

## Appendix 1

# Mining Industry Activity in Nova Scotia, 1999

### Mining Industry Expenditures for Exploration, Development, Capital and Repair

Investment by the mining industry in Nova Scotia is monitored by means of annual surveys of all mining companies having operations or activity in the province. Aggregate producers are not included in this survey. The surveys are carried out by the Nova Scotia Department of Natural Resources (DNR) jointly with Natural Resources Canada (Minerals and Metals Sector - Mineral and Mining Statistics Division), and Statistics Canada (Investment and Capital Stock Division). The Mineral Management Division of DNR actively participates in the Annual Survey of Canadian Mineral Exploration Expenditures and the Annual Survey on Exploration Development, Capital and Repair Expenditures.

Preliminary figures indicate exploration expenditures in 1999 were down moderately from 1998 (Table 1.1), as was diamond-drilling. Capital expenditures at existing mines were up significantly in 1999 from 1998, while repair and maintenance expenditures were down significantly. Mine complex development expenditures in 1999 were up from the year before.

### Mining Leases

There were three Mining Leases issued in Nova Scotia during 1999. In April, Michael P. Cullen was issued a Special Mining Lease for his coal property at Cottam Settlement, Colchester County. In July, Thorburn Mining Company was issued a Special Mining Lease for its coal property at Coalburn, Pictou County. In December, Brogan Mining Company was issued a Special Mining Lease for its Little Pond coal property in Cape Breton County.

A Mining Lease renewal was also issued to E-Z-EM Canada Inc. for barite at Brookfield, Colchester County.

### Mining Permits

The department issued four Mining Permits during the year. Lynx Minerals Inc. was issued a Mining Permit for the extraction of barite at Scotsville, Inverness County, Michael P. Cullen was issued a Mining Permit for his coal project at Cottam Settlement, Colchester County, Thorburn Mining was issued a Mining Permit for its coal property at Coalburn, Pictou County, and Brogan Mining Company was issued a Mining Permit for its surface coal mine at Little Pond, Cape Breton County.

Table 1.1. Mining industry expenditures in 1998 and 1999.

	1998	1999 <sup>1</sup>
<b>Mineral Exploration Expenditures</b> (field plus overhead) <sup>2</sup>	<b>\$4,835,000</b>	<b>\$3,632,000</b>
Exploration diamond-drilling <sup>2</sup>	20 964 m	14 000 m
Exploration drilling - other <sup>1</sup>	879 m	3 000 m
<b>Mine Complex Development Expenditures</b> (field plus overhead)	<b>\$2,713,000</b>	<b>\$4,881,000</b>
<b>Capital and Repair Expenditures at Mining Establishments</b>		
Capital Expenditures	\$27,604,870	\$51,455,000
Repair and Maintenance Expenditures	\$35,415,668	\$23,271,000

<sup>1</sup>preliminary

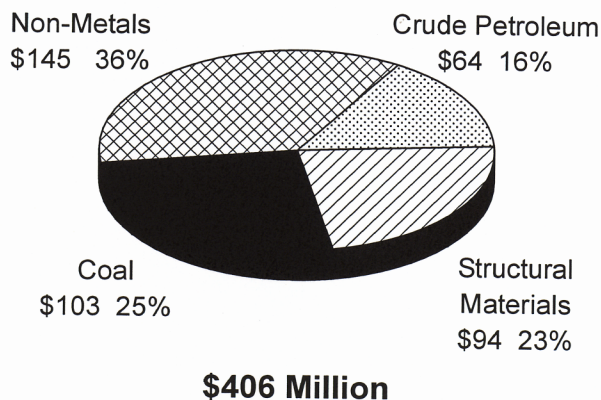
<sup>2</sup>includes deposit appraisal

## Production Information from Mines, Quarries and Other Operations

In 1999, the estimated value of Nova Scotia's mineral production, including secondary mineral processing and crude petroleum, totalled \$406 million (Fig. 1.1), a decrease of 14% from the year before. Excluding petroleum, the value of Nova Scotia's mineral production totalled \$342 million, down 3% from 1998's figure of \$352 million. This decrease was due largely to lower outputs of coal. Approximately 2900 persons were employed in Nova Scotia's mineral industry in 1999 (Fig. 1.2), a 21% decrease from the year before (Table 1.2).

Coal sales dropped by approximately 24% in 1999 to 1.6 million tonnes from 1998's figure of 2.1 million tonnes. Production problems plagued the province's largest coal mine, the Cape Breton Development Corporation's Phalen Colliery. On September 13, 1999, the federal Crown Corporation announced it was closing Phalen. The colliery produced almost seventeen million tonnes of coal over its fifteen-year life. The province's only gold mine, Tangier Limited Partnership's Blueberry Hill Mine in Tangier, Halifax County, closed after only a few months of operation, citing poor recoveries.

On a positive note, 1999 was a record year for Nova Scotia gypsum production with 7.9 million tonnes shipped, mainly to wallboard plants along the US Eastern Seaboard. Nova Scotia is Canada's largest gypsum producer accounting for more than 80% of the



*Includes secondary mineral processing where applicable  
Metal production too small to be expressed at this scale*

**Figure 1.1.** Value of mineral production, in millions of dollars and per cent, by commodity group.

country's total production. Shipments of cement, barite, peat moss and clay products also increased in 1999 while salt production remained virtually unchanged at 842 000 tonnes. Production of construction aggregates (crushed stone, sand and gravel) in 1999 totalled 10.6 million tonnes, down slightly from the year before.

Although petroleum is included in the overall value of Nova Scotia's mineral production, this appendix focuses on the non-petroleum sectors of the industry. Table 1.2 provides a summary of the value of the province's mineral production and employment levels in 1998 and 1999. Tables 1.3 to 1.6 provide more detailed information on production of different commodities. Site locations are shown on the accompanying maps, Figures 1.4 and 1.5. Production data are for the calendar year 1 January 1999 to 31 December 1999.

## Base Metal Mines and Gold Mines

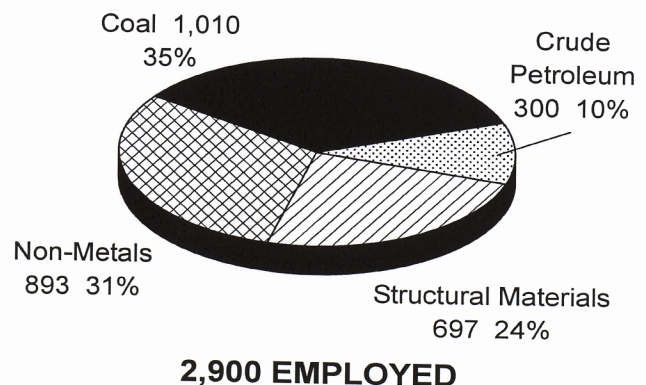
### Base Metal Mines

There were no base metal mines in production during 1999.

