March 7, 2019

1558 Willson Place
Winnipeg, Manitoba
Canada
R3T 0Y4
Telephone
204.453.2301
Fax
204.452.4412

Environmental Approvals Branch
Manitoba Sustainable Development
1007 Century Street
Winnipeg, Manitoba
R3H 0W4

Attention: Ms. Siobhan Burland Ross, M.Eng., P.Eng.
A/Director

Environment Act Licence No. 3199 – Notice of Alteration
Urbanmine Inc.

Dear Ms. Burland Ross:

This letter has been prepared to update you on changes in operations at Urbanmine Inc., following meetings held on April 25, 2018, and January 11, 2019, between Urbanmine Inc. (Urbanmine) and Manitoba Sustainable Development (MSD). Urbanmine was granted Environment Act Licence No. 3199 by MSD on September 8, 2016, for the continued operation of the scrap metal processing facility located at 72 Rothwell Road in Winnipeg, Manitoba.

Property Description

Urbanmine has been operating a ferrous and non-ferrous metal processing facility at 72 Rothwell Road since 2009. The Facility is located within a M3-zoned (Industrial, Heavy) area. The facility is located immediately adjacent to rail and hydro right-of-way (on the east side) owned by Canadian Pacific Railway Limited (CP Rail), Canadian National Railway (CN Rail), and Manitoba Hydro (Hydro). There are large industrial/commercial establishments to the north, south and west of the Facility.

Urbanmine has purchased an additional property of industrial land to the west of the existing site (207 Lowson Crescent). The 207 property is approximately 0.4 hectares and is shown within the Surveyor's Staking and Building Location Certificate (attached). The 207 location had a 6500 ft^2 building that has been demolished and Urbanmine's new indoor ferrous processing facility will be constructed in its place. The newly constructed building will be 5040 ft^2 and will house the ferrous processing equipment. The legal land description of this additional property is Lot 2, Plan 18862 W.L.T.O., in O.T.M. Lots 61 and 62 Parish of St. Boniface. Urbanmine is requesting that the legal description within Environment Act Licence No. 3199 be updated to reflect this change.

Urbanmine also leases an additional property of industrial land at 227 Lowson Crescent. The 227 property is approximately 0.26 hectares. The 227 property has a 5500 ft^2 building which has office space and Urbanmine's maintenance repair facility.

Alterations to the Operation

Urbanmine operates a transfer and processing facility, where recyclable materials are brought to the site, sorted, sheared/cut, re-organized/packaged and shipped to the end processors. Various recyclable materials that are brought to the Facility are initially weighed, then stockpiled or stored on-site before being sorted and/or processed. The on-site processing is limited to shearing and torch-cutting larger pieces into smaller ones and briquetting so that material can be used by the end user.

Environment Act Licence No. 3199 was issued to Urbanmine for the continued operation of the scrap metal processing facility located at 72 Rothwell Road in Winnipeg, Manitoba, in accordance with the Proposal dated April 30, 2014, and additional information dated August 15, 2014, December 16, 2014, (including Noise, Vibration, and Air Quality Report), and April 7, 2015 (including Acoustic Modeling Assessment Report). These supporting documents identified current operations, at that time, as well as contemplated improvements. A contemplated change modelled within the Dillon 2015 report was the addition of an indoor Ring Mill; the focus of this alteration notification.

Urbanmine is proposing that ferrous material will be processed through the new slow speed rotary shear to achieve size reduction. There will be a sound mitigation wall running north to south beside the rotary shear, as shown in REF-01 attached, to mitigate noise that may be created from the rotary shear. This sound mitigation wall will be built to a minimum height of 7.6 meters (25 feet). Material will then enter into an insulated building, which will control noise and dust during further material processing. This new building will be constructed on the west side of the property (on 207 Lowson) as shown in REF-01. The building floor plans, exterior elevations, and sections are shown on Figure A101. Once inside the building, the material will run through a ring mill to be cleaned and densified. It will then pass over a series of conveyors to separate metallic product from non-metallic by-product. Finished product will be stored in covered bunkers prior to shipping. Non-metallic by-product will be conveyed to waste roll-off bins for disposal at nearby licenced landfills, weekly or more frequently as-needed.

Non-ferrous metal and non-metallics will be processed inside the main warehouse. Non-ferrous metal and non-metallics will first pass through a slow speed rotary shear to reduce size, and then through a series of granulators. The rotary shear is located

outside of the main warehouse (REF-01), with the rest of the operation indoors. The roof on the north east side of the main ware house will be raised 3 meters (10 feet) to accommodate the new equipment. Material will then pass through densimetric separators to separate metallics from non-metallics. Processed metal will be packaged and stored awaiting shipment. Non-metallic by-product will be conveyed to waste roll-off bins for disposal at nearby licenced landfills.

Specification of the proposed slow speed rotary shear is listed below:

- RPM: 0 to 30 RPM;
- Mouth opening: 3400 x 2019 mm (134 x 79 inches); and,
- Size of materials leaving rotary shear: Largest is 305 x 305 mm (12 x 12 inches), but considering smaller.

A dust collector is included in both new processes. The dust collector is intended to capture the surface (nuisance) dust created in the process, including dust from the rotary shear. An air system picks up the dust at specified collection points in the process and from the room the machinery is operating in, it then passes through a cyclone and then a filter. The cyclone discharges the bulk of the dust into waste tote bags and the fine dust is collected by the bag-house filters. Dust from the air pollution control equipment will be sent for disposal at nearby licenced landfills, weekly or more frequently as-needed.

Supplier specification of the dust collection system is listed below:

- Cyclone: 15,000 m3/h – 250 m3/min – 8,828.6 CFM;
- Baghouse filter: 30,000 m3/h – 500 m3/min – 17,657.3 CFM;
- Size of filters: 20 micron (particulate size exiting the stack of the dust collector);
- Rated capture efficiency in percent for both baghouse and cyclone: 95% for the particulate size smaller than 20 micron;
- Particulate concentration discharge for both baghouse and cyclone: 10 Milligram per Normal Cubic Meter; and,
- Noise emitted from stack: no supplier data has been made available at this time, however, considering the European supplier installations this is not considered to be a significant contributor.

Off-site effects will be assessed in the 2019 monitoring program undertaken by Dillon.

Environmental and Human Health Effects

Noise will be reduced by moving some ferrous processing operations indoors. The addition of indoor operation and dust collection will reduce the dust on site. The addition of the fume and dust collector being added to the new indoor ferrous processing are expected to reduce overall emissions. Urbanmine has forecast that any increase in inbound traffic will be offset with decreased outbound traffic through densification of the material.

These minor alterations should improve the effects the development has on the environment and human health by further reducing noise and dust.

Urbanmine is estimating that they will generate approximately 90 to 120 tonnes of waste per month. Waste will be hauled to nearby licenced landfills weekly or more frequently as-needed, as storage space on-site is limited.

Communication with Community Liaison Committee

Urbanmine will distribute letters to the residents adjacent to Urbanmine property boundary. This letter will inform them of the dismantling and construction of the 207 Lowson Crescent building and the addition of the northeast portion of the warehouse at 72 Rothwell Road. These letters were distributed to residents during the week ending February 22, 2019.

Urbanmine is hosting a CLC meeting in early March and believe this is the best time to discuss proposed alterations and emphasize the benefits of moving a large portion of operations indoors. It will be communicated that the existing yard equipment will be maintained and remain operational although the frequency and intensity of use may change.

Timeline

The intended construction is to take place in spring 2019, with commissioning in late fall 2019.

Future Noise Monitoring

With the installation of additional indoor processing of material, Urbanmine intends to further engage Dillon to evaluate the overall effectiveness of the mitigation measures installed to date through a receptor noise monitoring program. Based on consultation with MSD Operations personnel, the program will consider additional

neighborhood context within the program. The noise monitoring plan will be submitted to MSD for review prior to implementation to assess whether the plan meets the intended outcomes. Noise monitoring is scheduled for late 2019 with the potential of early 2020, depending on equipment start-up and commissioning. Based on the results of the monitoring program, the facility in consultation with MSD would then determine if any further mitigation measures would still be necessary to meet the 55 DBA criterion at the nearest residential receptor to the east of the facility.

Closure

The information communicated in the letter has been provided by Urbanmine and its Suppliers. If you require additional information please contact the undersigned or Katie Whyte at kwhyte@dillon.ca.

Sincerely,

DILLON CONSULTING LIMITED

Dennis Heinrichs, M.Sc., P.Eng.
Partner

KAW:lf

Attachments: *Notice of Alteration Form*
Surveyor's Staking and Building Location Certificate
Figure – REF-01
Figure – A101

cc: Mr. Eshetu Beshada – Environmental Approvals
Mr. Mark Chisick, President – Urbanmine Inc.
Mr. Ron Lussier, Lean/RIOS Manager – Urbanmine Inc.

Our file: 17-6340

Notice of Alteration Form

Manitoba
Sustainable Development

Client File No. : 5684.00	Environment Act Licence No. : 3199

Legal name of the Licencee: Urbanmine Inc.

Name of the development: Urbanmine Inc.

Category and Type of development per Classes of Development Regulation:

Waste Treatment and Disposal — Scrap processing and auto wrecking facilities

Licencee Contact Person: Ron Lussier
Mailing address of the Licencee: 72 Rothwell Road
City: Winnipeg Province: MB Postal Code: R3P2H7
Phone Number: (204) 774-0192 Fax: Email: ron@urbanmine.ca

Name of proponent contact person for purposes of the environmental assessment (e.g. consultant):
Dennis Heinrichs

Phone: (204) 453-2301 Fax: (204) 452-4412	Mailing address: 1558 Willson Place, Winnipeg, MB, R3T0Y4

Email address: dheinrichs@dillon.ca

Short Description of Alteration *(max 90 characters):*
Installation of additional indoor processing of material, installation of dust collector.

Alteration fee attached: Yes: ☑ No: ☐

If No, please explain:

Date: 2019-03-07	Signature: Printed name: Ron Lussier

A complete Notice of Alteration **(NoA)** consists of the following components:

- ☑ **Cover letter**
- ☑ **Notice of Alteration Form**
- ☑ **2 hard copies and 1 electronic copy of the NoA detailed report** (see "Information Bulletin - Alteration to Developments with Environment Act Licences")
- ☑ **$500 Application fee, if applicable** (Cheque, payable to the Minister of Finance)

Submit the complete NoA to:

Director
Environmental Approvals Branch
Manitoba Sustainable Development
1007 Century Street
Winnipeg, Manitoba R3H 0W4

For more information:

Phone: (204) 945-8321
Fax: (204) 945-5229
http://www.gov.mb.ca/sd/eal

Note: Per Section 14(3) of the Environment Act, Major Notices of Alteration must be filed through submission of an Environment Act Proposal Form (see "Information Bulletin – Environment Act Proposal Report Guidelines")

BARNES & DUNCAN 1906
SURVEYING, ENGINEERING & GEOMATICS

6 Donald Street
Winnipeg, Manitoba
R3L 0K6

180-A, 5th Street
Morden, Manitoba
R6M 1C9

Surveyor's Staking and Building Location Certificate

August 23, 2018

Ron Lussier
72 Rothwell Road
Winnipeg, Manitoba
R3P 2H7

CERTIFIED A TRUE COPY
DATED August 23, 2018
Kelly W Mantik M.L.S.

Dear Sir:

Re: 207 Lowson Crescent, Winnipeg

Certificate of Title: 2879127/1 W.L.T.O. (Search Date: August 13, 2018)

Registered Owner: 7428261 Manitoba Ltd.

Legal Description: Lot 2 Plan 18862 WLTO
in OTM Lots 61 and 62 Parish of St Boniface

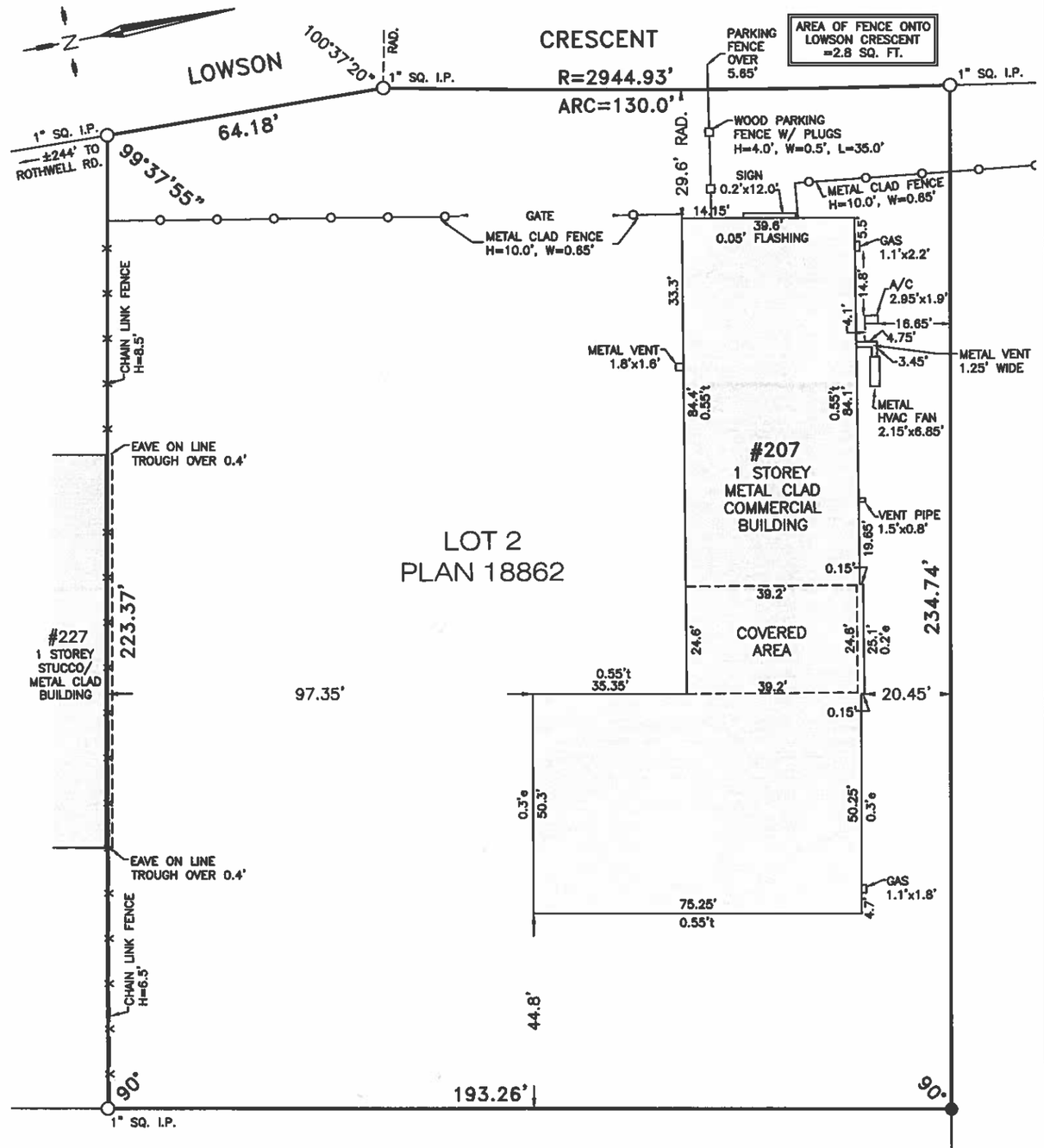
Encumbrances: Instruments Numbered 81-68331/1, 81-83351/1 and 4903579/1 are registered against the above Certificate of Title. Encumbrances noted herein are provided for information purposes only and have not been investigated as to their intent or extent.

As requested, this is to certify that we have made the necessary measurements to determine the position of a 1 storey metal clad commercial building, numbered 207 on the East side of Lowson Crescent, in the City of Winnipeg, and find that the same, above ground level, is contained entirely within limits of the above described land.

There are no encroachments above ground level onto the above described land by buildings from adjoining properties, excepting the Northerly trough of a stucco and metal clad building, as appurtenant to the adjoining property to the South, encroaches a maximum of 0.4 feet onto the subject property.

Please note the position of a wood parking fence encroaching onto Lowson Crescent.

This survey was made on the 17th day of August, 2018, and is monumented on the ground as shown on this sketch.



Iron Posts found and confirmed are described and shown thus ○
3/4" x 3/4" x 30" iron post is placed at a point shown thus ●

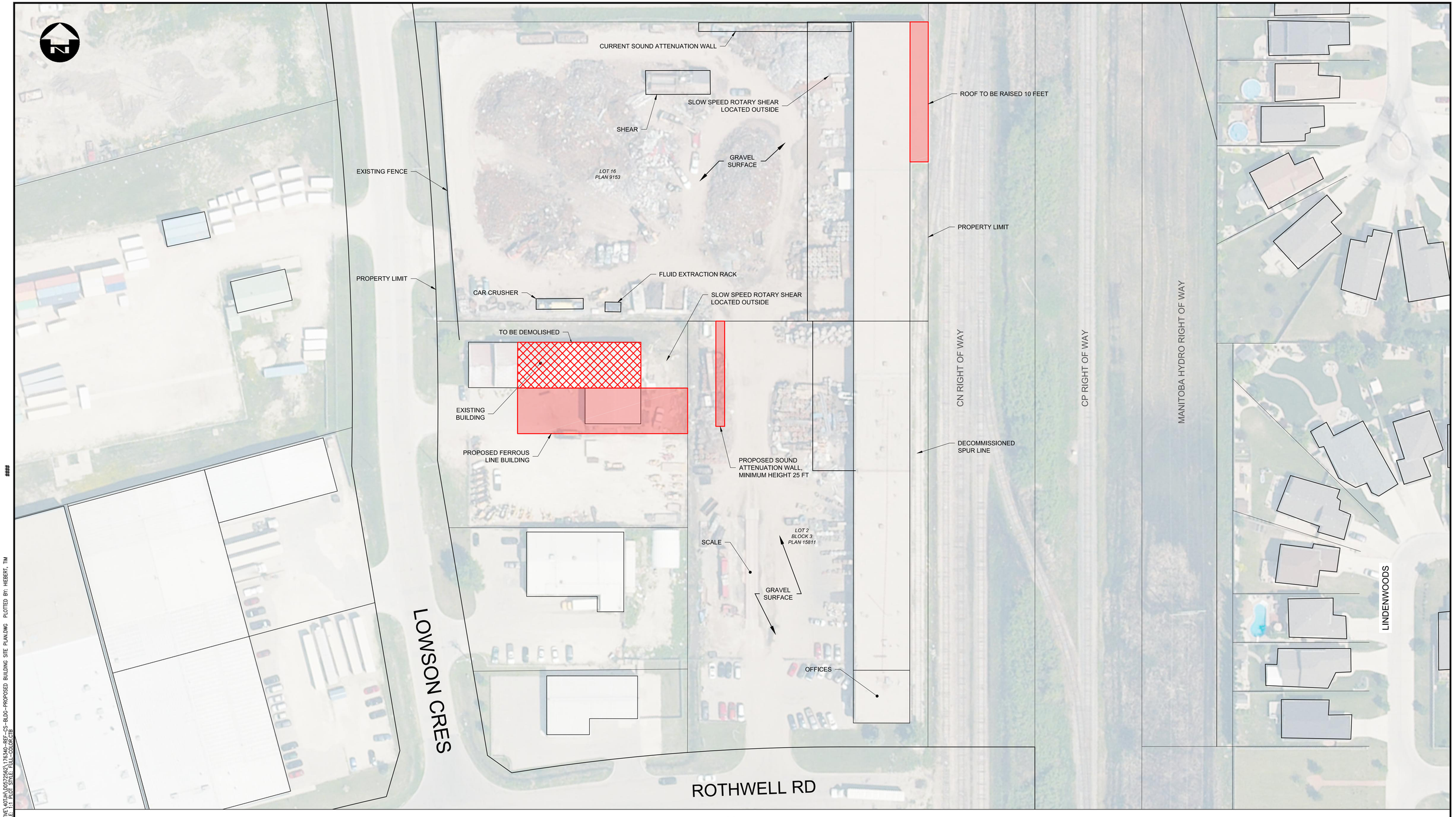
SKETCH - all distances are in feet and decimals of a foot.

Signed & Sealed
Kelly W Mantik
Kelly W. Mantik, M.L.S.

Phone: 204-284-5999
204-943-0546
800-665-6609
Fax: 204-452-7877
204-947-2918
www.BarnesDuncan.com

Christian P. Korell, M.L.S., B.Sc. Eng.
Donald F. Shiach, M.L.S.
Jesse P.S. Carels, M.L.S., C.L.S., B.Sc. Eng.
Kelly W. Mantik, M.L.S.
Michael E. Sippola, M.L.S.
Tricia Christie, M.L.S.,C.L.S., B.Sc. Eng
Daniel B.J. Gautron, M.L.S.
K. Todd Baley, M.L.S.
Johan (John) Dyck, M.L.S.
Matthew D. Skinner, P. Eng.
Brett Carels, P. Eng.
Camilo Marquez, P. Eng.

Our File: 15-0105
Acad dwg: 15-0105-3 STK BLC
Field Book: 1329/21_BD
Drafter: HT



□LAN

SCALE 1□00

Conditions of Use

Verify elevations and/or dimensions on drawing prior to use. Report any discrepancies to Dillon Consulting Limited.

Do not scale dimensions from drawing.

Do not modify drawing, re-use it, or use it for purposes other than those intended at the time of its preparation without prior written permission from Dillon Consulting Limited.

PRELIMINARY ONLY NOT FOR CONSTRUCTION

DILLON CONSULTING

No.	ISSUED FOR	DATE	BY
####	####	####	####
####	####	####	####
####	####	####	####
####	####	####	####
####	####	####	####
####	####	####	####
####	####	####	####
2	REVISED WITH ADDED DIMENSION	2018/03/27	MDG
1	ISSUED FOR DISCUSSION	2018/03/22	MDG

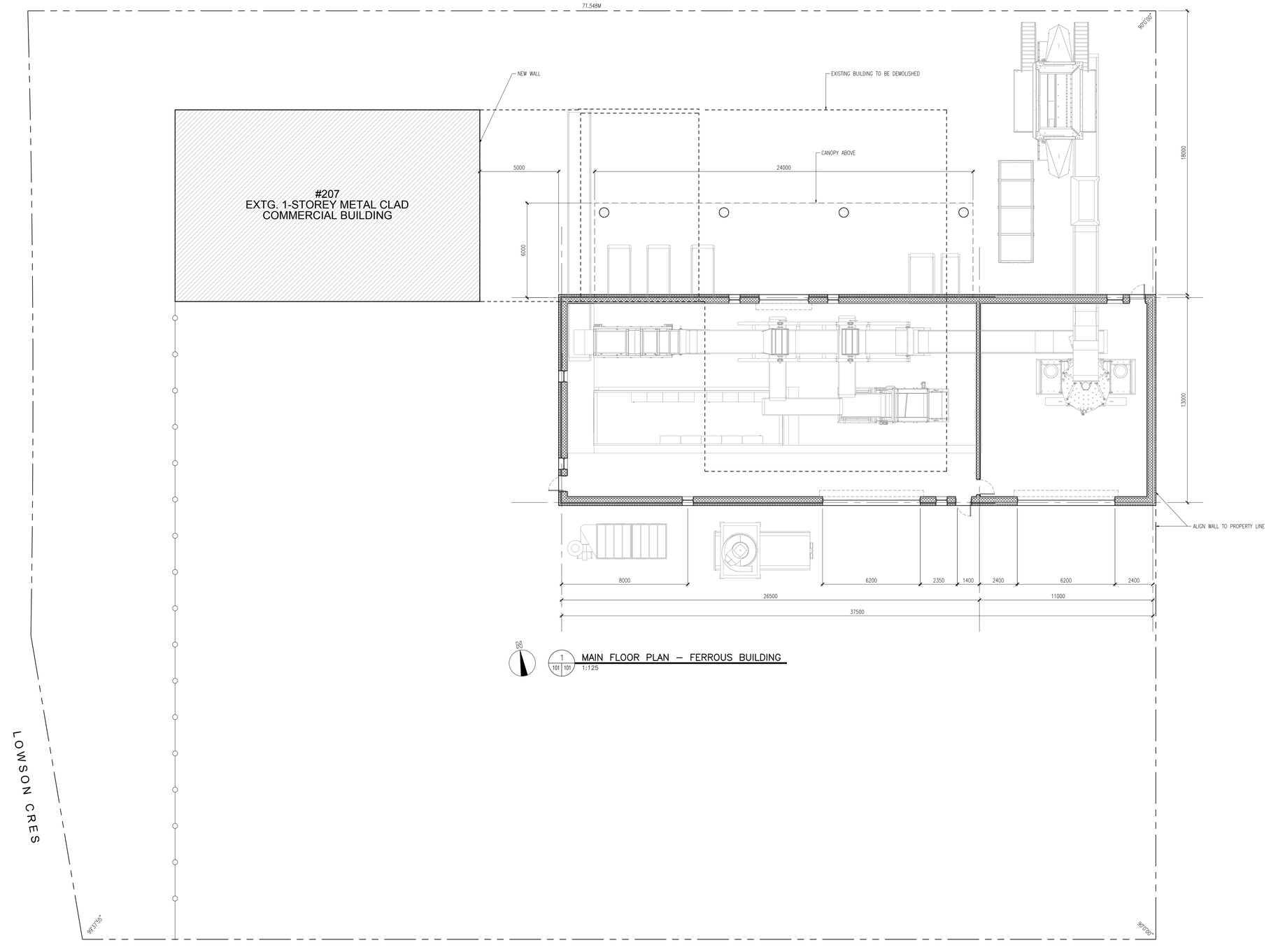
DESIGN: #### | REVIEWED BY: ####
DRAWN: MDG | CHECKED BY: ####
DATE: 2018/03/22
SCALE: AS SHOWN

URBANMINE INC.
72 ROTHWELL ROAD, WINNIPEG MB, R3P 2H7

PROJECT NO. **17-6340**

PROPOSED OVERALL SITE PLAN

SHEET NO. **REF-01**



1 / 101 | 101 MAIN FLOOR PLAN – FERROUS BUILDING
1:125

NO.	REVISIONS	BY	YR.MT.DY
02	ISSUED FOR COORDINATION ONLY	DS	18.09.10
01	ISSUED FOR COORDINATION ONLY	DS	18.08.29

PROJECT TITLE

Urbanmine
Ferrous Building

Rothwell Road, Winnipeg, MB

DRAWING TITLE

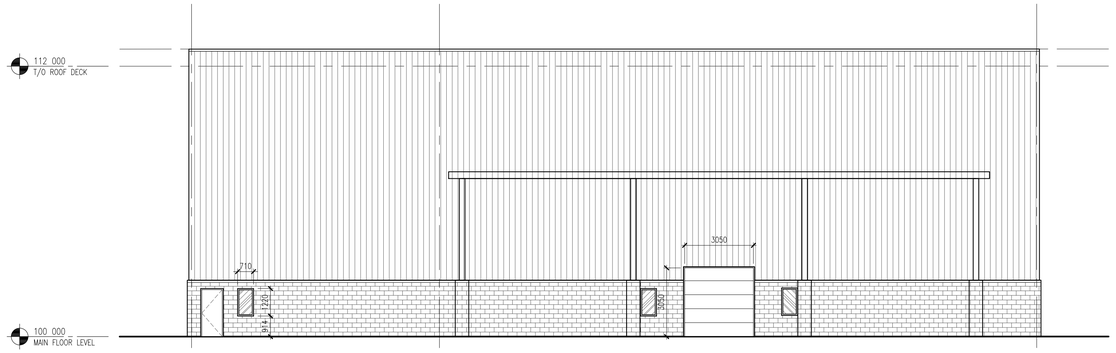
Floor Plans, Exterior Elevations & Building Sections

