

APPENDIX A
PROPERTY INFORMATION

Environmental Assessment Registration Document:
Loch Katrine Quarry Expansion
Loch Katrine, Guysborough County, Nova Scotia

July 16, 2013

Our File Number: 92100-30-ANT-2013-035835-R01

Mr. Gary Rudolph
Dexter Construction Limited
44 Meadow Dr
Truro, NS
B2N 5V4

Dear Mr. Rudolph:

**RE: Approval to Construct and Operate - Quarry Highway 316, Loch Katrine,
Guysborough County, Approval No. 2003-035834-R01, PID # 1245588**

Enclosed please find Approval # 2003-035835-R01 to construct and operate the Quarry at Loch Katrine, Guysborough County, Nova Scotia.

Strict adherence to the attached terms and conditions is imperative in order to validate this approval.

Despite the issuance of this Approval, the Approval Holder is still responsible for obtaining any other authorization which may be required to carry out the activity, including those which may be necessary under provincial, federal or municipal law.

Should you have any questions, please contact Alicia Dantouze, Northern Region, Antigonish Office at (902) 863-7310.

Yours Truly



Paul Keats, B.Tech(Env), Eng.Tech., CET
District Manager

cc Jay Brenton
Glenn Horne

Eimas #: 2003-035835-R01

APPROVAL

Province of Nova Scotia
Environment Act, S.N.S. 1994-95, c.1

APPROVAL HOLDER: Dexter Construction Limited
SITE PID: 1245588
APPROVAL NO: 2003-035835-R01
EXPIRY DATE: May 29, 2023

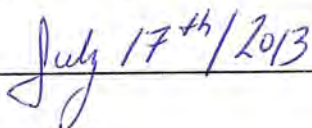
Pursuant to Part V of the *Environment Act, S.N.S. 1994-95, c.1* as amended from time to time, approval is granted to the Approval Holder subject to the Terms and Conditions attached to and forming part of this Approval, for the following activity:

Construction and operation of a Quarry, and associated works, at or near Loch Katrine, Guysborough County in the Province of Nova Scotia.

Administrator


Paul J Keats

Effective Date


July 17th / 2013

TERMS AND CONDITIONS OF APPROVAL

Nova Scotia Environment

Approval Holder: Dexter Construction Limited
Project: Quarry
Site: Loch Katrine, Guysborough County
PID # 1245588

Approval No: 2003-035835-R01

File No: 92100-30-ANT-2013-035835-

Map Series: 11F/5

Grid Reference: E584350 N5028200

Reference Documents:

- Application dated March 14, 2013 and attachments.
- Site rehabilitation survey plan date April 12, 2013 by H. Daniel Baillie, NSLS
- Site Survey Plan date July 10, 2013 by H. Daniel Baillie, NSLS.

1. Definitions

- a) "Abandonment" means cessation of production of aggregate for a period of twelve (12) months.
- b) "Act" means the *Environment Act* S.N.S. 1994-1995, c.1 and includes all regulations made pursuant to the Act.
- c) "Active Area" means the area required to operate a quarry and includes the working face and associated works.
- d) "Associated works" means any building, structure, processing facility, pollution abatement system or stockpiles of aggregate.
- e) "Department" means the Northern Region, Antigonish Office, of Nova Scotia Environment located at the following address:

Nova Scotia Environment
Environmental Monitoring and Compliance Division
Northern Region, Antigonish Office
155 Main Street
Suite 205
Antigonish, NS B2G 2B6

Phone: (902) 863-7389

Fax: (902) 863-7411

- f) "Disturbed Area" means any area on a quarry site that has been stripped of vegetation and is susceptible to erosion.
- g) "Facility" means the Quarry and associated works.
- h) "Minister" means the Minister of Nova Scotia Environment.
- l) "Rehabilitation" means restorative work performed or to be performed in accordance with the rehabilitation plan.
- j) "Structure" includes but is not limited to a private home, a cottage, an apartment building, a school, a church, a commercial building or a treatment facility associated with the treatment of municipal sewage, industrial or landfill effluent, an industrial building, infrastructure or construction, a hospital, and a nursing home, etc.

2. **Scope of Approval**

- a) This Approval (the "Approval") relates to the Approval Holder and their application and supporting documentation, as listed in the reference documents above, to construct and operate the Facility, situated at or near Loch Katrine, Guysborough County (the "Site").
- b) The Facility shall be constructed and operated as outlined in the application for industrial approval dated March 14, 2013 and supporting documentation.
- c) The Site shall not exceed the area as outlined in the application and supporting documentation.
- d) Should the work authorized by this Approval not be commenced within a year, this Approval shall automatically be null and void, unless extended in writing by an Administrator.