### Gold Mines

#### TANGIER LIMITED PARTNERSHIP

Manager: Peter Atkinson, General Manager  
 Address: P. O. Box 8  
 Tangier, N. S. B0J 3H0  
 Production: 63 troy ozs. (1960 grams)  
 Employees: n/a



*Includes secondary mineral processing employment where applicable  
Employment in metal production too small to be expressed at this scale*

**Figure 1.2.** Employment, in numbers of persons and per cent, by mineral commodity group.

Table 1.2. Summary of Nova Scotia mineral production, 1998 and 1999.

DESCRIPTION	1998		1999	
	VALUE (\$ thousands <sup>1</sup> )	EMPLOYMENT <sup>*</sup>	VALUE (\$ thousands <sup>1</sup> )	EMPLOYMENT <sup>*</sup>
<b>METALS</b>				
Gold	21		24	
Total metals	21	35	24	N/A <sup>2</sup>
<b>INDUSTRIAL MINERALS</b>				
<b>(Non-Metals)</b>				
Anhydrite	1,733		2,018	
Barite	**751		**1,410	
Gypsum	71,703		83,204	
Limestone <sup>3</sup> and Dolomite	2,824		3,619	
Peat	**1,713		**2,035	
Salt	**51,241		**49,891	
Silica	**2,400		2,400	
Total Non-Metals	132,365	872	144,577	893
<b>(Structural Materials)</b>				
Dimension Stone	305		302	
Cement	**35,065		**37,306	
Clay Products	**5,600		**6,000	
Crushed Stone	40,445		39,544	
Sand & Gravel	11,164		10,615	
Total Structural Materials	92,579	654	93,767	697
<b>Total Industrial Minerals</b>	<b>224,944</b>	<b>1,526</b>	<b>238,747</b>	
<b>FUELS</b>				
Coal	127,142	1,790	103,430	1,010
Petroleum - Crude	120,830	340	64,000	300
Total Fuels	247,970	2,130	167,430	1,310
<b>TOTAL MINERAL PRODUCTION</b>	<b>472,935</b>	<b>3,690</b>	<b>406,202</b>	<b>2,900</b>
<b>CHANGE FROM PREVIOUS YEAR</b>	<b>-10%</b>	<b>-3%</b>	<b>-14%</b>	<b>-21%</b>
<b>TOTAL EXCLUDING PETROLEUM</b>	<b>352,105</b>	<b>3,350</b>	<b>342,202</b>	<b>2,600</b>
<b>CHANGE FROM PREVIOUS YEAR</b>	<b>-14%</b>	<b>-3%</b>	<b>-3%</b>	<b>-22%</b>

<sup>1</sup> Estimated from Department of Natural Resources sources

<sup>2</sup> Operator ceased production in January 1999

<sup>3</sup> Does not include the value of limestone quarried for cement production

\* Average number of persons during production period

\*\* Processed or manufactured value

Note: Production represents shipments; numbers may not add to totals due to rounding

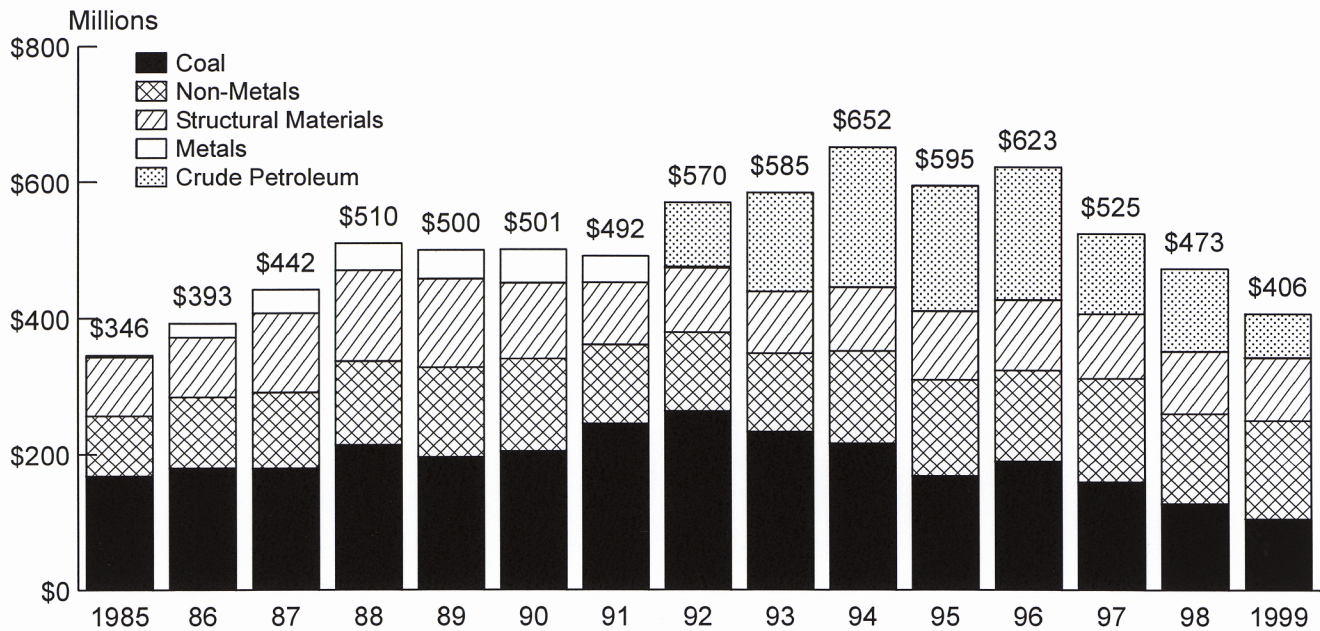
Table 1.3. Coal production for the calendar year 1999.