ISSUED FOR
COORDINATION ONLY
NOT FOR CONSTRUCTION

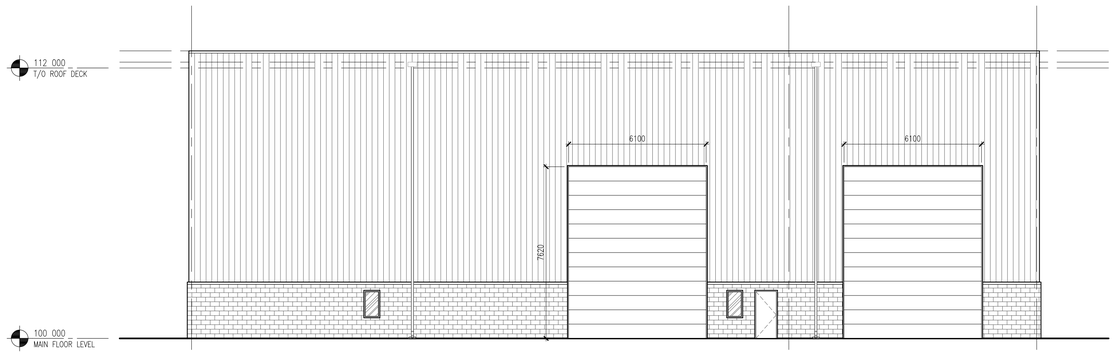
MMP ARCHITECTS
300 - 214 McDermot Avenue, Winnipeg Manitoba R3B 0S3
Tel (204) 956-0530 Fax (204) 943-5704 www.mmparchitects.com

APPROVED	CHECKED	DRAWN BY
CD	DS	NL
SCALE	DATE (YY-MM-DD)	FILE NO.
AS NOTED	2018-09-10	2018-31

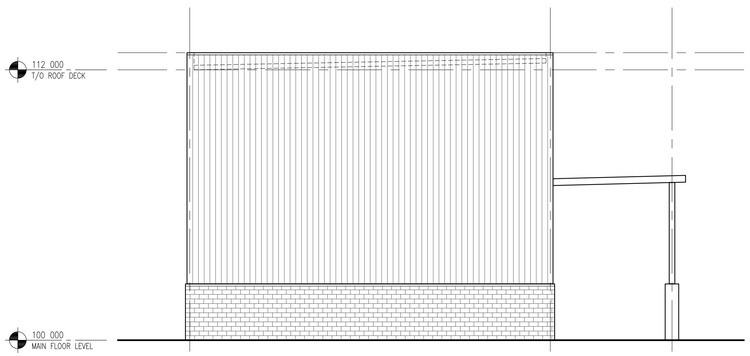
DRAWING NUMBER: A101
REVISION NUMBER: 0
CAD FILE: Urbanmine_Ferrous Building.dwg
DRAWER NO: --



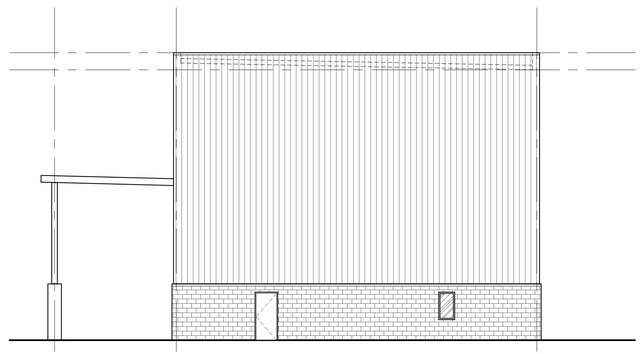
1 / 101 | 102 NORTH ELEVATION
1:125



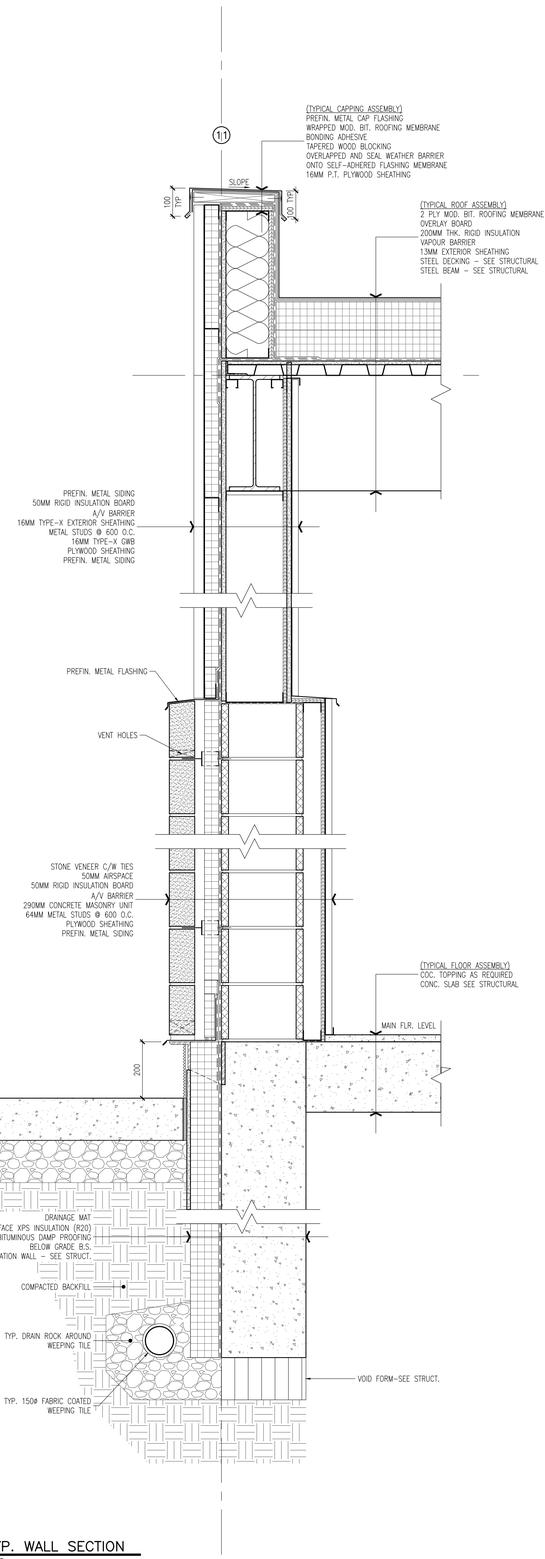
2 / 101 | 102 SOUTH ELEVATION
1:125



3 / 101 | 102 EAST ELEVATION
1:125



4 / 101 | 102 WEST ELEVATION
1:125



5 / 101 | 102 TYP. WALL SECTION
1:10

NO.	REVISIONS	BY	YR.MT.DY
01	ISSUED FOR COORDINATION ONLY	DS	18.09.10
01	ISSUED FOR COORDINATION ONLY	DS	18.08.29

PROJECT TITLE

Urbanmine
Ferrous Building

Rothwell Road, Winnipeg, MB

DRAWING TITLE

Floor Plans, Exterior Elevations & Building Sections

ISSUED FOR COORDINATION ONLY
NOT FOR CONSTRUCTION

MMP ARCHITECTS
300 - 214 McDermot Avenue, Winnipeg Manitoba R3B 0S3
Tel (204) 956-0530 Fax (204) 943-5704 www.mmparchitects.com

APPROVED	CHECKED	DRAWN BY
CD	DS	NL
SCALE	DATE (YY-MM-DD)	FILE NO.
AS NOTED	2018-09-10	2018-31

DRAWING NUMBER: A101
REVISION NUMBER: 0
CAD FILE: Urbanmine_Ferrous Building.dwg
DRAWER NO:--

Beshada, Eshetu (SD)

From: Ron Lussier <ron@urbanmine.ca>
Sent: April-18-19 11:45 AM
To: Beshada, Eshetu (SD) <Eshetu.Beshada@gov.mb.ca>
Cc: kwhyte@dillon.ca; Dennis M. Heinrichs M.Sc., PEng. <dheinrichs@dillon.ca>; Hawryliuk, Yvonne (SD) <Yvonne.Hawryliuk@gov.mb.ca>; Prawdzik, Tim (SD) <Tim.Prawdzik@gov.mb.ca>; Mark Chisick <mark@urbanmine.ca>; Adam Chisick <adam@urbanmine.ca>
Subject: RE: File 5684.00 - Urbanmine Inc. Notice of Alteration

Hi Eshetu,
As to your question of comments from the residents regarding proposed alterations. There were no questions or concerns raised with our planned alterations and thank us for providing them with the update.

ron lussier, lean/rios manager
ron@urbanmine.ca
t. 204.774.0192
72 rothwell road, winnipeg, MB canada R3P 2H7
f. 204.783.3096 t. 866.820.2786
c. 204.898.0884 urbanmine.ca

urbanmine
Metal Recycling Redefined

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From: Beshada, Eshetu (SD) [mailto:Eshetu.Beshada@gov.mb.ca]
Sent: Thursday, April 18, 2019 11:26 AM
To: Ron Lussier <ron@urbanmine.ca>
Cc: kwhyte@dillon.ca; Dennis M. Heinrichs M.Sc., PEng. <dheinrichs@dillon.ca>; Hawryliuk, Yvonne (SD) <Yvonne.Hawryliuk@gov.mb.ca>; Prawdzik, Tim (SD) <Tim.Prawdzik@gov.mb.ca>
Subject: File 5684.00 - Urbanmine Inc. Notice of Alteration

Hello Ron,

I have reviewed the NoA submitted. The CLC meeting outcome has not been included in the report. Please send me any comment from the residents on the meeting regarding the planned alteration.

Regards

Eshetu Beshada, PhD, PEng.
Environmental Engineer
Municipal and Industrial Section
Environmental Approvals Branch

Ph: (204) 945-7023

Beshada, Eshetu (SD)

From: Beshada, Eshetu (SD)
Sent: May-16-19 9:50 AM
To: 'Whyte, Katie' <kwhyte@dillon.ca>
Cc: Ron Lussier <ron@urbanmine.ca>; Mark Chisick <mark@urbanmine.ca>; Dennis Heinrichs <dheinrichs@dillon.ca>; Burland Ross, Siobhan (SD) <Siobhan.BurlandRoss@gov.mb.ca>; Bridges, Sonja (SD) <Sonja.Bridges@gov.mb.ca>; Suresh, Nada (SD) <Nada.Suresh@gov.mb.ca>; Hawryliuk, Yvonne (SD) <Yvonne.Hawryliuk@gov.mb.ca>; Prawdzik, Tim (SD) <Tim.Prawdzik@gov.mb.ca>; Crocker, Peter (SD) <Peter.Crocker@gov.mb.ca>
Subject: File 5684.00 - Urbanmine Inc. Notice of Alteration - Additional Information request

Hello Katie,

We have reviewed the NoA submitted on March 7, 2019 on behalf of Urbanmine. Please provide the following information in detail to help assess the environmental impact and to aid in the decision making process to determine whether the proposed alteration will be considered as a major or a minor alteration.

1. A preliminary updated noise modeling for the development that includes potential noise sources from the proposed alteration and compared with the background noise assessment that was provided for the existing operation. A discussion if there is any potential noise increase from the current noise level.
2. Any changes to the current operations or procedures as a result of the proposed alteration.
3. Any potential fire or explosion due to the proposed material processing line and any mitigation in place.
4. The type and maximum size of materials that will be fed into the slow moving rotary shear.
5. Any potential vibration from the new slow moving rotary shear equipment to be installed.
6. Material feeding mechanism to the slow moving rotary shear and a discussion on any potential noise issue related to this operation.
7. Location of raw material storage before it will be fed to the slow moving rotary shear and description how the materials will be moved around the site.
8. A clarification whether the material feed to the slow moving rotary shear are preprocessed by the existing shear equipment.
9. A written confirmation from the City of Winnipeg whether a variance is approved or is not required for the proposed alteration.

Please note that irrespective of the decision on the type of alteration, the NoA proposal will be shared with the Community Liaison Committee members for any comment/ concern. Therefore, submission of detailed information will be helpful in understanding any potential environmental impacts due to the proposed changes and any mitigation measures that will be implemented to reduce those impacts.

Regards

Eshetu Beshada, PhD, PEng.
Environmental Engineer
Municipal and Industrial Section
Environmental Approvals Branch

Ph: (204) 945-7023

From: Whyte, Katie <kwhyte@dillon.ca>
Sent: March-07-19 4:48 PM

To: Beshada, Eshetu (SD) <Eshetu.Beshada@gov.mb.ca>; Burland Ross, Siobhan (SD) <Siobhan.BurlandRoss@gov.mb.ca>
Cc: Ron Lussier <ron@urbanmine.ca>; Mark Chisick <mark@urbanmine.ca>; Dennis Heinrichs <dheinrichs@dillon.ca>
Subject: File 5684.00 - Urbanmine Inc. Notice of Alteration - Non-Confidential

Hi Eshetu,

Following up from my previous email, please find attached the non-confidential version of Urbanmine Inc.'s Notice of Alteration dated March 7, 2019. Two hard copies will be delivered to the Environmental Approvals Branch with the confidential version.

Kind regards,
Katie
--

Katie Whyte
Dillon Consulting Limited
1558 Willson Place
Winnipeg, Manitoba, R3T 0Y4
T - 204.453.2353 ext. 4017
KWhyte@dillon.ca
www.dillon.ca

Please consider the environment before printing this email

urbanmine
Metal Recycling Redefined

72 Rothwell Road • Winnipeg, MB, Canada • R3P 2H7
T: 204.774.0192 • TF: 1.866.820.2786 • F: 204.783.3096

info@urbanmine.ca • urbanmine.ca

October 5, 2020

Attention: Eshetu Besnada
Sonja Bridges

Client file NO: 5684.00
Environmental Act License No. 3199

The information below is being provided to you in response to your request for additional information on May 16, 2019.

1. See attached Dillion Acoustical report.

2. There is no change to the original sound model used when applying for our license. The new equipment for Ferrous, Slow Speed Rotary Shear and the Indoor Vertical Grinder combined will produce a metal ball shaped product approximately 2" and down. The remainder of the indoor separation (ie: eddy current & magnets will separate non-metallics and nonferrous from ferrous. The Ferrous Product will be conveyed outdoors into bunkers as finished goods.

   These changes will enable us to produce our mid to lighter material more efficiently and with less disruption to surrounding areas than our current operations.

   Our non-ferrous operations will have a smaller slow speed rotary shear in the north east portion of the 72 Rothwell property. Once material passes through the shear and conveyed indoors all processing shall be indoors.

   Only change to the non-ferrous operation is the rotary shear.

3. We will have extensive inspection of materials to be processed and any product that poses an explosive risk will be removed. The shear cutting the input material moves very slowly and does not create sparks.

4. Material type will be light to medium gauge material, farm machinery, skeletal plate, appliances. We anticipate size to be in conjunction with the rotary drum of the slow speed shear. Could accept a 6' x 12' skeletal plate.

5. The slow speed rotary shear will be on an independent concrete pad which is 36" thick and on files. The rotary shear will be placed on a 2" thick plate with a vibration mat on top of the plate. There will be no impact on us or surrounding areas.

6. A material handler will be feeding the slow speed rotary shear. As the work will be divided from our current shear and the rotary shear. We do not feel that noise levels will increase. As mentioned previously noise monitoring will be done to determine if any and what actions need to be taken.

72 Rothwell Road • Winnipeg, MB, Canada • R3P 2H7
T: 204.774.0192 • TF: 1.866.820.2786 • F: 204.783.3096

info@urbanmine.ca • urbanmine.ca

7. Material will be delivered to a drop off location and be inspected. Material from this pile will be moved to a sorting pad, visual inspection and any non-conforming material will be removed. Sorted material will be moved to a separate bunker and then fed into rotary shear.

   The sorted material will then be moved to one of the bunkers for storage until material is ready to process.

8. Our current shear will be processing material that cannot be processed by the slow speed rotary shear.

9. Urbanmine does not require a variance for our 207 Lowson and 72 Rothwell locations we have obtained the appropriate building permits issued by the City of Winnipeg.

Sincerely,

Linda Gammon
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URBANMINE INC.

Acoustic Assessment Report

72 Rothwell Road, Winnipeg, Manitoba

September 2020 – 20-2510

Table of Contents

Figures

Tables

Photographs

Appendices

References

Executive Summary

Dillon Consulting Limited (Dillon) was retained by Urbanmine Inc. (Urbanmine) to prepare an Acoustic Assessment Report (AAR) for the Urbanmine facility (Facility) located at 72 Rothwell Road in the city of Winnipeg, Manitoba. This report has been prepared for submission to the Manitoba Conservation and Climate (MCC), in support of the Notice of Alteration (NoA) submitted on March 7, 2019. The purpose of this assessment was to evaluate the overall emission of environmental noise from the Facility (including new Facility operations outlined in the NoA) under worst-case operating scenarios.

The Facility operates as a ferrous and non-ferrous metal processing plant under Environment Act Licence 3199, employing various industrial technologies for the sorting, shearing, grinding, and conveying of ferrous and non-ferrous materials.

Noise impacts from the Facility were predicted using sound levels from a combination of manufacturer's data, engineering calculations, and on-site sound level measurements. The sound levels were input into a predictive noise propagation model to assess environmental noise impacts associated with the operations at the Facility. Acoustic barriers and enclosures around significant sources have been implemented within the model as part of a noise abatement plan.

The maximum desirable daytime noise guideline level of 55 dBA, as stipulated in the MCC's (formerly Province of Manitoba, Environment) Guidelines for Sound Pollution for residential areas, issued September 21, 1992, was used as a basis for assessment of sound emanating from industrial sources.

With consideration for the City of Winnipeg's Neighbourhood Liveability By-Law (part 5, Subsection 65), six (6) locations have been identified as the closest representative points of reception (i.e., noise sensitive receptors) in the areas surrounding the Facility. The noise sensitive receptors assessed in this report consisted of two-storey residential dwellings located approximately 100m to 200m northeast, east, and southeast of the Facility.

The results of this noise study indicate that under the worst-case noise emission scenario for the Facility, with the implementation of the noise mitigation measures identified in this report, the Facility is in compliance with the applicable daytime, evening, and nighttime guideline limits at the identified nearest sensitive receptor locations.

1.0 Introduction

1.1 Purpose and Objectives

Dillon Consulting Limited (Dillon) was retained by Urbanmine Inc. (Urbanmine) to prepare an Acoustic Assessment Report (AAR) for the Urbanmine facility (Facility) located at 72 Rothwell Road in the City of Winnipeg, Manitoba. The report has been prepared for submission to the Manitoba Conservation and Climate (MCC), in support of the Notice of Alteration (NoA) submitted on March 7, 2019. The purpose of the March 7, 2019 NoA was to update MCC on changes in operations at the Facility which included a new ferrous processing building, and new equipment for both the ferrous and non-ferrous processing operations (described further in this report). The purpose of this assessment was to evaluate the overall emission of environmental noise from the Facility under worst-case operating scenarios with the updated Facility operations and determine any noise mitigation measures that may be required to achieve compliance.

The Facility is located within a M3-zoned (Industrial, Heavy) area and immediately adjacent to rail and hydro right-of-ways (on the east side) owned by Canadian Pacific Railway Limited (CP Rail), Canadian National Railway (CN Rail), and Manitoba Hydro (Hydro). There are large industrial / commercial establishments to the north, south and west of the Facility. The Facility is approximately 300 m from Kenaston Boulevard. The closest residential area to the Facility is the Linden Woods Community, located east of the right-of-way corridor.

This AAR provides the results of the noise modelling and acoustic assessment completed for the Urbanmine facility.

1.2 Overview of Facility

Urbanmine has been operating a ferrous and non-ferrous metal processing facility in Winnipeg, Manitoba since 2009. The facility operates as a transfer depot, where recyclable materials are received and sorted, then processed and shipped to other facilities for further processing and refining.

As part of their expansion, Urbanmine has made several modifications to the Facility to process ferrous metals indoors using various sizing and sorting equipment. The new ferrous process (ferrous line) starts with sorting of materials as it is received. Then the material gets processed through an outdoor rotary shear. The sheared materials are then transported via a conveyor to inside of the new ferrous building for processing through a vertical grinder for further size reduction. The grinded material is transported via a conveyor to a sorting area where magnetic separators and Eddy-current separators are utilized to separate the ferrous and non-ferrous materials. Ferrous materials are then organized by size at a sorting shaker table and stored in bunkers on the north side of the ferrous building. The building is equipped with dust collection system throughout the building. The dust collection system consists of extensive

duct work that leads into a cyclone and filter baghouse located immediately south of the ferrous building. The ferrous line is expected to be commissioned in September 2020.

The Facility will also have a non-ferrous processing line which will be located in the existing building and will consist of similar material shearing and grinding equipment as the ferrous line but notably smaller in size and power. The non-ferrous line will include: an outdoor rotary shear, in indoor grinder and sorting shaker tables. The non-ferrous line is expected to be commissioned between July and December of 2021.

As a result of the new ferrous and non-ferrous processing lines the following processes will be terminated at the Facility:

1. The Briquetter line;
2. The Pacific/Canton shearing process; and
3. The car crusher.

The Facility typically operates weekdays from 7:00 am to 7:00 pm, as per Clause 23 of their Environment Act Licence.

The dominant noise sources at the facility include the operation of outdoor shears, mobile equipment including grapple crane, cyclone and baghouse, conveyors, vertical grinder (ring mill), multi-purpose loader, air compressor, shaker tables, material drop, granulator, building exhaust and hydraulic system cooling fans.

As per the City of Winnipeg's Zoning By-Law, the Facility is located in an area zoned M3-zoned (Industrial, Heavy). The topography of the Facility and surrounding area has minor elevation changes and is considered to be generally flat.

1.3 Summary of Acoustic Environment and Applicable Noise Limits

With the implementation of the noise mitigation measures identified in this report, the Facility will comply with the maximum desirable daytime noise guideline level of 55 dBA, as stipulated in the MCC's (formerly Province of Manitoba, Environment) Guidelines for Sound Pollution for residential areas, issued September 21, 1992, for all sources assessed in this report.

In addition to provincial legislation, the City of Winnipeg's Neighbourhood Liveability By-Law Part 5 Subsection 70 dictates that air conditioning equipment and fans located on an occupants property must adhere to the following noise limits observed at points of reception:

- 55 dBA between 7:00am and 9:00pm; and
- 50 dBA between 9:00pm and 7:00am

In the event of the ambient noise level exceeding the above limits, the Neighbourhood Liveability By-law limits the sound levels produced to 5 dBA in exceedance of the ambient noise level.

Based on the background noise monitoring program conducted in April of 2014, the average hourly sound level equivalent at the nearest residential receptors within the Linden Woods Community is in the low 50's dBA. This value is similar during daytime and nighttime hours. Therefore the regulatory sound level thresholds considered for this assessment was 55 dBA during both daytime and nighttime periods.

1.4 Statement of Compliance

This study confirms that with the implementation of the noise mitigation measures presented in this report, the Facility complies with the daytime, and nighttime sound level regulatory limits defined by MCC's Guidelines and the City of Winnipeg's Neighbourhood Liveability By-Law.

2.0 Facility Description

The Facility operates a transfer depot, where recyclable materials are brought to the site, sorted, sheared / cut, re-organized / packaged and shipped to the end processors.

Figure 1 illustrates an overview of the Facility, on-site structures, and the surrounding areas. A list of equipment and activities/operations that generate significant noise levels at the Facility is provided below. The noise levels for the existing dominant noise sources were obtained through onsite noise measurement, which was conducted as part of the previously approved AAR (see Section 3.0). For the new noise sources, noise data was obtained either from the equipment manufacturer or from Dillon's in-house noise database. The noise data from Dillon's database is for similar equipment and as such, this study will be updated with actual noise on-site noise measurement data once the facility is operational.

Figure 1: Facility Overview

2.1 Bano Slow Speed Rotary Shear (New)

Hydraulically powered slow speed rotary shear, used to cut scrap metal (ferrous and non-ferrous) to smaller sizes (approximately 6" x 6"). A grapple (one of the three at the site) is used to load mix (ferrous and non-ferrous) of raw scrap metal into the top hopper of the unit. The hydraulic system for the shear is separately housed in a nearby enclosure with two roof-top radiator coolers units for the hydraulic system. Since at the time of preparing this report noise data was not available for the rotary shear, measured noise data for the existing Sierra Shear was used to represent this source. As mentioned above, upon full commissioning of the facility, confirmatory measurements will be conducted and the noise report will be updated if required.

Photograph 1: Bano Slow Speed Rotary Shear

2.2 Bano Vertical Mill (New)

This vertical mill is loaded via conveyor with ferrous and non-ferrous material processed through the slow speed rotary shear. The mill increases the ferrous product density through grinding the material and producing a decreased product size. The vertical mill is located inside the new ferrous building with insulated walls (See Photograph 2). For this source, manufacturer-specified noise data was used in the analysis.

Photograph 2: Bano Vertical Mill

2.3 **Magnetic Separator** – Eddy Current Separator and Shaker Tables (New)

The mix of grinded ferrous and non-ferrous materials are transferred via conveyor belts to two-staged magnetic separation and eddy current separation processes as well as shaker tables where they are separated based on ferrous and non-ferrous materials as well as size fractions. Subsequently the products are transferred to bins / stockpiles immediately north of the new ferrous building via conveyor belts that protrude through the building wall. The noise data for the shaker tables, separators, and material drop were obtained from Dillon's in-house noise database (noise data for similar equipment and power rating). The associated noise levels will be measured upon full commissioning of the facility and if required the noise analysis will be updated accordingly.

Photograph 3: Magnetic Separator

2.4 Cyclone and Baghouse (New)

A cyclone and a baghouse are used to gather dust from indoor operations within the ferrous building. The dust collector and baghouse are located side-by-side immediately south of the new ferrous building. (see Photograph 6). The noise data for the baghouse (pulsating) and the cyclone were obtained from Dillon's in-house noise database (noise data for similar equipment and power rating). The associated noise levels will be measured upon full commissioning of the facility and if required the noise analysis will be updated accordingly.

Photograph 4: Cyclone and Baghouse

2.5 Liebherr 934 Mobile Crane (Steel Tracks)

The mobile crane is on steel tracks and is primarily involved with loading the Sierra shear hopper and material handling next to the shear. Noise from its engine and hydraulics systems is captured within the noise measurement data for the Sierra Shear process (see Photograph 4).

Photograph 5: Mobile Crane

2.6 Liebherr 934 Mobile Crane (Rubber Tires)

A second mobile crane equipped with grapple (Liebherr 934) on rubber tires is primarily involved with material movement on the northwest side of the site. It loads scrap onto incoming empty B Train trailers. For noise modelling purposes, measured noise data for the crane under high rev was used.

2.7 Liebherr 924 Mobile Crane (Rubber Tires)

This mobile crane is equipped with a grapple or a magnet and is mainly used for material handling on the northeast section of the site. For noise modelling purposes, to account for the worst-case noise emission scenario, the highest measured noise level collected while the equipment was handling rail cuts was used. It should be noted that the Facility rarely processes rail cuts, and as such, the inclusion of this source in the modelling is considered to be conservative.

2.8 Granulator

The granulator located inside the existing warehouse building, processes waste cable and wire. The non-ferrous components are granulated and separated from the waste residue. The granulator system is located inside the warehouse building. Noise measurements were conducted at various locations along the length of the granulator and the highest measured noise level was used in the modelling (see Photograph 5). The dust generated at various parts of the granulator is collected using series of ducts and directed to a particulate cyclone located immediately outside of the existing warehouse building. Measured noise data for the cyclone was used in the noise modelling.

