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APPLICATION FOR AN AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL (AIR AND NOISE) **ACME AGGREGATES INC., AGGREVILLE FACILITY**

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LIMEROCK CONSULTING INC.

Eddy Baydin

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December 2013

REPORT

Application for an Amended Single Media Environmental Compliance Approval for Air (including Noise) Acme Aggregates Inc. Aggreville, Ontario

AMMMMMMM

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REPORT

Report Number: ÁÚFFGJI Á

Distribution:

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Limerock Consulting Inc.



APPLICATION FOR AN AMENDED SINGLE MEDIA ENVIRONMENTAL COMPLIANCE APPROVAL FOR AIR (AIR AND NOISE)

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APPLICATION FOR AN AMENDED SINGLE MEDIA ENVIRONMENTAL COMPLIANCE APPROVAL FOR AIR (AIR AND NOISE)

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1.0 SUMMARY

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APPLICATION FORM

Environmental Compliance Approval



Environmental Compliance Approval Application

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ontario.ca/environment



Print Form





General Information and Instructions

General Information:

Information requested in this form is collected under the authority of the Environmental Protection Act (EPA), Ontario Water Resources Act (OWRA) and Environmental Bill of Rights (EBR), and will be used to evaluate applications for Environmental Compliance Approvals (ECAs) issued under Part II.1 of the EPA. This application form should not be used for *mobile PCB destruction facilities* and *land application sites of septage and biosolids*.

For all questions related to preparing or submitting this form or about the Ministry's collection of information related to applying for an ECA, contact:

Environmental Approvals Access and Service Integration Branch

135 St. Clair Ave. West, 1st Floor Toronto, Ontario M4V 1P5 Telephone outside Toronto 1-800-461-6290 or in Toronto 416-314-8001.

This office can also provide you with copies of application forms and supporting documentation.

Instructions:

- Applicants are responsible for ensuring that they complete the most recent application form.
 Application forms and information about the required supporting documentation and technical requirements are available from the Environmental Approvals Access and Service Integration
 Branch (the address and phone number are provided in the General Information on this page). As well, you can get this information from your local District Office of the Ministry of the Environment, and on the Resources section of the Ministry of the Environment website at: http://www.ontario.ca/environment-and-energy/environmental-approvals
- 2. A complete application consists of:
 - · a completed and signed application form;
 - all required supporting documents and technical requirements identified in:
 - i. this form.
 - ii. Ministry guidance,
 - iii. the Applications for Environmental Compliance Approvals regulation, and
 - payment of the application fee (in Canadian funds) by certified cheque or money order made payable to the Minister of Finance, or credit card payment (for payments up to \$10,000). For *Transfer of Review*, make your cheque or money order payable to the appropriate municipality.

The Ministry may return incomplete applications to the applicant. The Director may require additional information of any application initially accepted as complete.

- 3. Submit the complete application as follows:
 - One (1) paper copy (unless your application is a
 Transfer of Review), one (1) electronic copy and
 the fee to the **Director**, **Environmental Approvals Access and Service Integration Branch** at the
 address provided in the General Information on
 this page.
 - If your application is a *Transfer of Review*, you must submit two (2) copies of the completed application and the fee to the designated municipal authority.
- 4. You must also send a copy of the application without the fee to the local Ministry District Office that has jurisdiction over the area where the facilities are located. DO NOT send payment to the District Office.
 - To locate the appropriate local Ministry District
 Office, visit the Ministry of the Environment website
 at: http://www.ontario.ca/environment-and-energy/
 ministry-environment-and-climate-change-regional-and
 -district-offices
- 5. For Waste Disposal Sites you must also send a copy of the application without the fee to the Clerk's office of the local municipality (both upper and lower tier) in which the facility/proposed facility Is located unless the application is for a revocation or an amendment that is environmentally insignificant or the applicant is a

Form ID: 58244

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municipality. DO NOT send any payment information to the municipality.

Information collected by the Ministry of the Environment is subject to the Freedom of Information and Protection of Privacy Act (FIPPA). If you are of the view that any part of application is confidential on the grounds that such information constitutes a trade secret or scientific, technical, commercial, financial or labour relations information, please make this known now. Otherwise, the Ministry may make the information available to the public without further notice to you.

It is an offence under the EPA and OWRA to provide false or misleading information in this application and/ or accompanying documents.

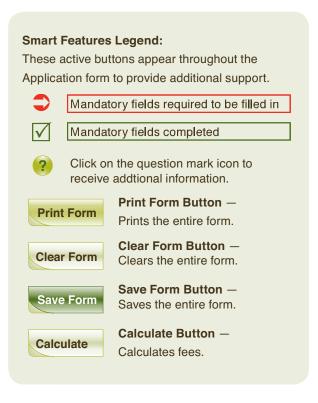
The Electronic Form Smart Features

The electronic version of this form incorporates several features to assist you with completing your application.

The electronic form will highlight required information with red and green indicators. Red means that the information is required before the section is complete.

The form will also calculate certain values based on the information you enter and will assist you in ensuring that all required information is included with your application. You can save a copy of this form that includes any information you have entered.

These features are available in Adobe Reader version 8 or above. You can download a copy from the website at: http://get.adobe.com/reader/otherversions/.



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Ministry of the Environment
Public Information Centre:

Telephone: 416-325-4000

Toll-free: 1-800-565-4923

E-mail: picemail.moe@ontario.ca www.Ontario.ca/Environment

Application Summary

Contents | General Information and Instructions | **Application Summary** | 1 Applicant Information | 2 Project Information | 3 Regulatory Requirements 4 Site Information | 5 Facility Information | 6 Supporting Documentation and Technical Requirements | 7 Payment Information

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For Office Use Only					
	Reference Number	Payment Received \$	Date (yyyy/mm/dd)	Initials	

Application Summary

✓ Applicant Name



ACME Aggregates Inc.

✓ Project Name



Amended ECA Application - 123 Aggregate Avenue

✓ Project Description Executive Summary



ACME Aggregates is currently approved to operate the facility located at 123 Aggregate Avenue in Aggreville, Ontario (The Facility)under Environmental Compliance Approval (ECA) 1234-ABCDEF, dated October 1, 2004. This application is for an amendment to the existing ECA to permit the replacement of a diesel generator (from 400 kW to 450 kW) to supply power to the secondary crushing plant. The facility is also proposing to increase the operating hours from 07:00 to 19:00 and will now operate from 05:00 to 19:00. Potential air emissions include products of diesel combustion and suspended particulate matter.

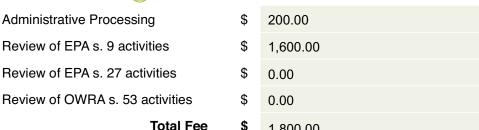
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Required Information (?)



	Completed (years)
Project Name & Description	Yes
Section 1: Applicant Information	Yes
Section 2: Project Information	Yes
Section 3: Regulatory Requirements	Yes
Section 4: Site Information	Yes
Section 5: Facility Information	Yes
Section 6: Supporting Documentation	Yes
Section 7: Payment Information	Yes
Application Status Form Complete	



1,800.00

Calculate

The Ministry may request additional fees upon review of this application.

If you are submitting this form in print version only and are not using the smart calculation feature, please attach the fee calculation separately.

Completed (ves or no)

Supplemental Application Information

See help text on required information for this section.



The Facility's comfort heating equipment is Environmental Activity and Sector Registry (EASR) eligible. ACME Aggregates requests to simplify ongoing compliance and record-keeping requirements by applying for a single ECA for the site and completing a section 20.18 order request to permit all of the Facility's emission generating equipment under a single ECA. The s.20.18 order request confirmation number is below:

Comfort Heating System: 9999999

The diesel generators used at the Facility are not EASR eligible sources as they are used to power the crushing equipment.

In accordance with MOE publication "Guide to Applying for an Environmental Compliance Approval", Version 1", dated December 2012 (Guide to Applying), an Emission Summary and Dispersion Modelling (ESDM) Report was prepared to support the application for an ECA.

Applicant Information

Contents | General Information and Instructions | Application Summary | 1 Applicant Information | 2 Project Information | 3 Regulatory Requirements | 4 Site Information | 5 Facility Information | 6 Supporting Documentation and Technical Requirements | 7 Payment Information

Print Form

\checkmark	1.1 Applicant In	formation	?								
	Applicant Name (legal nam	e of individual or o	organization	as evidenced by leg	al docum	nents)	Business Nu	ımber			
	ACME Aggregates Inc.					123456789	9				
	Business Name 🗵 same as Applicant Name					Business We	ebsite Address:				
	ACME Aggregates Inc.										
	Applicant Type:			Primary Nor	th American Industry Cl	assificat	ion System (NAICS)	Code ?			
	Corporation	Federal Gove	rnment				:212315				
	O Individual	Municipal Go	vernment				Other NAICS	S codes (select all that ap	ply)	Separate list atta	ached? O Yes No
	Partnership	Provincial Go	vernment								
1	Sole Proprietor	Other (describ	e):								
	Business Activity Descripti	ion									
	Limestone mining and	quarrying									
	✓ 1.2 Applicant Physical Address ? Civic Address – Street Information (includes street number, name, type and direction) 123 Aggregate Avenue Survey Address Lot Concession			Part	Unit Identifier (suite or unit number) Part Reference Plan						
	Municipality/Unorganized	Township or Ter	ritory Upp	er Tier/District		nce/Stat	e	Country		Postal Co	de/ZIP Code
	Aggreville				ON			Canada		A1A1A1	
	Telephone Number (include	e area code & ext.)	Fax Number (inclu	de area d	code) N	Mobile Number (ind	clude area code)		E-mail Address	
	124-356-7890	ext.								eboulder@limero	ck.com
Geo Refere			ference (required)	?			I				
	Description of location	of location Map Datum		Zone		Accuracy Estimate		Geo-Referencing Method	UTM Easting UT		UTM Northing
	Southwest corner of property	NAD83		17		+- 10	m	digitizing	0.0	0	0.00
	Physical location of front door or main entrance	NAD83		17		+- 10	m	digitizing	0.0	0	0.00

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		Prin	t Form	Clear Form	Save Form
1.3 Applicant Mailing Address	?				
Same as Applicant Physical Address?	s No				
Civic Address - Street Information (civic number	ing and street information includes s	treet number, name, type and direction)	Unit Iden	tifier (suite or unit number)	
123 Aggregate Avenue					
Delivery Designator Delivery Designator	elivery Identifier	Postal Station			
Municipality/Unorganized Township or Territory	Province/State	Country		Postal Code/ZIP Code	
Aggreville	ON	Canada		A1A1A1	
1.4 Statement of the Applicant I am authorized to prepare and submit this appl to declare to the best of my knowledge, informa	lication and to make this certifica	ation. I have reviewed the complete applica	ation and I hav	e made all inquiries that a	e necessary

- The information contained in this application is complete and accurate.
- The Technical Contact(s) identified in this application has/have been authorized to prepare certain technical material, and act on behalf of the applicant to discuss this application with the Ministry of the Environment and to provide additional information about this application to the Ministry on request.
- The information provided to the Technical Contact(s) in relation to this application is complete and accurate.

Name of Signing Authority (please print)		Title				
Dino Slater		President				
Telephone Number (include area code & ext.)	Fax Number (include area code)	Mobile Number (include area code)				
123-456-7890 ext.						
E-mail Address Signa	ature . Class	Date (yyyy/mm/dd)				
dslater@acme.com	Inno durac	2013/12/20				
1.5 Statement of the Municipality \(\subseteq \text{N/A} \)? I, the undersigned hereby declare on behalf of the Municipality, that the Municipality has no objection to the construction of the works in the Municipality.						
Name and Title (please print)	Name of Municipality					
Signature	Date (yyyy/mm/dd)					

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	2.1	Reason	for A	pplication
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New ECA		

Amendment to existing ECA

Revocation of existing ECA

Administrative amendment to existing ECA

Application for renewal of limited operational flexibility

Oconsolidation of existing ECAs

Are you adding a new project type to your site or a new municipal waste category/class code to your waste management systems or a new sewage facility type? (1) Yes (2) No Is this for Transfer of Review? Yes No

2.2 **Project Type** (select all that apply)

Yes	N/A		Limited Operational Flexibility?	Pilot Project?
(0	Air – Stationary	X	
0	O	Air – Mobile		
(0	Noise	X	
0	(a)	Vibration		
0	(a)	Waste Disposal Site – Landfill site	N/A	
0	•	Waste Disposal Site – Transfer site		
0		Waste Disposal Site – Processing site		
0	()	Waste Disposal Site – Composting site	N/A	
0		Waste Disposal Site – Thermal Treatment site	N/A	

Yes	N/A		Limited Operational Flexibility?	Pilot Project?
0	(Sewage – Industrial		
0	(Sewage – Municipal		
0	()	Sewage – Private		
0	©	Waste Management System - General Waste Management System	N/A	
0	©	Waste Management System - Hauled Sewage (Septage)	N/A	
0	©	Waste Management System – Soil Conditioner for transport to a site for Application on Land	N/A	
0	©	Waste Management System - Mobile Waste Processing	N/A	
0	(a)	Cleanup of contaminated sites – Mobile	N/A	
0	©	Cleanup of contaminated sites – Sitespecific	N/A	

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2.3 Approval	Information (?)							
Application initiated b	oy:							
Applicant	S. 20.18 Order (attach copy)	Condition of existing approval	\sim	Provincial Officer Order (attach copy)	Inspection Report (attach copy)	: <u></u>	Other (specify	y):
				, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
Current Environmental Separate list attached?		that may be changed or amend	ded by t	this application:	N/A			
Environmental Comp	oliance Approval Number	Date of Issuance (yyyy/mm/c	(bb	Environmenta	Compliance Approval N	lumber	Date of Is	ssuance (yyyy/mm/dd)
1234-ABCDEF		2004/10/04						
Proposed Environme Separate list attached?		Is related to this project:	/A					
Project type		Ministry Reference Number (if	applical	ble)		Have s	submitted	Have not submitted
						(0	0
						(0	0
						(0	0
						(0	0
2.4 Other Apr	proval/Permits for F	Facility N/A ?						

Separate list attached?	Yes	♥ No
List all other instruments	(approvals	or permits) issued by the Ministry of the Environment or applied for under the Environmental Protection Act, Environmental Assessment Act
Ontario Water Resources	Act and Sa	afe Drinking Water Act, 2002 and any Environmental Activity and Sector Registrations that are relevant to this application.

Instrument Type	Instrument Number	Approval or Application Date (yyyy/mm/dd)
Ministry of Natural Resort	123456	2002/06/15

Instrument Type	Instrument Number	Approval or Application Date (yyyy/mm/dd)

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2.5	Technical	Contacts	?

Technical Contact 1			
Area of Responsibility (check all that apply)	Air Noise/Vibration Sewage	☐ Waste	
Name of Technical Contact		Company	
Eddy Boulder		Limerock Consulting Inc.	
Telephone Number (include area code & ext.)	Mobile Number (include area code)	Fax Number (include area code)	E-mail Address
123-456-7890 ext.			eboulder@limerock.com
Address Information:			
Same as Applicant Mailing Address?	No (If no, please provide technical conta	act address information below.)	
Civic Address - Street Information (includes street	number, name, type and direction)		Unit Identifier (suite or unit number)
123 Gravel Road			
Delivery Designator Deli	very Identifier	Postal Station	
Municipality/Unorganized Township or Territory	Province/State	Country	Postal Code/ZIP Code
Aggreville	ON	Canada	A1A 1A1
technical materials and I have made all inquiries the technical materials contained in this		of my knowledge, information and be esponsibility identified above are com	
Signature			Date (yyyy/mm/dd)
EII DIA			2013/12/20
Lovey Daya	UL		

Contents | General Information and Instructions | Application Summary | 1 Applicant Information | 2 Project Information | 3 Regulatory Requirements 4 Site Information | 5 Facility Information | 6 Supporting Documentation and Technical Requirements | 7 Payment Information

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Technical Contact 2			
Area of Responsibility (check all that apply)	Noise/Vibration S	Sewage Waste	
Name of Technical Contact		Company	
Fred Astare		Limerock Consulting Inc.	
Telephone Number (include area code & ext.) Mobile	e Number (include area code)	Fax Number (include area code)	E-mail Address
123-456-7654 ext.			fastare@limerock.com
-		nical contact address information below.)	
Civic Address – Street Information (includes street nu	mber, name, type and direction)		Unit Identifier (suite or unit number)
123 Gravel Road			
Delivery Designator Delivery	ery Identifier	Postal Station	
Municipality/Unorganized Township or Territory	Province/State	Country	Postal Code/ZIP Code
Aggreville	ON	Canada	A1A 1A1
technical materials and I have made all inquiries that	at are necessary to declare to pplication in respect of the are	the best of my knowledge, information and ea(s) of responsibility identified above are c	
Signature			Date (yyyy/mm/dd)

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Tooknied Contact 2		
Technical Contact 3		
Area of Responsibility (check all that apply) Air Noise/Vibration Sewage		
Name of Technical Contact	Company	
Telephone Number (include area code & ext.) Mobile Number (include area code)	Fax Number (include area code)	E-mail Address
ext.		
Address Information:		
Same as Applicant Mailing Address? Ves No (If no, please provide technical cont	act address information below.)	
Civic Address – Street Information (includes street number, name, type and direction)		entifier (suite or unit number)
Delivery Designator Delivery Identifier	Postal Station	
Municipality/Unorganized Township or Territory Province/State	Country	Postal Code/ZIP Code
	Canada	
I have been guitherized by the configuration are seen to be to be included for the case (a)		unded in the complication. I have verificated these
I have been authorized by the applicant to prepare the technical materials for the area(s) technical materials and I have made all inquiries that are necessary to declare to the best	•	uded in the application. Thave reviewed those
The technical materials contained in this application in respect of the area(s) of respect to the area.		nd accurate
		nd accurate.
 I have the relevant education and experience necessary to provide this certification 	ON.	
Signature	Date (y	yyy/mm/dd)

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Technical Contact 4		
Area of Responsibility (check all that apply)	☐ Waste	
Name of Technical Contact	Company	
Telephone Number (include area code & ext.) Mobile Number (include area code)	Fax Number (include area code)	E-mail Address
ext.		
Address Information: (?)		
Same as Applicant Mailing Address?	act address information below.)	
Civic Address - Street Information (includes street number, name, type and direction)	U	Unit Identifier (suite or unit number)
Delivery Designator Delivery Identifier	Postal Station	
Municipality/Unorganized Township or Territory Province/State	Country	Postal Code/ZIP Code
	Canada	
I have been authorized by the applicant to prepare the technical materials for the area(s) technical materials and I have made all inquiries that are necessary to declare to the best		
The technical materials contained in this application in respect of the area(s) of r	esponsibility identified above are comp	plete and accurate.
 I have the relevant education and experience necessary to provide this certification. 	on.	
Signature		Date (yyyy/mm/dd)

Regulatory Requirements

Please submit a copy of the signed Notice of Approval.

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		Print Form	Clear Form	Save Form
B.1	Environmental Bill of Rights (EBR) Requirements ?			
s this a	a proposal for a prescribed instrument under the EBR? Yes No			
	is this proposal exempted from the EBR requirements?			
•	blease check one of the following (Please provide supporting information.)			
0	This proposal has been considered in a substantially equivalent process of public participation. (EBR, 19	93, s.30.)		
\circ	This proposal is for an emergency situation. (EBR, 1993, s. 29.)			
0	This proposal is for an amendment to or revocation of an existing Environmental Compliance Approval th	at is not environmenta	lly significant. (EBR, 1993	3, s. 22 (3).)
\circ	This proposal has been subject to or exempted from EAA Requirements or considered in a decision of a	tribunal. (EBR, 1993, s	s. 32.)	
	Environmental Accessment Act (EAA) Desvironments			
3.2	Environmental Assessment Act (EAA) Requirements (?)			
-	oroposed undertaking subject to the requirements of the EAA? OYes No olease check one of the following:			
\circ	The undertaking has fulfilled the requirements of the EAA through an exemption provided under:			
	O Section of Ontario Regulation No.			or
	O Declaration/Exemption Order Number			
	If Regulation, Declaration Order or Exemption Order does not refer directly to this undertaking, please provide su	pporting documentation to	o explain why it applies to th	is facility.
0	The proposed undertaking has fulfilled the requirements of the EAA through the completion of a Class E	A process:		
	Name of Class EA:			
	Schedule/Group/Category (if applicable):			
	If applicable, please submit a copy of the proof of completion (for example, Notice of Completion).	ania a anno afale a Dina da		. 1
\bigcirc		nit a copy of the Direct	or's or Minister's decision	i letter.
O	The proposed undertaking has fulfilled all of the requirements for the EAA through: — completion of an Environmental Screening Process pursuant to O. Reg. 101/07 of the EAA			
	completion of an Environmental Screening Process pursuant to O. Reg. 116/01 of the EAA			
		(1) 5:		
	Was the undertaking subject of an elevation request(s)? O Yes O No If yes, please submit a color of the Director's decision, please also submit a copy of the Minister's decision let		ecision letter.	
	completion of an Environmental Screening Process pursuant to O. Reg. 231/08 of the EAA			
	Was the undertaking subject of an objection(s)? O Yes O No If yes, please submit a copy	of the Minister's decisi	on letter.	
0	The proposed undertaking has fulfilled the requirements of the EAA through the completion of an individu	ual Environmental Asse	essment.	

Regulatory Requirements

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\checkmark	3.3	Consultation/Notification
V	3.3	Consultation/Notification



Are there any consultation/notification activities that you have undertaken to fulfill requirements by other legislation or through voluntary efforts?







If yes, please:

- 1) describe the consultation/notification activities below; and
- 2) attach documents describing each of these consultation/notification activities, any changes to the project as a result of these activities and any planned consultation/notification activities in the future.

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Clear Form

\overline{V}	4.1 Site Address of	or Storage Location	on ?						
	Will the vehicles or equipme (If yes, please enter all v		han one location? O Y			cessary.)			
	Same as Applicant Physical A	.ddress? (a) Yes) No						
	Primary Civic Address – Str			nd direction)	Unit Identifier (cuito or unit n	umbor)		
	•	eet information (includes	street number, name, type an	id direction)	Onit identifier (Suite of utilit if	umber)		
	123 Aggregate Avenue Additional Civic Addresses		O Yes O No		Unit Identifier (ouito or unit n	umbor)		
	Additional Civic Addresses	Separate iist attached?	yes No		Onit identilier (Suite of utilit i	iumber)		
	Primary Survey Address								
	Lot	Concess	sion		Part			Reference Plan	
	Additional Survey Addresses				Б.			D (D)	
	Lot	Concess	sion		Part			Reference Plan	
	Municipality/Unorganized Tow	nship or Territory	Upper Tier/District		Province/State	Э	Country		al Code/ZIP Code
	Aggreville				ON		Canada	A1.	A1A1
	Non-address Information (inclu	udes any additional informa	tion to clarify the physical loca	ation)					
$\sqrt{}$	Same as Applicant Physical	Geo Reference?	res No	Geo Refer	rence (required)	?			
	Description of location	Map Datum	Zone	Accura	acy Estimate	Geo-Refer	encing Method	UTM Easting	UTM Northing
	Southwest corner of property	NAD83	17	+- 10 m		digitizing		0.00	0.00
	Physical location of front door or main entrance	NAD83	17	+- 10 m	ı	digitizing		0.00	0.00

Site Information

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4.2 Site or St					
Site Name		Days and Hours of Op	eration	Ministry of the Environment	t District Office
123 Aggregate Av	enue	05:00 to 19:00		Toronto District Office	
If no, please include the	•	s application owned by the applicar and a signed document indicating thand.		ty to install and operate the proposed	Yes
• •	•	site that is the subject of this applie, address and phone number.	ication?		Yes
	an area of development of copy of the NEPDA permit	control as defined by the Niagara E t for proposed activity.	scarpment Planning & Deve	Iopment Act (NEPDA)?	Yes
		Ridges Moraine Conservation Plantapproval for the proposed activity/wor		letter from municipality, etc.).	O Yes
4.3 Site Zoni	ng and Classificati	on ?			
4.3 Site Zoni Current Land Use	ng and Classificati	Official Plan Designation		Current Zoning (Please attach zoning	ng map, if available.
				Current Zoning (Please attach zonii Extractive Industrial	ng map, if available.
Current Land Use		Official Plan Designation	Adjacent Land Z	Extractive Industrial	ng map, if available.
Current Land Use Extractive Industria		Official Plan Designation	Adjacent Land Z	Extractive Industrial	ng map, if available.
Current Land Use Extractive Industria Adjacent Land Use (se	elect all that apply)	Official Plan Designation Extractive Industrial		Extractive Industrial	ng map, if availab

Site Information

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Print	Form



4.4 Point of Entry in	to Ontario (for waste management sys	tem vehicles that are stored at an address outside of Ontario)	?		
City in cl	osest proximity to the point of entry	Descri	Description of Point of Entry		
4.5 Source Protection	on/Drinking Water Threats (se	ewage or waste disposal site applications only)			
Check the source protection are	a(s) where the activity is/will be located:				
☐ Ausable Bayfield	☐ Grand River	☐ Raisin Region	☐ Lower Thames Valley		
☐ Maitland Valley	☐ Kettle Creek	☐ South Nation	St. Clair Region		
Cataraqui Region	☐ Long Point	☐ Grey Sauble	☐ Upper Thames River		
☐ Central Lake Ontario	☐ Lakehead	☐ Northern Bruce Peninsula	☐ Crowe Valley		
☐ Credit Valley	☐ Mattagami	☐ Saugeen Valley	☐ Ganaraska		
☐ Toronto and Region	☐ Mississippi Valley	☐ Sault Ste. Marie	☐ Kawartha-Haliburton		
Essex	☐ Rideau Valley	☐ Lake Simcoe & Couchiching/Black River	☐ Lower Trent		
Halton	☐ Niagara	☐ Nottawasaga Valley	☐ Otonabee-Peterborough		
Hamilton	☐ North Bay Mattawa	☐ Severn Sound	Outside a source protection area		
Catfish Creek	☐ Quinte	☐ Sudbury			
Is the proposed activity located under the Clean Water Act, 2006	•	area identified in a local assessment report source prote	ction plan		
○ Yes ○ No					
If yes, what is/are the vulnerable	e area(s)/zone(s)?				
☐ Wellhead Protection	n Areas Surface Water Intake P	rotection Zones			
☐ Highly Vulnerable A	quifers Significant Groundwate	r Recharge Areas			
Is the activity being applied for it	dentified as a significant drinking water th	nreat in the assessment report for the local source protec	ction area? 😯		
○ Yes ○ No					



int Form



4.6 Receiver of Effluent Discharge (sewage applications only)	?
Intermediate Receiver Name	Watershed Name
☐ Surface Water ☐ Groundwater ☐ Other (specify):	
Has the facility received local Conservation Authority clearance? (for stormwater management Yes N/A If yes, please include a copy of the Conservation Authority clearance)	
Final Receivers \(\sum \text{N/A} \)	
Will the proposed activity discharge sewage to any of the following critical receivers?	
will the proposed activity discharge sewage to any of the following childan receivers?	
	(specify):
	(specify):
☐ Lake Simcoe ☐ Rideau River ☐ Detroit River ☐ Othe	r (specify):