COMPANY	MINE NAME	LOCATION	PRODUCTION			APPROX. VALUE(\$) <sup>2</sup>
			TONS	TONNES	TOTAL NUMBER EMPLOYED	
<b>UNDERGROUND MINING</b>						
Cape Breton Development Corp. (CBDC)	Prince Mine	Point Aconi, Cape Breton County				
	Phalen Mine	Lingan, Cape Breton County				
Total (underground)			1,320,133	1 197 617	860	
<b>SURFACE MINING</b>						
Brogan Mining Company Limited	Little Pond Mines	Alder Point, Cape Breton County	39,819	36 124	18	
Cape Crushing Company Limited	Merritt Point Mine	Alder Point, Cape Breton County	23,649	21 454	2	
Berichan Resources Ltd. (Michael P. Cullen)		Cottam Settlement, Colechester County	19,163	17 385	18	
Evans Coal Mines Limited	St. Rose Mine	St. Rose, Inverness County	55,039	49 931	23	
Hill Reclamation Limited		Springhill, Cumberland County	14,794	13 421	15	
Pioneer Coal Limited	Stellarton Mine	Stellarton, Pictou County	252,262	228 851	36	
Thorburn Mining Limited	Thorburn and Coalburn Mines	Thorburn and Coalburn, Pictou County	37,263	33 805	38	
Total (surface)			442,004	400 983	150	
<b>TOTAL FOR ALL COAL PRODUCERS</b>			<b>1,762,137</b>	<b>1 598 600</b>	<b>1010</b>	<b>103,430,000</b>

<sup>1</sup>personnel employed in clerical, supervisory, etc. positions as well as mining personnel.

<sup>2</sup>estimated from Nova Scotia Department of Natural Resources sources

NOTE: Production represents shipments; numbers may not add to totals due to rounding



Includes secondary mineral processing where applicable

**Figure 1.3.** Historical trend of the value of mineral production in Nova Scotia, 1985-1999.

Tangier Limited Partnership was forced to suspend production at its Blueberry Hill Mine in Tangier, Halifax County, in early 1999 due to low gold prices and shortfalls in production. The mine subsequently closed and receivers were appointed. During the early part of the year, approximately 900 tonnes of ore were mined from the Whin and Marker veins.

## Coal Mining Operations

During 1999, there were two underground coal mines, seven surface coal mines, and one coal recovery project operating in the province. Table 1.3 provides production information for the coal mines. The summaries below give brief details of the underground and surface coal mines operating in Nova Scotia.

### Underground Coal Mines

#### CAPE BRETON DEVELOPMENT CORPORATION

Manager(s): R. MacDonald, General Manager, Phalen Colliery  
 T. MacNeil, Mine Manager, Prince Colliery  
 Address: P. O. Box 2500  
 Sydney, N. S. B1P 6K9

#### Raw Coal

Production: 1,263,253 tons (1 146 016 tonnes)

Shipments: 1,320,133 (1 197 617 tonnes)  
 Employees: 860

The Cape Breton Development Corporation is a federal Crown Corporation that operated two underground coal mines in Cape Breton County during 1999. The Corporation's coal production is supplied to Nova Scotia Power Inc.

#### Phalen Colliery

#### Raw Coal

Production: 514,851 tons (467 070 tonnes)

The Phalen Colliery, near New Waterford, Cape Breton County, produced coal intermittently during 1999 and was forced to close in December 1999. Mine development had been curtailed for some time and the mine had been scheduled to close at the end of 2000. The mine used a retreat longwall mining method. During 1999, the mine produced from only one longwall, the No. 8 East longwall panel. Production on this wall was adversely impacted by severe roof falls and resulted in long periods of production downtime. In September 1999, the final roof fall occurred, and the Corporation made the decision to cease production from the mine. Following a three month period to salvage equipment, the main fan was shut down and the portals blocked in December 1999.

Table 1.4. Industrial minerals production for the calendar year 1999.

COMPANY	LOCATION	PRODUCTION		TOTAL NUMBER EMPLOYED <sup>1</sup>	APPROXIMATE VALUE (\$) <sup>2</sup>
		TONS	TONNES		
<b>GYPSUM</b>					
Fundy Gypsum Company	Miller Creek and Wentworth Road, Hants County	1,857,632	1 685 233	166	
Georgia-Pacific Canada, Inc.	Sugar Camp, Inverness County	1,844,017	1 672 881	124	
Little Narrows Gypsum Company	Little Narrows, Victoria County	1,279,595	1 160 841	101	
National Gypsum (Canada) Limited	East Milford, Halifax County	3,753,638	3 405 278	100	
Total (gypsum)		8,734,846	7 924 200	491	83,204,000
<b>ANHYDRITE</b>					
Fundy Gypsum Company	Wentworth Road, Hants County	76,989	69 844	see gypsum	
Little Narrows Gypsum Company	Little Narrows, Victoria County	103,044	93 481	see gypsum	
Total (anhydrite)		180,000	163 300		2,018,000
<b>SALT</b>					
The Canadian Salt Company Limited	Pugwash, Cumberland County	843,375	756 105	210	
Sifto Canada Inc.	Nappan, Cumberland County	84,616	76 763	73	
Total (salt)		927,993	841 870	283	49,891,000 <sup>3</sup>
<b>LIMESTONE AND DOLOMITE</b>					
Lafarge Canada Inc.	Brookfield, Colchester County	543,434	493 000	11	
Mosher Limestone Company Limited	Upper Musquodoboit, Halifax County	48555	44 049	17	
Nova Scotia Power Incorporated	Glen Morrison, Cape Breton County	83,444	75 700	10	
Ridge Brokers Limited	Southside Harbour, Antigonish County	5,989	5 433	1	
Scotia Limestone Limited	Kellys Cove, Victoria County	4,669	4 236	1	
Total (limestone and dolomite)		686,090	622 418	40	3,619,000 <sup>4</sup>
<b>BARITE</b>					
E-Z-EM Canada Inc.	Brookfield, Colchester County	659	598	16	
Lynx Minerals Inc.	Scotsville, Inverness County	4,840	4 391	10	
Total (barite)		5,499	4 989	26	1,410,000 <sup>3</sup>
<b>CLAY</b>					
Shaw Brick (a member of the Shaw Group Limited)	Lantz and Milford, Hants County	18,199	16 510	See clay products Table 1.5	n/a <sup>5</sup>

Table 1.4. Continued.