3. General Terms and Conditions

- a) The Approval Holder shall construct, operate and reclaim its Facility in accordance with provisions of the:
 - i) *Environment Act* S.N.S. 1994-1995, c.1, as amended from time to time;
 - ii) Regulations, as amended from time to time, pursuant to the above Act;
- b) The Approval Holder is responsible for ensuring that they operate the Facility on lands which they own or have a lease or written agreement with the landowner or occupier. The Approval Holder shall be responsible for ensuring that the Department has, at all times, a copy of the most recent lease or written agreement with the landowner or occupier. Breach of this condition may result in cancellation or suspension of the Approval.
- c) If there is a discrepancy between the reference documents and the terms and conditions of this Approval, the terms and conditions of this Approval shall apply.
- d) The Minister or Administrator may modify, amend or add conditions to this Approval at anytime pursuant to Section 58 of the Act.
- e) This Approval is not transferable without the consent of the Minister or Administrator.
- f)
 - (i) If the Minister or Administrator determines that there has been non-compliance with any or all of the terms and conditions contained in this Approval, the Minister or Administrator may cancel or suspend the Approval pursuant to subsections 58(A)(1) and 58(A)(2) of the Act, until such time as the Minister or Administrator is satisfied that all terms and conditions have been met.
 - (ii) Despite a cancellation or suspension of this Approval, the Approval Holder remains subject to the penalty provisions of the Act and regulations.
- g) The Approval Holder shall notify the Department prior to any proposed extensions or modifications of the Facility, including the active area, process changes or waste disposal practices which are not granted under this Approval. An amendment to this Approval will be required before implementing any change. Extensions or modifications to the Facility may be subject to the Environmental Assessment Regulations.
- h) Pursuant to Section 60 of the Act, the Approval Holder shall submit to the Administrator any new and relevant information respecting any adverse effect

that actually results, or may potentially result, from any activity to which the Approval relates and that comes to the attention of the Approval Holder after the issuance of the Approval.

- l) The Approval Holder shall immediately notify the Department of any incidents of non-compliance with this Approval.
- j) The Approval Holder shall bear all expenses incurred in carrying out the environmental monitoring required under the terms and conditions of this Approval.
- k) Unless specified otherwise in this Approval, all samples required to be collected by this Approval shall be collected, preserved and analysed, by qualified personnel, in accordance with recognized industry standards and procedures.
- l) Unless written approval is received otherwise from the Administrator, all samples required by this Approval shall be analysed by a laboratory that meets the requirements of the Department's "Policy on Acceptable Certification of Laboratories" as amended from time to time.
- m) The Approval Holder shall submit any monitoring results or reports required by this Approval to the Department. Unless specified otherwise in this Approval, All monitoring results shall be submitted within 30 days following the month of monitoring.
- n) The Approval Holder shall ensure that this Approval, or a copy, is kept on Site at all times and that personnel directly involved in the Facility operation are made fully aware of the terms and conditions which pertain to this Approval.
- o) The Approval Holder will be required to register their project under Part IV of the *Environment Act* should the Facility and associated works including access roads exceed an area of four (4) hectares.

4. **Construction of Facility**

- a) Erosion and sedimentation controls are to be in place prior to construction at this facility. Additional controls shall be implemented if Site runoff exceeds the discharge limits contained herein.
- b) Erosion and sedimentation controls are to be maintained and remain in place until the disturbed areas are stabilized.
- c) The Approval Holder shall ensure that the following discharge limits are met for any water which is discharged from the Site to a watercourse or wetland:

Clear Flows (Normal Background Conditions):

- i) Maximum increase of 25 mg/l from background levels for any short term exposure (24 hours or less)
- ii) Maximum average increase of 5 mg/l from background levels for longer term exposure (inputs lasting between 24 hours and 30 days)

High Flow (Spring Freshets and Storm Events)

- i) Maximum increase of 25 mg/l from background levels at any time when background levels are between 25 mg/l and 250 mg/l
 - ii) Shall not increase more than 10% over background levels when background is > 250 mg/l
- d) Signage including emergency telephone numbers and contacts are to be posted at the entrance to the Facility.
- e) The use of used oil as a dust suppressant is strictly prohibited. The generation of dust from the Site shall be suppressed as required.

5. Particulate Emissions (Dust)

- a) Particulate emissions shall not exceed the following limits at or beyond the Site property boundaries:
- | | |
|------------------------|------------------------------|
| Annual Geometric Mean | 70 $\mu\text{g}/\text{m}^3$ |
| Daily Average (24 hr.) | 120 $\mu\text{g}/\text{m}^3$ |
- b) The use of used oil as a dust suppressant is strictly prohibited. The generation of dust from the Site shall be suppressed as required.
- c) Monitoring of particulate emissions shall be conducted at the request of the Department. The location of the monitoring station(s) for particulate will be established by a qualified person retained by the Approval Holder and submitted to the Department for approval, this may include point(s) beyond the property boundary of the Site.
- d) When requested, suspended particulate matter shall be measured by the EPA standard; EPA/625/R-96/010a; Sampling of Ambient Air for Total Suspended Particulate Matter (SPM) and PM_{10} . Using High Volume (HV) Sampler.

