ROCK SALT FROM CANADA

Determination of the Commission in Investigation No. 731-TA-239 (Preliminary) Under the Tariff Act of 1930, Together With the Information Obtained in the Investigation

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UNITED STATES INTERNATIONAL TRADE COMMISSION

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Note.--Information which would reveal the confidential operations of individual concerns may not be published and therefore has been deleted from this report. Such deletions are indicated by asterisks.

Notice of the institution of the Commission's investigation and of a public conference to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the Federal Register of February 6, 1985 (50 F.R. 5138). The conference was held in Washington, DC, on February 19, 1985, and all persons who requested the opportunity were permitted to appear in person or by counsel.

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, DC

Investigation No. 731-TA-239 (Preliminary)

ROCK SALT FROM CANADA

Determination

On the basis of the record 1/ developed in the subject investigation, the Commission determines, pursuant to section 733(a) of the Tariff Act of 1930 (19 U.S.C. § 1673b(a)), that there is a reasonable indication that an industry in the United States is materially injured, or threatened with material injury, by reason of imports from Canada of rock salt, provided for in items 420.94 and 420.96 of the Tariff Schedules of the United States, which are alleged to be sold in the United States at less than fair value (LTFV). 2/

Background

On January 28, 1985, counsel for the International Salt Co., filed a petition with the U.S. International Trade Commission and the U.S. Department of Commerce alleging that imports of rock salt from Canada are being sold in the United States at LTFV and that such imports are causing material injury, or threatening to cause material injury, to the domestic industry producing such merchandise. Accordingly, effective January 28, 1985, the Commission instituted a preliminary antidumping investigation under section 733(a) of the Tariff Act of 1930 to determine whether there is a reasonable indication that an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports of such merchandise.

1/ The record is defined in sec. 207.2(i) of the Commission's Rules of Practice and Procedure (19 CFR § 207.2(i)).

2/ Vice Chairman Liebeler determines that there is a reasonable indication that an industry in the United States is materially injured by reason of imports from Canada of rock salt, provided for in items 420.94 and 420.96 of the Tariff Schedules of the United States, which are alleged to be sold in the United States at less than fair value.

VIEWS OF THE COMMISSION

On the basis of the record in investigation No. 731-TA-239 (Preliminary), we determine that there is a reasonable indication that an industry is materially injured or threatened with material injury by reason of imports of rock salt from Canada which are allegedly sold at less than fair value (LTFV). 1/

For the purpose of this preliminary determination, we have utilized the petitioner's definition of like product and proposed definition of the regional industry. In the event of a final investigation, the Commission will reexamine these issues with the aid of more detailed transportation and pricing data. Although there are indicators to the contrary, declining employment and aggregate losses on sales of domestically produced rock salt demonstrate that there is a reasonable indication of material injury to the domestic industry. Increased imports and pricing data indicate that there is a reasonable indication that the domestic industry is experiencing material injury by reason of imports of Canadian rock salt allegedly sold at LTFV. Rising capacity and production of the Canadian mines also demonstrate that there is a reasonable indication of threat of material injury to the domestic industry.

Domestic industry and like product

The statutory framework within which the Commission must conduct its antidumping investigations requires that we first determine the domestic industry against which to assess the impact of the allegedly LTFV imports. The term "industry" is defined in § 771(4)(A) of the Tariff Act of 1930 as

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1/ Vice Chairman Liebeler determines that there is a reasonable indication that an industry is materially injured by reason of imports of rock salt from Canada which are allegedly sold at LTFV.

"[t]he domestic producers as a whole of the like product, or those producers whose collective output of the like product constitutes a major proportion of the total domestic production of that product." 2/ The term "like product," in turn, is defined in § 771(10) as "[a] product which is like, or in the absence of like, most similar in characteristics and uses with, the article subject to an investigation . . . ." 3/

The imported product which is the subject of this investigation is rock salt. Imported and domestic rock salt is sodium chloride, an abundant mineral found throughout the world. 4/ It is produced by mining underground salt deposits. Compared with other types of salt, rock salt has larger crystals and a smaller sodium chloride content because of the presence of impurities. 5/ Approximately half of all rock salt shipped domestically in 1983 was used for highway deicing. Approximately 20 percent was used in 1983 in the chemical industry, particularly in the manufacture of chlor-alkalis (i.e., chlorine, sodium hydroide, and synthetic sodium carbonate). Approximately 30 percent was used in 1983 for food processing and other purposes, but was not used in food itself. 6/ Domestically produced rock salt is identical to imported rock salt.

2/ 19 U.S.C. § 1677(4)(A).
3/ 19 U.S.C. § 1677(10).
4/ Report of the Commission (Report) at A-2.
5/ For example, the sodium chloride content is higher in evaporated salt and some types of solar salt. See Conference Transcript at 17.
6/ Report at A-3. Almost all of the salt being imported from Canada is rock salt. There are two other types of salt--evaporated and solar. At the conference, the parties agreed that evaporated salt is not like rock salt. Solar salt is used to a minor degree for highway deicing. Its major uses are in the chemical industry, food processing industry, and in other manufacturing industries. Solar salt has about the same purity and crystal size as rock salt.

Rock salt's primary end use is highway deicing. Of the total salt used for highway deicing in 1983, rock salt represented 96 percent and solar salt

(Footnote continued on next page)

For the purposes of this preliminary investigation, we determine that the like product is rock salt.

Regional industry

Section 771(4)(C) states that "[i]n appropriate circumstances, the United States, for a particular product market, may be divided into two or more markets and the producers within each market may be treated as if they were a separate industry . . . ." 7/ Petitioner, International Salt Company (International Salt), argues that there is a regional industry consisting of the producers within the states of Minnesota, Wisconsin, Iowa, Illinois, Indiana, Michigan, Missouri, Alabama, Louisiana, Mississippi, Arkansas, Tennessee, Kentucky, West Virginia, Ohio, and Pennsylvania, west of Pittsburgh. There are three statutory criteria for making a regional industry determination:

1. Whether the producers within the regional market sell all or almost all of their production of the like product in question in that market?

2. Whether the demand in the regional market is not supplied, to any substantial degree, by producers of the product in question located outside the region in the United States?

3. Whether there is a concentration of allegedly dumped imports within the regional market? 8/

(Footnote continued from previous page)
only 4 percent. Reportedly, solar salt's uniform crystals and moisture content make it less desirable for highway deicing. There is also some overlap in the uses of rock salt and solar salt. Because of the incomplete data on solar salt, for the purposes of this preliminary investigation, we determine that domestically produced solar salt is not like imported rock salt. In the event of a final investigation, we will examine this issue further.

7/ 19 U.S.C. § 1677(4)(C).

8/ Id.

During the period of investigation, the domestic producers within the petitioner's proposed region (hereinafter region) sold over 93 percent of their production of rock salt in the region, and producers outside the region in the United States supplied less than 4 percent of the demand within the region. In addition, more than 80 percent of the imports from Canada enter the customs ports within the region and are imported for consumption within the region. 9/ Therefore, the region appears to meet the criteria of the statute.

A mechanical application of the three statutory criteria does not conclude an analysis of regional industry. The statutory language "appropriate circumstances" and "may be treated" allows for discretion in defining a regional market, 10/ but the Court of International Trade and the Commission have cautioned against "[a]rbitrary or free handed sculpting of regional markets." 11/ The statute and its legislative history indicate that the Commission is to determine whether a regional market exists by determining whether an "[i]solated or separate geographic market" exists. 12/ Factors

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9/ Report at A-33. In comparison, the Commission in Fall-Harvested Round White Potatoes from Canada, Inv. No. 731-TA-124 (Final), USITC Pub. 1463 (1983), found a concentration of imports where 68 percent of Canadian imports entered the regional market.

10/ Section 771(4)(C), 19 U.S.C. § 1677(4)(C). See Certain Steel Wire Nails from the Republic of Korea, Inv. No. 731-TA-26 (Final), USITC Pub. 1088 at 9 (1980); see also Chairwoman Sterns's footnote in Frozen French Fried Potatoes from Spain, Inv. No. 731-TA-93 (Preliminary), USITC Pub. 1259 at 6, n.15 (1982).

11/ See Atlantic Sugar, Ltd. v. United States, 519 F. Supp. 916, 920 (CIT 1981); Portland Hydraulic Cement from Australia and Japan, Invs. Nos. 731-TA-108-109 (Preliminary), USITC Pub. 1310 at 11, n.30 (1982).

12/ 19 U.S.C. § 1677(4)(C). See also S. Rep. No. 249, 96th Cong., 1st Sess. 82 (1979). Thus, the Commission stated in Cut-to-Length Carbon Steel Plate from the Republic of Germany, Inv. No. 731-TA-147 (Preliminary-Remand), USITC Pub. 1550 at 8 (1984): "The overriding concern of regional industry analysis is to determine whether a market is isolated and insular."

which the Commission has used to measure "isolation" include commercial realities, such as transportation costs, and geographic boundaries.

Petitioner International Salt has defined its proposed region to include all of the states that border the Great Lakes (except New York) and those located along the Mississippi, Illinois, and Ohio River systems. Domestic rock salt mines in this region are located in southern Louisiana and northern Ohio. Petitioner argues that transportation costs, which are an important factor in the cost of rock salt, require that rock salt be marketed on a regional basis. Specifically, petitioner maintains that the Great Lakes and the cited inland waterways constitute the backbone of the proposed region because a significant amount of rock salt is transported by barge. Petitioner's rationale for including the Louisiana mines within the region is that, due to certain inland waterway transportation cost advantages, rock salt produced in the Louisiana mines is sold throughout the proposed region, including the Great Lakes area in which the imports from Canada are primarily consumed.

Respondents argue that it is not appropriate to find a regional industry in this investigation, but if the Commission were to adopt the petitioner's proposed region, it should at least modify it to include New York State. Respondents maintain that northern rock salt mines—those in New York and Ohio—supply the demand in the area adjoining the Great Lakes and New England, while southern mines—those in Louisiana, Kansas and Texas—supply the remainder. 13/ They argue that there is no truly isolated market, because

13/ The parties' arguments focus on the eastern two-thirds of the United States. The West Coast of the United States, which consumes relatively little rock salt, is supplied domestically by a few mines located in Utah.

contrary to petitioner's position, the boundary lines are not fixed, but fluid. The boundary line constantly shifts, they maintain, depending upon different transportation modes, changes in transportation costs, and changes in supply and demand caused by weather conditions. Second, respondents argue that the imports are not truly concentrated within the proposed region. They point out that the market share for Canadian imports inside the proposed region is not significantly higher than it is in the states in which Canadian imports are sold that are located outside the proposed region. Alternatively, respondents argue that even if the Commission adopted a regional industry analysis, it would not be appropriate to exclude New York because shipments from New York into the proposed region and vice versa are not insignificant. 14/

Information currently in the record generally tends to support petitioner's position that there is some regional market. However, our preliminary investigation has raised certain questions regarding whether the definition proposed by the petitioner is appropriate.

Imports from Canada are not sold to any significant degree more than a few hundred miles south of various unloading points along the Great Lakes. Due to advantageous back-haul barge rates, some rock salt produced in Louisiana competes in areas where imports from Canada are sold, such as Chicago. However, information contained in our current record indicates that the amount of Louisiana-produced rock salt that actually competes with the imported rock salt is very limited. Therefore, we will explore the issue of

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14/ Respondents argue that petitioner's exclusion of New York State is self-serving since its Retsof plant, which is located in New York, is known to be a very low cost and profitable operation.

whether it is appropriate to include the Louisiana mines in any final investigation.

Second, the information currently on the record indicates that historically there have not been substantial shipments between New York and the proposed region because: (1) International Salt, the major New York producer, would be at a cost disadvantage with its own mine in Cleveland and Morton's mine in Fairport, Ohio; and (2) Morton, the only other domestic producer located in Ohio, is at a transportation cost disadvantage attempting to compete with International Salt's Retsof, New York, mine for sales in New York State. Some imports from Canada are marketed in the Buffalo area, but generally the imports also apparently face a transportation cost disadvantage in competing with International Salt's Retsof mine. However, due to the lack of a fully-developed record at this preliminary stage, we are unable to evaluate fully the "eastern boundary" issue at this time. However, we will examine it further in any final investigation. 15/

In addition, due to the problems encountered in developing comparable financial and pricing data, it is currently difficult to evaluate respondents' arguments regarding the appropriateness of any regional industry finding. Therefore, we will also examine this issue further in any final investigation.

For the purposes of this preliminary investigation, we determine that the domestic industry consists of the domestic producers located within the proposed region: International Salt, Morton, Domtar, Inc., and Cargill, Inc.

15/ Chairwoman Stern notes that the issue of whether it is appropriate to find a regional industry based upon the voluntary marketing practices of a domestic producer is one about which Commissioners have taken different positions in previous cases. See Atlantic Sugar, Ltd. v. United States, 2 CIT 297 (1981). She will explore this issue further pending development of a more complete factual record in any final investigation.

Related parties

Petitioner, International Salt, argues that because Domtar and Morton are importers, 16/ they should be excluded from the domestic industry as related parties. Section 771(4)(B) 17/ provides that in appropriate circumstances domestic producers that are importers of the allegedly dumped merchandise may be excluded from the domestic industry. The statute indicates that the Commission has discretion in applying the related parties provision. 18/ In past cases the Commission had interpreted the appropriate circumstances to be where inclusion of the data for the related producers would skew the economic data for the entire domestic industry. 19/ In comparison to the past investigations, in this case Morton and Domtar account for a substantial percentage of the production of rock salt within the region. Exclusion of the domestic data for these two producers would skew the data for the entire domestic industry.

