



ENVIRONMENTAL ASSESSMENT REGISTRATION DOCUMENT

Port au Port Limestone Mining Lease – 754ha

File No. 200.20.2353

Date: Jan. 19, 2015



TABLE OF CONTENTS

1. NAME OF UNDERTAKING.....	1
2. PROPONENT.....	1
2.1 Name of Corporate Body:	1
2.2 Address:.....	1
2.3 President:	1
2.4 Contact Person:.....	1
3. THE UNDERTAKING:.....	1
3.1 Nature of the Undertaking.....	1
4. Purpose/Rationale/Need for the Undertaking:.....	1
4.1 Purpose.....	2
4.2 Rationale	2
4.3 Need for Undertaking.....	2
5. DESCRIPTION OF THE UNDERTAKING.....	2
5.1 Geographic Location	2
5.2 Physical Features.....	3
5.2.1. Project Site Description	3
5.2.2. The Present Environment	3
5.3 Construction.....	3
5.2.3. Access to Site: Phase 1 and Phase 2.	3
5.4 Potential Sources of Pollution During Construction	4
5.2.4. Air Quality/Noise.....	4
5.2.5. Waste Production	5
5.2.6. Hydrocarbon Release.....	5
5.5 Operations.....	5
5.2.7. Phase 3:.....	5
5.2.8. Equipment to be used within the White Hills Open Pit:.....	6

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5.2.9. The Plant Flow Information	6
5.6 Potential Sources of Pollution during Operation.....	8
5.7 Potential Resource Conflicts	8
5.8 Occupations.....	8
5.9 Project – Related Documents.....	8
5.2.10. Bibliography of related projects. (Appendix 2).....	8
6. APPROVAL OF THE UNDERTAKING	9
7. SCHEDULE	9
8. FUNDING	9
9. SUBMISSION.....	9

Appendices:

Appendix 1 - Legal Survey for Mining Lease

Appendix 2

Maps No. 1 & No. 2

Drawings No. 1, No. 2 & No. 3

Figure 1 & 2



1. NAME OF UNDERTAKING

To extend a new mining lease in mineral license 022374M from the existing Atlantic Minerals Limited (AML) mining leases #137, #225 and #151. (Refer to maps 1 & 2).

2. PROPOSER

2.1	Name of Corporate Body:	Atlantic Minerals Limited
2.2	Address:	P.O. Box 160 Corner Brook, NL A2H 6C7
2.3	President:	William D. Fitzpatrick P.O. Box 160 Corner Brook, NL, A2H 6C7 Phone: (709) 637-2810 Fax: (709) 639-0300 E-Mail: wfitzpatrick@atlanticminerals.com
2.4	Contact Person:	Jamie Goosney General Manager – Quarry Operations Box 10 Site 1 R.R. #3 Port Au Port, NL A0N 1T0 Phone: (709) 644-3247 Fax: (709) 644-2701 E-mail: jgoosney@atlanticminerals.com

3. THE UNDERTAKING:

3.1 Nature of the Undertaking:

To extend Atlantic Minerals Limited's mining lease to the west of current operating mining leases #137, #225 and #151, located in Port au Port 2.5 km from Lower Cove and 2 km from Sheaves Cove (refer to maps No. 1 & 2).

4. Purpose/Rationale/Need for the Undertaking:

Atlantic Minerals Limited, herein after referred to as AML, for the past 22 years has been mining, processing and exporting chemical grade Calcium Costa Bay Limestone and construction aggregates in mining leases #137 & #225, as well as chemical grade Catoche Dolomite and construction aggregates in mining lease #151. This enterprise, located 2 km



from Lower Cove and 3.5 km from Sheaves Cove on the Port Au Port Peninsula, has generated employment in and around the Bay St. George area for 140 individuals, with employment terms ranging from nine to twelve months per year.

4.1 Purpose

To obtain a new mining lease(s) to the north and northwest, of AML's current operations, in the White Hills and Mainland areas. Please refer to attached maps No. 1 & 2 and legal survey (Nad 27 UTM Zone 3) showing the proposed claim boundary for location.

4.2 Rationale

To provide for an increasing client demand of high calcium, AML is seeking to obtain a new mining lease in the White Hills and Mainland lease areas, to gain access to high calcium limestone reserves adjacent to its existing current mining leases #137 & #225. In addition to the availability of material in this new deposit, its nature of high calcium (CaO = 53.76% min, Mgo = 0.96% max, SiO₂ = 1.7% max, & Al₂O₃ = 0.3% max) is almost identical to the high calcium in mining leases #137 & #225. This similarity will guarantee that AML will not have to change its current processing practices and will therefore be able to continue working the deposit as an extension of its current leased areas.

4.3 Need for Undertaking

AML is requesting to have access to this new mining lease at the earliest convenience in order to start mining this new deposit (Striking N 70⁰ E and Dipping 5⁰ to 20⁰ to the North) as soon as possible. This urgency is due to the present client demands on the strict chemical requirements the deposit possess.

Present mining operations in mining leases #137 & #225 consist of the blending, scalping and removing of Aguathuna Cap Rock, of the remaining high calcium limestone deposit. These activities have become a serious quality control and cost issue for AML starting in early 2014. In addition, to these previous unforeseen impacts to operations, the high calcium limestone mining reserves in AML's lease areas will most likely be exhausted in 2015 or early 2016. Therefore, it is very vital to begin development work to this new mining lease as soon as possible in order to keep this important economic operation to the Bay St. George area, and AML's 140 employees, viable.

5. DESCRIPTION OF THE UNDERTAKING

5.1 Geographic Location



The proposed mining lease is mainly exposed limestone and dolomite bedrock with low shrubs and tamarack vegetation. Please view the recent Photostat Map No. 1 that was conducted by AML. This map outlines the entire AML operations in Lower Cove and clearly indicates the area for the proposed mining lease boundaries. It also shows the two quarries that are currently operating in the 3 Mining Leases, the processing plant and the ship loading facilities. The two communities, Sheaves Cove and Lower Cove, are located some 2.5 and 2.0 km from the quarrying and operations.

The under taking will be completed in 3 Phases:

- Phase 1 – Haul Road Construction
- Phase 2 – Clear East Area
- Phase 3 - Operations

5.2 Physical Features

5.2.1. Project Site Description

In viewing maps 1 & 2 the physical features of mining in this boundary area will be as described in the legal survey (see Appendix 1).

The limestone in this new lease will be mined in 15m deep bench sections starting in the east and working to the west. Over the estimated 45-50 year reserves, based on current production levels, the area affected will be approximately 754 ha. (Refer to Map No. 2 & Drawings 1 & 2). The site will be accessible by a road as described in section 5.2.3.

5.2.2. The Present Environment

The present environment in this area is mainly limestone and dolomite bedrock with some low lying shrubs and tuckamore with some muskeg overburden. There is very limited wildlife of moose, snowshoe hares, red foxes and coyotes. There are no fish in the streams to our knowledge. (Please refer to appendix 2 C.A. # AA92-023996: C.A. # 97-12-4802: & JWEL 98-Fish & Fish Habitat).

5.3 Construction

5.2.3. Access to Site: Phase 1 and Phase 2.

When all approvals have been given, AML will begin building a two km road using AML heavy equipment and machinery. All other things such as a settling pond, sump location, proposed pipeline and reclamation area will be constructed before mining of the limestone begins. AML would like to begin this road construction as soon as possible because the winter season is preferable for doing this type of work. AML will be following the same above procedures that have been on-going in this area for the past 22 years.



Construction will be divided into the following two phases:

Phase 1:

Construct new haul road to the entrance of the White Hills pit. (Refer to Drawing #1)

- Road area will need to be stripped of overburden and backfilled while advancing.
- Road will be approximately 2 kilometers in length and be approximately 30 meters in width.
- Road will be backfilled with rock and topped with fines (1/2"x0).
- A 2% crown will be placed on the road for water drainage, including ditching to catch any runoff.
- The new road will merge onto the existing haul road which is 2.2 kilometers from the primary crushers.
- Total distance from the new pit to the primary crushers is approximately 4.2 kilometers.

Phase 2:

Clearing east area to begin pit construction. (Refer to Drawing #2)

- The overburden reclaim area will need to be cleared to make space for dumping.
- Approximately 170,000 cubic meters of overburden needs to be removed to achieve the needed space for area in production year one.
- The ramp will be drilled to have access to the pit.
- The sump will be drilled and the pump will be put in place; this water will be pumped to a settling pond located on site.

5.4 Potential Sources of Pollution During Construction

5.2.4. Air Quality/Noise

Dust generation caused by the use of mining machinery is the only construction related source of pollution. This will be controlled by the use of a water truck and calcium chloride applications to the roads when necessary. Dust generation is unlikely during winter road construction.

Air quality and noise potential pollution events will be kept to a minimum with the proper use of mitigating measures such as:

- Machinery will be properly muffled.
- Machinery will comply with all provincial and municipal noise bylaws.



- Machinery will have appropriate emission control mechanisms.
- Machinery will only travel on approved roads within the pit boundary.

5.2.5. Waste Production

Since there are existing facilities throughout the entire mining areas, the potential impact upon the immediate environment will be kept to a minimum via adhering to the Newfoundland and Labrador Waste Management Regulations.

5.2.6. Hydrocarbon Release

Open pit activities could possibly result in the accidental spilling of hydrocarbons such as diesel fuel, engine oil, and hydraulic fluid. To reduce the likelihood and subsequent impact if a spill did occur, the following mitigation measures will be in effect.

- Emergency spill kits will be onsite at all times.
- No hazardous or petroleum products will be stored onsite.
- Servicing of machinery will be done offsite and/or at appropriate locations.
- All employees will receive spill response training prior to operations.

5.5 Operations

As stated above, it is anticipated that operations at this site will continue for decades. The operations of quarrying and processing limestone/dolomite will include phase 3 of the operations.

5.2.7. Phase 3:

Production year 1 of operations (Refer to Drawing 1, Blocks Highlighted in Green on Image #1/Image #2 Show a 3D Concept of the Open Pit)

- Mine planning will be accomplished using Carlson mining software to accurately deplete the deposit.
- The deposit will be mined in steps to avoid having to work on a slope at all times.
- The deposit will be mined in sequence to maintain knowledge of where the pit will be at the start and end of each production season as well as the total yield being removed.
- There will be a ring-road that will travel the perimeter of the deposit to be used by the heavy equipment to access all sections of the pit.
- Approximately 2 million tons of high-calcium limestone will be mined in production year one.



5.2.8. Equipment to be used within the White Hills Open Pit:

- Haul trucks (CAT 777G, Hitachi 1700, Hitachi 1100)
- Front End Loaders (CAT 992, CAT 990, CAT 988, CAT 950F)
- Excavators (Komatsu PC2000, Hitachi EX 1200, John Deere 470G, John Deere 450, CAT 345D)
- Dozer (CAT D8T)
- Grader (John Deere 870D)
- Drills (Sandvik D-40K, Sandvik D-25K)

5.2.9. The Plant Flow Information

Plant Flow: (Refer to Drawing 3 (Flow Diagram))

Primary Stockpiling

Once the rock gets drilled and blasted, the rock trucks feed quarry material into the primary jaw crushers through a vibrating grizzly feeder. Jaw crushed material, approximately 8 in., is screened on an 8 ft. x 24 ft. screen where the fine material is rejected on conveyor C43. In addition, oversize primary material is feed through a 5 1/2 ft. standard cone. Primary material is then stockpiled over 3 hoppers, on the east side of the plant, for uniform feed to the processing plant.

Crushing and Screening

Primary material is fed to two horizontal impact crushers. Crushed material is conveyed to two, three deck 8 ft. x 20 ft. screens. Typically, oversize material of plus 2 3/4" is returned to a third horizontal impact crusher. These crushers add to the quality of the material by reduction of the secondary material to product size at the lowest speed, resulting in cubical products and 100 % fractured faces with minimal fines and no coating of particles.

The plant's screening station has options for separating materials:

- a) The second deck can be sent back with the top deck or conveyed to the blending station via conveyor C8.
- b) The third deck of the screening may be sent to the blending station via conveyor C8; or sent to conveyor C6 for stockpiling.

These features are allowed using our flop gates.