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Print Form

Clear Form

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5.1 Air

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IF YOUR APPLICATION DOES NOT HAVE AIR EMISSIONS PLEASE PROCEED TO SECTION 5.2

Summary of Equipment that Discharges Contaminants to the Air 5.1.1

(√)	Description	Number of Pieces of Equipment
X	Combustion equipment that uses natural gas, propane, no. 2 oil, landfill gas or sewage treatment gas for fuel for the purpose of providing comfort heating or emergency power, producing hot water or steam, or heating material in a system that does not discharge to the atmosphere (Total Heat input of all units ≤ 50,000,000 kJ/hr)	N/A
	Storage tanks	N/A
	Welding operations that use a maximum of 10 kilograms of welding rod per hour	N/A
	Combustion equipment that uses waste-derived fuel for the purpose of providing comfort heating, burning ≤ 15 litres per hour	
	Heat cleaning ovens used for parts cleaning and associated parts washers or degreasing equipment, other than solvent degreasing equipment	
	Cooling towers	
	Equipment used to control emissions of contaminants, other than a fume incinerator	
	Laboratory fume hoods	
	Paint spray booths and associated equipment that have a design capacity of up to 8 litres per hour of paint	
	Grain dryers	
X	Any other equipment not listed above with a flow rate of less than or equal to 1.5 m ³ per second	1
	Any other equipment not listed above with a flow rate of greater than 1.5 m³ per second	
	Equipment that is subject to an Environmental Compliance Approval, and from which there is no proposed increase in the discharge of any contaminant that was previously reviewed by the Director.	N/A

✓ 5.1.2	Emission S	Summary a	and Dispersion	Modelling	(ESDM) Report	?)
----------------	------------	-----------	----------------	-----------	---------------	---	---



Is the review of an existing, approved ESDM required as part of this proposed application? Yes

If yes, identify the number of emission sources described in the existing ESDM Report that emit contaminants in common with the sources forming the subject of the application (if none, enter zero). 2

Have all of these emission sources been described in an ESDM Report that was previously reviewed as part of an application for an existing Environmental Compliance Approval? Yes No

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5.1.3 O. Reg. 419/05 Requirements 😯
Which of the following sections of O. Reg. 419/05 applies to the facility?
s.19 (Schedule 2) s.20 (Schedule 3) Does not apply. Please indicate reason:
Has an instrument under O. Reg. 419/05 been issued? O Yes No
If yes, what type(s) of instruments (including any notices, orders or approvals) has (have) been issued? (select all that apply)
☐ ss. 4(2) Adjacent Properties ☐ ss. 20(4) Speed-up Request
☐ ss. 7(1) Specified Dispersion Models ☐ ss. 20(5) Speed-up Order
☐ ss. 8(2) Negligible Sources ☐ s. 35 Site-specific Standard
ss. 10(2) Operating Conditions ss. 35(14) Site-specific Standard Order
ss. 11(2) Refined Emission Rates ss. 39(3) Technical Standard Registration (Industry Standard)
ss. 13.1 Value of Dispersion Modeling Parameters ss. 39(4) Technical Standard Registration (Equipment Standard)
ss. 13(1) Meteorological Data
ss. 14(6) Area of Modelling Coverage
Other (list all that have been issued):
Is an instrument under O. Reg. 419/05 being requested as part of this application? Yes No
If yes, what type(s) of notice, order or approval is (are) being requested?
☐ ss. 7(1) Specified Dispersion Models ☐ ss. 14(6) Area of Modelling Coverage
☐ ss. 8(2) Negligible Sources ☐ ss. 20(4) Speed-up Request
ss. 10(2) Operating Conditions s. 32 Request for a Site-specific Standard Order
☐ ss. 11(2) Refined Emission Rates ☐ ss. 39(1)(a) Application for Technical Standard Registration (Industry Standard)
ss. 13(1) Meteorological Data ss. 39(1)(b) Application for Technical Standard Registration (Equipment Standard).
Other (list all that have been requested):
Please attach the form(s) requesting the notice(s) and/or order(s) and any additional supporting information.
Has an s.30 Upper Risk Threshold (Schedule 6) been exceeded? If yes, please include additional supporting information. Yes No
Is the facility located in a multi-tenant building? If yes, additional information may be requested. Yes No
Are all of the contaminants to which the application relates represented in the Ministry of the Environment publication titled "Summary of Standards and Guidelines to support Ontario Regulation 419: Air Pollution – Local Air Quality" or have they been screened out based on the publication titled "Jurisdictional Screening Level (JSL) List, A Screening Too for Ontario Regulation 419: Air Pollution – Local Air Quality"? (If no, please attach Supporting Information for a Maximum Ground Level Concentration Acceptability Request for Compounds with no Ministry POI Limit – Supplement to Application for Approval, EPA S.9 (PIBS 4872)). Yes O No



Print Form



5.2	Noise	IF YOUR APPLICATION DOES NOT HAVE NOISE EMISSIONS, PLEASE PROCEED TO SECTION 5.3.
5.2.1	Noise Ass	essment ?
Have y	ou complet	red an Acoustic Assessment Report (AAR) or Abbreviated Acoustic Assessment Report (A-AAR)? Yes No
If yes, p	olease indica	te the report you have completed:
	AAR	Please attach the Acoustic Assessment Report.
		Does the AAR show that applicable limits are met? Yes No
		If no, please attach the Acoustic Assessment Report including the Noise Abatement Action Plan.
	O A-AAR	Please attach the Abbreviated Acoustic Assessment Report.
		Does the A-AAR show that applicable limits are met? O Yes O No
		Note that certain conditions must be met before using the A-AAR and that the A-AAR must show that the applicable limits are met otherwise an AAR may be required.
If no, is	the applicat	ion eligible for Primary or Secondary Noise Screening? O Yes O No
		Note that if you are not eligible for either of the screenings, you must submit either an AAR or A-AAR.
		If yes, is your proposed activity described with one of the NAICS codes that are eligible for the Primary Noise Screening? O Yes O No
		If yes, is the actual separation distance between the facility and the noise sensitive point of reception (POR) greater than the minimum required separation distance calculated from the Primary Noise Screening? O Yes O No
		If yes, please attach the Primary Noise Screening form and supporting documentation. Note that if the Primary Noise Screening is not successful then you may attempt to proceed with the secondary noise screening.
		If no, does the Secondary Noise Screening report show that the applicable sound level limits are met? O Yes O No
		If yes, please attach the Secondary Noise Screening Report and supporting documentation. Note that if you cannot demonstrate that the applicable sound level limits are met then you must submit either an AAR or A-AAR.



Print Form

CI	ear	For	m
CI	ear	For	m

V	5.2.2	Equipment Subject to Noise Review	?
---	-------	--	---

(√)	Description	Number of Pieces of Equipment
	Arc Furnaces	
	Asphalt Plants	
	Blow-down Devices	
	Co-generation Facilities	
	Crushing Operations	
	Flares	
	Gas Turbines	
	Pressure Blowers or Large Induced Draft Fans (flow rate > 47m³/second or static pressure > 1.25 kilopascals)	
X	Any other equipment not listed above that has not previously been reviewed by the Director in connection with an application for an Environmental Compliance Approval with respect to the facility	1
	Any other equipment not listed above that is identical to equipment for which a noise assessment was previously reviewed by the Director in connection with an application for an Environmental Compliance Approval with respect to the facility	

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5.3	Sewage Works	IF YOUR	APPLICATION DOES NOT	CONTAIN SEWAGE WORKS PLI	EASE PROCEED TO SECTION	5.4
5.3.1	Facility Type – Sewage Works	?				
Select	the type of facility that is the subje	ct of the ap	plication (select all that app	oly).		
☐ Sev	vage Treatment Plant (STP)		Further information:			
			☐ Primary		On-site system	
			Secondary		Lagoons (check all tha	it apply below)
			☐ Tertiary		☐ Septage	
			☐ Receives septage		☐ Municipal	
			☐ Constructed/Engine	ered Wetlands	Other (specify):	
	Municipal or private facility		Please indicate the ma	ximum design capacity of the	municipal or private sewage	treatment plant:
	Category: O New O 1 O 2 O	3 🔾 4	≤ 4,550 m³/day	→ 4,550 m³/day		
	ceil Facility for the treatment of leachat	е				
	Category: O New O 1 O 2 O	3 () 4				
	☐ Facility for the treatment of industri	al process v	vastewater			
	Category: O New O 1 O 2 O	3 🔾 4				
	Facility for the disposal of non-con		water			
Γ	Subsurface disposal		Please indicate the des	ign capacity of the subsurfac	e disposal:	
_			$\bigcirc \le 15 \text{ m}^3/\text{day}$	○ > 15 m³/day an	$d < 50 \text{ m}^3/\text{day}$ $\bigcirc > 50 \text{ m}^3$	⁹ /day
☐ Sto	rmwater Management Facility					
Ca	egory: O New O 1 O 2 O 3 O	4	☐ Wet Pond ☐ Di	y Pond		
Sto	following, you must complete and att rm Sewers Ditches nbined Sewers Forcemains nitary Sewers Pumping St		vant sections of the pipe o	lata form:		
Is a Hy	drogeological Assessment required?	○ Yes (O No (If yes, please atta	ch the hydrogeological asses	sment.)	
	riew of effluent criteria assessment fo es, please attach the final effluent crit				es required? O Yes O N	No
	riew of effluent criteria assessment fo es, please attach the final effluent crit	•	•	•	chate treatment plant require	d? O Yes O No

Facility Information

4.5.

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					Print Form		Clear Form	Save Fo	orm
5.3.2	Servicing	?							
The wo	rks will provi	ide sewage servicing	for (select all that apply):						
☐ Res	idential	☐ Subdivision☐ Condominium☐ Institutional☐ Other (specify):	Is there a Municipal Responsibility A If yes, please attach a copy of the Mun	•		○ N/A			
☐ Con	nmercial	☐ Hotel, Motel, Inn☐ Resort☐ Restaurant	☐ Campground, Park☐ Shopping Malls☐ Highway Service Station/G	☐ Rental Cabins ☐ Other (specify): Gas Bars					
☐ Indu	ıstrial	Describe:							
5.3.3 Does/W	_	_	Disposal/Landfill Sites ? ve waste disposal/landfill site leachate?	◯ Yes ◯ No If yes, p	olease identify t	he site(s) belo	ow.		
Nam	e of Site Con	tributing Leachate				al Compliance al Number	Э	Volume of leachate (m³)	
1.									
2.									
3.									



Print Form

Clear	Form
Clear	FOIIII

5.4 Waste	Disposal Site	? IF	YOUR APPLICATION IS	S NOT FOR A WASTE	DISPOSAL OR PROCE	SSING SITE PLEASE	PROCEED TO SECT	ION 5.5
5.4.1 Facility	Description – Was	ste Disposal Site	(information on the nat	ure of the proposed bus	siness or activity at this	site)		
Service Area						Total Area of Site (he	ectares)	
Monitoring (selec	t all that apply)							
Groundwater	☐ Surface	Water	Landfill Gas	Leachate	☐ None	Other (specif	fy):	
Type(s) of waste	to be accepted at th	is site (select all tha	at apply)					
Subject: ☐ Hazardous Wa ☐ Liquid Industri				i bject: nicipal (non-hazardou er Liquid Waste	is)			
Municipal waste	categories to be acc	epted at this site	(select all that apply)					
All Categories	☐ Domest	ic Sources	IC&I Sources	☐ Source Sepa	arated Organics	Tires	Leaf & Yaı	d Waste
☐ Contaminated	Soil Wood V	Vaste	Blue Box Materials	Other (specify	<i>y</i>):			
Other liquid was	te categories to be a	ccepted at this si	te (select all that apply)					
☐ Processed Or	ganics 🗌 Waste f	rom Food Process	ing/Preparation Opera	tions 🗌 Hauled S	Sewage Other	(specify):		
				M / I				
			1	Waste / Liquid Indu				
Class Code	Class Code	Class Code	Class Code	Class Code	Class Code	Class Code	Class Code	Class Code



Print Form





5.4.2 Waste Transfer/Processing/Composting – Complete this information if waste transfer and/or processing and/or composting take(s) place at this facility

_	
- 4	0
- 1	_

Waste Types to be Transf	rred or Pi	rocessed	Des	ign Capacity				
☐ Hazardous waste or li	uid indust	trial waste	0	≤ 100 tonnes p	er day	tonnes per day		
☐ Waste other than haz	rdous was	ste and liquid industrial w	aste O	≤ 100 tonnes p	er day	tonnes per day		
			Cha	nge to Operation	ons ?			
O No Change Proposed		С	Change does not	require fundame	ental design review	O Change requi	res fundamental d	esign review
				Liquid Waste				
Maximum Storage Capacity (m³) Maximum Residual for Final Disposal (m³)								
Hazardous Liquid	rdous Liquid Industrial Other Liquid W		Hazardous		Liquid Industrial		Other Liquid Waste	
Hazardous Liquid	iluusiilai	strial Other Liquid Waste	Daily	Annually	Daily	Annually	Daily	Annually
				Solid Waste				
Maximum Stora	ge Capaci	ity (tonnes)			Maximum Residual for	Final Disposal (to	onnes)	
Hazardous		Non-hazardous		Hazardous			Non-hazardou	ıs
Tiazaiuous		INOII-IIazai uous	Daily		Annually	Daily	,	Annually
			Maximum Amour	nt of Waste to be	e Received Daily			
		Liquid (m³)				Solid (tonnes)	
Hazardous		Liquid Industrial	Other Liqui	d Waste	Hazardou	ıs	Non-	hazardous



Print Form	1



Save Form

5.4.3 Thermal Treatment Facility – Complete this information if thermal treatment takes place at this facility

4			
	?	0	
X.		7	

Waste Type for Th	iermai Treatment		Design Cap	-				
Hazardous w	aste or liquid indus	trial waste	O ≤ 100 to	onnes per d	lay	onnes per day		
☐ Waste other	than hazardous was	ste and liquid industrial w	aste	onnes per d	lay	onnes per day		
			Change to C	perations	?			
O No Change Pro	pposed	0	Change does not require	undamenta	ıl design review	Ohange require	es fundamental desi	gn review
			Liquid '	Waste				
Max	imum Storage Capa	acity (m³)		M	aximum Residual fo	or Final Disposal (ı	m³)	
Hazardous	Liquid Industrial	Other Liquid Waste	Hazardous	Hazardous		ndustrial	Other Liquid Waste	
		Omer Elquiu Tracte	Daily An	nually	Daily	Annually	Daily	Annually
			Solid V	Vooto				
			Solid V					
Maxim	num Storage Capac	ity (tonnes)			ximum Residual for	Final Disposal (tor	· · · · · · · · · · · · · · · · · · ·	
Hazardou	ıs	Non-hazardous		ardous		5 "	Non-hazardous	
			Daily		Annually	Daily		Annually
			Maximum Amount of Was	ete to be R	eceived Daily			
			Maximum Amount of was	ste to be n	eceived Daily	Callel (to		
Hazardoı		Liquid (m³)	Other Liquid Wests		Solid (to		Non-hazardous	
Hazardol	ıs	Liquid Industrial	Other Liquid Waste		Hazardou	S	Non-naz	zardous
			Maximum Daily Fee	d Rate (ton	ines/m³)			
Hazardous	s Waste (tonnes)	Non-hazard	ous Waste (tonnes)	Liq	uid Industrial Waste	(m³)	Other Liquid V	Vaste (m³)



Form	Print
------	-------





5.4.4 Landfil	I Site – Complet	te this informat	ion if this facilit	ty operates as a	a landfill	site	?				
Waste Types to	o be accepted at t	he Landfill		Design Cap	acity						
☐ Hazardous	s waste or liquid inc	dustrial waste		<u></u> ≤ 40,0	000 m³	0	> 40,0	00 m³ ≤ 3 mi l	lion m³		million m³
Waste is o concrete a	nly uncontaminated	d tree stumps, lea	ves, branches,	<u></u> ≤ 40,0	000 m³	0	> 40,0	00 m³ ≤ 3 mi l	lion m³	○ >3ı	million m³
	er than hazardous wa nated tree stumps, le	-		than	000 m³	0	> 40,0	00 m³ ≤ 3 mil	lion m³		million m³
				Change to	Operation	ıs 🥐					
O No Change	Proposed			nge does not requ ydrogeological as		nental design	review (-	requires fun ological ass		design review or
				Maximum Landfi	Iling Capa	icity (m³)					
Haz	ardous Waste		Non-hazardous	Waste		Liquid Indus	trial Wast	е		Other Liq	uid Waste
		l									
			Max	imum Amount of	Waste to	be Received					
Hazardo	ous Waste (tonnes)	1	lon-hazardous Wa	ıste (tonnes)	l	_iquid Industri	al Waste	(m³)	0	Other Liquid Waste (m³)	
Daily	Annua	lly	Daily	Annually		Daily	An	nually	Dail	ly	Annually
						ļ					
				Landfill I	nformatio	n ?					
Area to be Landfilled (hectares)	Total Site Area including Buffer Area (hectares)	Estimated Date of Closure (yyyy/mm/dd)	Population Served			Cor	ntrol Type	s (select all tha	it apply)		
				☐ Leachate	Collected	and Treated	Off-site	Leacha	ate Collected	d and Trea	ted On-site
				☐ Landfill G	as Collect	ed and Flared	1	☐ Landfil	l Gas Collec	ted for En	ergy Generation
				Other (de	escribe):						

Facility Information

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Print Form	Clear Form	Save Form

5.5 Waste Management Systems (Except Mobile Waste Pr
--



Year	Make	Model	Vehicle Identification Number (VIN)	Licence Plate Number	Province/State
5.5.2 Vehicle	Information (?)				
	les to be used owned by the ap	plicant? O Yes O No			
			ch vehicle not owned by the applicant.		
, i	of \$1,000,000,00 liability in aura	nce been obtained for all veh	nicles for which it is required? O Yes O No		
	or \$1,000,000.00 nability insura				
Has a minimum	itional insurances that are held (f	or example, environmental imp	airment liability insurance).		



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5.5.3 General Was	ste Manageme	ent System	?							
Type(s) of Waste to	be Transported	d by the General Waste	e Management Sys	tem (select all that app	oly)					
Subject:			Non-su	Non-subject:						
☐ Hazardous Waste			☐ Mun	☐ Municipal (non-hazardous)						
☐ Liquid Industrial Waste			☐ Othe	☐ Other Liquid Waste						
Non-subject Catego	ories to be Tran	sported by the Genera	ıl Waste Manageme	ent System (select al	I that apply)					
☐ Blue Box Materials ☐ Domestic Sources		☐ Commercial		☐ Non-Ha	☐ Non-Hazardous Solid Industrial		☐ Asbestos Waste in Bulk			
☐ Dewatered Catch Basin Clean-out Material		Leaf/Yard Waste	☐ Wood Waste		☐ Spill Cl	☐ Spill Cleanup Material		☐ Contaminated Soil		
☐ Waste from Food Processing/ Preparation Operations		Tires	☐ Was	☐ Waste Wash Water		Processed Organics (not for land application)		☐ Grease Trap Waste		
			Others (specify):							
Subject Waste Categories to be Transported by the General Waste Management System Separate list attached? O Yes O No										
Class Code Class Cod		Class Code	Class Code	Hazardous Waste / Liquid Industrial ss Code Class Code C				Class Code Class Code		
Class Code	Class Code	Class Code	Class Code	Class Code	Class Code	Class Code	Class Code	Class Code		
☐ All drivers are/w	vill be trained in a	ccordance with O. Reg.	347 and all pertiner	nt environmental legi	slation.					
		specific subject waste		•		tect the health and safe	ety of the public an	d the natural		
Note: For transporte must be provided.	rs of pathologica	I waste and PCBs (was	te classes 243 and 3	312) Operations Mar	ual and Driver Trai	ning Manual must also	be attached and F	inancial Assurance		



		Pri	int Form	Clear Form	Save Form
General Waste Management System - Dis	sposal Site Information				
What is the Final Destination of Waste to be T	ransported by the General Waste Mana	gement System? (select all th	nat apply)		
☐ A disposal site in Ontario approved by the Mir	nistry of the Environment				
$\hfill \square$ Disposal sites outside of Ontario approved by	another regulatory agency				
List the destination province(s)/state(s):					
 5.5.4 Soil Conditioner Waste Managem (includes non-agricultural source material (NASM) that Has the applicant received recommendation f Yes If yes, please provide a copy of 	is waste and processed organic waste (biosolic from Biosolids Utilization Committee (B			anic waste (biosolids) o	r NASM?
O No If no, please clarify:					
Spreading equipment (land application only)	Separa	ate list attached? O Yes	○ No		
Equipment Type	Make & Model		Descr	iption	



Print Form



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Method of system operation (land applica	ation only)							
Estimated quantity to be handled on an annual basis (cubic metres/litres/tonnes):								
Please describe the loading procedures:								
Please describe the spreading methods:	Please describe the spreading methods:							
Please describe the storage facilities (tanks, la	goons, etc.):							
Soil Conditioner Waste Management S	System – Land Application Si	ites						
What is the final destination of waste to be	transported by the soil conditi	oner waste	management	system? (r	must include	for land application only)		
☐ Non-agricultural land ☐ Agricultural	and Both agricultural and	non-agricul	Itural land					
5.5.5 Hauled Sewage (Septage) Was	te Management System	?						
Type(s) of hauled sewage (septage) to be tra								
☐ Portable toilet waste ☐ Septic tank wa	•	☐ Other	(specify):					
Spreading Equipment (land application only)		Separate	list attached?	O Yes	○ No			
Equipment Type	Make & Model					Description		

Facility Information

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Does this system include in-transit storage? O Yes O No ?
If yes: a) What is the duration of storage? Please specify (Maximum period of in-transit storage should not exceed more than two weeks):
b) Is the storage tank a prefabricated tank with the capacity < 100,000 L, designed and constructed in accordance with a Class 5 Sewage System under the Ontario Building Code or CAN/CSA B66-05?
Yes No If no, please provide a copy of the design of the storage tank signed and dated by a professional engineer.
Does this system include in-transit processing? O Yes O No ?
If yes: a) Location of in-transit processing:
☐ In Vehicle ☐ In-storage Tank
b) Describe the method of in-transit processing:
Does this system use barge/boat to transport hauled sewage (septage)? O Yes O No
If yes, a) Has a minimum of \$1,000,000.00 liability insurance been obtained for the barge/boat for which it is required? O Yes O No
b) Does the barge/boat have an engine of 10 horsepower (hp) or more, for which a commercial vessel licence is required from Transport Canada? O Yes O No If yes, please include a copy of the commercial vessel licence.
Note: For in-transit storage or processing the applicant must include with the application the consent of the landowner, if the landowner is different than the applicant. A financial

Note: For in-transit storage or processing the applicant must include with the application the consent of the landowner, if the landowner is different than the applicant. A financial assurance estimate must be provided by applicants using in-transit storage or using in-transit processing where processing is conducted in the in-transit storage tanks.



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Hauled Sewage (Septage) Waste Management System – Land Application Sites □ N/A

List the Environmental Compliance Approval Number(s) of all disposal site(s) approved by the Ministry of the Environment for land application of hauled sewage in association with this waste management system.

Instrument Type	Instrument Number	Approval or Application Date (yyyy/mm/dd)

Instrument Type	Instrument Number	Approval or Application Date (yyyy/mm/dd)



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6 Waste Management System – Mobile Waste Processing ?									
i.6.1 Mobile Was	6.1 Mobile Waste Management System Process and Equipment Description								
ype(s) of Waste to b	e Processed (select a	II that apply)							
Subject:									
Hazardous Waste									
Liquid Industrial Waste									
Number of Units Type of Waste to be Processed by the Unit(s) Financial Assurance (per unit) Financial Assurance Required							ssurance Required		
	Non-hazardous Solid Waste \$5,000								
	Hazardous Waste \$20,000								
		Liquid Industrial Waste \$20,000							
		Other Liquid Waste \$20,000							
	Multiple Types of Waste from the Categories Above \$20,000								
Total Financial Assurance \$0									
unicipal (non-hazardous) Waste Categories to be Processed (select all that apply)									
Contaminated Soil	at Cleanup Site	Wood Waste Cor	nstruction & Demolition	Waste Asbestos	Waste Tires				
Domestic Waste	Domestic Waste								
Other Liquid Waste C	ategories to be Pro	cessed (select all that app	uly)						
☐ Hauled Sewage	☐ Waste from Food	Processing/Preparation	Operations	essed Organic					
Other (specify):									
		Hazardo	ous/Liquid Industrial V	Vaste Types to be Pro	ocessed				
Class Code	Class Code	Class Code	Class Code	Class Code	Class Code	Class Code	Class Code		



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5.6.2 Equipment Information – Please attach a separate list if more space is required.

Congrete list attached?	O Yes	\bigcirc No
Separate list attached?	C) res	() INC

			Equipment List				
Unit No.	Unit Type	Process Description	Equipment Type	Make	Model	Serial Number	Equipment Capacity (including unit of measurement)
Unit 1							
Unit 2							
Unit 3							
Unit 4							



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5.7 Cleanup of Contaminated Sites



IF YOUR APPLICATION IS NOT FOR A CLEANUP OF A CONTAMINATED SITE PLEASE PROCEED TO SECTION 6.

Type of cleanup:	
◯ In-situ	
○ Ex-situ	
O Both	
Contaminated media to be	treated:
Groundwater	
☐ Surface water	
Sediment	
Soil	
Waste Type:	
Subject:	Non-subject:
☐ Hazardous Waste	☐ Municipal (non-hazardous)
☐ Liquid Industrial Waste	Other Liquid Waste
Type of discharge:	
Air	☐ Surface water
Groundwater	Noise
☐ Storm or sanitary	

Name, address and phone number of the Operating Authority

Copy of NEPDA Permit

(ORMCA, general)

Zoning map

Application Fee

V

Copy/Proof of Municipal Planning Approval

Municipal Zoning Confirmation Letter

Conservation Authority Clearance

Director's approval for Policy 2 Deviation

6.1

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	Attachment	Attached	If no, provide explanation, (include referenced attachment if more space is required for rationale)	Confidential* $()$
V	Proof of legal name	Yes No		
\checkmark	Enhanced EBR description	Yes No		
	Provincial Officer Notice	○ Yes ○ No		
	Inspection Report	○ Yes ○ No		
V	Detailed project and process description	Yes No		
V	Pre-application Consultation Record	O Yes O No		
	Legal Survey(s)	○ Yes ○ No		
\checkmark	Site Plan(s)	Yes No		
\checkmark	Scaled area location plan(s) with geo-referencing points identified	Yes No		
	Documentation in support of EBR Exception	○ Yes ○ No		
	Proof of Compliance with EAA Requirements	○ Yes ○ No		
	Proof of Consultation/Notification	○ Yes ○ No		
V	Financial Assurance Estimate	Yes No		
	Name, address and consent of land/site owner for the installation and operation of the proposed activity or storage location of equipment or vehicle	○ Yes ○ No		

O No

○ Yes

○ Yes

○ Yes

○ Yes

O Yes

O Yes

O Yes

Yes

General — THIS IS A LIST OF SUPPORTING INFORMATION TO THIS APPLICATION AND IS SUBJECT TO THE FIPPA AND EBR.