Photograph 6: Granulator – Indoor

2.9 Michigan L90 Loader

A multi-purpose loader operates at the Facility. The loader is mainly used for material handling and snow clearing. The noise data for this source was collected while the engine was at high rev (see Photograph 7).

Photograph 7: Michigan L90 Loader

2.10 EZ Crusher

The EZ crusher is a mobile unit that is used to bale stainless steel and aluminum punchings. The unit is equipped with a light-duty crane, which is used for loading materials into the baler chamber and extracting baled material from the chamber. The baler is also equipped with hydraulic system that compacts the loose materials into bales (see Photograph 8). For this source, measured noise data while operating under maximum load was used in the modelling.

Photograph 8: EZ Crusher

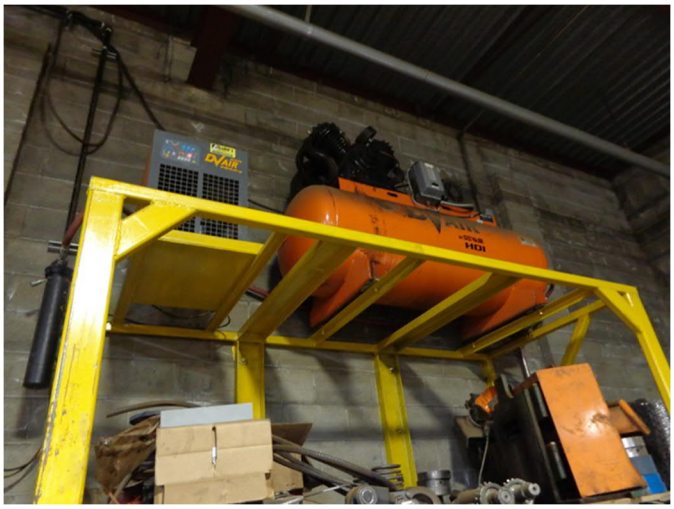
2.11 Excel Baler

The excel baler is used to bale mixed loose scrap collected in bins. The baler system consists of conveyer belts, a hydraulic system, and hoppers. An electric forklift is used to load materials from the bins onto the feed hopper. Noise measurements were conducted at various spots along the length of the baler and the highest measured noise level was used in the modelling (see Photograph 9).

Photograph 9: Excel Baler – Indoor

2.12 Air Compressor

Located inside the existing warehouse, the air compressor provides compressed air for instrumentation and pneumatic equipment at the Facility. The compressor is only activated when air pressure decreases below a set threshold (see Photograph 10). For this source, measured noise data while operating under maximum load was used in the modelling.



Photograph 10: Air Compressor – Indoor

2.13 Non-Ferrous Outdoor Shear (New)

A notably smaller hydraulically operated slow speed rotary shear will be installed immediately west of the existing warehouse to process the non-ferrous materials. The hydraulic system including the cooling radiators will be situated inside the existing warehouse building. For the purposes of this assessment an adjustment was made to the measured Sierra Shear's noise data to account for the lower power of the non-ferrous outdoor shear. Upon full commissioning of the facility, the noise level for this source will be verified through onsite noise measurement.

2.14 Non-Ferrous Mill (New)

Similar to the ferrous line, the products from the non-ferrous outdoor shear are transferred to a vertical mill inside the existing warehouse building for further grinding and size reduction. This unit is expected to be notably smaller than the ferrous line and as such the manufacturer's noise data (provided for the ferrous vertical mill) was adjusted to account for reduced size and power. Upon full commissioning of the facility, the noise level for this source will be verified through onsite noise measurement.

2.15 Non-ferrous Shaker Tables (New)

The product from the non-ferrous mill is transferred to series of shaker tables via conveyors for size fraction separation. The final products are then transferred to separate bins / storage piles located indoors. The noise data for this source was obtained from Dillon's in-house noise database. Upon full commissioning of the facility, the noise level for this source will be verified through onsite noise measurement.

2.16 Negligible Noise Sources

During the site visit it was determined that the following on-site noise sources had negligible contribution to the overall noise impact from the Facility:

- Three (3) desktop sized indoor table shears;
- Four (4) electric / propane forklifts operating mainly inside the warehouse building;
- One (1) small Hustler conveyor operating inside the warehouse building for small aluminum pieces; and
- Five (5) building exhaust vents along the east facade of the warehouse building.

As such, these sources were not included in the noise modelling.

2.17 Operating Hours of Facility

The Facility typically operates weekdays from 7:00 am to 7:00 pm. On rare occasions, due to unusual circumstances or operational conditions, the Facility may need to operate for extended hours (i.e., 6:00 am to 9:00 pm) Monday through Saturday.

For the purposes of this assessment, all dominant noise sources (discussed above) were conservatively assumed to operate simultaneously and continuously for the worst-case one-hour noise impact scenario.

2.18 Site Plan Identifying All Significant Sources

The location of the Site is illustrated in Figure 1. The location of the dominant noise sources at the Site (identified by Source IDs) are illustrated in Figure 2. The source IDs presented in Figure 2 match those presented in Table 2.

3.0 Noise Source Summary

An on-site source-specific noise measurement program was undertaken by Dillon on February 18 and 19, 2015. Noise measurements were conducted in accordance with the Ontario Ministry of the Environment, Conservation and Parks (MECP)) noise publication NPC-103.

For the new noise sources, either the manufacturer-specified noise data or noise levels from Dillon's in-house noise database (same type of equipment with similar power ratings) were used for the purposes of this assessment. It is understood that upon full commissioning of the facility (i.e., new sources), confirmatory noise measurements will be conducted at the facility and if needed the noise analysis will be updated to reflect the actual noise levels.

3.1 Instrumentation

A Norsonic 140 Type I sound level analyzer (Serial No. 1403048) was utilized for the measurements. The Norsonic 140 was calibrated during both measurement days, before and after measurements; using a Norsonic AS Sound Calibrator Type 1251 (Serial No. 31746 – calibrated Mar 19, 2014). Calibration certificate for the instruments are presented in Appendix C.

3.2 Noise Source Measurement

For each noise source, at least triplicate measurements were logged and their arithmetic averages were used for calculating the sound power level. Worst-case noise emission scenarios were simulated during all measurements. To facilitate accurate measurements, noise sources were turned on and off, and operated under different loads. This allowed for each source to be isolated.

In cases with noticeable variability in noise was observed, measurement was paused or the measurement durations were changed to capture the peak noise. For multi-step operations, maximum measured noise level was converted to sound power level and used for noise prediction modelling. For sources inside the warehouse building, conservatively, no correction for reverberation was applied to the measured noise levels.

The raw data from on-site measurements and sound power level calculations are presented in Appendix B.

3.3 Noise Source Summary Table

The dominant on-site noise sources are listed in Table 1. This table contains a listing of noise source sound power levels, source location, sound characteristics, and a summary of any noise abatement

measures that may have been already implemented. Sound power calculations and manufacturer data from measurement data are presented in Appendix B.

Table 1: Noise Source Summary Table

Source ID	Source Description	Sound Power Level (dBA)	Source Location [1]	Sound Characteristics [2]	Noise Control Measures [3]
SS1	Sierra Shear – Processing No 1 Loose	121.6	O	I	U
LB934_MH	LB934 – Material Handling	114.4	O	S	U
BTL	B Train Loading – No 1 Material (LB 934)	105.3	O	S	U
NF_BH	Non-Ferrous Baghouse	108.8	O	S	U
MHRC	Material Handling – Rail Cuts (LB 924)	120	O	S	U
CYCL	Cyclone (Overall)	101	O	S	U
ML90	Michigan L90 Loader	102.1	O	S	U
EZC	EZ Crusher	103.5	O	S	U
GRN	Granulator	92.5	I	S	U
MCP	Mint Coil Processing – Indoor	91.6	I	S	U
EB	Excel Bailer – Indoor	75.9	I	S	U
AC	Air Compressor – Indoor	68.4	I	S	U
RM	Ring Mill	98.8	I	S	U
DC	Dust Collector and Bags	91.9	O	S	U
ST	Shaker Tables x3	92	I	S	U
LB934_MH	LB934 – Material Handling	114.4	O	S	U
OS	Outdoor Shear	121.6	O	I	U
BEX1	Building Exhaust	85.9	O	S	U
BEX2	Building Exhaust	85.9	O	S	U
BH	Baghouse – Pulsating	98.8	O	S	U
MD	Material Drop + Mag Sep + Eddie Current	75.1	I	S	U
MDB	Material Drop Bins	100.1	O	S	U
OS2	Outdoor Shear 2	91.6	O	S	U
ST2	Shaker Tables	92	I	S	S
ML	Mill (non-ferrous)	98.8	I	S	S
RCF1	Rad Cooling Fan 1	102.2	O	S	S
RCF2	Rad Cooling Fan 2	102.2	O	S	S

1. Source Locations
O – located/installed outside the building, including on the roof
I – located/installed inside the building

2. Sound Characteristics
S – Steady
Q – Quasi Steady Impulsive
I – Impulsive
B – Buzzing
T – Tonal
C – Cyclic
Int – Intermittent

3. Noise Control Measures
S – silencer, acoustic louver, muffler
A – acoustic lining, plenum
B – barrier, berm, screening
L – lagging
E – acoustic enclosure
O – other
U – uncontrolled

The sound power levels of the above sources were calculated based on a combination of manufacturer's data, engineering calculations, and on-site sound level measurements.

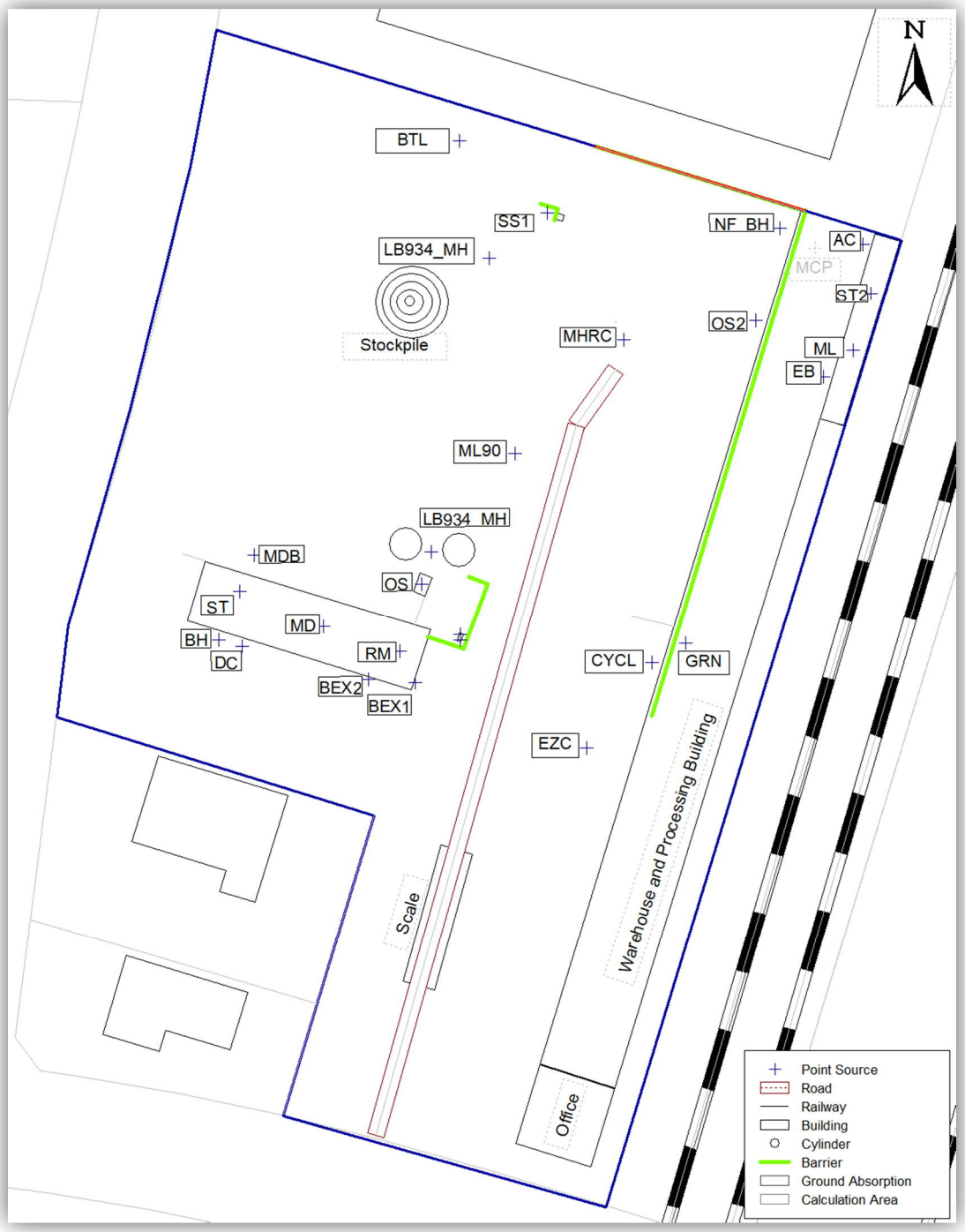


Figure 2: Noise Source Layout

3.4 Background Noise

The background ambient noise, exclusive of that generated by the Facility, can be characterized as having qualities of an urban centre. The primary contributors to the background sound during the daytime and nighttime periods are transportation (both road and rail) as well as noise from industrial and commercial activities in the area.

4.0 Point of Reception Noise Impact Analysis

A predictive noise modelling exercise was undertaken to determine the potential noise impact that the Urbanmine facility can have on the nearby receptors subsequent to the proposed expansion to the facility. The modelling was set to simulate worst-case noise emission scenario from the Facility, assuming all sources (existing and proposed) are operating at their maximum capacity (i.e., highest noise emission) and simultaneously.

The site-wide noise modelling for the facility, with the proposed expansion was completed to determine expected noise impact from the facility and to determine if any noise mitigation measures are required.

4.1 Scaled Area Location Plan

Figure 3 is an aerial photograph of the area which shows the location of the Site and the surrounding areas including the nearest points of reception.

4.2 Land Use Zoning Plan

The Urbanmine Facility is located on land that is zoned Industrial, Heavy. The lands surrounding the Facility are zoned identically. The nearest residential zoned lands are approximately 80 m east of the Facility, east of the rail/hydro right-of-ways. The zoning plan for the area is provided in Appendix A.

4.3 Points of Reception (PORs) List and Description

The City of Winnipeg's Neighbourhood Liveability By-Law (Part 5, Section 65) defines a Point of Reception (POR) / receptor as "Any point on any property where sound, originating from other property, is heard by a person who is engaged in normal activities." The MCWS's (formerly Province of Manitoba, Environment) Guidelines for Sound Pollution for residential areas, defines residential areas as, "Areas where human beings live, including apartments, hospitals, schools, seasonal residences, and mobile homes, as well as year round residences, since these are places where people sleep and often spend extended periods of time."

A total of six (6) noise sensitive points of reception were identified as the basis for this acoustic assessment, as shown on Figure 3. All identified receptors are year-round permanent residences. A description of each receptor is provided in Table 2.

Table 2: Noise Sensitive Receptors

Receptor ID	Location	Comments
POR1	Approximately 200 m Northeast of the Facility	2-Storey Residential Dwelling
POR2	Approximately 120 m Northeast of the Facility	2-Storey Residential Dwelling
POR3	Approximately 100 m Northeast of the Facility	2-Storey Residential Dwelling
POR4	Approximately 90 m East of the Facility	2-Storey Residential Dwelling
POR5	Approximately 100 m Southeast of the Facility	2-Storey Residential Dwelling
POR6	Approximately 150 m Southeast of the Facility	2-Storey Residential Dwelling

Figure 3: Receptor Locations

4.4 Procedure for Assessing Noise Impacts at Each Receptor

The worst-case noise emission scenario at each receptor was modelled using the CADNA/A software program from DataKustik GmbH. The outdoor noise propagation model is based on ISO 9613, Part 1: Calculation of the absorption of sound by the atmosphere, 1993 and Part 2: General method of calculation (ISO-9613-2: 1996). The model is capable of incorporating various site-specific features such as elevation, berms, ground absorption and barriers to accurately predict noise levels at specific receptors, pertaining to noise emissions from a particular source(s). The ISO based model accounts for reduction in sound level due to increased distance and geometrical spreading, air absorption, ground

attenuation, and acoustical shielding by intervening structures and topography. The model is considered conservative since it represents atmospheric conditions that promote propagation of sound from source to receiver.

A georeferenced digital site plan was used as the basis for model construction. Data from the noise source measurements and site specific parameters, including site layout and building profiles were incorporated in the model.

4.5 Parameter/Assumptions for Calculations

Source specific noise data was input into the CADNA/A software to model the noise impact at the selected nearest receptors. All significant noise sources were modelled as point sources with hemispherical spreading. The following assumptions were used in the calculations:

4.5.1 Receptors

A receptor height of 6.0 m above ground representing the second storey of a 2-storey residential dwelling was used for all sensitive receptors assessed. It was also noted that some dwellings are situated on top of a berm that is elevated between 1.0 and 1.5 metres. As such, receptor heights in the model were adjusted to reflect the higher elevation (i.e., depending on their locations, receptor heights were set to 5.5m and 6m in the model).

4.5.2 Reflections

Site specific sound-level measurements included the effects of nearby reflective surfaces (i.e., not a free-field measurement); however, conservatively, sources were modelled assuming a third-order reflection. The order of reflection identified the number of times sound ray is reflected off various surfaces. A higher order of reflection would result in greater noise impact at receptors.

4.5.3 Ground Absorption

For the noise modelling, a ground absorption coefficient of 0.5 was used to represent a mix of soft and hard surfaces between the Facility and the receptor locations.

4.5.4 Noise Data

Measured sound pressure levels were converted to sound power levels for use in the model. As a ring mill is not currently operating on-site, manufacturer-provided noise data was used for this source. As mentioned above, for some sources noise data from Dillon's in-house database or CADNA model's database was used. A 10 dB penalty was applied to sources with impulsive characteristics.

4.5.5 Duty Cycle

With the exception of material handling of rail cuts, all other sources were assumed to occur continuously and simultaneously for the duration of one hour at worst-case scenario. For rail cuts loading, the operation was considered to occur for 30 minutes in any given hour.

4.5.6 Topography

The area surrounding the Facility and receptors is primarily flat ground. The Facility and the surrounding areas were modelled as such (i.e., topography was not incorporated in the modelling).

4.5.7 Noise Mitigation Measures

Through modelling iterations, the following noise mitigation measures were determined and optimized (Note: the list of noise mitigation measures indicated below including existing and planned future mitigation measures):

1. Acoustic barriers situated atop of the facility building measure to be 108 metres in length and an additional height of 6 metres, resulting in a total height of 12 metres [Note: Planned future mitigation, subject to change in terms of configuration of the mitigation measure. The facility may use an awning such that the west edge of the awning will meet the total height of 12 meters above grade].
2. A barrier implemented on the north property boundary measure to be 45 metres in length and a height of 9 metres [Note: an existing noise mitigation measure]
3. An L-shaped of approximately 12 metres in total length and a height of 5.5 metres that is situated immediately adjacent to the Sierra Shear, on the north and east sides of the shear [Note: an existing noise mitigation measure].
4. The modelling was set not to account for shielding for sources within buildings. However, a 20 dB reduction was assigned for sources within the warehouse building and 30 dB reduction was assigned for sources within the new ferrous building (insulated building). The warehouse building is constructed of 7.5" thick concrete block walls and the ferrous building is constructed of concrete blocks for the lower portion of the building walls and insulated corrugated steel panels for the upper portion. In order to maintain the relatively low noise propagation to the outdoor environment, all doors for the buildings are to be kept closed when noise generating sources are operating inside the buildings.
5. A 26 metres long asymmetrical U-Shaped noise barrier wall of 7m high to be located east of the new ferrous outdoor rotary shear [Note: Planned noise mitigation measure, expected to be installed after confirmatory noise measurements are conducted and the noise impact analysis is updated (if deemed necessary)].

4.5.8 Sound Quality

All dominant noise sources were considered to emit noise on a continuous, steady-state manner. An impulsive penalty of 10 dB was applied to the sources with impulsive characteristics, as per MECP's noise publication NPC-104

4.6 Point of Reception Noise Impact Table

Table 3 summarizes the contribution of each noise source to the overall noise level at each receptor.

Graphic output from the model illustrating sound level contours and predicted receptor noise levels are presented in Figure 4. A CADNA/A model sample output is provided in Appendix D.

Table 3: Point of Reception Noise Impact

Source ID	POR1			POR2			POR3		
	Daytime/ Evening Partial Level (dBA)	Night-time Partial Level (dBA)	Distance (m)	Daytime/ Evening Partial Level (dBA)	Night-time Partial Level (dBA)	Distance (m)	Daytime/ Evening Partial Level (dBA)	Night-time Partial Level (dBA)	Distance (m)
SS1	39.3	39.3	251.5	42.5	42.5	190.2	42.7	42.7	178.1
LB934_MH	36.8	36.8	266.2	45.2	45.2	203.5	41.2	41.2	190.1
BTL	28	28	260.3	33.2	33.2	205.9	41	41	197.0
NF_BH	33.7	33.7	213.6	35.4	35.4	143.7	36.4	36.4	131.1
MHRC	45.6	45.6	252.5	42.5	42.5	181.0	43.1	43.1	164.1
CYCL	17.5	17.5	293.2	20.8	20.8	206.8	22.1	22.1	180.4
ML90	29.2	29.2	283.9	29.6	29.6	209.9	29.9	29.9	190.2
EZC	25.4	25.4	315.3	26.8	26.8	227.7	27.7	27.7	200.3
GRN	31.2	31.2	285.9	34.8	34.8	198.8	36.2	36.2	172.1
EB	-4.7	-4.7	226.5	-2.2	-2.2	146.0	-1.2	-1.2	125.4
AC	3.9	3.9	202.1	1.1	1.1	128.0	-0.7	-0.7	113.6
RM	21.4	21.4	328.0	22.2	22.2	243.3	20.1	20.1	225.6
DC	4.3	4.3	352.7	6	6	276.8	7.1	7.1	255.8
ST	25.7	25.7	346.1	24.9	24.9	272.6	25	25	253.2
LB934_MH	40.4	40.4	310.3	40.4	40.4	233.6	40.5	40.5	212.5
OS	49.8	49.8	315.9	49.7	49.7	238.2	49.8	49.8	216.5
BEX1	17.9	17.9	330.5	19.2	19.2	249.2	19.5	19.5	225.4
BEX2	0.2	0.2	336.8	3.6	3.6	257.0	4.8	4.8	233.7
BH	12.6	12.6	355.9	14.6	14.6	280.5	15.6	15.6	259.6
MD	3.8	3.8	336.6	3.4	3.4	260.0	3.4	3.4	238.1
MDB	28.4	28.4	339.4	27.5	27.5	267.7	27.4	27.4	247.4
OS2	12.9	12.9	228.9	16.8	16.8	154.4	18	18	137.1

Source ID	POR1			POR2			POR3		
	Daytime/ Evening Partial Level (dBA)	Night-time Partial Level (dBA)	Distance (m)	Daytime/ Evening Partial Level (dBA)	Night-time Partial Level (dBA)	Distance (m)	Daytime/ Evening Partial Level (dBA)	Night-time Partial Level (dBA)	Distance (m)
ST2	35.2	35.2	208.3	39.5	39.5	129.8	40.8	40.8	113.1
ML	40	40	218.6	44.6	44.6	138.0	46.1	46.1	118.6
RCF1	17.6	17.6	317.4	19.9	19.9	236.0	20.8	20.8	213.2
RCF1	18.2	18.2	317.4	20.2	20.2	236.0	21	21	213.2
TRK_Rt	21	21	257.2	24	24	184.5	25.3	25.3	166.8

Source ID	POR4			POR5			POR6		
	Daytime/ Evening Partial Level (dBA)	Night-time Partial Level (dBA)	Distance (m)	Daytime/ Evening Partial Level (dBA)	Night-time Partial Level (dBA)	Distance (m)	Daytime/ Evening Partial Level (dBA)	Night-time Partial Level (dBA)	Distance (m)
SS1	42.7	42.7	156.0	49.3	49.3	248.8	49.6	49.6	351.1
LB934_MH	41.5	41.5	172.6	40.5	40.5	245.3	44.9	44.9	345.0
BTL	34.6	34.6	188.5	33.8	33.8	270.4	36.5	36.5	369.6
NF_BH	36.8	36.8	123.9	31.3	31.3	228.8	29.4	29.4	340.6
MHRC	44.1	44.1	141.0	41.8	41.8	218.7	41.5	41.5	322.8
CYCL	25.7	25.7	126.8	23.4	23.4	158.6	19.1	19.1	257.3
ML90	30.7	30.7	156.1	29.5	29.5	209.6	35	35	304.4
EZC	35.7	35.7	142.8	32.3	32.3	153.0	30.1	30.1	243.8
GRN	39.8	39.8	119.5	37	37	157.7	32.2	32.2	259.3
EB	1.9	1.9	100.1	1.7	1.7	197.2	3.2	3.2	310.1
AC	-5.1	-5.1	108.4	-10.7	-10.7	222.0	-12	-12	336.9

Source ID	POR4			POR5			POR6		
	Daytime/ Evening Partial Level (dBA)	Night-time Partial Level (dBA)	Distance (m)	Daytime/ Evening Partial Level (dBA)	Night-time Partial Level (dBA)	Distance (m)	Daytime/ Evening Partial Level (dBA)	Night-time Partial Level (dBA)	Distance (m)
RM	23.2	23.2	177.9	35.5	35.5	193.8	33.3	33.3	274.5
DC	9.1	9.1	208.8	28	28	218.2	30.2	30.2	289.1
ST	25.3	25.3	210.3	30	30	226.1	30.2	30.2	299.7
LB934_MH	41.2	41.2	171.2	42.9	42.9	204.0	41.6	41.6	290.8
OS	44.7	44.7	173.1	50.6	50.6	200.1	47.2	47.2	285.9
BEX1	20.8	20.8	175.5	29.2	29.2	186.9	25.7	25.7	267.1
BEX2	9.3	9.3	184.9	28.9	28.9	194.5	25.5	25.5	271.1
BH	17	17	214.5	36.7	36.7	223.0	39.3	39.3	292.8
MD	-1.3	-1.3	193.5	11.3	11.3	208.5	9.7	9.7	285.8
MDB	27.6	27.6	207.1	16.4	16.4	228.6	13.6	13.6	304.7
OS2	19.3	19.3	118.1	13.7	13.7	212.9	10.2	10.2	322.5
ST2	41.8	41.8	101.1	35.1	35.1	212.1	31.4	31.4	326.6
ML	47.9	47.9	97.3	40.9	40.9	201.2	36.6	36.6	314.7
RCF1	22.9	22.9	164.9	26.9	26.9	187.1	23.8	23.8	271.4
RCF1	23.1	23.1	164.9	27	27	187.1	24.2	24.2	271.4
TRK_Rt	28.8	28.8	140.2	26.1	26.1	148.9	28	28	189.7

The noise level contours (at 4.5 m above-ground, in dBA) are presented graphically on Figure 4. This graphical output generated by CADNA indicates sound levels extending from the site during the worst-case daytime operating scenarios. Also presented in the figure are the predicted receptor sound levels in dBA.

The modelling results indicate that with the implementation of the noise mitigation measures identified in this report, the Facility will be in compliance for all the noise sources assessed herein, when operating under worst-case noise emission scenario.