COMPANY	LOCATION	PRODUCTION TONS	TONNES	TOTAL NUMBER EMPLOYED <sup>1</sup>	APPROXIMATE VALUE <sup>2</sup> (\$)
<b>SHALE</b>					
Shaw Brick (a member of the Shaw Group Limited)	Milford, Hants County New Glasgow, Pictou County	7,800	7 076	See clay products Table 1.5	n/a <sup>5</sup>
Total (clay and shale)		25,999	23 586	See clay products	n/a <sup>5</sup>
<b>SILICA SAND</b>					
Shaw Resources (a member of the Shaw Group Limited)	Nine Mile River, Hants County	53,929	48 924	6	2,400,000 <sup>3</sup>
Total (silica sand)		53,929	48 924	6	2,400,000 <sup>3</sup>
<b>DIMENSION STONE</b>					
Heritage Memorials Ltd. <sup>2</sup>	Quarry: Nictaux, Annapolis County (granite) Plant: Windsor, Hants County	1,685	1 529	20	
Wallace Quarries Ltd.	Quarry: Wallace, (Sandstone) Cumberland County	262	238	5	
Total (dimension stone)		1,947	1 767	2	302,000 <sup>2</sup>
<b>PEAT MOSS</b>					
Annapolis Valley Peat Moss Company <sup>2</sup>	Berwick, Kings County	6,021	5 462	24	
Clare Organic Products Ltd. <sup>2</sup>	Meteghan Station, Digby County	2,924	2 653	20	
McDonald Peat Moss Limited <sup>2</sup>	Kennetcook, Hants County	4,754	4 295	18	
Total (peat moss)		13,680	12 410	44	2,036,000 <sup>2,3</sup>
<b>AGGREGATES</b>					
Crushed Stone	Various	8,717,900	7 908 806	391	39,544,000
Sand and Gravel	Various	2,925,200	2 653 800	153	10,615,000
Total (aggregates)		11,643,600	10 563 000	544	50,159,000
<b>TOTAL FOR INDUSTRIAL MINERALS<sup>6</sup></b>					
		22,290,100	20 221 000	1,470	195,313,000

<sup>1</sup>total employees: mining, production, clerical, supervisory, etc.  
<sup>2</sup>estimate from Nova Scotia Department of Natural Resources sources  
<sup>3</sup>processed or manufactured value  
<sup>4</sup>does not include the value of Lafarge Canada Inc. production, which value is included in the higher manufactured value (cement)  
<sup>5</sup>value included in the higher manufactured valuation (bricks)  
<sup>6</sup>excluding secondary mineral manufacturing (Table 1.5)  
Note: production represents shipments; numbers may not add to totals due to rounding

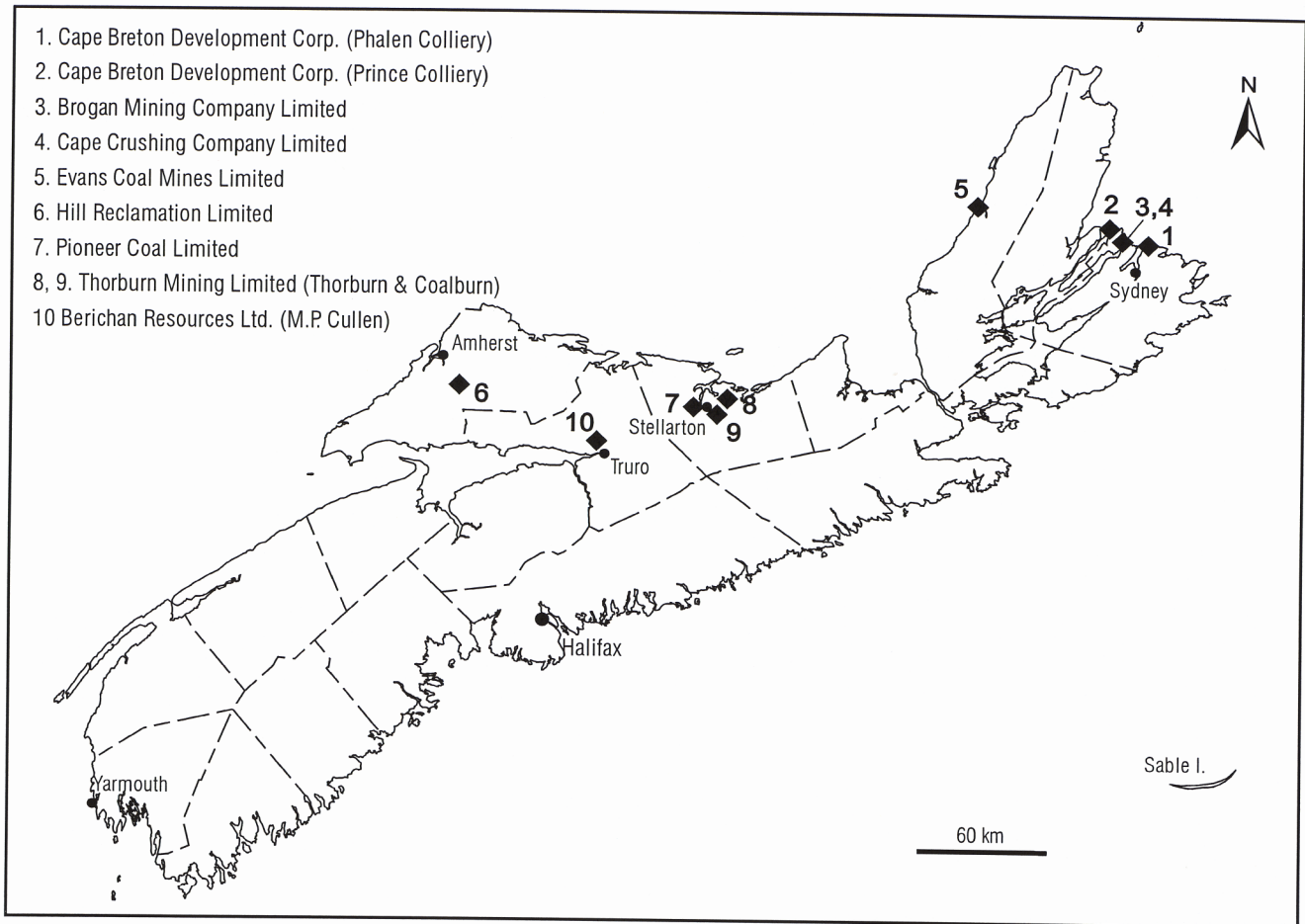


Figure 1.4. Location of coal mines in Nova Scotia.

**Prince Mine**

Raw Coal  
 Production: 748,402 tons (678 946 tonnes)

The Prince Mine is located in Point Aconi, Cape Breton County. The mine began underground production from the Hub Seam in 1975, initially using room and pillar methods. Mechanized retreat longwall operations began in 1980.

During 1999, coal was mined from the No. 9 East longwall panel and development work was completed on the No. 1 North longwall panel. There was a production lag for the last four months of the year after the completion of the No. 9 East longwall before the No. 1 North longwall was ready for production.

