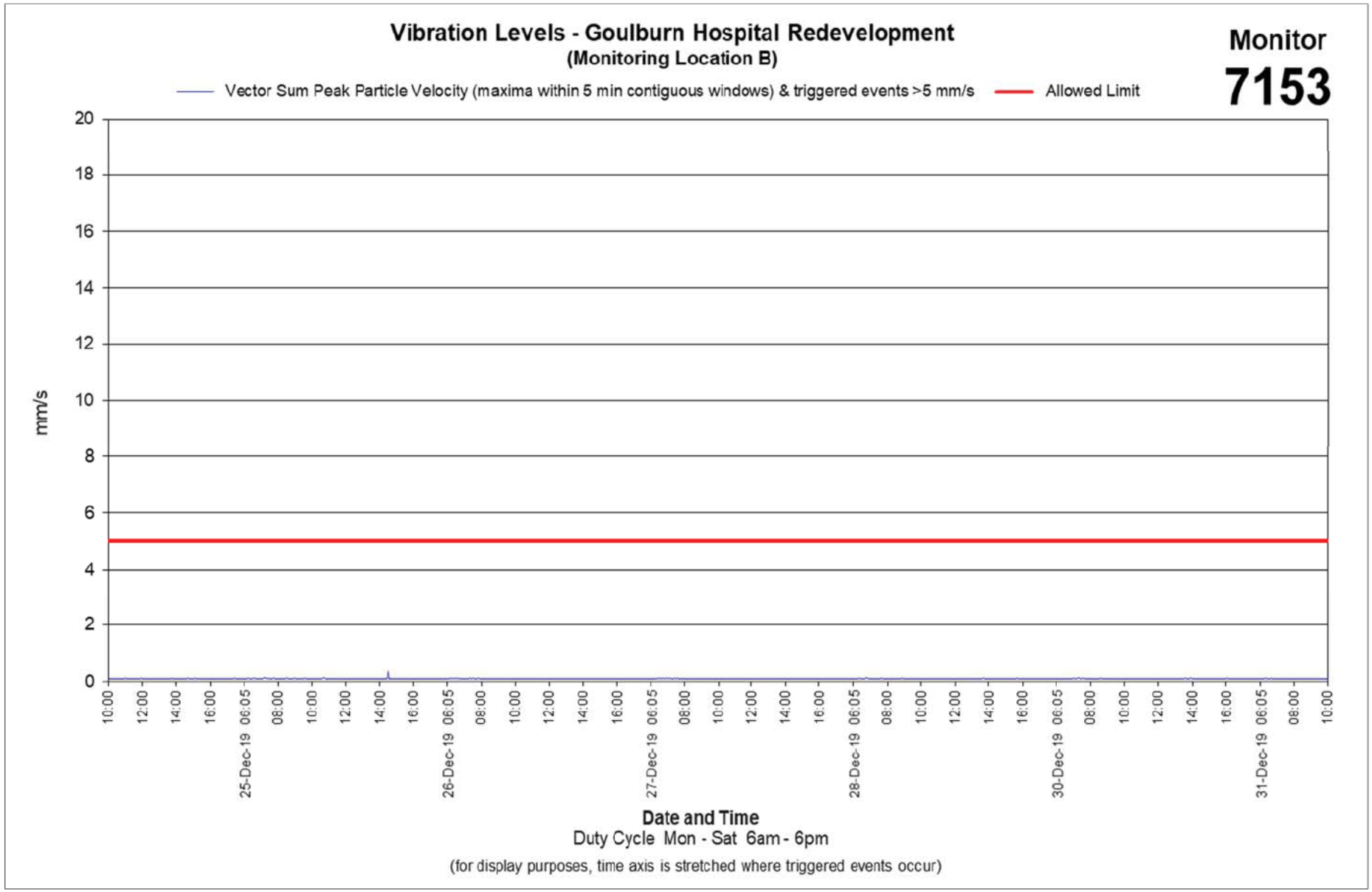
Date and Time
Duty Cycle Mon - Sat 6am - 6pm
(for display purposes, time axis is stretched where triggered events occur)


Vibration Levels - Goulburn Hospital Redevelopment
(Monitoring Location B)
Monitor
7153
Vector Sum Peak Particle Velocity (maxima within 5 min contiguous windows) & triggered events >5 mm/s
Allowed Limit
mm/s
20
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25-Dec-19 06:05
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26-Dec-19 06:05
08:00
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27-Dec-19 06:05
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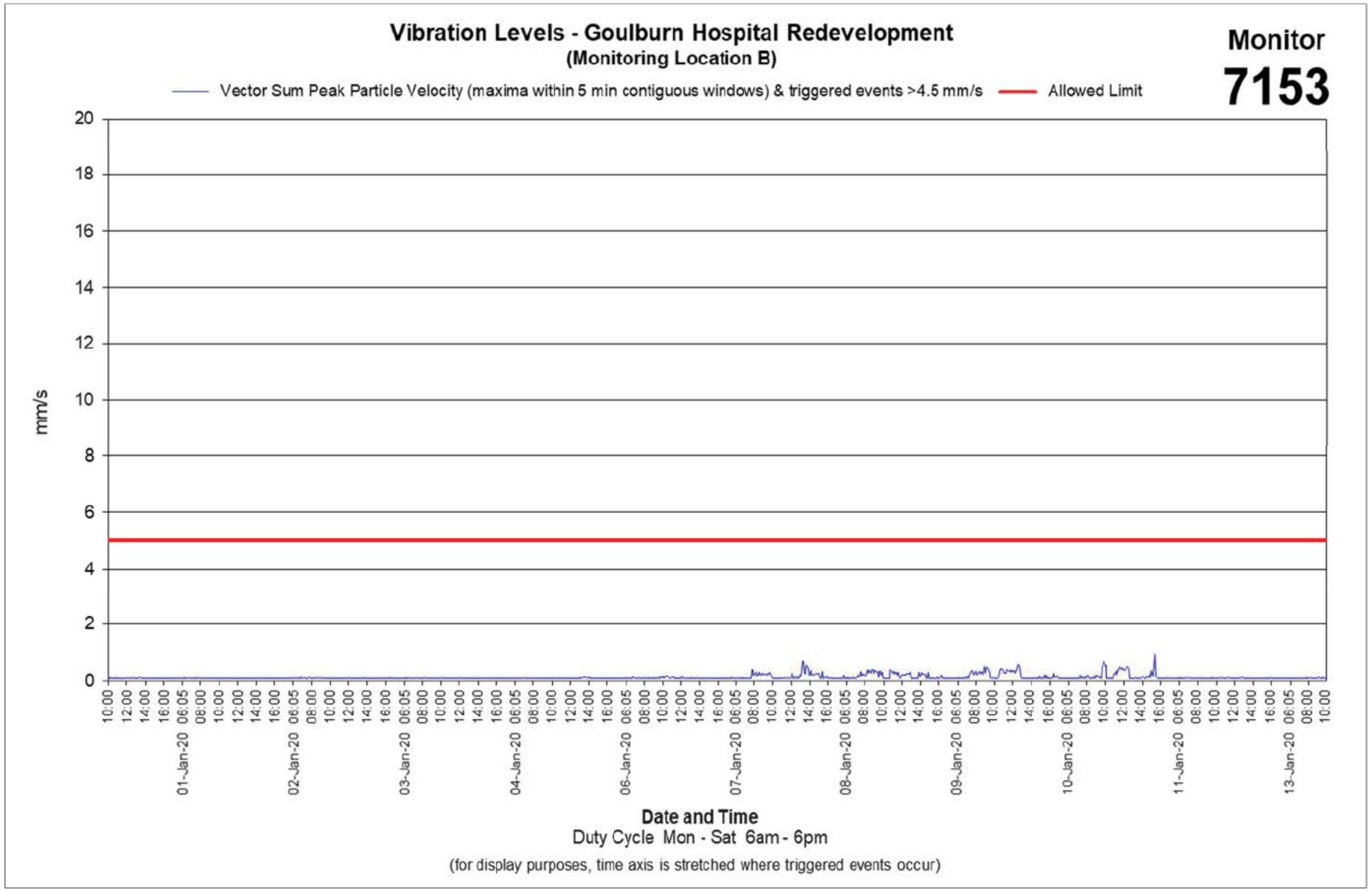
Date and Time
Duty Cycle Mon - Sat 6am - 6pm
(for display purposes, time axis is stretched where triggered events occur)


Vibration Levels - Goulburn Hospital Redevelopment
(Monitoring Location B)
Monitor
7153
Vector Sum Peak Particle Velocity (maxima within 5 min contiguous windows) & triggered events >4.5 mm/s
Allowed Limit
mm/s
20
18
16
14
12
10
8
6
4
2
0
01-Jan-20
02-Jan-20
03-Jan-20
04-Jan-20
06-Jan-20
07-Jan-20
08-Jan-20
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Duty Cycle Mon - Sat 6am - 6pm
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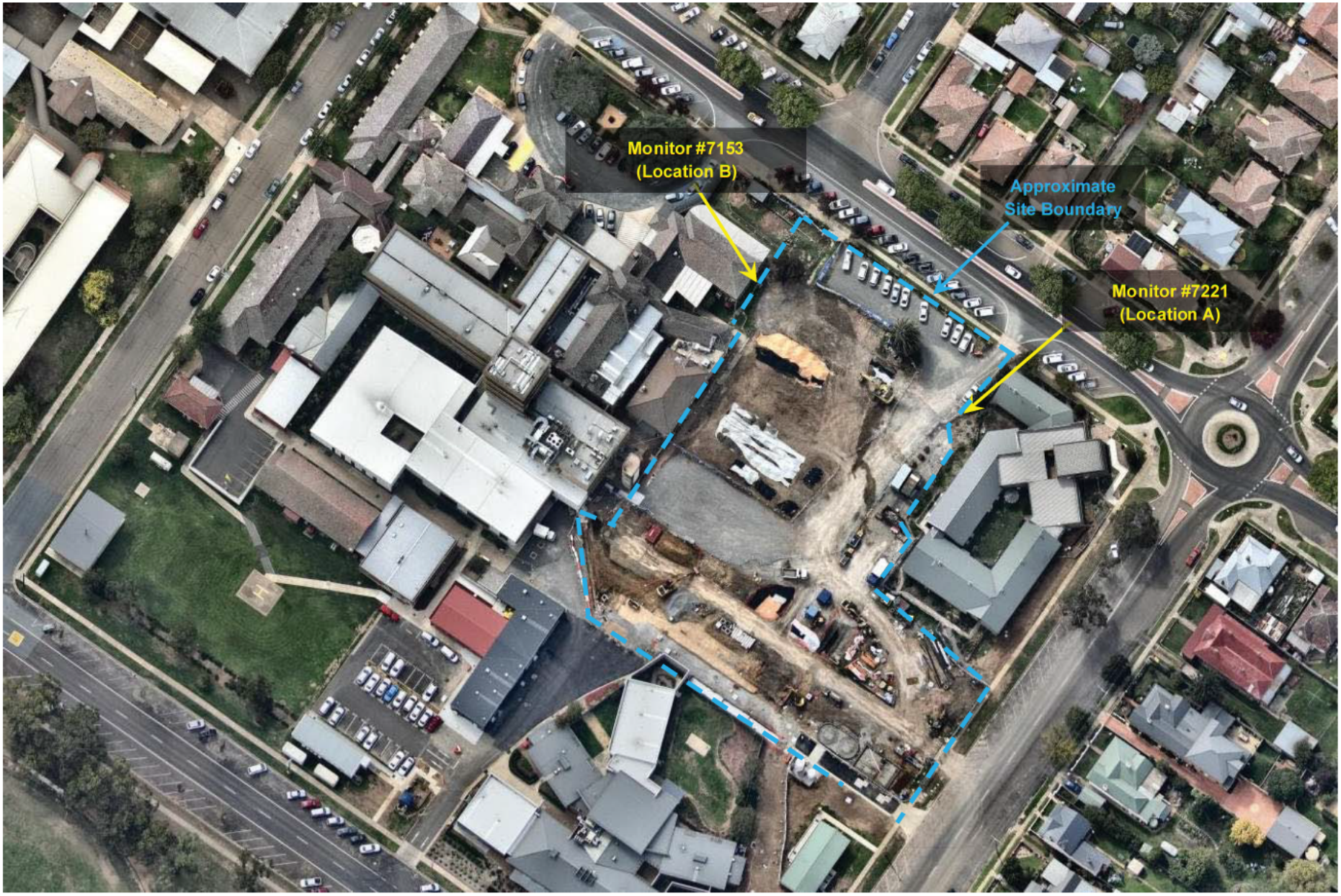
Monitor #7153
(Location B)
Approximate
Site Boundary
Monitor #7221
(Location A)

About this Report

Douglas Partners

Introduction

These notes have been provided to amplify DP's report in regard to classification methods, field procedures and the comments section. Not all are necessarily relevant to all reports.