Because the exclusion of Morton and Domtar would distort the economic data for the region, for the purposes of this preliminary investigation, we

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16/ Imports account for approximately one-third of domestic shipments for both Domtar and Morton.

17/ 19 U.S.C. § 1677(4)(B).

18/ Petitioner argues on the basis of Gilmore Steel Corp. v. United States, 5 ITRD 2143 (CIT 1984), and the amendments to section 201 in the 1984 Trade Act that the Commission is legally obligated to exclude Morton and Domtar as related parties. We reject this argument. Based on the plain meaning of the statute, the Commission has discretion to apply the related parties provision. Further, petitioner fails to note that in the Gilmore case, Gilmore was the sole producer located in the region.

19/ See Certain Table Wine from France and Italy, Invs. Nos. 701-TA-210-211 and 731-TA-167-168 (Preliminary), USITC Pub. 1502 at 10-11 (1984); Certain Color Television Receivers from the Republic of Korea and Taiwan, Invs. Nos. 731-TA-134-135 (Final), USITC Pub. 1514 at 9-10 (1984); see also Certain Forged Undercarriage Components from Italy, Inv. No. 701-TA-201 (Final), USITC Pub. 1465 at 5-6 (1983), and Frozen Concentrated Orange Juice from Brazil, Inv. No. 751-TA-10, USITC Pub. 1623 (1984).

determine that Morton and Domtar should not be excluded under the related parties provision. 20/

Condition of the domestic industry

Among the factors considered in determining the condition of the domestic industry are production, shipments, employment, sales, and profits or losses. 21/ 22/ Regional production declined from 1982 to 1983, but then increased in 1984 to a higher level than 1982. 23/ Regional shipments followed the same trend, declining from 1982 to 1983, but then increasing in 1984 to a higher level than 1982. 24/ Employment, however, dropped from 1982 to 1983, and then declined again in 1984. 25/

20/ Petitioner argues that the commingling of respondents Morton's and Domtar's data for their U.S. and Canadian operations compels the exclusion of these two producers. Morton operates its rock salt mines in the United States and Canada as an integrated source of rock salt to the company. Morton directs shipments to U.S. destinations from the United States or from Canada with the view of maximizing the net profits either in the United States or Canada. The transfer price is also selected with the view of maximizing profits to Morton. Therefore, further inquiry is needed to evaluate whether financial data for Morton U.S.A. accurately represents the profitability of domestic rock salt sales. In the case of Domtar, we will evaluate more completely the allocation of overhead incurred in Canada to U.S. operations and the transfer pricing which may shield Domtar U.S.A. from both extreme losses and extreme profits.

21/ Because of the limited number of producers in the domestic industry, much of the information on the record is confidential. This analysis is necessarily presented in general terms.

22/ In their post-hearing brief, Morton and Domtar argued that the Commission should conduct a producer-by-producer analysis in this regional industry case as advocated by the Court of International Trade in Atlantic Sugar, Ltd. v. United States, 2 CIT 297 (1981). Morton and Domtar failed to mention that on review although the Court of Appeals for the Federal Circuit did not directly overrule the holding, it did state that there was no basis in the statute or the legislative history for a producer-by-producer analysis in a regional industry case. Atlantic Sugar, Ltd. v. United States, 744 F.2d 1556, 1562, n.27 (CAFC 1984).

23/ Report at A-14.

24/ Id. at A-17.

25/ Id. at A-22.

Net sales declined from 1982 to 1983, but then increased substantially in 1984. The producers within the region sustained aggregate operating losses throughout the period. 26/ From 1982 to 1983, the losses increased significantly. In 1984, the losses decreased, but they were still greater than in 1982. 27/ 28/

Reasonable indication of material injury or threat of material injury by reason of imports allegedly sold at LTFV 29/

Imports of rock salt into the region from Canada remained relatively stable at approximately 1.8 million tons from 1982 to 1983, but then increased to 2.6 million tons in 1984. 30/ During the investigative period, the import penetration rate into the region steadily increased from 19.7 percent in 1982 to 22.8 percent in 1983, and then to 25.5 percent in 1984. 31/

26/ We have considered Morton's profit-and-loss data separately because of certain problems in the comparability of its data. Because of the way Morton's data for rock salt operations are compiled, the Commission is not sure whether Morton's rock salt operations have sustained operating profits or losses during the period. However, Morton's 1984 annual report cited the decreases in prices for rock salt as the reason it reported a decrease in profits of 5 percent for its entire operations. Although this report refers to all of Morton's rock salt produced in the United States, by far the most substantial portion of Morton's rock salt production is within the region.

27/ Report at A-26.

28/ Chairwoman Stern, Vice Chairman Liebeler, and Commissioner Rohr note that the profit-and-loss trend for petitioner's operations within the region is substantially different than that for Morton or Domtar's operations within the region. There are indications in the record that International Salt's performance during this period may have been affected to a significant degree by the closing of its Detroit mine and that the closing of its Detroit mine was done for reasons not related to import competition. In any final investigation, we will require that comparable financial data on an individual producer basis and an explanation of the effect of International Salt's Detroit mine closing on International Salt's financial performance be developed.

29/ Vice Chairman Liebeler determines that there is a reasonable indication of material injury only.

30/ Report at A-34.

31/ Id. at A-35.

The largest users of rock salt are the states, counties, and cities within the region that buy rock salt for highway deicing through a competitive bidding process. The Commission confirmed a number of lost sales to imports from Canada as a result of bid competition. 32/ However, purchasers were unable to confirm exact quantities of Canadian rock salt.

It is unclear whether low f.o.b. prices of Canadian rock salt have caused the U.S. producers to lose the bid or whether the difference in comparable transportation costs has caused the U.S. producers to lose the bid. The current record shows a pattern of lower-priced Canadian rock salt on a delivered basis in selected areas. In a number of instances involving comparable bids to supply rock salt to cities or counties in four states, contracts were awarded to suppliers of Canadian rock salt. Margins of underbidding ranged from 3 percent to 24 percent. Data were difficult to compare, 33/ however, and limited the analysis of bid competition to awards made in only five localities in the entire 16 state region. This lack of data obscures the dimensions of transportation cost advantage or disadvantage in defining the area and the extent of competition in the subject region, or a broader region.

In determining threat of material injury, the Commission considers whether there is increasing capacity and production by the foreign producers under investigation. In this case, the capacity and production of the Canadian producers steadily rose during the period of investigation. These

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32/ Id. at A-43.

33/ Questionnaire responses were for many different locations within the region for which price data were requested. Because of the importance of transportation costs in determining delivered prices, matched price comparisons from questionnaire responses were possible for only a few delivery points.

increases demonstrate that there is a reasonable indication of threat of material injury to the domestic rock salt industry.

In the event of a final investigation, the Commission will seek to broaden its data base for bid comparisons and transportation costs in order to define the region and to further examine whether the basis for competitive advantage is transportation cost or low-priced rock salt.

INFORMATION OBTAINED IN THE INVESTIGATION

Introduction

On January 28, 1985, a petition was filed with the U.S. International Trade Commission and the U.S. Department of Commerce by counsel on behalf of International Salt Co. (ISCO), Clark Summit, PA, a U.S. producer of rock salt. The petition alleges that an industry 1/ in the United States is materially injured, or is threatened with material injury, by reason of imports from Canada of rock salt, provided for in items 420.94 and 420.96 of the Tariff Schedules of the United States (TSUS), which are alleged to be sold in the United States at less than fair value (LTFV). Accordingly, effective January 28, 1985, the Commission instituted investigation No. 731-TA-239 (Preliminary) under section 733(a) of the Tariff Act of 1930 to determine whether there is a reasonable indication that an industry in the United States is materially injured or threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports of such merchandise.

Notice of the institution of the Commission's investigation and of the public conference to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the Federal Register of February 6, 1985 (50 F.R. 5138). 2/ The public conference was held in Washington, DC, on Febuary 19, 1985, at which time all interested parties were afforded the opportunity to present information for consideration by the Commisson. 3/ The Commission voted on the investigation on March 8, 1985.

Nature and Extent of Alleged Sales at LTFV

ISCO alleges that Canadian producers sell in the U.S. market by underbidding U.S. domestic producers for state, county, and municipal highway rock salt contracts. They allege that in 1984, Morton exported rock salt from Canada to the regional market in the United States at prices ranging from 36 to 44 percent below fair value and that Domtar's export sales from Canada to the region in 1984 ranged from 16 to 55 percent below fair value. These margins are cited as particularly significant since U.S. rock salt prices in 1984 were allegedly below 1980 levels. Petitioner's allegations concerning LTFV margins are shown in table 1.

1/ The petition alleges that the industry that is materially injured is located in a distinct region of the United States, as provided in section 771(4)(C) of the Tariff Act of 1930. The region is described in the section of this report on the domestic market.

2/ A copy of the Commission's notice is presented in app. A. A copy of the U.S. Department of Commerce's notice is presented in app. B.

3/ A list of witnesses appearing at the conference is presented in app. C.

Table 1.--Rock salt: Alleged LTFV margins

Firm	Average mine netback 1/ on sales to the United States	Range of mine netback 2/ on sales to Canada	Difference	Margin range
	Per ton			Percent
Morton	$11.14	$15.17 to $16.06	$4.03 to $4.92	36 to 44
Domtar	$11.07	$12.86 to $17.24	$1.74 to $6.17	16 to 55

1/ Mine netback price was calculated by deducting inbound and outbound freight charges and warehousing costs from the contract price.

2/ Converted into U.S. dollars based on prevailing exchange rate at the time of sale.

The Product

Description and uses

Background.--Rock salt is a form of sodium chloride (salt). It is an abundant mineral found throughout the world. Salt (sodium chloride or NaCl) is composed of 39 percent sodium and 61 percent chlorine by weight; it occurs in dry deposits as rock salt, and in solutions as seawater and other bodies of water (the Great Salt Lake and the Dead Sea). World resources are essentially unlimited. The high weight-to-value ratio of salt makes transportation cost a major factor in market-access and market-selection, however.

Description.--Rock salt, which is the subject of this investigation, occurs naturally in underground salt deposits as sedimentary rock; these deposits evolved as inland seas that separated from oceans and evaporated. Most of the world's salt, however, is contained in solution form in the oceans as a component of seawater.

North American rock salt deposits occur in several basins located in various regions of the United States, Mexico, and Canada. The Silurian basin deposit extends through areas of Michigan, Ohio, Pennsylvania, New York and the Canadian Province of Ontario. The Permian basin is centered in parts of Kansas, Colorado, Oklahoma, New Mexico, Texas, and northern Mexico. The gulf coast basin includes parts of Texas, Arkansas, Louisiana, Mississippi, Alabama, and northeastern Mexico. The Williston and Elk Point basins cover parts of North and South Dakota, Montana, and the Provinces of Saskatchewan and Alberta. Other significant world rock salt deposits occur in South America, the United Kingdom, Europe, and the U.S.S.R.

Uses.--The major U.S. use of rock salt is in highway deicing. In 1983, 47 percent of all domestically produced rock salt sold or used in the United States was for this purpose. Of total salt used for deicing, rock salt accounted for more than 96 percent and solar salt for less than 4 percent in 1983.

Another use of rock salt is in the chemicals industry, particularly in the manufacture of chlor-alkalis (i.e., chlorine, sodium hydroxide, and synthetic sodium carbonate). The chemical industry accounted for 20 percent of rock salt used domestically, in 1983, and for 61 percent of all salt used domestically, in 1983. About 90 percent of the total domestic production of salt brine is used by the chlor-alkali industry.

Table 2 shows the distribution of all forms of domestically produced salt, by consumer or use, for 1983.

Table 2.--Distribution of domestically produced salt in the United States, by end uses, 1983

(In thousands of short tons of salt)

Consumer or use	Evaporated		Rock	Brine	Total
	Vacuum pans and open pans	Solar			
Highway use	-	183	4,848	-	5,031
Chemical manufacturing	610	623	2,058	18,318	21,609
Manufacturing industries	230	422	470	469	1,591
Food processing and related industries 1/	2,077	465	1,331	-	3,873
Other	842	432	1,680	463	3,417
Total	3,759	2,125	10,387	19,250	35,521

1/ Rock salt used in the category is essentially made into brine solutions and used for refrigeration purposes by meatpackers, tanners, casing manufacturers, and in the canning industries. Rock salt is sold in grocery stores for use in home ice creammakers and for personal property deicing purposes.

Source: Compiled from data of the U.S. Department of Interior, 1983 Bureau U.S. Bureau of Mines, "Salt", Minerals Yearbook, 1983.

Salt used as highway deicer, whether domestic or imported, must meet American Society for Testing and Materials' standard specifications. Its chemical composition must be 95 percent sodium chloride, plus or minus 0.5 percentage points. Up to 2 percent of an anticaking agent is permitted. Rock salt used primarily as pavement deicer has two grade levels based on particle-size classifications. Grade 1 consists of particles generally less than 1/2 inch in size. 1/ Grade 2 consists of particles generally less than 3/4 inch in size. 2/

Salt used as highway deicer creates significant environmental problems, including vegetation damage, contamination of waterways and wells, auto

1/ Grade 1 particle size has been found to be most effective for ice control and skid resistance under most conditions.

2/ Grade 2 is typical of salt available in the Rocky Mountain region and in the West. It reflects regional customer preferences.

corrosion, scaling of concrete surfaces, and corrosion of steel reinforcing bars on bridge decks.