5.0 Acoustic Assessment Summary

5.1 Acoustic Assessment Summary Table

Table 4 summarizes the predicted receptor noise levels and the applicable Performance Limits at the selected nearest Points of Reception. The results indicate that with the implementation of the above-mentioned noise mitigation measures, the predicted worst-case receptor noise levels meet the performance limits at the selected noise sensitive receptors.

Table 4: Acoustic Assessment Summary – With Mitigation

Point of Reception ID	Point of Reception Description	Time of Day	Sound Level at Point of Reception (dBA) (Leq) [1]	Verified by Acoustic Audit (Yes/No)	Performance Limit (dBA) (Leq) [2]	Compliance with Performance Limit (Yes/No)
POR1	Façade	Daytime/ Evening	52.5	No	55	Yes
		Night time	51.5	No	55	Yes
POR2	Façade	Daytime/ Evening	53.5	No	55	Yes
		Night time	53.1	No	55	Yes
POR3	Façade	Daytime/ Evening	53.7	No	55	Yes
		Night time	53.3	No	55	Yes
POR4	Façade	Daytime/ Evening	53.1	No	55	Yes
		Night time	52.5	No	55	Yes
POR5	Façade	Daytime/ Evening	54.6	No	55	Yes
		Night time	54.3	No	55	Yes
POR6	Façade	Daytime/ Evening	53.7	No	55	Yes
		Night time	53.5	No	55	Yes

The noise level contours and predicted receptor noise levels (in dBA) are presented graphically in Figure 4. This graphical output generated by CADNA/A indicates noise emanating from the site during the worst-case noise emission scenario.

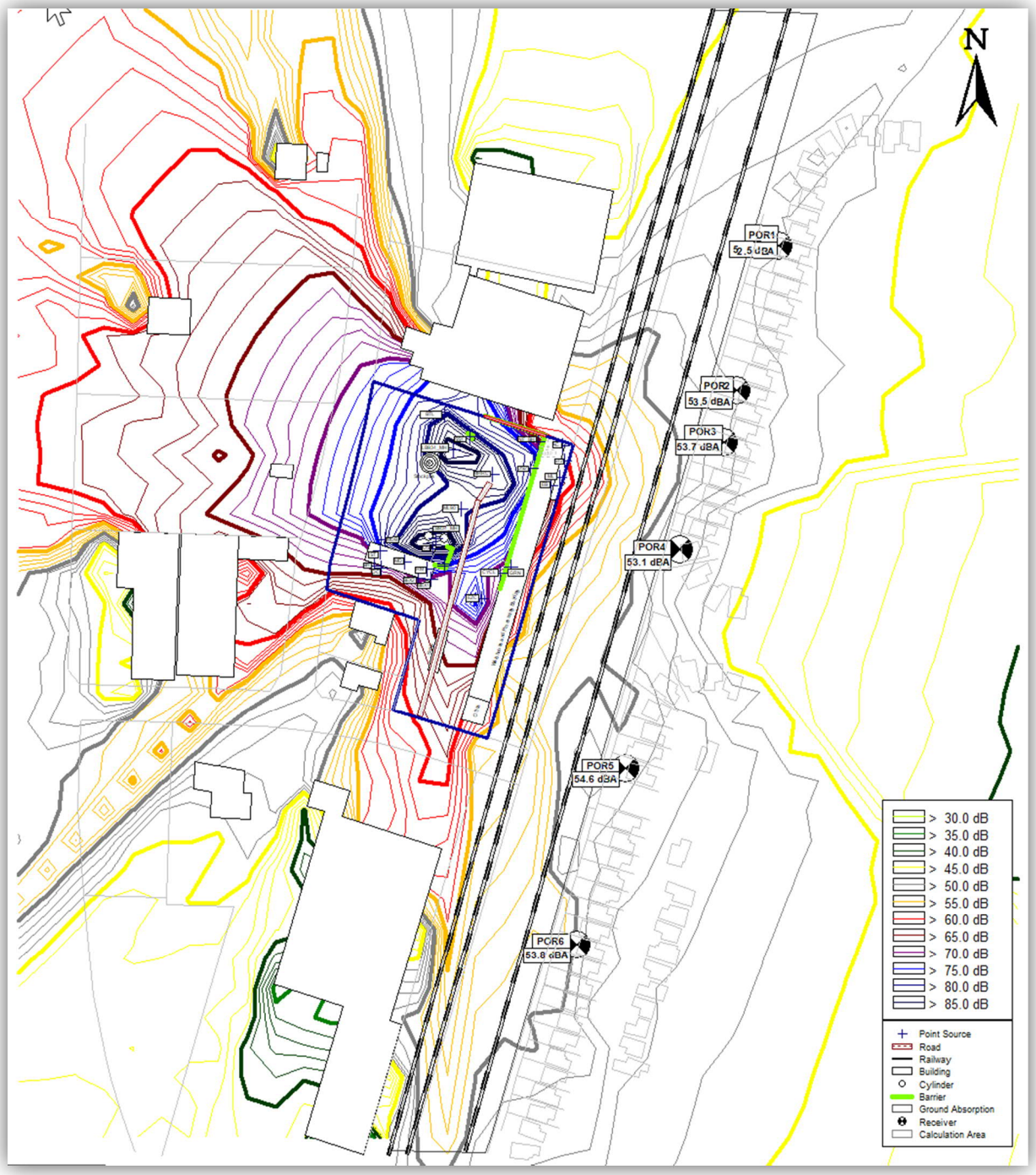


Figure 4: Noise Level Contours and Receptor Noise Levels

6.0 Conclusion

Urbanmine Inc. (Urbanmine) has been operating a ferrous and non-ferrous metal processing facility (the Facility) in Winnipeg, Manitoba since 2009. The Facility essentially operates a transfer depot, where recyclable materials are brought to the site, sorted, sheared / cut, re-organized / packaged and shipped to the end processors. This report has been prepared for submission to the Manitoba Conservation and Climate (MCC), in support of the Notice of Alteration (NoA) submitted on March 7, 2019. The purpose of this assessment was to evaluate the overall emission of environmental noise from the Facility (including new Facility operations / expansion as outlined in the NoA) under worst-case operating scenarios and to identify and optimize noise mitigation measures at the Facility that result in an improved noise environment at the nearby residential area.

With the implementation of the noise mitigation measures identified in this report, the Facility will comply with the maximum desirable daytime noise guideline level of 55 dBA, as stipulated in MCC's Guidelines for Sound Pollution for residential areas, issued September 21, 1992, for all sources assessed in this report.

7.0 Closure

Dillon Consulting Limited (Dillon) was retained Urbanmine Inc. to prepare an Acoustic Assessment Report (AAR) for the Urbanmine Inc. facility located at 72 Rothwell Road in the City of Winnipeg. The report has been prepared for submission to the Manitoba Sustainable Development (MSD). The material in the report reflects Dillon's judgment in light of the information available to Dillon at the time of this report preparation. Noise sources assessed in this report are based on information provided to Dillon by Urbanmine Inc. Any use which a third party makes of this report, or any reliance on or decisions made based on it, are the responsibilities of such third parties. Dillon accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

We trust that the report is to your satisfaction. Please do not hesitate to contact the undersigned if you have any further questions on this report.

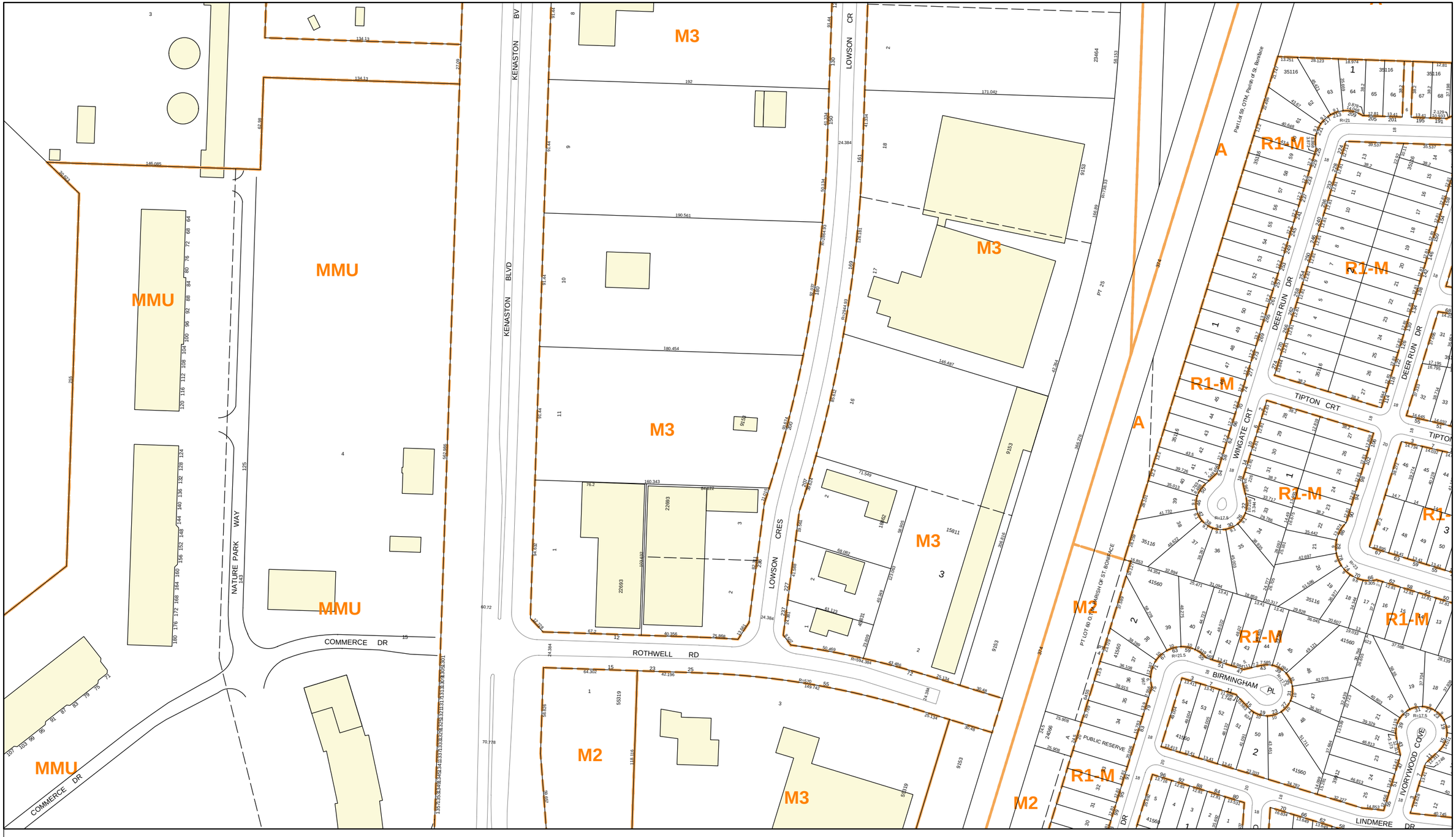
Respectfully Submitted,

DILLON CONSULTING LIMITED

Amir A. Iravani, Ph.D., P.Eng.
Associate

Appendix A

Zoning Plan for the Site and Surrounding Area



CITY OF WINNIPEG
PLANNING, PROPERTY AND DEVELOPMENT DEPT.
Property and Information Services Division - MAPPING

Scale: 1:2500

N
W E
S

Appendix B

Noise Source Data

Sound volumes threaded pulse valve

1. Sound level meter feature.

Model: Lafayette SL-51

Standard applied: IEC61672-1 CLASS2

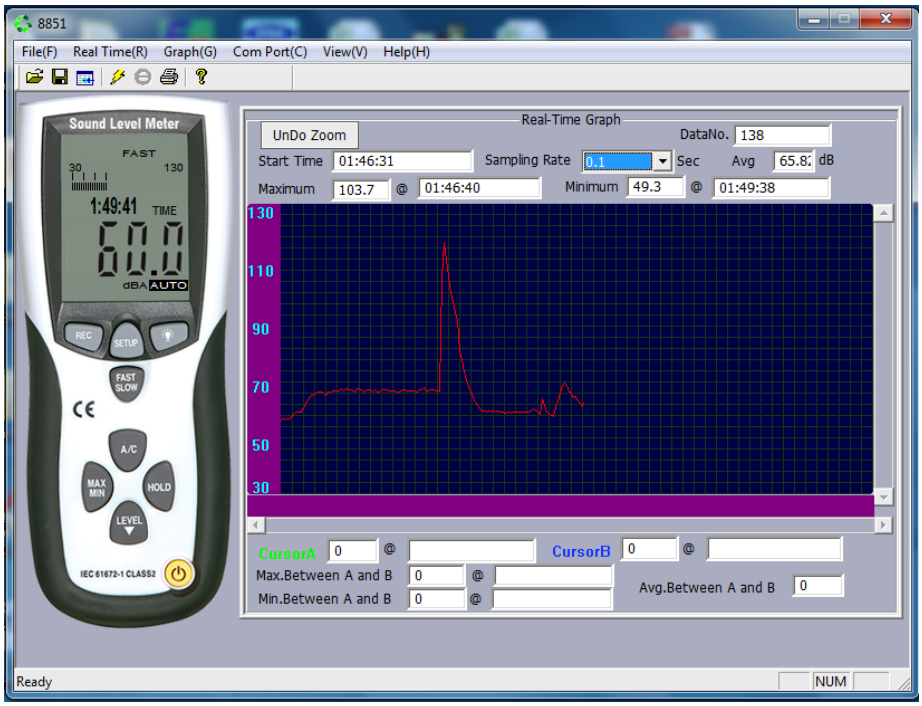
Accuracy: ±1dB

Frequency range: 31.5Hz – 8KHz

Software: ST 8851

2. Real time monitoring

Here below sample of recording data and chart with ST8851 software.



The software shows this important informations:

- Real time chart
- Maximum value(dB) of record
- Sampling Rate

3. Sound measurements

- Distance between valve and instrument: 1 meter (protected by air movement).
- Pulse Time(activation valve): 200ms .
- The Valves are in standard configuration and without blow tube on the output.

TURBO™ Turbo Valve code		Start Pressure 2bar	3bar	4bar	5bar	6bar
	FP40(1 ½”)	104dB	107dB	113dB	117dB	120dB
	FP55(2”)	106dB	113dB	117dB	120dB	123dB
	FP65(2 ½”)	112dB	116dB	119dB	122dB	124dB

Data: 21/01/2014

Signature

Dario Pozzi

Source Name	Briquetter - normal operation					
Measurement Distance (m)	3					
Data Type	1/3 Octave				1/1 Octave	PWL (dB)
	Read 1	Read 2	Read 3	Avg.	Avg.	
Frq (Hz)						
25	65.1	65.5	63.5	64.7		
31.5	79.4	78.9	79	79.1	**80.2**	**97.7**
40	71.1	78.9	68.8	72.9		
50	72.8	78	69.2	73.3		
63	74.2	82.4	73.6	76.7	**80.0**	**97.5**
80	72.8	79.6	72.7	75.0		
100	77.3	80.8	76.6	78.2		
125	83.3	86.9	83.8	84.7	**86.4**	**103.9**
160	77.4	81.6	78	79.0		
200	81.3	82.2	80.7	81.4		
250	80.5	83.7	81.5	81.9	**85.8**	**103.4**
315	78.8	81.2	78.8	79.6		
400	81	82.6	80.6	81.4		
500	81.8	83.7	81.3	82.3	**87.2**	**104.7**
630	83.3	83.8	82.9	83.3		
800	85.8	86.2	85.2	85.7		
1000	84.9	85.6	84.8	85.1	**89.3**	**106.8**
1250	81.6	82	81.3	81.6		
1600	82.9	82.7	82.1	82.6		
2000	80.4	81.2	80.1	80.6	**86.7**	**104.2**
2500	82	82.7	82.2	82.3		
3150	80.8	81.7	80.5	81.0		
4000	81.3	81.7	80.7	81.2	**85.8**	**103.4**
5000	81	81.6	80.2	80.9		
6300	81.6	82.1	80.9	81.5		
8000	81.1	81.3	80.6	81.0	**85.5**	**103.0**
10000	79.5	79.7	78.7	79.3		

Source Name	Excel baler - combined												
Measurement Distance (m)	3												
Data Type	1/3 Octave											1/1 Octave	PWL (dB)
	Read 7	Read 8	Read 9	Read 10	Read 11	Read 12	Read 13	Read 14	Read 15	Read 16	Avg.	Avg.	
Frq (Hz)													
25	63.3	69.5	68.1	68.5	80.1	66.7	67.5	68.4	75	64.4	69.2		
31.5	71.4	83.8	84.4	78.8	81.7	79.1	78.2	76.8	86.3	76.1	79.7	**80.4**	**97.9**
40	59.3	74.2	72.4	63.6	81	69.3	63.6	72.7	75.2	61.1	69.2		
50	62.8	79.7	77.6	62.4	72	81.8	68.7	77.1	68	56.8	70.7		
63	71.9	80.1	77.7	68.7	73.2	74.6	72.5	75.6	67.7	63.9	72.6	**76.3**	**93.8**
80	56.6	80.8	74.8	74.4	75.8	71.1	68.4	73.2	69.6	65.2	71.0		
100	57.2	79	74.3	74.4	75.5	73.3	68	70.2	70.3	64.8	70.7		
125	61.8	81.3	80.4	78.9	77.4	76.9	67.2	75.8	76.1	63.6	73.9	**77.2**	**94.8**
160	67.7	81.4	72.3	77.5	73.6	76.5	67.4	70	72.7	62.1	72.1		
200	64.3	84.2	71.5	76.1	74.1	75.9	68.7	70.3	73.2	63	72.1		
250	79.5	87	80.2	81.7	77.6	82.8	78.7	84.3	82.6	81.1	81.6	**82.9**	**100.4**
315	68.5	85.4	74.3	79.6	76.4	78.3	70.6	75.2	76.1	70.3	75.5		
400	58.5	84.8	71.2	80.8	77.9	80.7	70.2	73.8	75.2	65.4	73.9		
500	66.4	86.6	75.5	83.6	77.9	82.2	74.2	75.6	78	75.2	77.5	**80.9**	**98.4**
630	62	86.6	74.8	81.8	76.1	83.4	72.1	77.3	79.6	67.6	76.1		
800	70.2	87.9	82.2	83	79.8	83.9	77.4	81.6	83.2	77.3	80.7		
1000	74	87.4	76.3	81.6	76.3	83.6	72	77.1	79.7	65.6	77.4	**83.5**	**101.0**
1250	77.4	86.9	79.1	80.6	74.3	83.9	71.7	76.6	79.2	63.7	77.3		
1600	64.6	87.6	79	81.7	74.2	84.6	72.4	78.3	80.5	62.8	76.6		
2000	71.3	87.5	80.4	81.8	76.4	84.3	71.5	78.9	82	64	77.8	**82.1**	**99.6**
2500	73.1	86.1	78.7	81.4	77.4	83.3	71.6	78.6	80.8	63.3	77.4		
3150	63.5	85.8	80.5	80	76.1	82.8	71.4	77.8	79.8	61.3	75.9		
4000	63	85.3	79.4	79.4	76	82.5	69.8	76.9	79	62.2	75.4	**80.0**	**97.5**
5000	62.4	84.3	77.8	78	76	80.8	68.7	75.3	77.8	60.8	74.2		
6300	65.6	83	76.2	76.9	75.4	79.9	68	73.7	76	62.1	73.7		
8000	66.5	81.5	74.8	75.7	73.9	78.3	66.1	73	74.2	58.3	72.2	**77.0**	**94.5**
10000	60.3	79.2	73.2	73.2	72.1	76.6	64.2	71.8	72.8	57.4	70.1		

Source Name	Air compressor					
Measurement Distance (m)	2					
Data Type	1/3 Octave				1/1 Octave	PWL (dB)
	Read 17	Read 18	Read 19	Avg.	Avg.	
Frq (Hz)						
25	59	59.7	59.7	59.5		
31.5	74.3	75.1	75.2	74.9	**75.3**	**89.3**
40	63.2	63.4	62.8	63.1		
50	61.3	61.6	61	61.3		
63	60	59.1	58.7	59.3	**65.3**	**79.3**
80	60.7	60.8	60.7	60.7		
100	66	65.4	66.9	66.1		
125	65.1	65.1	64.8	65.0	**71.5**	**85.5**
160	68.6	68.3	68.3	68.4		
200	70.3	70.4	70.5	70.4		
250	65.6	65.8	65.8	65.7	**73.1**	**87.1**
315	68.2	67.4	66.9	67.5		
400	73.6	73.2	73.3	73.4		
500	65.1	65.2	65.2	65.2	**74.4**	**88.4**
630	63.9	64.2	62.7	63.6		
800	61	60.6	60.7	60.8		
1000	58.8	59	59.4	59.1	**63.9**	**77.9**
1250	56.3	56.1	56.9	56.4		
1600	57.8	58.3	58.4	58.2		
2000	61.3	61.3	61.4	61.3	**65.0**	**79.0**
2500	60.7	60.8	60.2	60.6		
3150	60	60.2	60.3	60.2		
4000	61.2	61.4	61.5	61.4	**65.0**	**79.0**
5000	59	58.5	58.8	58.8		
6300	51.9	51.2	51.2	51.4		
8000	51.9	51.7	51.7	51.8	**57.4**	**71.4**
10000	53.7	54.2	54.3	54.1		

Source Name	Briquetter - normal operation (from outside door 12)					
Measurement Distance (m)		5				
Data Type		1/3 Octave			1/1 Octave	PWL (dB)
	Read 20	Read 21	Read 22	Avg.	Avg.	
Frq (Hz)						
25	65.5	69.1	65.8	66.8		
31.5	67	74.7	67.7	69.8	**72.9**	**94.9**
40	61.7	77.5	62.7	67.3		
50	59.6	71.4	59.9	63.6		
63	65.2	73	65	67.7	**70.1**	**92.0**
80	58.5	73	56.7	62.7		
100	59.2	73	58.5	63.6		
125	67.7	76.5	66.7	70.3	**72.8**	**94.7**
160	64.4	74.7	64.1	67.7		
200	66.9	75	70.7	70.9		
250	62.2	73.6	62.4	66.1	**72.9**	**94.8**
315	62.2	71.1	61.6	65.0		
400	61.9	68.5	61.9	64.1		
500	61.3	68	60.8	63.4	**68.9**	**90.8**
630	63.2	68.8	62.3	64.8		
800	62.7	66.6	62.6	64.0		
1000	62.8	65.3	62.5	63.5	**67.5**	**89.5**
1250	58	62.8	57.6	59.5		
1600	58.5	63.6	58.6	60.2		
2000	58.6	64.1	58.1	60.3	**64.2**	**86.2**
2500	55.4	61.5	54.5	57.1		
3150	55.9	62.2	55.2	57.8		
4000	53.8	61.1	53.7	56.2	**61.2**	**83.1**
5000	52.7	58.3	53.2	54.7		
6300	49.9	56	51.1	52.3		
8000	49.3	54.3	50.7	51.4	**56.6**	**78.6**
10000	50	53.4	51.8	51.7		

Source Name	Liebherr 934 mobile crane on steel tracks dropping material, engine and hydraulics						
Measurement Distance (m)			10				
Data Type			1/3 Octave			1/1 Octave	PWL (dB)
	Read 26	Read 27	Read 28	Read 29	Avg.	Avg.	
Frq (Hz)							
25	61.1	61.3	58.8	60.6	60.5		
31.5	76	76	72	68.6	73.2	**73.6**	**101.6**
40	61.4	62	62.3	58.9	61.2		
50	63.1	62.7	69.3	66	65.3		
63	70.7	70	78.6	75.5	73.7	**74.5**	**102.5**
80	61.2	61.2	62.8	62	61.8		
100	65.7	65.9	67.8	68.6	67.0		
125	72.8	73.4	72.7	75	73.5	**74.8**	**102.8**
160	64	65.4	65	63.1	64.4		
200	62.8	64.8	63.8	62.7	63.5		
250	61.7	62.3	59.3	59.1	60.6	**70.0**	**98.0**
315	68.3	69.4	67.4	67.8	68.2		
400	71.6	73.4	67.5	70.7	70.8		
500	75.6	76.6	68.2	73.7	73.5	**77.5**	**105.5**
630	75.9	76.8	69.9	70.8	73.4		
800	72.7	74.2	67.3	69.4	70.9		
1000	75.8	77.7	69	71.6	73.5	**78.0**	**106.0**
1250	77.8	79.2	68.9	72.4	74.6		
1600	79.2	80.6	71.2	73.6	76.2		
2000	78.2	79.8	70.6	73.8	75.6	**80.7**	**108.7**
2500	80.3	81	69.7	72.9	76.0		
3150	80.3	81.7	70.6	73.9	76.6		
4000	80.2	81.1	69.5	73.1	76.0	**80.7**	**108.7**
5000	79.4	80	68.8	71.9	75.0		
6300	78	78.9	67.7	70.4	73.8		
8000	76.1	77.4	66	68.8	72.1	**77.0**	**105.0**
10000	74.8	75.6	63.9	66.3	70.2		

Source Name	Sierra electric shear - combined, #1 loose									
Measurement Distance (m)	15									
Data Type	1/3 Octave								1/1 Octave	PWL (dB)
	Read 30	Read 31	Read 32	Read 33	Read 34	Read 35	Read 36	Avg.	Avg.	
Frq (Hz)										
25	65.4	75.8	81.1	62.3	64.4	61.2	61.8	67.4		
31.5	73	80	83.3	76.6	73.7	76.2	77.3	77.2	**78.3**	**109.8**
40	70.9	73.2	78.2	67.1	65.5	65	70.4	70.0		
50	69	67.8	72.2	67	62.4	63	65	66.6		
63	74.5	68.9	71.6	75.3	63.8	61.1	64.2	68.5	**73.8**	**105.3**
80	75.2	68.7	72.7	73.9	68.5	68.1	69.8	71.0		
100	77	72.1	78.7	76.3	70.9	68.2	72.6	73.7		
125	69.7	66.8	72.1	77	68.9	64.7	69.1	69.8	**75.9**	**107.5**
160	70.7	65.1	68.7	74.3	67.1	63.5	67.6	68.1		
200	71.5	64.2	67.3	74.5	63.3	64.5	64.7	67.1		
250	69.2	61.1	63.3	74.1	59.7	59.9	62.3	64.2	**70.9**	**102.4**
315	70.8	63.1	65.6	71.6	64.3	64.4	65.2	66.4		
400	76.3	70.9	71.6	74.6	71.2	71.4	73.6	72.8		
500	79.9	65.1	67.6	72.6	64.6	62.2	64.2	68.0	**75.7**	**107.2**
630	81.1	69.3	71.3	72.8	66.8	66.9	67.7	70.8		
800	81.3	68.3	72.8	75	66.6	65.1	65.7	70.7		
1000	82.8	67.2	71.7	73.9	65.9	65.1	65.5	70.3	**75.2**	**106.7**
1250	84.8	66.3	71.3	71.8	66.6	65	66	70.3		
1600	84	67.3	71.6	71.6	66.8	65.2	67.3	70.5		
2000	82.8	66.2	70.6	70.4	65.2	64.7	65.5	69.3	**74.1**	**105.6**
2500	83.2	65.4	70.5	67	61.8	62	63.7	67.7		
3150	81.8	65	70.1	64.9	62	61.1	62.9	66.8		
4000	80.8	63.6	68.9	62.9	59.1	59.6	61.2	65.2	**70.1**	**101.6**
5000	78.5	61.6	66.7	60.6	57.8	57.3	59.4	63.1		
6300	77.1	60.7	65.9	58.9	57.6	54.9	56.9	61.7		
8000	74.5	57.8	63.2	55.4	51.4	52	54.3	58.4	**64.0**	**95.5**
10000	71.8	55.1	60.5	52	48.8	48.9	52.2	55.6		