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Supporting Documentation and Technical

(PIBS 5356e)

Vibration Assessment report

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	Requirements		Print Form Clear Form	Save Form
	Attachment	Attached	If no, provide explanation, (include referenced attachment if more space is required for rationale)	Confidential*
V	A copy of this application has been sent to the Ministry Local District Office	al		
	Explanation for confidentiality	○ Yes ○ No		
	Other (please describe):	○ Yes ○ No		
V	6.2 Air			
V	Emission Summary and Dispersion Modelling (ESDM) Represented in accordance with s.22 and of O. Reg. 419/05 (insigned checklist – PIBS 5357e)			
	Electronic copy of the Dispersion Modelling input and output prepared in accordance with s.26 of O. Reg. 419/05	tt files		
	Supporting Information for a Maximum Ground Level Concentration Acceptability Request for Compounds with no Ministry POI Limit – Supplement to Application for Approval S.9 (PIBS 4872)	() Voo () No		
	Copies of forms requesting O. Reg. 419/05 instruments and supporting documentation	Yes O No		
	Other (please describe):	○ Yes ○ No		
\checkmark	6.3 Noise and Vibration			·
	Primary Noise Screening	○ Yes ○ No		
	Secondary Noise Screening	○ Yes ○ No		
	Abbreviated Acoustic Assessment Report including signed checklist (A-AAR)	○ Yes ○ No		
\checkmark	Acoustic Assessment Report including signed checklist (AA	(R) Ses No		

O No

O Yes

V

V

 \checkmark

Other (please describe):

Contents I General Information and Instructions I Application Summary I 1 Applicant Information I 2 Project Information I 3 Regulatory Requirements 4 Site Information I 5 Facility Information I 6 Supporting Documentation and Technical Requirements I 7 Payment Information

Requirements		Print Form Clear Form	Save Form
Attachment	Attached	If no, provide explanation, (include referenced attachment if more space is required for rationale)	Confidential*
Noise Abatement Action Plan	○ Yes ○ No		
Other (please describe):	○ Yes ○ No		
5.4 Sewage			
Signed Municipal Responsibility Agreement	○ Yes ○ No		
Detailed description of the proposed activities/works	○ Yes ○ No		
Notice of Completion for the Environmental Study Report (ESR)	O Yes O No		
Design Brief	○ Yes ○ No		
Preliminary Engineering Report	O Yes O No		
Final Plans	○ Yes ○ No		
Engineering Drawings and Specifications	○ Yes ○ No		
Sewage quantity and quality characteristics	○ Yes ○ No		
Stormwater Management Report	○ Yes ○ No		
Stormwater Management Plan	○ Yes ○ No		
Hydrogeological Assessment	○ Yes ○ No		
Environmental Impact Analysis	O Yes O No		
Final effluent criteria accepted by regional office of the Ministry	○ Yes ○ No		
Sewage Works Limited Operational Flexibility Requirements			
1. Engineer's Report	○ Yes ○ No		
2. Declarations	○ Yes ○ No		
Pipe Design Data Form	○ Yes ○ No		

○ Yes ○ No

V

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 \checkmark

Other (please describe):

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and Technical Requirements			Print Form	Clear Form	Save Form	
Attachment	Attac	ched	If no, provide explanation (include referenced attachment if more space is		Confidential'	
6.5 Waste Disposal Sites						
Design and Operations Report	○ Yes	○ No				
Stormwater Management Report	O Yes	O No				
Hydrogeological Assessment	○ Yes	○ No				
Assessment of Physical and Water Use Conditions	O Yes	O No				
Waste Limited Operational Flexibility Requirements						
1. Engineer's Report	O Yes	○ No				
2. Declarations	O Yes	○ No				
Copy of notification to adjacent landowners	O Yes	○ No				
Other (please describe):	○ Yes	○ No				
6.6 Waste Management Systems						
Proof of vehicle and/or equipment ownerships	O Yes	○ No				
Complete Fleet List (list of all vehicles, trailers and equipment used)	O Yes	○ No				
Copy of the Liability Insurance for all vehicles for which insurance is required	O Yes	○ No				
Copy of BUC recommendation	○ Yes	○ No				
Copy of the storage tank design	○ Yes	○ No				
Copy of commercial vehicle licence	○ Yes	○ No				
Description of the physical location where the vehicles transporting biomwedical waste are being disinfected	O Yes	O No				
Drivers Training Manual (for PCB/Biomedical Waste)	O Yes	O No				
A copy of the applicant's Operation Plan including detailed packaging and biomedical waste handling methods	O Yes	O No				
Contingency and Emergency Procedures Plan (for PCB/ Biomedical Waste/Hauled Sewage (Septage))	O Yes	O No				

○ Yes ○ No

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Attachment	Attached	If no, provide explanation, (include referenced attachment if more space is required for rationale)	Confidential*
✓ 6.7 Mobile Waste Processing			·
Design and Operations Report – Mobile Waste Processing of General Waste	○ Yes ○ No		
Design and Operations Report – Mobile Waste Processing of Liquid Waste	○ Yes ○ No		
Other (please describe):	○ Yes ○ No		
✓ 6.8 Cleanup of Contaminated Sites			
Design Report for Cleanup of Contaminated Sites	○ Yes ○ No		
Other (please describe):	○ Yes ○ No		
✓ 6.9 Other Attachments			
Title	Reference		Confidential* (√)
Are you attaching an additional list of attachments? Yes No		space to list all of the attachments included in this application package, itional listing of these attachments.	

*Please note: The collection of personal information in this application is necessary to administer the Ministry's approvals program, which is authorized pursuant to the Environmental Protection Act and the Ontario Water Resources Act. The personal information collected in this application will be used to administer the program, including for the purposes of the Ministry's compliance and enforcement activities under the aforementioned acts, and for the purposes of making information in respect of Environmental Compliance Approvals available to the public with the exception of payment information. Questions about the collection of the information can be directed to a Client Service Representative, Environmental Approvals Access and Service Integration Branch, 2 St. Clair Avenue West, Floor 12A, Toronto Ontario M4V 1L5; Telephone outside Toronto 1-800-461-6290 or in Toronto 416-314-8001 or Fax 416-314-8452.

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Payment Information

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Payment Information: Application for an Environmental Compliance Approval



Please Note:

- 1. If you are completing this form by hand, you must complete and attach your fee calculations separately. You do not need to include the supplemental fee calculations if you are filling in this form electronically.
- 2. If you are completing this form electronically, the fees for this application have been calculated based on the information you have provided. The Ministry may require additional information during the review of your application that could impact the total fee required.
- 3. All fees should be paid in Canadian funds, payable to the Minister of Finance, except fees for Transfer of Review, which are payable to the local municipality.
- 4. Credit card payments are accepted for payments under \$10,000 only.
- 5. If you are paying by certified cheque or money order, please staple your payment to this page.
- 6. The information collected in this section of the form is considered confidential and will only be used to process your application fee.

Do not include this page in the copies of your application that are being provided to the Local Ministry District Office.

Amount Enclosed	Method of Payment		
\$ 1,800.00	☒ Certified Cheque☒ VISA	☐ Money Order☐ MasterCard	☐ American Express
Credit Card Information (if paying by VISA, MasterCard or A	merican Express)		
Name on Card (please print)	Credit Card Number		Expiry Date (mm/yyyy)
Cardholder Signature	Date (yyyy/mm/dd)		
		d cheque or money order, attach it here.	

ontario.ca/environment





ATTACHMENT 1

Supporting Information Including:
Master Business Licence
Copy of Current Environmental Compliance Approval
Granted s.20.18 Order





Master Business Licence

Date Issued: (yyyy-mm-dd)

1990-01-01

Business Name and Mailing Address:

Acme Aggregates Inc. 123 Aggregate Ave Aggreville, Ontaro A1A 1A1

Business

Address:

SAME AS ABOVE

Telephone:

124-356-7890 Ext:

Fax: (

E-Mail:

dslater@acme.com.

Legal Name(s):

Acme Aggregate Incorporated

Type of

Legal Entity:

Corporation

is)

Business Information

Number

Effective Date (yyyy-mm-dd)

Expiry Date (yyyy-mm-dd)

Acme Aggregates Inc.

12356789

1990-01-01

2020-01-01

Page 1 of 1

When the Master Business Licence is presented to any Ontario business program, you are not required to repeat information contained on this licence. Each Ontario business program is required to accept this licence when presented as part of its registration process.

Call the Ontario Business Connects Helpline at 1-800-565-1921 or (416) 314-9151 or TDD (416) 326-8566 if you have any problems.

Acme Aggregates Inc. 123 Aggregate Avenue, Aggreville, ON A1A 1A1

Site Location: Acme Aggregates Inc. Quarry

123 Aggregate Avenue, Municipality of Aggreville, Bedrock County

You have applied in accordance with Section 9 of the Environmental Protection Act for approval of:

Description Section

one (1) crushing plant, processing rock materials at a maximum rate of 400 tonnes per hour, and consisting of the following sources discharging to the atmosphere:

- one (1) secondary crusher and wash plant;
- material handling equipment and processes, such as bins and conveyers, associated with aggregate processing;
- one (1) diesel fired engine rated 400 kilowatts, discharging products of combustion to the atmosphere at a volumetric flow rate of 1.23 cubic metres per second through a stack extending 4.2 metres above grade; and
- maintenance welding activities.

all in accordance with the Application for Approval (Air & Noise) submitted by Acme Aggregates Inc., dated June 19, 2004 and signed by Dino Slater, President; and the supporting information, including the Emission Summary and Dispersion Modelling Report submitted by, Limerock Consulting Inc. dated June 10, 2004 and signed by Eddy Boulder and the Acoustic Assessment Report dated June 12, 2004 submitted by Limerock Consulting Inc. and signed by Rocky Mason.

For the purpose of this Certificate of Approval and the terms and conditions specified below, the following definitions apply:

- 1. "Certificate" means this entire certificate of approval document, issued in accordance with section 9 of the EPA and includes all the Schedules, and the Supporting Documentation.
- 2. "Company" means Acme Aggregates Inc. that is responsible or the construction or operation of the Facility and includes any successors and assigns.

Ministry of the Environment

Environmental Approvals Access and

Service Integration Branch

2 St. Clair Avenue West Floor 12A Toronto ON M4V 1L5 Tel.: 416 314-8001 Fax: 416 314-8452

July 15, 2013

Dino Slater President ACME Aggregates Inc. 123 Aggregate Avenue Aggreville ON A1A1A1

Ministère de l'Environnement

Direction de l'accès aux autorisations environnementales et de l'intégration des services

2, avenue St. Clair Ouest

Étage 12A

Toranto ON M4V 1L5 Tél.: 416 314-8001 Téléc.: 416 314-8452



Dear Dino Slater:

RE: Request for order under s.20.18 of the EPA, dated March 4, 2013 EASR Confirmation ID: R-001-0123456789-001

Please find enclosed an order under section 20.18 of the Environmental Protection Act, R.S.SO. 1990, c. E19 (EPA) after consideration of the above-noted request.

Activity: The use, operation, construction, alteration, extension or replacement of the

HEATING SYSTEM

Site Location: ACME Aggregate Inc.

123 Aggregates Avenue Aggreville, Ontario

A1A1A1

Should you have any questions related to your application, please contact Sally Meo, P.Eng., Review Engineer, at (123) 456-7890.

Sincerely,

Hega Epa, P.Eng.

Director,

Part II, 1, Environmental Protection Act

C: District Manager, MOE Aggreville District Office Director Environmental Approvals Branch Site Location

Ministry of the Environment

Environmental Approvals Access and Service Integration Branch

2 St. Clair Avenue West Floor 12A Toronto ON M4V 1L5 Tel.: 416 314-8001 Fax: 416 314-8452

Ministère de l'Environnement

Direction de l'accès aux autorisations environnementales et de l'intégration des services

2, avenue St. Clair Ouest Étage 12A Toronto ON M4V 1L5 Tél.: 416 314-8001 Téléc.: 416 314-8452



Director's Order

Order under section 20.18 of the Environmental Protection Act, R.S.O. 1990, c. E.19

Order Number X-001-0123456789-001

To: ACME Aggregates Inc.

Site: 123 Aggregate Avenue, Aggreville, Ontario, A1A1A1 (the "Facility")

Legal Authority and Reasons

Subsection 20.18(1) of the Environmental Protection Act (the "EPA), provides that the Director may issue an order to a person who is engaging in or who proposes to engage in an activity at a site, stating that Part II. 2of the EPA does not apply in respect of the activity at the site.

A request, with reference number R-001-0123456789-001 (the "Request"), for an order stating that Part II.2 of the EPA does not apply in respect of the use, operation, construction, alteration, extension or replacement of the heating system at the above-noted site (the "Facility") was submitted to the Ministry of the Environment (the "Ministry") by Dino Slater, President, ACME Aggregates Inc., dated March 4, 2013 in respect of the Facility.

The Owner is proposing to engage in more than one activity at the Facility, where the Owner will be primarily engaged in activities classified under the North American Industry classification System (NAICS) Code 212315 – Limestone Mining and Quarrying, to which Part II.1 of the EPA applies. Other proposed activities at the Facility include the use, operation, construction, alteration, extension or replacement of the heating system, which are prescribed activities for the purpose of subsection 20.21 (1) of the EPA, to which Part II.2 of the EPA and O.Reg. 245/11 apply.

An application with reference number 1234-5ABC6D (the "Application), for a basic comprehensive Certificate of Approval (now referred to as an Environmental Compliance Approval (ECA) under Part II.1 of the EPA), was submitted to the Ministry by Dino Slater, President, ACME Aggregates Inc., dated January 6, 2013 in respect of the Facility. The Application includes all activities at the Facility, including the above-mentioned prescribed activities.

Given that:

- the Application was submitted to the Ministry before October 31, 2011, the day on which O.Reg. 245/11 came into force;
- an Environmental Compliance Approval has previously been issued to the Owner for all activities at the Facility, and the Owner has requested that approval for all activities at the Facility is granted under the same instrument;
- the Owner is proposing to engage in more than one activity at the Facility, and the majority of the activities are activities to which Part II.1 of the EPA applies;
- the Application includes all activities at the Facility, including the prescribed activities;
- a preliminary review of the Application by the Ministry indicates that the Owner is seeking approval under Part II.1 of the EPA for all activities at the Facility; and
- the Application is for an Environmental Compliance Approval with limited operational flexibility, and the Owner has requested that approval for all activities at the Facility be granted under the same instrument.

Order

For the reasons set out above, and pursuant to the authority vested in me under section 20.18 of the EPA, I hereby order that Part II.2 of the EPA does not apply in respect of the use, operation, construction, alteration, extension or replacement of the **heating system**, identified in this order, the Owner's Request, the Application, and all supporting documentation and information.

General

This order does not relieve you from:

- (a) complying with any other applicable order, statute, regulation, municipal, provincial or federal law; and
- (b) obtaining any approvals or consents not specified in this order.

Notwithstanding the issuance of this order, further or other orders may be issued in accordance with the legislation, as circumstances require.

Request for Hearing

Under s. 140 of the EPA you may require a hearing before the Environmental Review Tribunal if, within 15 days of service of this order, you serve written notice of your appeal on the Environmental Review Tribunal and the Director. Section 142 of the EPA provides that your notice must state the portions of the order for which a hearing is required and the grounds on which you intend to rely at the hearing. Except by leave of the Environmental Review Tribunal, you are not entitled to appeal a portion of the order or to rely on grounds of appeal that are not stated in the notice requiring the hearing. Unless stayed by the Environmental Review Tribunal under s. 143 of the EPA, the order is effective from the date of service.

Written notice requiring a hearing must be served personally or by mail upon:

The Secretary
Environmental Review Tribunal
655 Bay Street, 15th Floor
Toronto ON M5G 1E5

and

Director
Ministry of Environment
2 St. Clair Ave. West, Floor 12A
Toronto, ON M4V 1L5

Where service is made by mail, the service shall be deemed to be made on the fifth day after the date of mailing and the time for requiring a hearing is not extended by choosing service by mail.

For Yor Information:

The procedures to request a hearing and other information provided above and intended for the purposes of assistance only. The legislation should be consulted for additional details and accurate references.

Dated at Toronto, this 15th day of July, 2013

Hega Epa, P.Eng.

Director,

Part II, 1, Environmental Protection Act

 C: District Manager, MOE Sdbury District Office Director Environmental Approvals Branch Site Location

> I CERTIFY THAT THIS ORDER WAS MAILED ON July 15, 2013 90 (signed)



ATTACHMENT 2

Emission Summary and Dispersion Modelling Report



December 2013

REPORT

Emission Summary and Dispersion Modelling Report

Acme Aggregates Inc. Aggreville, Ontario

Submitted to:

Acme Aggregates Inc. 123 Aggregate Avenue Aggreville, Ontario A1A 1A1

REPORT

Report Number: IP11294



Executive Summary

This Emission Summary and Dispersion Modelling (ESDM) Report was prepared to support an application for an amended single media Environmental Compliance Approval (ECA) and was prepared in accordance with s.26 of Ontario Regulation (O. Reg.) 419/05. In addition, guidance in the Ontario Ministry of the Environment and Climate Change (MOECC) publication "Guideline A-10: Procedure for Preparing an Emission Summary and Dispersion Modelling (ESDM) Report", dated March 2009 (ESDM Procedure Document) PIBS 3614e03 was followed, as appropriate.

Acme Aggregates Inc. (Acme Aggregates) operates a limestone quarry facility located at 123 Aggregate Avenue in Aggreville, Ontario (the Facility). The Facility is located in an area zoned for extractive industrial use.

The Facility extracts and processes limestone. The North American Industry Classification System (NAICS) code that best applies to the Facility is 212315 – limestone mining and quarrying. The Facility is subject to s.19 of O. Reg. 419/05 and therefore, the modelled impact of contaminant emissions can be assessed against the Schedule 2 standards in O. Reg 419/05. The appropriate model to assess the half-hour maximum POI impact is the model in the Appendix to Ontario Regulation 346/90.

The Facility is expected to emit products of diesel and natural gas combustion and suspended particulate matter. Some of the sources and contaminants were considered negligible in accordance with s.8 of O. Reg. 419/05.

The maximum POI concentrations were calculated based on the operating conditions where all significant sources are operating simultaneously at their individual maximum rates of production. The maximum emission rates for each significant contaminant emitted from the significant sources were calculated in accordance with s.11 of O. Reg. 419/05 and the data quality assessment follows the process outlined in the requirements of the ESDM Procedure Document.

A POI concentration for each significant contaminant emitted from the Facility was calculated based on the calculated emission rates and the output from the approved dispersion model. The results are presented in the following Emission Summary Table in accordance s.26 of O. Reg. 419/05.

The POI concentrations listed in the Emission Summary Table were compared against criteria listed in the MOECC publication "Summary of Standards and Guidelines to support Ontario Regulation 419: Air Pollution - Local Air Quality (including Schedule 6 of O. Reg. 419 on Upper Risk Thresholds)", dated April 2012 [List of Ministry POI Limits]. At 53%, suspended particulate matter has the highest concentration relative to the corresponding MOECC POI Limit.

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This ESDM Report demonstrates that the Facility can operate in compliance with s.19 of O. Reg. 419/05.



Table I: Emission Summary Table

Contaminant	CAS No.	Total Facility Emission Rate [g/s]	Air Dispersion Model Used	MAXGLC POI Concentration [μg/m³]	Scorer-Barrett POI Concentration [µg/m³]	Averaging Period [hours]	MOE POI Limit [µg/m³]	Limiting Effect	Regulation Schedule No.	Percentage of MOE Limit [%]
Particulate Matter	N/A	8.08E-01	O.Reg.346/90	5.25E+01	8.65E-02	1/2	100	Visibility	Schedule 2	52.52%
Carbon Monoxide	630-08-0	7.54E-02	O.Reg.346/90	5.42E+00	8.91E-03	1/2	6000	Health	Schedule 2	<1%
Nitrogen Oxides	10102-44-0	8.63E-01	O.Reg.346/90	6.21E+01	9.18E-02	1/2	500	Health	Schedule 2	12.42%
Sulphur Dioxide	7446-09-5	1.56E-01	O.Reg.346/90	1.12E+01	1.66E-02	1/2	830	Health	Schedule 2	1.35%

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Ministry of the

Company Name:

Location Facility

Company Address:

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EMISSION SUMMARY AND DISPERSION MODELLING REPORT CHECKLIST

123 Aggregate Avenue, Aggreville, Ontario A1A 1A1

Acme Aggregates Inc.

Same as above

O. Reg. 419/05 and the gu Dispersion Modelling Repo	ummary and Dispersion Modelling Report was prepared in accordance with s.26 of uidance in the MOE document "Procedure for Preparing an Emission Summary and rt" dated March 2009 and "Air Dispersion Modelling Guideline for Ontario" dated March equired information identified in the check-list on the reverse of this sheet has been
Company Contact:	
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		Required Information		
		·	Submitted	Explanation/Reference
	Exec	cutive Summary and Emission Summary Table		
	1.1	Overview of ESDM Report	⊠ Yes	Executive Summary
		Emission Summary Table	⊠ Yes	Executive Summary
		,		,
1.0	Intro	duction and Facility Description		
	1.1	Purpose and Scope of ESDM Report (when report only	⊠ Yes	Section 1.0
		represents a portion of facility)	_	
	1.2	Description of Processes and NAICS code(s)		Section 1.0
	1.3	Description of Products and Raw Materials	⊠ Yes	Section 1.0
	1.4	Process Flow Diagram		Section 1.0, Figure 2
	1.5	Operating Schedule	⊠ Yes	Section 1.0
2.0	Initia	al Identification of Sources and Contaminants		
	2.1	Sources and Contaminants Identification Table	⊠ Yes	Section 2.0, Table 1
				,
3.0	Asse	essment of the Significance of Contaminants and		
	Sou			
	3.1	Identification of Negligible Contaminants and Sources		Section 3.0, Table 1
	3.2	Rationale for Assessment		Section 3.0, Table 1
4.0	Ope	rating Conditions, Emission Estimating and Data Quality		
	4.1	Description of operating conditions, for each significant		Section 4.0, Appendix A
		contaminant that results in the maximum POI concentration for		
		that contaminant		
	4.2	Explanation of Method used to calculate the emission rate for		Section 4.0, Appendix A
		each contaminant		
	4.3	Sample calculation for each method		Section 4.0, Appendix A
	4.4	Assessment of Data Quality for each emission rate		Section 4.0, Table 2
5.0		ce Summary Table and Property Plan	N	
	5.1	Source Summary Table	⊠ Yes	Section 5.0, Table 2
	5.2	Site Plan (scalable)		Section 5.0, Figure 3
6.0		ersion Modelling		
	6.1	Dispersion Modelling Input Summary Table		Section 6.0, Table 3
	6.2	Land Use Zoning Designation Plan	⊠ Yes	Section 6.0, Figure 5
	6.3	Dispersion Modelling Input and Output Files		Appendix C
7.0	F:	saisa Camanana Tabla and Canabasiana		
7.0		ssion Summary Table and Conclusions	N V	Continu 7.0 Table 4
	7.1	Emission Summary Table		Section 7.0, Table 4
	7.2	Assessment of Contaminants with no MOE POI Limits		Section 7.0
	7.3	Conclusions		Section 8.0
	Λ	andiage (Drovide supporting information or details such as 1)		
		endices (Provide supporting information or details such as)	M Vaa	
		endix A - Emission Rate Calculations	⊠ Yes	
		endix B - Supporting Information for Emission Rate Calculations		
	Appe	endix C - Dispersion Modelling Files	⊠ Yes	
			Yes	
			Yes Yes	
			☐ Yes	
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- Figure 3: Site Layout
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- Figure 5: Land Use Zoning Designation Plan

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APPENDIX A

Emission Rate Calculations

APPENDIX B

Best Management Practices for Fugitive Dust

APPENDIX C

Supporting Information for Emission Rate Calculations

APPENDIX D

Dispersion Modelling Files



1.0 INTRODUCTION AND FACILITY DESCRIPTION

1.1 Purpose and Scope of ESDM Report

Acme Aggregates Inc. (Acme Aggregates) operates a limestone quarry located at 123 Aggregate Avenue in Aggreville, Ontario (the Facility). The location of the Facility is presented in Figure 1 – Site Location.

This Emission Summary and Dispersion Modelling (ESDM) Report was prepared to support an application for a single media amended Environmental Compliance Approval (ECA) for all sources at the Facility.

The Facility is currently approved to operate under ECA No. 1234-ABCDEF, dated October 1, 2004. The Facility is proposing to replace a diesel generator (from 400 kW to 450 kW) that supplies power to the secondary crushing plant. The Facility is also proposing to increase the operating hours from 07:00 to 19:00 and will now operate from 05:00 to 19:00.

This ESDM Report was prepared in accordance with s.26 of O. Reg. 419/05. In addition, guidance in the Ontario Ministry of the Environment and Climate Change (MOECC) publication "Guideline A-10: Procedure for Preparing an Emission Summary and Dispersion Modelling (ESDM) Report", dated March 2009 (ESDM Procedure Document) PIBS 3614e03 was followed, as appropriate.

1.2 Description of Processes and NAICS Code(s)

1.2.1 Description of Processes (including Raw Materials and Products)

Acme Aggregates extracts and processes limestone for sale and use off-site. There are four main processing areas at the Facility, as follows:

- Active face (drilling, blasting and extraction) (Sources 1, 2 and 3);
- Portable primary crushing plant (Sources 4, 5, 6, 7, 8, 9, 10, 11, 12 and 13);
- Stationary secondary crushing plant (Sources 14, 15, 16, 17 and 18);
- Wash plant (Sources 19, 20 and 21); and
- Comfort Heating (Source 22).

There are also some supporting operations at the Facility that include a maintenance area with some minor welding.

The Facility has comfort heating that is Environmental Activity and Sector Registry (EASR) eligible. Acme Aggregates requested to simplify ongoing compliance and record-keeping requirements by applying for a single ECA for the site and completing section 20.18 order requests to permit all of the Facility's emission generating equipment under a single ECA. The section 20.18 order request has been granted and can be found attached in

Attachment #1. The diesel powered generators are used to power the secondary crushing equipment and are therefore not EASR eligible.