Substitutes.--Many substitutes for deicing salt have been suggested, but most are too expensive and/or unavailable in the large quantities needed. Urea is used as a deicer on airport runways. Abrasives and calcium chloride may also be used for deicing. Calcium chloride is more expensive and corrosive than sodium chloride, but it is more effective for deicing at lower temperatures and is frequently mixed with rock salt in colder climates. Soda ash (sodium carbonate) may be substituted for sodium chloride used in the manufacture of caustic soda (sodium hydroxide) but only at higher costs. Potassium chloride is sometimes substituted for sodium chloride used as food flavoring, especially for patients with hypertension or those requiring low-sodium diets.

Manufacturing processes

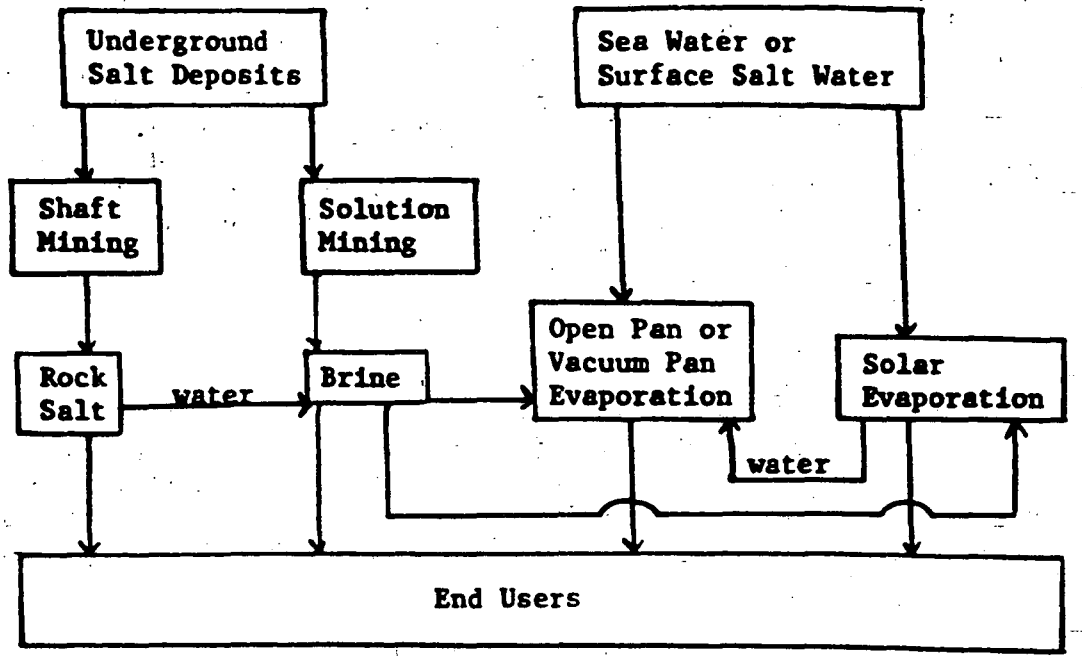
Salt deposits are recovered through the methods shown in figure 1. Each recovery method is discussed in detail below.

Rock salt.--Rock salt is recovered generally through shaft mining. Underground salt deposits are mined similar to coal. A shaft is sunk into the salt vein, then undercutting, drilling, and blasting are used to free the deposits, which are loaded and transported to the surface for further processing. This is called the "room and pillar" method because as rock salt is removed, empty spaces (rooms) are created in which pillars of undisturbed salt are left for support. At least two access shafts are constructed to provide adequate safety and ventilation. Salt mined in this manner is referred to as "rock salt." Processing involves crushing, screening, bagging, and loading.

Other forms of salt.--In solution mining, water is pumped into a salt deposit to dissolve the salt, and the resultant brine is brought to the surface. In general, two methods are used for solution mining. One technique has water pumped in and brine pumped out of a single well with annular pipes. Water is pumped into the outer space and brine brought up through the inner pipe area. Another method uses two holes drilled in the deposit approximately 100 meters apart. Pressurized fresh water is introduced to hydraulically fracture the salt bed, then water is pumped into one well and brine out the other. For ordinary grades of salt, only solids need to settle out to clarify the brine, and hydrogen sulfide must be removed. In the United States, regular table salt is produced in this manner.

In the mechanical evaporation method, salt is obtained by dehydrating brine using heat alone or in combination with vacuum. Brine is placed in open pans with immersed heating coils. This process usually produces flake-shaped salt that is preferred in cheese, butter, and baked goods production. Adding vacuum conserves energy in that brine boils at a lower temperature under vacuum. This is a very energy-intensive process resulting in four to five times higher cost of production than that of rock salt.

Figure 1: Salt Recovery Processes



Source: Commodity-industry analyst, U.S. International Trade Commission.

The solar evaporation method is the oldest method of salt recovery and it is very dependent on humidity and precipitation conditions. Solar evaporation is used mainly along sea coasts. Sea water (or brine) is concentrated in specially constructed evaporating ponds. During initial concentration, many impurities also precipitate out. The concentrated salt water is then pumped to lime beds to remove calcium chloride, then finally to harvesting ponds to permit salt crystallization. When about 85 percent of the salt has crystallized, the remaining liquor or "bitterns" is channeled elsewhere for discarding or further reclaiming/extraction of magnesium, bromine, potassium, or sodium compounds. The salt crop is then harvested, washed, and stockpiled. Further processing consists only of drying, crushing and screening. This is a very time-consuming yet energy-efficient process. It takes about 5 years from start of initial concentration to final crystallization. To be sold as food grade, solar salt must be redissolved and the brine processed in vacuum pans.

U.S. tariff treatment

Rock salt is classified in items 420.94 and 420.96 of the TSUS. The current column 1 most-favored-nation (MFN) rates of duty, 1/ future column 1 concession rates granted under the Tokyo round of the Multilateral Trade Negotiations (MTN), 2/ least developed developing countries (LDDC's) duty rates, 3/ and column 2 specified Communist countries duty rates, 4/ are given in the following tabulation:

1/ Col. 1 rates apply to items imported from all countries except those Communist countries and areas enumerated in general headnote 3(f) of the TSUSA. However, these rates are not applicable to products of developing countries granted preferential tariff treatment under the Generalized System of Preferences (GSP) or under the "LDDC" column.

2/ Final concession rates granted under the Tokyo round of the MTN are the result of staged duty reductions of col. 1 rates which began Jan. 1 1980. The reductions will occur annually, with the final rates becoming effective Jan. 1, 1987.

3/ LDDC rates are preferential rates (reflecting the full U.S. MTN concession rate for a particular item without staging) applicable to products of those LDDC's designated in general headnote 3(d) of the TSUSA which are not granted duty-free treatment under the GSP.

4/ The rate of duty in col. 2 applies to imported products from those Communist countries and areas enumerated in general headnote 3(f) of the TSUSA.

TSUS item No.	Description	Rate of duty				
		Col. 1			LDDC's	Col. 2
		Jan. 1, 1985	Jan. 1, 1986	Jan. 1, 1987		
420.94 1/	Sodium chloride, in bulk.	0.8% ad val.	0.4% ad val.	Free	Free	26% ad val.
420.96	Sodium chloride, other.	Free				11¢ per 100 lb.

1/ Eligible countries receive preferential tariff treatment under the GSP.

Imports from beneficiary countries entering under item 420.94 are eligible for duty-free entry under the GSP.

The Domestic Market

The petitioner specified the area shown in figure 2 as a region of the United States within which U.S. producers are allegedly injured by the alleged LTFV sales of rock salt imported from Canada. The Commission collected data for the U.S. establishments located inside the alleged region separately from those located outside the region.

The region consists of Minnesota, Wisconsin, Michigan, Illinois, Indiana, Ohio, Iowa, Missouri, Kentucky, West Virginia, Arkansas, Tennessee, Louisiana, Mississippi, Alabama, and western Pennsylvania. The opponents of the petition do not disagree with the western or southeastern boundaries of the region defined by the petitioner but argue that New York should be included in the region. New York receives some of its Canadian rock salt through the Great Lakes ports, it receives little rock salt from domestic mines located within the region and no imported rock salt shipped on the river system.

Apparent U.S. consumption

Data on apparent U.S. consumption of rock salt are presented in table 3. Apparent U.S. consumption within the region was consistently greater than in the rest of the United States. It decreased from 9.1 million tons to 7.8 million tons from 1982 to 1983, and increased to 10.2 million tons in 1984. Consumption outside the region followed the same pattern, decreasing from * * * million tons in 1982 to * * * million tons in 1983, and increasing to * * * million tons in 1984.

Figure 2.-- The region as defined by the Petitioner.

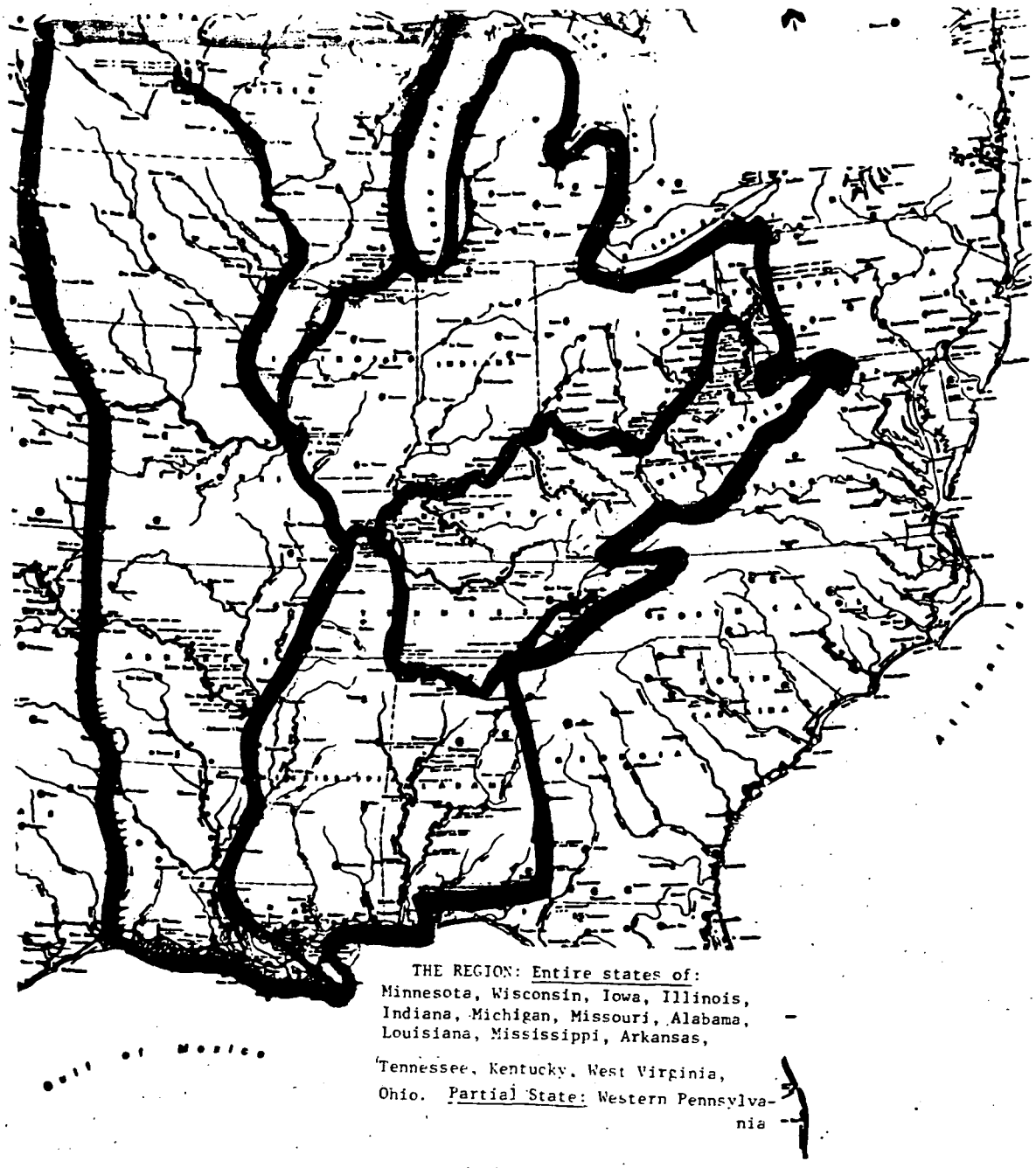


Table 3.--Rock salt: Apparent U.S. consumption, by regions, 1982-84

(In thousands of tons)

Item	1982	1983	1984
Within the region:			
Domestic shipments--			
Produced within the region	***	***	***
Produced outside the region	***	***	***
Subtotal	7,234	5,904	7,537
Imports	1,908	1,847	2,707
Apparent consumption within the region	9,142	7,751	10,244
Outside the region:			
Domestic shipments	***	***	***
Imports	***	***	***
Apparent consumption outside the region	***	***	***
Total apparent U.S. consumption	***	***	***

Source: Shipments compiled from data submitted in response to questionnaires of the U.S. International Trade Commission and imports, compiled from official statistics of the U.S. Department of Commerce.

Channels of distribution

Rock salt is sold directly by the producers or importers to highway users and other users of bulk rock salt. Intermediaries, such as packagers or wholesalers, play a role only in a small portion of total rock salt sales, mostly serving smaller purchasers. For a further discussion of the distribution system, refer to the transportation section of this report.