6. **Sound Levels**

- a) Sound levels measured at the Site property boundaries shall not exceed the following equivalent sound levels (Leq):
 - Leq 65 dBA 0700-1900 hours (Days)
 - 60 dBA 1900-2300 hours (Evenings)
 - 55 dBA 2300-0700 hours (Nights)
- b) Monitoring of sound levels shall be conducted at the request of the Department. The location of the monitoring station(s) for sound will be established by a qualified person retained by the Approval Holder and submitted to the Department for approval, this may include point(s) beyond the property boundary of the Site.

7. **Surface Water**

- a) The site shall be developed and maintained to prevent siltation of the surface water which is discharged from the property boundaries into the nearest watercourse or beyond the property boundary. Additional controls shall be implemented if site runoff exceeds the discharge limits contained herein.
- b) No authority is granted by this Approval to enable the Approval Holder to discharge surface water beyond the property boundary and onto adjoining lands without the authorization of the affected landowner(s). It is the responsibility of the Approval Holder to ensure that the authorization of said landowner(s) is current and valid. Failure to maintain said authorization will result in this Approval being null and void. The Approval Holder shall provide, to the Department, proof of the continued authorization of the adjoining landowner(s) when the current agreement has expired.
- c) Erosion and sedimentation control devices shall be installed prior to any excavation of material.
- d) The Approval Holder shall ensure the following liquid effluent levels are met and that the effluent is monitoring at the frequency and locations indicated.
 - l) **Total Suspended Solids**
Clear Flows (Normal Background Conditions):
 - 1) Maximum increase of 25 mg/l from background levels for any short term exposure (24 hour or less)

- 2) Maximum average increase of 5 mg/l from background levels for longer term exposure (inputs lasting between 24 hours and 30 days)

High Flow (Spring Freshets and Storm Events):

- 1) Maximum increase of 25 mg/l from background levels at any time when background levels are between 25 mg/l and 250 mg/l
- 2) Shall not increase more than 10% over background levels when background is > 250 mg/l

ii) **pH**

- 1) Maximum 5 to 9 in grab sample
- 2) Maximum 6 to 9 as a Monthly Arithmetic Mean

iii) **Monitoring Locations**

- 1) The Approval Holder shall sample at the following locations: Locations will be selected by the department.

iv) **Sampling Frequency**

- 1) The Approval Holder shall sample at the following frequency: The frequency will be determined by the department in response to a siltation or other event.

- e) If it becomes necessary to drain the Site, the wastewater shall be treated to meet the suspended solids limits outlined in this Approval.
- f) All wash water systems shall be arranged in closed circuit.
- g) Additional monitoring stations for liquid effluent may be specified as required by the Department.
- h) A monthly summary of results of monitoring shall be submitted to the Department.

8. **Groundwater**

- a) The Approval Holder shall replace at their expense any water supply which has been lost or damaged as a result of extracting aggregate.

- b) The Approval Holder shall secure from the Administrator an approval amendment prior to excavating below the watertable.

9. **Separation Distances**

- a) The Approval Holder shall not locate the Active Area of the quarry within:
 - i) 30 m of the boundary of a public or common highway.
 - ii) 30 m of the bank of any watercourse or ordinary high water mark.
 - iii) 30 m of the boundary of the quarry property.
- b) The Approval Holder shall not blast within:
 - i) 30 m of the boundary of a public or common highway.
 - ii) 30 m of the bank of any watercourse or ordinary high water mark.
 - iii) 800 m of the foundation or base of a structure located off site.
 - iv) 15 m of the property boundary when a structure on the abutting property is not involved.

10. **Blasting**

- a) The Approval Holder shall have a technical blast design prepared by a qualified person which ensures the ground vibration and air concussion limits in this Approval can be achieved.
- b) The Approval Holder shall conduct a pre-blast survey including a water quality analysis of all structures within 800 metres of the Facility. The survey shall be conducted in accordance with the Department's "Procedure For Conducting a Pre-Blast Survey" and the results of this survey sent to the Department prior to any blasting on the Site. Water quality parameters will be determined by NSE staff.
- c) The Approval Holder shall call the nearest weather office, to assess the climatic conditions prior to conducting any blasting. No blasting will be permitted if a thermal inversion is anticipated at the time of the proposed blast.

- d) No blasting shall occur on Sunday, on a statutory holiday prescribed by the Province, or on any day between 1800 and 0800 hours.
- e) The Approval Holder shall ensure that all blasts are monitored for concussion and ground vibration to ensure that the limits in Table 2 are not exceeded:

Table 2			
Blasting Limits			
Parameters	Maximum	Monitoring Frequency	Monitoring Station
Concussion (Air Blast)	128 dBL	Every Blast	Within 7 m of the nearest structure not located on the Site
Ground Vibration	0.5 in/sec (12.5 mm/s)	Every Blast	Below grade or less than 1 m above grade in any part of the nearest structure not located on the Site

- f) The monitoring station for blasting shall be as indicated in Table 2. Additional monitoring stations for blasting may be specified as required by the Department.
- g) A monthly summary of results of monitoring shall be submitted to the Department.

