SCOMM

#15:7

WORLD AND NATIONAL BACKGROUND
OIL AND PETROCHEMICALS

PART I: OIL

1. ERDA estimates that the annual world output of oil is currently 20 billion barrels (200 gallons for every person on earth). Of that, the United States consumes 30% (about 1,100 gallons per person per year).

2. ERDA estimates that the United States now has 8 percent of the world's remaining recoverable oil. The Mid-East has 62 percent. Of that 62 percent, 25 percent is in Saudi Arabia.

3. The Wall Street Journal of 12/23/77 feels that the world oil markets could experience surplus conditions through 1982, possibly up to 1985. According to the Wall Street Journal of 12/23/77 proven reserves have risen 15 billion barrels since early 1974, outpacing world consumption of oil by an average of 5 billion barrels a year. New reserves are likely to be identified in the North Sea and Mexico expanding proven reserves at least into the 1980's.

4. According to the New York Times of 12/23/77, the oil glut will last through 1981 and 1982 and will put to 3 million more barrels per day on the market than needed.

5. The New York Times of 12/23/77 states that the International Energy Agency predicts that by the mid 1980's, the world will face a physical shortage of oil and sharply higher prices.

6. Walter Levy and Associates estimated the non-communist world energy consumption in 1977 was the equivalent of 92.2 million barrels of oil per day. They estimate that consumption will rise to 121.3 million barrels of oil a day equivalent. This slow rate of growth (3.5 percent per annum for non-communist oil consumption) is due to a reduction in overall quantity, increase in cost, and conservation efforts in the industrial sector. During that period, the actual oil consumption increase from 1977 through 1985 is 2.5 percent annually.

7. Walter Levy and Associates estimates that the total OPEC production for crude oil was 22 million barrels per day in 1977; they expect this to rise to 26.3 barrels of oil per day in 1985. The major difference will be the increase of Saudi Arabian portion of the production which will increase from 9.4 million barrels per day in 1977 to 11.5 million barrels per day in 1985.

   The current world surplus which causes OPEC to keep the price low, will narrow by 1985. With a lower surplus, there will be less of a pricing problem. From 1985 to 1990 there will be increased tightening of supply. Since the Saudis said "no" to a price increase, the real price of crude oil has gone down over the past couple of years...that is, it has not kept up the rate of inflation. Levy and Associates expect that situation to continue through 1981 or 1982. After 1982, the price will rise at the rate of inflation plus 2 to 3 percent annually.

8. According to ERDA, (currently, 44 percent of the U. S. energy requirements are supplied by petroleum. Half of that is used in transportation (cars, planes, trains and boats.)

9. According to ERDA, the U. S. is consuming 17 million barrels of oil a day currently.

10. According to ERDA, the U. S. now has only 8 percent of the world's remaining recoverable oil.

11. The USGS states that America's remaining economically recoverable resources of crude oil (identified reserves plus oil yet to be discovered, but soon to be producible) is estimated at 112 to 189 billion barrels or another 33 to 60 years supply, assuming domestic production remains at current levels.

12. In 1900, 9 percent of America's energy consumption was in oil; in 1950, 54 percent was in oil; in 1973, 77 percent was in oil.

13. The U. S. News and World Report feels that the current glut of oil was developed because of the following six factors.

    A. Alaskan Oil
    B. North Sea Production
    C. New Mexican Discoveries
    D. New Indian Discoveries
    E. Saudis refused to raise prices early in 1977
    F. Some exporting countries are cutting prices

PART II. PETROCHEMICALS

There seems to be a general agreement that a very significant number of petrochemical facilities are coming on line around the world. This obviously has impact on an in-state petrochemical facility.

1. Arlon Tussing feels that the Saudis may price their feedstock very low so that their petrochemical operations stay valuable.

2. Milton Lipton indicated that Japan would rather have Saudi feedstock than Alaskan, all things being equal, for the simple reason that the Saudis just have more feedstock.

3. The foreign petrochemical markets are most difficult and elusive according to Milton Lipton. Areas outside of Alaska are just more appealing.

4. Joe Moore makes two points about the Japanese in the world situation:

   a. Japan is somewhat afraid of OPEC because of its instability, and

   b. Japan has only small older plants using naptha as a feedstock.

5. Joe Moore also indicates that Japan is negotiating with other suppliers including Singapore and Saudi Arabia. Negotiations have been on and off for some time.

6. The Oil and Gas Journal of March 6, 1978 indicates that four major world scale petrochemical facilities will be going on stream in mid 1982. Saudi officials insist "The projects will be needed by then, despite fears of a worldwide petrochemical glut."