DP's reports are based on information gained from limited subsurface excavations and sampling, supplemented by knowledge of local geology and experience. For this reason, they must be regarded as interpretive rather than factual documents, limited to some extent by the scope of information on which they rely.

Copyright

Borehole and Test Pit Logs

The borehole and test pit logs presented in this report are an engineering and/or geological interpretation of the subsurface conditions, and their reliability will depend to some extent on frequency of sampling and the method of drilling or excavation. Ideally, continuous undisturbed sampling or core drilling will provide the most reliable assessment, but this is not always practicable or possible to justify on economic grounds. In any case the boreholes and test pits represent only a very small sample of the total subsurface profile.

Interpretation of the information and its application to design and construction should therefore take into account the spacing of boreholes or pits, the frequency of sampling, and the possibility of other than 'straight line' variations between the test locations.

Groundwater

Where groundwater levels are measured in boreholes there are several potential problems, namely:

- In low permeability soils groundwater may enter the hole very slowly or perhaps not at all during the time the hole is left open;
- A localised, perched water table may lead to an erroneous indication of the true water table;
- Water table levels will vary from time to time with seasons or recent weather changes. They may not be the same at the time of construction as are indicated in the report; and
- The use of water or mud as a drilling fluid will mask any groundwater inflow. Water has to be blown out of the hole and drilling mud must first be washed out of the hole if water measurements are to be made.

More reliable measurements can be made by installing standpipes which are read at intervals over several days, or perhaps weeks for low permeability soils. Piezometers, sealed in a particular stratum, may be advisable in low permeability soils or where there may be interference from a perched water table.

Reports

The report has been prepared by qualified personnel, is based on the information obtained from field and laboratory testing, and has been undertaken to current engineering standards of interpretation and analysis. Where the report has been prepared for a specific design proposal, the information and interpretation may not be relevant if the design proposal is changed. If this happens, DP will be pleased to review the report and the sufficiency of the investigation work.

Every care is taken with the report as it relates to interpretation of subsurface conditions, discussion of geotechnical and environmental aspects, and recommendations or suggestions for design and construction. However, DP cannot always anticipate or assume responsibility for:

- Unexpected variations in ground conditions. The potential for this will depend partly on borehole or pit spacing and sampling frequency;
- Changes in policy or interpretations of policy by statutory authorities; or
- The actions of contractors responding to commercial pressures.

If these occur, DP will be pleased to assist with investigations or advice to resolve the matter.

About this Report

Site Anomalies

In the event that conditions encountered on site during construction appear to vary from those which were expected from the information contained in the report, DP requests that it be immediately notified. Most problems are much more readily resolved when conditions are exposed rather than at some later stage, well after the event.

Information for Contractual Purposes

Where information obtained from this report is provided for tendering purposes, it is recommended that all information, including the written report and discussion, be made available. In circumstances where the discussion or comments section is not relevant to the contractual situation, it may be appropriate to prepare a specially edited document. DP would be pleased to assist in this regard and/or to make additional report copies available for contract purposes at a nominal charge.

Site Inspection

The company will always be pleased to provide engineering inspection services for geotechnical and environmental aspects of work to which this report is related. This could range from a site visit to confirm that conditions exposed are as expected, to full time engineering presence on site.

Douglas Partners Pty Ltd
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96 Hermitage Road
West Ryde NSW 2114
PO Box 472
West Ryde NSW 1685
Phone (02) 9809 0666

Memorandum

To	[redacted] Hansen Yuncken Pty Ltd	[redacted]	
From	[redacted]	**Date**	12 Feb 2020
Subject	Vibration Monitoring Report 2 Goulburn Base Hospital Redevelopment	**Project No.** **Doc. No.**	94054.07 94054.07.R.002.Rev0

Installation and Monitoring

On 21 January 2020 Texcel Construction Vibration Monitors #7221, #7153 were relocated to the positions shown in the attached Monitoring Location Plan, before the start of augered piling. Both monitors were coupled to the ground with a surcharge, close to and at ground level of the adjacent building, which includes Pathology (upper floor) and the Mortuary (lower floor). The monitors were installed to manage vibrations generated during piling works.

With reference to the CNVMP (the Monitoring Plan), "Allowed Vibration Limits" of 25 mm/s vector sum peak particle velocity (VSPPV) was assigned by DP based on the potential for damage to the adjacent structures and a Vibration Dose Value (VDV) of 0.20 $m/s^{1.75}$ for comfort of the occupants (whole body vibration). The monitors were configured for continuous monitoring Mon - Sat, 6 am - 6 pm, with SMS (text message) alarms to be sent automatically to Eugene Godfrey and DP in the event of vibration exceedances (vibration levels exceeding 7 mm/s VSPPV, as a contingency for impulsive events).

The eVDV shown in the attached graphs is a calculated estimate of VDV from velocity data rather than acquired acceleration data. The Dose Rate and Maximum Values refer to accumulated vibration activity per day during daytime hours and includes summations of RMS velocities, wavelength durations and amplitudes (as detailed in NSW EPA Assessing Vibration: A Technical Guideline, February 2006). "Critical Areas" includes hospital operating theatres and precision laboratories where sensitive operations are occurring, and these criteria are indicative only, therefore consideration of continuous and impulsive vibrations is included (as recommended), see attached graphs. The table of acceptable daily Dose Values, Table 2.4, includes a "Preferred Value", being half of the "Maximum Value".

Outcome this period: 21-27 January 2020

Location	Monitor	Exceedances		Time of maximum exceedance
		No.	Max (VSPPV)	
Monitoring Location A	7221	0	n/a	n/a
Monitoring Location B	7153	0	n/a	n/a

Douglas Partners Pty Ltd

[redacted]

Senior Geophysicist

Reviewed by

[redacted]

Principal

Attachments: Graphs of Vibration Levels, Monitor Location Plan, About This Report

Limitations

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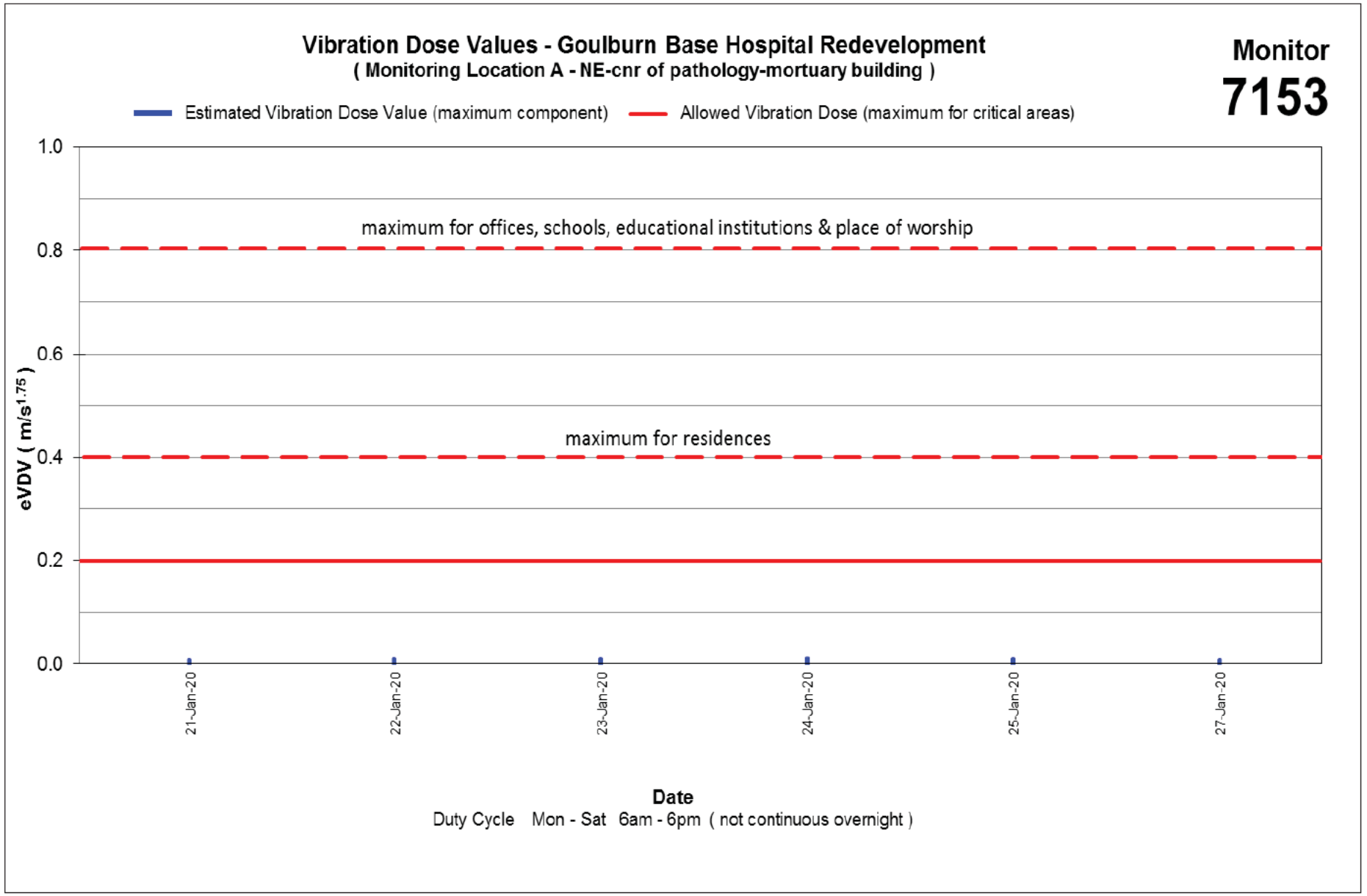
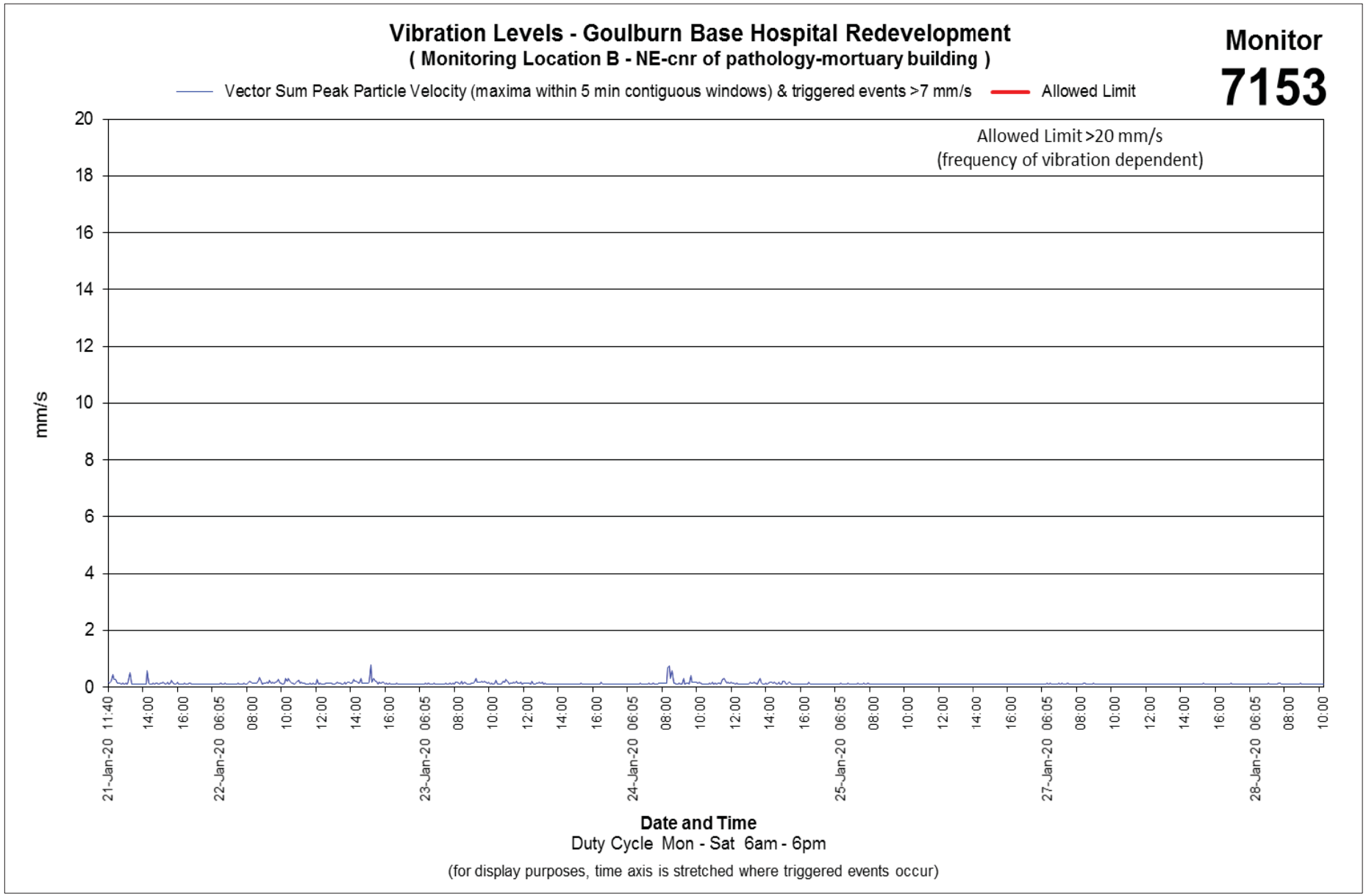