U.S. Producers

The four largest U.S. rock salt producers are International Salt Co., Domtar Chemicals, Inc., Morton-Thiokol, and Cargill, Inc. The locations of rock salt mines in North America are shown in Appendix D. The names and production locations of the U.S. firms that produce rock salt are given in table 4.

ISCO is the largest U.S. producer of rock salt. The company has rock salt mines in New York, Louisiana, and Ohio. Most ISCO rock salt is shipped in bulk for use as highway deicer or as raw material for chlor-alkali production. ISCO's Retsof, NY, mine is believed to be the largest rock salt mine in the Western Hemisphere. Domtar Chemicals, Inc., Sifto Salt Division, produces rock salt in both the United States and Canada and sells both domestic and imported rock salt in the United States. Domestically produced rock salt represents approximately * * * percent of these sales. Domtar's accounting functions for its U.S. operations are performed in Toronto; legal, financial, and other services are performed at the company's headquarters in Montreal.

Table 4.--Rock salt: U.S. producers

Company	Region	Location	1984 Production %	Parent	Canadian affiliation
American Salt Co.	Out	Kansas	***	None	None
Carey Salt Division of Processed Minerals, Inc.	Out	Kansas	***	Canadian Pacific Ltd., Canada	Parent
Cargill, Inc. 1/	In Out	Louisiana New York	***	None	None
Diamond Crystal Salt Co. 2/	In	Louisiana	***	None	Diamond Crystal Salt of Canada
Domtar Chemicals, Inc.	In	Louisiana	***	Domtar, Inc., Canada	Parent and sister companies
Huck Salt	Out	Nevada	***	None	None
Independent Salt Co.	Out	Kansas	***	None	None
International Salt Co.	In In In Out	Louisiana Mich. 3/ Ohio New York	 *** 	Akzona, Inc., The Netherlands	Iroquois Salt Products, Ltd.
Morton-Thiokol, Inc.	In In Out	Louisiana Ohio Texas	***	None	The Canadian Salt Co., Ltd.
Redmond Clay & Salt Co.	Out	Utah	***	None	None
United Salt Corp.	Out	Texas	***	None	None

1/ Closed Louisiana mine in 1984.
2/ Mine closed in 1980.
3/ Closed in 1983.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Morton-Thiokol produces rock salt in the United States as well as in Canada, and also sells its rock salt in both countries. In fiscal year 1984 (July 1-June 30), Morton-Thiokol's total salt production was 8.8 million tons. Although 1984 salt sales increased 6 percent to $355 million, Morton-Thiokol's Salt Group reported a decrease in profit of 5 percent. This decrease is cited as a result of relatively lower prices for ice-control salt for highway deicing, even in relation to a 25-percent 1984 increase in sales of salt for ice control. 1/ In addition to highway deicing sales, Morton-Thiokol supplies rock salt for residential water softening and municipal water conditioning.

Diamond Crystal Salt Co. is no longer a rock salt producer. In November 1980 their mine on Jefferson Island, LA, was flooded and rock salt production ceased. * * *. Diamond sells rock salt for both deicing and for industrial uses, with both uses accounting for less than * * * percent of annual sales and less than * * * percent of annual profits.

Cargill, Inc., now operates only one rock salt mine, at Lansing, NY. Cargill's Bell Island, LA, plant was closed on February 1, 1984, for safety reasons. Cargill sometimes substitutes solar salt for rock salt along the east coast. Rock salt from Cargill's New York mine does not meet industrial grade specifications and therefore must be sold as deicing salt only.

American Salt Co. has an annual rock salt capacity of approximately * * *. United Salt Co. produces and ships rock salt in Texas, outside the region. Independent Salt Co is a * * * producer outside the region. It ships about * * * percent of its production into the region. Carey Salt Co. is also a * * * Kansas producer that ships also about * * * percent of its production into the region. Redmond is * * * U.S. rock salt producer that ships only outside the region.

U.S. Importers

The major importers of Canadian rock salt in the region are Morton and Domtar. Small amounts of rock salt are imported into the region by other importers and from other countries, always through the southern entrance into the region. It is then moved up the Mississippi River by barge.

There are a few other firms that import rock salt into other parts of the United States from Canada, as well as from other countries.

Table 5 shows imports of rock salt from Canada by U.S. producers of rock salt. Within the region, Morton's imports * * *, Domtar's imports * * *. The other U.S. producers' imports are small compared with their U.S. production, amounting to less than * * * percent of their U.S. production. Morton's imports were * * * percent of its production during 1982-84, and Domtar's imports amounted to * * * percent of its U.S. production.

1/ Morton-Thiokol 1984 Annual Report.

Table 5.--Rock salt: Imports by U.S. producers of rock salt, by regions and by firms, 1982-84

* * * * * * *

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

The Canadian Industry

The four major Canadian rock salt producers, their names, locations, dates of initial production, and parent companies, are given in table 6. It can be seen by the initial production dates that rock salt mining is a relatively young industry in Canada.

Canada produced 7.2 million tons of salt in 1982, or about 5 percent of the total world salt output. 1/ Rock salt accounted for 65 percent of all Canadian salt production in 1982 and 61 percent in 1981. Nova Scotia, Quebec, and Ontario produce most of the rock salt mined in Canada.

Table 6.--Canadian rock salt producers, locations, initial production, and parent company

Company	Location	Initial production	Parent
The Canadian Salt Co., Ltd.	Pugwash Ojibway	1959 1955	Morton-Thiokol, Inc., United States
Potash Co. of America.	Sussex	1984	Potash Co. of America, United States
Domtar, Inc	Goderich	1959	None
Seleine Mines, Inc	Madeline Islands	1982	Societe quebecoise d'exploration Miniere

Source: G.S. Barry, Salt Statistics Canada; Mineral Policy Sector, Energy Mines and Resources, Canada, May 1984.

1/ Canadian statistics quoted or calculated are taken from G.S. Barry, Salt Statistics Canada; Mineral Policy Sector, Energy Mines and Resources, Canada, May 1984.

The Canadian Salt Co., Ltd., mines about 20 percent of all Canadian rock salt produced annually at its Pugwash, Nova Scotia mine.

In Quebec, Seleine Mines, Inc., planned to produce 1.25 million tons of rock salt at its Madeline Islands mine in the Gulf of St. Lawrence for the last 6 months of 1984. Seleine has a long-term contract with the Government of Quebec to supply road salt and a contract to supply rock salt to Diamond Crystal Salt Co. of New York. Reserves are sufficient to permit expansion of this mine to 2 million tons per year should demand warrant.

Ontario shares the northern portion of the Silurian Basin salt deposits. Domtar, Inc., mines this deposit at Goderich and Morton at Ojibway. The Goderich mine production is now expanding from 2.0 to 3.1 million tons per year.

In New Brunswick, a Canadian subsidiary of Potash Co. of America (Carlsbad, NM) extracts rock salt at a rate of * * * tons per year in a new facility started in 1984. It plans to sell most of the output in the eastern United States.

The largest market for salt in Canada is for snow and ice control. This relatively new Canadian market sector accounted for 48 percent of all Canadian rock salt produced in 1982. The next largest Canadian salt market is the chemical industry for chlor-alkali salt production. Some rock salt and imported solar salt is used here. Export sales of highway rock salt to the U.S. eastern seaboard were begun in 1982 by Seleine Mines, Inc., and in 1984 by the Potash Co. of America.

The following tabulation which was compiled from data submitted in response to questionnaires of the U.S. International Trade Commission, shows data on the Canadian production, capacity, and capacity utilization of rock salt for the period under investigation for the Canadian rock salt mines of Domtar, Morton, Soquem, and Potash Co. of America:

* * * * * * *

Approximately * * * percent of Morton's production in Canada is for export to the United States; for Domtar the ratio is * * * percent. The third major Canadian producer, Soquem, has reportedly increased its capacity in 1984.

The Question of Material Injury

U.S. production, capacity, and capacity utilization

Table 7 shows production of rock salt in U.S. establishments within and outside the region. About * * * percent of ISCO's production was within the region in 1984; ISCO accounted for * * * percent of production in the region in 1982, * * * percent in 1983, and * ** percent in 1984. Domtar does not produce outside the region, and Morton's production outside the region is approximately * * * percent of its production within the region. Morton and Domtar together accounted for * * * percent of total U.S. production within the region in 1982, * * * percent in 1983, and * * * percent in 1984.

Morton's production * * *; Domtar's was * * *. ISCO's production within the region * * *. ISCO's production outside the region * * *. Of total production in the entire United States, ISCO accounted for * * * percent in 1982, * * * percent in 1983, and * * * percent in 1984.

Table 7.--Rock salt: U.S. production, by regions and by firms, 1982-84

(In thousands of tons)

Item	1982	1983	1984
Within the region:			
Morton	***	***	***
Domtar	***	***	***
Subtotal	***	***	***
ISCO	***	***	***
All other producers 1/	***	***	***
Subtotal	***	***	***
Total	7,658	6,195	7,981
Outside the region:			
Morton	***	***	***
Domtar	***	***	***
Subtotal	***	***	***
ISCO	***	***	***
All other producers 2/	***	***	***
Subtotal	***	***	***
Total	***	***	***

1/ Cargill.
2/ United, Independent, Redmond, Cargill, and Carey.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 8 shows the productive capacity of rock salt mines located inside and outside the region. 1/ Morton's and Domtar's capacity within the region increased by * * * percent annually from 1982 to 1984. ISCO closed its Detroit mine in 1983, citing competition from allegedly LTFV imports from Canada. The importers argue that it was closed because it was an inefficient mine that could not compete with the more efficient mines of its competitors. ISCO added new equipment to its Cleveland mine, hence * * *. The U.S. rock salt producing mines outside the region increased their capacity by about * * * percent from 1982 to 1983 and by * * * percent in 1984.

Table 8.--Rock salt: U.S. establishments' capacity to produce rock salt, by regions and by firms, 1982-84

(In thousands of tons)

Item	1982	1983	1984
Within the region:			
Morton	***	***	***
Domtar	***	***	***
Subtotal	***	***	***
ISCO	***	***	***
All other producers 1/	***	***	***
Subtotal	***	***	***
Total	10,403	9,505	9,941
Outside the region:			
Morton	***	***	***
Domtar	***	***	***
Subtotal	***	***	***
ISCO	***	***	***
All other producers 2/	***	***	***
Subtotal	***	***	***
Total	***	***	***

1/ Cargill.
2/ United, Independent, Redmond, Cargill, and Carey.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

1/ Capacity is defined by the capability of the equipment and personnel to extract salt from the ground, not by the size of salt deposits.

Table 9 shows the utilization of productive capacity to produce rock salt in U.S. establishments. Morton's capacity utilization * * *, Domtar's capacity utilization * * *. ISCO's capacity utilization * * *. The only other U.S. producer within the region, Cargill, closed its mine in 1984.

Table 9.--Rock salt: U.S. establishments' utilization of productive capacity, by regions and by firms, 1982-84

* * * * * * *

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

U.S. producers' shipments and inventories

Table 10 shows domestic shipments of U.S. rock salt produced within the region to destinations within and outside the region. Morton shipped approximately * * * percent of its regional production to areas outside the region; ISCO shipped less than * * * percent from within to outside the region; and Domtar's shipments outside the region were * * *.

ISCO shipped * * * percent of its domestic shipments of rock salt produced outside the region to destinations inside the region. ISCO and the other U.S. producers combined shipped * * * percent of their outside-the-region production to destinations inside the region. Table 11 shows domestic shipments of U.S. rock salt produced outside the region to destinations within and outside the region during 1982-84.

Table 10.--Rock salt: Domestic shipments of U.S. rock salt produced within the region, by destinations and by companies, 1982-84

(In thousands of tons)

Produced within the region and shipped to destinations--	1982	1983	1984
Within the region:			
Morton	***	***	***
Domtar	***	***	***
Subtotal	***	***	***
ISCO	***	***	***
All other producers 1/	***	***	***
Subtotal	***	***	***
Total	7,019	5,610	7,237
Outside the region:			
Morton	***	***	***
Domtar	***	***	***
Subtotal	***	***	***
ISCO	***	***	***
All other producers 1/	***	***	***
Subtotal	***	***	***
Total	***	***	***

1/ Cargill.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 11.--Rock salt: Domestic shipments of U.S. rock salt produced outside the region, by destinations and by companies, 1982-84

(In thousands of tons)

Produced outside the region and shipped to destinations--	1982	1983	1984
Within the region:			
Morton	***	***	***
Domtar	***	***	***
Subtotal	***	***	***
ISCO	***	***	***
All other producers 1/	***	***	***
Subtotal	***	***	***
Total	215	294	300
Outside the region:			
Morton	***	***	***
Domtar	***	***	***
Subtotal	***	***	***
ISCO	***	***	***
All other producers 1/	***	***	***
Subtotal	***	***	***
Total	***	***	***

1/ United, Independent, Redmond, Cargill, and Carey.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 12 shows shipments of rock salt into and outside the region during 1982-84. Less than 5 percent of domestic shipments into the region were shipped from outside the region. Between 7 and 11 percent of the domestic shipments to destinations outside the region were shipped from inside the region.