   In addition to the four ethylene based complexes, two giant methanol plants are planned.

   The article indicates that "the projects are economically viable, but if they weren't, Saudi Arabia would go it all alone." This seems to agree with statements made by Arlon Tussing that the Saudis would reduce feedstock prices to these facilities to make them economically viable in world markets.

JOBS

1. "In our opinion, therefore, the potential for job creation offered by one of the proposed refineries or petrochemical complexes should be evaluated in light of (1) secondary job creation on the order of 2 - 5 new secondary jobs for each ten new refinery jobs and (2) the fact that at best only 50 - 60% of the new refinery petrochemical jobs are likely to be filled by Alaskans."

   (From Report to the Alaska Royalty Oil and Gas Development Advisory Board, David M. Reaume, Principle Economist, Division of Economic Enterprise, State of Alaska, December 14, 1977.)

2. Ed, Patton, head of the Alyeska Pipeline Service Company, said in January that the State could find itself paying $240,000 per year for each job created at a refinery. Patton warned that the notion of an in-state refinery using royalty oil was a "boon doggle of immense proportions."

3. "Additionally, the petrochemical industry brings substantial benefits far beyond those of many other industries. It is highly capital intensive and one of the lowest labor intensive industry of any of our nation's basic industries. Therefore, expansion by the petrochemical industry results in very little population impact. The highly automated petrochemical operation requires very few workers and therefore imposes very little additional burden on public services such as schools, hospitals, highways, etc."

   (From Royalty Oil Decision by Robert R. Richards, The Anchorage Times, February 19, 1978.)

4. "Summary of Additional Employment. New Jobs:

Construction phase (3 1/2 years)	3,500 -	4,000
Operations phase (20 years)		
Petrochemical Facility	1,900	2,500
Shipping (ACS)	250	350
Total permanent jobs	2,150	2,850

   (From Outline of ALPETCO's Presentation, March 13 -14, 1978.)

SUBSIDIES

1. "There is substantial evidence available which makes questionable the project potential for a large scale refinery operation dependent upon an export market for a major portion of its products. We are concerned that the threat of job loss and financial reversals may generate future political pressure aimed at maintaining an inefficient refinery operation."

   (From the Report to the Alaska Royalty Oil and Gas Development Advisory Board, David Reaume, Principle Economist, Division of Economic Enterprise, State of Alaska, December 14, 1977.)

2. "At the same time however, ALPETCO itself has an important way out. The contract stipulates that if the consortium needs a break in royalty oil prices at a later date, the firm can get it with direct approval of the voters. That ringer raises the spector of voters possibly having to choose between subsidizing an industry or wrecking the economy of the area in which it's settled."

   (Alaska Advocate, March 16, 1978)

3. The contract does have subsidies. One prime example although not major is 2.6 in the contract which provides that the State will pay for the fill and storage tank mount ups. "It's about $9 million."

   (Quote - Charles O. Honig, Chairman of the Board, ALPETCO; Chairman of the Board, Alaska Interstate Company.)

   "But at the time it is ultimately paid for, it will be paid for at the value of the oil at that time, so if oil is $20 a barrel then, it will be paid for at the rate of $20 per barrel."

   (Quote - Willard M. Hanzlik, Vice President, ALPETCO; Vice President, Alaska Interstate Company.)

4. "With respect to the line pack, I suppose that could be viewed as a subsidy. So I really think it's more of an investment of $9 million dollars."

(Quote - Charles O. Honig, Chairman of the Board, ALPETCO; Chairman of the Board, Alaska Interstate Company.)

"Or you could look at it that way, or as a subsidy for 27 years?"

(Representative Bill Miles, Chairman, House Royalty Oil and Gas Committee.)

"Yes, I suppose you can look at it either way."

(Quote - Charles O. Honig, Chairman of the Board, ALPETCO; Chairman of the Board, Alaska Interstate Company.)

5. "All I'm saying is that at that point the State of Alaska may be faced with commitments they feel obliged to undertake, which go beyond that of the contract, simply because this is one of your major investment projects in Alaska. And, one way or another, you are not going to allow it to founder for the lack of cash flow."

(Milton Lipton of Walter Levy and Associates at hearing of Special Committee on Royalty Oil and Gas, March 15, 1978.)

REQUIREMENT FOR IN-STATE PROCESSING

1. "Article 4.3 does not actually require ALPETCO to produce energy fuel for in-state use."

   (Memo from Randy Berry, Revisor of Statutes, Legislative Affairs Agency to Bill Miles, March 20, 1978.)