Vibration Dose Values - Goulburn Base Hospital Redevelopment
(Monitoring Location A - NE-cnr of pathology-mortuary building)
Monitor
7153
Estimated Vibration Dose Value (maximum component)
Allowed Vibration Dose (maximum for critical areas)
1.0
0.8
0.6
0.4
0.2
0.0
eVDV (m/s1.75)
maximum for offices, schools, educational institutions & place of worship
maximum for residences
21-Jan-20
22-Jan-20
23-Jan-20
24-Jan-20
25-Jan-20
27-Jan-20
Date
Duty Cycle Mon - Sat 6am - 6pm (not continuous overnight)


Vibration Levels - Goulburn Base Hospital Redevelopment
(Monitoring Location B - NE-cnr of pathology-mortuary building)
Monitor
7153
Vector Sum Peak Particle Velocity (maxima within 5 min contiguous windows) & triggered events >7 mm/s
Allowed Limit
Allowed Limit >20 mm/s
(frequency of vibration dependent)
mm/s
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21-Jan-20 11:40
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22-Jan-20 06:05
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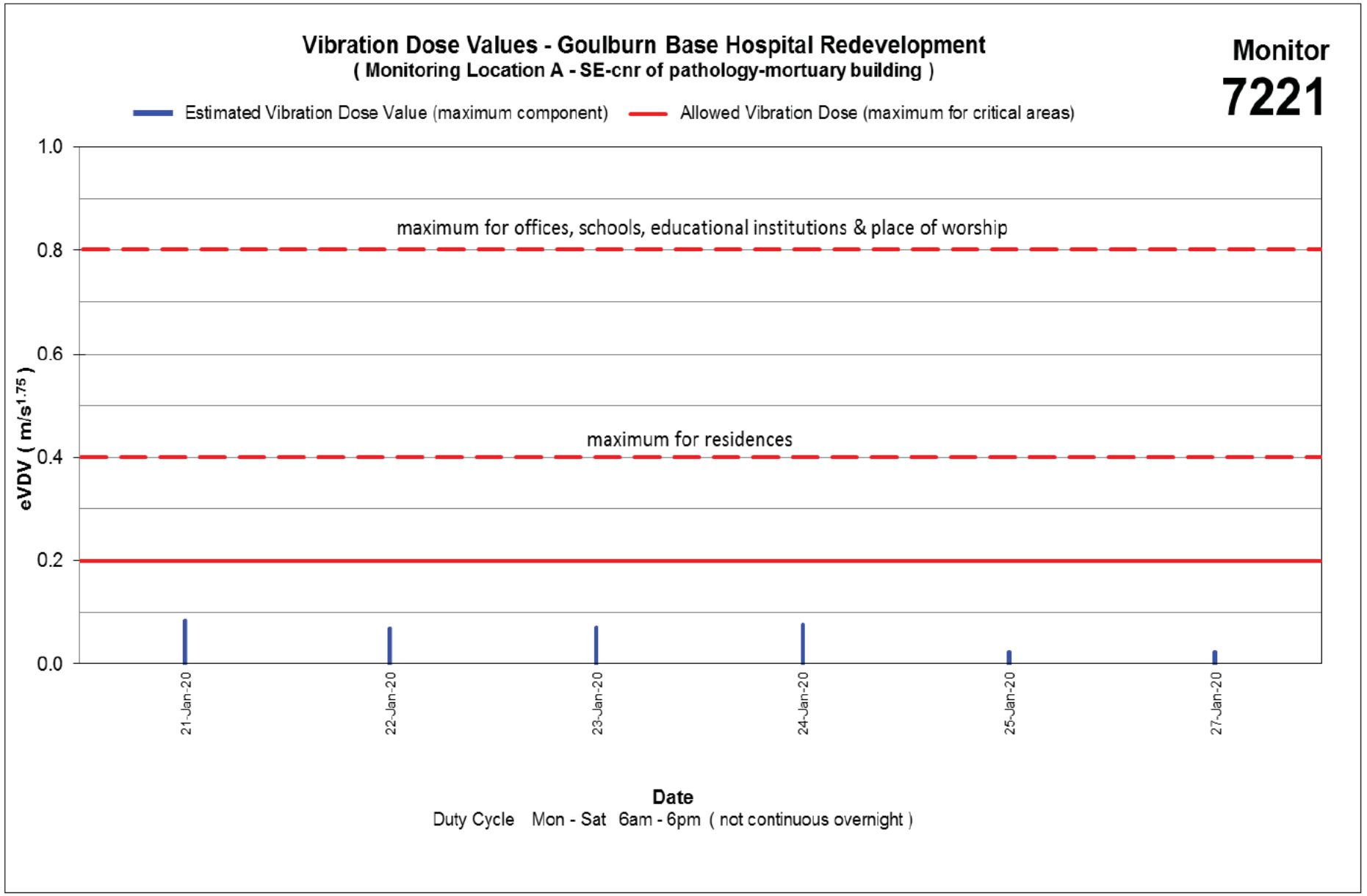
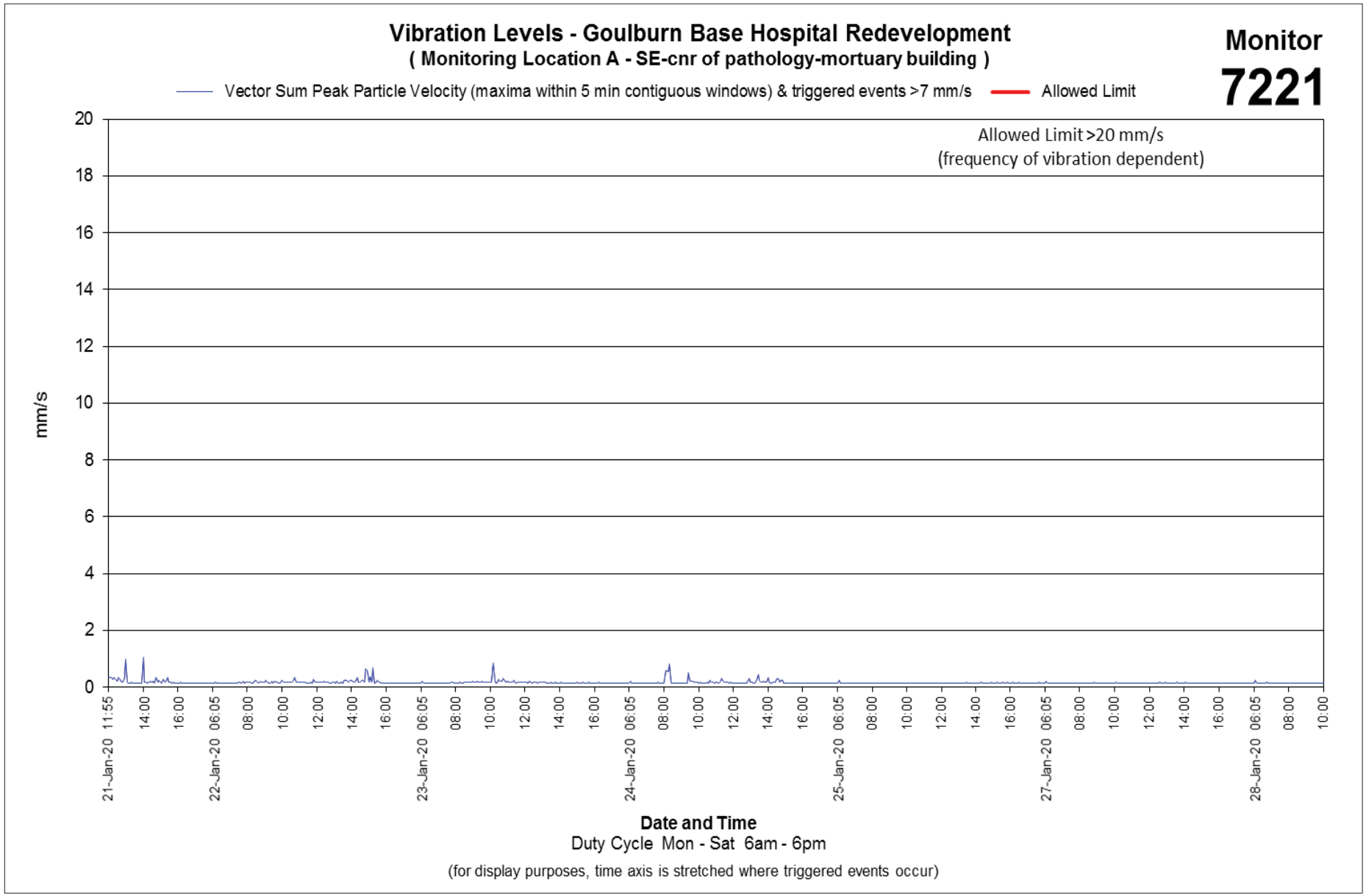
Date and Time
Duty Cycle Mon - Sat 6am - 6pm
(for display purposes, time axis is stretched where triggered events occur)