11. Rehabilitation

- a) The Approval Holder shall post an interim security in a form acceptable to the Department in the amount of \$2,500.00 an acre of disturbed area on or before July 14, 2013.
- b) The interim security shall not exceed one (1) year unless otherwise agreed in writing by the Administrator.
- c) The Approval Holder shall submit a rehabilitation plan to the Department for review by Within Six Months Of Closure. The rehabilitation plan shall be revised and updated every three year thereafter and submitted for review. The rehabilitation plan shall include the estimated total cost for labour, equipment, supplies and services of a third party contractor to undertake the following activities:
 - l) surface contouring

- ii) establishing proper drainage
 - iii) revegetation work
 - iv) any work necessary to reclaim the quarry
- d) Before the expiry of the interim security, the Approval Holder shall post a final security which shall be calculated using the rehabilitation plan and factors in item c) above. The final security shall be revised every three years in accordance with the revised rehabilitation plan.
- e) The Approval Holder shall rehabilitate the Site within twelve (12) months of abandonment and in accordance with the rehabilitation plan submitted by the Approval Holder in 11 © or other terms as specified by the Department,
- f) Nova Scotia Environment shall release the security to the Approval Holder after final rehabilitation of the Site has been completed to the satisfaction of the Minister or Administrator. The Approval Holder shall notify the Department when rehabilitation has been completed.
- g) The Approval Holder shall ensure that any security posted for rehabilitation be kept valid for the term of the Approval.

12. **Site Specific Conditions**

- a) The boundaries of the Site will be cut out and kept reasonably clear of new growth and the corner boundaries shall be clearly marked with permanent markers no less than four feet high.

Profile

 [Printer Version](#)

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PROFILE - DEXTER CONSTRUCTION COMPANY LIMITED - as of: 2016-05-05 01:51 PM

Business/Organization Name:	DEXTER CONSTRUCTION COMPANY LIMITED
Registry ID:	1109762
Type:	Extra-Provincial Corporation
Nature of Business:	
Status:	Active
Jurisdiction:	New Brunswick
Registered Office:	900-1959 UPPER WATER STREET Halifax NS Canada B3J 3N2
Mailing Address:	PO BOX 997 Halifax NS Canada B3J 2X2

PEOPLE

Name	Position	Civic Address	Mailing Address
Carl B. Potter	Director	927 Rocky Lake Drive Bedford NS B4A 3Z2	
Carl Vincent	Comptroller	927 Rocky Lake Drive Bedford NS B4A 3Z2	
Cecil G. Vance	General Manager	927 Rocky Lake Drive Bedford NS B4A 3Z2	
Sondra Clegg	Assistant Secretary	927 Rocky Lake Drive Bedford NS B4A 3Z2	
Carl B. Potter	Chairman	927 Rocky Lake Drive Bedford NS B4A 3Z2	
David A. Wood	Chief Financial Officer & Secretary	927 Rocky Lake Drive Bedford NS B4A 3Z2	
David Pangman	Vice President, Finance	927 Rocky Lake Drive Bedford NS B4A 3Z2	

CHRISTINE C. POUND	Recognized Agent	900-1959 UPPER WATER STREET Halifax NS B3J 3N2	PO BOX 997 Halifax NS B3J 2X2
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ACTIVITIES

Activity	Date
Annual Renewal	2015-12-18
Annual Statement Filed	2015-12-18
Address Change	2015-08-25
Appoint an Agent	2015-08-25
Change of Directors	2015-07-10
Annual Renewal	2014-12-09
Annual Statement Filed	2014-12-09
Annual Statement Filed	2013-11-29
Annual Renewal	2013-11-26
Change of Directors	2013-09-12
Change of Directors	2013-03-18
Annual Statement Filed	2012-11-26
Annual Renewal	2012-11-26
Change of Directors	2012-06-22
Annual Statement Filed	2012-01-05
Annual Renewal	2011-12-14
Annual Renewal	2010-11-08
Annual Statement Filed	2010-11-08
Change of Directors	2010-05-14
Annual Renewal	2009-12-22
Annual Statement Filed	2009-12-22
Change of Directors	2009-07-21
Annual Renewal	2008-12-04
Change of Directors	2008-02-01
Annual Renewal	2007-11-23
Annual Statement Filed	2007-11-23
Annual Renewal	2006-11-14