**Surface Coal Mines**

**EVANS COAL MINES LIMITED**

Manager: E. Fraser

Address: R. R. #1  
 Inverness, N. S. B0E 1N0  
 Production: 55,039 tons (49 931 tonnes) of coal  
 Employees: 23

Evans Coal Mines Limited began surface coal mining operations at St. Rose, Inverness County, in 1993, following the closure of the underground mine in 1992. Coal is extracted from the No. 5 Seam crown pillar and from the pillars left by the underground operation. During the year, mining advanced to the southwest as far as the re-located Duggan Mountain road. Mining was also started in a block of coal to the north of the previously backfilled pit. Overburden and waste rock are removed by blasting and ripping by bulldozers. Material is loaded and hauled using hydraulic excavators and off-road haul trucks.

Production from the Evans mine is trucked to Nova Scotia Power Inc. (NSPI) generating stations, and to Stellarton for blending with other coals, and subsequently supplied to NSPI.

**Table 1.5.** Secondary mineral manufacturing for the calendar year 1999.

COMPANY	LOCATION	PRODUCTION		TOTAL NUMBER EMPLOYED <sup>1</sup>	APPROX. VALUE(\$) <sup>2</sup>
		TONS	TONNES		
<b>CLAY PRODUCTS</b>					
Shaw Brick (a member of the Shaw Group Limited)	Lantz, Hants County	28,000	25 401	43	6,000,000
<b>PORTLAND CEMENT</b>					
Lafarge Canada Inc.	Brookfield, Colchester County	342,683	310 880	79	37,306,000
<b>TOTAL FOR SECONDARY MINERAL MANUFACTURING</b>				122	43,306,000
<sup>1</sup> total number of employees including office, clerical, supervisory, mining and production <sup>2</sup> estimated from Nova Scotia Department of Natural Resources sources NOTE: Production represents shipments; numbers may not add to totals due to rounding					

**Table 1.6.** Metallic mineral production for the calendar year 1999.

COMPANY	LOCATION	PRODUCTION		TOTAL NUMBER EMPLOYED	APPROX. VALUE(\$) <sup>2</sup>
		TROY OZ.	g		
<b>GOLD</b>					
Tangier Limited Partnership <sup>1</sup>	Tangier, Halifax County	63	1960	n/a	24,000
<b>TOTAL FOR METALLIC MINERAL PRODUCTION</b>				n/a	24,000
<sup>1</sup> operated for part of year only <sup>2</sup> value based on average annual metal price Note: Production represents shipment					

**PIONEER COAL LIMITED**

Manager: C. Chisholm  
 Address: P. O. Box 929  
 Westville, N. S. B0K 2A0  
 Production: 252,262 tons (228 851 tonnes) of coal  
 Employees: 36

Pioneer Coal began mining coal from the Foord Seam at the Stellarton mine site, Pictou County, in March 1996. The Foord Seam is approximately 40 feet thick. Mechanical equipment is used to break the coal and overlying rock and the material is excavated using hydraulic excavators, conveyors and off-road haul trucks. Mining in the western end of the pit was completed during the year and mining is proceeding in the eastern side of the pit. The company conducted mining operations at the site from January through June

and September through December.

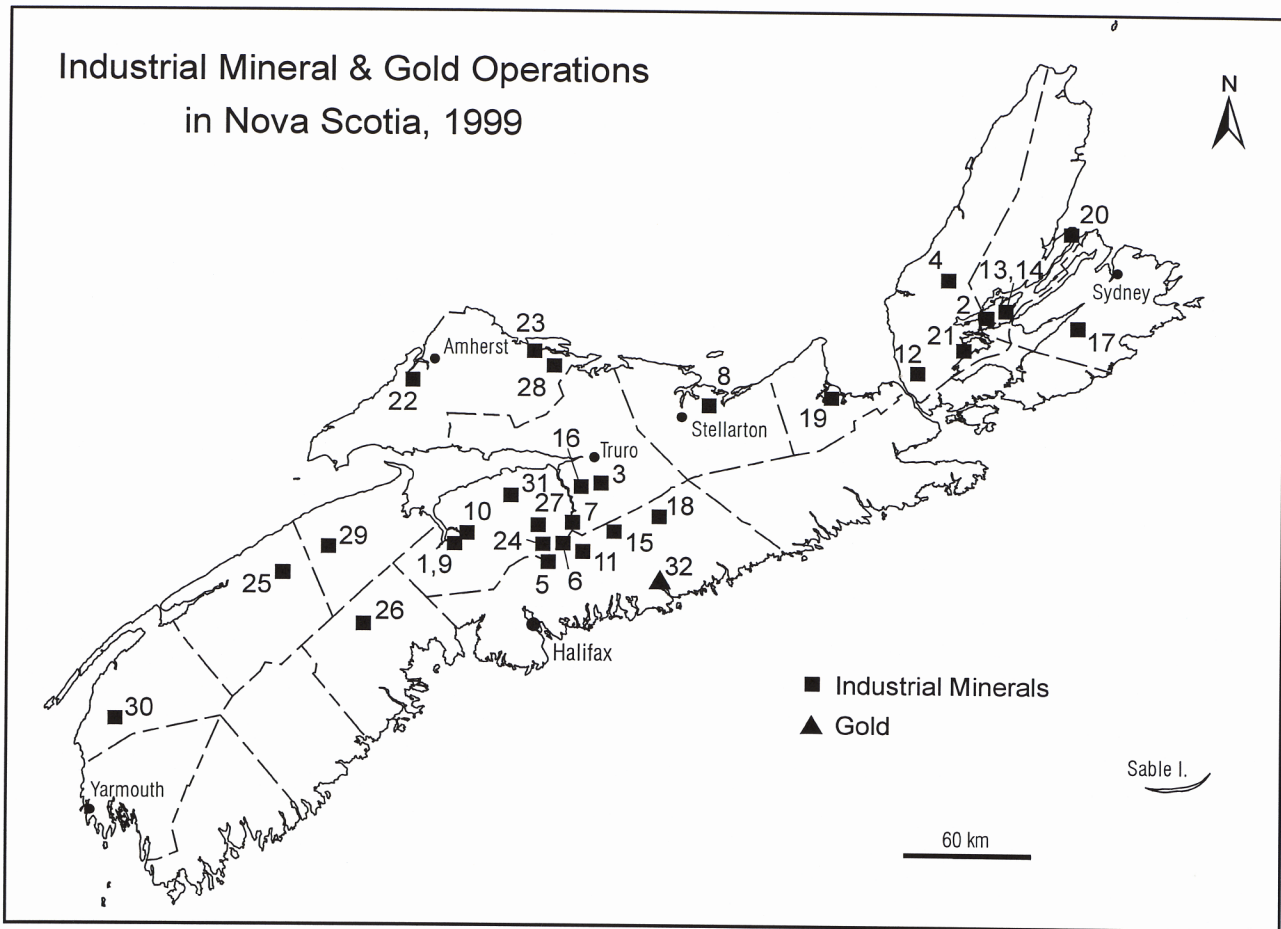
The coal mined from the Stellarton operation is blended on-site with coal trucked from the Evans Coal Mine, the Thorburn Mine and the Coalburn Mine before being shipped to Nova Scotia Power generating stations.