Vibration Dose Values - Goulburn Base Hospital Redevelopment
(Monitoring Location A - SE-cnr of pathology-mortuary building)
Monitor
7221
Estimated Vibration Dose Value (maximum component)
Allowed Vibration Dose (maximum for critical areas)
1.0
0.8
0.6
0.4
0.2
0.0
eVDV (m/s1.75)
maximum for offices, schools, educational institutions & place of worship
maximum for residences
21-Jan-20
22-Jan-20
23-Jan-20
24-Jan-20
25-Jan-20
27-Jan-20
Date
Duty Cycle Mon - Sat 6am - 6pm (not continuous overnight)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(Monitoring Location A - SE-cnr of pathology-mortuary building)
Monitor
7221
Vector Sum Peak Particle Velocity (maxima within 5 min contiguous windows) & triggered events >7 mm/s
Allowed Limit
Allowed Limit >20 mm/s
(frequency of vibration dependent)
mm/s
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21-Jan-20 11:55
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22-Jan-20 06:05
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23-Jan-20 06:05
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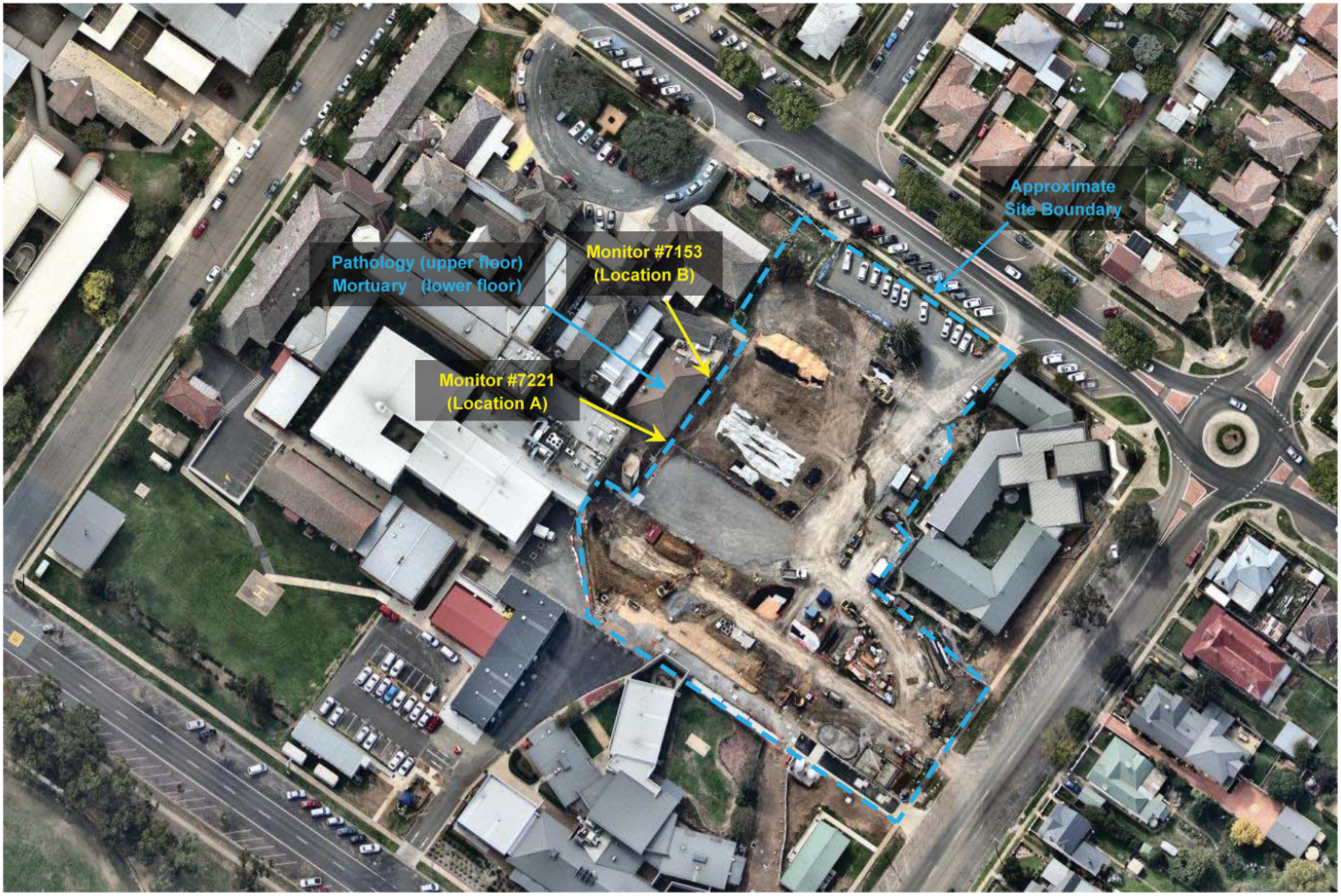

Approximate
Site Boundary
Pathology (upper floor)
Mortuary (lower floor)
Monitor #7153
(Location B)
Monitor #7221
(Location A)

About this Report

Douglas Partners

Introduction

These notes have been provided to amplify DP's report in regard to classification methods, field procedures and the comments section. Not all are necessarily relevant to all reports.

DP's reports are based on information gained from limited subsurface excavations and sampling, supplemented by knowledge of local geology and experience. For this reason, they must be regarded as interpretive rather than factual documents, limited to some extent by the scope of information on which they rely.

Copyright

Borehole and Test Pit Logs

The borehole and test pit logs presented in this report are an engineering and/or geological interpretation of the subsurface conditions, and their reliability will depend to some extent on frequency of sampling and the method of drilling or excavation. Ideally, continuous undisturbed sampling or core drilling will provide the most reliable assessment, but this is not always practicable or possible to justify on economic grounds. In any case the boreholes and test pits represent only a very small sample of the total subsurface profile.

Interpretation of the information and its application to design and construction should therefore take into account the spacing of boreholes or pits, the frequency of sampling, and the possibility of other than 'straight line' variations between the test locations.

Groundwater

Where groundwater levels are measured in boreholes there are several potential problems, namely:

- In low permeability soils groundwater may enter the hole very slowly or perhaps not at all during the time the hole is left open;
- A localised, perched water table may lead to an erroneous indication of the true water table;
- Water table levels will vary from time to time with seasons or recent weather changes. They may not be the same at the time of construction as are indicated in the report; and
- The use of water or mud as a drilling fluid will mask any groundwater inflow. Water has to be blown out of the hole and drilling mud must first be washed out of the hole if water measurements are to be made.

More reliable measurements can be made by installing standpipes which are read at intervals over several days, or perhaps weeks for low permeability soils. Piezometers, sealed in a particular stratum, may be advisable in low permeability soils or where there may be interference from a perched water table.

Reports

The report has been prepared by qualified personnel, is based on the information obtained from field and laboratory testing, and has been undertaken to current engineering standards of interpretation and analysis. Where the report has been prepared for a specific design proposal, the information and interpretation may not be relevant if the design proposal is changed. If this happens, DP will be pleased to review the report and the sufficiency of the investigation work.

Every care is taken with the report as it relates to interpretation of subsurface conditions, discussion of geotechnical and environmental aspects, and recommendations or suggestions for design and construction. However, DP cannot always anticipate or assume responsibility for:

- Unexpected variations in ground conditions. The potential for this will depend partly on borehole or pit spacing and sampling frequency;
- Changes in policy or interpretations of policy by statutory authorities; or
- The actions of contractors responding to commercial pressures.

If these occur, DP will be pleased to assist with investigations or advice to resolve the matter.

About this Report

Site Anomalies

In the event that conditions encountered on site during construction appear to vary from those which were expected from the information contained in the report, DP requests that it be immediately notified. Most problems are much more readily resolved when conditions are exposed rather than at some later stage, well after the event.

Information for Contractual Purposes

Where information obtained from this report is provided for tendering purposes, it is recommended that all information, including the written report and discussion, be made available. In circumstances where the discussion or comments section is not relevant to the contractual situation, it may be appropriate to prepare a specially edited document. DP would be pleased to assist in this regard and/or to make additional report copies available for contract purposes at a nominal charge.

Site Inspection

The company will always be pleased to provide engineering inspection services for geotechnical and environmental aspects of work to which this report is related. This could range from a site visit to confirm that conditions exposed are as expected, to full time engineering presence on site.

Douglas Partners Pty Ltd
ABN 75 053 980 117
www.douglaspartners.com au
96 Hermitage Road
West Ryde NSW 2114
PO Box 472
West Ryde NSW 1685
Phone (02) 9809 0666

Memorandum

To	[redacted] Hansen Yuncken Pty Ltd	[redacted]	
From	[redacted]	**Date**	13 Feb 2020
Subject	Vibration Monitoring Report 3 Goulburn Base Hospital Redevelopment	**Project No.** **Doc. No.**	94054.07 94054.07.R.003.Rev0

Installation and Monitoring

On 21 January 2020 Texcel Construction Vibration Monitors #7221, #7153 were relocated to the positions shown in the attached Monitoring Location Plan, before the start of augered piling. Both monitors were coupled to the ground with a surcharge, close to and at ground level of the adjacent building, which includes Pathology (upper floor) and the Mortuary (lower floor). The monitors were installed to manage vibrations generated during piling works.

With reference to the CNVMP (the Monitoring Plan), "Allowed Vibration Limits" of 25 mm/s vector sum peak particle velocity (VSPPV) was assigned by DP based on the potential for damage to the adjacent structures and a Vibration Dose Value (VDV) of 0.20 $m/s^{1.75}$ for comfort of the occupants (whole body vibration). The monitors were configured for continuous monitoring Mon - Sat, 6 am - 6 pm, with SMS (text message) alarms to be sent automatically to Eugene Godfrey and DP in the event of vibration exceedances (vibration levels exceeding 7 mm/s VSPPV, as a contingency for impulsive events).

The eVDV shown in the attached graphs is a calculated estimate of VDV from velocity data rather than acquired acceleration data. The Dose Rate and Maximum Values refer to accumulated vibration activity per day during daytime hours and includes summations of RMS velocities, wavelength durations and amplitudes (as detailed in NSW EPA Assessing Vibration: A Technical Guideline, February 2006). "Critical Areas" includes hospital operating theatres and precision laboratories where sensitive operations are occurring, and these criteria are indicative only, therefore consideration of continuous and impulsive vibrations is included (as recommended), see attached graphs. The table of acceptable daily Dose Values, Table 2.4, includes a "Preferred Value", being half of the "Maximum Value".

Outcome this period: 28 January - 3 February 2020

Location	Monitor	Exceedances		Time of maximum exceedance
		No.	Max (VSPPV)	
Monitoring Location A	7221	0	n/a	n/a
Monitoring Location B	7153	0	n/a	n/a

Douglas Partners Pty Ltd

[redacted]

Senior Geophysicist

Reviewed by

[redacted]

Principal

Attachments: Graphs of Vibration Levels, Monitor Location Plan, About This Report