Source Name	Liebherr 934 tracks placing #1 loose material on Sierra hopper tray, Sierra shear off				
Measurement Distance (m)		10			
Data Type		1/3 Octave		1/1 Octave	PWL (dB)
	Read 37	Read 38	Avg.	Avg.	
Frq (Hz)					
25	66.6	64.6	65.6		
31.5	72.4	71.7	72.1	**73.7**	**101.7**
40	67.9	63.9	65.9		
50	68.3	70	69.2		
63	75.5	72.8	74.2	**75.9**	**103.9**
80	69.4	64.1	66.8		
100	73.6	71	72.3		
125	72.7	71.6	72.2	**75.9**	**103.9**
160	66.5	68.5	67.5		
200	69.7	66.9	68.3		
250	70.1	66.6	68.4	**73.5**	**101.5**
315	72.6	66.3	69.5		
400	77.7	73.2	75.5		
500	75.5	69.5	72.5	**77.9**	**105.9**
630	72.7	66.8	69.8		
800	74.2	68.8	71.5		
1000	70.9	64.8	67.9	**74.1**	**102.1**
1250	71.3	63.7	67.5		
1600	74.1	67.2	70.7		
2000	72.6	64.7	68.7	**73.5**	**101.5**
2500	69.5	61.7	65.6		
3150	67.9	61.5	64.7		
4000	68.3	61.6	65.0	**69.5**	**97.5**
5000	68.2	60.9	64.6		
6300	67.5	59.9	63.7		
8000	65.1	58	61.6	**66.6**	**94.6**
10000	62.2	55.9	59.1		

Source Name	Liebherr 934 rubber loading #2 prepared into B train					
Measurement Distance (m)	10					
Data Type	1/3 Octave				1/1 Octave	PWL (dB)
	Read 39	Read 40	Read 41	Avg.	Avg.	
Frq (Hz)						
25	57.3	57.2	64.1	59.5		
31.5	63.7	63.7	75.3	67.6	**78.1**	**106.1**
40	78.6	78.3	76	77.6		
50	68.8	68	74	70.3		
63	68.5	65.9	73	69.1	**73.5**	**101.5**
80	65.3	60.1	71.3	65.6		
100	64.7	59.4	70.1	64.7		
125	67.6	59.9	64.9	64.1	**68.6**	**96.6**
160	64.4	56.6	65.5	62.2		
200	60.7	56.4	64.6	60.6		
250	62.6	59.3	60.4	60.8	**68.0**	**96.0**
315	66.4	66.1	65.4	66.0		
400	68.2	67.7	66.8	67.6		
500	66.1	66.3	64.2	65.5	**71.6**	**99.6**
630	67	69.3	65.3	67.2		
800	67.5	69.4	66	67.6		
1000	63.8	67.8	63.5	65.0	**71.1**	**99.1**
1250	65.4	68.4	64.3	66.0		
1600	65.8	69.2	65	66.7		
2000	65.1	70.3	65.6	67.0	**71.5**	**99.5**
2500	63.7	70.2	65.7	66.5		
3150	62.8	70.8	64.6	66.1		
4000	61.3	69.9	63.5	64.9	**69.8**	**97.7**
5000	59.4	69.5	62.1	63.7		
6300	58.3	67.7	60.6	62.2		
8000	56.8	66.2	58.4	60.5	**65.5**	**93.5**
10000	54.9	64.7	57.7	59.1		

Source Name	Michigan L90 loader engine rev					
Measurement Distance (m)	5					
Data Type	1/3 Octave				1/1 Octave	PWL (dB)
	Read 42	Read 43	Read 44	Avg.	Avg.	
Frq (Hz)						
25	63	62.6	59.1	61.6		
31.5	68.5	70.4	68.4	69.1	**80.3**	**102.2**
40	79.7	80.1	79.8	79.9		
50	65.8	65.9	65.2	65.6		
63	68.5	69.4	69.6	69.2	**73.7**	**95.7**
80	70.7	70	71.4	70.7		
100	69.6	70.1	69.3	69.7		
125	71.6	71.7	71.5	71.6	**77.3**	**99.2**
160	74.5	75	74.7	74.7		
200	72.7	72.5	71.5	72.2		
250	73.2	74.1	72.7	73.3	**80.8**	**102.8**
315	77.9	79.3	80.3	79.2		
400	68.5	68.2	68.7	68.5		
500	70.4	70.2	70.4	70.3	**76.6**	**98.5**
630	74.1	73.9	75.3	74.4		
800	72.7	72.8	71.1	72.2		
1000	69.3	68.6	68.1	68.7	**75.7**	**97.6**
1250	71.8	71.4	70.1	71.1		
1600	72.2	72.3	72.1	72.2		
2000	73.6	73.9	73.6	73.7	**77.1**	**99.0**
2500	70.9	70.9	69.4	70.4		
3150	68.9	68.4	68.2	68.5		
4000	65.2	65.3	64.5	65.0	**70.7**	**92.7**
5000	62.1	61.8	61.2	61.7		
6300	59.3	59.4	58	58.9		
8000	55.3	55.4	54.5	55.1	**61.3**	**83.2**
10000	54.3	54.1	53.2	53.9		

Source Name	Liebherr 924 rubber dropping rail cut offs					
Measurement Distance (m)		7				
Data Type		1/3 Octave			1/1 Octave	PWL (dB)
	Read 45	Read 46	Read 47	Avg.	Avg.	
Frq (Hz)						
25	64	63.8	66.6	64.8		
31.5	66.3	65.1	66	65.8	**69.5**	**94.4**
40	62.5	62.6	64.8	63.3		
50	67.2	66.9	67.9	67.3		
63	78.9	79.4	80.1	79.5	**79.9**	**104.8**
80	66.1	66.5	66.8	66.5		
100	67.7	67.3	68.1	67.7		
125	74.3	76.3	75.5	75.4	**76.7**	**101.6**
160	66.4	68.9	69.5	68.3		
200	69.2	70.3	72.1	70.5		
250	69.7	70	72.3	70.7	**75.5**	**100.4**
315	70.3	70.3	72.7	71.1		
400	72.8	75.3	75.9	74.7		
500	79.1	83	84.6	82.2	**88.3**	**113.2**
630	86.1	87.6	86.9	86.9		
800	84.4	86	86.3	85.6		
1000	79.6	83.5	85.4	82.8	**88.7**	**113.6**
1250	82.2	82.5	83.2	82.6		
1600	81.7	81.5	80.8	81.3		
2000	86.5	88.2	87.5	87.4	**90.6**	**115.5**
2500	84	87	88.9	86.6		
3150	82.4	81.2	82.3	82.0		
4000	82.7	83.4	82.6	82.9	**86.4**	**111.3**
5000	80.8	78	79.1	79.3		
6300	79	78	78.4	78.5		
8000	76	74.1	73.5	74.5	**80.5**	**105.3**
10000	73	70	70	71.0		

Source Name	Liebherr 924 rubber loading B train with #1 prepared						
Measurement Distance (m)			8				
Data Type			1/3 Octave			1/1 Octave	PWL (dB)
	Read 48	Read 49	Read 50	Read 51	Avg.	Avg.	
Frq (Hz)							
25	66.5	62.6	63.5	64.7	64.3		
31.5	75.9	63.9	65.7	69.1	68.7	**71.2**	**97.2**
40	74.6	59.6	61.2	64	64.9		
50	78.8	67.6	65.8	69	70.3		
63	83.9	74.6	77	77.9	78.4	**79.9**	**105.9**
80	87.5	68.7	63	70.8	72.5		
100	87.3	72.6	62.2	69.2	72.8		
125	88.4	73.4	68.8	69.6	75.1	**78.9**	**105.0**
160	89.6	75.8	63.8	67.8	74.3		
200	82.9	71.4	66.3	69.5	72.5		
250	79.2	71.1	69.1	69.7	72.3	**77.6**	**103.7**
315	80.6	70.3	72.1	71.7	73.7		
400	81.3	72.6	74.3	75.4	75.9		
500	79.3	75.5	76.4	77.5	77.2	**81.7**	**107.8**
630	75.8	76.3	77.9	80.4	77.6		
800	76.9	73	80.9	79.2	77.5		
1000	74.4	73.9	77.5	78	76.0	**81.3**	**107.4**
1250	74.7	73.8	76.7	78.8	76.0		
1600	73.9	73.6	76	76.9	75.1		
2000	72.8	73.8	76.5	78.2	75.3	**79.9**	**105.9**
2500	71.9	74.3	75.6	77.5	74.8		
3150	70.1	73.8	73.7	76	73.4		
4000	66.9	73.3	70.6	74.7	71.4	**76.4**	**102.4**
5000	63.8	71.6	68.4	72.3	69.0		
6300	61.1	70.2	66.4	70.5	67.1		
8000	57.1	67.8	62.6	67.9	63.9	**69.4**	**95.5**
10000	53.7	65.2	59.7	65.2	61.0		

Source Name	Cyclone outside door 4					
Measurement Distance (m)	5					
Data Type	1/3 Octave				1/1 Octave	PWL (dB)
	Read 52	Read 53	Read 54	Avg.	Avg.	
Frq (Hz)						
25	74.1	73.4	73.1	73.5		
31.5	72.1	71.5	71.6	71.7	**76.3**	**98.2**
40	66.7	66.8	67.1	66.9		
50	68.3	67.4	66.5	67.4		
63	73.4	72.2	72.7	72.8	**75.2**	**97.1**
80	70.1	68.6	69	69.2		
100	75.6	73.5	73.7	74.3		
125	75.7	73.9	74.2	74.6	**78.1**	**100.0**
160	69.4	69.1	69.4	69.3		
200	77.4	77.2	78	77.5		
250	69	68.3	68.6	68.6	**78.4**	**100.3**
315	66.8	66.6	66.7	66.7		
400	72.1	71.3	72	71.8		
500	67.1	66.2	67	66.8	**73.7**	**95.6**
630	66.4	64.6	64.9	65.3		
800	64.3	63.2	63.3	63.6		
1000	63.3	64.2	64.7	64.1	**69.1**	**91.0**
1250	65.2	65	65.2	65.1		
1600	65.4	65	65.3	65.2		
2000	65.1	64.9	65.2	65.1	**70.2**	**92.1**
2500	65.6	66	66	65.9		
3150	68.8	68.9	69	68.9		
4000	72	71.8	71.7	71.8	**75.3**	**97.3**
5000	70.6	70.5	70.4	70.5		
6300	71.1	71.2	71.2	71.2		
8000	72	72.3	72.2	72.2	**76.7**	**98.7**
10000	72.3	72.6	72.5	72.5		

Source Name	Liebherr 934 loading Sierra shear hopper with #2 loose					
Measurement Distance (m)		10				
Data Type		1/3 Octave			1/1 Octave	PWL (dB)
	Read 55	Read 56	Read 57	Avg.	Avg.	
Frq (Hz)						
25	62.2	65	65.3	64.2		
31.5	65.3	65.2	69.5	66.7	**71.1**	**99.0**
40	60.8	65.9	75.5	67.4		
50	68.9	71.2	79	73.0		
63	78.1	76.3	78.9	77.8	**79.4**	**107.4**
80	65.5	67.2	74.2	69.0		
100	71.5	71.7	74.7	72.6		
125	71.3	72.7	74.5	72.8	**77.1**	**105.1**
160	68.9	71.1	74.5	71.5		
200	68.1	70.2	71.7	70.0		
250	65.2	67.7	69.8	67.6	**74.6**	**102.6**
315	68.5	73.3	71.6	71.1		
400	69.4	78.3	74.6	74.1		
500	69.4	79.7	75.2	74.8	**78.9**	**106.8**
630	68.5	78.2	73.2	73.3		
800	68.6	79.4	74.1	74.0		
1000	70.4	79.4	74.4	74.7	**79.6**	**107.6**
1250	69.6	81.6	75.4	75.5		
1600	69.8	81.6	74.7	75.4		
2000	69.7	81.6	74	75.1	**79.8**	**107.8**
2500	68.8	81.4	73.4	74.5		
3150	68.5	81.7	73.3	74.5		
4000	68.5	81	71.8	73.8	**78.6**	**106.6**
5000	68.4	80.3	71.1	73.3		
6300	66.7	79.3	69.4	71.8		
8000	65.1	77.7	67.6	70.1	**75.1**	**103.1**
10000	63.2	76.4	65.8	68.5		

Source Name	Sierra electric shear - combined, #2 loose							
Measurement Distance (m)			10					
Data Type			1/3 Octave				1/1 Octave	PWL (dB)
	Read 58	Read 59	Read 60	Read 61	Read 62	Avg.	Avg.	
Frq (Hz)								
25	71.5	75.1	61.6	61.5	58.8	65.7		
31.5	75.1	73.3	67.9	67.5	66.3	70.02	**72.5**	**100.5**
40	74	69.8	60.1	65.5	61.6	66.2		
50	76.7	62.1	57.9	64	60.6	64.26		
63	80.6	66.9	64.8	65.7	65.1	68.62	**72.4**	**100.4**
80	78.7	65.3	64.5	69.1	66.2	68.76		
100	79.3	67.9	64.7	70.1	66.3	69.66		
125	75.2	62.4	59.7	71.4	62.3	66.2	**72.2**	**100.2**
160	73.7	63.4	61.1	66	61.6	65.16		
200	71	60.9	62.7	65.3	60.7	64.12		
250	69	54.4	53.6	57.9	53.6	57.7	**66.3**	**94.3**
315	67.7	56.9	56.7	60.7	59.4	60.28		
400	76.9	74.5	72.5	71.7	69.8	73.08		
500	74.4	63.9	66.1	68.1	62.6	67.02	**75.0**	**103.0**
630	74	66.1	66.8	68.4	65.5	68.16		
800	71.6	63.5	66.5	66.7	63.2	66.3		
1000	73.2	61.5	67.6	68.2	63.6	66.82	**70.7**	**98.7**
1250	71.7	60	63	65.5	61.3	64.3		
1600	70.7	60.8	64.9	67.2	67.1	66.14		
2000	69.5	58.4	61.8	64.8	63.3	63.56	**69.0**	**97.0**
2500	68.4	57.4	60	63.6	60.4	61.96		
3150	67.4	57.2	58.9	62.3	60.2	61.2		
4000	65.8	56.4	57.8	61.4	58.8	60.04	**64.6**	**92.6**
5000	64.7	53.5	55.2	58.6	56.3	57.66		
6300	62.8	52.6	53.2	56.3	54.3	55.84		
8000	61.1	50.3	52.2	53.8	52.6	54	**58.8**	**86.8**
10000	58.7	48.3	47.2	51	49.1	50.86		

Source Name	EZ crusher, cyclone off						
Measurement Distance (m)	6						
Data Type	1/3 Octave					1/1 Octave	PWL (dB)
	Read 1	Read 2	Read 3	Read 4	Avg.	Avg.	
Frq (Hz)							
25	69.6	61.7	64.5	60.3	64.0		
31.5	67.2	64.8	66.4	63.8	65.6	**70.3**	**93.8**
40	65.7	66.2	68.5	65.8	66.6		
50	80.5	89.8	89	83.3	85.7		
63	80.8	90.6	90.5	86.3	87.1	**89.6**	**113.2**
80	86.7	67.3	68	84.3	76.6		
100	71.5	73.3	75.9	71.6	73.1		
125	71.9	75.3	75	72.8	73.8	**77.0**	**100.6**
160	69.8	66.9	66.7	68.9	68.1		
200	67.8	65.5	65.8	68.7	67.0		
250	70.1	66.4	68.1	68.6	68.3	**73.1**	**96.6**
315	72	66.9	66	72.4	69.3		
400	69.6	64.2	64.2	69.7	66.9		
500	69.7	69.1	68.4	69.7	69.2	**74.5**	**98.1**
630	76.2	71.1	67.8	72.1	71.8		
800	74	68.8	65.3	69.1	69.3		
1000	66.9	68.1	65	67.9	67.0	**73.0**	**96.5**
1250	68.3	70.1	66.5	67.1	68.0		
1600	69.4	73	66.2	66.2	68.7		
2000	68.4	74.8	65.8	64.9	68.5	**73.2**	**96.7**
2500	65.3	74.2	68.8	63.8	68.0		
3150	65.3	77.3	68.7	63.1	68.6		
4000	61.3	77.4	68.8	59.5	66.8	**72.3**	**95.9**
5000	61	78.6	69.5	59.2	67.1		
6300	59.9	79.3	70.5	58.6	67.1		
8000	58.3	80.7	71.3	57.4	66.9	**71.5**	**95.0**
10000	55.9	81.2	71.5	55.4	66.0		

Source Name	Granulator					
Measurement Distance (m)	3					
Data Type	1/3 Octave				1/1 Octave	PWL (dB)
	Read 5	Read 6	Read 7	Avg.	Avg.	
Frq (Hz)						
25	69.1	69.1	70.2	69.5		
31.5	66.8	65.3	67.3	66.5	**74.4**	**91.9**
40	72	70.9	71.8	71.6		
50	76.7	75.2	78.1	76.7		
63	78.7	79.3	79.7	79.2	**81.4**	**98.9**
80	68.4	67.8	68.8	68.3		
100	73.9	73.4	74.7	74.0		
125	76.2	75.3	77.1	76.2	**80.1**	**97.6**
160	77.1	74.4	75.1	75.5		
200	77.5	75.9	76.9	76.8		
250	76.4	75.5	77.7	76.5	**82.9**	**100.4**
315	80.2	79	80.9	80.0		
400	87.7	85	86.7	86.5		
500	85.7	86.3	89	87.0	**90.5**	**108.1**
630	83	82.1	83	82.7		
800	80.6	82.4	83.4	82.1		
1000	88	88.5	87.8	88.1	**90.2**	**107.7**
1250	83.7	83.8	84.1	83.9		
1600	82.1	83.3	85	83.5		
2000	82.3	81.2	84	82.5	**87.8**	**105.3**
2500	83	81.4	84.5	83.0		
3150	84.4	82.9	85.5	84.3		
4000	80.7	81.8	83.6	82.0	**87.2**	**104.7**
5000	78.6	79.1	81.3	79.7		
6300	75.8	76.4	78.9	77.0		
8000	73.5	73.8	76.8	74.7	**79.7**	**97.2**
10000	70.3	70.6	73.2	71.4		

Source Name	Pacific Canton shear line with shaker tables - indoors					
Measurement Distance (m)	3					
Data Type	1/3 Octave				1/1 Octave	PWL (dB)
	Read 8	Read 9	Read 10	Avg.	Avg.	
Frq (Hz)						
25	66.9	68	69	68.0		
31.5	79.5	79.1	78.6	79.1	**81.2**	**98.7**
40	74.1	78.4	77.2	76.6		
50	83.1	84.3	83.5	83.6		
63	83.4	83.8	83.1	83.4	**87.5**	**105.0**
80	79.2	82.3	79.5	80.3		
100	82.6	87.6	82.9	84.4		
125	86.9	88.2	86.1	87.1	**92.5**	**110.0**
160	90.1	90.4	89.3	89.9		
200	89.7	90.1	89.2	89.7		
250	85.6	86.4	85.1	85.7	**92.4**	**109.9**
315	85.7	87.7	86.2	86.5		
400	92.6	92.4	92.6	92.5		
500	87.5	88.4	87.3	87.7	**95.2**	**112.8**
630	89.1	90.5	89.8	89.8		
800	88	89.8	89.4	89.1		
1000	88.4	89	89	88.8	**93.7**	**111.2**
1250	87.4	90	89.2	88.9		
1600	88.1	91.5	90.4	90.0		
2000	87.7	91.4	91.3	90.1	**94.7**	**112.2**
2500	87.8	90	91.1	89.6		
3150	87.7	90.7	91.4	89.9		
4000	86.3	89.2	91.1	88.9	**93.7**	**111.2**
5000	84.8	88.1	90.1	87.7		
6300	82.5	86.3	89.1	86.0		
8000	80.7	84.4	87.1	84.1	**89.0**	**106.5**
10000	78.2	81.8	84.3	81.4		

Source Name	Pacific Canton shear line with shaker tables - combined outdoors							
Measurement Distance (m)	3							
Data Type	1/3 Octave						1/1 Octave	PWL (dB)
	Read 11	Read 12	Read 13	Read 14	Read 15	Avg.	Avg.	
Frq (Hz)								
25	63.9	65	62	65.6	63.3	64.0		
31.5	70.8	70.8	69.3	72.1	73.1	71.2	**72.9**	**90.4**
40	63.9	63.1	61.6	69.1	70.3	65.6		
50	65.1	64.8	64.9	70.9	71.6	67.5		
63	67	66	66.4	73.2	72.9	69.1	**73.7**	**91.2**
80	67.9	65.1	62.9	76.6	77	69.9		
100	68.7	67.6	67.5	71.6	72.3	69.5		
125	71.7	70.9	70.9	74.8	75.1	72.7	**76.0**	**93.5**
160	69.2	68.1	68	74.5	74.3	70.8		
200	65.2	64.7	64.8	75.4	75.3	69.1		
250	64.9	65.3	64.5	73.3	73.8	68.4	**75.0**	**92.5**
315	70.1	70.6	70.2	75	74.8	72.1		
400	72.6	73.7	72.7	75.3	75.2	73.9		
500	73.2	74.6	73.8	75.6	75.9	74.6	**78.8**	**96.4**
630	72.7	73.7	73.3	73.8	74.5	73.6		
800	72.8	75.4	74.7	74.3	74.3	74.3		
1000	76.6	78.3	78.6	76.4	76.8	77.3	**81.5**	**99.0**
1250	76.2	79.8	78.7	76.7	77.2	77.7		
1600	78.5	81	80.4	78.4	78.9	79.4		
2000	79.9	82.5	82.3	79.4	80.2	80.9	**85.6**	**103.1**
2500	81.2	83	82.9	80.4	81.6	81.8		
3150	81.5	83.8	83.5	81.2	81.7	82.3		
4000	82	84.4	84.1	81.5	82.1	82.8	**87.3**	**104.9**
5000	82.1	84.3	83.9	80.8	81.5	82.5		
6300	81.3	83.9	83.4	80.2	80.9	81.9		
8000	79.3	81.8	81.6	78.5	79.1	80.1	**85.0**	**102.5**
10000	77	79.2	78.8	75.9	76.5	77.5		

Source Name	Building exhaust vent (x5)					
Measurement Distance (m)	3					
Data Type	1/3 Octave				1/1 Octave	PWL (dB)
	Read 17	Read 18	Read 19	Avg.	Avg.	
Frq (Hz)						
25	65.9	78.3	72.8	72.3		
31.5	62.5	76.9	70.4	69.9	**75.2**	**98.7**
40	60	76	67.2	67.7		
50	58.1	73.2	63.9	65.1		
63	56.7	70.6	61.6	63.0	**68.3**	**91.9**
80	58.4	66.8	60.9	62.0		
100	55.6	64	59.8	59.8		
125	61.4	63.6	62.2	62.4	**68.2**	**91.8**
160	67.1	66	64.8	66.0		
200	66.5	65.2	64.2	65.3		
250	60.2	60.8	60.2	60.4	**66.9**	**90.5**
315	55	57.4	57.4	56.6		
400	57.1	56.5	56.1	56.6		
500	57.5	61	61.2	59.9	**63.0**	**86.5**
630	57.7	57.2	57.7	57.5		
800	60	58.2	57.5	58.6		
1000	54.2	56	55	55.1	**61.1**	**84.6**
1250	53.4	54.5	53.3	53.7		
1600	51.5	53.4	53.5	52.8		
2000	53.4	53.3	54.6	53.8	**60.3**	**83.8**
2500	58.1	57.5	58.4	58.0		
3150	57.7	58.7	58.4	58.3		
4000	55.5	57.2	56	56.2	**62.0**	**85.5**
5000	56.1	57.3	57.2	56.9		
6300	55.6	56.2	57	56.3		
8000	53.6	54.4	54.5	54.2	**59.2**	**82.7**
10000	50.7	51.9	52.1	51.6		

Appendix C

Sound Level Meter Calibration Certificate

CERTIFICATE of CALIBRATION

Make :	Norsonic	Reference # :	133811
Model :	NOR140	Customer :	Dillon Consulting Ltd Burlington, ON
Descr. :	SLM Type 1		
Serial # :	1403048	P. Order :	73000
Asset # :	NAN		

Cal. status : Received in spec's, no adjustment made.

Navair Technologies certifies that the above listed instrument was calibrated on date noted and was released from this laboratory performing in accordance with the specifications set forth by the manufacturer.

Unless otherwise noted in the calibration report a 4:1 accuracy ratio was maintained for this calibration.

Our calibration system complies with the requirements of ISO-17025 standard, working standards used for calibration are certified by or traceable to the National Research Council of Canada or the National Institute of Standards and Technology.

Calibrated : Mar 18, 2014 By : T. Beilin

Cal. Due : Mar 18, 2015

Temperature : 23 °C ± 2 °C Relative Humidity : 30% to 70%

Standards used : J-216 J-303 J-512

Navair Technologies

REPAIR AND CALIBRATION TRACEABLE TO NRC AND NIST

6375 Dixie Rd. Mississauga, ON, L5T 2E7 http: // www.navair.com

Phone : 905 565 1584 Fax: 905 565 8325 e-Mail: navair @ navair.com

6375 Dixie Rd Unit# 7,
Mississauga, ON L5T 2E7
Tel: (905)565-1583
Fax: (905)565-8325

Form:NOR140	Approved by:JR	Date:Nov/10	ver1.0

Calibration Report part of Certificate: 133811

Make	Model	Serial	Asset
Norsonic	NOR140	1403048	nan

With mike NOR1225 s# 72837 preamp 1209 s#12539
TYPE 1 Specs

Test	Reading	In/Out

Freq.Response
Tested with dummy mike IEC61672-1 limits
WTG Curve Check

kHz	Min	A	Max	
31.5	72.6	74.4	76.6	In
63	86.3	87.8	89.3	In
0.125	96.4	97.8	99.4	In
0.25	103.9	105.3	106.8	In
0.5	109.4	110.8	112.2	In
1	112.9	114.0	115.1	In
2	113.6	115.1	116.8	In
4	113.4	114.9	116.6	In
8	109.8	112.8	115.0	In
12.5	103.7	109.8	112.7	In
		C		
31.5	109.0	110.9	113.0	In
63	111.7	113.2	114.7	In
0.125	112.3	113.8	115.3	In
0.25	112.5	114.0	115.4	In
0.5	112.6	114.0	115.4	In
1	112.9	114.0	115.1	In
2	112.2	113.8	115.4	In
4	111.6	113.1	114.8	In
8	107.9	110.9	113.1	In
12.5	101.8	107.9	110.8	In

6375 Dixie Rd Unit# 7,
Mississauga, ON L5T 2E7
Tel: (905)565-1583
Fax: (905)565-8325

133811

Test		Reading		In/Out
		Z		
31.5	112.0	113.9	116.0	In
63	112.5	114.0	115.5	In
0.125	112.5	114.0	115.5	In
0.25	112.5	114.0	115.4	In
0.5	112.6	114.0	115.4	In
1	112.9	114.0	115.1	In
2	112.4	114.0	115.6	In
4	112.4	114.0	115.6	In
8	110.9	114.0	116.1	In
12.5	108.0	114.0	117.0	In
Scale Test with microphone				
Scale				
dBc @1kHz				
I/P dB				
120dB Range				
114	113.5	114.0	114.5	In
104	103.5	104.1	104.5	In
94	93.5	94.1	94.5	In
130dB Range				
114	113.0	114.0	115.0	In
114.1				
110dB Range				
104	103.0	104.1	105.0	In
94	93.0	94.1	95.0	In
100dB Range				
94	83.0	94.1	95.0	In
Impulse Test				Pass
Fast/Slow				Pass
AC O/P				Pass

CERTIFICATE of CALIBRATION

Make :	Norsonic	Reference # :	133812
Model :	1251	Customer :	Dillon Consulting Ltd Oakville, ON
Descr. :	Sound cal 114dB 1KHz		
Serial # :	31746	P. Order :	73000
Asset # :	NAN		

Cal. status : Received in spec's, no adjustment made.