Blending Station



Product sized material is conveyed into an enclosed screening/blending station, where it is separated size by size into five tanks. Controlled by a digital computerized control station; specification material is then conveyed directly to the stockpile for loading, and/or conveyed to the washing station (no longer in use, building only) or it may be sent back to the third crusher for reprocessing via conveyor C18.

Production Stockpiling

A linear stacker travels on a track, depositing finished material in a linear stockpile over 25 hoppers on the west side of the plant, whereby:

- Segregation is reduced by the transverse movement of the stacker, and by controlling the elevation and position of the conveyor depositing the material.
- Contamination is controlled by site preparation in which the designated area, determined by the Plant Manager, would be duly marked using the existing hopper numbering scheme prior to stockpiling. This area will be cleaned and free of any oversize, or otherwise contaminating materials, keeping an open hopper on each end and using a bedding of like material as its pad.

Shipment Loading

Material is drawn through several of 50 hoppers concurrently, onto a 48" conveyor in the tunnel beneath the stockpile. Assuring only the correct material from assigned draw points will be taken. Multiple hoppers are then fed and the material will be loaded out at 90° to the creation of the stockpile and the entire face will be used to recombine material segregated by stockpiling. The material is then conveyed to a ship loading "downhill" conveyor and transferred to a shuttle conveyor, which distributes the material longitudinally, within a ships hold. This will greatly reduce any segregation produced by production and ship loading.

All loading equipment is inspected and cleaned if necessary before loading commences.

Personnel are stationed at conveyors SL-1A and/or conveyors SL-1B with proper instruction to inspect and control materials, making sure that the proper material is been fed into the ships holds. All ship loading facilities and conveyors are enclosed.

Market Place

The products sold from AML are, for the most part, shipped in bulk via ocean going vessels with various classes including Handy, Handy Max, Panamax, and self-discharging belted Lakers. The products are sold in various gradations around the world including North America, South America, and Europe.



5.6 Potential Sources of Pollution during Operation

The potential sources of air quality/noise, waste production and hydrocarbon release will remain the same as stated above during the construction phase.

5.7 Potential Resource Conflicts

There are no potential causes of resource conflicts.

5.8 Occupations

Site construction and operation will involve the following occupations as classified by the National Occupational Classification 2006.

All the Occupational Work Force during construction and other operational developments outlined above will be done with the current/future Atlantic Mineral Limited (AML) employees who are presently employed on the Lower Cove Site. The occupations of those involved in both the new developments and future operations at this site are the same as those who are currently trained and currently working at the Site and have been on-going for the past 22 years. AML has always been very cognizant of gender equity and continues to strive for improvement in this area, and is following the document: Planning for Gender Equitable Employment.

5.9 Project – Related Documents

5.2.10. Bibliography of related projects. (Appendix 2)

Attached is a bibliography of all project-related documents already generated by the proponent. This will demonstrate that AML has always complied with government regulations and operated for the past 22 years in a safe, friendly and protected environment.

- C.A. # AA92-023996 – approval to the previous owners of the site to begin development of high calcium (HCal) Limestone Quarry.
- Copy of File # 208.12.008 Environmental Work.
- C.A. # 97-12-4802 – approval to divert the stream existing Duck Pond.
- Fish and Habitat Study of Goose Pond adjacent to Atlantic Minerals Ltd Quarry – (Jacques Whitford Environmental Ltd.)
- Permanent Water Use License number C.A. – 97-12-4802.

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6. APPROVAL OF THE UNDERTAKING

First and foremost AML will require approval of this registration document from Environmental Assessment. This will be followed by approval of the legal survey of the mining lease from natural resources and all the necessary requirements under the Mining Act from Mineral Development and surface rights supporting the mining operations.

7. SCHEDULE

Atlantic Minerals Limited (AML) would like approval to begin planning for development work in this area as soon as possible because of the very serious reasons given in sections 3.2.

8. FUNDING

No Government funding is sought for any construction or development work at this time.

9. SUBMISSION

January 20, 2015
Date

William D. Fitzpatrick
William D. Fitzpatrick
President

P.O. Box 160
Corner Brook, Newfoundland
A2H 6C7



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Appendix 1 - Legal Survey for Mining Lease

Schedule "A "

All that piece or parcel of land situate and being at Lower Cove, District of Port au Port, Newfoundland and Labrador, Canada abutted and bounded as follows,

That is to say; Beginning at a survey marker having grid coordinates of North 5380648.887 metres and Easting 262271.880 metres;

Thence by Crown Land south forty-eight degrees thirty-four minutes sixteen seconds east (S 48° 34' 16" W) a distance of two thousand three hundred and fifteen decimal two two nine (2315.229) metres to a survey marker;

Thence south zero degrees zero minutes zero seconds west (S 0° 00' 00" W) a distance of six hundred and twenty decimal five nine seven (620.597) metres to a survey marker;

Thence south eighty-nine degrees fifty-eight minutes sixteen seconds east (S 89° 58' 16" E) a distance of seven hundred and thirteen decimal zero nine nine (713.099) metres to a survey marker;

Thence north zero degrees zero minutes zero seconds east (N 0° 00' 00" E) a distance of one hundred and twenty decimal three six zero (120.360) metres to a survey marker;

Thence north ninety degrees zero minutes zero seconds east (N 90° 00' 00" E) a distance of two hundred and three decimal nine nine six (203.996) metres to a survey marker;

Thence north ten degrees sixteen minutes thirty-five seconds east (N 10° 16' 35" E) a distance of three hundred and five decimal six eight zero (305.680) metres to a survey marker;

Thence south eighty-nine degrees fifty-nine minutes fifty-four seconds east (S 89° 59' 54" E) a distance of four hundred and sixty-three decimal one two eight (463.128) metres to a survey marker;

Thence north fifty-one degrees twenty-five minutes nineteen seconds east (N 51° 25' 19" E) a distance of five hundred and sixty one decimal four eight six (561.486) metres to a survey marker;

Thence north sixty-five degrees nine minutes fifty-nine seconds east (N 65° 09' 59" E) a distance of three hundred and twenty-five decimal one nine four (325.194) metres to a survey marker;

Thence north seventy-nine degrees one minute three seconds east (N 79° 01' 03" E) a distance of three hundred and twenty-eight decimal zero zero three (328.003) metres to a survey marker;

Thence north eighty-nine degrees eleven minutes nine seconds east (N 89° 11' 09" E) a distance of one thousand seven hundred and ninety decimal seven three three (1790.733) metres to a survey marker;

Thence north fifty-six degrees twenty-one minutes eleven seconds east (N 56° 21' 11" E) a distance of one thousand four hundred and seventy-six decimal four three two (1476.432) metres to a survey marker;

Thence north forty-four degrees fifty minutes thirty-one seconds east (N 44° 50' 31" E) a distance of four hundred and sixty-five decimal eight eight six (465.886) metres to a survey marker;

Thence north twenty-three degrees forty-one minutes nineteen seconds east (N 23° 41' 19" E) a distance of four hundred and twelve decimal four six two (412.462) metres to a survey marker;

Thence north fifteen degrees twenty-six minutes forty-four seconds west (N 15° 26' 44" W) a distance of four hundred and ten decimal nine zero one (410.901) metres to a survey marker;

Thence north eighty-one degrees forty-one minutes and two seconds west (N 81° 41' 02" W) a distance of five hundred and thirty-seven decimal three six eight (537.368) metres to a survey marker;

Thence south seventy-eight degrees sixteen minutes twenty-nine seconds west (S 78° 16' 29" W) a distance of nine hundred and sixteen decimal seven eight five (916.785) metres to a survey marker;

Thence south eighty-one degrees two minutes twenty-nine seconds west (S 81° 02' 29" W) a distance of eight hundred and fifty-three decimal five seven three (853.573) metres to a survey marker;

Thence south seventy-three degrees eighteen minutes forty-one seconds west (S 73° 18' 41" W) a distance of three hundred and seventy-nine decimal five zero one (379.501) metres to a survey marker;

Thence south thirty-seven degrees twelve minutes thirty-three seconds west (S 37° 12' 33" W) a distance of one thousand three hundred and three decimal eight four four (1303.844) metres to a survey marker;

Thence north forty-nine degrees forty minutes one seconds west (N 49° 40' 01" W) a distance nine hundred and sixty-three decimal nine seven seven (963.977) metres to the point of beginning;

The above described parcel of land contains an area of seven hundred and fifty-four decimal zero (754.0) hectares and is more particularly delineated on the diagram annexed hereto,

All bearings refer to the meridian of fifty-eight degrees thirty minutes west longitude of the Modified Three Degree Transverse Mercator Projection (NAD83) (Zone 3).

August 14, 2014



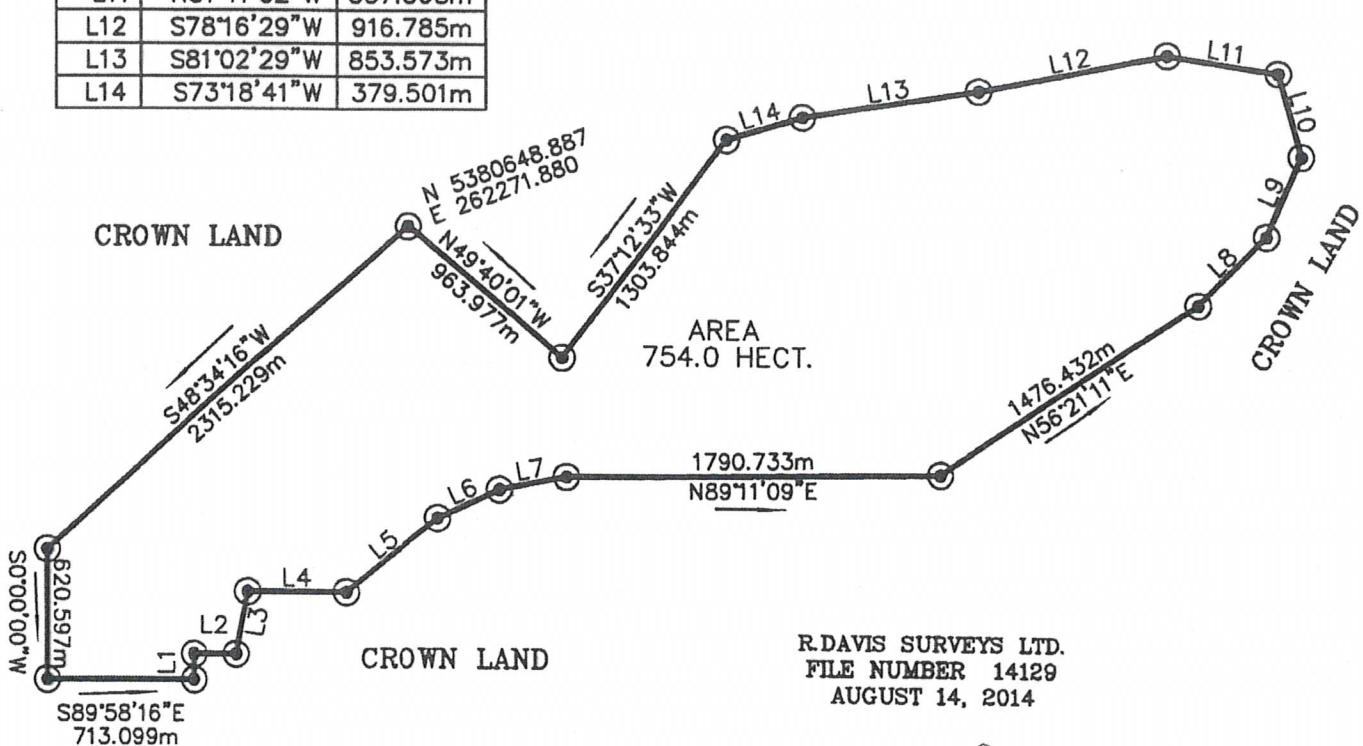
SCHEDULE "B"



GRID NORTH
NAD83

C.M. 58° 30' W. LONG.
ZONE 3

NUM	BEARING	DISTANCE
L1	N0°00'00"E	120.360m
L2	N90°00'00"E	203.996m
L3	N10°16'35"E	305.680m
L4	S89°59'54"E	463.128m
L5	N51°25'19"E	561.486m
L6	N65°09'59"E	325.194m
L7	N79°01'03"E	328.003m
L8	N44°50'31"E	465.886m
L9	N23°41'19"E	412.462m
L10	N15°26'44"W	410.901m
L11	N81°41'02"W	537.368m
L12	S78°16'29"W	916.785m
L13	S81°02'29"W	853.573m
L14	S73°18'41"W	379.501m



R.DAVIS SURVEYS LTD.
FILE NUMBER 14129
AUGUST 14, 2014



REFERENCE MONUMENT:

	NORTHING	EASTING
85G4247	5375533.254	267644.082
85G4248	5375135.264	270605.475
SCALE FACTOR	= 0.999911	

LEGEND

- ▲ CONTROL MONUMENT
- CAPPED IRON BAR
- IRON BAR (EXISTING)

NOTE: ALL MEASUREMENTS GRID DISTANCES

Scale: 1 : 3500

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A2H 6C7



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Appendix 2



GOVERNMENT OF
NEWFOUNDLAND AND LABRADOR

DEPARTMENT OF ENVIRONMENT AND LABOUR
Environmental Assessment Division

From:

Carol Normore for Paul Carter

Tel:

(709) 729-4211

Fax:

(709) 729-5518

To:

Mr. David Stonehouse
Atlantic Minerals Limited

Fax:

1-709-634-1585:

Re:

Continuing development/expansion of the
Lower Cove limestone/dolomite quarrying
operation

Date:

19 March, 1999

Pages (Including Cover sheet): 1

Additional information is required for this project:

- (1) Planned quarry expansion sizes, estimated volumes of material to be removed.
- (2) More details on settling ponds, pipelines.
- (3) Overview of restoration plans.