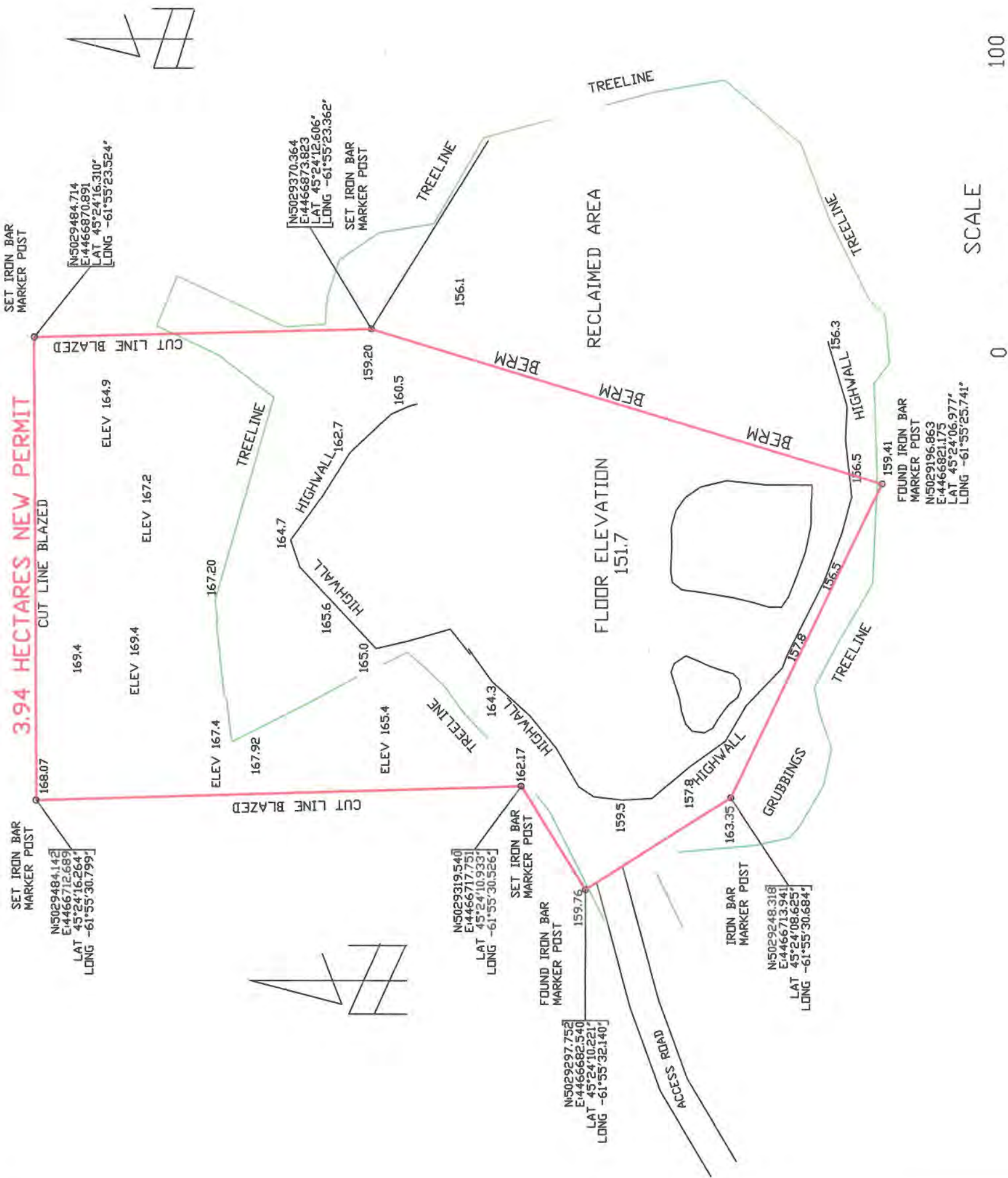
Annual Statement Filed	2006-11-14
Change of Directors	2006-09-25
Annual Renewal	2005-11-22
Annual Statement Filed	2005-11-22
Annual Renewal	2004-11-04
Annual Statement Filed	2004-11-04
Annual Renewal	2003-11-13
Annual Statement Filed	2003-11-13
Annual Renewal	2002-12-17
Annual Statement Filed	2002-12-17
Change of Directors	2002-04-03
Annual Renewal	2002-01-21
Annual Statement Filed	2002-01-21
Annual Renewal	2000-11-27
Annual Statement Filed	2000-11-27
Annual Renewal	1999-11-29
Annual Statement Filed	1999-11-29
Annual Renewal	1998-11-16
Annual Statement Filed	1998-11-16
Annual Renewal	1997-12-03
Annual Statement Filed	1997-12-03
Annual Renewal	1997-01-30
Annual Statement Filed	1997-01-30
Annual Report Filed	1995-12-27
Registered Office Change	1994-12-29
Reinstated	1989-03-07
Revoked for Non-Payment	1988-12-30
Agent Filed	1983-04-28
Change of Directors	1981-03-09
In Business Since	1977-11-18
Registered	1977-11-18
Incorporated in Other Jurisdiction	1961-12-22

Show All [Collapse](#)