Limitations

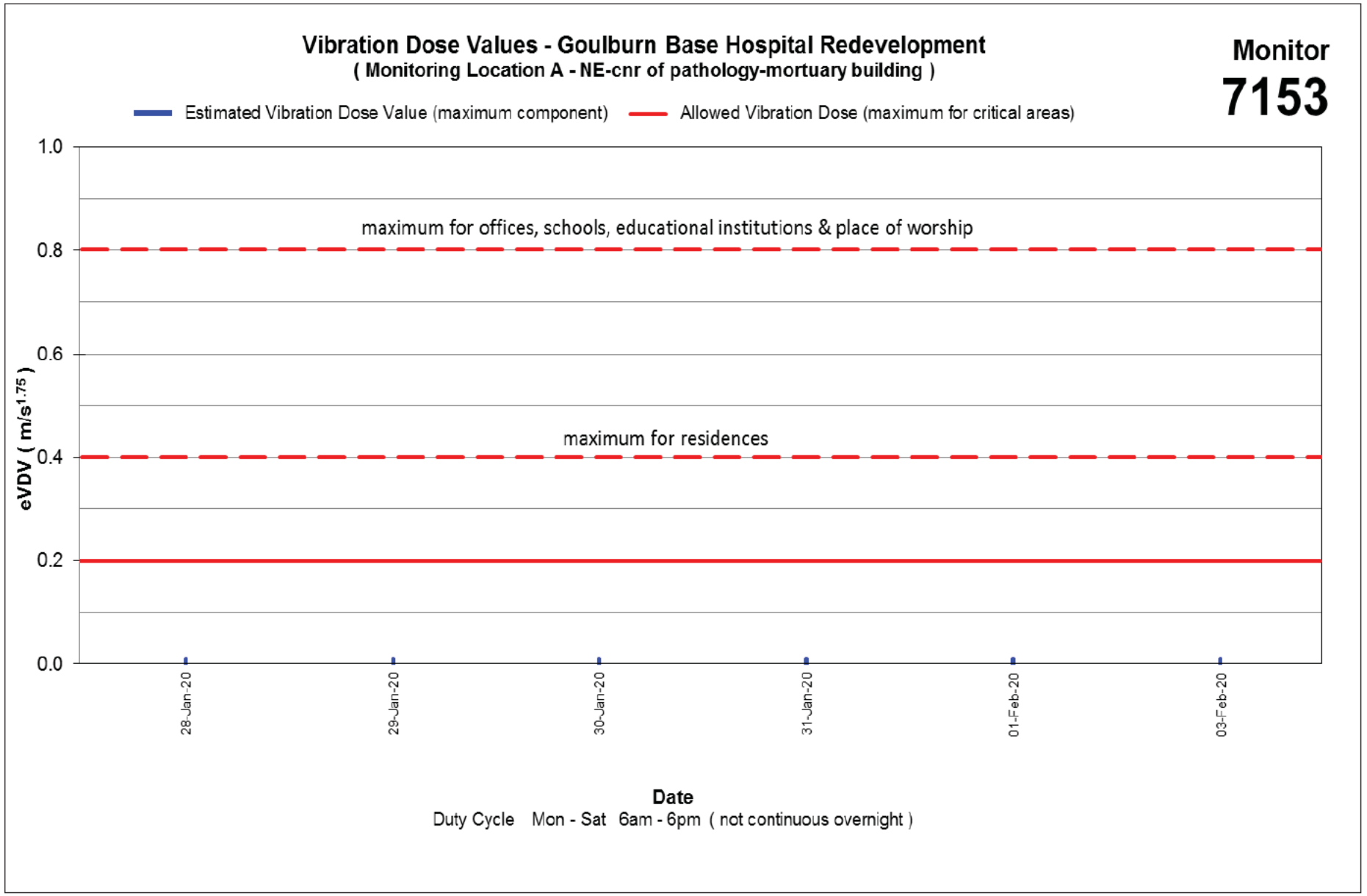
Douglas Partners Pty Ltd (DP) has prepared this report for Hansen Yuncken Pty Ltd. The report is provided for the exclusive use of Hansen Yuncken Pty Ltd for this project only and for the purpose(s) described in the report. It should not be used for other projects or by a third party. In preparing this report DP has necessarily relied upon information provided by the client and/or their agents.

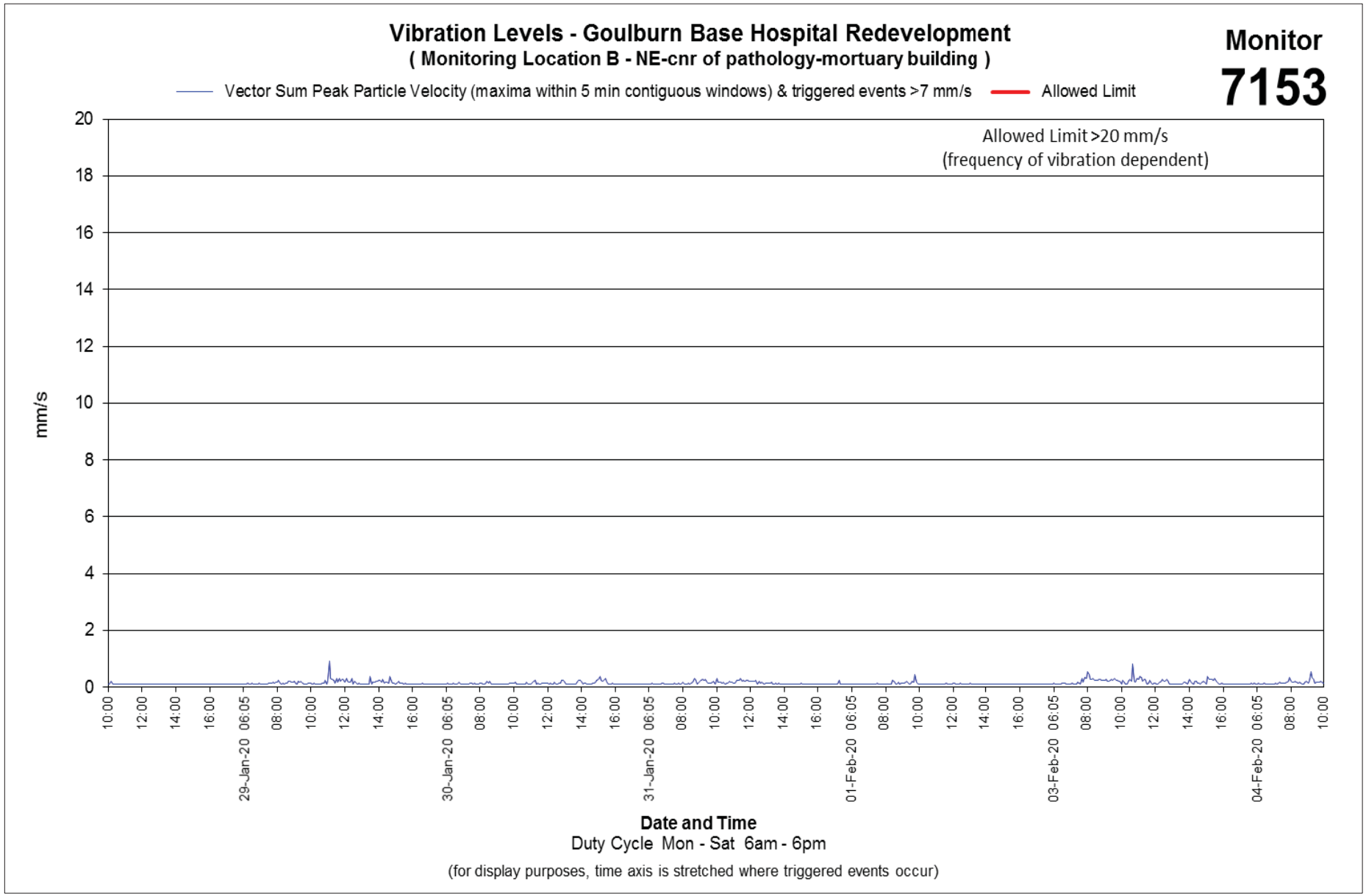
DP's advice may be based on observations, measurements, tests, or derived interpretations. The accuracy of the advice provided by DP in this report may be affected by unobserved features and variations in ground conditions and conditions affecting vibration across the site, between and beyond the testing locations or by variations with time. Vibration monitoring and advice may also be limited by budget constraints imposed by others or by site accessibility.

The results provided in the report are indicative of the vibration levels at the sensor location(s) only and only during the specified period of monitoring. Vibration levels in other locations may therefore differ from those reported herein.

As neither estimations of safe operating distances for vibrations (if provided) nor the presence of an unattended vibration monitor can prevent exceedances, the real-time management of vibration remains the responsibility of Hansen Yuncken Pty Ltd and its plant operators. Interference with (e.g. movement or damage to) the monitoring equipment may influence readings and the Client is responsible for advising DP immediately to assess whether readings are affected, re-installation and/or repair is required.

This report must be read in conjunction with all of the attached notes and should be kept in its entirety without separation of individual pages or sections. DP cannot be held responsible for interpretations or conclusions made by others unless they are supported by an expressed statement, interpretation, outcome or conclusion given in this report.


Vibration Dose Values - Goulburn Base Hospital Redevelopment
(Monitoring Location A - NE-cnr of pathology-mortuary building)
Monitor
7153
Estimated Vibration Dose Value (maximum component)
Allowed Vibration Dose (maximum for critical areas)
1.0
0.8
0.6
0.4
0.2
0.0
eVDV (m/s1.75)
maximum for offices, schools, educational institutions & place of worship
maximum for residences
28-Jan-20
29-Jan-20
30-Jan-20
31-Jan-20
01-Feb-20
03-Feb-20
Date
Duty Cycle Mon - Sat 6am - 6pm (not continuous overnight)