Table 12.--Rock salt: Domestic shipments of rock salt, by destinations and by sources, 1982-84

Item	1982	1983	1984
	Quantity (1,000 tons)		
Shipments into the region:			
Produced inside the region	7,019	5,610	7,237
Produced outside the region	215	294	300
Total U.S. production shipped into the region	7,234	5,904	7,537
Shipments to outside the region:			
Produced inside the region	***	***	***
Produced outside the region	***	***	***
Total U.S. production shipped outside the region	***	***	***
Total shipped in entire United States	***	***	***
	Percent of total		
Shipments into the region:			
Produced inside the region	***	***	***
Produced outside the region	***	***	***
Total U.S. produced shipped into the region	***	***	***
Shipments to outside the region:			
Produced inside the region	***	***	***
Produced outside the region	***	***	***
Total U.S. produced shipped outside the region	***	***	***
Total shipped in entire United States	***	***	***

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Exports of rock salt represent * * * percent of Morton's production and about * * * percent of ISCO's production within the region. Exports from outside the region are negligible. Almost all export shipments are to Canada. Such shipments of U.S.-produced rock salt are shown in table 13.

Table 13.--Rock salt: Export shipments of U.S. produced rock salt, by regions and by companies, 1982-84

(In thousands of tons)

Export shipments of U.S. produced rock salt	1982	1983	1984
Produced within the region:			
Morton	***	***	***
Domtar	***	***	***
Subtotal	***	***	***
ISCO	***	***	***
All other producers 1/	***	***	***
Subtotal	***	***	***
Total	665	520	393
Produced outside the region:			
Morton	***	***	***
Domtar	***	***	***
Subtotal	***	***	***
ISCO	***	***	***
All other producers 2/	***	***	***
Subtotal	***	***	***
Total	***	***	***

1/ Cargill.
2/ United, Independent, Redmond, Cargill, and Carey.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 14 shows inventories of U.S.-produced rock salt that are stored within and outside the region. The inventories of Domtar and ISCO within the region * * *. Morton's inventory levels within the region * * *. ISCO's inventory levels outside the region * * *.

Table 14.--Rock salt: End-of-period inventories of U.S.-produced rock salt, by locations of the inventory and by companies, 1981-84

(In thousands of tons)

Inventories	1981	1982	1983	1984
Held within the region:				
Morton	***	***	***	***
Domtar	***	***	***	***
Subtotal	***	***	***	***
ISCO	***	***	***	***
All other producers 1/	***	***	***	***
Subtotal	***	***	***	***
Total	2,556	2,114	1,806	1,618
Held outside the region:				
Morton	***	***	***	***
Domtar	***	***	***	***
Subtotal	***	***	***	***
ISCO	***	***	***	***
All other producers 2/	***	***	***	***
Subtotal	***	***	***	***
Total	***	***	***	***

1/ Cargill.
2/ United, Independent, Redmond, Cargill, and Carey.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Employment

Table 15 shows the number of production and related workers producing rock salt in U.S. establishments located within and outside the region. Morton's employment within the region was * * *. Domtar's employment * * *. ISCO's employment within the region * * *. ISCO's employment outside the region * * *.

Table 15.--Average number of production and related workers in U.S. establishments producing rock salt within and outside the region, by companies, 1982-84

(Number of employees)

Item	1982	1983	1984
Within the region:			
Morton	***	***	***
Domtar	***	***	***
Subtotal	***	***	***
ISCO	***	***	***
All other producers 1/	***	***	***
Subtotal	***	***	***
Total	1,167	982	931
Outside the region:			
Morton	***	***	***
Domtar	***	***	***
Subtotal	***	***	***
ISCO	***	***	***
All other producers 2/	***	***	***
Subtotal	***	***	***
Total	***	***	***

1/ Cargill.
2/ United, Independent, Redmond, Cargill, and Carey.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 16 shows average labor productivity of U.S. producers, calculated by dividing domestic production of rock salt by the number of hours worked by production and related workers producing rock salt in U.S. establishments. Morton's and Domtar's productivity * * *. ISCO's productivity within the region * * *. ISCO's productivity outside the region * * *.

Table 16.--Rock salt: Labor productivity of U.S. producers, by regions and by companies, 1982-84

(In thousand of tons per hour)

Item	1982	1983	1984
Within the region:			
Morton	***	***	***
Domtar	***	***	***
Average	***	***	***
ISCO	***	***	***
All other producers 1/	***	***	***
Average	***	***	***
Average within the region	2.95	2.93	3.80
Outside the region:			
Morton	***	***	***
Domtar	***	***	***
Average	***	***	***
ISCO	***	***	***
All other producers 2/	***	***	***
Average	***	***	***
Average, outside the region	***	***	***

1/ Cargill.
2/ United, Independent, Redmond, Cargill, and Carey.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Financial experience of U.S. producers

Six U.S. producers of rock salt furnished usable income-and-loss data concerning both their overall establishment operations and their operations producing rock salt. 1/ One other firm, Morton Salt, supplied partial income-and-loss data.

Overall establishment operations.--The income-and-loss experience of U.S. producers on the overall operations of their establishments within which rock salt is produced is presented in table 17 for 1982-84. Net sales of all products produced in these establishments dropped from $184 million in 1982 to $158 million in 1983, and then rose to $193 million in 1984. Overall, net sales rose 5 percent during 1982-84. Net sales of rock salt were 85.5 percent, 85.3 percent, and 90.1 percent of total establishment net sales in 1982, 1983, and 1984, respectively. Operating income fell from $13.7 million, or 7.5 percent of net sales, in 1982, to $1.1 million, or 0.7 percent of net sales, in 1983. Operating income rebounded to $12.9 million, or 6.7 percent of net sales, in 1984.

Rock salt operations within the region.--The income-and-loss experience of three U.S. producers on their operations producing rock salt within the region are shown in table 18 for 1982-84. Domtar's net sales * * *, during 1982-84. 2/ Rock salt sales for the other two producers * * *. Overall, net sales of rock salt rose 15 percent during 1982-84.

Domtar * * *. In the aggregate, the other U.S. producers * * *. The operating results of ISCO on its rock salt operations within the region are shown in the following tabulation for 1982-84:

* * * * * * *

As shown above, ISCO * * *.

Rock salt operations outside the region.--The income-and-loss experience of five U.S. producers on their rock salt operations outside the region are presented in table 19 for 1982-84. Total net sales of rock salt declined * * * from 1982 to 1983. Such sales rose * * * in 1984. Total operating income * * * percent of net sales, in 1982 to * * * percent of net sales, in 1983. Operating income * * * in 1984.

1/ * * *.

2/ The transfer price of rock salt sold to Domtar Industries, Inc., is determined * * *.

Table 17.--Income-and-loss experience of 6 U.S. producers on the overall operations of their establishments within which rock salt is produced, 1982-84

Item	1982	1983	1984
Net sales of rock salt:			
Domtar:			
U.S. produced-----1,000 dollars--	***	***	***
Canadian produced----------do----	***	***	***
Produced elsewhere---------do----	***	***	***
Total----------do----	***	***	***
Other producers: 1/			
U.S. produced----------do----	***	***	***
Canadian produced----------do----	***	***	***
Produced elsewhere---------do----	***	***	***
Total----------do----	***	***	***
Total rock salt--------do----	157,147	135,208	173,489
Net sales of all other products do----	26,582	23,221	19,128
Total net sales, all products----------do----	183,729	158,429	192,617
Cost of goods sold----------do----	140,138	130,070	150,580
Gross income----------do----	43,591	28,359	42,037
General, selling, and administrative expenses----------1,000 dollars--	29,882	27,262	29,083
Operating income or (loss):			
Domtar----------do----	***	***	***
Other producers----------do----	***	***	***
Total operating income-----do----	13,709	1,097	12,954
Depreciation and amortization--do----	13,284	15,689	16,544
Cash flow from operations------do----	26,993	16,678	29,498
Ratio to net sales:			
Gross income----------percent--	23.7	17.9	21.8
Operating income----------do----	7.5	0.7	6.7
Cost of goods sold----------do----	76.3	82.1	78.2
General, selling, and administrative expenses----------do----	16.2	17.2	15.1
Number of firms reporting operating losses----------	1	1	2
Ratio of rock salt sales to total establishment net sales---percent--	85.5	85.3	90.1

1/ * * *.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 18.--Income-and-loss experience of U.S. producers 1/ on their operations producing rock salt within the region, 1982-84

Item	1982	1983	1984
Net sales:			
Domtar:			
U.S. produced-----1,000 dollars--	***	***	***
Canadian produced----------do----	***	***	***
Produced elsewhere---------do----	***	***	***
Total----------do----	***	***	***
Other producers:			
U.S. produced----------do----	***	***	***
Canadian produced----------do----	***	***	***
Produced elsewhere---------do----	***	***	***
Total----------do----	***	***	***
Total net sales--------do----	87,645	80,975	101,112
Operating income or (loss):			
Domtar:			
U.S. produced----------do----	***	***	***
Canadian produced----------do----	***	***	***
Produced elsewhere---------do----	***	***	***
Total----------do----	***	***	***
Other producers:			
U.S. produced----------do----	***	***	***
Canadian produced----------do----	***	***	***
Produced elsewhere---------do----	***	***	***
Total----------do----	***	***	***
Total operating income or (loss)------1,000 dollars--	(2,058)	(7,110)	(2,249)
Cash flow from operations:			
Domtar----------do----	***	***	***
Other producers----------do----	***	***	***
Total----------do----	***	***	***
Ratio of operating income or (loss) to net sales:			
Domtar----------percent--	***	***	***
Other producers----------do----	***	***	***
Total----------do----	(2.3)	(8.8)	(2.2)
Number of firms reporting operating losses----------	3	2	2

1/ * * *.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 19.--Income-and-loss experience of U.S. producers on their operations producing rock salt outside the region, 1982-84

* * * * * * *

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

The operating results of ISCO on its rock salt operations outside the region are shown in the following tabulation:

* * * * * * *

As seen in the above tabulation, ISCO's operating margins outside the region were * * *.

Morton Salt.--Income-and-loss data concerning Morton's rock salt operations are shown in table 20 for 1982-84. 1/ Morton employs a direct costing system, a methodology of costing which, in varying degrees, excludes certain fixed or period costs from cost of goods sold and from inventories. Hence, the marginal income margins shown in table 20 are not comparable with operating income margins.

Morton's marginal income margins were * * *. Combined U.S.-produced and Canadian-produced rock salt marginal income margins for operations within the region ranged from * * * percent in 1984 to * * * percent in 1983. * * * marginal income margins outside the region ranged from * * * percent in 1983 * * * percent in 1984.

1/ The transfer prices between Morton Salt Division of Morton Thiokol, Inc. and The Canadian Salt Co., Ltd., for bulk rock salt for highway ice control is established * * *:

* * * * * * *

Table 20.--Income-and-loss experience of Morton Salt on its operations producing rock salt in establishments located within the region and outside the region, 1982-84

* * * * * * *

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Investment in productive facilities.--U.S. producers' investment in productive facilities employed in the production of all rock salt, valued at cost, rose from $206 million as of yearend 1982, to $219 million, as of year-end 1983 and then declined to $206 million, as of yearend 1984 (table 21). The book value of such assets rose from $99.3 million in 1982 to $100.5 million in 1983, and then declined to $96.6 million in 1984. Those producers within the region accounted for about 70 percent of the cost of such productive facilities in each year during 1982-84.

Capital expenditures.--U.S. producers within the region made capital expenditures of $14.5 million in 1982 for facilities used in the production of rock salt; capital expenditures in 1983 were $12.7 million, and those in 1984 were $11.4 million (table 21). U.S. producers outside the region made capital expenditures of * * * million, * * * million, and * * * million, in 1982, 1983, and 1984, respectively.

The Question of the Threat of Material Injury

In its examination of the question of a reasonable indication of the threat of material injury to an industry in the United States, the Commission may take into consideration such factors as the rate of increase of the alleged LTFV imports, the rate of increase of U.S. market penetration by such imports, the quantities of such imports held in inventory in the United States, and the capacity of producers in Canada to generate exports (including the availability of export markets other than the United States).

Table 21.--Investment in productive facilities, capital expenditures, and research and development expenses related to the production of rock salt, as of yearend 1982-84

(In thousands of dollars)

Item	1982	1983	1984
Investment in productive facilities--			
Within the region--			
Domtar and Morton:			
Original cost	***	***	***
Book value	***	***	***
Other U.S. producers:			
Original cost	***	***	***
Book value	***	***	***
Outside the region--			
Domtar and Morton:			
Original cost	***	***	***
Book value	***	***	***
Other U.S. producers:			
Original cost	***	***	***
Book value	***	***	***
Total investment in productive facilities:			
Original cost	205,557	219,493	206,232
Book value	99,297	100,540	96,557
Capital expenditures--			
Within the region--			
Domtar and Morton	***	***	***
Other U.S. producers	***	***	***
Total	14,459	12,717	11,362
Outside the region--			
Domtar and Morton	***	***	***
Other U.S. producers	***	***	***
Total	***	***	***
Research and development expenses--			
Within the region	***	***	***
Outside the region	***	***	***

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Trends in imports and U.S. market penetration are discussed in the section of this report that addresses the causal relationship between the alleged injury and the imports allegedly sold at LTFV. Information regarding the capacity of the Canadian producers to generate exports is discussed in the section of this report that covers the Canadian industry.

Table 22 shows inventories of Canadian-produced rock salt that were stored within and outside the region. The two major importers, Morton and Domtar, reported inventories of Canadian-produced rock salt. These inventories within the region were * * * million tons in 1981, * * * million tons in 1982, and then increased to * * * million tons in 1983 and * * * million tons in 1984. ISCO and the other U.S. producers held * * * of Canadian rock salt within the region. * * * other importer reported * * * inventories of Canadian rock salt within * * * region.