Also, scaled drawing does not show any roads, rivers or any topographic features
Dimensions should also be included in drawings.



GOVERNMENT OF
NEWFOUNDLAND AND LABRADOR

Department of Environment and Labour
P.O. Box 8700 St. John's, Newfoundland A1B4J6
Environmental Assessment Division
APPLICATION ACKNOWLEDGEMENT

Telephone: (709) 729-2562
Fax (709) 729-5518

File Ref No. 200.20.0964

February 25, 1999

Atlantic Minerals Limited
Mr. David Stonehouse
P.O. Box 160
Corner Brook, NF *Done!*
A2H 6C7

It has come to the attention of this Department that you have proposed the following project:

Project: Dolomite Quarry Expansion
Location: Lower Cove, Port au Port Peninsula

Please be advised that The Environmental Assessment Regulations, 1984, Section 4.(1) and Schedule A Item (081) define your project as an undertaking requiring environmental review pursuant to The Environmental Assessment Act.

You are therefore required to register your undertaking with this Department. The attached booklet entitled: Environmental Assessment: A Guide to the Process provides information to assist you in understanding your obligations in this regard, and includes the registration format.

Also enclosed for your guidance is a draft permit listing to be consulted when completing your registration document under the section entitled: Approval of the Undertaking. Copies of the Act and the Regulations are available on request.

In the meantime, it is important that you are aware of the requirements of the Environmental Assessment Act. Under provisions of the Act, undertakings may not proceed until they are released by the Minister. It is also not possible for other government agencies to issue any authorization which may be required for this undertaking until it is released by the Minister. A decision by the Minister on release, or alternately the need for further assessment, must be provided to you within 45 days following receipt of your registration.

If you have any questions, please direct them to Mr. Paul Carter of the Environmental Assessment Section at the address shown above or by telephone at 1-800-563-6181 (or (709) 729-0188). Our staff is always ready to assist you.

Thank you for your co-operation.

Yours truly,

A handwritten signature in black ink, appearing to read "Phil Graham".

Phil Graham

Director



GOVERNMENT OF
NEWFOUNDLAND AND LABRADOR

DEPARTMENT OF ENVIRONMENT AND LABOUR
Environmental Assessment Division

From: Carol Normore for Paul Carter
Tel: (709) 729-4211
Fax: (709) 729-5518

To: Mr. David Stonehouse
Atlantic Minerals Limited

Fax: 1-709-634-1585

Re: Dolomite Quarry Expansion
Lower Cove, Port-au-Port Peninsula

Date: 26 February 1999
Pages (Including Cover sheet): 3

Please find enclosed copy of letter informing you that you must register the above noted undertaking with this Department.

Hard copy of letter will be forwarded by mail, together with booklet mentioned in letter.



GOVERNMENT OF
NEWFOUNDLAND AND LABRADOR

Department of Environment and Labour
P.O. Box 8700 St. John's, Newfoundland A1B 4J6
Environmental Assessment Division
APPLICATION ACKNOWLEDGEMENT

Telephone: (709) 729-2562
Fax (709) 729-5518

File Ref No. 200,20,0964

February 25, 1999

Atlantic Minerals Limited
Mr. David Stonehouse
P.O. Box 160
Corner Brook, NF *Done* :
A2H 6C7

It has come to the attention of this Department that you have proposed the following project:

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Location: Lower Cove, Port au Port Peninsula

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FEB-26-99 FRI 11:20 AM DEPT ENV AND LABOUR

FAX NO. 7097295518

P. 03

If you have any questions, please direct them to Mr. Paul Carter of the Environmental Assessment Section at the address shown above or by telephone at 1-800-563-6181 (or (709) 729-0188). Our staff is always ready to assist you.

Thank you for your co-operation.

Yours truly,



Phil Graham
Director



GOVERNMENT OF
NEWFOUNDLAND AND LABRADOR

DEPARTMENT OF ENVIRONMENT AND LABOUR
Environmental Assessment Division

From: Carol Normore for Paul Carter
Tel: (709) 729-4211
Fax: (709) 729-5518

To: Mr. David Stonehouse
Atlantic Minerals Limited

Fax: **1-709-634-1585:**
Re: Continuing development/expansion of the
Lower Cove limestone/dolomite quarrying
operation

Date: 19 March, 1999
Pages (Including Cover sheet): 1

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- (2) More details on settling ponds, pipelines.
- (3) Overview of restoration plans.

Also, scaled drawing does not show any roads, rivers or any topographic features
Dimensions should also be included in drawings.

Dept. of Environment and Labour,
Environmental Assessment Division,
P.O. Box 8700,
St John's, NF, A1B 4J6

March 22, 1999.

Attn: Paul Carter

Re: Registration of continuing development of Lower Cove quarries.

This letter and accompanying drawing will supply the additional information requested by your fax of March 19th.

1. Quarry sizes: The ultimate footprint of the limestone quarry is estimated from primary exploration diamond drill holes done on a 300m grid. Extrapolating ahead 25 years cannot be done with precision based on such widely spaced holes – some recent surface geology indicates that the area may indeed be smaller. However, the best estimate now is a footprint of 36 hectares. A single bench of 15m will cover 22.5 hectares and two benches totaling 30m will be removed from the other 13.5 hectares, for a total of 7,375,000m³ of stone.

Dolomite quarry #1 can be estimated more precisely since we have secondary diamond drilling (closer holes) and production drill development holes. In 4 or 5 years this quarry will reach its limits with a footprint of about 14 hectares. Approximately 6 hectares will have a single bench with an average depth of 13.5 m and the remaining 8 hectares will be mined in two benches with a total depth averaging 27m. It is thus calculated that 2,970,000m³ will be eventually excavated from this site.

Dolomite quarry #2 will start production when dolomite quarry #1 is exhausted. Some secondary diamond drilling completed last year indicate that this quarry will eventually cover about 28 hectares. This estimate will change to some degree with further test drilling. With the present data we can predict that one 15m bench will cover half the footprint while the other half will see two benches and thus a total depth of 30m. This would amount to the removal of 6,300,000m³ over about a ten year period.

2. Tailings pond and pipeline: Engineering has not been completed for the proposed tailings pond. Plan view and cross-section drawings of the initial concept are attached to this submission for your information. Till samples have been taken for permeability testing which is necessary before berm cross sections can be finally decided. A contour survey of the proposed site must be carried out before the exact footprint of the pond can be set – taking advantage of natural hollows will likely allow a smaller footprint holding the same volume. The conceptual drawing calls for an area of 10 hectares. When engineering is complete the final drawings will, of course, be submitted to the Department of Environment and Labour before construction begins. The proposed pipelines to and from the ponds and wash plant will be of 10" diameter continuous (fused joints) plastic pipe. The pipeline will be on surface, except where it must pass under the quarry road, as is the present pipeline of the same material, which brings water from Goose Pond to the wash plant.

3. Restoration: The silt storage area near the present settling ponds will not be required when the proposed tailings pond is in service. When it has dried out sufficiently, it will be graded for use as a stockpile area. A portion of this material, nearest the highway, will be revegetated for aesthetic purposes. Four or five years hence, when the proposed tailings pond is no longer required it will be revegetated with appropriate material – grass or evergreen seedlings.

A larger map of the development area, with more detail, has been attached to this submission. There are only two streams of significance in this area (certainly no rivers). The intermittent stream which flowed north from Duck Pond (which would have flowed underground into the developing limestone quarry) has been diverted to flow south into Goose Pond. (CA 97-12-4802) The stream exiting Goose Pond flows north, disappears underground just west of dolomite quarry #1, resurfaces to the west of the proposed limit of the limestone quarry and flows on north to become part of Harry Brook (this is now shown on the attached larger map).

Yours truly,
Atlantic Minerals Ltd.

J. David Stonehouse,
V.P. Development



File No: 526

GOVERNMENT OF
NEWFOUNDLAND AND LABRADOR

Department of Environment and Labour
APPENDIX B - Completion Report

Pursuant to the *Environment Act*, SN 1995 c E-13.1, Section(s) 11

Date: December 16, 1997 Approval No: C.A. 97-12-4802
Proponent: Atlantic Minerals Limited
P.O. Box 160
Corner Brook, Newfoundland
A2H 6C7
Attention: Mr. David Stonehouse
Re: Diversion of Duck Pond, Lower Cove

Approval was given for: construction of a 250 metre long channel to divert the flow of water from Duck Pond to Goose Pond for expansion of the Lower Cove, Port au Port Peninsula limestone quarry, with reference to the application dated December 10, 1997 and information provided December 17 and 18, 1997.

I (the proponent named above) do hereby certify that the project described above was completed in accordance with the plans and specifications submitted to the Department of Environment and Labour and that the work was carried out in strict compliance with the terms and conditions of the Certificate of Approval issued for this project.

Date: Dec 20 / 99

Signature: 

This completion report must be completed and forwarded to the following address upon completion of the approved work.

Department of Environment and Labour
Water Resources Division
P.O. Box 8700
St. John's, Newfoundland, A1B 4J6



GOVERNMENT OF
NEWFOUNDLAND AND LABRADOR

Department of Environment and Labour
P.O. Box 8700 St. John's, Newfoundland A1B 4J6
Environmental Assessment Division

Telephone: (709) 729-2562
Fax: (709) 729-5518

File Ref No. 208.12.0008

April 05, 1999

Mr. David Stonehouse
P.O. Box 160
Corner Brook, NF
A2H 6C7

Dear Mr. Stonehouse :

On behalf of the Minister, I hereby acknowledge receipt on 1999/04/01 of your Registration pursuant to Section 6 of The Environmental Assessment Act, of the following proposed undertaking:

Lower Cove Limestone/Dolomite Quarry Expansion

It has been assigned the file number **208.12.0008**

The Information contained in your Registration Form is now under review to determine whether an environmental impact statement is required. You may expect to receive notification of the decision of the Minister of Environment and Labour concerning this matter, on or before:

May 16, 1999

If you have any questions concerning this review or any other aspect of the Environmental Assessment Process, please contact **Mr. Paul Carter**.

Thank you for your co-operation.

Yours truly

A handwritten signature in black ink, appearing to read "Phil Graham".
Phil Graham
Director

ENVIRONMENTAL REGISTRATION

March 10,1999

Undertaking: Continuing development/expansion of the Lower Cove limestone/dolomite quarrying operation.

Proponent: Atlantic Minerals Ltd.
P.O. Box 160
Lear's Road
Corner Brook, NF
A2H 6C7

Chief Executive Officer: William D. Fitzpatrick
President
709-637-2810

Contact Person re: Environmental Assessment: J. David Stonehouse
V. P. Development
709-637-2847

Nature of the Undertaking: To further develop the existing quarrying operations at Lower Cove.

Purpose/Rational /Need for the Undertaking:

Atlantic Minerals Ltd. has, during the last three years, operated a business by mining, processing and exporting chemical grade limestone, chemical grade dolomite and construction aggregates. This undertaking has created, on the Port au Port Peninsula, 90 jobs which run from nine to twelve months per year. In order to sustain this business, continue these jobs and address environmental concerns the developments described below must proceed.