**THORBURN MINING LIMITED**

Manager: C. Chisholm  
 Address: P. O. Box 929  
 Westville, N. S. B0K 2A0

**Thorburn Mine**

Production: 19,981 tons (18 127 tonnes) of coal  
 Employees: 26



**Anhydrite**

- 1. Fundy Gypsum Co.
- 2. Little Narrows Gypsum Co.

**Barite**

- 3. E-Z-EM Canada Inc.
- 4. Lynx Minerals Inc.

**Clay and Shale**

- 5-8. Shaw Brick, a member of the Shaw Group Limited

**Gypsum**

- 9-10. Fundy Gypsum Co.
- 11. National Gypsum (Canada) Ltd.
- 12. Georgia-Pacific Corp.
- 13-14. Little Narrows Gypsum Co.
- 15. Tusket Mining Incorporated

**Limestone & Dolomite**

- 16. Lafarge Canada Inc.
- 17. Nova Scotia Power Incorporated
- 18. Mosher Limestone Co. Ltd.
- 19. Ridge Brokers Ltd.
- 20. Scotia Limestone Ltd.
- 21. Shaw Resources, a member of the Shaw Group Limited

**Salt**

- 22. Sifto Canada Inc.
- 23. The Canadian Salt Company Limited

**Silica Sand**

- 24. Shaw Resources, a member of the Shaw Group Limited

**Dimension Stone**

- 25. Heritage Memorials Ltd.
- 26. Lange Natural Rock and Stone Supplies
- 27. Scotia Slate Products Ltd.
- 28. Wallace Quarries Ltd.

**Peat Moss**

- 29. Annapolis Valley Peat Moss Co.
- 30. Clare Organic Products Limited
- 31. MacDonald Peat Moss Limited

**Gold**

- 32. Tangier Limited Partnership

Figure 1.5. Location of industrial mineral and gold operations in Nova Scotia, 1999.

Mining at the Thorburn site, Pictou County, began in June 1995. In 1999, the mine operated during the January through April period.

Coal was extracted from the McBean Seam crown pillar and from pillars remaining from the former underground mining operations. The pit was expanded to the north during 1999. Overburden and waste rock were removed by ripping with bulldozers. Material was loaded and hauled using hydraulic excavators and dump trucks. The seam varies in thickness from 4 to 7 feet.

#### **Coalburn Mine**

Production: 17,282 tons (15 678 tonnes) of coal  
Employees: 12

The Coalburn Surface Coal Mine is located in Coalburn, Pictou County. The mine began operations in June 1999, and coal was mined from July through September. The initial mining is being carried out in the Upper MacKay seam, a seam approximately 0.9 m in thickness. Overburden and waste rock were broken by ripping with bulldozers and the material was loaded and hauled using hydraulic excavators and dump trucks.

The overlying waste rock was difficult to break mechanically, and the operator suspended operation in September in order to amend the operating permits to allow blasting.

#### **CAPE CRUSHING COMPANY LIMITED**

Manager: E. Brogan  
Address: P. O. Box 265  
North Sydney, N. S. B2A 3M3  
Production: 23,649 tons (21 454 tonnes) of coal  
Employees: 2

The company operates a small surface coal mine at Alder Point, Cape Breton County, to supply the local domestic market. Coal was mined during the year from the Bonar Seam. Mining is carried out using mechanical equipment to break the coal and overlying rock.

#### **BROGAN MINING COMPANY LIMITED**

Manager: R. Brogan  
Address: P. O. Box 190  
Florence, N. S. B0C 1J0  
Production: 39,819 tons (36 124 tonnes) of coal  
Employees: 18

During the year, Brogan Mining Limited began full scale operation of its surface coal mine at Little Pond, Cape Breton County. Coal is recovered from the Lloyd Cove (Bonar) seam. The overlying waste rock and coal are broken mechanically and mining is carried out using bulldozers, a dragline, hydraulic excavators and dump trucks. The coal production is marketed to Nova Scotia Power Inc.

The company also carried out reclamation work at its mine sites at Toronto Road and Sullivan Creek, Cape Breton County, during 1999.

#### **BERICHAN RESOURCES LIMITED**

Manager: Michael P. Cullen  
Address: 2071 Poplar Street  
Halifax, N. S. B3L 2Y6  
Production: 19,163 tons (17 385 tonnes) of coal  
Employees: 18

Berichan Resources Limited operated its surface coal mine at Cottam Settlement, Colchester County, for four months during the year. Following pre-stripping operations, coal mining began in May. However, the operation was closed in September due to groundwater inflow problems and displacements in the coal seams. The company reclaimed almost all of the site in the fall of 1999.

Coal was recovered from three coal seams with thicknesses of 0.7 m to 1.5 m. The overlying waste rock and coal were broken mechanically and mining was carried out using bulldozers, hydraulic excavators and dump trucks. The coal production was marketed to Nova Scotia Power Inc.

#### **HILL RECLAMATION LIMITED**

Manager: M. McCormick  
Address: R. R. #1  
Springhill, N. S. B0M 1X0  
Production: 14,794 tons (13 421 tonnes)  
Employees: 19

Hill Reclamation resumed operation of the rail bed coal recovery project in 1999. The operation is located near Springhill, Cumberland County. The company recovers coal from an abandoned railway bed and markets the coal to Nova Scotia Power Inc. The site had previously been operated by Black Gold Enterprises Limited.

## **Industrial Minerals Mining**

### **Gypsum and Anhydrite**

#### **FUNDY GYPSUM COMPANY**

Manager: K. Hillman  
 Address: P. O. Box 400  
 Windsor, N. S. B0N 2T0  
 Production: 76,989 tons (69 844 tonnes) of  
 anhydrite  
 1,857,632 tons (1 685 233 tonnes) of  
 gypsum  
 Employees: 166

The Fundy Gypsum Company operates quarries and crushing plants in the Wentworth Road and Miller's Creek areas near Windsor, Hants County. In 1999, the company produced gypsum from its Bailey Quarry at Miller's Creek and both gypsum and anhydrite from three of the Wentworth quarries. The Wentworth ore is processed in the company's heavy media plant to separate the anhydrite and the gypsum.