Navair Technologies certifies that the above listed instrument was calibrated on date noted and was released from this laboratory performing in accordance with the specifications set forth by the manufacturer.

Unless otherwise noted in the calibration report a 4:1 accuracy ratio was maintained for this calibration.

Our calibration system complies with the requirements of ISO-17025 standard, working standards used for calibration are certified by or traceable to the National Research Council of Canada or the National Institute of Standards and Technology.

Calibrated : Mar 19, 2014 By : J. Raposo

Cal. Due : Mar 19, 2015

Temperature : 23 °C ± 2 °C Relative Humidity : 30% to 70%

Standards used : J-163 J-261 J-282 J-508

Navair Technologies

REPAIR AND CALIBRATION TRACEABLE TO NRC AND NIST

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Tel: (905)565-1583
Fax: (905)565-8325

Form:NOR1251	Approved By:JR Sep07	ver 1.0

Calibration Report part of Certificate #: 133812

Make	Model	Serial	Asset	Cal. By
Norsonic	1251	31746	nan	jr

Test		Min	Reading	Max	In/Out
SPL					
114dB	98.9kPa	113.8	114.0	114.2	In
Freq. Accuracy					
1000Hz		998.0	1000.5	1002	In

Appendix D

Sample CADNA/A Output File

Receiver
Name: POR1
ID: POR1
X: 629272.63 m
Y: 5521820.26 m
Z: 6.00 m

Point Source, ISO 9613, Name: "Sierra Shear - Processing No 1 loose", ID: "SS1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
5	629056.01	5521692.36	3.00	0	DEN	A	121.6	0.0	0.0	0.0	0.0	59.0	1.9	-1.2	0.0	0.0	22.6	0.0	0.0	39.3

Point Source, ISO 9613, Name: "Ourdoor Shear", ID: "OS"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
14	629030.36	5521616.49	3.00	0	DEN	A	121.6	0.0	0.0	0.0	0.0	61.0	2.2	-1.4	0.0	0.0	10.0	0.0	0.0	49.8

Point Source, ISO 9613, Name: "LB934 - Material Handling", ID: "LB934_MH"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
34	629044.12	5521683.19	4.00	0	DEN	A	114.4	0.0	0.0	0.0	0.0	59.5	3.8	-1.3	0.0	0.0	15.6	0.0	0.0	36.8

Point Source, ISO 9613, Name: "LB934 - Material Handling", ID: "LB934_MH"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
38	629032.26	5521623.12	4.00	0	DEN	A	114.4	0.0	0.0	0.0	0.0	60.9	4.2	-1.3	0.0	0.0	10.3	0.0	0.0	40.4

Point Source, ISO 9613, Name: "Material Handling - Rail cuts (LB 924)", ID: "MHRC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
49	629071.60	5521666.49	3.50	0	D	A	120.0	0.0	-3.0	0.0	0.0	59.1	2.4	-1.3	0.0	0.0	11.1	0.0	0.0	45.6
49	629071.60	5521666.49	3.50	0	N	A	120.0	0.0	-188.0	0.0	0.0	59.1	2.4	-1.3	0.0	0.0	11.1	0.0	0.0	-139.3
49	629071.60	5521666.49	3.50	0	E	A	120.0	0.0	-188.0	0.0	0.0	59.1	2.4	-1.3	0.0	0.0	11.1	0.0	0.0	-139.3

Point Source, ISO 9613, Name: "Non-ferrous baghouse", ID: "NF_BH"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
57	629103.63	5521689.23	3.00	0	DEN	A	108.8	0.0	0.0	0.0	0.0	57.6	0.4	-1.1	0.0	0.0	18.2	0.0	0.0	33.7

Point Source, ISO 9613, Name: "B Train loading - No 1 material (LB 934)", ID: "BTL"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
61	629038.07	5521707.05	4.00	0	DEN	A	105.3	0.0	0.0	0.0	0.0	59.3	2.6	-1.3	0.0	0.0	16.8	0.0	0.0	28.0

Point Source, ISO 9613, Name: "EZ Crusher", ID: "EZC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
68	629064.13	5521582.94	2.50	0	DEN	A	103.5	0.0	0.0	0.0	0.0	61.0	3.1	-1.4	0.0	0.0	15.4	0.0	0.0	25.4

Point Source, ISO 9613, Name: "Michigan L90 loader", ID: "ML90"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
70	629049.46	5521643.27	2.50	0	DEN	A	102.1	0.0	0.0	0.0	0.0	60.1	1.9	-1.0	0.0	0.0	11.9	0.0	0.0	29.2

Point Source, ISO 9613, Name: "Rad cooling fan 1", ID: "RCF1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
71	629038.20	5521606.09	3.10	0	DEN	A	102.2	0.0	0.0	0.0	0.0	61.0	1.4	-1.3	0.0	0.0	22.7	0.0	0.0	18.2

Point Source, ISO 9613, Name: "Rad cooling fan 1", ID: "RCF1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
73	629038.28	5521604.96	3.10	0	DEN	A	102.2	0.0	0.0	0.0	0.0	61.1	1.5	-1.3	0.0	0.0	23.3	0.0	0.0	17.6

Point Source, ISO 9613, Name: "Mill", ID: "ML"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
77	629118.64	5521664.33	3.50	0	DEN	A	98.8	0.0	0.0	0.0	0.0	57.8	1.7	-0.7	0.0	0.0	0.0	0.0	0.0	40.0

Point Source, ISO 9613, Name: "Cyclone (overall)", ID: "CYCL"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
88	629077.47	5521600.32	3.00	0	DEN	A	101.0	0.0	0.0	0.0	0.0	60.4	5.1	-0.8	0.0	0.0	18.9	0.0	0.0	17.5

Point Source, ISO 9613, Name: "Material drop Bins", ID: "MDB"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
89	628996.13	5521622.46	1.50	0	DEN	A	100.1	0.0	0.0	0.0	0.0	61.6	2.5	-1.2	0.0	0.0	8.8	0.0	0.0	28.4

Point Source, ISO 9613, Name: "Ring Mill", ID: "RM"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
91	629025.94	5521602.68	3.50	0	DEN	A	98.8	0.0	0.0	0.0	0.0	61.3	2.2	-1.2	0.0	0.0	15.0	0.0	0.0	21.4

Point Source, ISO 9613, Name: "Baghouse - pulsating", ID: "BH"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
93	628988.82	5521604.99	3.00	0	DEN	A	98.8	0.0	0.0	0.0	0.0	62.0	0.7	-1.6	0.0	0.0	25.0	0.0	0.0	12.6

Point Source, ISO 9613, Name: "Shaker Tables & mag sep", ID: "ST2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
96	629122.23	5521676.03	3.50	0	DEN	A	92.0	0.0	0.0	0.0	0.0	57.4	0.4	-1.0	0.0	0.0	0.0	0.0	0.0	35.2

Point Source, ISO 9613, Name: "Ourdoor Shear2", ID: "OS2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
99	629098.68	5521670.42	3.00	0	DEN	A	91.6	0.0	0.0	0.0	0.0	58.2	1.7	-1.1	0.0	0.0	19.8	0.0	0.0	12.9

Point Source, ISO 9613, Name: "Granulator", ID: "GRN"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
102	629084.36	5521604.32	2.50	0	DEN	A	92.5	0.0	0.0	0.0	0.0	60.1	2.4	-1.2	0.0	0.0	0.0	0.0	0.0	31.2

Point Source, ISO 9613, Name: "Shaker Tables x 3", ID: "ST"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
104	628993.08	5521614.98	3.50	0	DEN	A	92.0	0.0	0.0	0.0	0.0	61.8	0.7	-1.6	0.0	0.0	5.4	0.0	0.0	25.7

Point Source, ISO 9613, Name: "Dust collector and bags", ID: "DC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
105	628993.61	5521603.69	3.50	0	DEN	A	91.9	0.0	0.0	0.0	0.0	62.0	3.1	-1.4	0.0	0.0	24.0	0.0	0.0	4.3

Point Source, ISO 9613, Name: "bldg exh", ID: "BEX1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
106	629028.97	5521596.21	8.00	0	DEN	A	85.9	0.0	0.0	0.0	0.0	61.4	1.9	-1.0	0.0	0.0	5.6	0.0	0.0	17.9

Point Source, ISO 9613, Name: "bldg exh", ID: "BEX2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
107	629019.42	5521596.96	8.00	0	DEN	A	85.9	0.0	0.0	0.0	0.0	61.6	2.0	-1.0	0.0	0.0	23.1	0.0	0.0	0.2

Point Source, ISO 9613, Name: "Excel Bailer - indoor", ID: "EB"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
109	629112.57	5521658.79	1.00	0	DEN	A	75.9	0.0	0.0	0.0	0.0	58.1	2.2	-0.3	0.0	0.0	20.6	0.0	0.0	-4.7

Point Source, ISO 9613, Name: "Material drop + mag sep + eddy current", ID: "MD"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
111	629010.25	5521607.73	3.00	0	DEN	A	75.1	0.0	0.0	0.0	0.0	61.6	2.4	-1.6	0.0	0.0	8.8	0.0	0.0	3.8

Point Source, ISO 9613, Name: "Air Compressor - indoor", ID: "AC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
112	629120.64	5521685.99	1.00	0	DEN	A	68.4	0.0	0.0	0.0	0.0	57.1	1.2	1.5	0.0	0.0	4.6	0.0	0.0	3.9

Road, TNM, Name: "Onsite Truck Route", ID: "TRK_Rt"													
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	Ad	Aair	Agr	Afol	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
113	629059.20	5521639.13	0.10	0	D	A	51.5	-29.0	0.0	13.7	0.0	0.0	8.8
113	629059.20	5521639.13	0.10	0	N	A	-74.2	-29.0	0.0	13.7	0.0	0.0	-110.6
113	629059.20	5521639.13	0.10	0	E	A	-74.2	-29.0	0.0	13.7	0.0	0.0	-110.6
116	629047.82	5521598.84	0.10	0	D	A	51.5	-25.1	0.0	13.5	0.0	0.0	13.0
116	629047.82	5521598.84	0.10	0	N	A	-74.2	-25.1	0.0	13.5	0.0	0.0	-106.3
116	629047.82	5521598.84	0.10	0	E	A	-74.2	-25.1	0.0	13.5	0.0	0.0	-106.3
126	629038.28	5521565.07	0.10	0	D	A	51.5	-35.6	0.0	9.5	0.0	0.0	6.4
126	629038.28	5521565.07	0.10	0	N	A	-74.2	-35.6	0.0	9.5	0.0	0.0	-112.9
126	629038.28	5521565.07	0.10	0	E	A	-74.2	-35.6	0.0	9.5	0.0	0.0	-112.9
129	629037.04	5521560.66	0.10	0	D	A	51.5	-40.4	0.0	13.2	0.0	0.0	-2.1
129	629037.04	5521560.66	0.10	0	N	A	-74.2	-40.4	0.0	13.2	0.0	0.0	-121.3
129	629037.04	5521560.66	0.10	0	E	A	-74.2	-40.4	0.0	13.2	0.0	0.0	-121.3
132	629032.86	5521545.86	0.10	0	D	A	51.5	-29.8	0.0	13.2	0.0	0.0	8.5
132	629032.86	5521545.86	0.10	0	N	A	-74.2	-29.8	0.0	13.2	0.0	0.0	-110.6
132	629032.86	5521545.86	0.10	0	E	A	-74.2	-29.8	0.0	13.2	0.0	0.0	-110.6
136	629028.24	5521529.51	0.10	0	D	A	51.5	-37.3	0.0	7.2	0.0	0.0	7.0
136	629028.24	5521529.51	0.10	0	N	A	-74.2	-37.3	0.0	7.2	0.0	0.0	-111.8
136	629028.24	5521529.51	0.10	0	E	A	-74.2	-37.3	0.0	7.2	0.0	0.0	-111.8
139	629024.22	5521515.27	0.10	0	D	A	51.5	-31.2	0.0	6.9	0.0	0.0	13.4
139	629024.22	5521515.27	0.10	0	N	A	-74.2	-31.2	0.0	6.9	0.0	0.0	-105.6
139	629024.22	5521515.27	0.10	0	E	A	-74.2	-31.2	0.0	6.9	0.0	0.0	-105.6
141	629059.20	5521639.13	1.52	0	D	A	50.7	-29.0	0.0	13.8	0.0	0.0	7.9
141	629059.20	5521639.13	1.52	0	N	A	-74.2	-29.0	0.0	13.8	0.0	0.0	-111.1
141	629059.20	5521639.13	1.52	0	E	A	-74.2	-29.0	0.0	13.8	0.0	0.0	-111.1
144	629047.82	5521598.84	1.52	0	D	A	50.7	-25.1	0.0	13.4	0.0	0.0	12.2
144	629047.82	5521598.84	1.52	0	N	A	-74.2	-25.1	0.0	13.4	0.0	0.0	-106.8
144	629047.82	5521598.84	1.52	0	E	A	-74.2	-25.1	0.0	13.4	0.0	0.0	-106.8
158	629038.28	5521565.07	1.52	0	D	A	50.7	-35.6	0.0	8.8	0.0	0.0	6.3
158	629038.28	5521565.07	1.52	0	N	A	-74.2	-35.6	0.0	8.8	0.0	0.0	-113.1
158	629038.28	5521565.07	1.52	0	E	A	-74.2	-35.6	0.0	8.8	0.0	0.0	-113.1
166	629037.04	5521560.66	1.52	0	D	A	50.7	-40.4	0.0	13.1	0.0	0.0	-2.8
166	629037.04	5521560.66	1.52	0	N	A	-74.2	-40.4	0.0	13.1	0.0	0.0	-121.7
166	629037.04	5521560.66	1.52	0	E	A	-74.2	-40.4	0.0	13.1	0.0	0.0	-121.7
173	629032.86	5521545.86	1.52	0	D	A	50.7	-29.8	0.0	13.0	0.0	0.0	7.8
173	629032.86	5521545.86	1.52	0	N	A	-74.2	-29.8	0.0	13.0	0.0	0.0	-111.0
173	629032.86	5521545.86	1.52	0	E	A	-74.2	-29.8	0.0	13.0	0.0	0.0	-111.0
182	629028.24	5521529.51	1.52	0	D	A	50.7	-37.3	0.0	7.5	0.0	0.0	5.9
182	629028.24	5521529.51	1.52	0	N	A	-74.2	-37.3	0.0	7.5	0.0	0.0	-111.8
182	629028.24	5521529.51	1.52	0	E	A	-74.2	-37.3	0.0	7.5	0.0	0.0	-111.8
183	629024.22	5521515.27	1.52	0	D	A	50.7	-31.2	0.0	7.6	0.0	0.0	11.9
183	629024.22	5521515.27	1.52	0	N	A	-74.2	-31.2	0.0	7.6	0.0	0.0	-105.8
183	629024.22	5521515.27	1.52	0	E	A	-74.2	-31.2	0.0	7.6	0.0	0.0	-105.8
186	629066.00	5521654.64	0.10	0	D	A	51.5	-30.1	0.0	14.0	0.0	0.0	7.4
186	629066.00	5521654.64	0.10	0	N	A	-74.2	-30.1	0.0	14.0	0.0	0.0	-112.0
186	629066.00	5521654.64	0.10	0	E	A	-74.2	-30.1	0.0	14.0	0.0	0.0	-112.0
188	629066.00	5521654.64	1.52	0	D	A	50.7	-30.1	0.0	14.1	0.0	0.0	6.5
188	629066.00	5521654.64	1.52	0	N	A	-74.2	-30.1	0.0	14.1	0.0	0.0	-112.6
188	629066.00	5521654.64	1.52	0	E	A	-74.2	-30.1	0.0	14.1	0.0	0.0	-112.6

Receiver
Name: POR2
ID: POR2
X: 629243.22 m
Y: 5521723.55 m
Z: 6.00 m

Point Source, ISO 9613, Name: "Sierra Shear - Processing No 1 loose", ID: "SS1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
1	629056.01	5521692.36	3.00	0	DEN	A	121.6	0.0	0.0	0.0	0.0	56.6	1.5	-1.3	0.0	0.0	22.4	0.0	0.0	42.5

Point Source, ISO 9613, Name: "Ourdoor Shear", ID: "OS"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
2	629030.36	5521616.49	3.00	0	DEN	A	121.6	0.0	0.0	0.0	0.0	58.5	1.8	-1.3	0.0	0.0	12.8	0.0	0.0	49.7

Point Source, ISO 9613, Name: "LB934 - Material Handling", ID: "LB934_MH"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
9	629044.12	5521683.19	4.00	0	DEN	A	114.4	0.0	0.0	0.0	0.0	57.2	3.1	-1.3	0.0	0.0	10.2	0.0	0.0	45.2

Point Source, ISO 9613, Name: "LB934 - Material Handling", ID: "LB934_MH"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
11	629032.26	5521623.12	4.00	0	DEN	A	114.4	0.0	0.0	0.0	0.0	58.4	3.5	-1.3	0.0	0.0	13.4	0.0	0.0	40.4

Point Source, ISO 9613, Name: "Material Handling - Rail cuts (LB 924)", ID: "MHRC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
13	629071.60	5521666.49	3.50	0	D	A	120.0	0.0	-3.0	0.0	0.0	56.1	1.9	-1.3	0.0	0.0	17.8	0.0	0.0	42.5
13	629071.60	5521666.49	3.50	0	N	A	120.0	0.0	-188.0	0.0	0.0	56.1	1.9	-1.3	0.0	0.0	17.8	0.0	0.0	-142.5
13	629071.60	5521666.49	3.50	0	E	A	120.0	0.0	-188.0	0.0	0.0	56.1	1.9	-1.3	0.0	0.0	17.8	0.0	0.0	-142.5

Point Source, ISO 9613, Name: "Non-ferrous baghouse", ID: "NF_BH"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
15	629103.63	5521689.23	3.00	0	DEN	A	108.8	0.0	0.0	0.0	0.0	54.2	0.3	-1.1	0.0	0.0	20.0	0.0	0.0	35.4

Point Source, ISO 9613, Name: "B Train loading - No 1 material (LB 934)", ID: "BTL"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
30	629038.07	5521707.05	4.00	0	DEN	A	105.3	0.0	0.0	0.0	0.0	57.3	2.2	-1.3	0.0	0.0	13.9	0.0	0.0	33.2

Point Source, ISO 9613, Name: "EZ Crusher", ID: "EZC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
32	629064.13	5521582.94	2.50	0	DEN	A	103.5	0.0	0.0	0.0	0.0	58.1	2.6	-1.2	0.0	0.0	17.1	0.0	0.0	26.8

Point Source, ISO 9613, Name: "Mill", ID: "ML"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
35	629118.64	5521664.33	3.50	0	DEN	A	98.8	0.0	0.0	0.0	0.0	53.8	1.2	-0.8	0.0	0.0	0.0	0.0	0.0	44.6

Point Source, ISO 9613, Name: "Michigan L90 loader", ID: "ML90"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
37	629049.46	5521643.27	2.50	0	DEN	A	102.1	0.0	0.0	0.0	0.0	57.4	1.5	-1.0	0.0	0.0	14.5	0.0	0.0	29.6

Point Source, ISO 9613, Name: "Rad cooling fan 1", ID: "RCF1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
39	629038.20	5521606.09	3.10	0	DEN	A	102.2	0.0	0.0	0.0	0.0	58.5	1.1	-1.2	0.0	0.0	23.5	0.0	0.0	20.2

Point Source, ISO 9613, Name: "Rad cooling fan 1", ID: "RCF1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
40	629038.28	5521604.96	3.10	0	DEN	A	102.2	0.0	0.0	0.0	0.0	58.5	1.1	-1.2	0.0	0.0	23.8	0.0	0.0	19.9

Point Source, ISO 9613, Name: "Cyclone (overall)", ID: "CYCL"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
42	629077.47	5521600.32	3.00	0	DEN	A	101.0	0.0	0.0	0.0	0.0	57.3	4.4	-0.7	0.0	0.0	19.3	0.0	0.0	20.8

Point Source, ISO 9613, Name: "Material drop Bins", ID: "MDB"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
44	628996.13	5521622.46	1.50	0	DEN	A	100.1	0.0	0.0	0.0	0.0	59.5	2.0	-1.0	0.0	0.0	12.0	0.0	0.0	27.5

Point Source, ISO 9613, Name: "Ring Mill", ID: "RM"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
47	629025.94	5521602.68	3.50	0	DEN	A	98.8	0.0	0.0	0.0	0.0	58.9	1.8	-1.0	0.0	0.0	16.9	0.0	0.0	22.2

Point Source, ISO 9613, Name: "Baghouse - pulsating", ID: "BH"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
48	628988.82	5521604.99	3.00	0	DEN	A	98.8	0.0	0.0	0.0	0.0	60.0	0.5	-1.3	0.0	0.0	25.0	0.0	0.0	14.6

Point Source, ISO 9613, Name: "Shaker Tables & mag sep", ID: "ST2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
52	629122.23	5521676.03	3.50	0	DEN	A	92.0	0.0	0.0	0.0	0.0	53.3	0.3	-1.0	0.0	0.0	0.0	0.0	0.0	39.5

Point Source, ISO 9613, Name: "Ourdoor Shear2", ID: "OS2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
56	629098.68	5521670.42	3.00	0	DEN	A	91.6	0.0	0.0	0.0	0.0	54.8	1.3	-1.1	0.0	0.0	19.9	0.0	0.0	16.8

Point Source, ISO 9613, Name: "Granulator", ID: "GRN"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
60	629084.36	5521604.32	2.50	0	DEN	A	92.5	0.0	0.0	0.0	0.0	57.0	1.8	-1.1	0.0	0.0	0.0	0.0	0.0	34.8

Point Source, ISO 9613, Name: "Shaker Tables x 3", ID: "ST"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
62	628993.08	5521614.98	3.50	0	DEN	A	92.0	0.0	0.0	0.0	0.0	59.7	0.5	-1.3	0.0	0.0	8.2	0.0	0.0	24.9

Point Source, ISO 9613, Name: "Dust collector and bags", ID: "DC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
65	628993.61	5521603.69	3.50	0	DEN	A	91.9	0.0	0.0	0.0	0.0	59.8	2.6	-1.2	0.0	0.0	24.6	0.0	0.0	6.0

Point Source, ISO 9613, Name: "bldg exh", ID: "BEX1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
66	629028.97	5521596.21	8.00	0	DEN	A	85.9	0.0	0.0	0.0	0.0	58.9	1.6	-1.0	0.0	0.0	7.2	0.0	0.0	19.2

Point Source, ISO 9613, Name: "bldg exh", ID: "BEX2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
72	629019.42	5521596.96	8.00	0	DEN	A	85.9	0.0	0.0	0.0	0.0	59.2	1.6	-1.1	0.0	0.0	22.5	0.0	0.0	3.6

Point Source, ISO 9613, Name: "Excel Bailer - indoor", ID: "EB"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
74	629112.57	5521658.79	1.00	0	DEN	A	75.9	0.0	0.0	0.0	0.0	54.3	1.6	-0.3	0.0	0.0	22.6	0.0	0.0	-2.2

Point Source, ISO 9613, Name: "Material drop + mag sep + eddy current", ID: "MD"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
75	629010.25	5521607.73	3.00	0	DEN	A	75.1	0.0	0.0	0.0	0.0	59.3	2.0	-1.3	0.0	0.0	11.7	0.0	0.0	3.4

Point Source, ISO 9613, Name: "Air Compressor - indoor", ID: "AC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
79	629120.64	5521685.99	1.00	0	DEN	A	68.4	0.0	0.0	0.0	0.0	53.2	0.9	1.4	0.0	0.0	11.8	0.0	0.0	1.1

Road, TNM, Name: "Onsite Truck Route", ID: "TRK_Rt"													
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	Ad	Aair	Agr	Afol	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
83	629056.50	5521629.57	0.10	0	D	A	51.5	-23.5	0.0	14.5	0.0	0.0	13.5
83	629056.50	5521629.57	0.10	0	N	A	-74.2	-23.5	0.0	14.5	0.0	0.0	-106.1
83	629056.50	5521629.57	0.10	0	E	A	-74.2	-23.5	0.0	14.5	0.0	0.0	-106.1
90	629044.85	5521588.32	0.10	0	D	A	51.5	-24.2	0.0	14.2	0.0	0.0	13.2
90	629044.85	5521588.32	0.10	0	N	A	-74.2	-24.2	0.0	14.2	0.0	0.0	-106.3
90	629044.85	5521588.32	0.10	0	E	A	-74.2	-24.2	0.0	14.2	0.0	0.0	-106.3
100	629037.15	5521561.06	0.10	0	D	A	51.5	-31.0	0.0	14.0	0.0	0.0	6.5
100	629037.15	5521561.06	0.10	0	N	A	-74.2	-31.0	0.0	14.0	0.0	0.0	-112.9
100	629037.15	5521561.06	0.10	0	E	A	-74.2	-31.0	0.0	14.0	0.0	0.0	-112.9
110	629032.52	5521544.68	0.10	0	D	A	51.5	-28.4	0.0	7.0	0.0	0.0	16.2
110	629032.52	5521544.68	0.10	0	N	A	-74.2	-28.4	0.0	7.0	0.0	0.0	-102.8
110	629032.52	5521544.68	0.10	0	E	A	-74.2	-28.4	0.0	7.0	0.0	0.0	-102.8
115	629028.76	5521531.34	0.10	0	D	A	51.5	-35.5	0.0	7.1	0.0	0.0	9.0
115	629028.76	5521531.34	0.10	0	N	A	-74.2	-35.5	0.0	7.1	0.0	0.0	-109.9
115	629028.76	5521531.34	0.10	0	E	A	-74.2	-35.5	0.0	7.1	0.0	0.0	-109.9
117	629024.52	5521516.36	0.10	0	D	A	51.5	-28.5	0.0	6.9	0.0	0.0	16.1
117	629024.52	5521516.36	0.10	0	N	A	-74.2	-28.5	0.0	6.9	0.0	0.0	-102.9
117	629024.52	5521516.36	0.10	0	E	A	-74.2	-28.5	0.0	6.9	0.0	0.0	-102.9
119	629056.50	5521629.57	1.52	0	D	A	50.7	-23.5	0.0	15.1	0.0	0.0	12.1
119	629056.50	5521629.57	1.52	0	N	A	-74.2	-23.5	0.0	15.1	0.0	0.0	-107.0
119	629056.50	5521629.57	1.52	0	E	A	-74.2	-23.5	0.0	15.1	0.0	0.0	-107.0
120	629044.85	5521588.32	1.52	0	D	A	50.7	-24.2	0.0	14.4	0.0	0.0	12.1
120	629044.85	5521588.32	1.52	0	N	A	-74.2	-24.2	0.0	14.4	0.0	0.0	-107.0
120	629044.85	5521588.32	1.52	0	E	A	-74.2	-24.2	0.0	14.4	0.0	0.0	-107.0
123	629037.15	5521561.06	1.52	0	D	A	50.7	-31.0	0.0	14.1	0.0	0.0	5.5
123	629037.15	5521561.06	1.52	0	N	A	-74.2	-31.0	0.0	14.1	0.0	0.0	-113.5
123	629037.15	5521561.06	1.52	0	E	A	-74.2	-31.0	0.0	14.1	0.0	0.0	-113.5
163	629032.52	5521544.68	1.52	0	D	A	50.7	-28.4	0.0	7.5	0.0	0.0	14.8
163	629032.52	5521544.68	1.52	0	N	A	-74.2	-28.4	0.0	7.5	0.0	0.0	-102.9
163	629032.52	5521544.68	1.52	0	E	A	-74.2	-28.4	0.0	7.5	0.0	0.0	-102.9
164	629028.76	5521531.34	1.52	0	D	A	50.7	-35.5	0.0	7.5	0.0	0.0	7.7
164	629028.76	5521531.34	1.52	0	N	A	-74.2	-35.5	0.0	7.5	0.0	0.0	-110.0
164	629028.76	5521531.34	1.52	0	E	A	-74.2	-35.5	0.0	7.5	0.0	0.0	-110.0
165	629024.52	5521516.36	1.52	0	D	A	50.7	-28.5	0.0	7.6	0.0	0.0	14.5
165	629024.52	5521516.36	1.52	0	N	A	-74.2	-28.5	0.0	7.6	0.0	0.0	-103.1
165	629024.52	5521516.36	1.52	0	E	A	-74.2	-28.5	0.0	7.6	0.0	0.0	-103.1
174	629066.00	5521654.64	0.10	0	D	A	51.5	-27.3	0.0	14.9	0.0	0.0	9.3
174	629066.00	5521654.64	0.10	0	N	A	-74.2	-27.3	0.0	14.9	0.0	0.0	-110.4
174	629066.00	5521654.64	0.10	0	E	A	-74.2	-27.3	0.0	14.9	0.0	0.0	-110.4
181	629066.00	5521654.64	1.52	0	D	A	50.7	-27.3	0.0	15.2	0.0	0.0	8.2
181	629066.00	5521654.64	1.52	0	N	A	-74.2	-27.3	0.0	15.2	0.0	0.0	-111.4
181	629066.00	5521654.64	1.52	0	E	A	-74.2	-27.3	0.0	15.2	0.0	0.0	-111.4