Process information is provided in greater detail in Appendix A – Emission Rate Calculations. Refer to Table 1 – Sources and Contaminants Identification Table, which tabulates the individual sources of emissions at the Facility.

A process flow diagram is provided in Figure 2.

1.2.2 Description of NAICS Code(s)

The North American Industry Classification System (NAICS) code that best applies to the Facility is 212315 – limestone mining and quarrying.

1.3 Operating Schedule

The Facility is proposing to operate from 05:00 to 19:00, seven days a week, up to 50 weeks per year.



2.0 INITIAL IDENTIFICATION OF SOURCES AND CONTAMINANTS

2.1 Sources and Contaminants Identification Table

Table 1 – Sources and Contaminants Identification Table includes all the emission sources at the Facility. The expected contaminants emitted from each source are also identified in Table 1. Each of the identified sources has been assigned a source reference number.

There may be general ventilation from the Facility that only discharges uncontaminated air from the workspaces or air from the workspace that may include contaminants that come from commercial office supplies, building maintenance products or supplies and activities; these types of ventilation sources are considered to be negligible and were not identified as sources at the Facility.



3.0 ASSESSMENT OF THE SIGNIFICANCE OF CONTAMINANTS AND SOURCES

Contaminants and sources at the Facility were assessed for significance following the guidance outlined in the ESDM Procedure Document. Contaminants that are discharged from the Facility in a negligible amounts and/or sources that discharge a contaminant in a negligible amount were excluded from further analysis. The rationale for these exclusions is provided below.

Of the sources listed in Table 1 – Sources and Contaminants Identification Table, five sources have been identified as negligible.

3.1 Rationale for Assessment

For each source and contaminant that has been deemed negligible, the technical information required to substantiate this classification is provided in Table 1.

In accordance with s.8 of O Reg. 419/05, emission rate calculations and dispersion modelling does not have to be performed for emissions from negligible sources.



4.0 OPERATING CONDITIONS, EMISSION ESTIMATING AND DATA QUALITY

4.1 Description of Operation Conditions

Section 10 of O.Reg.419/05 states that an acceptable operating condition is a scenario in which operating conditions for the Facility would result, for the relevant contaminant, in the highest concentration of the contaminant possible at the point of impingement (POI). The operating condition described in this ESDM Report meets this requirement.

The maximum emission scenario for the dispersion model analysis includes all sources at the Facility operating simultaneously at their respective maximum rates. Specifically:

- Source 14 Underfeed Conveyor (from Surge Pile) to Surge Bin 400 tonnes per hour;
- Source 15 Surge Bin to Conveyor 400 tonnes per hour;
- Source 16 Secondary Crushing Diesel Generator 450 kW;
- Source 17 Secondary Crusher (Uncontrolled) 400 tonnes per hour;
- Source 18 Conveyor to Wash Plant 400 tonnes per hour; and
- Source 22 Natural Gas Comfort Heating 1,850,000 BTU per hour.

The averaging time for the operating condition is dependent on the averaging time for the MOECC POI Limit. The individual maximum rates of production for each significant source of emissions correspond to the maximum emission rate for the averaging time. Details of the maximum operating rates are provided in Appendix A – Emission Rate Calculations.

4.2 Explanation of the Methods Used to Calculate Emission Rates

The maximum half-hour emission rates for each significant contaminant emitted from the significant sources were estimated and the methodology for the calculation is documented in Table 2 – Source Summary Table. All emission rates were calculated in accordance with requirements of the ESDM Procedure Document.

4.3 Sample Calculations

The technical rationale, including sample calculations, required to substantiate the emission rates presented in Table 2 - Source Summary Table is documented in Appendix A - Emission Rate Calculations. All of the emission factor data used for the emission rate calculations are publicly available.



4.4 Assessment of Data Quality

For each contaminant the emission rate was estimated and the data quality of the estimate is documented in Table 2 – Source Summary Table. The assessment of data quality for each source listed in Table 2 is documented in Appendix A – Emission Rate Calculations.

The operating condition for the Facility assumes that all equipment is operating simultaneously at its maximum rate of production and therefore, the emission rates listed in Table 2 are not likely to be an underestimate of the actual emission rates. The use of these emission rates, when combined with the conservative operating conditions and conservative dispersion modelling assumptions, are likely to result in calculated concentrations at a POI greater than the actual concentrations.



5.0 SOURCE SUMMARY TABLE AND SITE PLAN

5.1 Source Summary Table

The emission rates for each source of significant contaminants are documented in Table 2 – Source Summary Table.

5.2 Site Plan

The locations of the emission sources listed in Table 2 – Source Summary Table are presented in Figure 3 – Site Layout. The location of the property line is also indicated on Figure 3, with the end points of each section of the property line clearly referenced to a UTM coordinate system.

The heights of the structures that are part of the Facility are indicated in the legend in Figure 3 – Site Layout.



6.0 DISPERSION MODELLING

The dispersion modelling was conducted in accordance with the MOECC *publication "Guideline A-11: Air Dispersion Modelling Guideline for Ontario"*, dated March 2009 (ADMGO) PIBS 5165e02.

The Facility was constructed prior to November 30th, 2005. Therefore, s.19 of O. Reg. 419/05 currently applies to the Facility and the modelled impact to half-hour Point of Impingement (POI) criteria can be assessed using the models in the Appendix to Ontario Regulation 346/90.

The emission rates used in the dispersion model meet the requirements of s.11(1)1 of O. Reg. 419/05, which requires that the emission rate used in the dispersion model is at least as high as the maximum emission rate that the source of contaminant is reasonably capable of for the relevant contaminant. These emission rates are further described in Appendix A – Emission Rate Calculations.

The Facility has three virtual sources (VS1 through VS3) as illustrated in Figure 4 – Dispersion Modelling Plan. The length and width of each virtual source was determined by constructing a rectangle of best fit around the structure. The highest point of the structure was used as the virtual source height. It is noted, that small structures such as conveyors were not considered in the sizing of the virtual sources.

The half-hour maximum POI impact was determined using the MAXGLC module of the MOECC dispersion modelling package.

To facilitate input into the dispersion model, the coordinates of the virtual sources (Figure 4) and property boundary (Figure 3) were adjusted. More specifically, 518,000 was subtracted from the X-coordinate and 4,840,000 was subtracted from the Y-coordinate.

There is no child care facility, health care facility, senior's residence, long-term care facility or an educational facility located at the Facility therefore same structure contamination was not assessed. Furthermore, the nearest POI is located more than 5 metres from the building on which the point of emissions are located.

6.1 Modelling Files

6.1.1 Contaminant Specific Modelling

Suspended particulate matter is emitted from many separate sources associated with each virtual source. A model run with the specific suspended particulate matter emission rates associated with the virtual sources was conducted.

6.1.2 Dispersion Factor

All other contaminants are emitted only from VS3. Therefore, the Facility was modelled using a unit emission rate of 1 g/s. The result was a predicted maximum concentration of 71.91 μ g/m³ at the property line for each 1 g/s emission of a contaminant, this ratio is known as a Dispersion Factor. To calculate the maximum concentration at the property line POI for each emitted substance, the virtual source Dispersion Factor was multiplied by the emission rate of that substance.



6.2 Dispersion Modelling Input Summary Table

A description of the way in which the approved dispersion model was performed is included as Table 3 – Dispersion Modelling Input Summary Table. This table meets both the requirements of s.26(1)11 and sections 8-17 of O. Reg. 419/05 and follows the format provided in the ESDM Procedure Document.

6.3 Land Use Zoning Designation Plan

A zoning map is provided in Figure 5 – Land Use Zoning Designation Plan.

6.4 Dispersion Modelling Input and Output Files

The information input into the approved dispersion model is provided in Appendix D – Dispersion Modelling. Appendix D also includes the output files from the O. Reg. 346/90 dispersion model. There are two modelling runs presented, one noted as 'VS3 1 g/s unit emission rate' and the other suspended particulate matter.

Electronic copies of the input files for the model in the Appendix to O.Reg. 346/90 have not been submitted with this report due to the simplicity of the model.



7.0 EMISSION SUMMARY TABLE

7.1 Emission Summary Table

A POI concentration for each significant contaminant emitted from the Facility was calculated based on the emission rates listed in Table 2 – Source Summary Table and the output from the approved dispersion model presented in Appendix D. The results are presented in Table 4 – Emission Summary Table. This table follows the format provided in the ESDM Procedure Document.

The POI concentrations listed in Table 4 were compared against the MOECC POI Limits. At 53%, suspended particulate matter has the highest concentration relative to the corresponding MOECC POI Limit.

7.2 Assessment of Contaminants with no MOECC POI Limits

Sub paragraph 14 subsection viii of s.26(1) O. Reg. 419/05 requires an indication of the likelihood, nature and location of any adverse effect if the contaminant is not listed in any of Schedules 2 and 3.

Since all contaminants assessed have MOECC POI Limit, an assessment of contaminants without MOECC POI Limits was not warranted.



8.0 CONCLUSIONS

This ESDM Report was prepared in accordance with s.26 of O. Reg. 419/05. In addition, guidance in the ESDM Procedure Document was followed, as appropriate.

The Facility is subject to s. 19 of O. Reg. 419/05, contaminant emissions are assessed as a half-hour maximum POI concentration using the model in the Appendix to O. Reg. 346/90.

All the emission rates listed in Table 2 correspond to the operating scenario where all significant sources are operating simultaneously at their individual maximum rates of production. Therefore, the emission rates listed in Table 2 are not likely to be an underestimate of the actual emission rates.

A POI concentration for each significant contaminant emitted from the Facility was determined based on the calculated emission rates and the output from the model in the Appendix to Ontario Regulation 346/90; the results are presented in Table 4 – Emission Summary Table.

The POI concentrations listed in Table 4 were compared against the MOECC POI Limits. All contaminants assessed have MOECC POI Limits; all the predicted POI concentrations are below the corresponding limits. At 53%, suspended particulate matter has the highest concentration relative to the corresponding MOECC POI Limit.

This ESDM Report demonstrates that the Facility can operate in compliance with s.19 of O. Reg. 419/05.



Report Signature Page

LIMEROCK CONSULTING INC.

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EB/FS/tp

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TABLES

Table 1 **Sources and Contaminants Identification Table**

	Source Information		<u> </u>	Significant	Modelled	
Source ID	Source Description or Title	General Location	Expected Contaminants		(Yes or No)?	Rationale
1	Drilling (quarry)	Quarry Face	Particulate Matter	Yes	No	Per accepted practice, drilling is assessed during the licensing phase of the operations. Additionally, drilling emissions typically account for less than 5% of site-wide emissions.
2	Blasting (quarry)	Quarry Face	Particulate Matter	Yes	No	Per accepted practice, blasting is assessed during the licensing phase of the operations.
3	Fragmented Rock Material Handling	Below Grade (portable)	Particulate Matter	Yes	No	Operations are portable and take place below grade in a quarry licensed under the Aggregate Resources Act (Exemption Regulation - O. Reg. 524/98) and fugitive dust emissions are minimized through the implementation of BMPs (see Appendix B).
4	Sizing Separator (uncontrolled)	Below Grade (portable)	Particulate Matter	Yes	No	
5	Throughs from Sizing Separator to Surge Pile	Below Grade (portable)	Particulate Matter	Yes	No	
6	Conveyor from Sizing Separator to Primary Crusher (uncontrolled)	Below Grade (portable)	Particulate Matter	Yes	No	
7	Primary Crushing Diesel Generator	Below Grade (portable)	Products of Diesel Combustion	Yes	No	Operations are portable and take place below grade
8	Primary Crusher (uncontrolled)	Below Grade (portable)	Particulate Matter	Yes	No	in a quarry licensed under the Aggregate Resources
9	Feeder to Scalping Screen	Below Grade (portable)	Particulate Matter	Yes	No	Act (Exemption Regulation - O. Reg. 524/98).
10	Scalping Screen to Conveyor (uncontrolled)	Below Grade (portable)	Particulate Matter	Yes	No	
11	Conveyor to Surge Pile (uncontrolled)	Below Grade (portable)	Particulate Matter	Yes	No	
12	Conveyor to Product Stockpile (uncontrolled) (primary crushing - product)	Below Grade (portable)	Particulate Matter	Yes	No	
13	Shipping Truck Loading (primary crushing - product)	Below Grade (portable)	Particulate Matter	Yes	No	Operations are portable and take place below grade in a quarry licensed under the Aggregate Resources Act (Exemption Regulation - O. Reg. 524/98) and fugitive dust emissions are minimized through the implementation of BMPs (see Appendix B).
14	Underfeed Conveyor (from Surge Pile) to Surge Bin	Below Grade	Particulate Matter	Yes	Yes	1
15	Surge Bin to Conveyor	Below Grade	Particulate Matter	Yes	Yes	_
16	Secondary Crushing Diesel Generator	Below Grade	Products of Diesel Combustion	Yes	Yes	-
17	Secondary Crusher (uncontrolled)	Below Grade	Particulate Matter	Yes	Yes	-
18	Conveyor to Wash Plant	Below Grade	Particulate Matter	Yes	Yes	_
19	Wash Plant	Below Grade	Particulate Matter	No	No	Operation involves washing the material and as a result has a high moisture content (i.e., the material is wet).
20	Conveyors (2) to Stockpile	Below Grade	Particulate Matter	No	No	Material from the wash plant is conveyed to one of two stockpiles. As a result, the material is wet and the emissions are deemed insignificant.
21	Shipping Truck Loading (secondary crushing - fragmented rock and sand)	Below Grade	Particulate Matter	Yes	No	Material is wet and the emissions are deemed insignificant

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Table 1 **Sources and Contaminants Identification Table**

	Source Information			Significant	Modelled	
Source ID	Source Description or Title	General Location	Expected Contaminants	_	(Yes or No)?	Rationale
22	Natural Gas Comfort Heating	Maintenance Shop	Products of Natural Gas Combustion	No	No	Section 7.2.2 of the ESDM Procedure Document states that sources that represent less than 5% of the total property-wde emissions of a contaminant can be considered negligible. Emissions of nitrogen oxides represent 3% of the property-wide emissions of nitrogen oxides represent 3% of the property-wide emissions of nitrogen oxides. In addition, the comfort heating is EASR eligible; however, a copy of the granted s.20.18 order to have the equipment permitted under the ECA can be found attached in Attachement
23	Maintenance Welding	Maintenance Shop	Particulate Matter and Metal Fume	No	No	Table B-3 of the ESDM Procedure Document The facility only completes minor touch-up welding (<1 hour per week). Large welding jobs are sent off- site.
24	Diesel Fuel Storage Tanks	Yard	Volatiles	No	No	Table B-3 of the ESDM Procedure Document.
25	Road Dust	Yard	Particulate Matter	Yes	No	Section 7.4.2 of the ESDM Procedure Document - Fugitive dust is minimized through the implementation of BMPs (see Appendix B).
26	Stockpile Wind Erosion	Above and Below Grade	Particulate Matter	Yes	No	Section 7.4.2 of the ESDM Procedure Document - Fugitive dust is minimized through the implementation of BMPs (see Appendix B).

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Table 2
Source Summary Table

				Source Parameters						Em	nission Data			
Source Identifier	Source Description	Stack Volumetric Flow Rate [Am³/s]	Stack Exit Gas Temperature [°C]	Stack Inner Diameter [m]	Stack Height Above Grade [m]	Stack Height Above Roof [m]	Model Source	Contaminant	CAS Number	Maximum Emission Rate [g/s]	Averaging Period [hours]	Emission Estimating Technique	Emissions Data Quality	Percentage of Overall Emissions [%]
14	Underfeed Conveyor (from Surge Pile) to Surge Bin	N/A	N/A	N/A	N/A	N/A	VS1	Particulate Matter	N/A	1.67E-01	1/2	EF	Marginal	20%
15	Surge Bin to Conveyor	N/A	N/A	N/A	N/A	N/A	VS1	Particulate Matter	N/A	1.67E-01	1/2	EF	Marginal	20%
16	Secondary Crushing Diesel Generator	1.23	440	0.2	4.2	N/A	VS3	Carbon Monoxide	630-08-0	8.38E-02	1/2	EF	Average	100%
								Nitrogen Oxides	10102-44-0	8.63E-01	1/2	EF	Average	97%
								Sulphur Dioxide	7446-09-5	1.56E-01	1/2	EF	Marginal	100%
								Particulate Matter	N/A	1.34E-02	1/2	EF	Average	2%
17	Secondary Crusher (uncontrolled)	N/A	N/A	N/A	N/A	N/A	VS1	Particulate Matter	N/A	3.00E-01	1/2	EF	Marginal	37%
18	Conveyor to Wash Plant	N/A	N/A	N/A	N/A	N/A	VS2	Particulate Matter	N/A	1.67E-01	1/2	EF	Marginal	20%
22	Natural Gas Comfort Heating	N/A	N/A	N/A	N/A	N/A	N/A	Nitrogen Oxides	10102-44-0	2.29E-02	1/2	EF	Above- Average	3%

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Table 3 **Dispersion Modelling Input Summary Table**

Relevant Section of the Regulation	Section Title	Summary of How the Approved	Location of Supporting
		Dispersion Model Was Used	Documentation in ESDM Report
Section 8	Negligible Sources of Contaminants	Sources and contaminants that were considered negligible were explicitly identified, and therefore were not modelled in accordance with s.8 of O.Reg.419/05.	Section 3.0, Table 1
Section 9	Same Structure Contamination	Not applicable as the Facility is the only tenant occupying the building, and does not have a child care facility, health care facility, senior's residence, long-term care facility or an education facility located at the on-site.	N/A
Section 10	Operating Conditions	All equipment was assumed to be operating at the maximum production rates, simultaneously.	Section 4.0, Table 4
Section 11	Source of Contaminant Emission Rates	The emission rate for each significant contaminant emitted from a significant source was estimated, the methodology for the calculation is documented in Table 2 - Source Summary Table.	Section 4.0, Table 2
Section 12	Combined Effect of Assumptions for Operating Conditions and Emission Rates	The Operating Conditions were estimated in accordance with s.10(1) 1 and s.11(1) 1 of O.Reg.419/05 and are therefore considered to result in the highest POI concentration that the Facility is capable of for each contamin	Section 4.0
Section 13	Meteorological Conditions	Not applicable as the models in the Appendix to O.Reg.346/90 were used.	N/A
Section 14	Area of Modelling Coverage (receptor locations)	Not applicable as the models in the Appendix to O.Reg.346/90 were used.	Section 6.0, Figure 2 and Figure 5
Section 15	Section 15 Stack Height for Certain New Sources of Contaminant		N/A
Section 16	Terrain Data	Not applicable as the models in the Appendix to O.Reg.346/90 were used.	N/A
Section 17	Averaging Periods	Maximum half-hour emission rates were used with the models in the Appendix to O.Reg.346/90.	Section 4.0

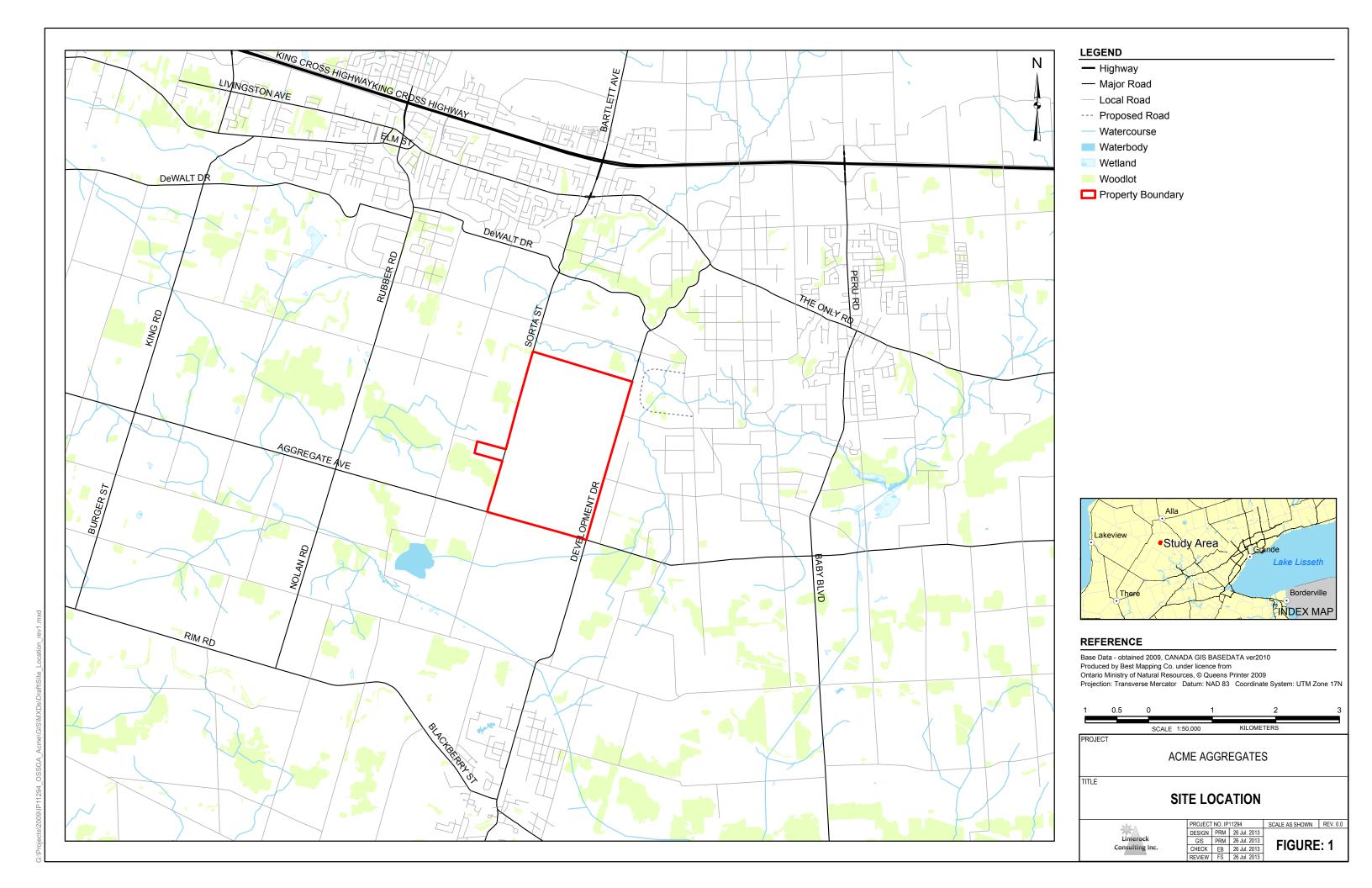
December 2013 IP 11294

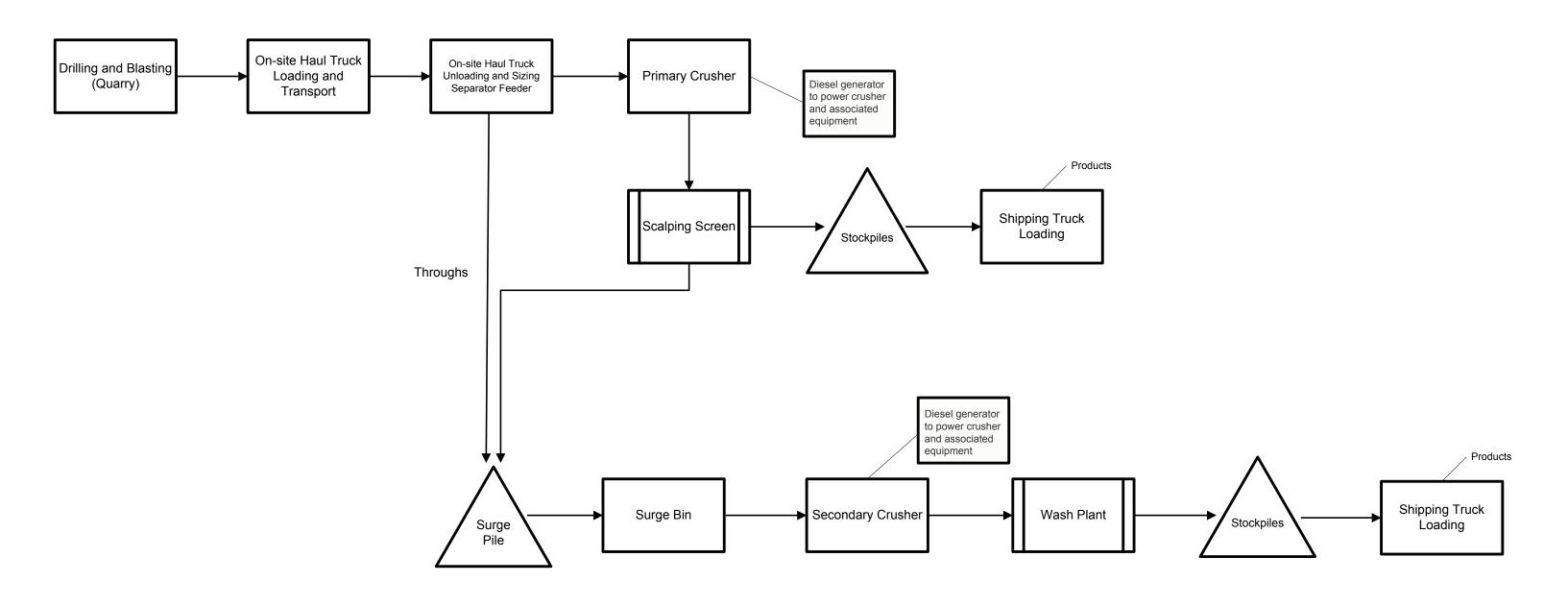
Table 4 **Emission Summary Table**

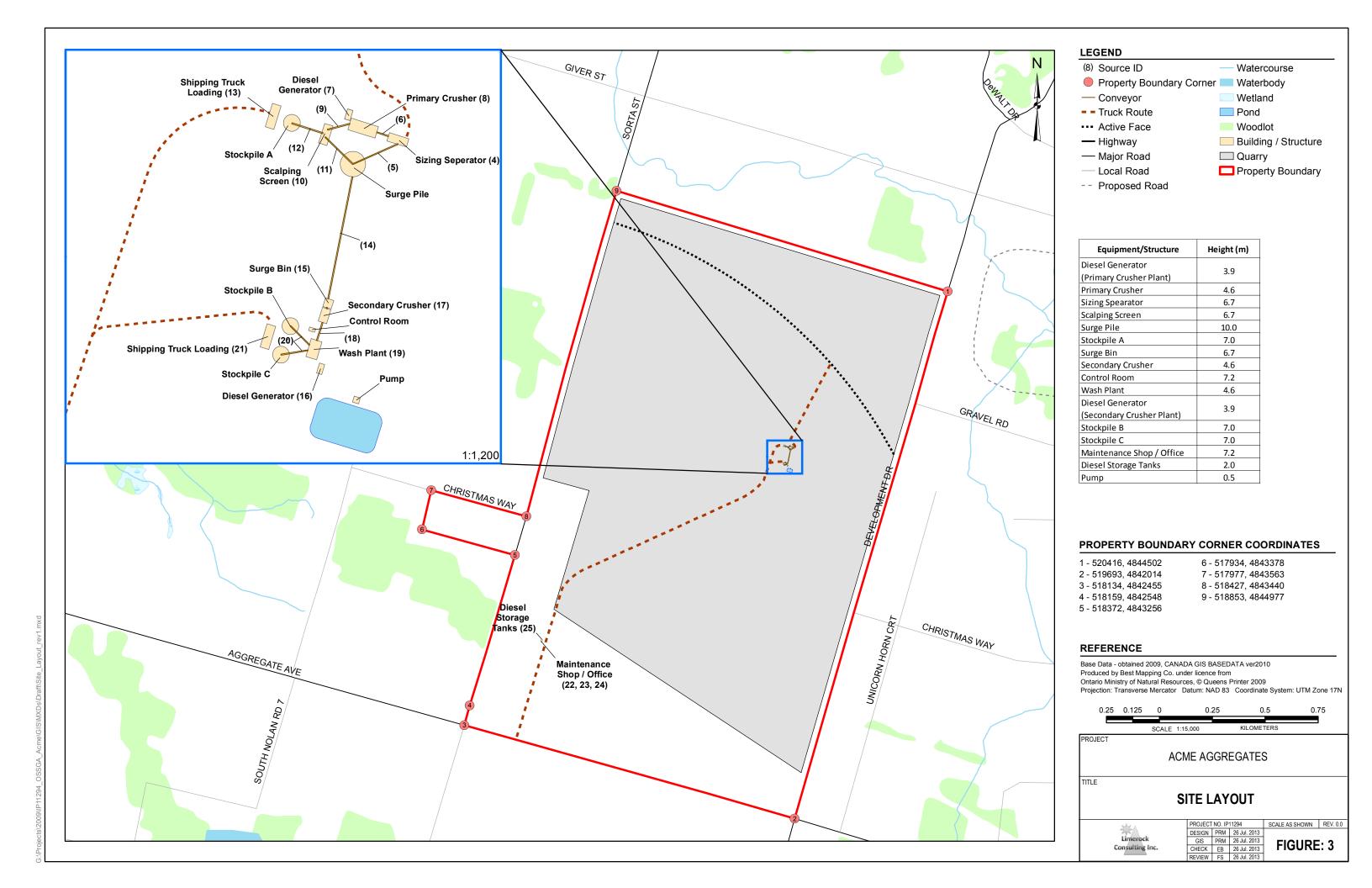
Contaminant	CAS No.	Total Facility Emission Rate [g/s]	Air Dispersion Model Used	MAXGLC POI Concentration [μg/m³]	Averaging Period [hours]	MOE POI Limit [μg/m³]	Limiting Effect	Regulation Schedule No.	Percentage of MOE Limit [%]
Particulate Matter	N/A	8.13E-01	O.Reg.346/90	5.25E+01	1/2	100	Visibility	Schedule 2	52.51%
Carbon Monoxide	630-08-0	8.38E-02	O.Reg.346/90	6.03E+00	1/2	6000	Health	Schedule 2	<1%
Nitrogen Oxides	10102-44-0	8.63E-01	O.Reg.346/90	6.21E+01	1/2	500	Health	Schedule 2	12.42%
Sulphur Dioxide	7446-09-5	1.56E-01	O.Reg.346/90	1.12E+01	1/2	830	Health	Schedule 2	1.35%