The gypsum and anhydrite are transported by unit train to ship-loading facilities at Hantsport, a distance of 19 km. These products are shipped to wallboard and cement plants in the United States and Canada.

#### **GEORGIA-PACIFIC CANADA INC.**

Manager: R. L. Fraser  
 Address: P. O. Box 400  
 Port Hawkesbury, N. S. B0E 2V0  
 Production: 1,844,017 tons (1 672 881 tonnes) of  
 gypsum  
 Employees: 124

Georgia-Pacific Corporation operates a gypsum quarry at Sugar Camp, Inverness County. Overburden at the site is removed using a dragline, trucks and shovels. The gypsum is drilled, blasted and transported to the crusher by trucks. Most of the quarry's production is transported by highway trucks to ship loading facilities at Point Tupper, Richmond County, a distance of 19 km. Georgia-Pacific also supplies gypsum to the wallboard plant at Point Tupper.

#### **LITTLE NARROWS GYPSUM COMPANY**

Manager: B. H. Allan  
 Address: R. R. #1  
 Little Narrows, N. S. B0E 1T0  
 Production: 103,044 tons (93 481 tonnes) of  
 anhydrite

1,279,595 tons (1 160 841 tonnes) of  
 gypsum

Employees: 101

Little Narrows Gypsum Company operates two gypsum quarries and an anhydrite quarry near Little Narrows, Victoria County. All the gypsum and anhydrite produced is shipped from the company's dock on the Bras d'Or Lakes to destinations in Canada and the United States.

#### **NATIONAL GYPSUM (CANADA) LTD.**

Manager: P. C. Mills  
 Address: P. O. Box 57  
 Milford, N. S. B0N 1Y0  
 Production: 3,753,638 tons (3 405 278 tonnes)  
 Employees: 100

National Gypsum (Canada) Ltd. operates the largest gypsum quarry in the province at East Milford, Halifax County. The gypsum is drilled, blasted and loaded onto trucks with loaders and hydraulic excavators. The gypsum is crushed, screened, and transported by unit train from Milford to Wright's Cove, Dartmouth, a distance of 45 km, where it is loaded onto ships for points in Canada and the United States.

#### **TUSKET MINING INCORPORATED**

Manager: C. E. Bain  
 Address: P. O. Box 48100  
 Bedford, N. S. B4A 3Z2  
 Production: 0 tons (0 tonnes)

Activity at the Murchyville Mine, Halifax County, was limited to the excavation of a 7 500 tonne sample in 1999. Approximately 4 200 tonnes of the sample material was shipped to a wallboard plant for assessment during the year.

### **Salt**

#### **THE CANADIAN SALT COMPANY LIMITED**

Manager: A. W. Davidson  
 Address: P. O. Box 160  
 Pugwash, N. S. B0K 1L0  
 Production: 843,375 tons (765 105 tonnes) of salt  
 Employees: 210

The Canadian Salt Company Limited operates an underground salt mine at Pugwash, Cumberland County. The salt is mined by a room and pillar system of extraction, using diesel/electric drills, undercutters,

loaders and trucks. The primary production during the year was from the 1000 level with secondary production from the 730 and 830 levels. The company completed a major program to install a steel shaft liner in the upper section of the No. 2 Shaft during the year.

The processing plant at the site produces a wide range of salt products, including industrial grades of salt, salt blocks for farm use, and fine salt for domestic consumption. Transportation is by road, rail or from the company owned ship-loading facility at Pugwash.

#### SIFTO CANADA INCORPORATED

Manager: D. E. Dickie  
 Address: P. O. Box 550  
 Amherst, N. S. B4H 4A1  
 Production: 84,616 tons (76 763 tonnes) of salt  
 Employees: 73

Salt has been produced from the solution salt mine at Nappan, Cumberland County, since 1947. Salt is mined by pumping water into underground wells where salt is dissolved and the resulting brine solution is then returned to the surface. The salt is recovered from the brine in a processing plant, using a 'mechanical vapour recompression evaporating process' system. The plant produces a wide range of refined salt products.

During the year, salt was produced from the No. 7 and No. 8 brine wells.

#### **Barite**

#### E-Z-EM CANADA INCORPORATED, NYSTONE DIVISION

Manager: V. J. Prostack  
 Address: P. O. Box 69  
 Debert, N. S. B0M 1G0  
 Production: 659 tons (598 tonnes) of pharmaceutical grade barite  
 Employees: 16

E-Z-EM Canada's barite deposit is located 1.6 km northeast of Brookfield, Colchester County. During 1999, approximately 1,686 tons of ore was produced from the surface mine. The ore was trucked to the company's plant at Debert where it was upgraded to a pharmaceutical quality product. The refined product is shipped to the parent company, E-Z-EM Corporation, New York, USA, for further processing and packaging.

#### LYNX MINERALS INC.

Manager: G. W. Felderhof

Address: Box 6, Site 9, R. R. #1  
 Trenton, N. S. B0K 1X0  
 Production: 4,840 tons (4 391 tonnes) of barite  
 Employees: 10

Lynx Minerals' barite deposit is located near Scotville, Inverness County. The company began development of the surface mining operation in June 1999. The barite product was shipped by truck to Upper Musquodoboit for grinding and is then used in drilling fluids for the offshore drilling industry. Site operations were closed down for the season in September 1999.

#### **Limestone and Dolomite**

#### LAFARGE CANADA INC.

Manager: J. Cross  
 Address: P. O. Box 5  
 Brookfield, N. S. B0N 1C0  
 Production: 543,434 tons (493 000 tonnes) of limestone  
 Employees: 11 (quarry) 79 (cement plant)

Lafarge Canada Inc. operates a limestone quarry near their Brookfield cement plant, 5 km west of Brookfield, Colchester County. The total production from the quarry is used at the plant.

#### MOSHER LIMESTONE COMPANY LIMITED

Manager: D. M. Mosher  
 Address: P. O. Box 28  
 Upper Musquodoboit, N. S.  
 B0N 2M0  
 Production: 48,555 tons (44 049 tonnes) of dolomite/limestone  
 Employees: 17

Mosher Limestone operates a number of quarries near Upper Musquodoboit, Halifax County. The company produces agricultural grade dolomite/limestone in its grinding plant at Upper Musquodoboit. The product is bagged or supplied in bulk for distribution throughout the Atlantic Provinces. The company also produces a pelletized limestone product for the domestic garden market.