Receiver
Name: POR3
ID: POR3
X: 629234.30 m
Y: 5521688.62 m
Z: 6.00 m

Point Source, ISO 9613, Name: "Sierra Shear - Processing No 1 loose", ID: "SS1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
3	629056.01	5521692.36	3.00	0	DEN	A	121.6	0.0	0.0	0.0	0.0	56.0	1.4	-1.3	0.0	0.0	22.7	0.0	0.0	42.7

Point Source, ISO 9613, Name: "Ourdoor Shear", ID: "OS"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
6	629030.36	5521616.49	3.00	0	DEN	A	121.6	0.0	0.0	0.0	0.0	57.7	1.7	-1.3	0.0	0.0	13.7	0.0	0.0	49.8

Point Source, ISO 9613, Name: "LB934 - Material Handling", ID: "LB934_MH"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
8	629044.12	5521683.19	4.00	0	DEN	A	114.4	0.0	0.0	0.0	0.0	56.6	3.0	-1.3	0.0	0.0	14.9	0.0	0.0	41.2

Point Source, ISO 9613, Name: "LB934 - Material Handling", ID: "LB934_MH"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
10	629032.26	5521623.12	4.00	0	DEN	A	114.4	0.0	0.0	0.0	0.0	57.5	3.2	-1.3	0.0	0.0	14.4	0.0	0.0	40.5

Point Source, ISO 9613, Name: "Material Handling - Rail cuts (LB 924)", ID: "MHRC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
12	629071.60	5521666.49	3.50	0	D	A	120.0	0.0	-3.0	0.0	0.0	55.3	1.7	-1.2	0.0	0.0	18.1	0.0	0.0	43.1
12	629071.60	5521666.49	3.50	0	N	A	120.0	0.0	-188.0	0.0	0.0	55.3	1.7	-1.2	0.0	0.0	18.1	0.0	0.0	-141.9
12	629071.60	5521666.49	3.50	0	E	A	120.0	0.0	-188.0	0.0	0.0	55.3	1.7	-1.2	0.0	0.0	18.1	0.0	0.0	-141.9

Point Source, ISO 9613, Name: "Non-ferrous baghouse", ID: "NF_BH"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
16	629103.63	5521689.23	3.00	0	DEN	A	108.8	0.0	0.0	0.0	0.0	53.3	0.3	-1.0	0.0	0.0	19.8	0.0	0.0	36.4

Point Source, ISO 9613, Name: "B Train loading - No 1 material (LB 934)", ID: "BTL"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
17	629038.07	5521707.05	4.00	0	DEN	A	105.3	0.0	0.0	0.0	0.0	56.9	2.1	-1.3	0.0	0.0	6.6	0.0	0.0	41.0

Point Source, ISO 9613, Name: "EZ Crusher", ID: "EZC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
18	629064.13	5521582.94	2.50	0	DEN	A	103.5	0.0	0.0	0.0	0.0	57.0	2.4	-1.2	0.0	0.0	17.6	0.0	0.0	27.7

Point Source, ISO 9613, Name: "Mill", ID: "ML"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
19	629118.64	5521664.33	3.50	0	DEN	A	98.8	0.0	0.0	0.0	0.0	52.5	1.1	-0.8	0.0	0.0	0.0	0.0	0.0	46.1

Point Source, ISO 9613, Name: "Michigan L90 loader", ID: "ML90"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
20	629049.46	5521643.27	2.50	0	DEN	A	102.1	0.0	0.0	0.0	0.0	56.6	1.4	-1.0	0.0	0.0	15.2	0.0	0.0	29.9

Point Source, ISO 9613, Name: "Cyclone (overall)", ID: "CYCL"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
21	629077.47	5521600.32	3.00	0	DEN	A	101.0	0.0	0.0	0.0	0.0	56.1	4.1	-0.8	0.0	0.0	19.4	0.0	0.0	22.1

Point Source, ISO 9613, Name: "Rad cooling fan 1", ID: "RCF1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
22	629038.20	5521606.09	3.10	0	DEN	A	102.2	0.0	0.0	0.0	0.0	57.6	1.0	-1.2	0.0	0.0	23.7	0.0	0.0	21.0

Point Source, ISO 9613, Name: "Rad cooling fan 1", ID: "RCF1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
23	629038.28	5521604.96	3.10	0	DEN	A	102.2	0.0	0.0	0.0	0.0	57.6	1.0	-1.2	0.0	0.0	24.0	0.0	0.0	20.8

Point Source, ISO 9613, Name: "Material drop Bins", ID: "MDB"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
24	628996.13	5521622.46	1.50	0	DEN	A	100.1	0.0	0.0	0.0	0.0	58.9	1.9	-0.9	0.0	0.0	12.8	0.0	0.0	27.4

Point Source, ISO 9613, Name: "Ring Mill", ID: "RM"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
25	629025.94	5521602.68	3.50	0	DEN	A	98.8	0.0	0.0	0.0	0.0	58.1	1.7	-1.1	0.0	0.0	20.1	0.0	0.0	20.1

Point Source, ISO 9613, Name: "Shaker Tables & mag sep", ID: "ST2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
26	629122.23	5521676.03	3.50	0	DEN	A	92.0	0.0	0.0	0.0	0.0	52.0	0.2	-1.1	0.0	0.0	0.0	0.0	0.0	40.8

Point Source, ISO 9613, Name: "Baghouse - pulsating", ID: "BH"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
27	628988.82	5521604.99	3.00	0	DEN	A	98.8	0.0	0.0	0.0	0.0	59.3	0.5	-1.3	0.0	0.0	24.7	0.0	0.0	15.6

Point Source, ISO 9613, Name: "Ourdoor Shear2", ID: "OS2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
28	629098.68	5521670.42	3.00	0	DEN	A	91.6	0.0	0.0	0.0	0.0	53.7	1.2	-1.1	0.0	0.0	19.8	0.0	0.0	18.0

Point Source, ISO 9613, Name: "Granulator", ID: "GRN"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
29	629084.36	5521604.32	2.50	0	DEN	A	92.5	0.0	0.0	0.0	0.0	55.7	1.6	-1.1	0.0	0.0	0.0	0.0	0.0	36.2

Point Source, ISO 9613, Name: "Shaker Tables x 3", ID: "ST"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
43	628993.08	5521614.98	3.50	0	DEN	A	92.0	0.0	0.0	0.0	0.0	59.0	0.5	-1.3	0.0	0.0	8.8	0.0	0.0	25.0

Point Source, ISO 9613, Name: "Dust collector and bags", ID: "DC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
50	628993.61	5521603.69	3.50	0	DEN	A	91.9	0.0	0.0	0.0	0.0	59.1	2.5	-1.2	0.0	0.0	24.4	0.0	0.0	7.1

Point Source, ISO 9613, Name: "bldg exh", ID: "BEX1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
54	629028.97	5521596.21	8.00	0	DEN	A	85.9	0.0	0.0	0.0	0.0	58.1	1.5	-1.1	0.0	0.0	7.9	0.0	0.0	19.5

Point Source, ISO 9613, Name: "bldg exh", ID: "BEX2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
58	629019.42	5521596.96	8.00	0	DEN	A	85.9	0.0	0.0	0.0	0.0	58.4	1.5	-1.1	0.0	0.0	22.3	0.0	0.0	4.8

Point Source, ISO 9613, Name: "Excel Bailer - indoor", ID: "EB"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
67	629112.57	5521658.79	1.00	0	DEN	A	75.9	0.0	0.0	0.0	0.0	53.0	1.4	-0.3	0.0	0.0	23.0	0.0	0.0	-1.2

Point Source, ISO 9613, Name: "Material drop + mag sep + eddy current", ID: "MD"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
78	629010.25	5521607.73	3.00	0	DEN	A	75.1	0.0	0.0	0.0	0.0	58.5	1.8	-1.3	0.0	0.0	12.6	0.0	0.0	3.4

Point Source, ISO 9613, Name: "Air Compressor - indoor", ID: "AC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
82	629120.64	5521685.99	1.00	0	DEN	A	68.4	0.0	0.0	0.0	0.0	52.1	0.8	1.4	0.0	0.0	14.8	0.0	0.0	-0.7

Road, TNM, Name: "Onsite Truck Route", ID: "TRK_Rt"													
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	Ad	Aair	Agr	Afol	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
86	629059.08	5521638.72	0.10	0	D	A	51.5	-25.1	0.0	15.0	0.0	0.0	11.5
86	629059.08	5521638.72	0.10	0	N	A	-74.2	-25.1	0.0	15.0	0.0	0.0	-108.3
86	629059.08	5521638.72	0.10	0	E	A	-74.2	-25.1	0.0	15.0	0.0	0.0	-108.3
101	629047.33	5521597.10	0.10	0	D	A	51.5	-21.3	0.0	14.6	0.0	0.0	15.6
101	629047.33	5521597.10	0.10	0	N	A	-74.2	-21.3	0.0	14.6	0.0	0.0	-104.1
101	629047.33	5521597.10	0.10	0	E	A	-74.2	-21.3	0.0	14.6	0.0	0.0	-104.1
108	629038.32	5521565.19	0.10	0	D	A	51.5	-40.3	0.0	14.3	0.0	0.0	-3.1
108	629038.32	5521565.19	0.10	0	N	A	-74.2	-40.3	0.0	14.3	0.0	0.0	-122.6
108	629038.32	5521565.19	0.10	0	E	A	-74.2	-40.3	0.0	14.3	0.0	0.0	-122.6
114	629033.25	5521547.27	0.10	0	D	A	51.5	-25.4	0.0	6.9	0.0	0.0	19.2
114	629033.25	5521547.27	0.10	0	N	A	-74.2	-25.4	0.0	6.9	0.0	0.0	-99.8
114	629033.25	5521547.27	0.10	0	E	A	-74.2	-25.4	0.0	6.9	0.0	0.0	-99.8
118	629027.47	5521526.78	0.10	0	D	A	51.5	-33.5	0.0	6.8	0.0	0.0	11.3
118	629027.47	5521526.78	0.10	0	N	A	-74.2	-33.5	0.0	6.8	0.0	0.0	-107.8
118	629027.47	5521526.78	0.10	0	E	A	-74.2	-33.5	0.0	6.8	0.0	0.0	-107.8
122	629023.78	5521513.71	0.10	0	D	A	51.5	-28.7	0.0	6.8	0.0	0.0	16.0
122	629023.78	5521513.71	0.10	0	N	A	-74.2	-28.7	0.0	6.8	0.0	0.0	-103.1
122	629023.78	5521513.71	0.10	0	E	A	-74.2	-28.7	0.0	6.8	0.0	0.0	-103.1
125	629059.08	5521638.72	1.52	0	D	A	50.7	-25.1	0.0	15.3	0.0	0.0	10.3
125	629059.08	5521638.72	1.52	0	N	A	-74.2	-25.1	0.0	15.3	0.0	0.0	-109.4
125	629059.08	5521638.72	1.52	0	E	A	-74.2	-25.1	0.0	15.3	0.0	0.0	-109.4
128	629047.33	5521597.10	1.52	0	D	A	50.7	-21.3	0.0	15.1	0.0	0.0	14.2
128	629047.33	5521597.10	1.52	0	N	A	-74.2	-21.3	0.0	15.1	0.0	0.0	-104.9
128	629047.33	5521597.10	1.52	0	E	A	-74.2	-21.3	0.0	15.1	0.0	0.0	-104.9
131	629038.32	5521565.19	1.52	0	D	A	50.7	-40.3	0.0	14.6	0.0	0.0	-4.2
131	629038.32	5521565.19	1.52	0	N	A	-74.2	-40.3	0.0	14.6	0.0	0.0	-123.3
131	629038.32	5521565.19	1.52	0	E	A	-74.2	-40.3	0.0	14.6	0.0	0.0	-123.3
135	629033.25	5521547.27	1.52	0	D	A	50.7	-25.4	0.0	7.3	0.0	0.0	18.0
135	629033.25	5521547.27	1.52	0	N	A	-74.2	-25.4	0.0	7.3	0.0	0.0	-99.9
135	629033.25	5521547.27	1.52	0	E	A	-74.2	-25.4	0.0	7.3	0.0	0.0	-99.9
138	629027.47	5521526.78	1.52	0	D	A	50.7	-33.5	0.0	7.5	0.0	0.0	9.7
138	629027.47	5521526.78	1.52	0	N	A	-74.2	-33.5	0.0	7.5	0.0	0.0	-108.1
138	629027.47	5521526.78	1.52	0	E	A	-74.2	-33.5	0.0	7.5	0.0	0.0	-108.1
142	629023.78	5521513.71	1.52	0	D	A	50.7	-28.7	0.0	7.6	0.0	0.0	14.3
142	629023.78	5521513.71	1.52	0	N	A	-74.2	-28.7	0.0	7.6	0.0	0.0	-103.3
142	629023.78	5521513.71	1.52	0	E	A	-74.2	-28.7	0.0	7.6	0.0	0.0	-103.3
146	629066.00	5521654.64	0.10	0	D	A	51.5	-26.4	0.0	15.3	0.0	0.0	9.8
146	629066.00	5521654.64	0.10	0	N	A	-74.2	-26.4	0.0	15.3	0.0	0.0	-110.0
146	629066.00	5521654.64	0.10	0	E	A	-74.2	-26.4	0.0	15.3	0.0	0.0	-110.0
153	629066.00	5521654.64	1.52	0	D	A	50.7	-26.4	0.0	15.1	0.0	0.0	9.2
153	629066.00	5521654.64	1.52	0	N	A	-74.2	-26.4	0.0	15.1	0.0	0.0	-111.1
153	629066.00	5521654.64	1.52	0	E	A	-74.2	-26.4	0.0	15.1	0.0	0.0	-111.1

Receiver
Name: POR4
ID: POR4
X: 629203.11 m
Y: 5521615.87 m
Z: 6.00 m

Point Source, ISO 9613, Name: "Sierra Shear - Processing No 1 loose", ID: "SS1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
4	629056.01	5521692.36	3.00	0	DEN	A	121.6	0.0	0.0	0.0	0.0	55.4	1.3	-1.3	0.0	0.0	23.5	0.0	0.0	42.7

Point Source, ISO 9613, Name: "Ourdoor Shear", ID: "OS"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
7	629030.36	5521616.49	3.00	0	DEN	A	121.6	0.0	0.0	0.0	0.0	55.7	1.4	-1.3	0.0	0.0	21.1	0.0	0.0	44.7

Point Source, ISO 9613, Name: "LB934 - Material Handling", ID: "LB934_MH"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
31	629032.26	5521623.12	4.00	0	DEN	A	114.4	0.0	0.0	0.0	0.0	55.7	2.8	-1.3	0.0	0.0	16.0	0.0	0.0	41.2

Point Source, ISO 9613, Name: "LB934 - Material Handling", ID: "LB934_MH"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
33	629044.12	5521683.19	4.00	0	DEN	A	114.4	0.0	0.0	0.0	0.0	55.7	2.8	-1.3	0.0	0.0	15.7	0.0	0.0	41.5

Point Source, ISO 9613, Name: "Material Handling - Rail cuts (LB 924)", ID: "MHRC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
36	629071.60	5521666.49	3.50	0	D	A	120.0	0.0	-3.0	0.0	0.0	54.0	1.5	-1.2	0.0	0.0	18.6	0.0	0.0	44.1
36	629071.60	5521666.49	3.50	0	N	A	120.0	0.0	-188.0	0.0	0.0	54.0	1.5	-1.2	0.0	0.0	18.6	0.0	0.0	-140.9
36	629071.60	5521666.49	3.50	0	E	A	120.0	0.0	-188.0	0.0	0.0	54.0	1.5	-1.2	0.0	0.0	18.6	0.0	0.0	-140.9

Point Source, ISO 9613, Name: "Non-ferrous baghouse", ID: "NF_BH"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
41	629103.63	5521689.23	3.00	0	DEN	A	108.8	0.0	0.0	0.0	0.0	52.8	0.2	-1.0	0.0	0.0	19.9	0.0	0.0	36.8

Point Source, ISO 9613, Name: "EZ Crusher", ID: "EZC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
45	629064.13	5521582.94	2.50	0	DEN	A	103.5	0.0	0.0	0.0	0.0	54.1	1.9	-1.1	0.0	0.0	13.0	0.0	0.0	35.7

Point Source, ISO 9613, Name: "B Train loading - No 1 material (LB 934)", ID: "BTL"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
46	629038.07	5521707.05	4.00	0	DEN	A	105.3	0.0	0.0	0.0	0.0	56.5	2.1	-1.3	0.0	0.0	13.5	0.0	0.0	34.6

Point Source, ISO 9613, Name: "Mill", ID: "ML"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
51	629118.64	5521664.33	3.50	0	DEN	A	98.8	0.0	0.0	0.0	0.0	50.8	1.0	-0.8	0.0	0.0	0.0	0.0	0.0	47.9

Point Source, ISO 9613, Name: "Cyclone (overall)", ID: "CYCL"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
53	629077.47	5521600.32	3.00	0	DEN	A	101.0	0.0	0.0	0.0	0.0	53.1	3.4	-0.8	0.0	0.0	19.6	0.0	0.0	25.7

Point Source, ISO 9613, Name: "Michigan L90 loader", ID: "ML90"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
55	629049.46	5521643.27	2.50	0	DEN	A	102.1	0.0	0.0	0.0	0.0	54.9	1.2	-1.0	0.0	0.0	16.3	0.0	0.0	30.7

Point Source, ISO 9613, Name: "Rad cooling fan 1", ID: "RCF1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
59	629038.28	5521604.96	3.10	0	DEN	A	102.2	0.0	0.0	0.0	0.0	55.4	0.8	-1.2	0.0	0.0	24.2	0.0	0.0	22.9

Point Source, ISO 9613, Name: "Rad cooling fan 1", ID: "RCF1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
63	629038.20	5521606.09	3.10	0	DEN	A	102.2	0.0	0.0	0.0	0.0	55.4	0.8	-1.2	0.0	0.0	24.0	0.0	0.0	23.1

Point Source, ISO 9613, Name: "Ring Mill", ID: "RM"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
64	629025.94	5521602.68	3.50	0	DEN	A	98.8	0.0	0.0	0.0	0.0	56.0	1.5	-1.1	0.0	0.0	19.2	0.0	0.0	23.2

Point Source, ISO 9613, Name: "Material drop Bins", ID: "MDB"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
69	628996.13	5521622.46	1.50	0	DEN	A	100.1	0.0	0.0	0.0	0.0	57.3	1.6	-0.8	0.0	0.0	14.3	0.0	0.0	27.6

Point Source, ISO 9613, Name: "Baghouse - pulsating", ID: "BH"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
76	628988.82	5521604.99	3.00	0	DEN	A	98.8	0.0	0.0	0.0	0.0	57.6	0.4	-1.3	0.0	0.0	25.0	0.0	0.0	17.0

Point Source, ISO 9613, Name: "Shaker Tables & mag sep", ID: "ST2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
80	629122.23	5521676.03	3.50	0	DEN	A	92.0	0.0	0.0	0.0	0.0	51.1	0.2	-1.0	0.0	0.0	0.0	0.0	0.0	41.8

Point Source, ISO 9613, Name: "Granulator", ID: "GRN"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
81	629084.36	5521604.32	2.50	0	DEN	A	92.5	0.0	0.0	0.0	0.0	52.5	1.2	-1.0	0.0	0.0	0.0	0.0	0.0	39.8

Point Source, ISO 9613, Name: "Ourdoor Shear2", ID: "OS2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
84	629098.68	5521670.42	3.00	0	DEN	A	91.6	0.0	0.0	0.0	0.0	52.4	1.0	-1.1	0.0	0.0	19.9	0.0	0.0	19.3

Point Source, ISO 9613, Name: "Shaker Tables x 3", ID: "ST"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
85	628993.08	5521614.98	3.50	0	DEN	A	92.0	0.0	0.0	0.0	0.0	57.4	0.4	-1.4	0.0	0.0	10.2	0.0	0.0	25.3

Point Source, ISO 9613, Name: "Dust collector and bags", ID: "DC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
87	628993.61	5521603.69	3.50	0	DEN	A	91.9	0.0	0.0	0.0	0.0	57.4	2.2	-1.2	0.0	0.0	24.4	0.0	0.0	9.1

Point Source, ISO 9613, Name: "bldg exh", ID: "BEX1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
92	629028.97	5521596.21	8.00	0	DEN	A	85.9	0.0	0.0	0.0	0.0	55.9	1.2	-1.1	0.0	0.0	9.1	0.0	0.0	20.8

Point Source, ISO 9613, Name: "bldg exh", ID: "BEX2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
94	629019.42	5521596.96	8.00	0	DEN	A	85.9	0.0	0.0	0.0	0.0	56.3	1.3	-1.1	0.0	0.0	20.1	0.0	0.0	9.3

Point Source, ISO 9613, Name: "Excel Bailer - indoor", ID: "EB"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
95	629112.57	5521658.79	1.00	0	DEN	A	75.9	0.0	0.0	0.0	0.0	51.0	1.2	-0.3	0.0	0.0	22.1	0.0	0.0	1.9

Point Source, ISO 9613, Name: "Material drop + mag sep + eddy current", ID: "MD"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
97	629010.25	5521607.73	3.00	0	DEN	A	75.1	0.0	0.0	0.0	0.0	56.7	1.5	-1.3	0.0	0.0	19.4	0.0	0.0	-1.3

Point Source, ISO 9613, Name: "Air Compressor - indoor", ID: "AC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
98	629120.64	5521685.99	1.00	0	DEN	A	68.4	0.0	0.0	0.0	0.0	51.7	0.8	1.3	0.0	0.0	19.6	0.0	0.0	-5.1

Road, TNM, Name: "Onsite Truck Route", ID: "TRK_Rt"													
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	Ad	Aair	Agr	Afol	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
103	629052.56	5521615.64	0.10	0	D	A	51.5	-18.3	0.0	15.6	0.0	0.0	17.5
103	629052.56	5521615.64	0.10	0	N	A	-74.2	-18.3	0.0	15.6	0.0	0.0	-102.5
103	629052.56	5521615.64	0.10	0	E	A	-74.2	-18.3	0.0	15.6	0.0	0.0	-102.5
121	629040.61	5521573.31	0.10	0	D	A	51.5	-24.9	0.0	6.2	0.0	0.0	20.4
121	629040.61	5521573.31	0.10	0	N	A	-74.2	-24.9	0.0	6.2	0.0	0.0	-99.2
121	629040.61	5521573.31	0.10	0	E	A	-74.2	-24.9	0.0	6.2	0.0	0.0	-99.2
124	629033.42	5521547.84	0.10	0	D	A	51.5	-23.0	0.0	6.8	0.0	0.0	21.6
124	629033.42	5521547.84	0.10	0	N	A	-74.2	-23.0	0.0	6.8	0.0	0.0	-97.5
124	629033.42	5521547.84	0.10	0	E	A	-74.2	-23.0	0.0	6.8	0.0	0.0	-97.5
127	629025.16	5521518.60	0.10	0	D	A	51.5	-25.0	0.0	6.7	0.0	0.0	19.8
127	629025.16	5521518.60	0.10	0	N	A	-74.2	-25.0	0.0	6.7	0.0	0.0	-99.4
127	629025.16	5521518.60	0.10	0	E	A	-74.2	-25.0	0.0	6.7	0.0	0.0	-99.4
130	629021.25	5521504.75	0.10	0	D	A	51.5	-36.4	0.0	6.7	0.0	0.0	8.4
130	629021.25	5521504.75	0.10	0	N	A	-74.2	-36.4	0.0	6.7	0.0	0.0	-110.7
130	629021.25	5521504.75	0.10	0	E	A	-74.2	-36.4	0.0	6.7	0.0	0.0	-110.7
133	629052.56	5521615.64	1.52	0	D	A	50.7	-18.3	0.0	16.3	0.0	0.0	16.0
133	629052.56	5521615.64	1.52	0	N	A	-74.2	-18.3	0.0	16.3	0.0	0.0	-103.7
133	629052.56	5521615.64	1.52	0	E	A	-74.2	-18.3	0.0	16.3	0.0	0.0	-103.7
134	629040.61	5521573.31	1.52	0	D	A	50.7	-24.9	0.0	6.6	0.0	0.0	19.2
134	629040.61	5521573.31	1.52	0	N	A	-74.2	-24.9	0.0	6.6	0.0	0.0	-99.5
134	629040.61	5521573.31	1.52	0	E	A	-74.2	-24.9	0.0	6.6	0.0	0.0	-99.5
137	629033.42	5521547.84	1.52	0	D	A	50.7	-23.0	0.0	6.8	0.0	0.0	20.9
137	629033.42	5521547.84	1.52	0	N	A	-74.2	-23.0	0.0	6.8	0.0	0.0	-97.6
137	629033.42	5521547.84	1.52	0	E	A	-74.2	-23.0	0.0	6.8	0.0	0.0	-97.6
140	629025.16	5521518.60	1.52	0	D	A	50.7	-25.0	0.0	7.1	0.0	0.0	18.5
140	629025.16	5521518.60	1.52	0	N	A	-74.2	-25.0	0.0	7.1	0.0	0.0	-99.6
140	629025.16	5521518.60	1.52	0	E	A	-74.2	-25.0	0.0	7.1	0.0	0.0	-99.6
143	629021.25	5521504.75	1.52	0	D	A	50.7	-36.4	0.0	7.3	0.0	0.0	7.0
143	629021.25	5521504.75	1.52	0	N	A	-74.2	-36.4	0.0	7.3	0.0	0.0	-111.0
143	629021.25	5521504.75	1.52	0	E	A	-74.2	-36.4	0.0	7.3	0.0	0.0	-111.0
145	629066.00	5521654.64	0.10	0	D	A	51.5	-24.8	0.0	16.0	0.0	0.0	10.8
145	629066.00	5521654.64	0.10	0	N	A	-74.2	-24.8	0.0	16.0	0.0	0.0	-109.3
145	629066.00	5521654.64	0.10	0	E	A	-74.2	-24.8	0.0	16.0	0.0	0.0	-109.3
147	629066.00	5521654.64	1.52	0	D	A	50.7	-24.8	0.0	16.6	0.0	0.0	9.3
147	629066.00	5521654.64	1.52	0	N	A	-74.2	-24.8	0.0	16.6	0.0	0.0	-110.5
147	629066.00	5521654.64	1.52	0	E	A	-74.2	-24.8	0.0	16.6	0.0	0.0	-110.5