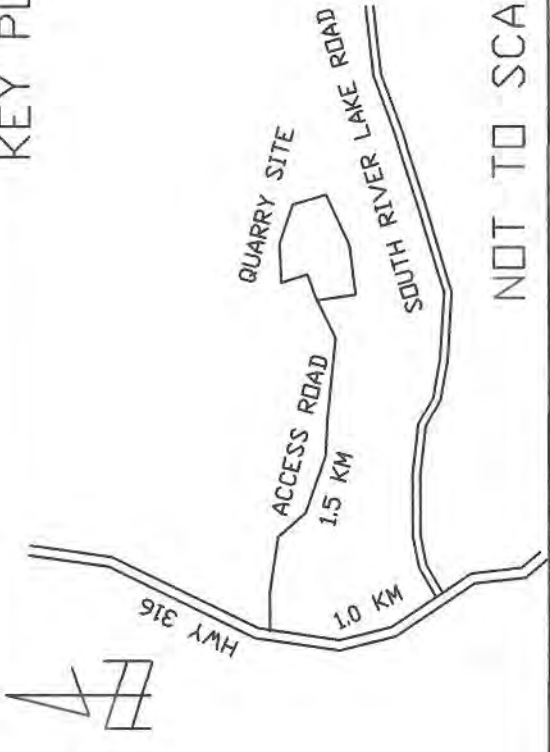
RELATED REGISTRATIONS

This Company ...	
DEXTER PAVING	Registered
NOVA SCOTIAN UTILITY CONSTRUCTION CORP.	Registered

3.94 HECTARES NEW PERMIT



KEY PLAN



NOT TO SCALE

DEVELOPMENT AND REHABILITATION PLAN

THIS QUARRY IS BEING USED TO SUPPLY AGGREGATE FOR TIR CONTRACTS IN THE AREA AS WELL AS SOME PRIVATE WORK. FUTURE BLASTS WILL ADVANCE THE FACE NORTHWARD AND THE FLOOR ELEVATION WILL REMAIN AT ITS CURRENT LEVEL.

UPON FINAL CLOSEOUT OF THIS QUARRY ALL SLOPES WILL BE REGRADED TO 1.5 TO 1 OR LESS. THE STOCKPILES OF TOPSOIL AND GRUBBINGS ALONG THE SOUTH EDGE OF THE SITE WILL BE USED TO REVEGETATE DISTURBED AREAS. ANY REMAINING STOCKPILES OF GRUBBINGS OR AGGREGATE WILL BE LEVELED AND GRADED AND THE SITE RETURNED TO ITS ORIGINAL MIXED FOREST USE.

PLAN SHOWING PROPOSED NEW
DEXTER CONSTRUCTION COMPANY LIMITED QUARRY
LOCH KATRINE, GUYSBOROUGH COUNTY
NOVA SCOTIA
ON LANDS OF LLOYD MCHATTIE
PID 012455588