#### SHAW RESOURCES, A MEMBER OF THE SHAW GROUP LIMITED

Manager: K. Hardie  
 Address: P. O. Box 60  
 Shubenacadie, N. S. B0N 2H0  
 Production: 0 tons (0 tonnes) of marble

Shaw Resources produces marble intermittently from a quarry at Marble Mountain, Inverness County. This marble is used for brick manufacture and in landscaping. There was no production reported in 1999.

**RIDGE BROKERS LIMITED**

Manager: E. Alward  
 Address: P. O. Box 175  
 Havelock, N. B. E0A 1W0  
 Production: 5,989 tons (5 433 tonnes) of limestone  
 Employees: 1

The company operates a small quarry at Southside Antigonish Harbour, Antigonish County, producing limestone for the agricultural market.

**SCOTIA LIMESTONE LIMITED**

Manager: D. M. Mosher  
 Address: P. O. Box 28  
 Upper Musquodoboit, N. S. B0N 2M0  
 Production: 4,669 tons (4 236 tonnes) of dolomite  
 Employees: 1

The Kelly's Cove dolomite quarry and plant are located near New Campbellton, Victoria County. The plant produces an agricultural grade dolomite for domestic sale, a ground dolomite product for coal mine stone dust, and dolomite products for the offshore steel industry. All 1999 production came from the existing ore inventory and no mining took place at the site during 1999.

**NOVA SCOTIA POWER INCORPORATED  
 (OPERATED BY KELLY ROCK LIMITED)**

Manager: D. W. MacKenna (Kelly Rock Limited)  
 Address: P. O. Box 1206  
 Sydney, N. S. B1P 6J9  
 Production: 83,441 tons (75 700 tonnes) of limestone  
 Employees: 10

The limestone quarry at Glen Morrison, Cape Breton County, began production in 1993. The operation produces several products at the on-site crushing and screening facility. During 1999, most of the production from this site was shipped to Point Aconi for use in the fluidized bed power generating station. Kelly Rock Limited operates the quarry on behalf of Nova Scotia Power Incorporated.

**Clay**

**SHAW BRICK, A MEMBER OF THE SHAW GROUP LIMITED**

Manager: B. Frizzell  
 Address: P. O. Box 2130  
 Lantz, N. S. B0N 1R0  
 Production: 28,000 tons (25 401 tonnes) of clay & shale  
 Employees: 4

Shaw Brick mines clay from pits at Lantz and Milford, Hants County, and shale from quarries located in Hardwood Lands, Hants County, and New Glasgow, Pictou County. These materials are used in the company's plant in Lantz for the manufacture of bricks and other structural clay products.

**Silica Sand**

**SHAW RESOURCES, A MEMBER OF THE SHAW GROUP LIMITED**

Manager: G. Dickie  
 Address: P. O. Box 60  
 Shubenacadie, N. S. B0N 2H0  
 Production: 53,929 tons (48 424 tonnes) of silica sand  
 Employees: 6

Shaw Resources produces silica sand from a deposit at West Indian Road, Hants County. This sand is processed into several silica sand products including glass grade sand.

**Dimension Stone**

**HERITAGE MEMORIALS LIMITED**

Manager: G. Nelson  
 Address: P. O. Box 308  
 Windsor, N. S. B0N 2T0  
 Production: 1,685 tons (1 529 tonnes) of granite (est.)  
 Employees: 20

The company periodically operates a small quarry at Nictaux West, Annapolis County. The grey granite is used as dimension stone at the company's memorial manufacturing plant at Windsor, Hants County.

**WALLACE QUARRIES LIMITED**

Manager: S. Flynn  
 Address: P. O. Box 203  
 Wallace, N. S. B0K 1Y0  
 Production: 262 tons (238 tonnes) of building  
 stone  
 Employees: 5

The Wallace Quarries, located near Wallace, Cumberland County, supply building stone for building rehabilitation work in Halifax and central Canada. Blocks of stone are sent for cutting to processing facilities in Nova Scotia, New Brunswick and Quebec to supply local markets.

**Other**

Two other stone operations, for which production information was not available at the time of publication, were Scotia Slate Products Ltd. and Lange Natural Rock and Stone Supplies. Scotia Slate operates a small slate quarry and fabrication facility near East Gore, Hants County, producing slate for local, domestic and international markets. Lange Natural Rock and Stone Supplies operates a small granite quarry near Parkdale, Lunenburg County, producing mainly European-style cobblestones.

**Peat Moss****ANNAPOLIS VALLEY PEAT MOSS COMPANY LIMITED**

President: H. Endres  
 Address: Berwick, N. S. B0P 1E0  
 Production: 6,021 tons (5 462 tonnes) of peat moss  
 (estimated)  
 Employees: 24 (some part time)

The company uses vacuum harvesters to recover agricultural peat from a 500 acre (200 ha) bog located near Berwick, Kings County. Baled peat products are shipped to markets in Canada, the United States and Japan.

**CLARE ORGANIC PRODUCTS LIMITED**

Owner: Gerald Thimot

Address: Box 174-A, Saulnierville  
 Digby County, N. S. B0W 2Z0  
 Production: 2,924 tons (2 653 tonnes) of peat moss  
 (estimated)  
 Employees: 20 (some part time)

The company uses vacuum harvesters to recover agricultural peat from a 200 acre (81 ha) bog located near Meteghan Station, Digby County. The company has a contract to supply a major Maritime peat producer with baled peat destined for international markets.

**MACDONALD PEAT MOSS LIMITED**

Owner: Lameque Quality Group Ltd.  
 Address: 86 Tourbe Street  
 Lameque, N. B. E8T 1A3  
 Production: 4,734 tons (4 295 tonnes) of peat moss  
 (estimated)  
 Employees: 18

MacDonald Peat Moss Limited, a wholly-owned subsidiary of New Brunswick's Lameque Quality Group Ltd., has lease rights to a 1700 acre (688 ha) peat bog located on Crown land, approximately 12 km west of Kennetcook, Hants County. 1999 was the second year of production for the company, which exports baled peat to international markets.

**Aggregate Resources**

Approximately 11 million tonnes of construction aggregates were produced in Nova Scotia in 1999. Twenty-seven companies reported crushed stone production totalling 7.9 million tonnes while 44 producers reported sand and gravel production totalling 2.6 million tonnes. The majority of aggregate was consumed within the province, with approximately 2 million tonnes exported.

Two companies eclipsed the 1 million tonne mark for crushed stone production in 1999. Rocky Lake Quarry Limited of Bedford, Nova Scotia, reported shipments of 1.4 million tonnes while Martin Marietta Materials Canada Ltd. reported just over 2.2 million tonnes shipped. Martin Marietta's Porcupine Mountain operation was the country's seventh largest in 1999.