Vibration Levels - Goulburn Base Hospital Redevelopment
(Monitoring Location B - NE-cnr of pathology-mortuary building)
Monitor
7153
Vector Sum Peak Particle Velocity (maxima within 5 min contiguous windows) & triggered events >7 mm/s
Allowed Limit
Allowed Limit >20 mm/s
(frequency of vibration dependent)
mm/s
20
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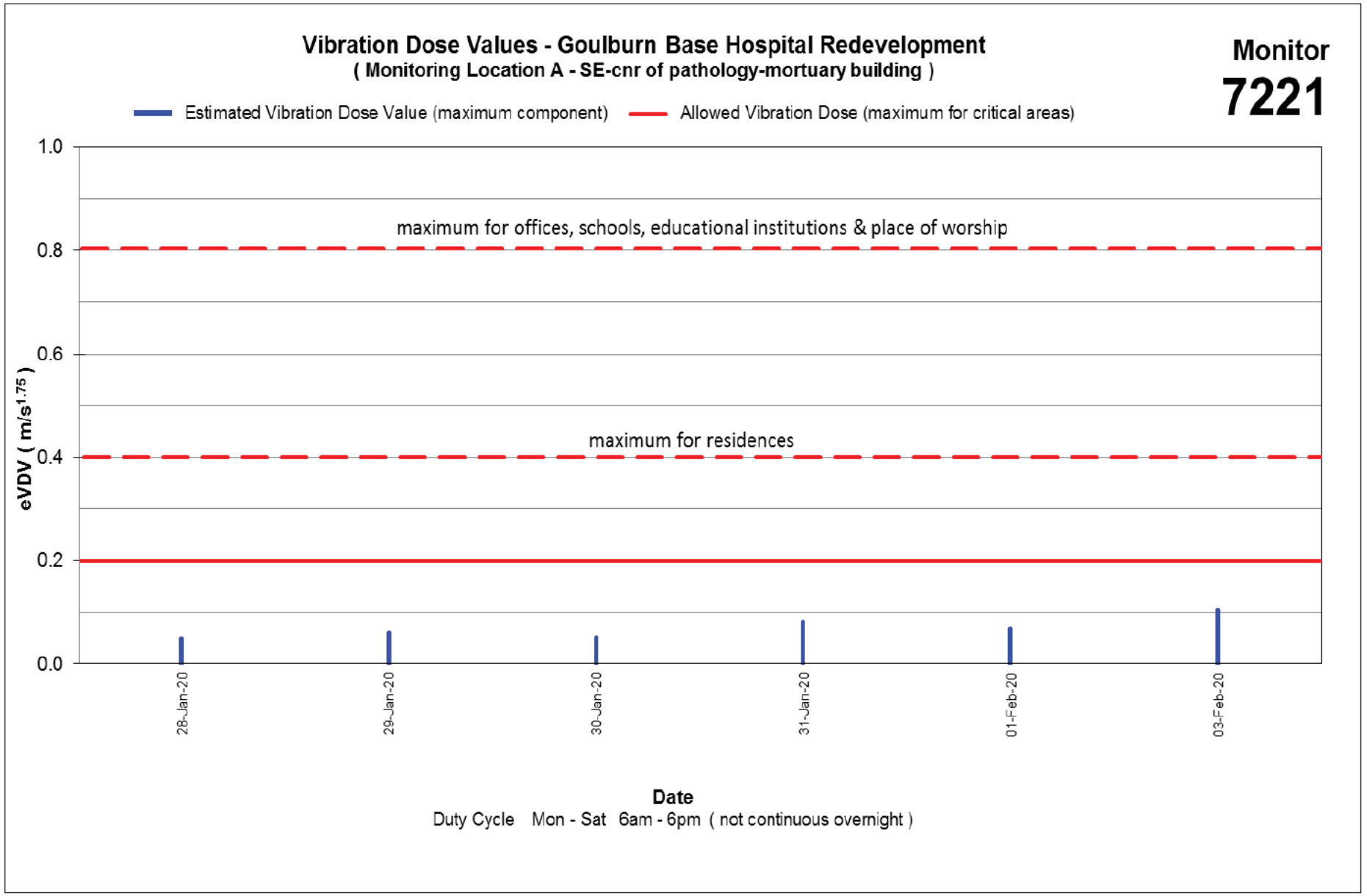
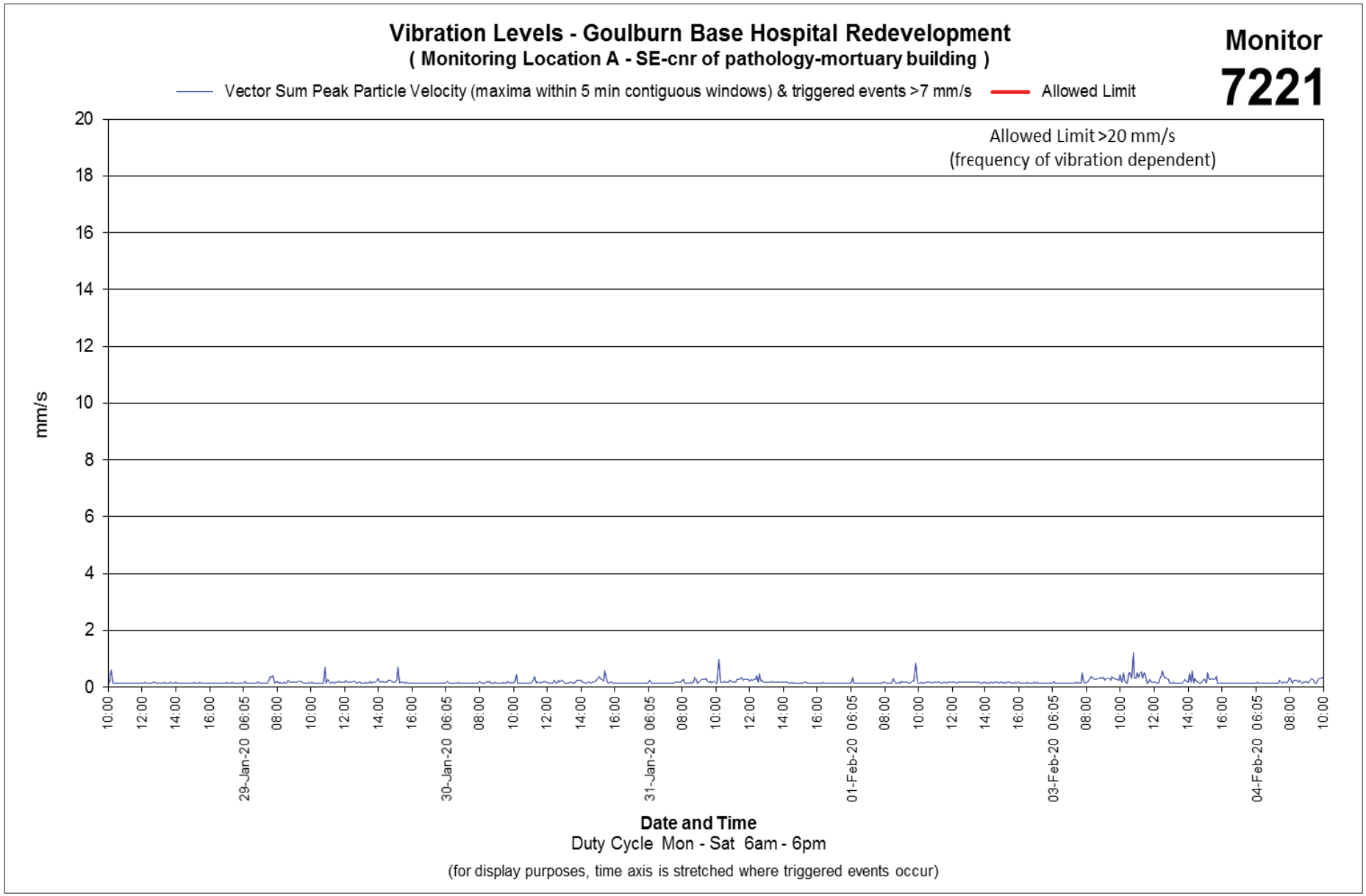
Date and Time
Duty Cycle Mon - Sat 6am - 6pm
(for display purposes, time axis is stretched where triggered events occur)


Vibration Dose Values - Goulburn Base Hospital Redevelopment
(Monitoring Location A - SE-cnr of pathology-mortuary building)
Monitor
7221
Estimated Vibration Dose Value (maximum component)
Allowed Vibration Dose (maximum for critical areas)
1.0
0.8
0.6
0.4
0.2
0.0
eVDV (m/s1.75)
maximum for offices, schools, educational institutions & place of worship
maximum for residences
28-Jan-20
29-Jan-20
30-Jan-20
31-Jan-20
01-Feb-20
03-Feb-20
Date
Duty Cycle Mon - Sat 6am - 6pm (not continuous overnight)


Vibration Levels - Goulburn Base Hospital Redevelopment
(Monitoring Location A - SE-cnr of pathology-mortuary building)
Monitor
7221
Vector Sum Peak Particle Velocity (maxima within 5 min contiguous windows) & triggered events >7 mm/s
Allowed Limit
Allowed Limit >20 mm/s
(frequency of vibration dependent)
mm/s
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30-Jan-20 06:05
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31-Jan-20 06:05
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01-Feb-20 06:05
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03-Feb-20 06:05
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Date and Time
Duty Cycle Mon - Sat 6am - 6pm
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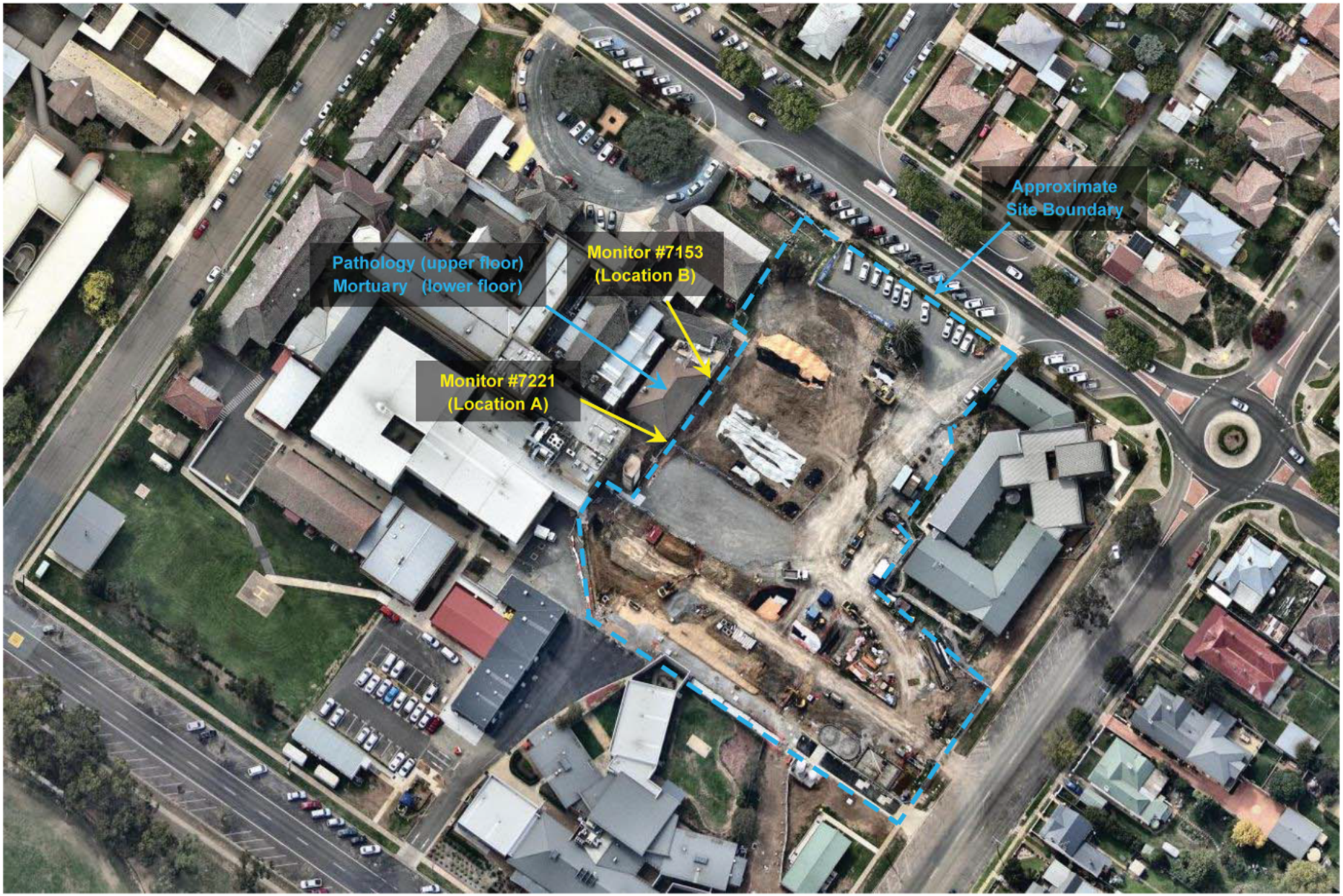
Approximate
Site Boundary
Pathology (upper floor)
Mortuary (lower floor)
Monitor #7153
(Location B)
Monitor #7221
(Location A)

About this Report

Douglas Partners

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Douglas Partners
Geotechnics / Environment / Groundwater

Douglas Partners Pty Ltd
ABN 75 053 980 117
www.douglaspartners.com au
96 Hermitage Road
West Ryde NSW 2114
PO Box 472
West Ryde NSW 1685
Phone (02) 9809 0666

Memorandum

To	[redacted] Hansen Yuncken Pty Ltd	[redacted]	
From	[redacted]	**Date**	14 Feb 2020
Subject	Vibration Monitoring Report 4 Goulburn Base Hospital Redevelopment	**Project No.** **Doc. No.**	94054.07 94054.07.R.004.Rev0

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Outcome this period: 4 - 10 February 2020

Location	Monitor	Exceedances		Time of maximum exceedance
		No.	Max (VSPPV)	
Monitoring Location A	7221	0	n/a	n/a
Monitoring Location B	7153	0	n/a	n/a

Douglas Partners Pty Ltd

[redacted]

Senior Geophysicist

Reviewed by

[redacted]

Principal

Attachments: Graphs of Vibration Levels, Monitor Location Plan, About This Report