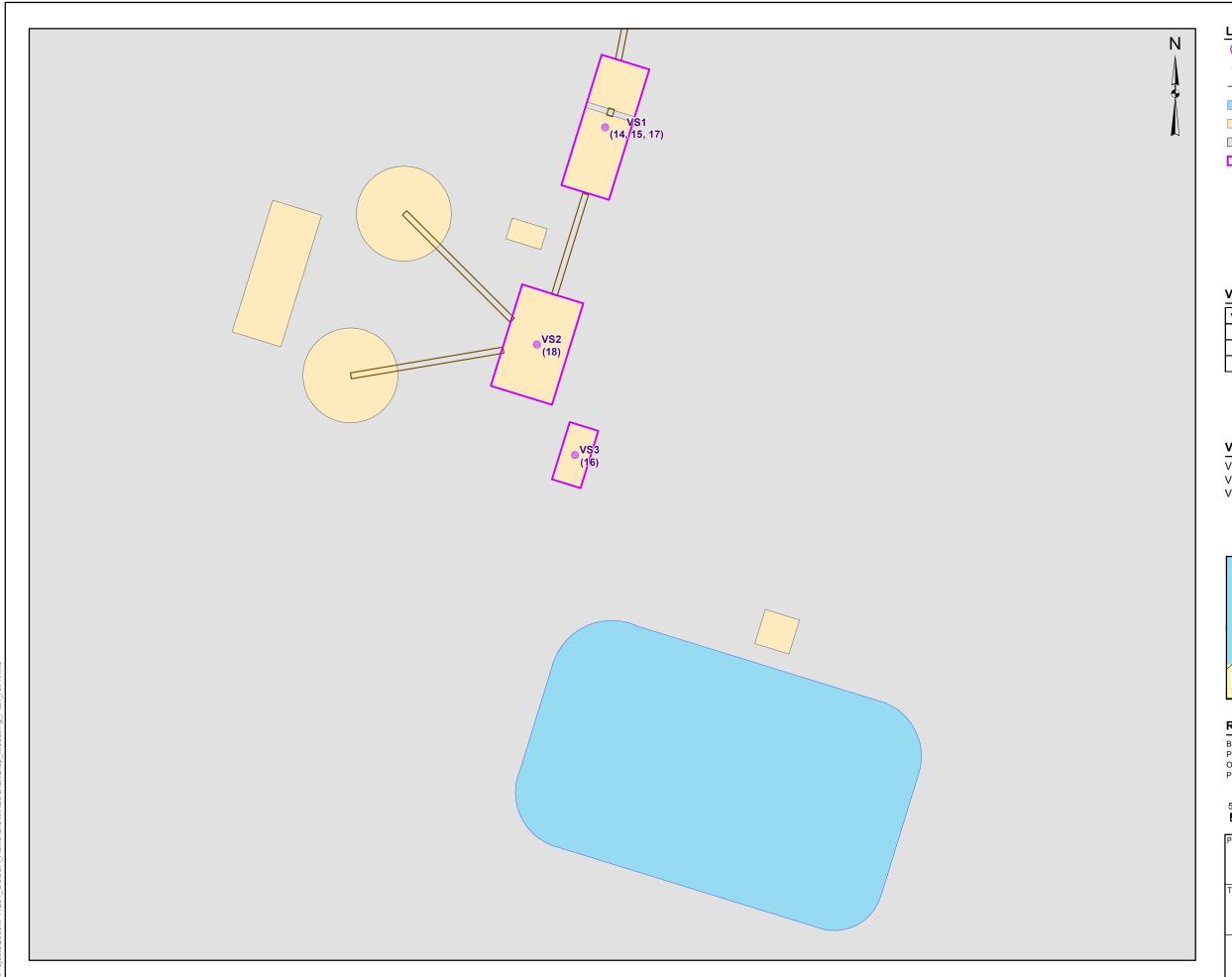
FIGURES











LEGEND

(8) Source ID

Virtual Source Centroid

— Conveyor

Pond

Building / Structure

Quarry

Virtual Source

VIRTUAL SOURCE DIMENSIONS (m)

Virtual Source	Length (m)	Width (m)	Height	Angle (°)
VS1	9.1	3.3	6.7	72.8
VS2	7.1	4.3	4.6	72.8
VS3	4.0	2.0	3.9	72.8

VIRTUAL SOURCE CENTROID COORDINATES

VS1 - 519662, 4843700 VS2 - 519658, 4843685 VS3 - 519660, 4843678



REFERENCE

Base Data - obtained 2009, CANADA GIS BASEDATA ver2010 Produced by Best Mapping Co. under licence from Ontario Ministry of Natural Resources, © Queens Printer 2009 Projection: Transverse Mercator Datum: NAD 83 Coordinate System: UTM Zone 17N



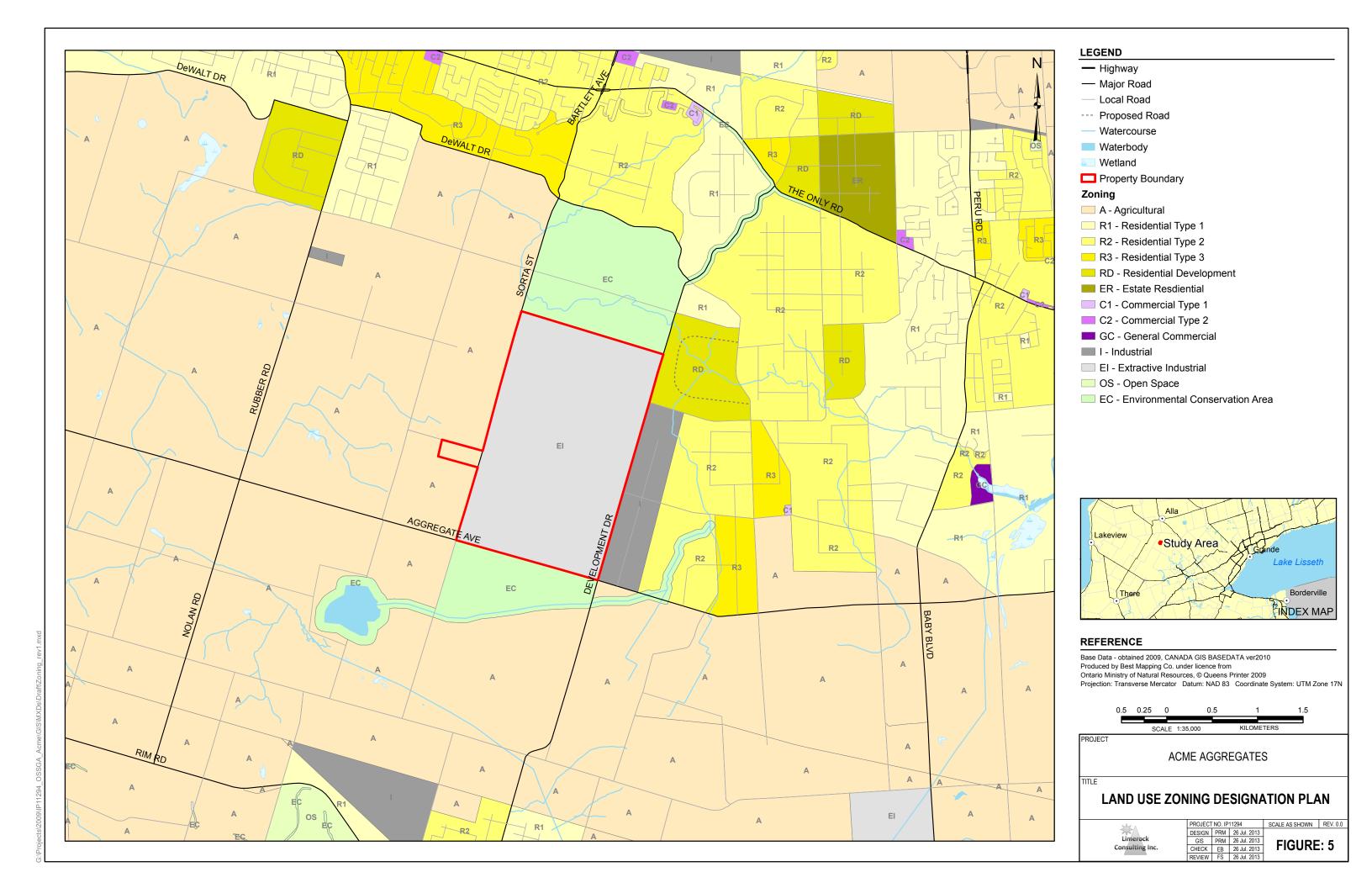
PROJECT

ACME AGGREGATES

DISPERSION MODELLING PLAN



PROJECT NO. IP11294			SCALE AS SHOWN REV. 0				
DESIGN	PRM	26 Jul. 2013					
GIS	PRM	26 Jul. 2013	FIGURE: 4				
CHECK	EB	26 Jul. 2013					
REVIEW	FS	26 Jul. 2013					



APPENDIX A

Emission Rate Calculations



December 2013 IP 11294

Sources 14, 15, 17, 18

Secondary Crushing Equipment

Process Description:

The facility has a Secondary Crushing Plant. Material is transferred to the Secondary Crushing Plant from the primary crushing plant where it is crushed and sent to the Wash Plant

Operating Condition:

It is assumed that all equipment is operating at the maximum rated capacity.

Estimation Technique:

Emission factors were obtained from U.S. EPA, AP-42 Chapter 11.19.2

Sample Calculation - Source 14:

PM =	400 Mg	0.0015 kg	1000 g	1 hr
	hr	Mg	kg	3600 s
PM =	1.67E-01 g/s			

Source ID	Source Description	Emission Type	Control Method	Maximum Capacity [Mg/hr]	Emission Factor [kg/Mg]	Particulate Matter Emission Rate [g/s]	MOE Emission Factor Quality
14	Underfeed Conveyor (from Surge Pile) to Surge	Transfer Point	None	400	0.0015	1.67E-01	Marginal
15	Surge Bin to Conveyor	Transfer Point	None	400	0.0015	1.67E-01	Marginal
17	Secondary Crusher (uncontrolled)	Secondary Crushing	None	400	0.0027 (1)	3.00E-01	Marginal
18	Conveyor to Wash Plant	Transfer Point	None	400	0.0015	1.67E-01	Marginal

⁽¹⁾ Emission factor for tertiary crushing was used in the absence of an emission factor for secondary crushing.

U.S. EPA emission factor data quality rating 'E' is the equivalent of MOE data quality rating of 'marginal'.

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Source 16

Secondary Crushing Diesel Generator

Process Description:

The facility operates one diesel generator rated at a maximum capacity of 450 kW providing the necessary power for the secondary crushing equipment.

Operating Condition:

It is assumed that the generator is running at its full load capacity.

Emission Estimation Technique:

The emission rates are based on manufacturer exhaust emission data (Appendix C) and U.S. EPA, AP-42 Chapter 3.3 Gasoline And Diesel Industrial Engines (10/96). The worst case manufacturer's emission factors have been used in the calculations.

Sample Calculation - Manufacturer's Specifications:

Power Rating = 450 kW

CO =	450 kW	1 HP	0.5 g	1 hr
		0.75 kW	HP-hr	3600 s
CO =	8.38E-02 g/s			

Contaminant	CAS Number	Emission Factor [g/HP- hr]	Emission Rate [g/s]	MOE Emission Factor Quality
Carbon Monoxide	630-08-0	0.5	8.38E-02	Average
Nitrogen Oxides	10102-44-0	5.15	8.63E-01	Average
Particulate Matter	N/A	0.08	1.34E-02	Average

Assumed data quality rating of average.

Sample Calculation - U.S. EPA AP-42:

SO ₂ =	450 kW	1 HP	2.05E-03 lb	1 hr	454 g
		0.75 kW	HP-hr	3600 s	lb
SO ₂ =	1.56E-01 g/s				

Contaminant	CAS Number	Emission Factor [lb/HP- hr]	Emission Rate [g/s]	MOE Emission Factor Quality
Sulphur Dioxide	7446-09-5	2.05E-03	1.56E-01	Marginal

Sulphur dioxide based on SO_x emission factor taken from Table 3.3-1, U.S. EPA AP-42 Chapter 3.3 dated 10/96.

U.S. EPA emission factor data quality rating 'E' is the equivalent of MOE data quality rating of 'marginal'.

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Source 22

Comfort Heating

Process Description:

The facility has natural gas fired comfort heating that serves the main building on site. Only nitrogen oxide emissions have been estimated following guidance in Section 7.1.1 ESDM Procedure Document.

Operating Condition:

It is assumed that all equipment is operating at the maximum rated capacity.

Estimation Technique:

Emission factors were obtained from U.S. EPA, AP-42 Chapter 11.19.2 Crushed Stone Processing and Pulverized Mineral Processing (08/04).

Emission Factors

Heat Input [MMBTU/hr]	Emission Factor [lb/10 ⁶ scf]	Emission Factor Rating	MOE Emission Factor Rating	
> 100	280	Α	Above Average	
< 100	100	В	Above Average	
< 0.3	94	В	Above Average	

Sample Calculation - Air Make-Up Unit

Nitrogen oxides =	1,250,000 BTU	100 lb	1 scf	453.59 g	1 hr
	hr	1,000,000 scf	1,020 BTU	lb	3,600 s
Nitrogen oxides =	1.54E-02 g	•		•	•

Emission Summary

Unit Description	Location	Thermal Heat Input [BTU/hr]	Emission Factor [lb/10 ⁶ scf]	NOx Emission Rate [g/s]
Air Make-up Unit	Main Building	1,250,000	100	1.54E-02
Unit Heater	Main Building	300,000	100	3.71E-03
Unit Heater	Main Building	300,000	100	3.71E-03
TOTAL		1,850,000	-	2.29E-02

APPENDIX B

Best Management Practices for Fugitive Dust



December 2013

REPORT

Best Management Practices for Fugitive Dust

Submitted to:

Acme Aggregates Inc. 123 Aggregate Avenue Aggreville, Ontario A1A 1A1

REPORT

Report Number: IP11294



APPENDIX C

Supporting Information for Emission Rate Calculations



Exhaust Emission Data Sheet 450ABC

60 Hz Diesel Generator Set EPA Emissions: Tier 2

Engine Information:

Model: ACME POWER INC. 450ABC Nonroad 2

	1/4	1/2	3/4	Full	Full
PERFORMANCE DATA	Standby	Standby	Standby	Standby	Prime
Engine HP @ Stated Load (1800 RPM)	185	344	502	661	605
Fuel Consumption (gal/hr)	10.6	17.4	23.6	30.3	28.0
Exhaust Gas Flow (CFM)	1360	2000	2605	3110	2920
Exhaust Temperature (°F)	735	820	810	865	825
EXHAUST EMISSION DATA					
NOx (Oxides of Nitrogen as NO2)	2.75	2.95	4.25	5.15	4.95
CO (Carbon Monoxide)	0.50	0.36	0.31	0.42	0.45
PM (particular Matter)	0.08	0.05	0.05	0.03	0.05
			А	II values are Gran	ns per HP-Hour

TEST METHODS AND CONDITIONS

Test Methods:

Steady-State emissions recorded per ISO8178-1 during operation at rated engine speed (+/-2%) and stated constant load (+/-2%) with engine temperatures, pressures and emission rated stabilized.

Fuel Specification: 40-48 Cetane Number, 0.05 Wt.% max. Sulfur; Reference ISO8178-5, 40CFR86.1313-98

Type 2-D and ASTM D975 No. 2-D.

Reference Conditions:

25 °C (77 °F) Air Inlet Temperature, 40 °C (104 °F) Fuel Inlet Temperature, 100 kPa (29.53 in Hg) Barometric Pressure; 10.7 g/kg (75 grains H2O/lb) of dry air Humidity (required for NOx correction); Intake Restriction set to maximum allowable limit for clean filter; Exhaust Back pressure set to maximum allowable limit.

Data was taken from a single engine test according to the test methods, fuel specification and reference conditions stat ed above and is subjected to instrumentation and engine-to-engine variability. Tests conducted with alternate test met hods, instrumentation, fuel or reference conditions can yield different results.

APPENDIX D

Dispersion Modelling Files

♀ ACME Aggregates

Property line co-ordinates

Virtual Sources

Num	nber	Hei ght	Emission Rate	Wi dth	Length	Angl e	Х	У
		m	gm/s	m	m	deg	m	m
VS1	1	6. 7	. 63	3. 3	9. 1	72.8	1662.	3700.
VS1 VS2	2	4. 6	. 17	4. 3	7. 1	72.8	1658.	3685.
VS2 VS3	3	3. 9	. 134E-01	2. 0	4.0	72. 8	1660.	3678.

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PM. PRN MAXIMUM GROUND LEVEL CONCENTRATION VERSION 2.00

Date: December 2013

I P11294 EB Application No: Reviewer:

Title: Acme Aggregates

Particulate Matter

Data from file: pm. STK

Virtual Sources

Number	Hei ght	Emission Rate	Wi dth	Length	Angl e	Χ	Υ
	m	gm/s	m	m	deg	m	m
1 2	6. 7 4. 6	. 63 . 17	3. 3 4. 3	9. 1 7. 1	72. 8 72. 8	1662. 1658.	3700. 3685.
3	3. 9	. 134E-01	2. 0	4. 0	72.8	1660.	3678.

Single Source Maximum Ground Level Concentrations

Source Stak	oility	Conc	Maxi mum (ug/m3)	Di stance (m)	Wind Speed (m/sec)
1	C		2034. 5 3170. 3	5. 5.	
2	C	7	775. 49 1143. 8	4. 4.	5. 000
3	C D	1	137. 43 208. 59	2.	

All Stacks Tested

Maximum off-property ground level	concentrati on	52. 498	ug/m3
Stability		D	•
Wind direction		342. 926	deg
Wind speed		5.000	m/š
Coordinates	2140.	3 3553.1	(m)

Maximum Concentration along the property line	52	. 509	ug/m3
Stability		D	
Wind direction		342.863	
Wind speed		5.000	m/s
Coordinates	2140.	3553.	(m)
₽			

♀ ACME Aggregates

Property line co-ordinates

Virtual Sources

Nur	mber	Hei ght	Emission Rate	Wi dth	Length	Angl e	Х	У
		m	gm/s	m	m	deg	m	m
VS1	1	6. 7	. 100E-13	3. 3	9. 1	72. 8	1662.	3700.
VS2	2	4. 6	. 100E-13	4. 3	7. 1	72. 8	1658.	3685.
VS3	3	3. 9	1.00	2. 0	4. 0	72. 8	1660.	3678.

우

VS3. PRN MAXIMUM GROUND LEVEL CONCENTRATION VERSION 2.00

Date: December 2013

I P11294 EB Application No: Reviewer:

Title: Acme Aggregates
1 g/s Unit emission rate VS3

Data from file: vs3.STK

Virtual Sources

Number	Hei ght	Emission Rate	Wi dth	Length	Angl e	Χ	Υ
	m	gm/s	m	m	deg	m	m
1	6. 7	. 100E-13	3. 3	9. 1	72.8	1662.	3700.
2	4. 6	. 100E-13	4. 3	7. 1	72. 8	1658.	3685.
3	3. 9	1.00	2. 0	4.0	72.8	1660.	3678.

Single Source Maximum Ground Level Concentrations

Source Stabil	i ty		axi mum (ug/m3)	Di stance (m)	Wind Speed (m/sec)
1	С		2294E-10		
2	D		0322E-10 5617E-10		5. 000 5. 000
2	Ď		7282E-10		5. 000
3	С		256.	2.	5.000
	D	15	567.	2.	5.000

All Stacks Tested

Maximum off-property ground level	concentrati on	71.889 ug/m3
Stability		D
Wind direction		344. 455 deg
Wind speed		5.000 m/s
Coordi nates	2137.	9 3545.1 (m)

Maximum Concentration along the property line	71.	912	ug/m3
Stability		D	Ü
Wind direction		343.444	deg
Wind speed		5.000	m/s
Coordinates	2135.	3537.	(m)
₽			• •



ATTACHMENT 3

Acoustic Assessment Report



December 2013

REPORT

Acoustic Assessment Report Acme Aggregates Inc. Aggreville, Ontario

Submitted to:

Acme Aggregates Inc. 123 Aggregate Avenue Aggreville, Ontario A1A 1A1

REPORT

Report Number: IP11294



ACOUSTIC ASSESSMENT REPORT APPLICATION FOR AN AMENDED ECA

Table 0: Version Control

Rev.	Date	Revision Description	Reviewer Initials
1.0	October 2004	Original Acoustic Assessment Report for CofA Application	FA
1.1	December 2013	Acoustic Assessment Report prepared for Amended ECA Application replacement of a generator; change to Operating Hours.	FA

i

ACOUSTIC ASSESSMENT REPORT APPLICATION FOR AN AMENDED ECA

Table of Contents

1.0	INTRODUCTION	1
2.0	FACILITY DESCRIPTION	2
3.0	NOISE SOURCE SUMMARY	3
4.0	POINTS OF RECEPTION	4
5.0	ASSESSMENT CRITERIA (PERFORMANCE LIMITS)	6
6.0	IMPACT ASSESSMENT	7
7.0	CONCLUSION	8
	LES	
	e 1: Noise Source Summary	
Tabl	e 2: Performance Limit(s) Summary	13
Tabl	e 3: Point of Reception Noise Impacts	14
Tabl	e 4: Acoustic Assessment Summary	15

FIGURES

Figure 1: Site Location Plan

Figure 2: Site Layout Plan

Figure 3: Result Contours

ACOUSTIC ASSESSMENT REPORT APPLICATION FOR AN AMENDED ECA

APPENDICES

APPENDIX A

Land Use Zoning Designation Plan

APPENDIX B

Insignificant Noise Sources

APPENDIX C

Weather Data

APPENDIX D

Instrumentation

APPENDIX E

Source Noise Data

APPENDIX F

Sample Calculations

Ministry Ministère of the de

Environment l'Environnement



ACOUSTIC ASSESSMENT REPORT CHECK-LIST

Company Name:	Acme Inc.	_				
document "Information to be Submitted for Approval of Stationary Sources of Sound" (NPC-233) dated Oct 1995 and the minimum required information identified in the check-list on the reverse of this sheet has submitted. Company Contact: Name: Dino Slater						
	Aggreville, Ontario A1A 1A1	_				
Location of Facility:	123 Aggregate Avenue	_				
	Aggreville, Ontario A1A 1A1	_				
document "Information 1995 and the minim	on to be Submitted for Approval of Stationary Sources of Sound" (NPC-233)	dated October				
Company Contact:						
Name:	Dino Slater					
Title:	President					
Phone Number:	234-567-8910					
Signature:	Dino Stater					
Date:	December 20, 2013					
Technical Contact:						
Name:	Fred Astare					
ocation of Facility: 123 Aggregate Avenue Aggreville, Ontario A1A 1A1 The attached Acoustic Assessment Report was prepared in accordance with the guidance in the ministration occument "Information to be Submitted for Approval of Stationary Sources of Sound" (NPC-233) dated Octobe 995 and the minimum required information identified in the check-list on the reverse of this sheet has bee ubmitted. Company Contact: Idame: Dino Slater President Phone Number: 234-567-8910 Diagnature: December 20, 2013 Fechnical Contact: Idame: Expresenting: Limerock Consulting Inc. Phone Number: 123-456-7654 Expresenting: Limerock Consulting Inc. Phone Number: 123-456-7654						
Phone Number:	123-456-7654					
Signature:	Fred Hstare					
Date:	December 20, 2013					

Limerock Consulting Inc.