2. "No, there is no requirement that we process a certain amount of barrels, there is no requirement that we continue the operation, but, if we follow the criteria of 10.2, and meet those criteria, - those are the benchmarks - if we meet the general requirement which is described in Article 4 - the two of those together should satisfy...

   (From transcript of Eddie Rogers, Chief Contract Negotiator for ALPETCO, March 1978.)

3. "This language, which we finally concluded was as far as we can go, really did not commit them, I mean, if they want to build in the capacity and let it sit idle, or build in the capacity, manufacture the products and export them all to California, they would not be in breach of contract for doing so."

   (From Fred Boness, Deputy Commissioner of Natural Resources.)

4. "There is no obligation in the contract to run 150,000 barrels through that facility."

   (From Fred Boness, Deputy Commissioner of Natural Resources.)

REVENUES TO STATE

1. "If the State were to sign contracts for the sale of royalty oil to an in-state refiner, the total revenue loss over time, bearing in mind some sales would be made in-state would be:

   Low = 936 million barrels x 70% x $2.08 = $1,363 million

   High = 936 million barrels x 70% x $3.12 = $2,628 million

   Quite clearly, insistence on the establishment of a world-scale refinery in Alaska would cost this State between 1 1/2 and 2 1/2 billion dollars in lost revenue over the life of the refinery."

   (From Economic Feasibility of Royalty Oil Refining, Niall Trimble, Principle Economist, Department of Community and Regional Affairs, State of Alaska, December 8, 1977.)

2. "Revenue from sales of royalty oil will be greater via the in-value option and the in-kind option independent of the premium. No evidence indicates the premium will be obtainable. The difference in revenue could be as great as $117,000 per day assuming the Sohio line exists or $245,000 per day without the line." (From the North Slope Royalty Oil Market, Pricing and Revenue Analysis, Battelle Pacific Northwest Laboratories, March 1978.)

IN-KIND VERSUS IN-VALUE

1. "Transportation cost figures were available from Chevron which show the cost of transferring products from the San Francisco Bay area to Anchorage to be around $1.23 per barrel. In contrast, they estimated crude shipment costs at around 55 - 80¢ a barrel using a mid point of 67 and 1/2 cents per barrel. For the latter cost, this would give a cost penalty for an Alaskan refinery, using Prudhoe crude and selling on the West Coast, of 55 and 1/2 cents, compared to a similar facility on the West Coast itself."

   (From Economic Feasibility of Royalty Oil Refining, Niall Trimble, Principle Economist, Department of Community and Regional Affairs, State of Alaska, December 8, 1977.)

2. "Much of the North Slope crude is moving to market through trades/exchanges involving other domestic or foreign oil. The exchanges frequently result in a savings in transportation costs. These complex arrangements are possible because the larger North Slope producers have domestic and international refining, transportation, marketing networks."

   (From the report on North Slope Royalty Oil Market, Pricing and Revenue Analysis, Battelle, Pacific Northwest Laboratories, March, 1978.)

3. "The in-value taking option appears to be the State's most practical, long-term economic method for receiving its royalty payment for oil marketed in the contiguous states. This option will provide the State with the most revenue and the least involvement and responsibility for marketing. With the in-value option, the producing companies will transport and market the royalty oil with their oil. This will allow the State to benefit from exchange programs among the oil companies. In addition, a proportionate share of the State's royalty oil will be marketed on the West Coast and less will be moved inland."

   (From North Slope Royalty Oil Market, Pricing and Revenue Analysis, Battelle, Pacific Northwest Laboratories, March 1978.)

4. In-value versus in-kind. "Texas, Oklahoma, Wyoming, Colorado, New Mexico, Louisiana and California are all oil producing states with royalty provisions. All these states currently take their oil royalty in-value.

(From the North Slope Royalty Oil Market, Pricing and Revenue Analysis, Battelle Pacific Northwest Laboratories, March 1978.)

NEED FOR OVER-ALL DECISION

1. "Others have addressed the feasibility of producing petrochemicals in Alaska from royalty gas. Their conclusions are relevant to the royalty oil issue in that, generally speaking, Prudhoe Bay gas liquids would be a lower cost feedstock and would be heavy Prudhoe Bay crude oil. If processing from royalty gas is uneconomical, processing from royalty oil is even less attractive a proposition."

   (From Report to the Alaska Royalty Oil and Gas Development Board, David Reaume, Principle Economist, Division of Economic Enterprise, State of Alaska, December 14, 1977.)