Receiver
Name: POR5
ID: POR5
X: 629165.11 m
Y: 5521468.39 m
Z: 5.50 m

Point Source, ISO 9613, Name: "Ourdoor Shear", ID: "OS"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
148	629030.36	5521616.49	3.00	0	DEN	A	121.6	0.0	0.0	0.0	0.0	57.0	1.6	-1.3	0.0	0.0	13.7	0.0	0.0	50.6

Point Source, ISO 9613, Name: "Sierra Shear - Processing No 1 loose", ID: "SS1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
149	629056.01	5521692.36	3.00	0	DEN	A	121.6	0.0	0.0	0.0	0.0	58.9	1.9	-1.2	0.0	0.0	12.7	0.0	0.0	49.3

Point Source, ISO 9613, Name: "LB934 - Material Handling", ID: "LB934_MH"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
150	629032.26	5521623.12	4.00	0	DEN	A	114.4	0.0	0.0	0.0	0.0	57.2	3.1	-1.3	0.0	0.0	12.4	0.0	0.0	42.9

Point Source, ISO 9613, Name: "LB934 - Material Handling", ID: "LB934_MH"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
151	629044.12	5521683.19	4.00	0	DEN	A	114.4	0.0	0.0	0.0	0.0	58.8	3.6	-1.3	0.0	0.0	12.8	0.0	0.0	40.5

Point Source, ISO 9613, Name: "Material Handling - Rail cuts (LB 924)", ID: "MHRC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
152	629071.60	5521666.49	3.50	0	D	A	120.0	0.0	-3.0	0.0	0.0	57.8	2.2	-1.3	0.0	0.0	16.5	0.0	0.0	41.8
152	629071.60	5521666.49	3.50	0	N	A	120.0	0.0	-188.0	0.0	0.0	57.8	2.2	-1.3	0.0	0.0	16.5	0.0	0.0	-143.2
152	629071.60	5521666.49	3.50	0	E	A	120.0	0.0	-188.0	0.0	0.0	57.8	2.2	-1.3	0.0	0.0	16.5	0.0	0.0	-143.2

Point Source, ISO 9613, Name: "Non-ferrous baghouse", ID: "NF_BH"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
154	629103.63	5521689.23	3.00	0	DEN	A	108.8	0.0	0.0	0.0	0.0	58.2	0.4	-1.1	0.0	0.0	20.0	0.0	0.0	31.3

Point Source, ISO 9613, Name: "EZ Crusher", ID: "EZC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
155	629064.13	5521582.94	2.50	0	DEN	A	103.5	0.0	0.0	0.0	0.0	54.7	2.0	-1.1	0.0	0.0	15.7	0.0	0.0	32.3

Point Source, ISO 9613, Name: "Cyclone (overall)", ID: "CYCL"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
156	629077.47	5521600.32	3.00	0	DEN	A	101.0	0.0	0.0	0.0	0.0	55.0	3.8	-0.7	0.0	0.0	19.5	0.0	0.0	23.4

Point Source, ISO 9613, Name: "Rad cooling fan 1", ID: "RCF1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
157	629038.28	5521604.96	3.10	0	DEN	A	102.2	0.0	0.0	0.0	0.0	56.4	0.9	-1.2	0.0	0.0	19.1	0.0	0.0	26.9

Point Source, ISO 9613, Name: "Rad cooling fan 1", ID: "RCF1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
159	629038.20	5521606.09	3.10	0	DEN	A	102.2	0.0	0.0	0.0	0.0	56.4	0.9	-1.2	0.0	0.0	18.9	0.0	0.0	27.0

Point Source, ISO 9613, Name: "B Train loading - No 1 material (LB 934)", ID: "BTL"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
160	629038.07	5521707.05	4.00	0	DEN	A	105.3	0.0	0.0	0.0	0.0	59.6	2.7	-1.3	0.0	0.0	10.5	0.0	0.0	33.8

Point Source, ISO 9613, Name: "Michigan L90 loader", ID: "ML90"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
161	629049.46	5521643.27	2.50	0	DEN	A	102.1	0.0	0.0	0.0	0.0	57.4	1.5	-1.0	0.0	0.0	14.6	0.0	0.0	29.5

Point Source, ISO 9613, Name: "Ring Mill", ID: "RM"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
162	629025.94	5521602.68	3.50	0	DEN	A	98.8	0.0	0.0	0.0	0.0	56.7	1.5	-1.0	0.0	0.0	6.0	0.0	0.0	35.5

Point Source, ISO 9613, Name: "Material drop Bins", ID: "MDB"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
167	628996.13	5521622.46	1.50	0	DEN	A	100.1	0.0	0.0	0.0	0.0	58.2	1.8	-0.9	0.0	0.0	24.7	0.0	0.0	16.4

Point Source, ISO 9613, Name: "Mill", ID: "ML"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
168	629118.64	5521664.33	3.50	0	DEN	A	98.8	0.0	0.0	0.0	0.0	57.1	1.6	-0.7	0.0	0.0	0.0	0.0	0.0	40.9

Point Source, ISO 9613, Name: "Baghouse - pulsating", ID: "BH"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
169	628988.82	5521604.99	3.00	0	DEN	A	98.8	0.0	0.0	0.0	0.0	58.0	0.4	-1.3	0.0	0.0	5.0	0.0	0.0	36.7

Point Source, ISO 9613, Name: "Granulator", ID: "GRN"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
170	629084.36	5521604.32	2.50	0	DEN	A	92.5	0.0	0.0	0.0	0.0	55.0	1.5	-1.1	0.0	0.0	0.0	0.0	0.0	37.0

Point Source, ISO 9613, Name: "Shaker Tables & mag sep", ID: "ST2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
171	629122.23	5521676.03	3.50	0	DEN	A	92.0	0.0	0.0	0.0	0.0	57.5	0.4	-1.0	0.0	0.0	0.0	0.0	0.0	35.1

Point Source, ISO 9613, Name: "Dust collector and bags", ID: "DC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
172	628993.61	5521603.69	3.50	0	DEN	A	91.9	0.0	0.0	0.0	0.0	57.8	2.2	-1.2	0.0	0.0	5.1	0.0	0.0	28.0

Point Source, ISO 9613, Name: "Ourdoor Shear2", ID: "OS2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
175	629098.68	5521670.42	3.00	0	DEN	A	91.6	0.0	0.0	0.0	0.0	57.6	1.6	-1.1	0.0	0.0	19.8	0.0	0.0	13.7

Point Source, ISO 9613, Name: "Shaker Tables x 3", ID: "ST"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
176	628993.08	5521614.98	3.50	0	DEN	A	92.0	0.0	0.0	0.0	0.0	58.1	0.4	-1.3	0.0	0.0	4.9	0.0	0.0	30.0

Point Source, ISO 9613, Name: "bldg exh", ID: "BEX1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
177	629028.97	5521596.21	8.00	0	DEN	A	85.9	0.0	0.0	0.0	0.0	56.4	1.3	-1.1	0.0	0.0	0.0	0.0	0.0	29.2

Point Source, ISO 9613, Name: "bldg exh", ID: "BEX2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
178	629019.42	5521596.96	8.00	0	DEN	A	85.9	0.0	0.0	0.0	0.0	56.8	1.3	-1.1	0.0	0.0	0.0	0.0	0.0	28.9

Point Source, ISO 9613, Name: "Excel Bailer - indoor", ID: "EB"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
179	629112.57	5521658.79	1.00	0	DEN	A	75.9	0.0	0.0	0.0	0.0	56.9	2.0	-0.3	0.0	0.0	15.6	0.0	0.0	1.7

Point Source, ISO 9613, Name: "Material drop + mag sep + eddy current", ID: "MD"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
180	629010.25	5521607.73	3.00	0	DEN	A	75.1	0.0	0.0	0.0	0.0	57.4	1.6	-1.3	0.0	0.0	6.1	0.0	0.0	11.3

Point Source, ISO 9613, Name: "Air Compressor - indoor", ID: "AC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
185	629120.64	5521685.99	1.00	0	DEN	A	68.4	0.0	0.0	0.0	0.0	57.9	1.3	1.5	0.0	0.0	18.4	0.0	0.0	-10.7

Road, TNM, Name: "Onsite Truck Route", ID: "TRK_Rt"													
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	Ad	Aair	Agr	Afol	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
187	629058.12	5521635.30	0.10	0	D	A	51.5	-24.6	0.0	14.7	0.0	0.0	12.3
187	629058.12	5521635.30	0.10	0	N	A	-74.2	-24.6	0.0	14.7	0.0	0.0	-107.3
187	629058.12	5521635.30	0.10	0	E	A	-74.2	-24.6	0.0	14.7	0.0	0.0	-107.3
191	629046.05	5521592.57	0.10	0	D	A	51.5	-20.0	0.0	15.4	0.0	0.0	16.1
191	629046.05	5521592.57	0.10	0	N	A	-74.2	-20.0	0.0	15.4	0.0	0.0	-103.3
191	629046.05	5521592.57	0.10	0	E	A	-74.2	-20.0	0.0	15.4	0.0	0.0	-103.3
198	629033.65	5521548.66	0.10	0	D	A	51.5	-22.0	0.0	15.9	0.0	0.0	13.6
198	629033.65	5521548.66	0.10	0	N	A	-74.2	-22.0	0.0	15.9	0.0	0.0	-105.8
198	629033.65	5521548.66	0.10	0	E	A	-74.2	-22.0	0.0	15.9	0.0	0.0	-105.8
203	629026.05	5521521.76	0.10	0	D	A	51.5	-22.6	0.0	16.1	0.0	0.0	12.8
203	629026.05	5521521.76	0.10	0	N	A	-74.2	-22.6	0.0	16.1	0.0	0.0	-106.6
203	629026.05	5521521.76	0.10	0	E	A	-74.2	-22.6	0.0	16.1	0.0	0.0	-106.6
204	629021.79	5521506.68	0.10	0	D	A	51.5	-28.6	0.0	2.6	0.0	0.0	20.3
204	629021.79	5521506.68	0.10	0	N	A	-74.2	-28.6	0.0	2.6	0.0	0.0	-101.7
204	629021.79	5521506.68	0.10	0	E	A	-74.2	-28.6	0.0	2.6	0.0	0.0	-101.7
205	629058.12	5521635.30	1.52	0	D	A	50.7	-24.6	0.0	15.1	0.0	0.0	11.0
205	629058.12	5521635.30	1.52	0	N	A	-74.2	-24.6	0.0	15.1	0.0	0.0	-108.2
205	629058.12	5521635.30	1.52	0	E	A	-74.2	-24.6	0.0	15.1	0.0	0.0	-108.2
207	629046.05	5521592.57	1.52	0	D	A	50.7	-20.0	0.0	15.4	0.0	0.0	15.2
207	629046.05	5521592.57	1.52	0	N	A	-74.2	-20.0	0.0	15.4	0.0	0.0	-103.8
207	629046.05	5521592.57	1.52	0	E	A	-74.2	-20.0	0.0	15.4	0.0	0.0	-103.8
212	629033.65	5521548.66	1.52	0	D	A	50.7	-22.0	0.0	15.8	0.0	0.0	12.8
212	629033.65	5521548.66	1.52	0	N	A	-74.2	-22.0	0.0	15.8	0.0	0.0	-106.3
212	629033.65	5521548.66	1.52	0	E	A	-74.2	-22.0	0.0	15.8	0.0	0.0	-106.3
217	629026.05	5521521.76	1.52	0	D	A	50.7	-22.6	0.0	16.0	0.0	0.0	12.1
217	629026.05	5521521.76	1.52	0	N	A	-74.2	-22.6	0.0	16.0	0.0	0.0	-107.0
217	629026.05	5521521.76	1.52	0	E	A	-74.2	-22.6	0.0	16.0	0.0	0.0	-107.0
219	629021.79	5521506.68	1.52	0	D	A	50.7	-28.6	0.0	1.6	0.0	0.0	20.4
219	629021.79	5521506.68	1.52	0	N	A	-74.2	-28.6	0.0	1.6	0.0	0.0	-101.1
219	629021.79	5521506.68	1.52	0	E	A	-74.2	-28.6	0.0	1.6	0.0	0.0	-101.1
224	629066.80	5521655.78	0.10	0	D	A	51.5	-29.2	0.0	14.7	0.0	0.0	7.7
224	629066.80	5521655.78	0.10	0	N	A	-74.2	-29.2	0.0	14.7	0.0	0.0	-111.8
224	629066.80	5521655.78	0.10	0	E	A	-74.2	-29.2	0.0	14.7	0.0	0.0	-111.8
225	629062.77	5521650.06	0.10	0	D	A	51.5	-35.1	0.0	14.5	0.0	0.0	1.9
225	629062.77	5521650.06	0.10	0	N	A	-74.2	-35.1	0.0	14.5	0.0	0.0	-117.6
225	629062.77	5521650.06	0.10	0	E	A	-74.2	-35.1	0.0	14.5	0.0	0.0	-117.6
229	629066.80	5521655.78	1.52	0	D	A	50.7	-29.2	0.0	14.9	0.0	0.0	6.7
229	629066.80	5521655.78	1.52	0	N	A	-74.2	-29.2	0.0	14.9	0.0	0.0	-112.6
229	629066.80	5521655.78	1.52	0	E	A	-74.2	-29.2	0.0	14.9	0.0	0.0	-112.6
231	629062.77	5521650.06	1.52	0	D	A	50.7	-35.1	0.0	14.8	0.0	0.0	0.8
231	629062.77	5521650.06	1.52	0	N	A	-74.2	-35.1	0.0	14.8	0.0	0.0	-118.4
231	629062.77	5521650.06	1.52	0	E	A	-74.2	-35.1	0.0	14.8	0.0	0.0	-118.4

Receiver
Name: POR6
ID: POR6
X: 629130.69 m
Y: 5521349.62 m
Z: 5.50 m

Point Source, ISO 9613, Name: "Ourdoor Shear", ID: "OS"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
184	629030.36	5521616.49	3.00	0	DEN	A	121.6	0.0	0.0	0.0	0.0	60.1	2.1	-1.4	0.0	0.0	13.6	0.0	0.0	47.2

Point Source, ISO 9613, Name: "Sierra Shear - Processing No 1 loose", ID: "SS1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
189	629056.01	5521692.36	3.00	0	DEN	A	121.6	0.0	0.0	0.0	0.0	61.9	2.4	-1.6	0.0	0.0	9.2	0.0	0.0	49.7

Point Source, ISO 9613, Name: "LB934 - Material Handling", ID: "LB934_MH"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
190	629032.26	5521623.12	4.00	0	DEN	A	114.4	0.0	0.0	0.0	0.0	60.3	4.0	-1.3	0.0	0.0	9.8	0.0	0.0	41.6

Point Source, ISO 9613, Name: "LB934 - Material Handling", ID: "LB934_MH"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
192	629044.12	5521683.19	4.00	0	DEN	A	114.4	0.0	0.0	0.0	0.0	61.7	4.5	-1.5	0.0	0.0	4.8	0.0	0.0	44.9

Point Source, ISO 9613, Name: "Material Handling - Rail cuts (LB 924)", ID: "MHRC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
193	629071.60	5521666.49	3.50	0	D	A	120.0	0.0	-3.0	0.0	0.0	61.2	2.9	-1.5	0.0	0.0	12.8	0.0	0.0	41.5
193	629071.60	5521666.49	3.50	0	N	A	120.0	0.0	-188.0	0.0	0.0	61.2	2.9	-1.5	0.0	0.0	12.8	0.0	0.0	-143.5
193	629071.60	5521666.49	3.50	0	E	A	120.0	0.0	-188.0	0.0	0.0	61.2	2.9	-1.5	0.0	0.0	12.8	0.0	0.0	-143.5

Point Source, ISO 9613, Name: "Non-ferrous baghouse", ID: "NF_BH"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
194	629103.63	5521689.23	3.00	0	DEN	A	108.8	0.0	0.0	0.0	0.0	61.6	0.7	-1.4	0.0	0.0	18.6	0.0	0.0	29.4

Point Source, ISO 9613, Name: "EZ Crusher", ID: "EZC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
195	629064.13	5521582.94	2.50	0	DEN	A	103.5	0.0	0.0	0.0	0.0	58.7	2.7	-1.1	0.0	0.0	13.2	0.0	0.0	30.1

Point Source, ISO 9613, Name: "B Train loading - No 1 material (LB 934)", ID: "BTL"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
196	629038.07	5521707.05	4.00	0	DEN	A	105.3	0.0	0.0	0.0	0.0	62.3	3.3	-1.6	0.0	0.0	4.8	0.0	0.0	36.5

Point Source, ISO 9613, Name: "Rad cooling fan 1", ID: "RCF1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
197	629038.28	5521604.96	3.10	0	DEN	A	102.2	0.0	0.0	0.0	0.0	59.7	1.3	-1.2	0.0	0.0	18.6	0.0	0.0	23.8

Point Source, ISO 9613, Name: "Rad cooling fan 1", ID: "RCF1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
199	629038.20	5521606.09	3.10	0	DEN	A	102.2	0.0	0.0	0.0	0.0	59.7	1.3	-1.2	0.0	0.0	18.2	0.0	0.0	24.2

Point Source, ISO 9613, Name: "Cyclone (overall)", ID: "CYCL"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
200	629077.47	5521600.32	3.00	0	DEN	A	101.0	0.0	0.0	0.0	0.0	59.2	4.8	-0.7	0.0	0.0	18.5	0.0	0.0	19.1

Point Source, ISO 9613, Name: "Michigan L90 loader", ID: "ML90"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
201	629049.46	5521643.27	2.50	0	DEN	A	102.1	0.0	0.0	0.0	0.0	60.7	2.0	-1.2	0.0	0.0	5.5	0.0	0.0	35.0

Point Source, ISO 9613, Name: "Material drop Bins", ID: "MDB"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
202	628996.13	5521622.46	1.50	0	DEN	A	100.1	0.0	0.0	0.0	0.0	60.7	2.2	-1.2	0.0	0.0	24.7	0.0	0.0	13.6

Point Source, ISO 9613, Name: "Ring Mill", ID: "RM"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
206	629025.94	5521602.68	3.50	0	DEN	A	98.8	0.0	0.0	0.0	0.0	59.8	1.9	-1.0	0.0	0.0	4.9	0.0	0.0	33.3

Point Source, ISO 9613, Name: "Baghouse - pulsating", ID: "BH"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
208	628988.82	5521604.99	3.00	0	DEN	A	98.8	0.0	0.0	0.0	0.0	60.3	0.6	-1.4	0.0	0.0	0.0	0.0	0.0	39.3

Point Source, ISO 9613, Name: "Mill", ID: "ML"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
209	629118.64	5521664.33	3.50	0	DEN	A	98.8	0.0	0.0	0.0	0.0	61.0	2.1	-0.9	0.0	0.0	0.0	0.0	0.0	36.6

Point Source, ISO 9613, Name: "Granulator", ID: "GRN"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
210	629084.36	5521604.32	2.50	0	DEN	A	92.5	0.0	0.0	0.0	0.0	59.3	2.2	-1.2	0.0	0.0	0.0	0.0	0.0	32.2

Point Source, ISO 9613, Name: "Dust collector and bags", ID: "DC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
211	628993.61	5521603.69	3.50	0	DEN	A	91.9	0.0	0.0	0.0	0.0	60.2	2.7	-1.2	0.0	0.0	0.0	0.0	0.0	30.2

Point Source, ISO 9613, Name: "Shaker Tables x 3", ID: "ST"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
213	628993.08	5521614.98	3.50	0	DEN	A	92.0	0.0	0.0	0.0	0.0	60.5	0.6	-1.4	0.0	0.0	2.2	0.0	0.0	30.2

Point Source, ISO 9613, Name: "Shaker Tables & mag sep", ID: "ST2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
214	629122.23	5521676.03	3.50	0	DEN	A	92.0	0.0	0.0	0.0	0.0	61.3	0.6	-1.3	0.0	0.0	0.0	0.0	0.0	31.4

Point Source, ISO 9613, Name: "Ourdoor Shear2", ID: "OS2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
215	629098.68	5521670.42	3.00	0	DEN	A	91.6	0.0	0.0	0.0	0.0	61.2	2.3	-1.4	0.0	0.0	19.4	0.0	0.0	10.2

Point Source, ISO 9613, Name: "bldg exh", ID: "BEX1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
216	629028.97	5521596.21	8.00	0	DEN	A	85.9	0.0	0.0	0.0	0.0	59.5	1.7	-1.0	0.0	0.0	0.0	0.0	0.0	25.7

Point Source, ISO 9613, Name: "bldg exh", ID: "BEX2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
218	629019.42	5521596.96	8.00	0	DEN	A	85.9	0.0	0.0	0.0	0.0	59.7	1.7	-1.0	0.0	0.0	0.0	0.0	0.0	25.5

Point Source, ISO 9613, Name: "Excel Bailer - indoor", ID: "EB"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
220	629112.57	5521658.79	1.00	0	DEN	A	75.9	0.0	0.0	0.0	0.0	60.8	2.7	-0.6	0.0	0.0	9.7	0.0	0.0	3.2

Point Source, ISO 9613, Name: "Material drop + mag sep + eddy current", ID: "MD"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
221	629010.25	5521607.73	3.00	0	DEN	A	75.1	0.0	0.0	0.0	0.0	60.1	2.1	-1.4	0.0	0.0	4.6	0.0	0.0	9.7

Point Source, ISO 9613, Name: "Air Compressor - indoor", ID: "AC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
222	629120.64	5521685.99	1.00	0	DEN	A	68.4	0.0	0.0	0.0	0.0	61.5	1.7	1.4	0.0	0.0	15.8	0.0	0.0	-12.0

Road, TNM, Name: "Onsite Truck Route", ID: "TRK_Rt"													
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	Ad	Aair	Agr	Afol	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
223	629050.29	5521607.61	0.10	0	D	A	51.5	-22.4	0.0	14.6	0.0	0.0	14.5
223	629050.29	5521607.61	0.10	0	N	A	-74.2	-22.4	0.0	14.6	0.0	0.0	-104.8
223	629050.29	5521607.61	0.10	0	E	A	-74.2	-22.4	0.0	14.6	0.0	0.0	-104.8
226	629034.61	5521552.08	0.10	0	D	A	51.5	-25.4	0.0	14.6	0.0	0.0	11.4
226	629034.61	5521552.08	0.10	0	N	A	-74.2	-25.4	0.0	14.6	0.0	0.0	-107.9
226	629034.61	5521552.08	0.10	0	E	A	-74.2	-25.4	0.0	14.6	0.0	0.0	-107.9
227	629029.69	5521534.64	0.10	0	D	A	51.5	-31.3	0.0	3.8	0.0	0.0	16.4
227	629029.69	5521534.64	0.10	0	N	A	-74.2	-31.3	0.0	3.8	0.0	0.0	-104.9
227	629029.69	5521534.64	0.10	0	E	A	-74.2	-31.3	0.0	3.8	0.0	0.0	-104.9
228	629024.86	5521517.56	0.10	0	D	A	51.5	-24.5	0.0	3.6	0.0	0.0	23.4
228	629024.86	5521517.56	0.10	0	N	A	-74.2	-24.5	0.0	3.6	0.0	0.0	-97.9
228	629024.86	5521517.56	0.10	0	E	A	-74.2	-24.5	0.0	3.6	0.0	0.0	-97.9
230	629050.29	5521607.61	1.52	0	D	A	50.7	-22.4	0.0	14.9	0.0	0.0	13.4
230	629050.29	5521607.61	1.52	0	N	A	-74.2	-22.4	0.0	14.9	0.0	0.0	-105.1
230	629050.29	5521607.61	1.52	0	E	A	-74.2	-22.4	0.0	14.9	0.0	0.0	-105.1
232	629034.61	5521552.08	1.52	0	D	A	50.7	-25.4	0.0	15.0	0.0	0.0	10.2
232	629034.61	5521552.08	1.52	0	N	A	-74.2	-25.4	0.0	15.0	0.0	0.0	-108.4
232	629034.61	5521552.08	1.52	0	E	A	-74.2	-25.4	0.0	15.0	0.0	0.0	-108.4
233	629029.69	5521534.64	1.52	0	D	A	50.7	-31.3	0.0	2.5	0.0	0.0	16.8
233	629029.69	5521534.64	1.52	0	N	A	-74.2	-31.3	0.0	2.5	0.0	0.0	-104.3
233	629029.69	5521534.64	1.52	0	E	A	-74.2	-31.3	0.0	2.5	0.0	0.0	-104.3
234	629024.86	5521517.56	1.52	0	D	A	50.7	-24.5	0.0	2.3	0.0	0.0	23.9
234	629024.86	5521517.56	1.52	0	N	A	-74.2	-24.5	0.0	2.3	0.0	0.0	-97.4
234	629024.86	5521517.56	1.52	0	E	A	-74.2	-24.5	0.0	2.3	0.0	0.0	-97.4
235	629066.90	5521655.92	0.10	0	D	A	51.5	-32.7	0.0	13.6	0.0	0.0	5.2
235	629066.90	5521655.92	0.10	0	N	A	-74.2	-32.7	0.0	13.6	0.0	0.0	-114.0
235	629066.90	5521655.92	0.10	0	E	A	-74.2	-32.7	0.0	13.6	0.0	0.0	-114.0
236	629062.87	5521650.21	0.10	0	D	A	51.5	-37.9	0.0	14.8	0.0	0.0	-1.2
236	629062.87	5521650.21	0.10	0	N	A	-74.2	-37.9	0.0	14.8	0.0	0.0	-120.6
236	629062.87	5521650.21	0.10	0	E	A	-74.2	-37.9	0.0	14.8	0.0	0.0	-120.6
237	629066.90	5521655.92	1.52	0	D	A	50.7	-32.7	0.0	13.3	0.0	0.0	4.7
237	629066.90	5521655.92	1.52	0	N	A	-74.2	-32.7	0.0	13.3	0.0	0.0	-114.5
237	629066.90	5521655.92	1.52	0	E	A	-74.2	-32.7	0.0	13.3	0.0	0.0	-114.5
238	629062.87	5521650.21	1.52	0	D	A	50.7	-37.9	0.0	15.0	0.0	0.0	-2.3
238	629062.87	5521650.21	1.52	0	N	A	-74.2	-37.9	0.0	15.0	0.0	0.0	-120.8
238	629062.87	5521650.21	1.52	0	E	A	-74.2	-37.9	0.0	15.0	0.0	0.0	-120.8

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