CO-ORDINATES ARE ATS 77, ZONE 4
REFERENCED TO NSCM 10573

SCALE 1= 1500 ALL UNITS ARE METRIC

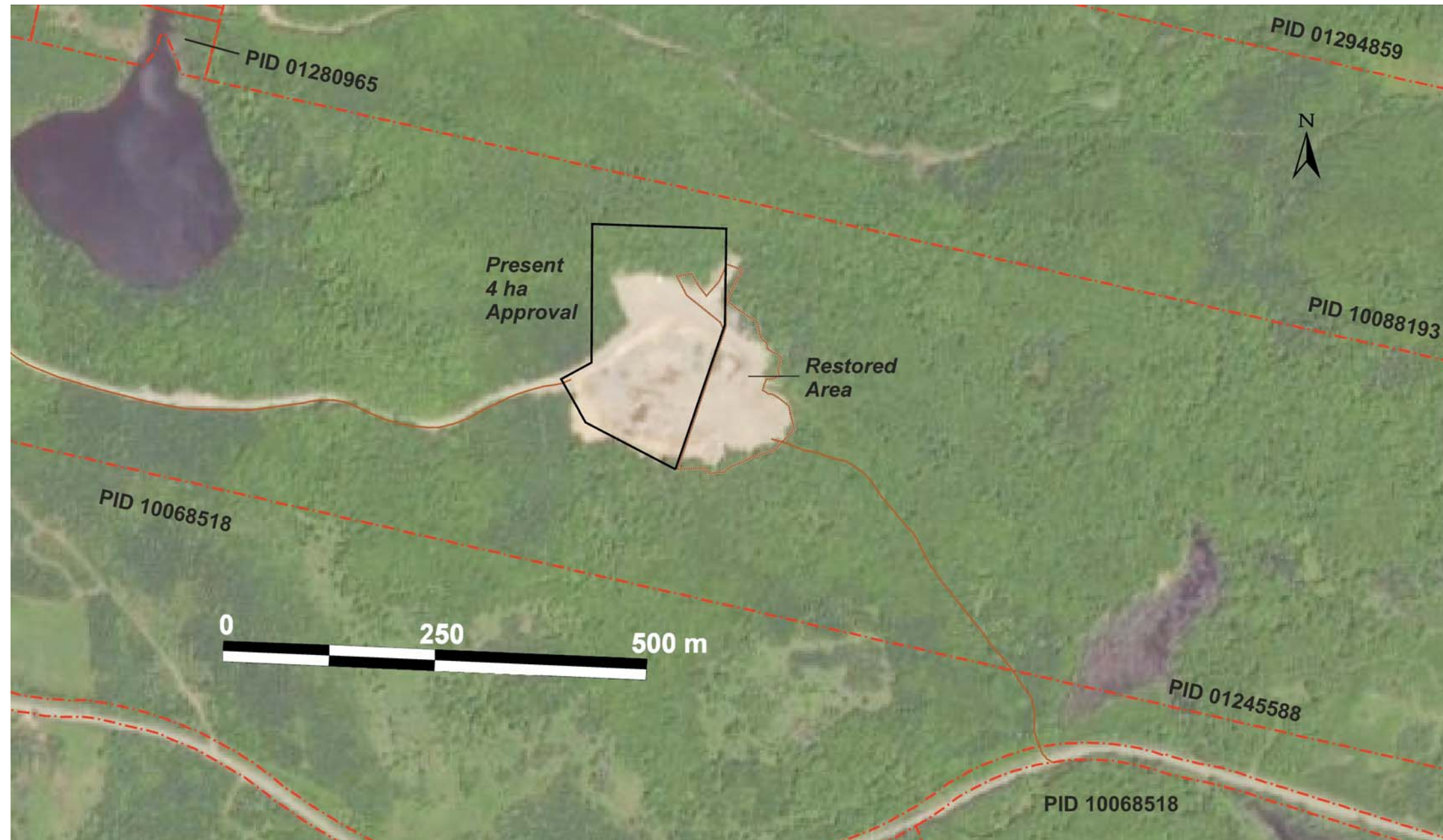
JULY 10, 2013

H. D. Baillie
H. DANIEL BAILLIE NSLS 392

DRAWN BY H. D. BAILLIE

APPENDIX B
DRAWINGS

Environmental Assessment Registration Document:
Loch Katrine Quarry Expansion
Loch Katrine, Guysborough County, Nova Scotia