Table 22.--Rock salt: End-of-period inventories of rock salt imported from Canada, within and outside the regions, and by companies, 1981-84

* * * * * * *

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Consideration of the Causal Relationship Between Imports Allegedly Sold at LTFV and the Alleged Injury

U.S. imports

Data on imports of rock salt from selected sources are presented in table 23. The official statistics do not distinguish rock salt from all other salts. The composition of imports, however, is generally known among industry and government experts. Table 23 used advice from experts of the U.S. Bureau of Mines to calculate the share of rock salt in the imports of all salt.

Questionnaire data show that approximately * * * percent of imports from Canada into the region are by the two major importers, Morton and Domtar. Imports of rock salt from Canada increased by 8 percent from 1982 to 1983 and further increased by 41 percent in 1984. Imports of rock salt from all other sources increased by 11 percent in 1983 and by 15 percent in 1984.

Table 23.--Rock salt: U.S. imports, by selected sources, 1982-84

Country	1982	1983	1984
	Quantity (1,000 tons)		
Canada 1/	2,047	2,209	3,115
Mexico 2/	1,215	1,465	1,367
Chile 3/	383	341	479
Spain 3/	251	261	418
Brazil 4/	110	100	228
All other 5/	5/	5/	5/
Total	4,006	4,376	5,607
	Value (1,000 dollars)		
Canada 1/	19,802	20,551	26,136
Mexico 2/	14,870	16,031	20,515
Chile 3/	3,350	2,772	4,089
Spain 3/	2,326	1,983	1,503
Brazil 4/	965	935	1,925
All other 5/	5/	5/	5/
Total	41,313	42,272	54,168

1/ Rock salt comprises 95 percent of all salt imports from this country.
2/ Rock salt comprises 90 percent of all salt imports from this country.
3/ Rock salt comprises 100 percent of all salt imports from this country.
4/ Rock salt comprises 75 percent of all salt imports from this country.
5/ Rock salt comprises less than 1 percent of total imports from these sources.

Source: Compiled from official imports statistics of the U.S. Department of Commerce and information received from the U.S. Department of the Interior, Bureau of Mines.

Table 24 shows the distribution of rock salt imported from Canada into the United States. Over 80 percent of Canadian rock salt is entered at customs districts located within the region. About 5 percent enters the State of New York and 11 to 12 percent enters into New England.

Table 24.- Rock salt: Shares of U.S. imports from Canada, by regions and by customs districts, 1983-84

(In percent)

Item	1983	1984
Region:		
Chicago, IL	11	24
Cleveland, OH	5	1
Detroit, MI	28	35
Milwaukee, WI	30	19
Duluth, MN	6	5
New Orleans, LA	-	-
Total, region	80	84
New York:		
Buffalo	2	2
New York City	3	2
Ogdensburg	1	-
Total New York	6	4
New England:		
Portland, ME	5	3
Providence, RI	2	1
St. Albans, VT	2	2
Boston, MA	3	5
Total, New England	12	11
Other:		
Great Falls, MT	1/	1/
Norfolk, VA	1/	1/
Pembina, ND	1/	1/
Philadelphia, PA	-	1/
Seattle, WA	2	1/
San Francisco, CA	-	-
San Juan, PR	1/	1/
Total, other	2	1

1/ Less than 0.5 percent.

Source: Compiled from official statistics of the U.S. Department of Commerce, as adjusted in table 23.

Table 25 shows the distribution of imports of rock salt from all other sources. Canada is the major source of imports into the region; all other countries supply almost exclusively the areas outside the region. The region consumed less than half of imported rock salt—48 percent in 1982 and 1984 and 42 percent in 1983. Table 26 shows the same distribution of imported rock salt in short tons.

Table 25.--Rock salt: Shares of U.S. imports of rock salt from all sources, by regions, 1982-84

(In percent)

Item	1982	1983	1984
Into the region 1/ from--			
Canada	88	80	84
Mexico	-	5	6
Chile	28	2	-
Spain	0	1	1
Brazil	-	-	-
Average	48	42	48
Outside the region 2/ from--			
Canada	12	21	16
Mexico	100	95	94
Chile	72	98	100
Spain	100	99	99
Brazil	100	100	100
Average	52	58	52

1/ Customs districts: Chicago, Cleveland, Detroit, Milwaukee, Duluth, New Orleans.

2/ All other customs districts.

Source: Compiled from official statistics of the U.S. Department of Commerce, as adjusted in table 23.

Table 26.--Rock salt: U.S. imports from all sources, by regions, 1982-84

(In thousands of short tons)

Item	1982	1983	1984
Into the region 1/ from--			
Canada	1,801	1,767	2,617
Mexico	0	73	84
Chile	107	7	0
Spain	0	0	4
Brazil	0	0	2
Subtotal	1,908	1,847	2,707
Outside the region 2/ from:			
Canada	246	442	498
Mexico	1,215	1,392	1,283
Chile	276	334	479
Spain	251	261	414
Brazil	110	100	226
Subtotal	2,098	2,529	2,900
Total	4,006	4,376	5,607

1/ Customs districts: Chicago, Cleveland, Detroit, Milwaukee, Duluth, New Orleans.

2/ All other customs districts.

Source: Compiled from official statistics of the U.S. Department of Commerce, as adjusted in table 23.

Market penetration

Table 27 shows market penetration of imports from Canada to areas within and outside the region. Market penetration by imports from Canada to areas within the region increased from 19.7 percent in 1982 to 22.8 percent in 1983, and to 25.5 percent in 1984. Outside of the region, imports from Canada represented only * * * percent of consumption in 1982, * * * percent in 1983, and * * * percent in 1984; imports from all sources other than Canada represented * * * percent of that market in 1982, 1983, and 1984, respectively.

Table 27.--Rock salt: Apparent U.S. consumption, imports, and market penetration, by regions, 1982-84

Item	1982	1983	1984
Within the region:			
Apparent U.S. consumption 1,000 tons	***	***	***
Imports from Canada--------do----	***	***	***
Imports from all sources 1,000 tons	***	***	***
Market penetration by imports from Canada----------percent	19.7	22.8	25.5
Market penetration by imports from all sources-----percent	20.9	23.8	26.4
Outside the region:			
Apparent U.S. consumption 1,000 tons	***	***	***
Imports from Canada--------do----	***	***	***
Imports from all sources 1,000 tons	***	***	***
Market penetration by imports from Canada----------percent	***	***	***
Market penetration by imports from all sources------percent	***	***	***

Source: Compiled from official statistics of the U.S. Department of Commerce (imports) and from data obtained in response to questionnaires of the United States International Trade Commission.

Prices

The pricing system.--Rock salt is characterized by a very low value-to-weight ratio, and is generally considered a homogeneous product. Inland transportation costs are decisive in determining the final delivered price to a customer, and prices can differ significantly from location to location, even within a single metropolitan area such as Chicago. Accordingly, rock salt is normally sold on a delivered price basis.

By far the largest users of rock salt are the States, counties, cities, and municipalities that purchase bulk rock salt for pavement ice-control application. Most government bodies request once a year, by sealed public bids, delivered prices for the supply of deicing salt, stating required tonnages, the supply period, and the point(s) of delivery. 1/ At a public opening, the low bidder is announced and in most cases is awarded the contract. 2/ In an unusual case, past performance may affect a decision to purchase from a particular producer, such as instances in which contract specifications were not met. Bids are generally requested between April and September for the following winter. A producer may submit an official "no bid" in order to maintain its status as a prospective supplier. 3/

Weather conditions are the primary determinant of the quantity of salt required in any given year and consequently play a central role in the pricing system. The bid contract generally specifies a minimum quantity that the purchaser must accept and a maximum quantity which the producer is required to deliver at the specified price if requested by the purchaser. Bid contracts may also be open-ended with no tonnage guarantee.

A mild winter will normally lead to an inventory overhang in the following year as both purchasers and producers find themselves with significant unused quantities of rock salt; consequently, prices tend to drop. This was the case in the 1983-84 bidding season following the mild winter of 1982-83. Severe winter weather normally leads to excess demand for rock salt, resulting in an upward movement in prices. Following three severe winters, prices for the 1979-80 season were reportedly unusually high. Current prices are reportedly on an upward trend following the cold winter of 1983-84 and thus far, cold, snowy winter of 1984-85. 4/

Intensifying its effect on prices is the weather's effect on the distribution system. Winter freezing prohibits transporting rock salt on the Great Lakes and northern routes of the Mississippi River system from mid-December through March. 5/ Excess demand will more directly cause upward pressure on prices as supply is to some extent limited to that which has been stockpiled prior to the onset of severe winter weather. Restricted distribution channels due to winter weather give producers a large incentive to inventory sufficient quantities to meet demand, which will add to the inventory overhang in the case of a mild winter.

1/ In some cases, a second request for bids may occur if the purchasing agency underestimated its rock salt requirements, as in the case of unexpectedly severe weather.

2/ The State of Minnesota has a Buy American provision which requires that the rock salt the state purchases be produced in the United States unless the price of imported salt is 10 percent lower than that of the U.S. product. The State of Ohio has a "Buy Ohio" provision for salt produced within the State vis-a-vis all other rock salt. Transcript of the staff conference, p. 159.

3/ Respondent stated that it is common practice to "bid-off", i.e., enter a bid thought to be too high to be awarded the contract. The purpose of this would be to remain on the customer's bid list. Transcript of staff conference, p. 73.

4/ Transcript of staff conference, pp. 58, 96, 99, 105, and 117-119.

5/ Transcript of the staff conference, pp. 124-129.

The chemical industry accounts for the second highest share of rock salt purchases, roughly 15 percent of the total tonnage. Sales to chemical companies are typically on a long-term contract basis for fixed quantities delivered evenly throughout the term. Producers find this complements the unpredictable sales of rock salt for pavement ice control. Consequently, the price of rock salt sold to chemical customers is generally lower than that charged to governmental agencies for pavement ice control. 1/

Competitive bids.--The Commission requested delivered prices for the largest domestic bid in each quarter during 1982-84 for U.S.-produced and Canadian-produced rock salt in each of the following States: Minnesota, Michigan, Illinois, Tennessee, and West Virginia within the region defined by the petitioner; and New Hampshire and Washington outside the designated region. Because there is generally only one price per year per customer (i.e., the winning bid), and since delivered prices vary significantly within even a few miles, 2/ averages for producers and importers cannot be computed.

Four U.S. producers, accounting for * * * percent of U.S. production of rock salt in 1983, provided usable price data in response to Commission questionnaires. Three of the responding U.S. producers also import rock salt from Canada and provided price data for imports. These three importers/ producers accounted for approximately * * * percent of the quantity of rock salt imported from Canada in 1983 and were the only importers that responded to the Commissions questionnaires.

Questionnaire responses were for many different delivery locations within the seven states for which price data were requested. Because of the importance of transportation costs in determining delivered prices and because prices of imports from Canada were available only in States with direct access to the Great Lakes, 3/ questionnaire price comparisons were possible for only a few delivery points. The questionnaire response for these sites was also limited and had to be supplemented by contacting the purchasers. Prices are reported for the period in which the contracts for the following winter were awarded. For example, contracts for the winter of 1983-84 were awarded in 1983.

Delivered prices on awarded contracts decreased from 1982 to 1983 in four of the five locations. Price decreases in 1983 ranged from * * * in Detroit to * * * in Duluth, MN. In the same four locations prices increased from 1983 to 1984. Price increases in 1984 ranged from * * * in Detroit to * * * in Sheboygan, WI. Delivered prices in Chicago were the exception and increased in 1983. ISCO won the Chicago contract in 1984 * * * increased their bids in * * * 1984, as did all parties in virtually all other locations in 1984 (table 28).

1/ Petition, p. 4.

2/ See transportation section.

3/ Respondents stated that Canadian-produced rock salt is sold in the region defined by the petitioner only in States bordering the Great Lakes. Transcript of the staff conference, p. 116.

Table 28.--Rock salt for pavement ice control: U.S. and Canadian delivered bids and quantities to specific points for rock salt sold within the region, by purchasers, 1982-84

Purchaser and point of delivery	Year	Quantity	Producer			
			U.S.	Canadian		
			ISCO	Morton		Domtar
		Short tons	Per short ton			
City of Chicago						
(Dock - Chicago)------	1982	***	***	1/ 2/	***	3/
	1983	***	***	1/	***	***
	1984	***	1/ ***		***	***
City of Detroit 4/						
(Dock - Detroit)------	1982	***	1/ ***		***	5/
	1983	***	***	1/	***	***
	1984	***	4/	1/	***	***
Washtenaw County, MI						
(Ann Arbor, MI)-------	1982	***	1/ ***		***	5/
	1983	***	***	1/	***	***
	1984	***	***	1/	***	***
COOP-Calumet/Manitowac						
Sheboygan Counties, WI	1982	***	***		***	1/ ***
(Dockside-Sheboygan)-	1983	***	***		***	1/ ***
	1984	***	***		***	1/ ***
COOP-St. Louis County						
& City of Duluth, MN--	1982	***	1/ ***		***	***
(Superior, WI)-------	1983	***	1/ ***		***	***
	1984	***	***	1/	***	***

1/ Winning bid.

2/ Morton delivered * * * short tons from its Ojibway mine in Windsor, Ontario, Canada, and * * * short tons from its Weeks, LA, mine, at this price.

3/ Domtar bid * * * for salt delivered from its U.S. mine in Louisiana.

4/ International Salt Co. (ISCO) closed its mine within the city of Detroit in 1984.

5/ Indicates an official "no bid" was submitted.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission and from staff inquiry by telephone to purchasers.