Description of the Undertaking:

It is expected that this business will continue to operate for decades and it is with this in mind that present planning is being done. The developments to be described are those that can be foreseen at this time. Please reference Map #2 while reading this section.

As quarrying proceeds year by year the quarry footprint will increase. The high calcium limestone quarry (mining lease #137) will reach its limit in 25-30 years depending on production and sales. The present dolomite quarry (mining lease #151) will reach its ultimate size and be mined out in 4 to 5 years. Safe mining of this deposit, to the extraction of all economic reserves, necessitates the draining of Duck Pond (actually a 0.6 meter deep bog hole). An application for a C.A. from the Dept. of Environment and Labour, Water Resources Division, to proceed with this draining, was filed on Sept. 25, 1998.

The depletion of this dolomite deposit will require the opening of dolomite quarry #2, which will have a life of about 10 years. A road will be constructed to this site. Atlantic Minerals maintains mineral claims to the west of this site where more dolomite has been located but plans for development here have not yet begun.

Atlantic Minerals proposes to build a tailings pond for limestone fines and silt. This pond will have a life of 4 to 5 years and be in use until dolomite quarry #1 is mined out. At that time quarry #1 will become a tailings pond - it will have a life of many decades. The utilization of these areas as tailings ponds require the building of a pipeline from the washing plant to first the new tailings pond then 4 to 5 years later to dolomite quarry #1. A return pipeline to recirculate the clear water back to the wash plant is also required. These tailings ponds are necessary to replace the existing settling ponds near the wash plant. The present settling ponds are prone to leaking after cleaning and the storage area for silt and fines adjacent to them is becoming filled. Geotechnical engineering for the tailings pond is being done presently by Newfoundland Geosciences Ltd. and will be submitted to the Dept. of Environment and Labour when complete.

(i) General Location : The area of Atlantic Minerals operations is between and to the north of the communities of Lower Cove and Sheaves Cove on the Port au Port Peninsula. See attached 1: 50,000 map #1 and detailed map#2.

(ii) Physical Features: the expanded quarry floor footprints, the proposed road to dolomite quarry #2, the proposed tailings pond and surrounding berms, the slurry and clear water pipelines. See Map #2.

(iii) Construction: Construction of berms for the tailings pond should begin in about two months pending the completion of engineering and environmental approval. Pipeline work will follow. The road to dolomite quarry #2 will be started next winter or the following winter. This work will be done by Atlantic Minerals own forces and equipment during non-production times. It is anticipated that it will take 2 winters to build the road and another to develop the site for mining. The actual start date will be decided when sales predictions determine the necessary start-up of quarry #2.

Dust generation caused by the use of heavy earth moving machinery is the only construction related source of pollution. This will be controlled by the use of a water truck and calcium chloride applications to the roads when necessary. Dust generation is unlikely during winter road construction.

There are no potential causes of resource conflicts.

(iv) Operations: As stated above, it is anticipated that operations at this site will continue for decades. The operation of quarrying and processing of limestone/dolomite will not change as a result of this undertaking - except for the replacement of the problematic settling ponds with the 4 to 5 year tailings pond and quarry #1's conversion to a tailings pond later. This will be an environmental improvement.

(v) Occupations: It is expected that all construction and other development outlined here will be done with Atlantic Minerals own forces. The occupations of those involved in both the new developments and future operations at this site are the same as those at the site today.

(vi) Project Related Documents: Attached are:-

1. C.A.# AA92-023996 – approval to the previous owners of the site to begin development of the high calcium limestone quarry.
2. C.A # 97-12-4802 – approval to divert the stream exiting Duck Pond.
3. Fish and Habitat Study of Goose Pond Adjacent to Atlantic Minerals Quarry – (Jacques Whitford Environmental Ltd.)

Approvals Required:

1. C.A. to drain Duck Pond – application filed Sept, 25,1998. (Water Resources Div.)
2. C.A. to construct tailings pond – application will be made when engineering complete,

Schedule :

Atlantic Minerals Ltd. would like to have approval for this undertaking by early May of 1999. The sooner the approval is given to begin construction of the tailings pond, the sooner the use of the existing settling ponds can be abandoned. Approval to drain Duck Pond is required by June of 1999 so that the face of dolomite quarry #1 can proceed to the east (reserves moving west and south will soon be depleted and there are no reserves to the north).

Funding:

No government funding is being sought for these developments at this time.

March 8, 1999
Date

William J. Styrud
Signature of Chief Executive Officer



GOVERNMENT OF NEWFOUNDLAND AND LABRADOR
DEPARTMENT OF ENVIRONMENT AND LANDS

CERTIFICATE OF APPROVAL

File No. 731.045

Pursuant to *The Department of Environment & Lands Act*, Section(s) 24

Date March 3, 1992 Approval No. AA92-023996

Proponent: Newfoundland Resources & Mining Company Ltd.
P.O. Box 40
Port au Port East, NF
A0N 1T0

Attention: Mr. T. J. Furey
Manager

Re: Limestone Quarry Operations, North Development

Approval is hereby given for: the quarrying, screening and shipping of high purity limestone aggregate.

This approval does not release the proponent from the obligation to obtain appropriate approvals from other concerned provincial, federal and municipal agencies.

This approval is subject to the terms and conditions indicated in the attached Appendix(es).

It should be noted that prior approval of any significant change in the design or installation of the proposed works must be obtained from the Department of Environment & Lands.

Failure to comply with the terms and conditions will render this approval null and void, place the proponent and their agent(s) in violation of *The Department of Environment and Lands Act* and make the proponent responsible for taking any remedial measures as may be prescribed by this Department.



MINISTER



GOVERNMENT OF
NEWFOUNDLAND AND LABRADOR

Department of Environment and Labour
CERTIFICATE OF APPROVAL

Pursuant to the *Environment Act*, SN 1995 c E-13.1, Section(s) 11

Date: December 16, 1997 Approval No: C.A. 97-12-4802
Proponent: Atlantic Minerals Limited
P.O. Box 160
Corner Brook, Newfoundland
A2H 6C7
Attention: Mr. David Stonehouse
Re: Diversion of Duck Pond, Lower Cove

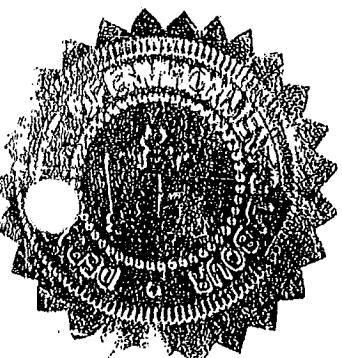
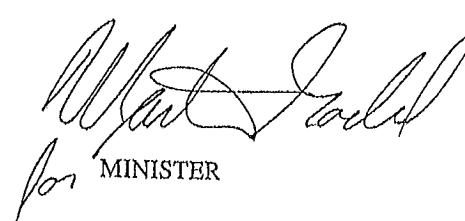
Approval is hereby given for: construction of a 250 metre long channel to divert the flow of water from Duck Pond to Goose Pond for expansion of the Lower Cove, Port au Port Peninsula limestone quarry, with reference to the application dated December 10, 1997 and information provided December 17 and 18, 1997.

This approval does not release the proponent from the obligation to obtain appropriate approvals from other concerned provincial, federal and municipal agencies.

This approval is subject to the terms and conditions indicated in Appendix A (attached). A completion report, Appendix B (attached), must be submitted upon completion of the work. Unless noted otherwise, this approval is valid only for two (2) years after the date of issue.

It should be noted that prior approval of any significant changes in the design or installation of the proposed works must be obtained from the Department of Environment and Labour. New approval must be obtained in the event of changes in ownership or management of the project.

Failure to comply with the terms and conditions will render this approval null and void, place the proponent and their agent(s) in violation of the *Environment Act* and make the proponent responsible for taking any remedial measures as may be prescribed by this Department.



for MINISTER



**Jacques Whitford
Environment Limited**

Consulting Engineers
Environmental Scientists

607 Torbay Road
St. John's, Newfoundland
Canada A1A 4Y6

Tel: 709 576 1458
Fax: 709 576 2126

Environmental Impact Assessment
Environmental Engineering
Environmental Protection Planning
Hydrogeology
Air Quality
Public Consultation
Archaeology & Heritage Planning

Geotechnical Engineering
Materials Engineering & Research
Mining Engineering

Dartmouth, NS
Sydney, NS
Port Hawkesbury, NS
Saint John, NB
Fredericton, NB
Moncton, NB
Bathurst, NB
Charlottetown, PE
St. John's, NF
Corner Brook, NF
Goose Bay, LAB
Hull, PQ
Ottawa, ON
Toronto, ON
Calgary, AB
Lethbridge, AB
Vancouver, BC
Freeport, ME
Mexico, DF
Moscow, Russia
Buenos Aires, Argentina

Mr. David Stonehouse
Atlantic Minerals Limited
P.O. Box 160
Corner Brook, NF
A2H 6C7

November 17, 1998

Project 1198

David

Dear Mr. Stonehouse

Re: Fish and Habitat Survey of Goose Pond Adjacent to Atlantic Minerals Quarry

This letter is a report on the observations and conclusions of a fish habitat survey and sampling for fish at Goose Pond adjacent to Atlantic Minerals Quarry on the Port au Port Peninsula. The purpose is to describe the methods used and the results of a fish habitat and fish presence survey.

Background

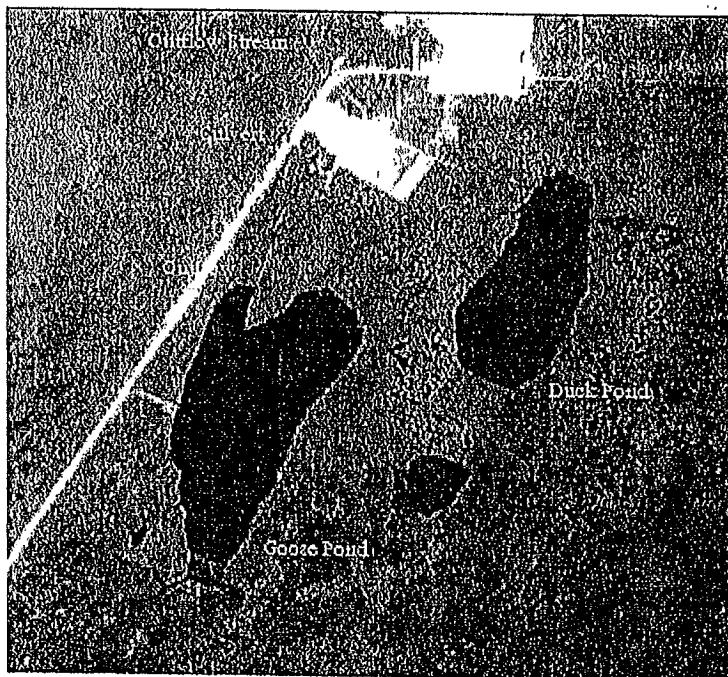
Goose Pond and Duck Pond are two ponds located adjacent to the dolomite quarry. To facilitate planned development of the quarry operation, Atlantic Minerals will seek to conduct modifications to the drainage of the local watershed, including these two ponds. There are no significant streams flowing to either pond, as they are headwaters to Harry Brook and as such they receive all of their water from local drainage from mainly wetland areas. The streams of both ponds travel a short distance before they flow entirely underground and emerge some distance away to eventually flow into Harry Brook, which is fish habitat (R. Burton, DFO, *pers. comm.*). All proposed modifications to the watershed will occur upstream of the subterranean flow.

DFO require a determination of fish habitat prior to authorizing any activities that might constitute a harmful alteration, disruption or destruction (HADD) of fish habitat. Soundings conducted on Duck Pond and Goose Pond determined that the maximum depths of the ponds are 0.76 m and 1.5 m respectively (D. Stonehouse, AML, *pers. comm.*). DFO have determined that Duck Pond does not contain fish and does not comprise productive fish habitat (R. Burton, DFO, *pers. comm.*). Jacques Whitford Environment was contracted to investigate the presence of fish in Goose Pond.



Field Survey

Narcissus Walsh and Robert Coish (JWEL) conducted a field survey on November 2, 1998 to describe potential fish habitat and fish presence in Goose Pond and connecting streams.