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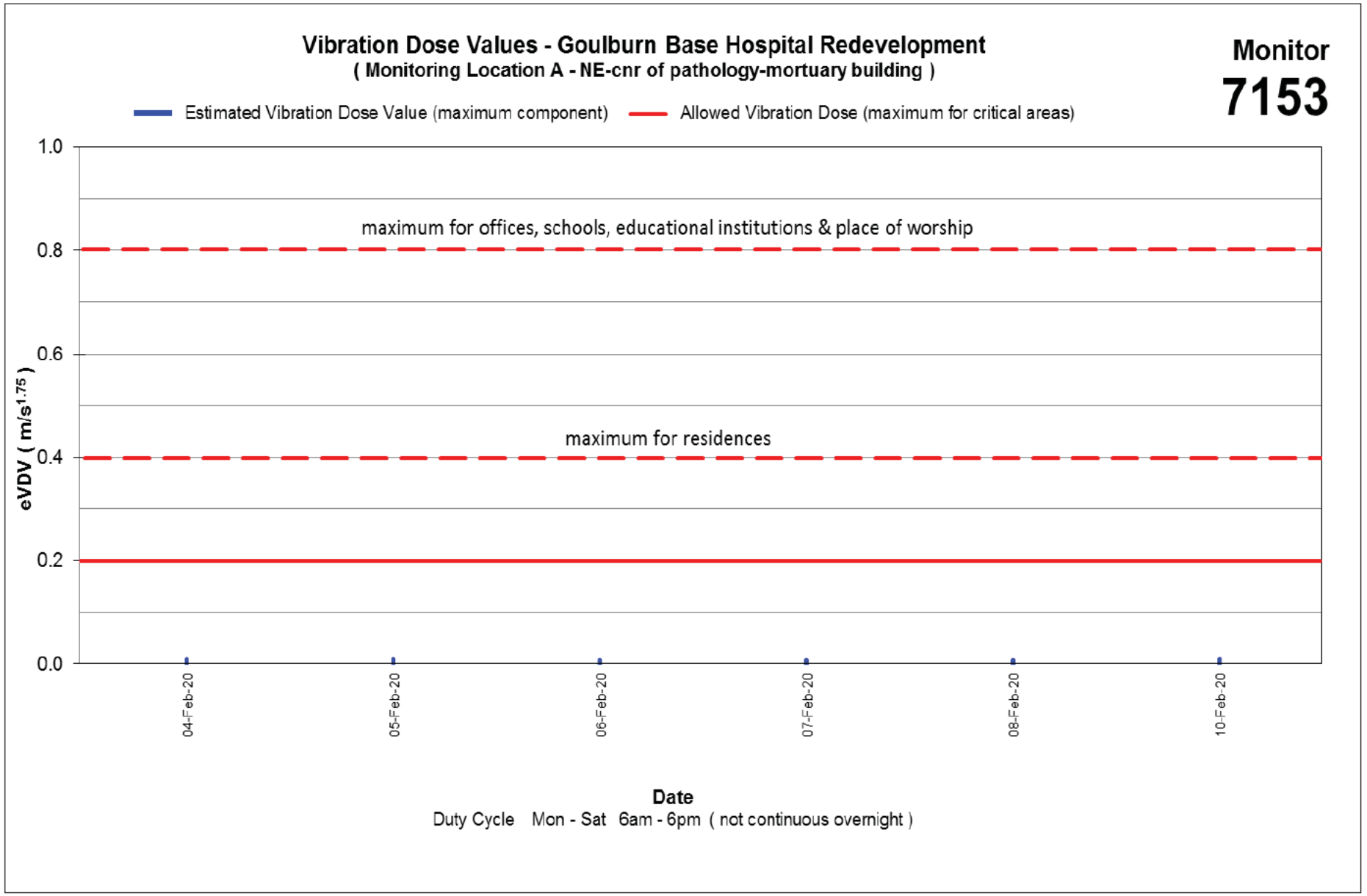
Vibration Dose Values - Goulburn Base Hospital Redevelopment
(Monitoring Location A - NE-cnr of pathology-mortuary building)
Monitor
7153
Estimated Vibration Dose Value (maximum component)
Allowed Vibration Dose (maximum for critical areas)
1.0
0.8
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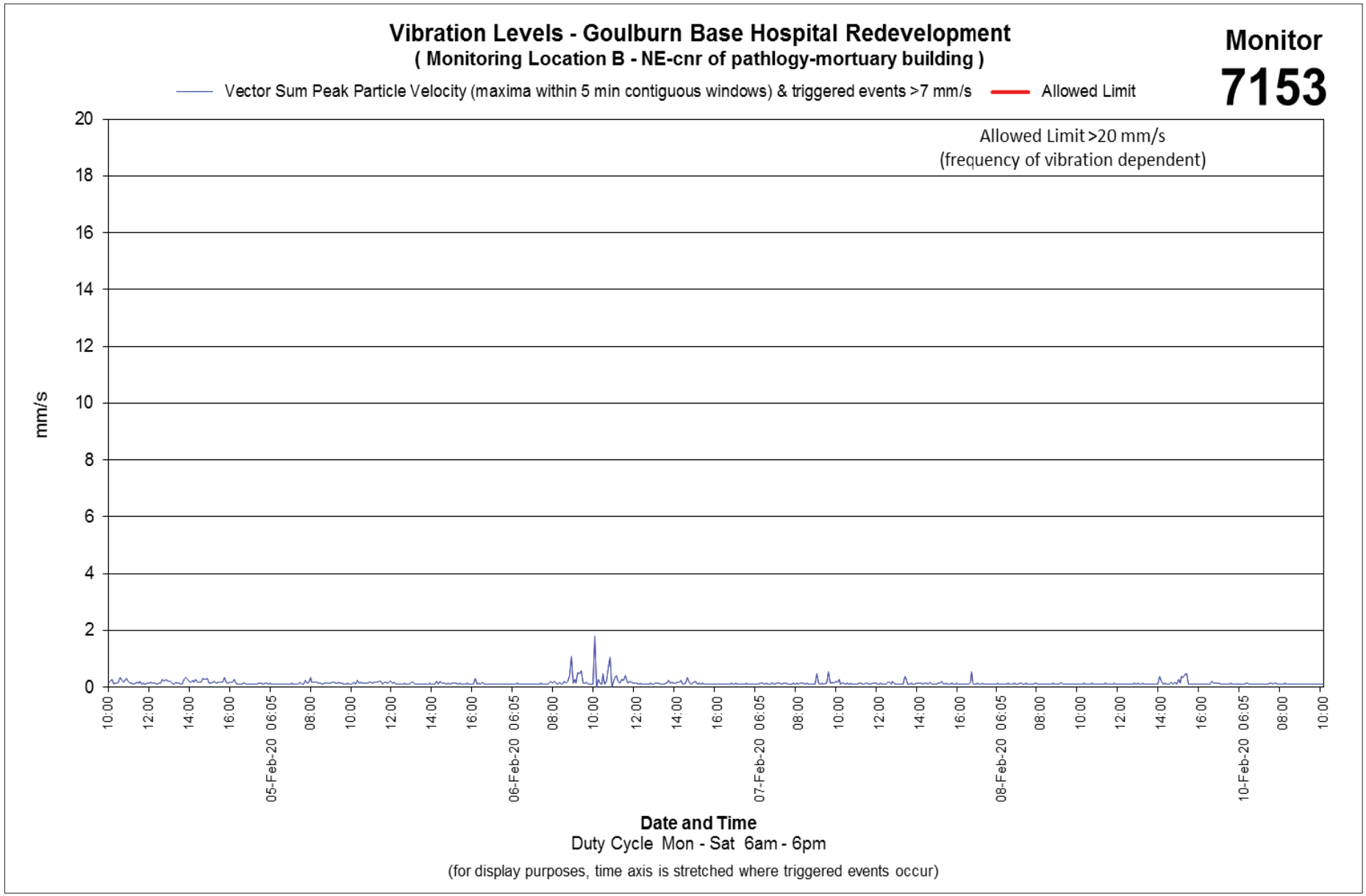
0.4
0.2
0.0
eVDV (m/s1.75)
maximum for offices, schools, educational institutions & place of worship
maximum for residences
04-Feb-20
05-Feb-20
06-Feb-20
07-Feb-20
08-Feb-20
10-Feb-20
Date
Duty Cycle Mon - Sat 6am - 6pm (not continuous overnight)