ACOUSTIC ASSESSMENT REPORT CHECKLIST

	ACOUSTIC ASSESSMENT REPOR	CITEOREIGI	
	Required Information		1
		Submitted	Explanation/Reference
1.0	Introduction (Project Background and Overview)		Section 1.0
2.0	Facility Description		
	2.1 Operating hours of facility and significant Noise		Section 2.0, Section 3.0
	Sources		
	2.2 Site Plan identifying all significant Noise Sources		Figure 2
3.0	Noise Source Summary		
	3.1 Noise Source Summary Table		Table 1
	3.2 Source noise emissions specifications		Appendix E
	3.3 Source power/capacity ratings		Appendix E
	3.4 Noise control equipment description and acoustical	☐ No	N/A
	specifications		13//3
4.0	Point of Reception Noise Impact Calculations		
	4.1 Point of Reception Noise Impact Table		Table 3
	4.2 Point(s) of Reception (POR) list and description		Section 4.0, Table 2
	4.3 Land-use Zoning Plan		Appendix A
	4.4 Scaled Area Location Plan		Figure 1
	4.5 Procedure used to assess noise impacts at each	⊠ Yes	Section 6.0
	POR		
	4.6 List of parameters/assumptions used in calculations		Appendix F
5.0	Acoustics Assessment Summary		
	5.1 Acoustic Assessment Summary Table		Table 4
	5.2 Rationale for selecting applicable noise guideline	⊠ Yes	Section 5.0
	limits		
	5.3 Predictable Worst Case Impacts Operating Scenario		Section 3.0
0.5			
6.0	Conclusions		
	Statement of compliance with the selected noise	⊠ Yes	Section 7.0
	performance limits		
7.0	Annon door (Duraido detello sustras)	N	
7.0	Appendices (Provide details such as)		Annandin D
	Listing of Insignificant Noise Sources	⊠ Yes	Appendix B
	Manufacture's Noise Specifications		Appendix E
	Calculations	⊠ Yes	Appendix F
	Instrumentation	⊠ Yes	Appendix D
	Meteorology during Sound Level Measurements	⊠ Yes	Appendix C
	Raw Data from Measurements	⊠ Yes	Appendix E
	Drawings (Facility / Equipment)		Figures 1, 2



1.0 INTRODUCTION

Limerock Consulting Inc. (Limerock) was retained by Acme Aggregates Inc. (Acme) to prepare an Acoustic Assessment Report (AAR) in support of an application for an Amended Environmental Compliance Approval (ECA) under Section 9 of the Ontario *Environmental Protection Act.* The Acme facility (the Facility) is located at 123 Aggregate Avenue, Aggreville, Ontario. This report has been prepared in accordance with the applicable Ministry of the Environment and Climate Change (MOECC) publications (i.e., NPC-103, NPC-233 and NPC-300). The Facility is currently operating under ECA # 1234-ABCDEF, dated October 1, 2004. However, the Facility is proposing to replace a diesel generator (from 400 kW to 450 kW) that supplies the secondary crushing plant. The Facility is also proposing to increase the operating hours from 07:00 to 19:00 and will now operate from 05:00 to 19:00.

The purpose of the assessment is to evaluate the overall noise emissions of the Facility with respect to MOECC noise guidelines. Background sound levels in the vicinity of the Facility vary between areas with an acoustical environment dominated by natural sounds having little road traffic, and areas with an acoustical environment dominated by local road traffic. The Facility is not a significant source of vibration and therefore there was no need for a vibration assessment.

A scaled area location plan showing the site with respect to the surrounding area is provided in Figure 1. A site layout plan, showing the Facility arrangement and source locations, is provided in Figure 2. A land use zoning designation plan is provided in Appendix A.

Noise sensitive Point(s) of Reception (POR(s)) were selected that are representative of all sensitive points of reception in all directions around the Facility. For the purpose of this assessment, seven (7) locations (seven residential receptors [five existing, and two proposed) have been selected to represent the sensitive PORs, labelled as POR01 to POR07 in Figure 1. The closest POR is located approximately 130 m from the Facility property line (see Figure 1).



2.0 FACILITY DESCRIPTION

The Facility extracts and processes limestone. The main operations include extraction of rock at the active quarry face, a portable primary crushing plant, a permanent secondary crushing plant, and a wash plant. The operations are located below grade on the quarry floor. Stone is extracted at the active face, and transported by haul truck to the crushing and wash plants. Acme has implemented berms to the southwest and northeast of the Facility, along the property line as shown in Figure 2. The Facility is proposing to operate from 05:00 to 19:00, seven days per week, up to 50 weeks per year.

The Facility is located at 123 Aggregate Avenue, on the north side of the road, between Sorta Street and Development Drive. The Facility entrance is on Aggregate Avenue. The Facility is located in an area zoned for extractive industrial purposes. It is surrounded by areas zoned for agricultural use to the west, environmental conservation areas to the north and south, and industrial and residential areas to the east. A land use zoning designation plan is included in Appendix A.



3.0 NOISE SOURCE SUMMARY

In preparing the assessment, every reasonable effort was taken by Limerock to ensure that the source numbering convention was consistent with the information submitted by Acme, to the MOECC, as part of the documentation provided in the Emission Summary and Dispersion Modelling (ESDM) Report. The primary noise sources of concern are summarized in Table 1, in the Tables section, and include the following:

- One (1) primary crusher;
- One (1) secondary crusher;
- Two (2) rock sizing screens;
- One (1) wash plant;
- One (1) surge bin;
- One (1) haul truck route;
- One (1) excavator;
- Two (2) diesel generators;
- Two (2) front-end loaders; and
- One (1) water pump.

The locations of the noise sources can be found in Figure 2. Other than berms that Acme has built to the northeast and southwest of the Facility, and manufacturer installed noise controls, it is Limerock's understanding that no additional noise controls have been implemented on the equipment. A list of insignificant noise sources is provided in Appendix B. Consistent with MOECC accepted practice, although the rock drill (used to prepare the quarry face for a blast) and shipping trucks were assessed as part of the licensing application for the quarry, these noise sources were not assessed as part of this AAR.



4.0 POINTS OF RECEPTION

A total of seven (7) PORs have been identified as being representative of the most sensitive PORs in the vicinity of the Facility, labelled POR01 to POR07 in Figure 1. As per MOECC noise guidelines "point of reception" means any point on a noise sensitive land use where noise from a stationary source is received. For each of the PORs identified in this assessment, the noise levels were assessed at the plane of window for each noise sensitive dwelling or building, as well as in the outdoor areas related to the dwelling or building (where applicable). The following locations are POR assessment locations:

- Outdoor POR: Location outdoors within 30 metres of a façade of a dwelling, at a height of 1.5 metres above ground, typically in backyards, front yards, terraces or patios, and;
- Plane of Window (POW): Location in the centre of any window on a noise sensitive space of a dwelling.
- POR01: is a one (1) storey residence. The most sensitive location at this POR is at a height of 1.5 m in the outdoor amenity area north of the home. The POR is located on a road west of Sorta Street, west of the Facility, approximately 250 m from the Facility property line. Actual source to receptor separation distances are provided in Table 3.
- POR02: represents a future residence in an approved development, designed to accommodate two (2) storey homes. Therefore, the most sensitive location at this POR is conservatively assumed to be at a height of 4.5 m. The POR is located on a future residential street east of Development Drive, east of the Facility, approximately 150 m from the Facility property line. Actual source to receptor separation distances are provided in Table 3.
- POR03: represents a future residence in an approved development, designed to accommodate two (2) storey homes. Therefore, the most sensitive location at this POR is conservatively assumed to be at a height of 4.5 m. The POR is located on a future residential street east of Development Drive, east of the Facility, approximately 220 m from the Facility property line. Actual source to receptor separation distances are provided in Table 3.
- POR04: is a three (3) storey townhouse. The most sensitive location at this POR is at a height of 7.5 m. The POR is located on a residential street east of Development Drive, east of the Facility, approximately 630 m from the Facility property line. Actual source to receptor separation distances are provided in Table 3.
- POR05: is a two (2) storey residence. The most sensitive location at this POR is the top floor of the building at a height of 4.5 m. The POR is located on a residential street east of Development Drive, east of the Facility, approximately 1060 m from the Facility property line. Actual source to receptor separation distances are provided in Table 3.
- POR06: is a two (2) storey residence. The most sensitive location at this POR is the top floor of the building at a height of 4.5 m. The POR is located on a residential street west of Sorta Street, west of the Facility, approximately 600 m from the Facility property line. Actual source to receptor separation distances are provided in Table 3.



POR07: is a two (2) storey residence. The most sensitive location at this POR is the top floor of the building at a height of 4.5 m. The POR is located on Sorta Street, north-west of the Facility, approximately 360 m from the Facility property line. Actual source to receptor separation distances are provided in Table 3.

IND01: A place of worship (Pea-stonehenge Interfaith Centre) is located to the east of the Facility, east of Development Drive on industrially-zoned land. In accordance with NPC-300: "A place of worship located in commercially or industrially zoned lands is not considered a noise sensitive institutional purpose building." The place of worship is marked on Figure 1, and is not considered a sensitive POR for this assessment.

There are no PORs within 1000 m to the south of the Facility.



5.0 ASSESSMENT CRITERIA (PERFORMANCE LIMITS)

The Facility is located in Aggreville, Ontario. The PORs are located in areas defined as Class 2 urban, and Class 3 rural, as per MOECC Publication NPC-300.

MOECC Publication NPC-300 describes a Class 2 area as "an area with an acoustical environment that has qualities representative of both Class 1 and Class 3 areas, and in which a low ambient sound level, normally occurring only between 23:00 and 07:00 hours in Class 1 areas, will typically be realized as early as 19:00 hours." The Exclusion Limit Values of One-Hour Equivalent Sound Level (L_{eq}), for the plane of window (POW) and for the outdoor POR of a receptor in a Class 2 area are summarized below.

Time Period	MOECC Exclusionary Sound Level Limit (dBA) at POW	MOECC Exclusionary Sound Level Limit (dBA) at Outdoor POR
Daytime (07:00 – 19:00)	50	50
Evening (19:00 – 23:00)	50	45
Night-time (23:00 – 07:00)	45	-

A Class 3 area can best be described as rural with an acoustical environment that is dominated by natural sounds, having little road traffic. The One Hour Equivalent Sound Level (L_{eq}) MOECC exclusionary sound level limits for a POR in a Class 3 area are summarized below.

Time Period	MOECC Exclusionary Sound Level Limit (dBA) at POW	MOECC Exclusionary Sound Level Limit (dBA) at Outdoor POR			
Daytime (07:00 – 19:00)	45	45			
Evening (19:00 – 23:00)	40	40			
Night-time (23:00 – 07:00)	40	-			

Site measurements were carried out on September 9th, 2012. Weather during the measurement date included mainly clear atmospheric conditions, with temperatures ranging from 10 to 14°C. Winds were predominantly from the southeast at speeds of 4 to 10 km/hour during the actual measurement period. It was observed that stationary source noise levels were steady. Weather data is available in Appendix C.

Operations of the processing plant will be between 05:00 - 19:00. Therefore, the MOECC exclusionary night-time noise level limit in a Class 3 area has been used for POR01, POR06, and POR07, while the MOECC exclusionary night-time noise level limit in a Class 2 area has been used for POR02 to POR05. Table 2, in the Tables section, summarizes the applicable sound level limits for each receptor location.



6.0 IMPACT ASSESSMENT

Source sound pressure level measurements at the Facility were carried out using a Bobby Dog 944 (Serial #944GT2005) sound level meter/real-time analyzer; calibration certificates are provided in Appendix D.

All relevant sound level measurements taken during the September 9th, 2012, site visit have been documented in 1/3 octave and 1/1 octave band level format and are summarized in Appendix E. Measured sound levels from sources were used to calculate the overall sound power level for each source. Manufacturer's noise data was used for sources that were not operational during the site visit, and these are also included in Appendix E. The noise source sound power levels are summarized in Table 1, in the Tables section, of this report.

The results of the site-specific source measurements taken during the September 9th, 2012 site visit, and manufacturer's data, were used as inputs for sound level prediction calculations at the identified receptors. The calculations were performed using a prediction software package consistent with the ISO 9613-2 standard. The model took into consideration that the layout of the Facility and the location of the various sources allow the quarry walls and berms to provide shielding to certain PORs from the significant noise sources. As described in ISO 9613-2, ground factor values that represent the effect of ground absorption on sound levels range between 0 and 1. Based on the specific site conditions, the ground factor values used in the modelling were a ground factor value of 0 for acoustically hard surfaces, such as asphalt and concrete, and a ground factor value of 1 for acoustically soft surfaces, such as grassed or treed areas.

The predicted sound levels at the identified PORs due to each noise source, based on site-specific measurements, and manufacturer's data, are summarized in Table 3 in the Tables section. The table also includes the distance from each source to the identified PORs. For the single remaining extraction phase, POR03 is the most sensitive receptor; sample calculations for POR03 are provided in Appendix F. Predicted sound level contours are shown in Figure 3. The electronic modelling files are provided for exclusive use for review by the MOECC in Appendix F. The cumulative noise impacts at the identified PORs are summarized in Table 4 in the Tables section.



7.0 CONCLUSION

Limerock was retained by Acme Aggregates Inc. to prepare an updated Acoustic Assessment Report to reflect the proposed operations for the Facility located at 123 Aggregate Avenue, Aggreville, Ontario. Site-specific sound pressure level measurements of the equipment, and manufacturer's data were used to predict the worst case noise impact levels due to the Facility operations. Limerock has predicted noise impact levels that are within the MOECC's sound level limits at the most sensitive PORs.



REFERENCES

International Organization for Standardization, ISO 9613-2: Acoustics – Attenuation of Sound During Propagation Outdoors Part 2: General Method of Calculation, Geneva, Switzerland, 1996.

Ontario Ministry of the Environment. Model Municipal Noise Control By-Law - Final Report, August 1978.

Ontario Ministry of the Environment, Publication NPC-300: Stationary and Transportation sources – Approval and Planning, August 2013.

Ontario Ministry of the Environment, *Publication NPC-233: Information to be Submitted for Approval of Stationary Sources of Sound*, October 1995.

Ontario Ministry of the Environment, Model Municipal Noise Control By-Law Publication NPC-103, August 1978. (part of Model Municipal Noise Control By-Law – Final Report)

Ontario Ministry of the Environment, Model Municipal Noise Control By-Law Publication NPC-104, August 1978. (part of Model Municipal Noise Control By-Law – Final Report)

Prediction software implementing ISO-9613



TABLES



Table 1: Noise Source Summary

Source ID (ESDM ID)	Source Description	Overall Sound Power Level (dBA)	Source Location	Sound Characteristics	Noise Control Measures
NS1 ()	Water Pump	100	0	S	U
NS2 (7)	Diesel Gen (Primary)	110	0	s	Muffler
NS3 (13) ¹	Loader1	112	0	S	Muffler
NS4 (21) ¹	Loader2	112	0	S	Muffler
NS5 (16)	Secondary Gen	107	0	S	Muffler
NS6 (3)	Excavator	109	0	S	Muffler
NS7 (8)	Primary Crusher	117	0	S	U
NS8 (4)	Sizing Separator	114	0	S	U
NS9 (10)	Scalping Screen	111	0	S	U
NS10 (17)	Secondary Crusher	116	0	S	U
NS11 (19)	Wash Plant	116	0	S	U
NS12 (15)	Surge Bin	115	0	S	U
NS13 ()	Haul Truck	109	0	S	Muffler

Notes:



¹ Model reflects that sources operate up to 30 minutes in any given hour.

Noise Source Summary Table Nomenclature

Notes

Sound Power Level (PWL) refers to the existing PWL, and accounts for existing, if any, noise control measures already implemented.

Although the presence of a barrier may reduce the SPL at a POR, it does not affect PWL of the source

Source Location

O – located/installed outside the building, including on the roof

I – located/installed inside the building

Sound Characteristics

S – Steady

Q - Quasi Steady Impulsive

I - Impulsive

B - Buzzing

T - Tonal

C - Cyclic

Existing Noise Control Measures

S - silencer, acoustic louver, muffler

A – acoustic lining, plenum

B – barrier, berm, screening (does not include shielding provided by any obstacle, such as the facility building or topography)

L – lagging

E – acoustic enclosure

O – other

U - uncontrolled

Required Mitigation

S – silencer, acoustic louver, muffler

A – acoustic lining, plenum

B – barrier, berm, screening

L – lagging

E – acoustic enclosure

O-other

U - uncontrolled



Table 2: Performance Limit(s) Summary

Point of Reception ID	MOECC Designation	Evening/Night-time Performance Limit (dBA)				
POR01	Class 3 Outdoor	40				
POR02	Class 2 POW	45				
POR03	Class 2 POW	45				
POR04	Class 2 POW	45				
POR05	Class 2 POW	45				
POR06	Class 3 POW	40				
POR07	Class 3 POW	40				



Table 3: Point of Reception Noise Impacts

	POR01 (Outdoor)		POR02 (POW)		POR03 (POW)		POR04 (POW	POR04 (POW)		POR05 (POW)		POR06 (POW)		POR07 (POW)	
Source ID	Distance (m)	Sound Level At Receptor (dBA)	Distance (m)	Sound Level At Receptor (dBA)	Distance (m)	Sound Level At Receptor (dBA)	Distance (m)	Sound Level At Receptor (dBA)	Distance (m)	Sound Level At Receptor (dBA)	Distance (m)	Sound Level At Receptor (dBA)	Distance (m)	Sound Level At Receptor (dBA)	
NS01	1477	13	1083	18	950	20	1111	18	1659	14	1798	13	1856	12	
NS02	1485	26	1022	31	910	32	1138	30	1730	20	1745	25	1758	25	
NS03	1457	25	1046	29	937	30	1165	28	1751	23	1720	24	1746	24	
NS04	1445	25	1095	29	971	30	1148	28	1700	24	1757	23	1820	23	
NS05	1464	24	1086	28	958	30	1126	28	1677	24	1781	23	1840	21	
NS06	1350	26	392	38	377	40	751	32	1385	25	860	33	650	35	
NS07	1484	26	1014	33	900	34	1126	32	1717	26	1746	26	1760	26	
NS08	1498	25	1008	31	892	33	1114	30	1706	25	1762	23	1771	24	
NS09	1473	19	1030	22	918	24	1143	23	1729	18	1738	18	1757	18	
NS10	1465	29	1069	31	943	33	1127	31	1685	28	1770	25	1820	25	
NS11	1459	26	1080	30	953	32	1127	30	1680	24	1772	24	1828	26	
NS12	1467	23	1066	30	941	32	1126	30	1688	22	1769	24	1816	27	
NS13	1350	28	392	33	377	35	751	29	1385	23	860	30	650	31	

Table 4: Acoustic Assessment Summary

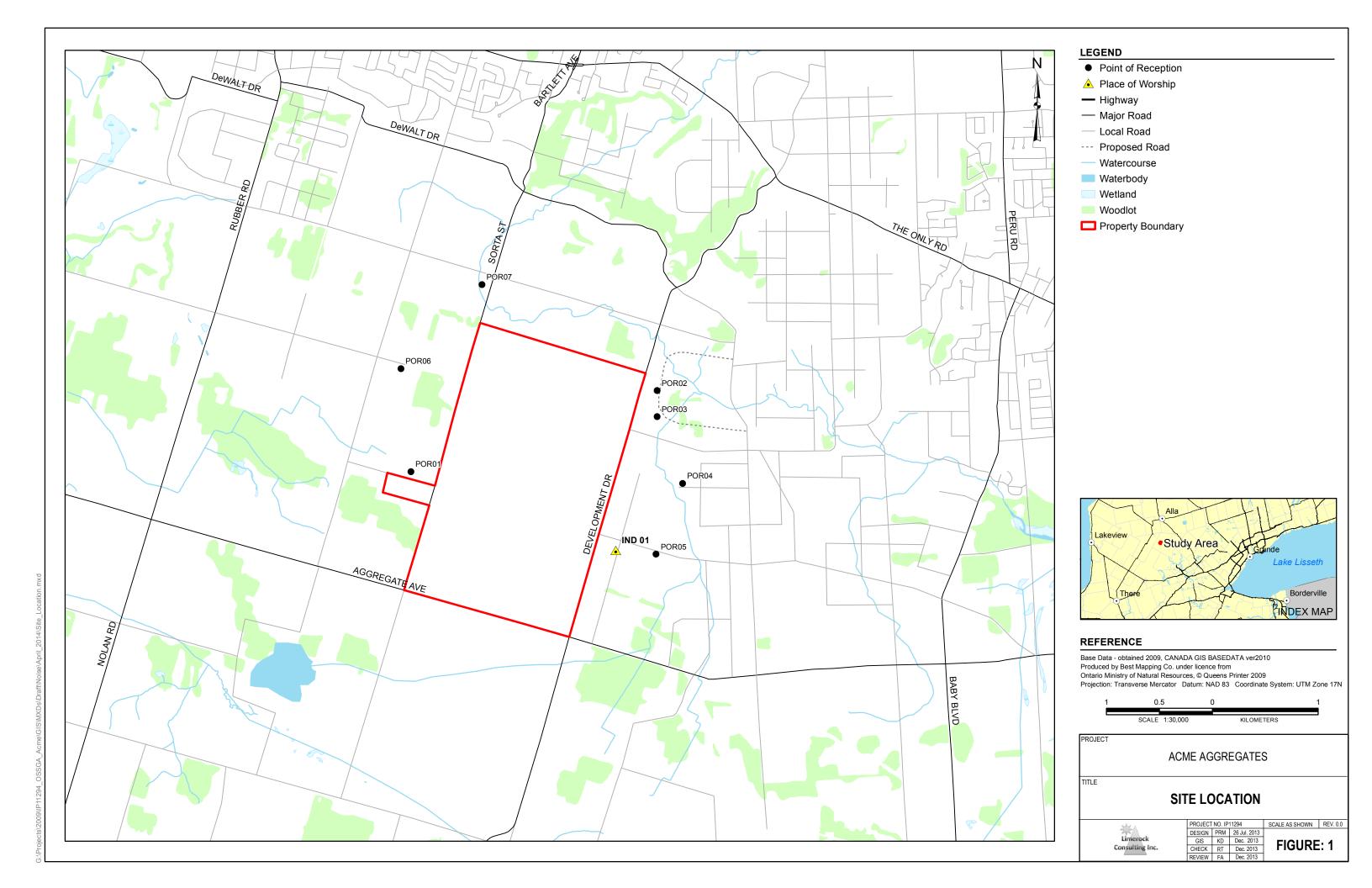
Point of Reception ID	Point of Reception (POR) Description	Overall night-time SPL at POR (dBA)	Verified by Acoustic Audit*	Night-time Performance Limit (dBA)	Compliance with Performance Limit (yes/no)
POR01	Residential Outdoor	36	Yes	40	yes
POR02	Residential POW	43	Yes	45	yes
POR03	Residential POW	45	Yes	45	yes
POR04	Residential POW	41	Yes	45	yes
POR05	Residential POW	35	Yes	45	yes
POR06	Residential POW	38	Yes	40	yes
POR07	Residential POW	39	Yes	40	yes

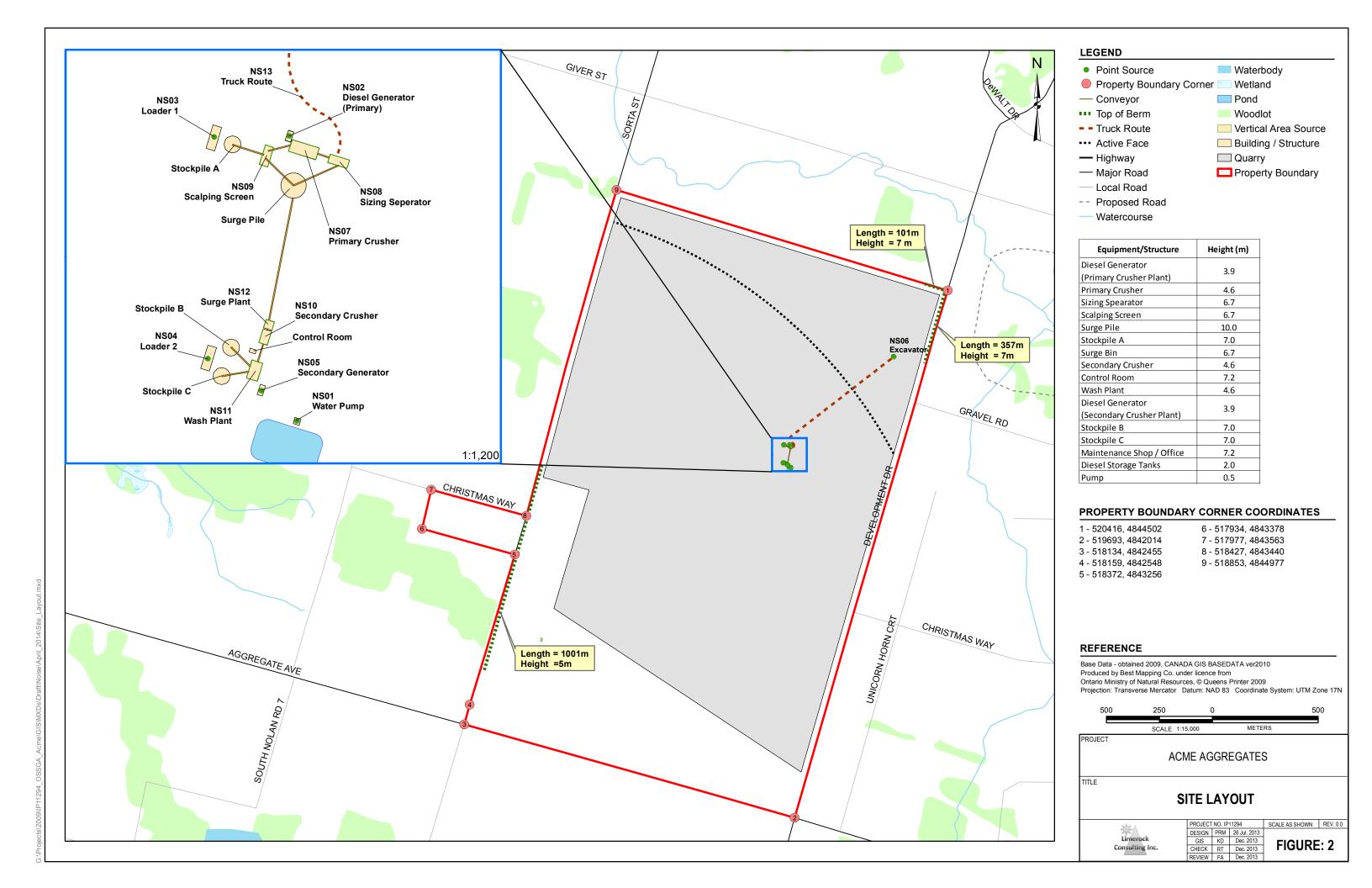
^{*} Predicted SPL at POR(s) verified through attended noise measurements to be within normal measurement tolerances.