Goose Pond is oriented in a generally north-south direction along its major axis and is approximately 750 m in length and 250 m wide. The pond is shallow and soundings confirmed the maximum depth to be 1.5m. Occasional boulders and cobbles were observed along the shoreline; a single area of sand was observed at the inflow. Substrate was typically mud and fines with no observed gravel.

Inflow to Goose Pond is at the south-west section of the pond and is comprised primarily of surface drainage from the marsh/bog area.

The outflow originates in a marsh area to the north-east with the channel being poorly defined through the grassy marsh. Approximately 200 m from the quarry access road the drainage has been channalized (1.5 to 2 m wide) to permit efficient flow to a pair of culverts (circa 1 and 1.5 m diameter) installed under the access road to the quarry. Flow along the western side of the roadway is in a north-westerly direction to a point approximately 400 m from the roadway where the stream flows entirely underground. The stream re-surfices after approximately 500 m and flows into Harry Brook.



Fish Habitat

The potential fish habitat of Goose Pond and connecting streams was characterized during surveys on foot and by inflatable boat. Photographs and videotape augmented field notes.

As described above Goose Pond is a shallow pond with generally soft substrate. No areas of potential lake spawning were observed.

Inflowing streams are limited to short and sometimes indistinct channels draining the wetland areas. Flows were slow at the time of the field survey. No suitable spawning gravel was seen in these areas.

The substrate in the outflow channel from the pond to the road is mud and fines with occasional exposed bedrock. No spawning substrates were seen in this section. Banks of the channel were straight cut and provided no overhang; no instream cover was present. Drainage through the marsh area was poorly defined with little observed flow; gradient in this area was less than 0.5%. Vegetation in the marsh area consists primarily of marsh grasses.

Substrate in the stream section located downstream of the road is primarily boulder and cobble overlying bedrock. Extended sections of exposed bedrock are present in this section. No gravel was observed, hence no areas of spawning substrate were observed.

Water depth ranged from 10 to 50 cm and flow was primarily riffle and rapids over a gradient of about 2.5% along the stream length. Occasional small shallow pools are located along the stream. Spawning substrate was lacking from the pools.

The stream section that runs underground is an obstruction to potential fish migration.



Fish Sampling

Fish sampling was conducted under an Experimental Licence issued by DFO. Sampling methods included gillnets in the pond and electrofishing along the pond margin and in the streams. All fish taken by electrofishing were released unharmed.

Gillnetting

Experimental gang of gillnets (6 panels: mesh sizes ranging from 25 to 89 mm) were set at two locations (north and south ends) within Goose Pond and tended at regular intervals throughout the daytime fishing period. Gillnets were set at 1300 hours with checks at 1415; 1515 and 1645 hours. No fish were observed or captured with the exception of two sticklebacks captured in the 25-mm mesh of the northern set. The fishing effort consisted of 3.75 hours fishing per gang (7.5 h total effort). The experimental licence stipulated that no overnight sets were to be made.

Electrofishing

Qualitative electrofishing was conducted in all stream sections and several shallow areas at the perimeter of Goose Pond. A total of 1000 seconds of fishing effort was conducted from upstream of the road to the point where the flow becomes subterranean. Areas that were not fished included the marshy areas near the pond and areas where the channel was indistinct. This effort produced a catch of 12 sticklebacks. No other fish were observed.

The inflow at the southern end of Goose Pond was electrofished (200 seconds of fishing effort) and 10 sticklebacks were captured.

Shallow areas at the perimeter of Goose Pond were fished (400 seconds fishing effort) from an inflatable boat. A total of 5 sticklebacks were observed in these areas.

No salmonids were observed in any of the areas that were electrofished.



Summary

Potential fish habitat was examined for pond areas and all streams connected to Goose Pond. The habitat is poor quality as potential spawning areas are very limited or lacking. Instream cover is also limited, providing poor quality rearing habitat. The potential habitat in Goose Pond could be limited by winterkill from freezing or potentially elevated temperatures during the summer. Water levels may also be significantly reduced during low flow periods. These conditions often occur in shallow ponds with low water flow. No salmonids were observed or captured in the course of this fish survey. The underground flow of the stream bars potential migration into Goose Pond.

Conclusions

Goose Pond and the connecting streams are not productive fish habitat. This conclusion should allow DFO to provide a timely response to your application for alterations to the watershed or related instream works.

I trust that this will enable you to proceed with your planning exercise. Please call if you have any questions on this, or any related material.

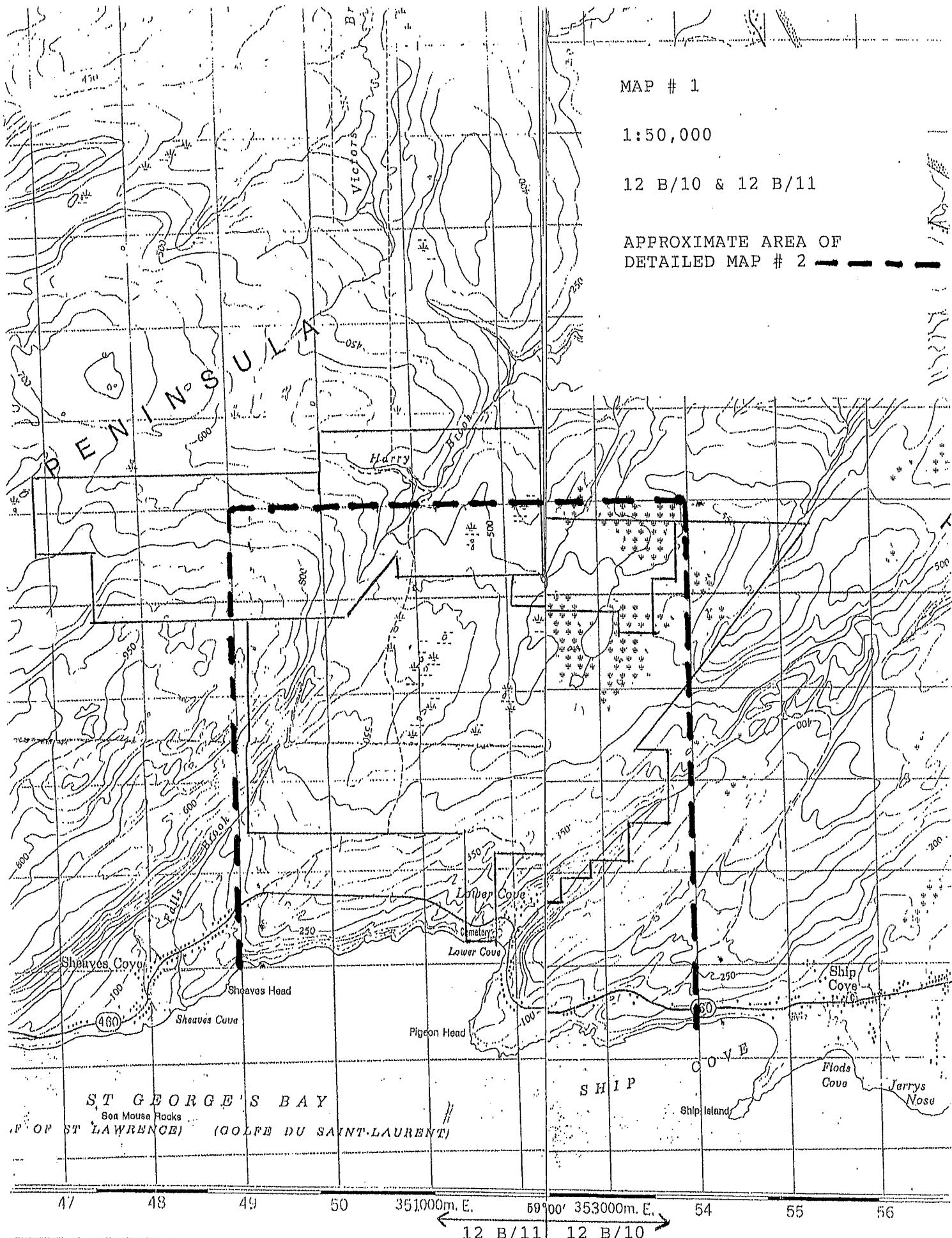
Yours truly,

JACQUES WHITFORD ENVIRONMENT LIMITED

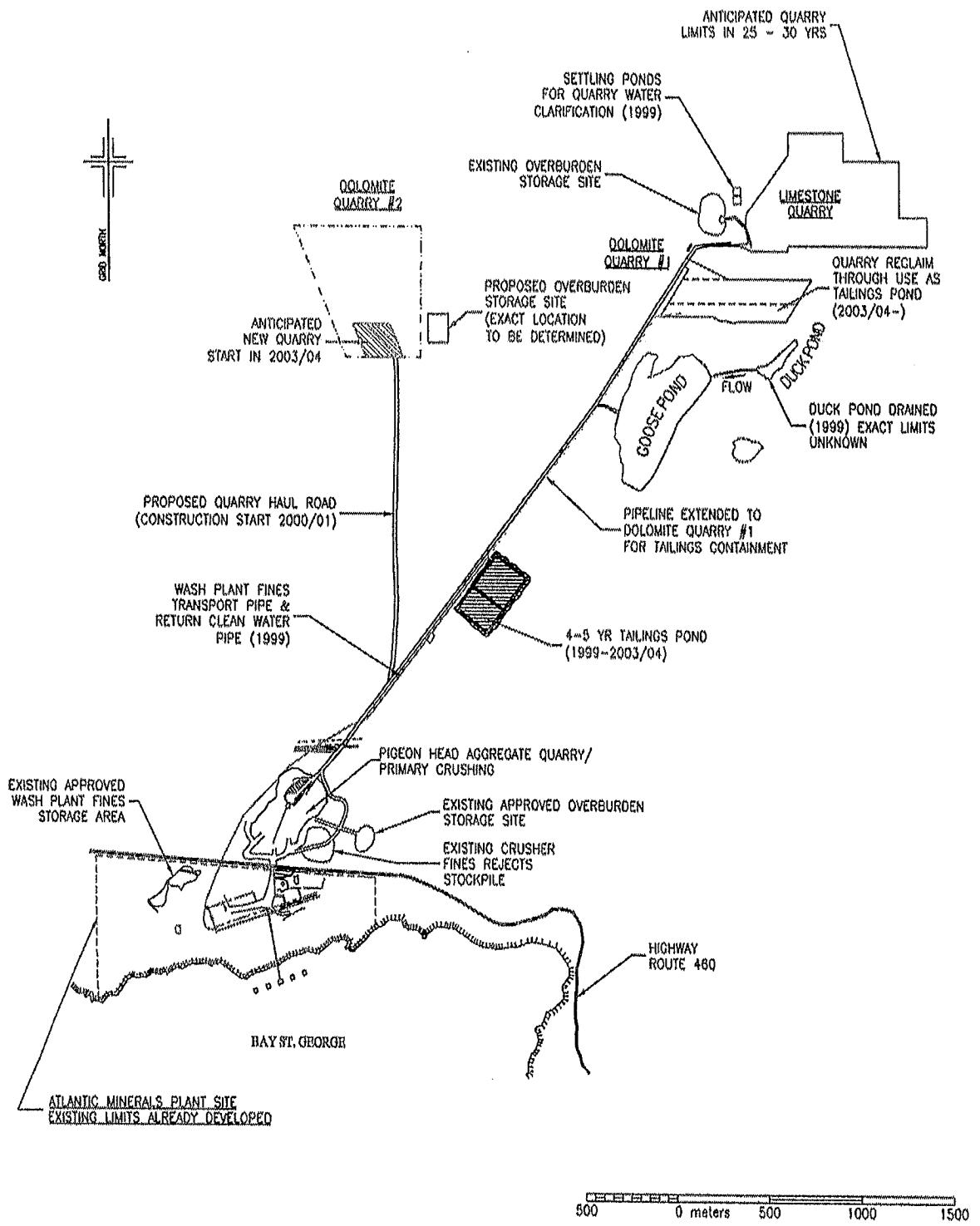


Bruce Bennett





MAP NO. 2



Lower Cove Quarry
Box 10, Site 1, R.R. #3
Port au Port, Newfoundland
Canada A0N 1T0

Telephone: (709) 844-2447 or 2448
Fax: (709) 844-8440
Internet: www.atlanticminerals.com