Vibration Levels - Goulburn Base Hospital Redevelopment
(Monitoring Location B - NE-cnr of pathlogy-mortuary building)
Monitor
7153
Vector Sum Peak Particle Velocity (maxima within 5 min contiguous windows) & triggered events >7 mm/s
Allowed Limit
Allowed Limit >20 mm/s
(frequency of vibration dependent)
mm/s
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10-Feb-20 06:05
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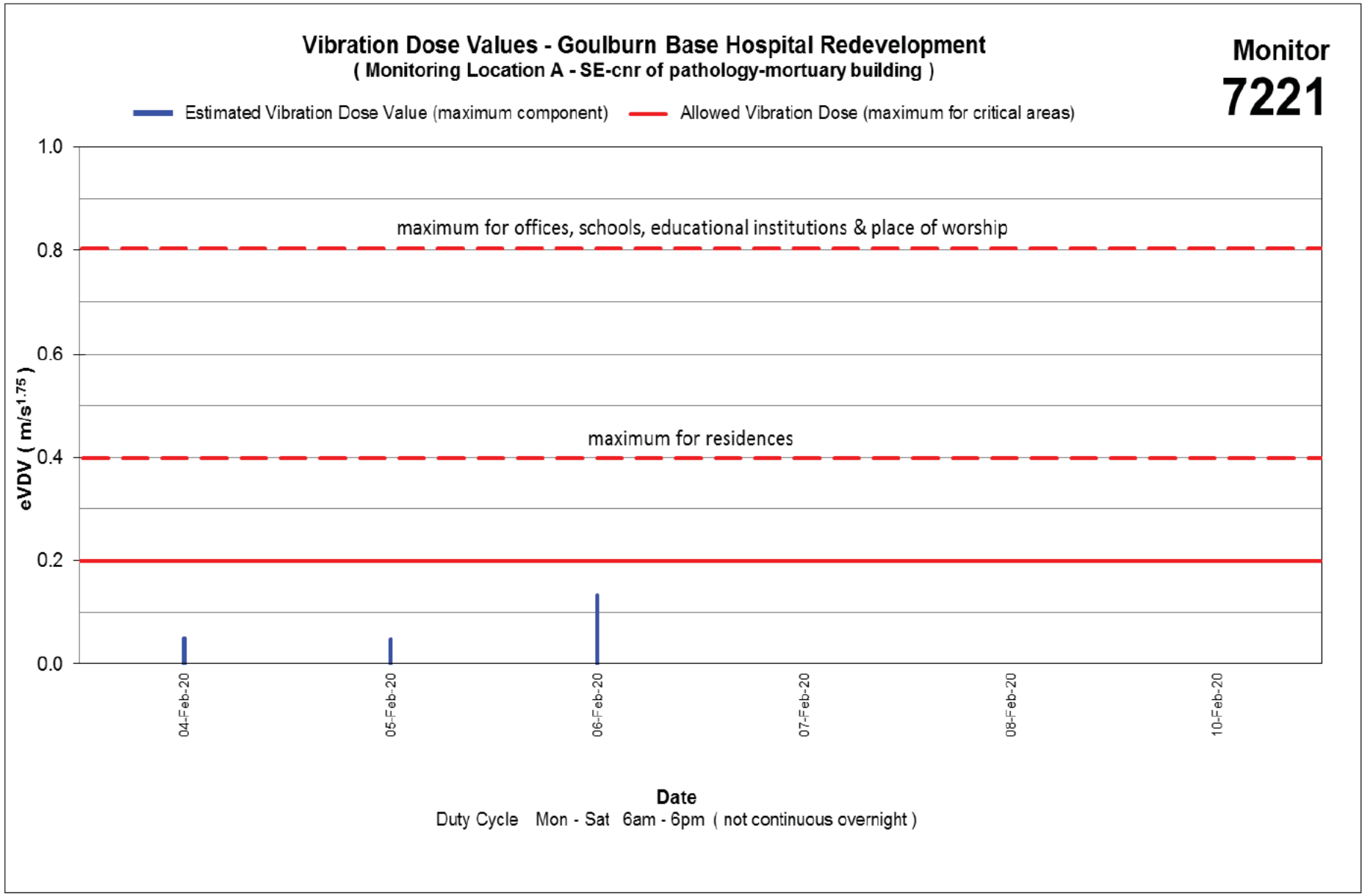
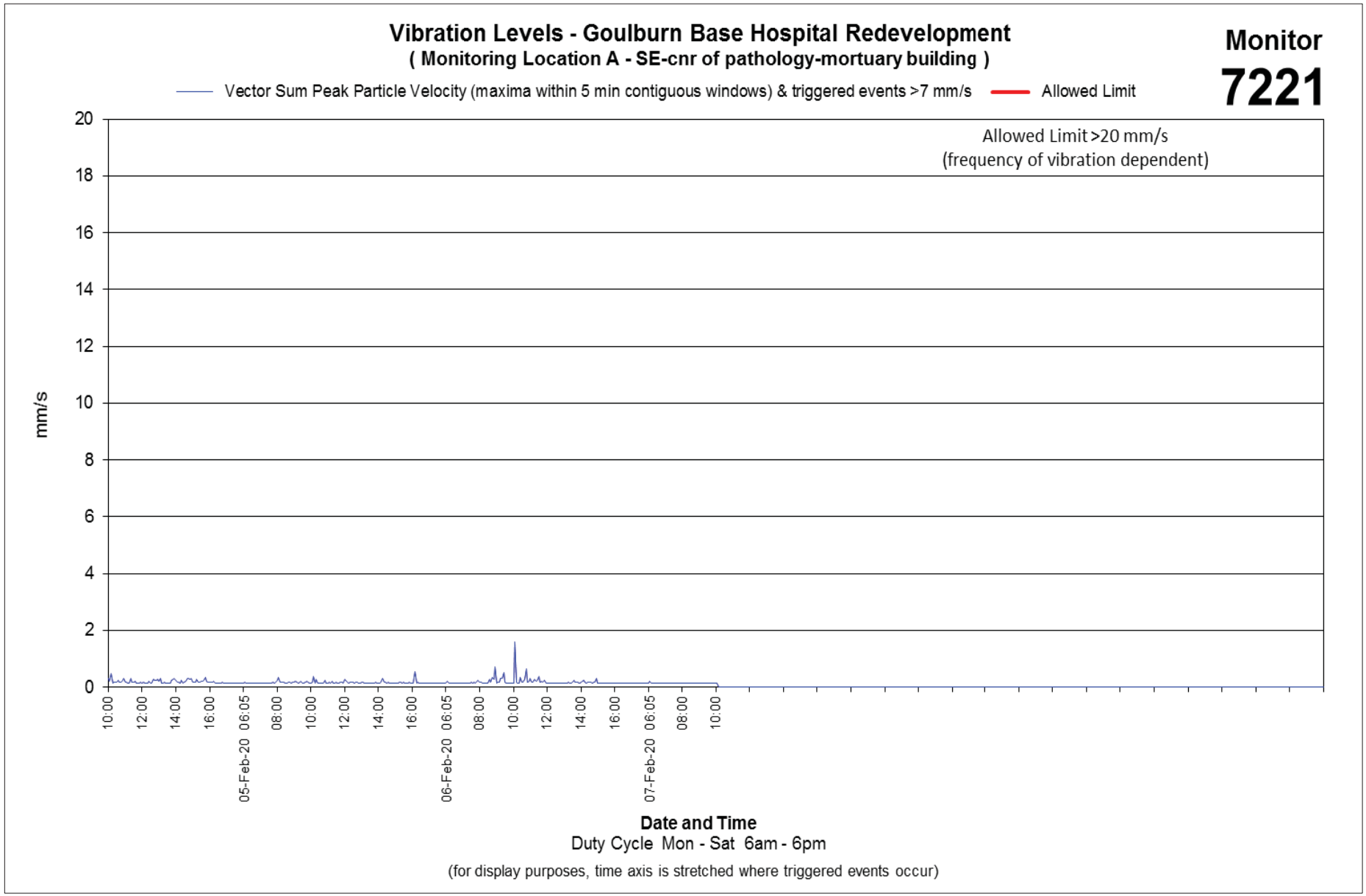
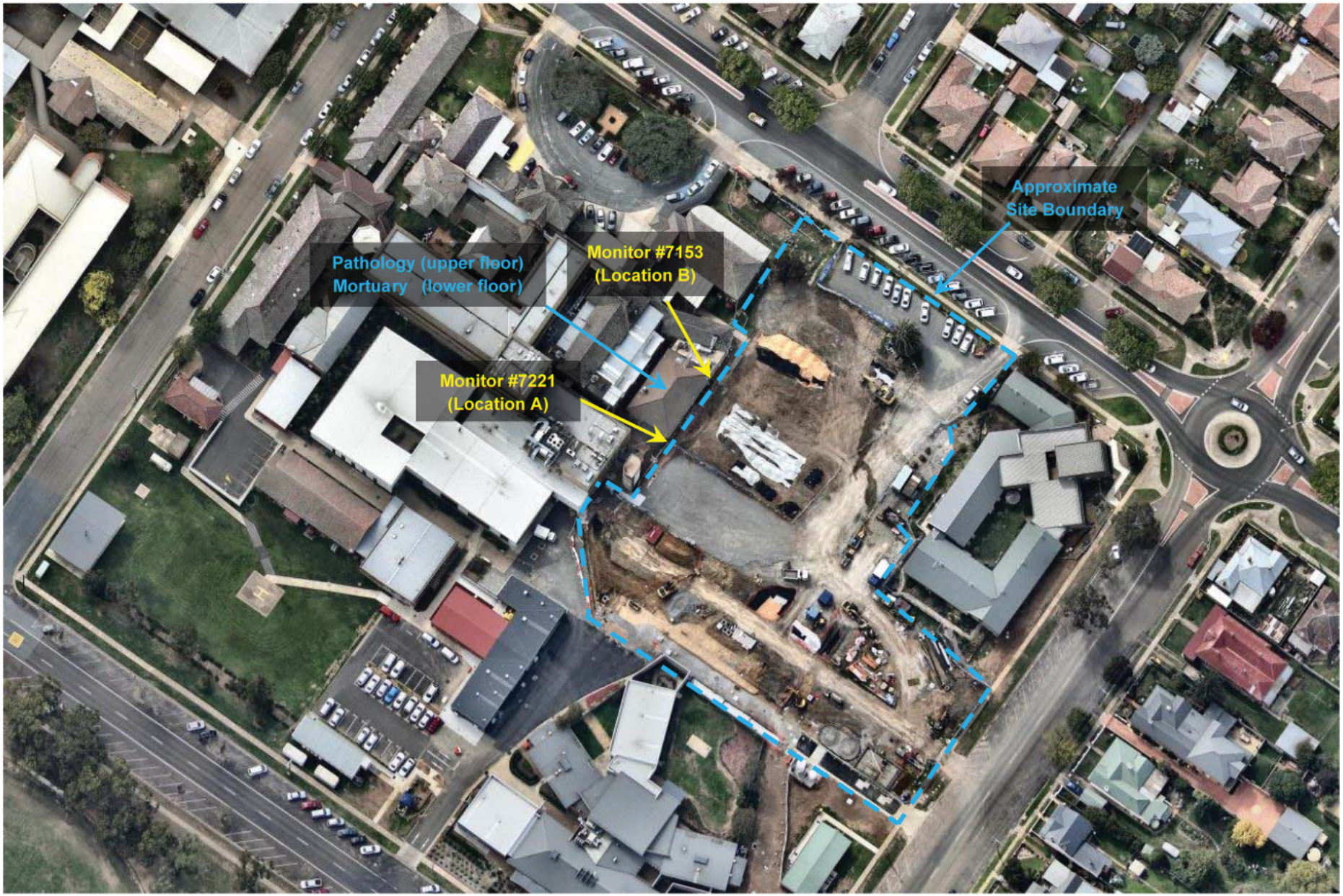
10:00
Date and Time
Duty Cycle Mon - Sat 6am - 6pm
(for display purposes, time axis is stretched where triggered events occur)


Vibration Dose Values - Goulburn Base Hospital Redevelopment
(Monitoring Location A - SE-cnr of pathology-mortuary building)
Monitor
7221
Estimated Vibration Dose Value (maximum component)
Allowed Vibration Dose (maximum for critical areas)
1.0
0.8
0.6
0.4
0.2
0.0
eVDV (m/s1.75)
maximum for offices, schools, educational institutions & place of worship
maximum for residences
04-Feb-20
05-Feb-20
06-Feb-20
07-Feb-20
08-Feb-20
10-Feb-20
Date
Duty Cycle Mon - Sat 6am - 6pm (not continuous overnight)


Vibration Levels - Goulburn Base Hospital Redevelopment
(Monitoring Location A - SE-cnr of pathology-mortuary building)
Monitor
7221
Vector Sum Peak Particle Velocity (maxima within 5 min contiguous windows) & triggered events >7 mm/s
Allowed Limit
Allowed Limit >20 mm/s
(frequency of vibration dependent)
mm/s
20
18
16
14
12
10
8
6
4
2
0
10:00
12:00
14:00
16:00
05-Feb-20 06:05
08:00
10:00
12:00
14:00
16:00
06-Feb-20 06:05
08:00
10:00
12:00
14:00
16:00
07-Feb-20 06:05
08:00
10:00
Date and Time
Duty Cycle Mon - Sat 6am - 6pm
(for display purposes, time axis is stretched where triggered events occur)


Approximate
Site Boundary
Pathology (upper floor)
Mortuary (lower floor)
Monitor #7153
(Location B)
Monitor #7221
(Location A)

About this Report

Douglas Partners

Introduction

These notes have been provided to amplify DP's report in regard to classification methods, field procedures and the comments section. Not all are necessarily relevant to all reports.

DP's reports are based on information gained from limited subsurface excavations and sampling, supplemented by knowledge of local geology and experience. For this reason, they must be regarded as interpretive rather than factual documents, limited to some extent by the scope of information on which they rely.

Copyright

Borehole and Test Pit Logs

The borehole and test pit logs presented in this report are an engineering and/or geological interpretation of the subsurface conditions, and their reliability will depend to some extent on frequency of sampling and the method of drilling or excavation. Ideally, continuous undisturbed sampling or core drilling will provide the most reliable assessment, but this is not always practicable or possible to justify on economic grounds. In any case the boreholes and test pits represent only a very small sample of the total subsurface profile.

Interpretation of the information and its application to design and construction should therefore take into account the spacing of boreholes or pits, the frequency of sampling, and the possibility of other than 'straight line' variations between the test locations.

Groundwater

Where groundwater levels are measured in boreholes there are several potential problems, namely:

- In low permeability soils groundwater may enter the hole very slowly or perhaps not at all during the time the hole is left open;
- A localised, perched water table may lead to an erroneous indication of the true water table;
- Water table levels will vary from time to time with seasons or recent weather changes. They may not be the same at the time of construction as are indicated in the report; and
- The use of water or mud as a drilling fluid will mask any groundwater inflow. Water has to be blown out of the hole and drilling mud must first be washed out of the hole if water measurements are to be made.

More reliable measurements can be made by installing standpipes which are read at intervals over several days, or perhaps weeks for low permeability soils. Piezometers, sealed in a particular stratum, may be advisable in low permeability soils or where there may be interference from a perched water table.

Reports

The report has been prepared by qualified personnel, is based on the information obtained from field and laboratory testing, and has been undertaken to current engineering standards of interpretation and analysis. Where the report has been prepared for a specific design proposal, the information and interpretation may not be relevant if the design proposal is changed. If this happens, DP will be pleased to review the report and the sufficiency of the investigation work.

Every care is taken with the report as it relates to interpretation of subsurface conditions, discussion of geotechnical and environmental aspects, and recommendations or suggestions for design and construction. However, DP cannot always anticipate or assume responsibility for:

- Unexpected variations in ground conditions. The potential for this will depend partly on borehole or pit spacing and sampling frequency;
- Changes in policy or interpretations of policy by statutory authorities; or
- The actions of contractors responding to commercial pressures.

If these occur, DP will be pleased to assist with investigations or advice to resolve the matter.

About this Report

Site Anomalies

In the event that conditions encountered on site during construction appear to vary from those which were expected from the information contained in the report, DP requests that it be immediately notified. Most problems are much more readily resolved when conditions are exposed rather than at some later stage, well after the event.

Information for Contractual Purposes

Where information obtained from this report is provided for tendering purposes, it is recommended that all information, including the written report and discussion, be made available. In circumstances where the discussion or comments section is not relevant to the contractual situation, it may be appropriate to prepare a specially edited document. DP would be pleased to assist in this regard and/or to make additional report copies available for contract purposes at a nominal charge.

Site Inspection

The company will always be pleased to provide engineering inspection services for geotechnical and environmental aspects of work to which this report is related. This could range from a site visit to confirm that conditions exposed are as expected, to full time engineering presence on site.