In all the cases for which comparable competitive bids were available, the low bidder was awarded the contract. Ten of the fifteen contracts were awarded to Canadian-produced rock salt. Margins of underbidding per short ton ranged from a low of $0.48 (3 percent) to * * * in 1982 to a high of $5.52 (24 percent) to * * * in 1984. The remaining five contracts were awarded to U.S.-produced rock salt. Margins of overbidding per short ton ranged from $0.09 (0.4 percent) in * * * in 1982 to $6.53 (42 percent) to * * * in 1984.

Transportation

Rock salt is sold throughout the eastern two-thirds of the United States. U.S. mines are located in southern Louisiana near the gulf coast, southeastern Texas, midstate Kansas, northeastern Ohio on Lake Erie, and midstate New York. Canadian rock salt mines are located in southwestern Ontario, New Brunswick, Nova Scotia, and in Quebec, on the Magdalen Islands in the Gulf of St. Lawrence (see map in app. D). 1/ Within the region defined by the petitioner, Canadian-produced rock salt is reportedly sold only in those States which directly border the Great Lakes. 2/

Distribution system.--Major producers of rock salt maintain numerous depots or distribution facilities strategically located throughout the region in which they market their product. 3/ Depots are often located near navigable waterways. Typically, transportation of rock salt from the mine to the purchaser consists of two stages. The salt is initially shipped by boat or barge to one of the producer's depots from which it is further transported by truck or rail to the purchaser's stockpiling facilities. However, a substantial proportion of rock salt sales are made directly to the purchaser, never entering the producers' depot facilities. 4/

The purpose of maintaining numerous depots is twofold. First, the depots perform a general inventory function which is essential given the seasonality of rock salt shipments for pavement ice control. Optimally, a rock salt mine operates yearround, although its product is delivered to the purchaser in a 2- or 3-month period. Secondly, the depots serve to meet demand in the winter season in areas that are inaccessible by waterway. 5/

Generally, rock salt can be competitively transported by truck only within about a 100-mile radius of the mine or by rail only within about a 400-mile radius. Boat and barge shipments can be made at a substantially lower cost per ton-mile and are therefore used whenever possible, particularly over longer distances. Rock salt is regularly shipped on the Great Lakes, the Mississippi River system, and the Gulf Intercoastal Waterway. 6/ The vast majority of rock salt sales are in bulk form and are from the producer to the purchaser. Approximately 8 percent of rock salt is sold packaged, part of which is marketed through wholesale and retail outlets.

The concentration of rock salt mines in midstate Kansas are located approximately 230 miles from the nearest navigable waterway, i.e., the Missouri River at Kansas City. Although it competes with salt which is

---

1/ ISCO closed its Detroit mine in 1983; Cargill closed its Belle Isle, LA, mine in 1984.

2/ The petitioner and other producers import rock salt from Canadian mines in New Brunswick and Nova Scotia, which is reportedly marketed along the eastern seaboard of the United States.

3/ Domtar operates * * * depots in the United States, Morton operates * * *, and ISCO operates * * *.

4/ Respondents estimated that approximately 60 percent of rock salt sales are intermittently deposited at the producers' depots and approximately 40 percent are shipped directly to the purchasers.

5/ Transcript of the staff conference, pp. 124-129.

6/ Transcript of the staff conference, pp. 34 and 78.

transported along the Mississippi River system, salt produced at these mines is transported by rail and/or truck. 1/ This is in contrast to most other mines which are located near water transportation routes.

All major rock salt producers, with the exception of Cargill, 2/ operate both southern and northern mines. Southern mines are located in Texas and Louisiana, and northern mines are located in Ohio, New York, southwestern Ontario, and in the maritime provinces. A producer will attempt to sell rock salt in the geographic region in which it has the most favorable distribution cost. In general, if a producer can supply salt from two facilities, it will choose the one which allows it to minimize its total distribution cost.

Transportation costs.--Transportation costs are a significant part of the delivered price in all shipments of rock salt. As noted above, rock salt is generally delivered in two stages, but may also be delivered directly from the mine to the purchaser. The Commission requested transportation costs required to deliver the largest domestic bid in each quarter for U.S.-produced and Canadian-produced rock salt in each of the following States: Minnesota, Michigan, Illinois, Tennessee, and West Virginia within the region defined by the petitioner; and New Hampshire and Washington outside the designated region. Transportation costs were compiled for several points of delivery (table 29).

Delivery of rock salt to Chicago can be directly from the mine by boat or barge. Transportation costs were approximately * * * percent of the delivered price. In contrast, delivery to Harvey, IL, (a suburb approximately 15 miles southwest of the Port of Chicago) is in two stages. Trucking rock salt from Lake Michigan increases the delivered price by more than * * * percent. Transport costs to Joliet, IL, (located approximately 43 miles southwest of Chicago, on the Illinois River) were * * * percent of the delivered price. In 1982, transport costs to Detroit, MI, were less than * * * per ton for the reported bids of both Canadian and U.S. rock salt. ISCO operated a mine within the city limits (which it closed in 1984), and Morton operates a mine directly across the Detroit river in Windsor, Ontario, Canada. In comparison, transport costs to Lansing, MI (approximately 84 miles west of Detroit) were more than * * * per ton, or * * * percent of the delivered price.

St. Paul, MN, is supplied by rock salt shipped up the Mississippi from Louisiana. Transport costs were approximately * * * percent of the delivered price. In contrast, transport costs to Virginia, MN, (approximately 50 miles north of Duluth, MN) were approximately * * * percent (* * * per ton) of the delivered price. Transport costs to Fairmont, WV (approximately 70 miles south of Pittsburgh, PA), were more than * * * per ton. Weirton, WV (approximately 25 miles west of Pittsburgh, PA), was supplied directly by truck from the Ohio mines. Transport costs were approximately * * * percent (* * * per ton) of the delivered price.

1/ Transcript of the staff conference, pp. 163-164.

2/ Cargill closed its Belle Isle, LA, mine in February 1984, but still produces at its Lansing, NY, mine.

Table 29.--Transportation costs of bulk rock salt, in absolute terms and as a percentage of the delivered price, for U.S. and Canadian rock salt, to specific delivery points, 1982-84

Point of delivery	Year	Country of origin	Transport cost (mine to depot)		1/	Transport cost (depot to purchaser)		1/	Quantity	Delivered bid
			Cost	Percent of delivered price		Cost	Percent of delivered price			
			Per ton			Per ton			Short tons	Per ton
Chicago, IL	1982	U.S.	***	***	B	None	-	-	***	***
		U.S.	***	***	B	None	-	-	***	***
		U.S.	***	***	B	None	-	-	***	***
		Canada	***	***	B	None	-	-	***	***
Harvey, IL	1982	U.S.	***	***	B	***	***	T	***	***
		Canada	***	***	B	***	***	T	***	***
	1983	U.S.	***	***	B	***	***	T	***	***
		Canada	***	***	B	***	***	T	***	***
Joliet, IL	1983	U.S.	***	***	B	***	***	T	***	***
		U.S.	***	***	B	***	***	T	***	***
		Canada	***	***	B	***	***	T	***	***
	1984	U.S.	***	***	B	***	***	T	***	***
		U.S.	***	***	B	***	***	T	***	***
		Canada	***	***	B	***	***	T	***	***
Detroit, MI	1982	U.S.	***	***	T	***	***	T	***	***
		Canada	***	***	B	***	***	T	***	***
Lansing, MI	1984	U.S.	***	***	B	***	***	T	***	***
		Canada	***	***	B	***	***	T	***	***
St. Paul, MN	1983	U.S.	***	***	B	***	***	T	***	***
		U.S.	***	***	B	***	***	T	***	***
Virginia, MN	1984	U.S.	***	***	B	***	***	T	***	***
		Canada	***	***	B	***	***	T	***	***
Fairmont, WV	1983	U.S.	***	***	B	***	***	T	***	***
		U.S.	***	***	T	***	***	-	***	***
		U.S.	***	***	B	***	***	T	***	***
Weirton, WV	1984	U.S.	***	***	T	***	***	-	***	***
		U.S.	***	***	T	***	***	-	***	***

1/ Mode of transportation: B=boat or barge; T=truck.

Source: Compiled from questionnaires of the U.S. International Trade Commission.

An important factor in the determination of transport costs within the region defined by the petitioner is the "backhaul system" up the Mississippi river. Due to the general situation of small quantities of merchandise being transported northward on the Mississippi relative to the quantities being shipped southward, rock salt produced in southern mines can be economically shipped up the Mississippi and its tributaries, even into Minneapolis/St.Paul, MN. Rock salt produced in the northern mines, more specifically in the Canadian mines, is confronted with relatively high transport costs from the Great Lakes southward on the Mississippi River system. 1/

Contributing to the effect of the backhaul system is the intrastate regulation of transportation which results in high intrastate shipping costs in Illinois. If rock salt produced in Canada enters the United States through Chicago to be shipped southward on the Illinois river it faces high transport costs relative to salt shipped interstate from the southern mines. Interstate transportation is not regulated. 2/

Largely due to the backhaul system and regulation in the State of Illinois, rock salt produced in Canada is not shipped on the Mississippi River system much beyond the Chicago metropolitan area. The same producers that operate the Canadian mines which transport their product on the Great Lakes reportedly find it more cost effective to supply the region defined by the Mississippi River system beyond the Chicago area from their southern mines. 3/

An additional factor affecting the cost of transporting U.S. rock salt relative to that of the Canadian product is the U.S. shipping law known as the Jones Act. The Jones Act requires domestic producers to use U.S. vessels for all shipments to locations within the United States. Domtar Industries, one of the respondents, estimates that transport rates charged by U.S. flag vessels have historically been 15 to 30 percent higher than rates charged by non-U.S. carriers. 4/ This freight rate differential lowers the transport costs from Canadian mines relative to that from U.S. mines, particularly on the Great Lakes.

Exchange rates

Indexes of the nominal and real exchange rate of the Canadian dollar to the U.S. dollar are shown in table 30. The indexes are based on rates of exchange expressed in U.S. dollars per Canadian dollar. The real exchange rate is determined by adjusting the nominal exchange rate for differences in the rate of inflation in Canada relative to the inflation rate in the United States.

In nominal terms, the Canadian dollar decreased in value by 8 percent over the period January-March 1982 to October-December 1984. Because of higher inflation in Canada, the real value of the Canadian dollar depreciated by only 3 percent over the period January-March 1982 to July-September 1984.

1/ Transcript of the staff conference, p. 34, and petition, p. 8.
2/ Transcript of the staff conference, pp. 161-163.
3/ Transcpipt of the staff conference, pp. 113-116 and 161-163.
4/ Statement of H.J. Miller of Domtar Industries and transcript of the staff conference, pp. 165-166.

Table 30.--Nominal and real exchange-rate indexes between the U.S. dollar and the Canadian dollar, by quarters, 1982-84

(January-March 1982=100.00)

Period	Nominal	Real
1982:		
January-March	100.00	100.00
April-June	97.14	98.92
July-September	96.73	98.81
October-December	98.16	100.53
1983:		
January-March	98.50	101.47
April-June	98.20	102.42
July-September	98.06	102.12
October-December	97.61	101.52
1984:		
January-March	96.30	100.73
April-June	93.52	98.33
July-September	92.01	97.44
October-December	91.70	1/

1/ Not available.

Source: International Monetary Fund, International Financial Statistics.

Lost sales

The Commission received lost sales allegations from only one domestic producer. ISCO, the petitioner, submitted a lengthy list of bids which it had allegedly lost to competition from Canadian rock salt totaling * * * tons over the period 1982-84. The list included state, county, and municipal bids in the following States: Wisconsin, Ohio, Indiana, Illinois, Minnesota, and Michigan. The allegations were with respect to the company awarded the bid, in most cases Morton or Domtar.

The company to which the sale was awarded is specified on the contract. However, since importers of Canadian rock salt also produce in the United States, it is impossible for the purchaser to confirm most lost sales allegations because the country of origin for the delivered rock salt is not specified in the contract. Only in rare cases do the purchasers explicitly know the country of origin of the rock salt delivered. Exceptions to this rule are bids in which States request country-of-origin information. The Commission contacted the six States which allegedly purchased Canadian rock salt in lieu of the domestic product.

* * * * * * *

Two purchasers, Vulcan Chemicals of Wisconsin, and the City of Grand Rapids, MI, sent comments to the Commission on the investigation opposing the possible antidumping duties. These comments are attached as appendix E.

APPENDIX A

NOTICE OF THE COMMISSION'S INSTITUTION OF AN ANTIDUMPING INVESTIGATION

[Investigation No. 731-TA-239 (Preliminary)]

Rock Salt from Canada; Institution of Preliminary Antidumping Investigation

AGENCY: United States International Trade Commission.

ACTION: Institution of a preliminary antidumping investigation and scheduling of a conference to be held in connection with the investigation.

SUMMARY: The Commission hereby gives notice of the institution of preliminary antidumping investigation No. 731-TA-239 (Preliminary) under section 733(a) of the Tariff Act of 1930 (19 U.S.C. 1673b(a)) to determine whether there is a reasonable indication that an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports from Canada of rock salt, provided for in items 420.94 and 420.96 of the Tariff Schedules of the United States, which are alleged to be sold in the United States at less than fair value. As provided section 733(a), the Commission must complete preliminary antidumping investigations in 45 days, or in this case by March 14, 1985.