Title:

ATLANTIC MINERALS LTD.
FORECASTED 30 YEAR OUTLOOK
GENERAL SITE PLAN

Date: 9-MARCH-99

Drawn by: M. SPENCER

Scale: AS INDICATED

Drawing No.: SK-1

Rev.: 0

Lower Cove Quarry
Box 10, Site 1, R.R. #3
Port au Port, Newfoundland
Canada A0N 1T0



Telephone: (709) 644-2447 or 2448
Fax: (709) 644-2449
Internet: www.atlanticminerals.com

To: Paul Carter, Dept. of Environment & Labour
Phone: (709) 729-0188 **Fax:** (709) 729-5518
Fr: Mike Spencer
Pages: 3, including this cover sheet.
Date: 15-Feb-99

Re: *Atlantic Minerals Ltd. - 5 Year Production Forecast*

Dear Mr. Carter:

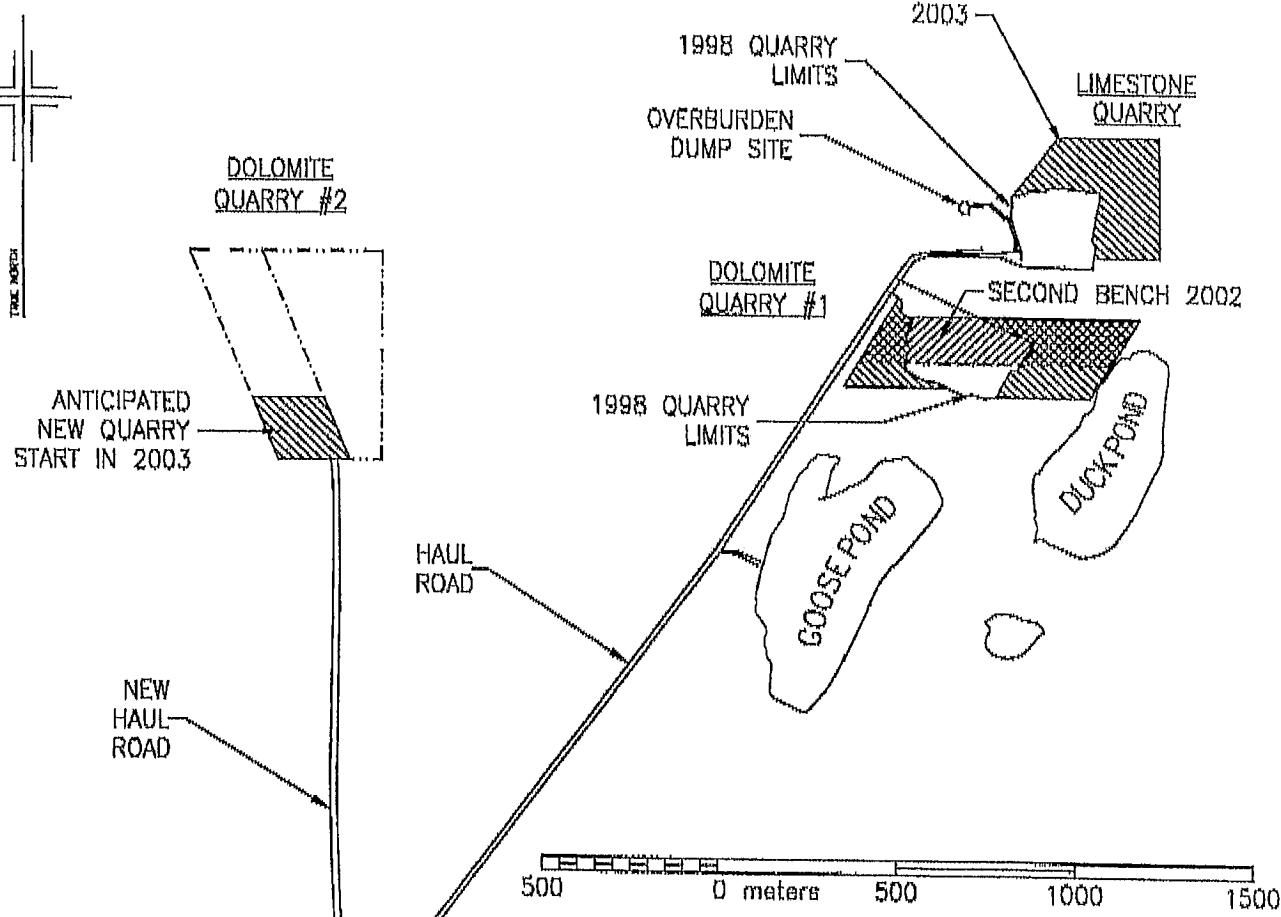
As per your recent request of David Stonehouse (5-Feb-99), please find attached sketches indicating the future direction of the AML dolomite and limestone quarry operations. I trust that this is to your satisfaction, if not, please do not hesitate to phone.

Regards,

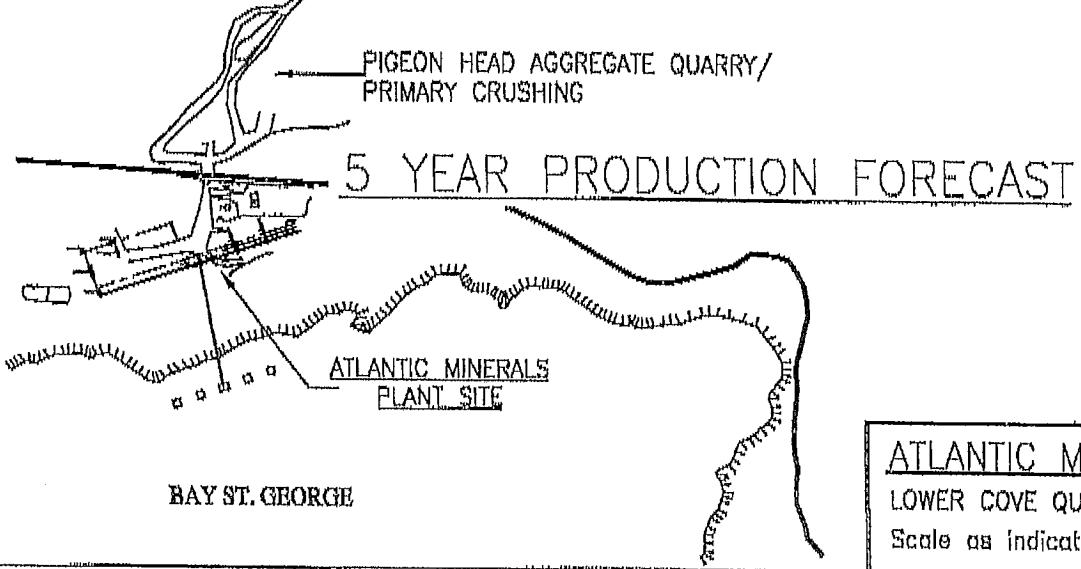
A handwritten signature in black ink that reads "Mike Spencer".

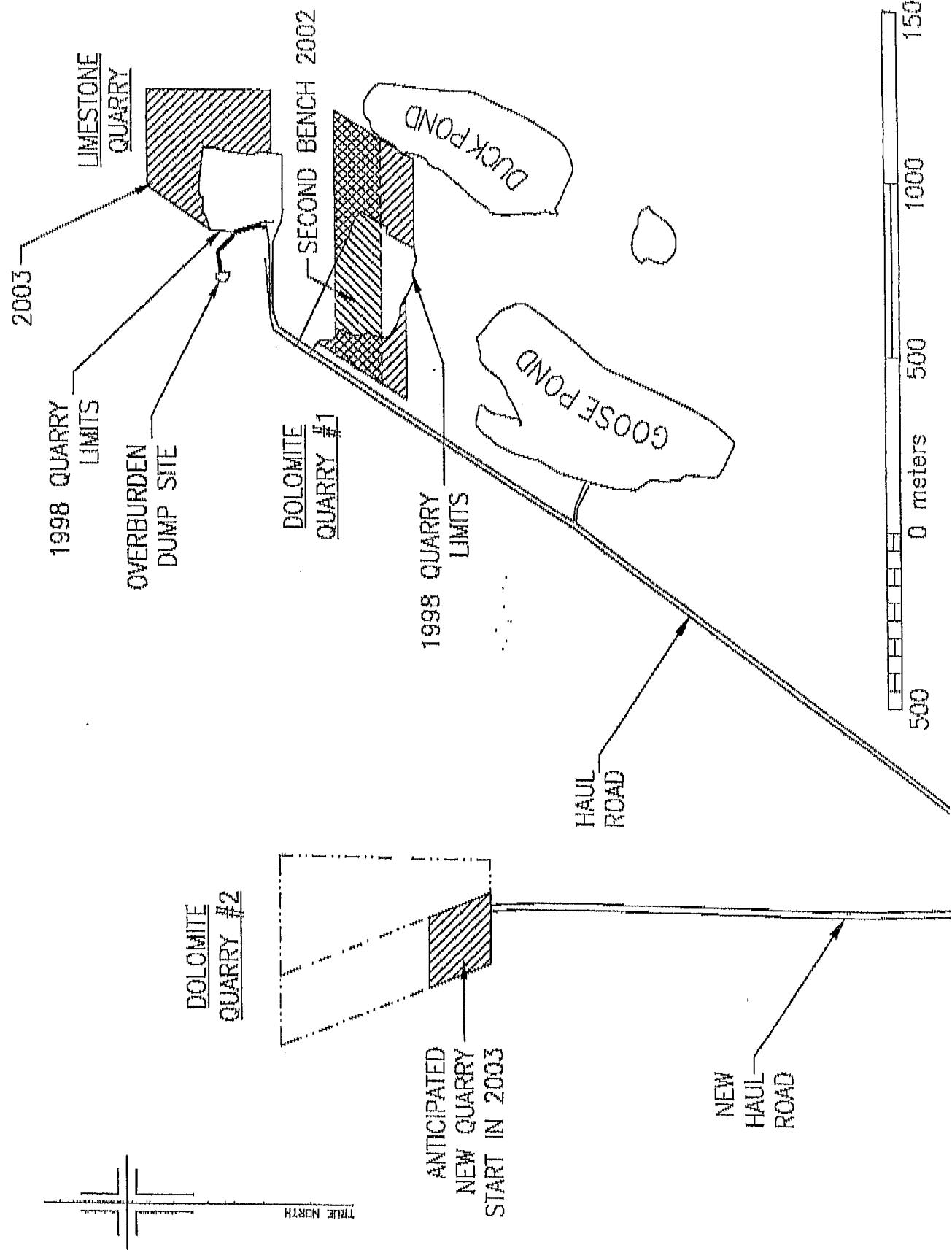
Plant Engineer

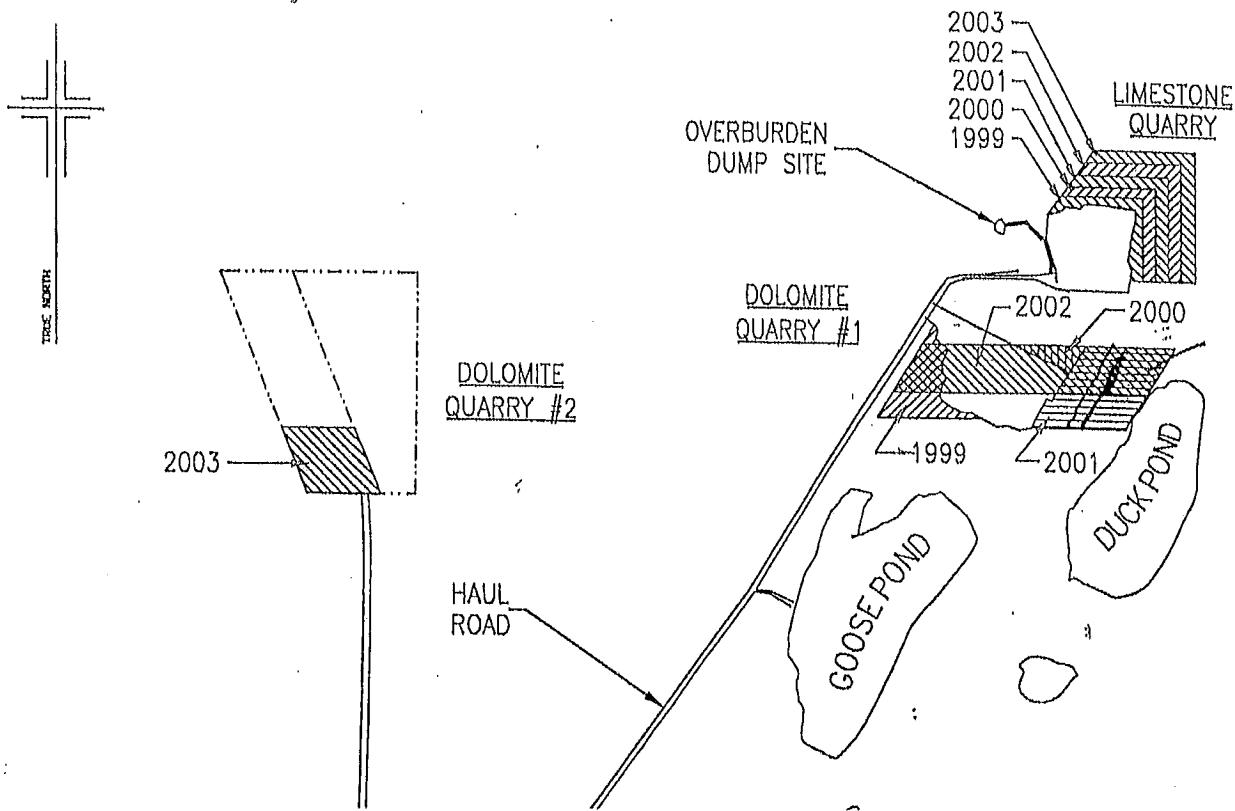
cc. David Stonehouse, AML (Corner Brook)