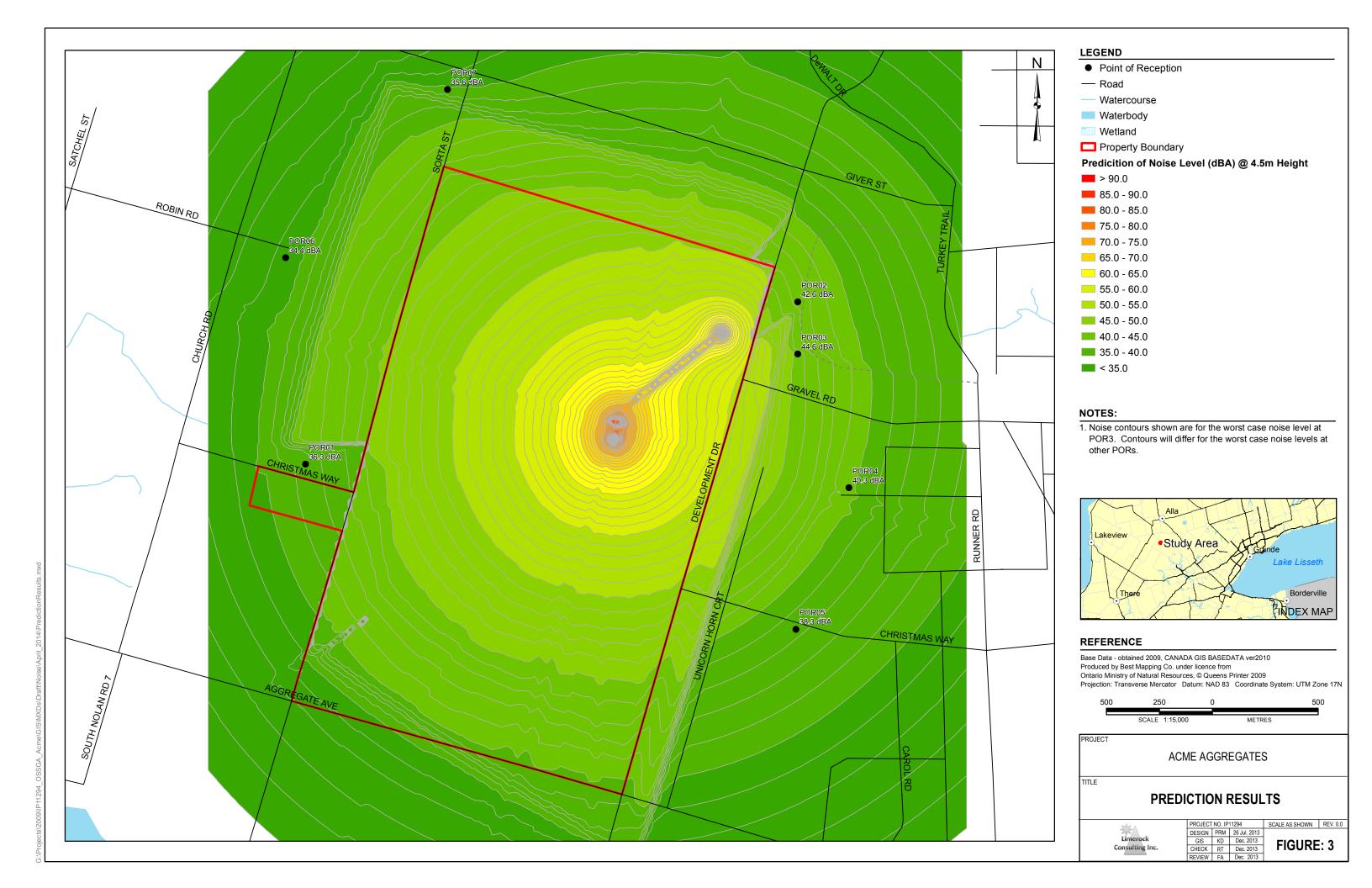


FIGURES





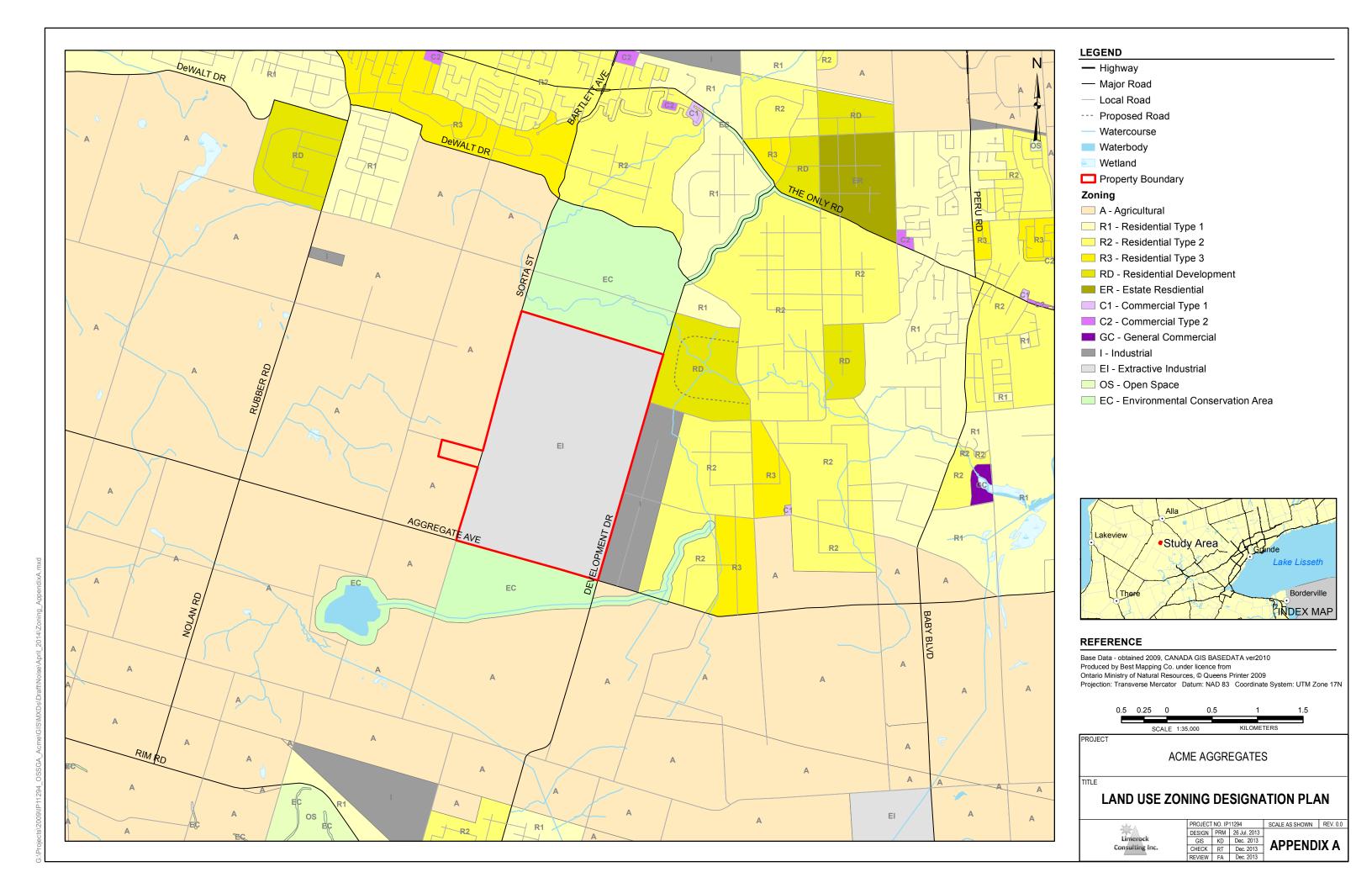




APPENDIX A

Land Use Zoning Designation Plan





APPENDIX B

Insignificant Noise Sources



ESDM Source ID	Source Description
6	Conveyor from Sizing Separator to Primary Crusher
9	Feeder to Scalping Screen
11	Conveyor to Surge Pile
12	Conveyor to Product Stockpile (primary crushing - product)
14	Underfeed Conveyor (from Surge Pile) to Surge Bin
18	Conveyor to Wash Plant
20	Conveyors (2) to Stockpile
22	Natural Gas Comfort Heating - Two Heaters 125,000 BTU/hr each
23	Maintenance Welding
24	HVAC - One unit 175,000 BTU/hr each



APPENDIX C

Weather Data



Station Name Aggreville Weather Station

Province ONTARIO
Easting 12 345678
Northin 4321098
Elevation 235
Climate Identifier 5550420
WMO Identifier 12345
TC Identifier YAV

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

Legend

M Missing
E Estimated
NA Not Available

Year	Month	Day	Time	Temp (°C)	Dew Point Temp (°C)	Rel Hum (%)	Wind Dir (10's deg)	Wind Spd (km/h)	Visibility (km)	Stn Press (kPa)	Weather
2012	9	9	0:00	8.6	5	78	10	5	24.1	100.29	Mainly Clear
2012	9	9	1:00	8.9	5	64	10	8	24.1	100.39	Mainly Clear
2012	9	9	2:00	8.3	5.5	58	13	5	24.1	100.49	Clear
2012	9	9	3:00	8.7	5.5	61	11	7	24.1	100.6	Clear
2012	9	9	4:00	10.0	5.5	64	14	5	24.1	100.7	Clear
2012	9	9	5:00	9.7	5.5	59	17	5	24.1	100.71	Clear
2012	9	9	6:00	9.0	9.7	58	15	6	24.1	100.76	Clear
2012	9	9	7:00	9.9	10.1	53	12	5	19.3	100.79	Clear
2012	9	9	8:00	10.5	10.5	53	15	5	16.1	100.81	Clear
2012	9	9	9:00	10.8	11.8	51	14	5	24.1	100.78	Mainly Clear
2012	9	9	10:00	10.3	11.6	47	11	6	24.1	100.76	Clear
2012	9	9	11:00	10.1	11.5	40	10	9	24.1	100.71	Clear
2012	9	9	12:00	11.2	8.4	34	12	7	24.1	100.65	Clear
2012	9	9	13:00	11.7	5.3	33	13	7	24.1	100.64	Clear
2012	9	9	14:00	13.0	1.8	29	15	10	24.1	100.65	Clear
2012	9	9	15:00	13.6	0.4	29	14	6	24.1	100.65	Clear
2012	9	9	16:00	14.4	-1	35	13	5	24.1	100.69	Clear
2012	9	9	17:00	14.6	-1.7	40	10	6	24.1	100.69	Clear
2012	9	9	18:00	14.1	-2.8	48	10	6	24.1	100.68	Clear
2012	9	9	19:00	10.9	-5	52	13	6	24.1	100.69	Clear
2012	9	9	20:00	10.7	-6.1	56	18	8	24.1	100.72	Clear
2012	9	9	21:00	12.2	-7.6	64	21	5	24.1	100.72	Clear
2012	9	9	22:00	13.6	-6	64	27	9	24.1	100.68	Clear
2012	9	9	23:00	13.4	-5.8	66	32	5	24.1	100.63	Clear

Limerock Consulting Inc.

APPENDIX D

Instrumentation



Instrumental Calibration Laboratories Inc.

Certificate of Calibration

VIRTe REAL TIME ANALYZER / S. L. M.

Manufactured By:

Bobby Dog Corp.

Model No.: Serial No.:

944GT2005

Calibration Recall No.: C9527

Submitted by:

Customer: Limerock Consulting Inc.

Company: Address:

The subject instrument was calibrated to the indicated specification using standards traceable to the National Institute of Standards and Technology or to accepted values of natural physical constants. This document certifies that the instrument met the following specification upon its return to the submitter.

Instrumental Calibration Laboratories Specification No.

Bobby Dog 944

(see attached)

Upon receipt for Calibration, the instrument was found to be:

(X) see attached Report of Calibration

the tolerance of the indicated specification.

Instrumental Calibration Laboratories' calibration control system meets the following requirements, ISO 10012-1 MIL-STD- 45662A, ANSI/NCSL, Z540-1, IEC Guide 25, ISO 9001:2000 and ISO/IEC 17025:2005

Note: With this Certificate, Report of Calibration is included.

Approved by: du Do

Calibration Date: 25 August 2012

Certificate No: C6270

John Doe Quality Manager

QA Doc. #1051 Rev. 2.0 10/1/01

Certificate Page 1 of 1

Instrumental Calibration Laboratories, Inc.

uncompromised calibration 456 Seven-Eight-Nine st Brampton, Ontario N3N 4O4 Canada

Phone: (905) 555-0420



Instrumental Calibration Laboratories Inc.

Certificate of Calibration

MICROPHONE

Manufactured By:

McPhones

Model No.:

377A60

Serial No.:

1234

Calibration Recall No.:

C9527

Submitted by:

Customer: Limerock Consulting Inc.

Company: Address:

The subject instrument was calibrated to the indicated specification using standards traceable to the National Institute of Standards and Technology or to accepted values of natural physical constants. This document certifies that the instrument met the following specification upon its return to the submitter.

Instrumental Calibration Laboratories Specification No.

377A60 McP

(see attached)

Upon receipt for Calibration, the instrument was found to be:

(X) see attached Report of Calibration

the tolerance of the indicated specification.

Instrumental Calibration Laboratories' calibration control system meets the following requirements, ISO 10012-1 MIL-STD- 45662A, ANSI/NCSL, Z540-1, IEC Guide 25, ISO 9001:2000 and ISO/IEC 17025:2005

Note: With this Certificate, Report of Calibration is included.

Approved by:

Calibration Date 25 August 2012

Certificate No: C6270

John Doe Quality Manager

QA Doc. #1051 Rev. 2.0 10/1/01

Certificate Page 1 of 1

Instrumental Calibration uncompromised calibration Laboratories, Inc.

456 Seven-Eight-Nine street Brampton, Ontario N3N 4O4 Canada

Phone: (905) 555-0420



APPENDIX E

Source Noise Data





Exhaust Emission Data Sheet 450ABC

60 Hz Diesel Generator Set EPA Emissions: Tier 2

Engine Information:

Model: ACME POWER INC. 450ABC Nonroad 2

	Octave Band Center Frequency (Hz)								
31.5	63	125	250	500	1000	2000	4000	8000	(dBA)
104.5	110.9	113.2	111.7	102.7	99	95	94.1	91	107.1

Source Description Source ID Measurement ID	Water Pump NS01 Leq01	Generator NS02 Leq02	Primary Crusher NS07 Leq03	Wash Plant NS11 Leq04	Sizing Screen NS08 Leq05	Secondary Crusher NS10 Leq06	Haul Truck NS14 Leq07	Scalp Screen NS09 Leq08	EL300B Excavator NS06 Leq09	Surge Bin NS12 Leq10	Loader Loader Leq11
Frequency (Hz)											
25	63	62	67	73	67	67	60	66	57	56	55
31.5	66	68	68	79	72	70	62	72	59	64	61
40	59	66	70	72	70	68	59	67	62	65	62
50	56	69	68	68	70	65	55	65	64	65	74
63	59	70	73	75	73	73	58	62	66	65	76
80	58	73	69	71	75	72	65	60	63	67	80
100	67	73	71	68	78	75	64	64	61	61	81
125	62	74	70	68	77	77	58	63	61	66	74
160	58	70	75	67	78	75	61	65	69	62	71
200	57	71	66	70	75	75	62	60	75	64	73
250	53	69	63	69	72	71	56	59	74	58	65
315	49	68	64	66	72	71	56	57	69	56	63
400	51	67	68	70	73	73	59	62	62	62	66
500	47	63	70	69	71	68	57	59	60	68	63
630	44	61	67	68	70	74	57	60	54	67	60
800	45	60	69	70	69	72	52	62	57	65	66
1000	44	59	69	68	69	72	53	61	58	69	65
1250	45	60	70	69	70	71	53	62	59 50	67	63
1600 2000	47 53	57 50	71 70	71 70	69	71 68	53 52	63 63	59 57	68	62 60
2000 2500	53 50	56 57		70 69	68 67	66	52 50	63	57 55	67 67	57
3150	48	57 58	69 67	69	66	64	50 47	62	53	66	57 56
4000	40 47	56 55	66	68	65	62	47 44	62	53	64	56 56
5000	44	56	63	68	64	58	42	62	53 51	66	53
6300	41	55	60	65	63	63	46	63	50	57	50
8000	35	52	55	65	60	60	45	62	47	55	48
10000	28	50	49	62	55	55	42	61	43	52	46
							<u></u>	<u> </u>			
31.5	68	71	73	80	75	73	65	74	65	67	65
63	62	76	75	77	78	76	66	68	69	70	82
125	68	77	77	72	82	81	66	69	70	68	82
250	59	74	69	73	78	78	63	63	78	65	74
500	53	69	73	74	76	77	62	65	65	71	69
1000	49	65	74	74	74	76	57	66	63	72	70
2000	56	62	75	75	73	73	56	68	62	72	65
4000	51	61	71	73	70	67	49	67	57	70	60
8000	42	57	61	69	65	65	49	67	52	60	53
dBA	61	72	80	80	80	81	64	74	72	78	74

APPENDIX F

Sample Calculations



Configuration	
Parameter	Value
General	
Country	(user defined)
Max. Error (dB)	0.00
Max. Search Radius (m)	5000.00
Min. Dist Src to Rcvr	0.00
Partition	
Raster Factor	0.50
Max. Length of Section (m)	1000.00
Min. Length of Section (m)	1.00
Min. Length of Section (%)	0.00
Proj. Line Sources	On
Proj. Area Sources	On
Ref. Time	
Reference Time Day (min)	60.00
Reference Time Night (min)	60.00
Daytime Penalty (dB)	0.00
Recr. Time Penalty (dB)	0.00
Night-time Penalty (dB)	0.00
DTM	0.00
Standard Height (m)	185.00
Model of Terrain	Triangulation
Reflection	Triangulation
max. Order of Reflection	0
Search Radius Src	-
Search Radius Stc	100.00
	100.00
Max. Distance Source - Rcvr	1000.00 1000.00
Min. Distance Rvcr - Reflector	1.00 1.00
Min. Distance Source - Reflector	0.10
Industrial (ISO 9613)	
Lateral Diffraction	some Obj
Obst. within Area Src do not shield	On
Screening	Excl. Ground Att. over Barrier
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	3.0 20.0 0.0
Temperature (°C)	10
rel. Humidity (%)	70
Ground Absorption G	1.00
Wind Speed for Dir. (m/s)	3.0
Roads (RLS-90)	
Strictly acc. to RLS-90	
Railways (Schall 03)	
Strictly acc. to Schall 03 / Schall-Transrapid	
Aircraft (???)	
Strictly acc. to AzB	

Receiver

Name: POR03

ID: POR03 X: 520524.36 Y: 4844091.34 Z: 189.50

			Р	oint S	ource,	ISO 9	613, Na	ame:	'Wate	er Pun	np", ID	: "NS	01"						
Nr.																			
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	519674.11	4843666.56	171.25	0	0	99.6	99.6	0.0	0.0	70.6	4.5	3.0	0.0	0.0	1.8	-0.0	-0.0	19.8	19.8

			Point	Sourc	e, ISC	9613,	Name:	"Die	sel G	en (Pr	imary)	", ID:	"NSC	2"					
Nr.																			
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	519671.19	4843774.22	172.40	0	0	109.5	109.5	0.0	0.0	70.2	2.7	1.4	0.0	0.0	3.4	-0.0	-0.0	31.9	31.9

				Point	Sourc	e, ISO	9613,	Name	e: "Lo	ader1	", ID: "	NS03	3"						
Nr.																LrN			
	(m) (m) (Hz) dB(A) dB(A) (dB) (dB) (dB) (dB) (dB) (dB) (dB) (dB																		
1	519642.82	4843773.86	172.20	0	0	109.1	109.1	0.0	0.0	70.4	3.5	1.5	0.0	0.0	3.3	-0.0	-0.0	30.4	30.4

				Point	Sourc	e, ISO	9613,	Name	e: "Lo	ader2	", ID: "	NS04	."						
Nr.																			
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	519640.47	4843690.07	172.20	0	0	109.1	109.1	0.0	0.0	70.7	3.6	1.6	0.0	0.0	3.2	-0.0	-0.0	30.0	30.0

			Po	int So	urce, I	SO 96	13, Nar	ne: "S	Secon	dary (Gen", I	D: "N	S05"						
Nr.																LrN			
	(m) (m) (m) (Hz) dB(A) dB(A) (dB) (dB) (dB) (dB) (dB) (dB) (dB) (dB															dB(A)			
1	519660.61	4843678.05	172.40	0	0	107.1	107.1	0.0	0.0	70.6	2.2	1.9	0.0	0.0	2.9	-0.0	-0.0	29.5	29.5

				Point :	Source	e, ISO	9613, N	lame	: "Exc	avato	r", ID:	"NS0	6"						
Nr.																			
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	520161.60	4844190.44	172.40	0	0	109.2	109.2	0.0	0.0	62.5	1.1	2.4	0.0	0.0	3.3	-0.0	-0.0	39.9	39.9

				Line S	Source	, ISO 9	613, N	ame:	"Hau	l Truc	k", ID:	"NS1	3"						
Nr.	Х	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	519792.59	4843904.96	172.50	0	0	106.0	106.0	0.0	0.0	68.6	3.5	-0.7	0.0	0.0	5.5	-0.0	-0.0	29.2	29.2
2	519971.84	4844044.49	172.50	0	0	103.0	103.0	0.0	0.0	65.9	2.8	-0.6	0.0	0.0	5.4	-0.0	-0.0	29.5	29.5
3	520091.34	4844137.51	172.50	0	0	103.0	103.0	0.0	0.0	63.8	2.4	-0.5	0.0	0.0	5.4	-0.0	-0.0	31.9	31.9
4	519673.51	4843792.46	172.50	0	0	82.8	82.8	0.0	0.0	70.1	4.0	-0.7	0.0	0.0	5.5	-0.0	-0.0	4.0	4.0
5	519672.83	4843811.34	172.50	0	0	82.3	82.3	0.0	0.0	70.0	3.9	-0.7	0.0	0.0	5.5	-0.0	-0.0	3.6	3.6
6	519682.53	4843783.18	172.50	0	0	82.3	82.3	0.0	0.0	70.0	3.9	-0.7	0.0	0.0	5.5	-0.0	-0.0	3.6	3.6
7	519672.35	4843810.13	172.50	0	0	82.3	82.3	0.0	0.0	70.1	3.9	-0.7	0.0	0.0	5.5	-0.0	-0.0	3.6	3.6
8	519681.41	4843783.85	172.50	0	0	82.3	82.3	0.0	0.0	70.1	3.9	-0.7	0.0	0.0	5.5	-0.0	-0.0	3.6	3.6
9	519671.95	4843808.89	172.50	0	0	82.3	82.3	0.0	0.0	70.1	3.9	-0.7	0.0	0.0	5.5	-0.0	-0.0	3.5	3.5
10	519680.33	4843784.58	172.50	0	0	82.3	82.3	0.0	0.0	70.1	3.9	-0.7	0.0	0.0	5.5	-0.0	-0.0	3.5	3.5
11	519671.62	4843807.62	172.50	0	0	82.3	82.3	0.0	0.0	70.1	3.9	-0.7	0.0	0.0	5.5	-0.0	-0.0	3.5	3.5
12	519679.29	4843785.37	172.50	0	0	82.3	82.3	0.0	0.0	70.1	3.9	-0.7	0.0	0.0	5.5	-0.0	-0.0	3.5	3.5
13	519671.36	4843806.34	172.50	0	0	82.3	82.3	0.0	0.0	70.1	4.0	-0.7	0.0	0.0	5.5	-0.0	-0.0	3.5	3.5
14	519678.30	4843786.22	172.50	0	0	82.3	82.3	0.0	0.0	70.1	4.0	-0.7	0.0	0.0	5.5	-0.0	-0.0	3.5	3.5
15	519671.18	4843805.05	172.50	0	0	82.3	82.3	0.0	0.0	70.1	4.0	-0.7	0.0	0.0	5.5	-0.0	-0.0	3.5	3.5
16	519677.36	4843787.13	172.50	0	0	82.3	82.3	0.0	0.0	70.1	4.0	-0.7	0.0	0.0	5.5	-0.0	-0.0	3.5	3.5
17	519671.08	4843803.75	172.50	0	0	82.3	82.3	0.0	0.0	70.1	4.0	-0.7	0.0	0.0	5.5	-0.0	-0.0	3.5	3.5
18	519676.48	4843788.09	172.50	0	0	82.3	82.3	0.0	0.0	70.1	4.0	-0.7	0.0	0.0	5.5	-0.0	-0.0	3.5	3.5
19	519671.05	4843802.44	172.50	0	0	82.3	82.3	0.0	0.0	70.1	4.0	-0.7	0.0	0.0	5.5	-0.0	-0.0	3.5	3.5
20	519675.65	4843789.10	172.50	0	0	82.3	82.3	0.0	0.0	70.1	4.0	-0.7	0.0	0.0	5.5	-0.0	-0.0	3.5	3.5
21	519671.10	4843801.14	172.50	0	0	82.3	82.3	0.0	0.0	70.1	4.0	-0.7	0.0	0.0	5.5	-0.0	-0.0	3.5	3.5
22	519674.89	4843790.16	172.50	0	0	82.3	82.3	0.0	0.0	70.1	4.0	-0.7	0.0	0.0	5.5	-0.0	-0.0	3.5	3.5
23	519671.23	4843799.84	172.50	0	0	82.3	82.3	0.0	0.0	70.1	4.0	-0.7	0.0	0.0	5.5	-0.0	-0.0	3.5	3.5