For further information concerning the conduct of this investigation and rules of general application, consult the Commission's Rules of Practice and Procedure, part 207, subparts A and B (19 CFR part 207), and part 201, subparts A through E (19 CFR part 201).

EFFECTIVE DATE: January 28, 1985.

FOR FURTHER INFORMATION CONTACT: Stephen Vastagh (202-523-0283), Office of Investigations, U.S. International Trade Commission, 701 E Street NW., Washington, DC 20436.

SUPPLEMENTARY INFORMATION:

Background

This investigation is being instituted in response to a petition filed on January 28, 1985, by the International Salt Co., Clarks Summit, PA.

Participation in the Investigation

Persons wishing to participate in this investigation as parties must file an entry of appearance with the Secretary to the Commission, as provided in § 201.11 of the Commission's rules (19 CFR 201.11), not later than seven (7) days after publication of this notice in the Federal Register. Any entry of appearance filed after this date will be referred to the Chairwoman, who will determine whether to accept the late entry for good cause shown by the person desiring to file the entry.

Service List

Pursuant to § 201.11(d) of the Commission's rules (19 CFR 201.11(d)), the Secretary will prepare a service list containing the names and addresses of all persons, or their representatives, who are parties to this investigation upon the expiration of the period for filing entries of appearance. In accordance with § 201.16(c) of the rules (19 CFR 201.16(c)), each document filed by a party to the investigation must be served on all other parties to the investigation (as identified by the service list), and a certificate of service must accompany the document. The Secretary will not accept a document for filing without a certificate of service.

Conference

The Director of Operations of the Commission has scheduled a conference in connection with this investigation for 9:30 a.m. on February 19, 1985, at the U.S. International Trade Commission Building, 701 E Street NW., Washington, DC. Parties wishing to participate in the conference should contact Stephen Vastagh (202-523-0283) not later than February 14, 1985 to arrange for their appearance. Parties in support of the imposition of antidumping duties in this investigation and parties in opposition to the imposition of such duties will each be collectively allocated one hour within which to make an oral presentation at the conference.

Written Submissions

Any person may submit to the Commission on or before February 22, 1985 a written statement of information pertinent to the subject of the investigation, as provided in § 207.15 of the Commission's rules (19 CFR 207.15). A signed original and fourteen (14 copies of each submission must be filed with the Secretary to the Commission in accordance with section 201.8 of the rules (19 CFR 201.8). All written submissions except for confidential business data will be available for public inspection during regular business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary to the Commission.

Any business information for which confidential treatment is desired must be submitted separately. The envelope and all pages of such submissions must be clearly labeled "Confidential Business Information." Confidential submissions and requests for confidential treatment must conform with the requirements of § 201.6 of the Commission's rules (19 CFR 201.6, as amended by 49 FR 32569, Aug. 15, 1984).

Authority: This investigation is being conducted under authority of the Tariff Act of 1930, title VII. This notice is published pursuant to § 207.12 of the Commission's rules (19 CFR 207.12).

Issued: February 1, 1985.

By order of the Commission.

Kenneth R. Mason,

Secretary.

[FR Doc. 85-3010 Filed 2-5-85; 8:45 am]

BILLING CODE 7020-02-M

APPENDIX B

NOTICE OF THE DEPARTMENT OF COMMERCE'S INSTITUTION OF AN ANTIDUMPING INVESTIGATION

DEPARTMENT OF COMMERCE

International Trade Administration

[A-122-601]

Rock Salt From Canada; Initiation of Antidumping Duty Investigation

AGENCY: International Trade Administration, Import Administration, Commerce.

ACTION: Notice.

SUMMARY: On the basis of a petition filed in proper form which the United States Department of Commerce, we are initiating an antidumping duty investigation to determine whether rock salt from Canada is being, or is likely to be, sold in the United States at less than fair value. We are notifying the United States International Trade Commission (ITC) of this action so that it may determine whether imports of this product are causing material injury, or threaten material injury, to a United States industry. If this investigation proceeds normally, the ITC will make its preliminary determination on or before March 14, 1985, and we will make ours on or before July 8, 1985.

EFFECTIVE DATE: February 26, 1985.

FOR FURTHER INFORMATION CONTACT: Mary S. Clapp, Office of Investigations, Import Administration, International of Commerce, 14th Street and Constitution Avenue, NW., Washington, D.C. 20230; telephone: (202) 377-5496.

SUPPLEMENTARY INFORMATION:

The Petition

On January 28, 1985, we received a petition in proper form filed by International Salt Company. In compliance with the filing requirements of § 355.36 of the Commerce Regulations (19 CFR 353.36), the petition alleged that imports of the subject merchandise from Canada are being, or are likely to be, sold in the United States at less than fair value within the meaning of section 731 of the Tariff Act of 1930, as amended (the Act), and that these imports are causing material injury, or threaten material injury, to a United States industry.

The petitioner based the United States prices on actual sales of rock salt to U.S. purchasers, less estimated freight, wharfage and warehouse costs.

The petitioner based foreign market value on sales prices of the merchandise in Canada less estimated freight, wharfage and warehouse costs.

By comparing the values calculated by the foregoing methods, the petitioner alleged dumping margins between 16 and 55 percent.

Initiation of Investigation

Under section 732(c) of the Act, we must determine, within 20 days after a petition is filed, whether it sets forth the allegations necessary for the initiation of an antidumping duty investigation and whether it contains information reasonably available to the petitioner supporting the allegations.

We examined the petition on rock salt and have found that it meets the requirements of section 732(b) of the Act. Therefore, in accordance with section 732 of the Act, we are initiating an antidumping duty investigation to determine whether rock salt from Canada is being, or is likely or be, sold in the United States at less than fair value. If our investigation proceeds normally we will make our preliminary determination by July 8, 1985.

Scope of Investigation

The product under investigation are rock salt, in bulk and packeged form, currently classified in the *Tariff Schedules of the United States, Annotated* (TSUSA), under items 420.9400 and 420.9600, respectively.

Notification of ITC

Section 732(d) of the Act requires us to notify the ITC of this action and to

to arrive at this determination. We will notify the ITC and make available to it all nonprivileged and nonconfidential information. We will also allow the ITC access to all privileged and confidential information in our files, provided it confirms that it will not disclose such information either publicly or under an administrative protective order without the consent of the Deputy Assistant Secretary for Import Administration.

Preliminary Determination by ITC

The ITC will determine by March 14, 1985, whether there is a reasonable indication that imports of rock salt from Canada are causing material injury, or threaten material injury, to a United States industry. If its determination is negative the investigation will terminate; otherwise, it will proceed according to the statutory procedures.

Alan F. Holmer,

Deputy Assistant Secretary for Import Administration.

February 19, 1985.

[FR Doc. 85-4670 Filed 2-25-85; 8:45 am]

BILLING CODE 3510-DS-M

APPENDIX C

LIST OF WITNESSES APPEARING AT THE COMMISSION'S CONFERENCE

CALENDAR OF PUBLIC CONFERENCE

Investigation No. 731-TA-239 (Preliminary)

ROCK SALT FROM CANADA

Those listed below appeared at the United States International Trade Commission's conference held in connection with the subject investigation on February 19, 1985, in the Hearing Room of the USITC Building, 701 E Street, NW., Washington, DC.

In support of the imposition of antidumping duties

Gibson, Dunn & Crutcher—Counsel
Washington, DC
on behalf of—

International Salt Company

Donald Allen, VP & Gen. Mgr. Highway and Chemicals Div.
Carey Burns, III., Counsel
International Salt Company, Clarks Summit, Penn.

Joseph H. Price)
Robert M. Krueger) —OF COUNSEL

In opposition to the imposition of antidumping duties

Covington & Burling—Counsel
Washington, DC
on behalf of—

Domtar, Inc.
Morton-Thiokol, Inc.
The Canadian Salt Company, Ltd.

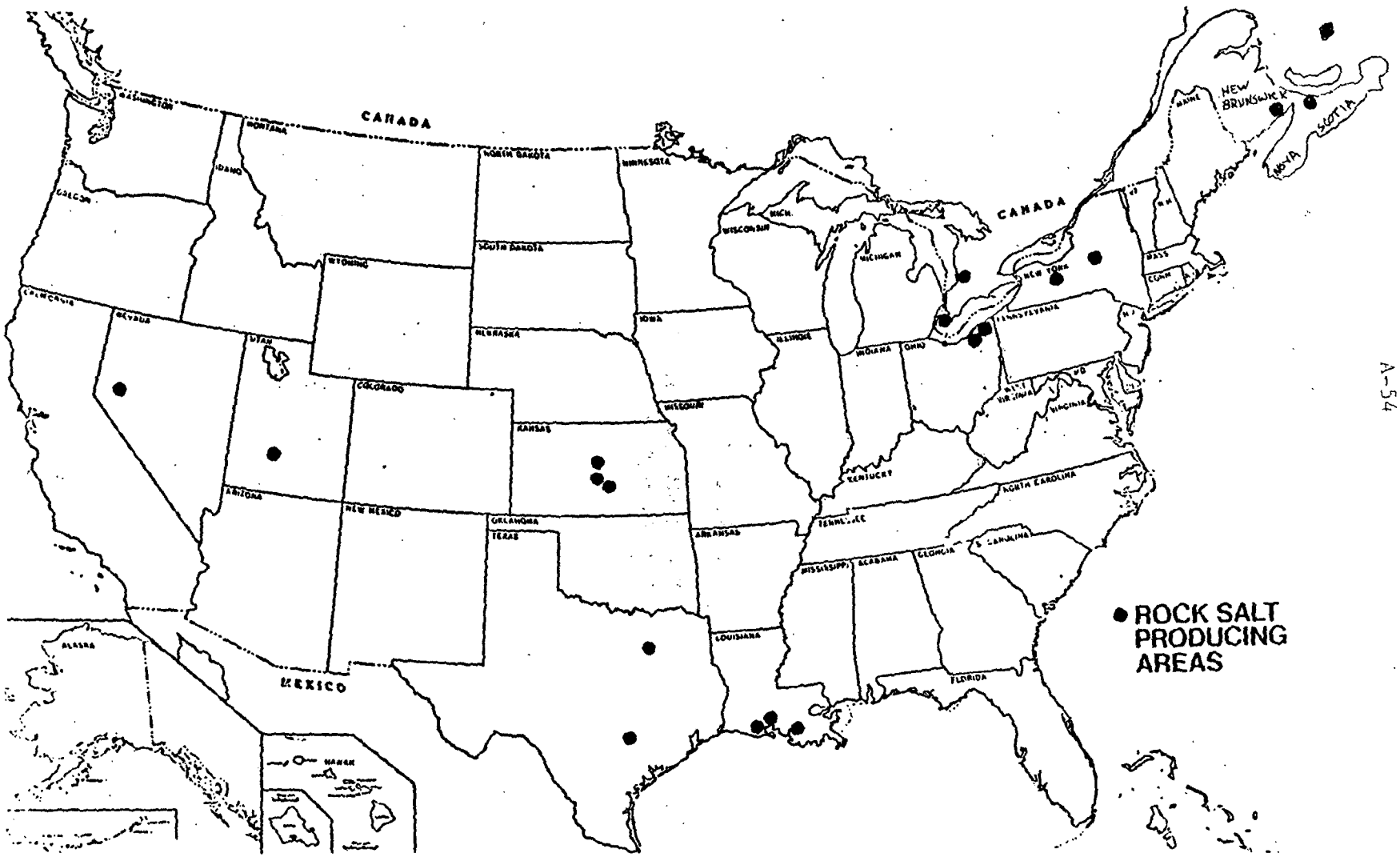
Harold Miller, Vice President, Marketing
Domtar, Inc., Shiller Park, Ill.
David B. Nilson, Director, Industrial Marketing
Raymond P. Buschman, Vice President & General Counsel
Morton-Thiokol, Inc. Chicago, Ill.
Andre Richard
The Canadian Salt Company, Ltd.

Harvey M. Applebaum)
Kimberley Till) —OF COUNSEL
David R. Grace)

APPENDIX D

LOCATION OF ROCK SALT MINES IN NORTH AMERICA

MAP OF U)CK SALT PRODUCING AREAS



APPENDIX E

PURCHASERS' STATEMENTS

CITY OF GRAND RAPIDS
300 MONROE AVE NW
GRAND RAPIDS MI 49503 10AM

Western Union Mailgram®

4-013986B045 02/14/85 ICS IPMBNGZ CSP WMBB
6164963173 MGMB TDBN GRAND RAPIDS MI 92 02-14 1113A EST

MR KENNETH R MASON SECRETARY
UNITED STATES INTL TRADE COMMISSION
701 EAST E ST NW
WASHINGTON DC 20436

RE: INVESTIGATION 731-TA

THE CITY OF GRAND RAPIDS MICHIGAN IS OPPOSED TO THE PETITION TO RESTRICT THE USE OF ROCK SALT FROM CANADA SINCE WE ARE A MAJOR USER OF SALT FROM THAT COUNTRY AND ANY ACTION WHICH WOULD JEOPARDIZE OUR ABILITY TO RECEIVE SALT FROM ANY SOURCE WOULD BE DETRIMENTAL TO THE CITIZENS OF THE CITY OF GRAND RAPIDS MICHIGAN.
VINCENT F. OCCHIPINTI PURCHASING AGENT CITY OF GRAND RAPIDS GRAND RAPIDS MI 49503

11115 EST

MGMCOMB

TO REPLY BY MAILGRAM MESSAGE, SEE REVERSE SIDE FOR WESTERN UNION'S TOLL - FREE PHONE NUMBERS

* * * * * * *