FORECASTED PRODUCTION TOTALS (x 1000 MT)		
YEAR	DOLOMITE MINED	LIMESTONE MINED
1999	1000	500
2000	1200	600
2001	1300	700
2002	1500	800
2003	1700	900







ATTN: PAUL CARTER : FAX 729-5578

A CLEARER MAP WILL FOLLOW
LATER FROM MIKE STONEHOUSE OUR
ENGINEER AT THE QUARRY SITE.

Dave Stonehouse



P. O. Box 160
Corner Brook
Newfoundland
Canada
A2H 6C7

Dept. of Environment and Labour,
Environmental Assessment Division,
P.O. Box 8700,
St John's, NF, A1B 4J6

March 22, 1999.

Attn: Paul Carter

Re: Registration of continuing development of Lower Cove quarries,

This letter and accompanying drawing will supply the additional information requested by your fax of March 19th.

1. Quarry sizes: The ultimate footprint of the limestone quarry is estimated from primary exploration diamond drill holes done on a 300m grid. Extrapolating ahead 25 years cannot be done with precision based on such widely spaced holes – some recent surface geology indicates that the area may indeed be smaller. However, the best estimate now is a footprint of 36 hectares. A single bench of 15m will cover 22.5 hectares and two benches totaling 30m will be removed from the other 13.5 hectares, for a total of 7,375,000m³ of stone.

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PRODUCERS OF HIGH CALCIUM LIMESTONE, DOLOMITE AND CONSTRUCTION AGGREGATES

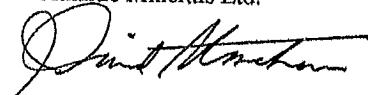
Head Office:
Quarry Site:

Tel: (709) 634-8251
Tel: (709) 644-2447

Fax: (709) 634-1585
Fax: (709) 644-2449

A larger map of the development area, with more detail, has been attached to this submission. There are only two streams of significance in this area (certainly no rivers). The intermittent stream which flowed north from Duck Pond (which would have flowed underground into the developing limestone quarry) has been diverted to flow south into Goose Pond. (CA 97-12-4802) The stream exiting Goose Pond flows north, disappears underground just west of dolomite quarry #1, resurfaces to the west of the proposed limit of the limestone quarry and flows on north to become part of Harry Brook (this is now shown on the attached larger map).

Yours truly,
Atlantic Minerals Ltd.



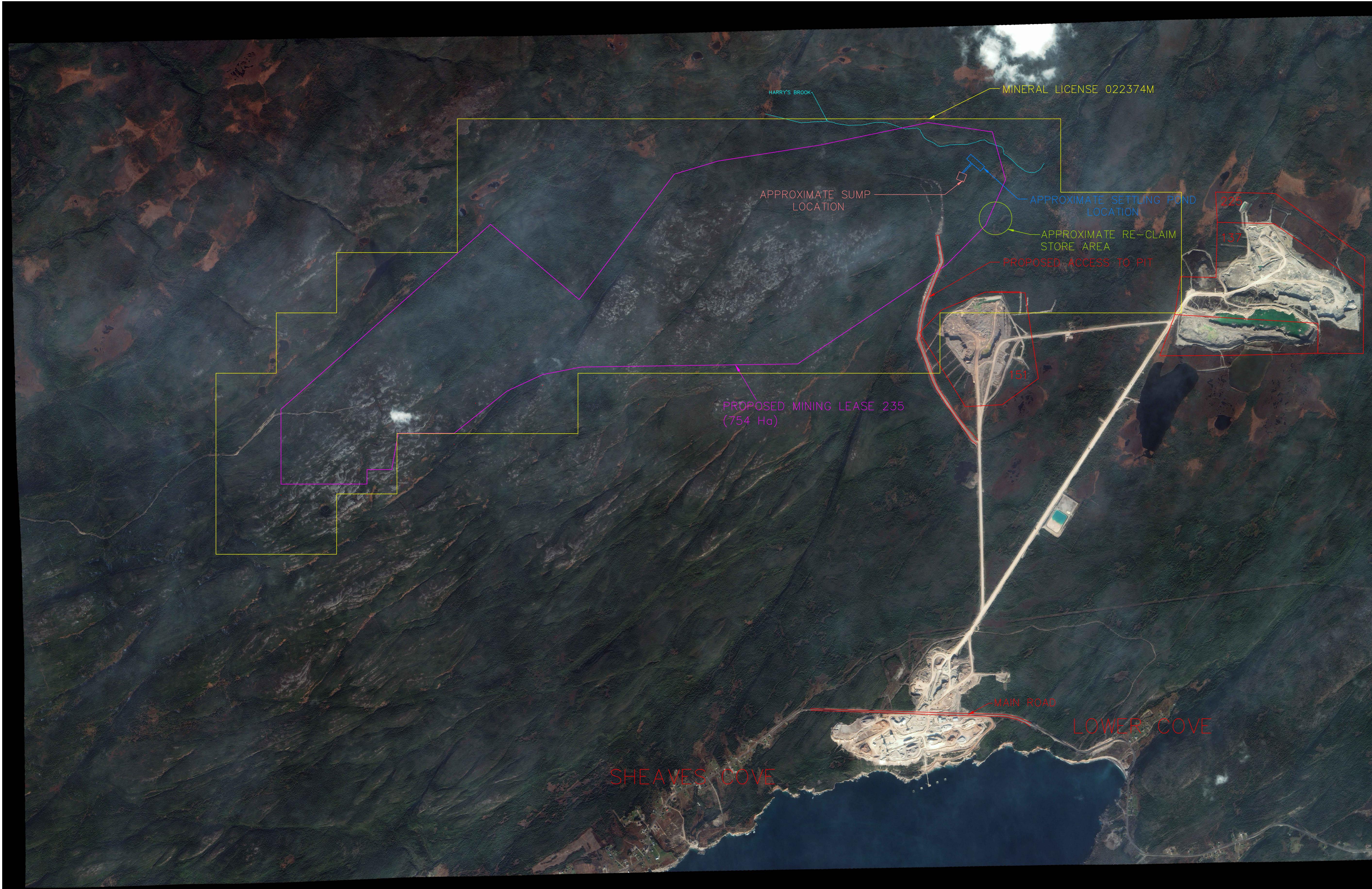
J. David Stonehouse,
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Maps No. 1 & No. 2



Lower Cove Quarry
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Internet: www.atlanticminerals.com

PROJECT/TITLE:

SITE MAP

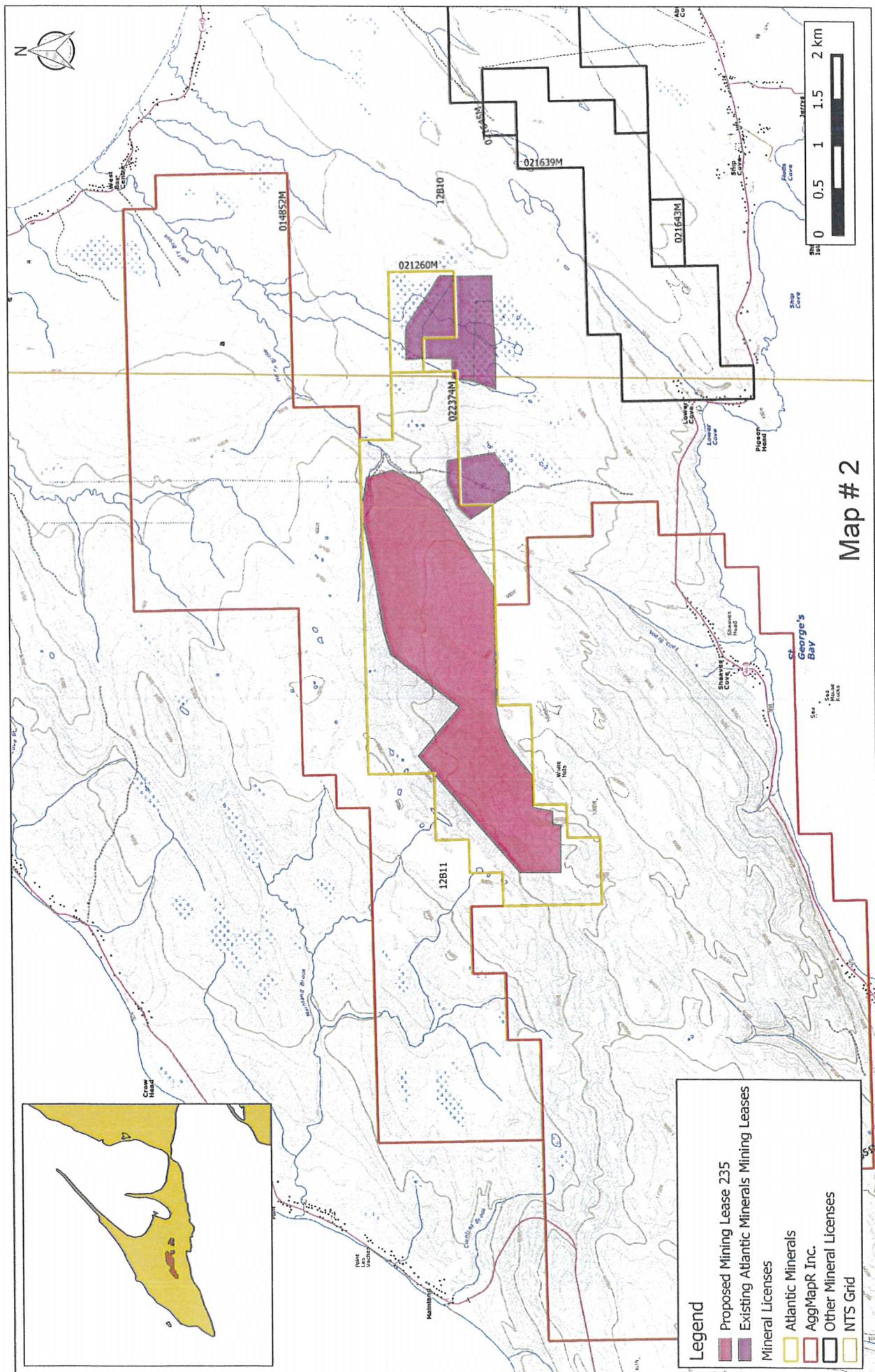
J.RENOUF/M.FITZPATRICK

15/01/09

SCALE:
1:15,000

CHECKED: J. GOOSNEY

MAP #1

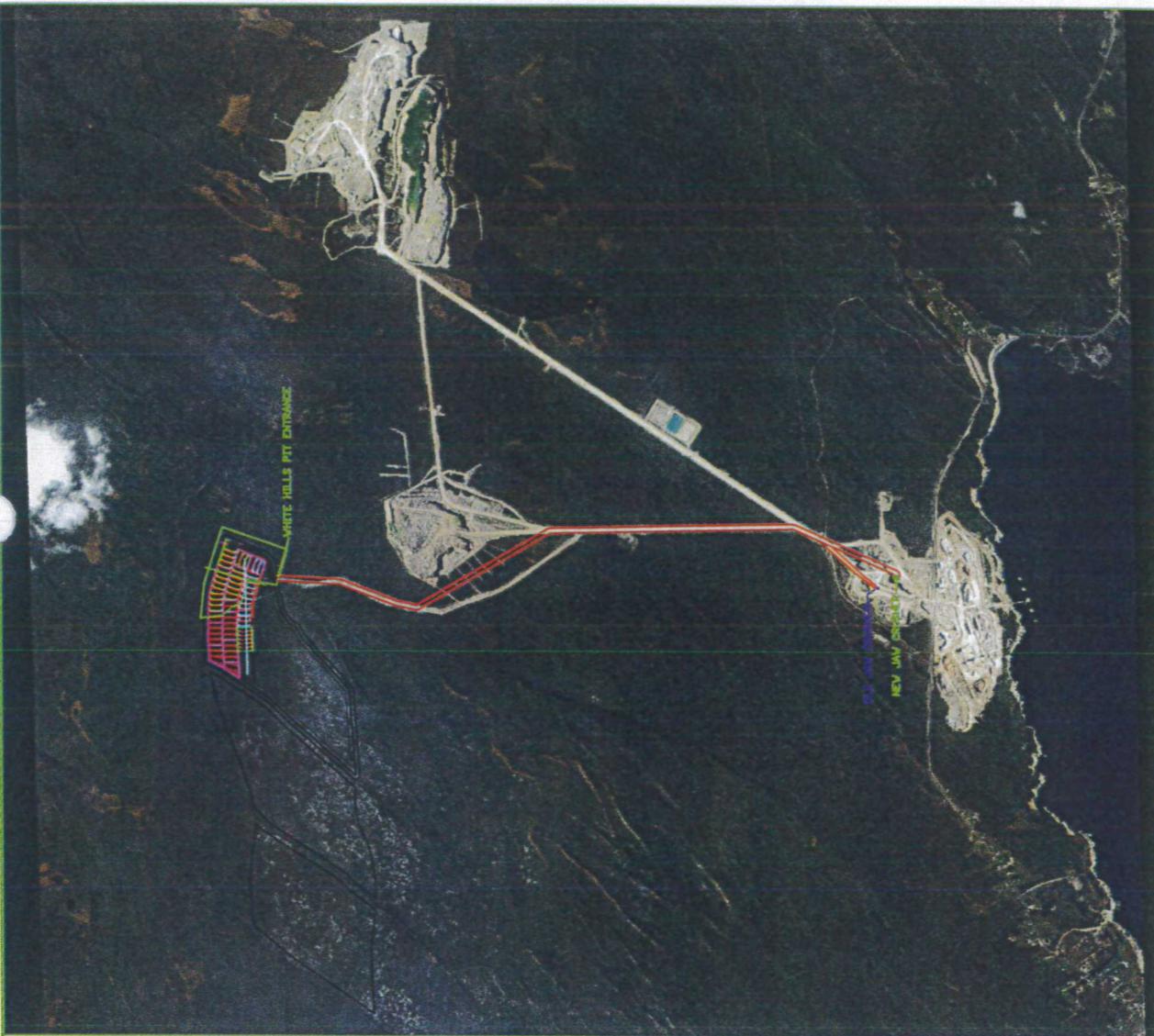


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Drawings No. 1, No. 2 & No. 3

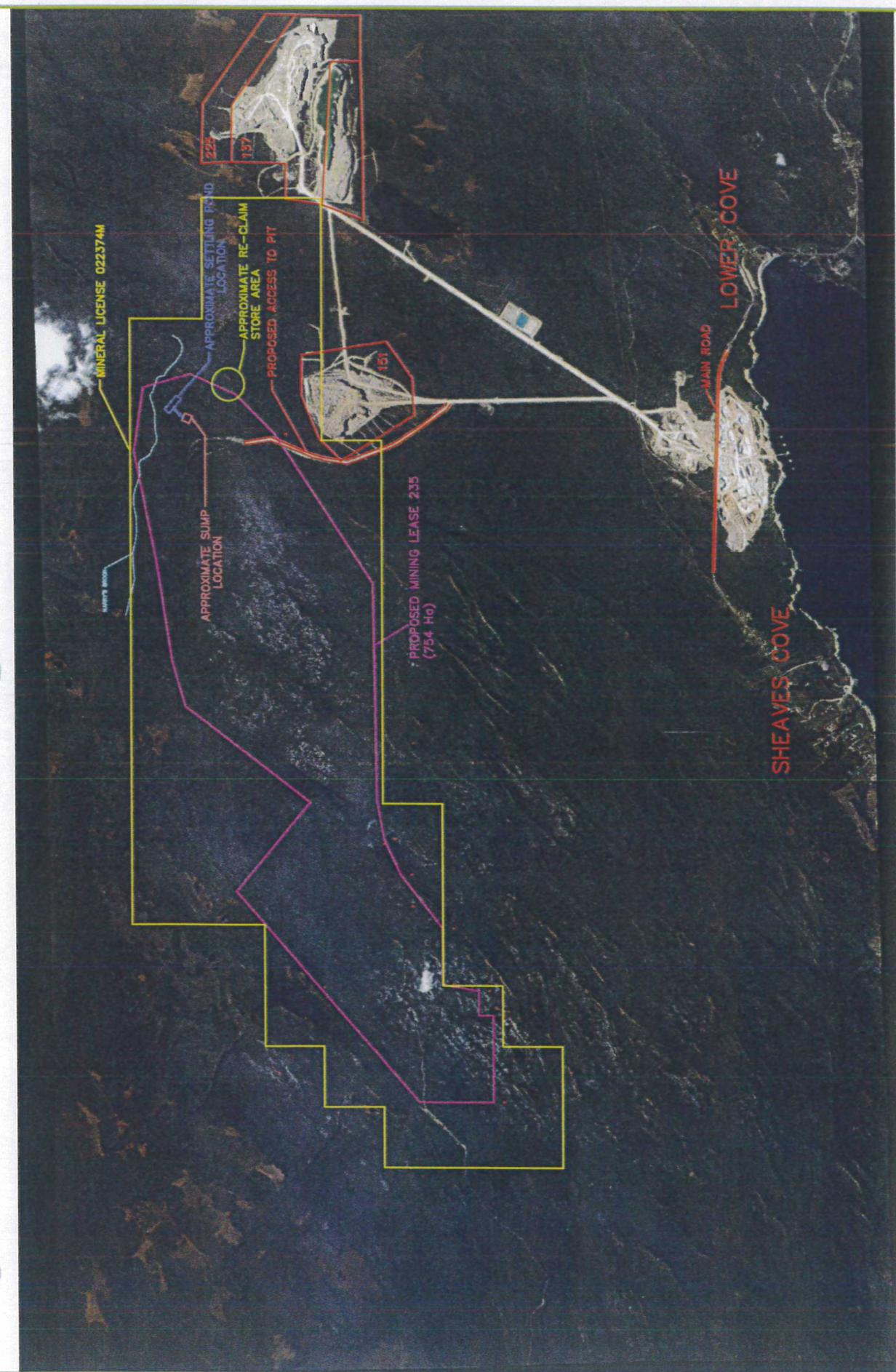


PROJECT/TITLE:	WHITE HILLS ACCESS ROAD	M.FITZPATRICK, J.RENOUF	15/01/06	SCALE: N.T.S
CHECKED:	DRAWING NO:			1

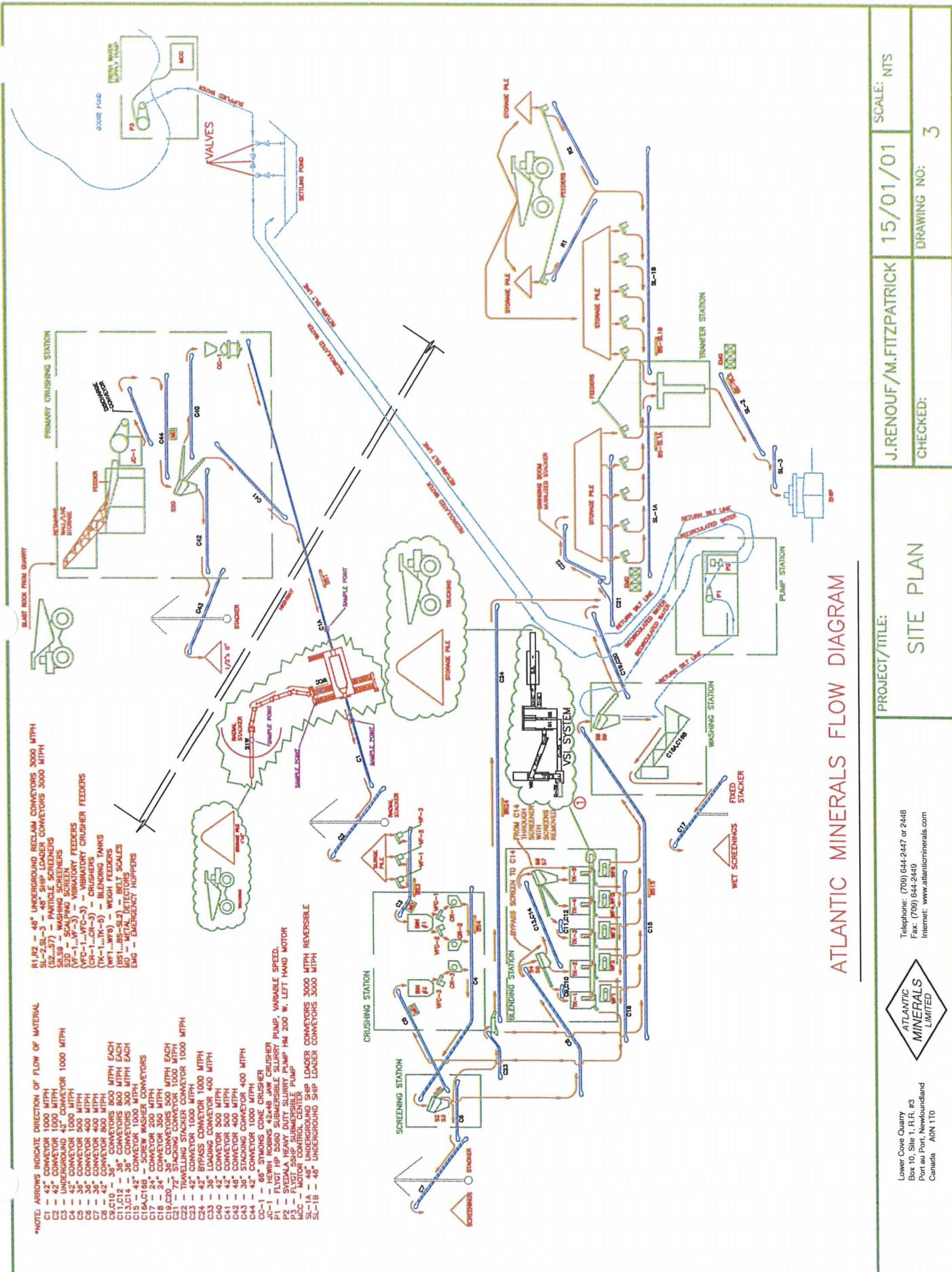
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Lower Cove Quarry
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Port au Port, Newfoundland
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PROJECT/TITLE:	J.RENOUF/M.FITZPATRICK	15/01/01	SCALE: NTS
SITE PLAN	CHECKED:	DRAWING NO. 2	



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Figure 1 & 2



Lower Cove Quarry
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PROJECT/TITLE: WHITE HILLS CONCEPTUAL PIT DESIGN (VIEW 1)	M.FITZPATRICK, J.RENOUF 15/01/06	SCALE: NTS
CHECKED:	FIGURE NO:	1



Lower Cove Quarry
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PROJECT/TITLE:
WHITE HILLS CONCEPTUAL
PIT DESIGN (VIEW 2)

M.FITZPATRICK, J.RENOUF
CHECKED:

SCALE: NTS
15/01/06
FIGURE NO: 2