				Line S	Source	, ISO 9	613, N	ame:	"Hau	I Truc	k", ID:	"NS1	3"						
Nr.	Х	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
24	519674.19	4843791.26	172.50	0	0	82.3	82.3	0.0	0.0	70.1	4.0	-0.7	0.0	0.0	5.5	-0.0	-0.0	3.5	3.5
25	519671.43	4843798.55	172.50	0	0	82.3	82.3	0.0	0.0	70.1	4.0	-0.7	0.0	0.0	5.5	-0.0	-0.0	3.5	3.5
26	519671.71	4843797.27	172.50	0	0	82.3	82.3	0.0	0.0	70.1	4.0	-0.7	0.0	0.0	5.5	-0.0	-0.0	3.5	3.5
27	519672.06	4843796.02	172.50	0	0	82.3	82.3	0.0	0.0	70.1	4.0	-0.7	0.0	0.0	5.5	-0.0	-0.0	3.5	3.5
28	519672.49	4843794.78	172.50	0	0	82.3	82.3	0.0	0.0	70.1	4.0	-0.7	0.0	0.0	5.5	-0.0	-0.0	3.5	3.5
29	519672.94	4843793.63	172.50	0	0	81.8	81.8	0.0	0.0	70.1	4.0	-0.7	0.0	0.0	5.5	-0.0	-0.0	3.0	3.0
30	519689.73	4843776.18	172.50	0	0	80.8	80.8	0.0	0.0	70.0	3.9	-0.7	0.0	0.0	5.5	-0.0	-0.0	2.1	2.1
31	519689.37	4843777.03	172.50	0	0	80.8	80.8	0.0	0.0	70.0	3.9	-0.7	0.0	0.0	5.5	-0.0	-0.0	2.1	2.1
32	519690.02	4843775.30	172.50	0	0	80.8	80.8	0.0	0.0	70.0	3.9	-0.7	0.0	0.0	5.5	-0.0	-0.0	2.1	2.1
33	519688.94	4843777.85	172.50	0	0	80.8	80.8	0.0	0.0	70.0	3.9	-0.7	0.0	0.0	5.5	-0.0	-0.0	2.1	2.1
34	519690.24	4843774.41	172.50	0	0	80.8	80.8	0.0	0.0	70.0	3.9	-0.7	0.0	0.0	5.5	-0.0	-0.0	2.1	2.1
35	519688.45	4843778.63	172.50	0	0	80.8	80.8	0.0	0.0	70.0	3.9	-0.7	0.0	0.0	5.5	-0.0	-0.0	2.1	2.1
36	519690.39	4843773.50	172.50	0	0	80.8	80.8	0.0	0.0	70.0	3.9	-0.7	0.0	0.0	5.5	-0.0	-0.0	2.1	2.1
37	519687.90	4843779.37	172.50	0	0	80.8	80.8	0.0	0.0	70.0	3.9	-0.7	0.0	0.0	5.5	-0.0	-0.0	2.1	2.1
38	519690.46	4843772.58	172.50	0	0	80.8	80.8	0.0	0.0	70.0	3.9	-0.7	0.0	0.0	5.5	-0.0	-0.0	2.1	2.1
39	519687.29	4843780.06	172.50	0	0	80.8	80.8	0.0	0.0	70.0	3.9	-0.7	0.0	0.0	5.5	-0.0	-0.0	2.1	2.1
40	519690.46	4843771.65	172.50	0	0	80.8	80.8	0.0	0.0	70.0	3.9	-0.7	0.0	0.0	5.5	-0.0	-0.0	2.1	2.1
41	519686.63	4843780.70	172.50	0	0	80.8	80.8	0.0	0.0	70.0	3.9	-0.7	0.0	0.0	5.5	-0.0	-0.0	2.1	2.1
42	519690.38	4843770.73	172.50	0	0	80.8	80.8	0.0	0.0	70.0	3.9	-0.7	0.0	0.0	5.5	-0.0	-0.0	2.1	2.1
43	519685.91	4843781.29	172.50	0	0	80.8	80.8	0.0	0.0	70.0	3.9	-0.7	0.0	0.0	5.5	-0.0	-0.0	2.1	2.1
44	519690.24	4843769.82	172.50	0	0	80.8	80.8	0.0	0.0	70.0	3.9	-0.7	0.0	0.0	5.5	-0.0	-0.0	2.1	2.1
45	519685.16	4843781.82	172.50	0	0	80.8	80.8	0.0	0.0	70.0	3.9	-0.7	0.0	0.0	5.5	-0.0	-0.0	2.1	2.1
46	519690.02	4843768.93	172.50	0	0	80.8	80.8	0.0	0.0	70.0	3.9	-0.7	0.0	0.0	5.5	-0.0	-0.0	2.1	2.1
47	519684.36	4843782.28	172.50	0	0	80.8	80.8	0.0	0.0	70.0	3.9	-0.7	0.0	0.0	5.5	-0.0	-0.0	2.1	2.1
48	519689.73	4843768.05	172.50	0	0	80.8	80.8	0.0	0.0	70.0	3.9	-0.7	0.0	0.0	5.5	-0.0	-0.0	2.1	2.1
49	519683.53	4843782.68	172.50	0	0	80.8	80.8	0.0	0.0	70.0	3.9	-0.7	0.0	0.0	5.5	-0.0	-0.0	2.1	2.1

			vert. A	Area S	Source	, ISO 9	613, N	ame:	"Prim	ary C	rusher	", ID:	"NS0	7"					
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	519677.49	4843771.23	173.40	0	0	107.0	107.0	0.0	0.0	70.1	5.3	-0.9	0.0	0.0	5.7	-0.0	-0.0	26.8	26.8
2	519677.49	4843771.23	171.40	0	0	107.0	107.0	0.0	0.0	70.1	5.3	0.2	0.0	0.0	4.6	-0.0	-0.0	26.8	26.8
3	519677.49	4843771.23	172.40	0	0	107.0	107.0	0.0	0.0	70.1	5.3	-0.7	0.0	0.0	5.5	-0.0	-0.0	26.8	26.8
4	519675.96	4843766.85	172.40	0	0	107.0	107.0	0.0	0.0	70.2	5.3	-0.1	0.0	0.0	14.9	-0.0	-0.0	16.7	16.7
5	519681.10	4843765.26	172.40	0	0	85.1	85.1	0.0	0.0	70.1	5.3	-0.7	0.0	0.0	5.5	-0.0	-0.0	4.9	4.9
6	519675.96	4843766.85	173.40	0	0	107.0	107.0	0.0	0.0	70.2	5.3	-0.1	0.0	0.0	13.3	-0.0	-0.0	18.3	18.3
7	519681.10	4843765.26	173.40	0	0	85.1	85.1	0.0	0.0	70.1	5.3	-0.9	0.0	0.0	5.7	-0.0	-0.0	4.9	4.9
8	519675.96	4843766.85	171.40	0	0	107.0	107.0	0.0	0.0	70.2	5.3	0.7	0.0	0.0	15.2	-0.0	-0.0	15.6	15.6
9	519681.10	4843765.26	171.40	0	0	85.1	85.1	0.0	0.0	70.1	5.3	0.2	0.0	0.0	4.6	-0.0	-0.0	4.9	4.9
10	519677.49	4843771.23	170.55	0	0	105.4	105.4	0.0	0.0	70.1	5.3	1.9	0.0	0.0	2.8	-0.0	-0.0	25.2	25.2
11	519675.96	4843766.85	170.55	0	0	105.4	105.4	0.0	0.0	70.2	5.3	2.1	0.0	0.0	15.1	-0.0	-0.0	12.7	12.7
12	519681.10	4843765.26	170.55	0	0	83.5	83.5	0.0	0.0	70.1	5.3	1.9	0.0	0.0	2.8	-0.0	-0.0	3.3	3.3
13	519681.86	4843767.44	171.40	0	0	103.3	103.3	0.0	0.0	70.1	5.3	0.2	0.0	0.0	4.6	-0.0	-0.0	23.1	23.1
14	519681.86	4843767.44	173.40	0	0	103.3	103.3	0.0	0.0	70.1	5.3	-0.9	0.0	0.0	5.7	-0.0	-0.0	23.1	23.1
15	519681.86	4843767.44	172.40	0	0	103.3	103.3	0.0	0.0	70.1	5.3	-0.7	0.0	0.0	5.5	-0.0	-0.0	23.1	23.1
16	519671.60	4843770.63	173.40	0	0	103.3	103.3	0.0	0.0	70.2	5.3	-0.2	0.0	0.0	12.8	-0.0	-0.0	15.2	15.2
17	519671.60	4843770.63	172.40	0	0	103.3	103.3	0.0	0.0	70.2	5.3	-0.2	0.0	0.0	14.0	-0.0	-0.0	14.0	14.0
18	519671.60	4843770.63	171.40	0	0	103.3	103.3	0.0	0.0	70.2	5.3	0.6	0.0	0.0	14.3	-0.0	-0.0	12.9	12.9
19	519681.86	4843767.44	170.55	0	0	101.8	101.8	0.0	0.0	70.1	5.3	1.9	0.0	0.0	2.8	-0.0	-0.0	21.6	21.6
20	519671.60	4843770.63	170.55	0	0	101.8	101.8	0.0	0.0	70.2	5.3	2.0	0.0	0.0	14.2	-0.0	-0.0	10.1	10.1

			vert. A	Area S	Source	, ISO 9	613, N	ame:	"Sizir	ng Sep	erator	", ID:	"NSC)8"					
Nr.	Х	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	519690.40	4843766.21	170.55	0	0	104.6	104.6	0.0	0.0	70.0	3.9	3.1	0.0	0.0	1.7	-0.0	-0.0	25.8	25.8
2	519690.40	4843766.21	172.55	0	0	104.6	104.6	0.0	0.0	70.0	3.9	0.4	0.0	0.0	4.4	-0.0	-0.0	25.8	25.8
3	519690.40	4843766.21	171.55	0	0	104.6	104.6	0.0	0.0	70.0	3.9	1.3	0.0	0.0	3.5	-0.0	-0.0	25.8	25.8
4	519689.32	4843763.10	172.55	0	0	104.6	104.6	0.0	0.0	70.1	3.9	1.1	0.0	0.0	10.3	-0.0	-0.0	19.1	19.1
5	519692.96	4843761.96	172.55	0	0	76.1	76.1	0.0	0.0	70.0	3.9	0.4	0.0	0.0	4.4	-0.0	-0.0	-2.6	-2.6
6	519689.32	4843763.10	170.55	0	0	104.6	104.6	0.0	0.0	70.1	3.9	3.3	0.0	0.0	12.0	-0.0	-0.0	15.2	15.2
7	519692.96	4843761.96	170.55	0	0	76.1	76.1	0.0	0.0	70.0	3.9	3.1	0.0	0.0	1.7	-0.0	-0.0	-2.6	-2.6
8	519689.32	4843763.10	171.55	0	0	104.6	104.6	0.0	0.0	70.1	3.9	1.9	0.0	0.0	11.8	-0.0	-0.0	16.9	16.9
9	519692.96	4843761.96	171.55	0	0	76.1	76.1	0.0	0.0	70.0	3.9	1.3	0.0	0.0	3.5	-0.0	-0.0	-2.6	-2.6

			vert. A	Area S	Source	, ISO 9	613, N	ame:	"Sizir	ng Sep	erator	", ID:	"NSC)8"					
Nr.	Х	Υ	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
10	519693.50	4843763.51	170.55	0	0	100.9	100.9	0.0	0.0	70.0	3.9	3.1	0.0	0.0	1.7	-0.0	-0.0	22.2	22.2
11	519693.50	4843763.51	172.55	0	0	100.9	100.9	0.0	0.0	70.0	3.9	0.4	0.0	0.0	4.4	-0.0	-0.0	22.2	22.2
12	519693.50	4843763.51	171.55	0	0	100.9	100.9	0.0	0.0	70.0	3.9	1.3	0.0	0.0	3.5	-0.0	-0.0	22.2	22.2
13	519686.22	4843765.79	172.55	0	0	100.9	100.9	0.0	0.0	70.1	3.9	1.0	0.0	0.0	9.9	-0.0	-0.0	16.1	16.1
14	519686.22	4843765.79	171.55	0	0	100.9	100.9	0.0	0.0	70.1	3.9	1.8	0.0	0.0	10.8	-0.0	-0.0	14.3	14.3
15	519686.22	4843765.79	170.55	0	0	100.9	100.9	0.0	0.0	70.1	3.9	3.3	0.0	0.0	11.0	-0.0	-0.0	12.6	12.6

			vert.	Area S	Source	, ISO 9	613, N	ame:	"Scal	ping S	Screen	", ID:	"NS0	9"					
Nr.	Х	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	519664.17	4843766.14	172.55	0	0	101.9	101.9	0.0	0.0	70.3	7.3	-0.4	0.0	0.0	7.2	-0.0	-0.0	17.6	17.6
2	519664.17	4843766.14	170.55	0	0	101.9	101.9	0.0	0.0	70.3	7.3	2.4	0.0	0.0	10.7	-0.0	-0.0	11.3	11.3
3	519664.17	4843766.14	171.55	0	0	101.9	101.9	0.0	0.0	70.3	7.3	0.8	0.0	0.0	9.8	-0.0	-0.0	13.8	13.8
4	519661.87	4843769.81	170.55	0	0	96.5	96.5	0.0	0.0	70.3	7.3	1.9	0.0	0.0	12.3	-0.0	-0.0	4.8	4.8
5	519660.72	4843766.17	170.55	0	0	100.4	100.4	0.0	0.0	70.3	7.3	2.1	0.0	0.0	16.1	-0.0	-0.0	4.7	4.7
6	519661.87	4843769.81	171.55	0	0	96.5	96.5	0.0	0.0	70.3	7.3	0.3	0.0	0.0	12.3	-0.0	-0.0	6.4	6.4
7	519660.72	4843766.17	171.55	0	0	100.4	100.4	0.0	0.0	70.3	7.3	0.7	0.0	0.0	16.0	-0.0	-0.0	6.2	6.2
8	519661.87	4843769.81	172.55	0	0	96.5	96.5	0.0	0.0	70.3	7.3	-0.3	0.0	0.0	11.5	-0.0	-0.0	7.8	7.8
9	519660.72	4843766.17	172.55	0	0	100.4	100.4	0.0	0.0	70.3	7.3	0.1	0.0	0.0	14.5	-0.0	-0.0	8.2	8.2
10	519663.75	4843770.32	170.55	0	0	98.3	98.3	0.0	0.0	70.3	7.3	1.8	0.0	0.0	2.9	-0.0	-0.0	16.0	16.0
11	519663.75	4843770.32	171.55	0	0	98.3	98.3	0.0	0.0	70.3	7.3	-0.1	0.0	0.0	4.8	-0.0	-0.0	16.0	16.0
12	519663.75	4843770.32	172.55	0	0	98.3	98.3	0.0	0.0	70.3	7.3	-0.8	0.0	0.0	5.5	-0.0	-0.0	16.0	16.0
13	519661.47	4843763.04	172.55	0	0	98.3	98.3	0.0	0.0	70.3	7.3	0.3	0.0	0.0	14.6	-0.0	-0.0	5.8	5.8
14	519661.47	4843763.04	171.55	0	0	98.3	98.3	0.0	0.0	70.3	7.3	0.9	0.0	0.0	16.0	-0.0	-0.0	3.8	3.8
15	519661.47	4843763.04	170.55	0	0	98.3	98.3	0.0	0.0	70.3	7.3	2.3	0.0	0.0	16.2	-0.0	-0.0	2.2	2.2

			vert. Ar	ea Sc	ource, l	ISO 96	13, Naı	me: "	Secor	ndary	Crushe	er", IC): "NS	310"					
Nr.	Х	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	519663.73	4843697.84	171.00	0	0	106.9	106.9	0.0	0.0	70.5	3.8	1.7	0.0	0.0	3.0	-0.0	-0.0	27.8	27.8
2	519663.73	4843697.84	172.00	0	0	106.9	106.9	0.0	0.0	70.5	3.8	0.1	0.0	0.0	4.7	-0.0	-0.0	27.8	27.8
3	519663.73	4843697.84	173.00	0	0	106.9	106.9	0.0	0.0	70.5	3.8	-0.5	0.0	0.0	5.2	-0.0	-0.0	27.8	27.8
4	519660.98	4843700.22	171.00	0	0	103.6	103.6	0.0	0.0	70.5	3.8	2.4	0.0	0.0	14.1	-0.0	-0.0	12.7	12.7
5	519660.14	4843697.60	171.00	0	0	104.1	104.1	0.0	0.0	70.5	3.8	2.2	0.0	0.0	15.4	-0.0	-0.0	12.0	12.0
6	519660.98	4843700.22	172.00	0	0	103.6	103.6	0.0	0.0	70.5	3.8	1.0	0.0	0.0	14.2	-0.0	-0.0	14.1	14.1
7	519660.14	4843697.60	172.00	0	0	104.1	104.1	0.0	0.0	70.5	3.8	0.7	0.0	0.0	15.5	-0.0	-0.0	13.5	13.5
8	519660.98	4843700.22	173.00	0	0	103.6	103.6	0.0	0.0	70.5	3.8	0.5	0.0	0.0	13.9	-0.0	-0.0	14.9	14.9
9	519660.14	4843697.60	173.00	0	0	104.1	104.1	0.0	0.0	70.5	3.8	0.3	0.0	0.0	15.0	-0.0	-0.0	14.4	14.4
10	519661.27	4843695.71	173.00	0	0	104.7	104.7	0.0	0.0	70.5	3.8	-0.2	0.0	0.0	11.3	-0.0	-0.0	19.2	19.2
11	519662.87	4843695.20	173.00	0	0	86.0	86.0	0.0	0.0	70.5	3.8	-0.5	0.0	0.0	5.2	-0.0	-0.0	6.8	6.8
12	519661.27	4843695.71	172.00	0	0	104.7	104.7	0.0	0.0	70.5	3.8	0.3	0.0	0.0	11.5	-0.0	-0.0	18.5	18.5
13	519662.87	4843695.20	172.00	0	0	86.0	86.0	0.0	0.0	70.5	3.8	0.1	0.0	0.0	4.7	-0.0	-0.0	6.8	6.8
14	519661.27	4843695.71	171.00	0	0	104.7	104.7	0.0	0.0	70.5	3.8	1.9	0.0	0.0	11.5	-0.0	-0.0	16.9	16.9
15	519662.87	4843695.20	171.00	0	0	86.0	86.0	0.0	0.0	70.5	3.8	1.7	0.0	0.0	3.0	-0.0	-0.0	6.8	6.8

			ver	t. Area	a Sour	ce, ISC	9613,	Nam	e: "W	ash P	lant", l	D: "N	IS11"						
Nr.	Х	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	519660.21	4843684.96	173.10	0	0	105.2	105.2	0.0	0.0	70.6	6.3	-1.0	0.0	0.0	5.7	-0.0	-0.0	23.5	23.5
2	519660.21	4843684.96	174.10	0	0	105.2	105.2	0.0	0.0	70.6	6.3	-1.1	0.0	0.0	5.8	-0.0	-0.0	23.5	23.5
3	519660.21	4843684.96	171.10	0	0	105.2	105.2	0.0	0.0	70.6	6.3	0.9	0.0	0.0	3.9	-0.0	-0.0	23.5	23.5
4	519660.21	4843684.96	172.10	0	0	105.2	105.2	0.0	0.0	70.6	6.3	-0.6	0.0	0.0	5.3	-0.0	-0.0	23.5	23.5
5	519656.05	4843686.25	173.10	0	0	105.2	105.2	0.0	0.0	70.6	6.3	-0.7	0.0	0.0	15.0	-0.0	-0.0	13.9	13.9
6	519656.05	4843686.25	174.10	0	0	105.2	105.2	0.0	0.0	70.6	6.3	-0.7	0.0	0.0	13.7	-0.0	-0.0	15.3	15.3
7	519656.05	4843686.25	171.10	0	0	105.2	105.2	0.0	0.0	70.6	6.3	1.1	0.0	0.0	15.2	-0.0	-0.0	12.0	12.0
8	519656.05	4843686.25	172.10	0	0	105.2	105.2	0.0	0.0	70.6	6.3	-0.3	0.0	0.0	15.3	-0.0	-0.0	13.2	13.2
9	519659.17	4843689.02	171.10	0	0	103.0	103.0	0.0	0.0	70.6	6.3	0.9	0.0	0.0	3.9	-0.0	-0.0	21.4	21.4
10	519659.17	4843689.02	174.10	0	0	103.0	103.0	0.0	0.0	70.6	6.3	-1.1	0.0	0.0	5.8	-0.0	-0.0	21.4	21.4
11	519659.17	4843689.02	172.10	0	0	103.0	103.0	0.0	0.0	70.6	6.3	-0.6	0.0	0.0	5.3	-0.0	-0.0	21.4	21.4
12	519659.17	4843689.02	173.10	0	0	103.0	103.0	0.0	0.0	70.6	6.3	-1.0	0.0	0.0	5.7	-0.0	-0.0	21.4	21.4
13	519657.04	4843682.20	173.10	0	0	103.0	103.0	0.0	0.0	70.6	6.3	-0.8	0.0	0.0	13.0	-0.0	-0.0	13.8	13.8
14	519659.13	4843681.56	173.10	0	0	86.3	86.3	0.0	0.0	70.6	6.3	-1.0	0.0	0.0	5.7	-0.0	-0.0	4.5	4.5
15	519657.04	4843682.20	174.10	0	0	103.0	103.0	0.0	0.0	70.6	6.3	-0.8	0.0	0.0	12.1	-0.0	-0.0	14.7	14.7

			ver	t. Area	a Sour	ce, ISC	9613,	Nam	e: "W	ash P	lant", I	D: "N	IS11"						
Nr.	Х	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
16	519659.13	4843681.56	174.10	0	0	86.3	86.3	0.0	0.0	70.6	6.3	-1.1	0.0	0.0	5.8	-0.0	-0.0	4.5	4.5
17	519657.04	4843682.20	171.10	0	0	103.0	103.0	0.0	0.0	70.6	6.3	1.0	0.0	0.0	13.1	-0.0	-0.0	11.9	11.9
18	519659.13	4843681.56	171.10	0	0	86.3	86.3	0.0	0.0	70.6	6.3	0.9	0.0	0.0	3.9	-0.0	-0.0	4.5	4.5
19	519657.04	4843682.20	172.10	0	0	103.0	103.0	0.0	0.0	70.6	6.3	-0.3	0.0	0.0	13.2	-0.0	-0.0	13.2	13.2
20	519659.13	4843681.56	172.10	0	0	86.3	86.3	0.0	0.0	70.6	6.3	-0.6	0.0	0.0	5.3	-0.0	-0.0	4.5	4.5

			ve	rt. Are	a Sou	rce, IS	O 9613	, Nar	ne: "S	Surge	Bin", II	D: "N	S12"						
Nr.	Х	Υ	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	519665.15	4843702.39	175.20	0	0	102.5	102.5	0.0	0.0	70.5	6.1	-1.3	0.0	0.0	6.0	-0.0	-0.0	21.1	21.1
2	519665.15	4843702.39	176.20	0	0	102.5	102.5	0.0	0.0	70.5	6.1	-1.3	0.0	0.0	6.0	-0.0	-0.0	21.1	21.1
3	519665.15	4843702.39	172.20	0	0	102.5	102.5	0.0	0.0	70.5	6.1	-1.1	0.0	0.0	5.8	-0.0	-0.0	21.1	21.1
4	519665.15	4843702.39	171.20	0	0	102.5	102.5	0.0	0.0	70.5	6.1	0.2	0.0	0.0	4.5	-0.0	-0.0	21.1	21.1
5	519665.15	4843702.39	174.20	0	0	102.5	102.5	0.0	0.0	70.5	6.1	-1.3	0.0	0.0	6.1	-0.0	-0.0	21.1	21.1
6	519665.15	4843702.39	173.20	0	0	102.5	102.5	0.0	0.0	70.5	6.1	-1.3	0.0	0.0	6.1	-0.0	-0.0	21.1	21.1
7	519664.05	4843704.50	176.20	0	0	102.5	102.5	0.0	0.0	70.5	6.1	-1.3	0.0	0.0	6.0	-0.0	-0.0	21.1	21.1
8	519664.05	4843704.50	175.20	0	0	102.5	102.5	0.0	0.0	70.5	6.1	-1.3	0.0	0.0	6.0	-0.0	-0.0	21.1	21.1
9	519664.05	4843704.50	171.20	0	0	102.5	102.5	0.0	0.0	70.5	6.1	0.2	0.0	0.0	4.5	-0.0	-0.0	21.1	21.1
10	519664.05	4843704.50	173.20	0	0	102.5	102.5	0.0	0.0	70.5	6.1	-1.3	0.0	0.0	6.1	-0.0	-0.0	21.1	21.1
11	519664.05	4843704.50	172.20	0	0	102.5	102.5	0.0	0.0	70.5	6.1	-1.1	0.0	0.0	5.8	-0.0	-0.0	21.1	21.1
12	519664.05	4843704.50	174.20	0	0	102.5	102.5	0.0	0.0	70.5	6.1	-1.3	0.0	0.0	6.1	-0.0	-0.0	21.1	21.1
13	519661.94	4843703.37	174.20	0	0	102.4	102.4	0.0	0.0	70.5	6.1	-1.1	0.0	0.0	12.9	-0.0	-0.0	14.0	14.0
14	519662.44	4843704.97	174.20	0	0	85.6	85.6	0.0	0.0	70.5	6.1	-1.3	0.0	0.0	6.1	-0.0	-0.0	4.2	4.2
15	519661.94	4843703.37	175.20	0	0	102.4	102.4	0.0	0.0	70.5	6.1	-1.1	0.0	0.0	12.4	-0.0	-0.0	14.4	14.4
16	519662.44	4843704.97	175.20	0	0	85.6	85.6	0.0	0.0	70.5	6.1	-1.3	0.0	0.0	6.1	-0.0	-0.0	4.2	4.2
17	519661.94	4843703.37	176.20	0	0	102.4	102.4	0.0	0.0	70.5	6.1	-1.1	0.0	0.0	10.7	-0.0	-0.0	16.1	16.1
18	519662.44	4843704.97	176.20	0	0	85.6	85.6	0.0	0.0	70.5	6.1	-1.3	0.0	0.0	6.0	-0.0	-0.0	4.2	4.2
19	519661.94	4843703.37	171.20	0	0	102.4	102.4	0.0	0.0	70.5	6.1	0.4	0.0	0.0	12.9	-0.0	-0.0	12.5	12.5
20	519662.44	4843704.97	171.20	0	0	85.6	85.6	0.0	0.0	70.5	6.1	0.2	0.0	0.0	4.5	-0.0	-0.0	4.2	4.2
21	519661.94	4843703.37	172.20	0	0	102.4	102.4	0.0	0.0	70.5	6.1	-0.9	0.0	0.0	13.1	-0.0	-0.0	13.5	13.5
22	519662.44	4843704.97	172.20	0	0	85.6	85.6	0.0	0.0	70.5	6.1	-1.1	0.0	0.0	5.8	-0.0	-0.0	4.2	4.2
23	519661.94	4843703.37	173.20	0	0	102.4	102.4	0.0	0.0	70.5	6.1	-1.1	0.0	0.0	13.0	-0.0	-0.0	13.9	13.9
24	519662.44	4843704.97	173.20	0	0	85.6	85.6	0.0	0.0	70.5	6.1	-1.3	0.0	0.0	6.1	-0.0	-0.0	4.2	4.2

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