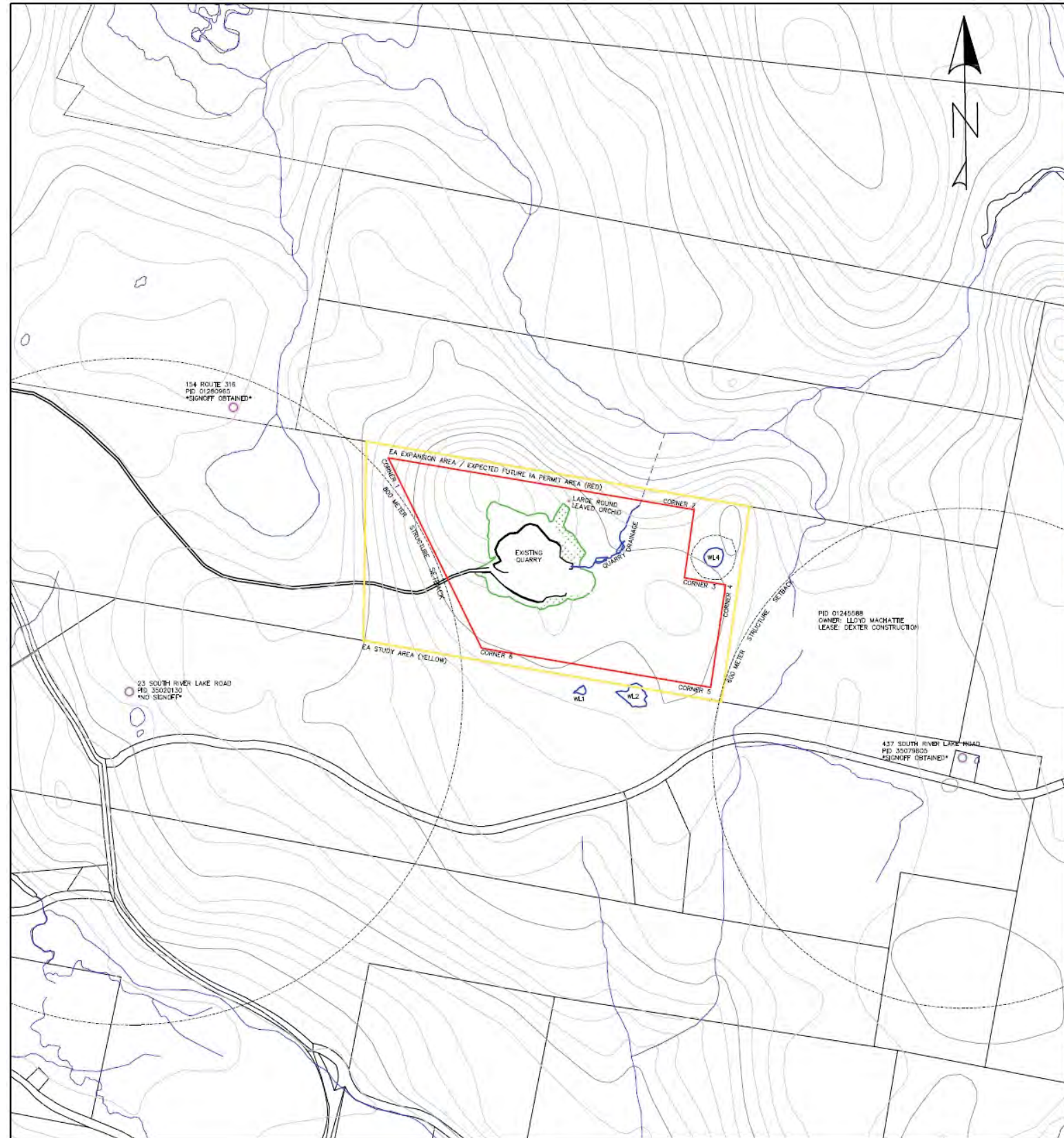


DEXTER CONSTRUCTION COMPANY LIMITED
LOCH KATRINE QUARRY EXPANSION

Loch Katrine, Guysborough County
Nova Scotia

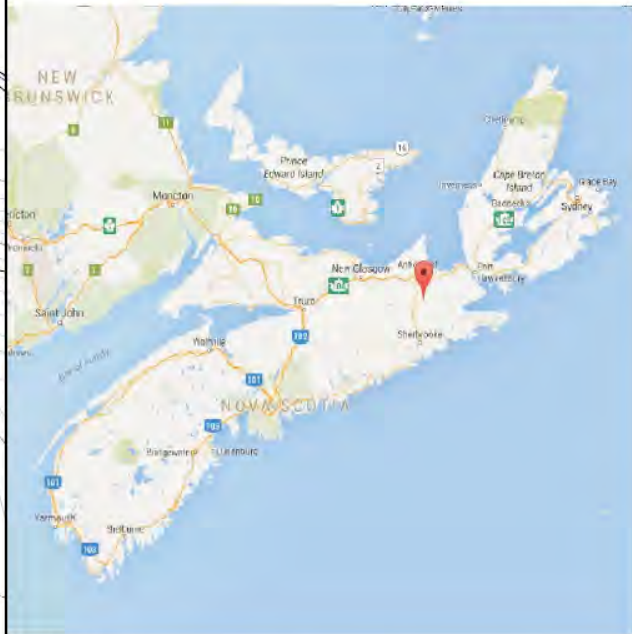
APPROVED QUARRY SITE PLAN

Map by:
Envirosphere Consultants Limited
Windsor, Nova Scotia
October 2016



LOCH KATRINE QUARRY

EA EXPANSION AREA
 ANTIGONISH COUNTY, NOVA SCOTIA
 DATE: OCTOBER 6, 2016 DRAWN BY: RHETT THOMPSON, P.ENG



NOTES:

APPROXIMATE PROPERTY LINES OBTAINED FROM SERVICE NOVA SCOTIA.

TOPOGRAPHIC DATA OBTAINED FROM NOVA SCOTIA GEOMATICS CENTER. TOPOGRAPHY LINES ARE AT 5 METER INTERVALS.

STRUCTURE COORDINATES OBTAINED FROM GOOGLE EARTH.

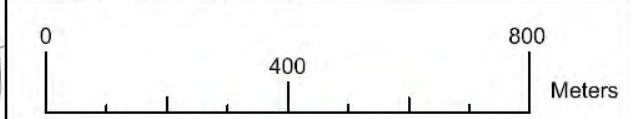
SURVEY DATA COLLECTED USING GARMIN HANDHELD GPS UNIT ON NOVEMBER 12, 2015.

EA STUDY AREA ≈ 42.5 HECTARES
 PROPOSED EA EXPANSION AREA = 27.3 HECTARES

PERMIT AREA CORNERS (NAD83 (CSRS) LAT / LONG)

CORNER 1	N 45°24'18.9"	W 61°55'42.0"
CORNER 2	N 45°24'14.6"	W 61°55'08.3"
CORNER 3	N 45°24'09.3"	W 61°55'09.5"
CORNER 4	N 45°24'08.7"	W 61°55'05.0"
CORNER 5	N 45°24'00.7"	W 61°55'06.7"
CORNER 6	N 45°24'04.0"	W 61°55'32.0"

NOTE: THIS IS NOT A LEGAL SURVEY



DEXTER CONSTRUCTION COMPANY LIMITED
 LOCH KATRINE QUARRY EXPANSION

Loch Katrine, Guysborough County
 Nova Scotia

SITE DETAILS & PROPOSED EXPANSION AREA

Appendix B - Drawing 2

APPENDIX C
ROCK SULPHUR CONTENT ANALYSIS RESULTS

Environmental Assessment Registration Document:
Loch Katrine Quarry Expansion
Loch Katrine, Guysborough County, Nova Scotia

10-Jun-16

Dexter Construction Co. Ltd.
927 Rocky Lake Drive
P.O. Box 48100
Bedford, NS
B4A 3Z2
Atten: Rhett Thompson

Re: Results of analysis on submitted samples.

Sample	Wt. % S(Total)	kg/t
		Acid Prod. Potential
Dexter- Loch Katrine Quarry	0.18	5.57
Dexter- Loch Katrine Quarry-DUI	0.17	5.33

Certified Ref. Sa.	Wt. %
	S(Total)
NBM-1 (0.28% S)	0.279

Daniel Chevalier, MASC
Manager, Minerals Engineering Centre