2. "The cost and benefits of proposed sale of royalty oil to the Alaska Petrochemical Company (ALPETCO) cannot be determined independently of other major decisions involving Alaskan oil and gas reserves. The number of factors suggest that a petrochemical complex using crude oil as a feedstock would be non-competitive with a similar facility processing North Slope natural gas liquids. A favorable decision on the ALPETCO contract, moreover, would limit the options available for in-state use of the State's royalty gas and gas liquids."

   (From the Statement of Matthew Berman, Phd. in Economics, Yale University, to the Joint Royalty Oil and Gas Committee, March 16, 1978.)

3. "The true value of the ALPETCO project is heavily dependent on the natural gas decision. Conversely the options available for North Slope gas may be severely limited by approval of the ALPETCO proposal."

   (From Statement by Matthew Berman, Phd. in Economics, Yale University, to the Joint Royalty Oil and Gas Committee, March 16, 1978.)

4. "If the State were to award a royalty oil contract to a group proposing to build a fuels refinery, then royalty gas could be considered independently. If the State were to award a royalty oil contract to a group proposing to build a petrochemical refinery, it should be understood that NGL availability at the right place would likely require that the oil

project be abandoned or converted to the use of NGL, if that option were within the power of the State to grant."

(Royalty Gas Study, Bonner and Moore. page 7-4)

5. "It is imperative for the welfare of the citizens of this State that the legislature take time to resolve its three major oil and gas disposal questions with a common plan. The hurried piecemeal approach at an unwise method for deciding the fate of the State's precious non-renewable resources."

(From Statement by Matthew Berman, Phd. in Economics from Yale University to the Joint Royalty Oil and Gas Committee, March 16, 1978.)

WEST COAST MARKETS

1. On the West Coast sales. "Pemex has unveiled a $15.5 billion capital investment budget for 1977 through 1982. Mexico's refinery capacity is scheduled to grow by 735,000 barrels per day by 1982, approximately one half of which is probably targeted for export."

   (From the International Petroleum Encyclopedia, page 134, 1977.)

2. "Reference to the statistics published by the Oil and Gas Journal show that in 1976, oil refining capacity in California grew from 1,993,503 to 2,414,585 barrels per day, an increase of 421,000 barrels, or 21.1 percent. It is against these refinery extensions that an Alaskan plant will have to compete and clearly it is against them that its cost should be measured."

   (From Economic Feasibility of Royalty Oil Refining, Niall Trimble, Principle Economist, Department of Community and Regional Affairs, State of Alaska, December 8, 1977.)

3. "The West Coast oil supply/demand outlook for the future period indicates a significant crude surplus each year. The surplus could be as great at 725,000 barrels per day. The surplus appears likely to persist well after 1985."

   (From the North Slope Royalty Oil Market, Pricing and Revenue Analysis, Battelle Pacific Northwest Laboratories, March 1978.)

4. "Mexico's refining capacity is scheduled to grow by 735,000 barrels per day by 1982, approximately one half of which is probably target for export."

   (From The International Petroleum Directory, 1977.)

5. "Given the immense U. S. refinery capacity on the Gulf Coast and projected shortage of refined products on the West Coast, it's possible that much of Mexico's new capacity is aimed at the Southern California market."

   (From The International Petroleum Directory, 1977.)

6. "...the importance of the Mexican refinery expansion is this. Normally a firm will not purchase or produce Alaskan products at a price (FOB California) that is above the competitive price, if they can simply purchase Mexican or Gulf Coast products. The notion of an assured supply of products is one possible exception. However, there are limits to the amount of premium a rational firm will pay for an assured supply."

(From the Report to the Alaska Royalty Oil and Gas Development Advisory Board, David Reaume, Principle Economist, Division of Economic Enterprise, State of Alaska, December 14, 1977.)

7. "...Mexico will be investing 15 billion dollars in its petroleum and petrochemical operations over the next six years, target for Mexican as well as export markets. It has been announced that the refining capacity will increase from 850,000 barrels per day to 1.7 million barrels per day in 1982, a boost of 93 percent. Mexico's plans for petrochemical development are no less ambitious--self sufficiency in 1979 and exportable surplus equal to 20 percent of its total production by 1982. Even discounting these figures somewhat, Mexico will be a major factor in the future."

(From the Evaluation of the Proposed Refinery/Petrochemical Plant in the State of Alaska, Data Resources, Inc., November 22, 1977.)

GENERAL ECONOMICS/PRODUCER INVOLVEMENT/PROFITABILITY

1. "Finally, when considering the profit potential of petrochemicals in Alaska, we must ask, "Where are the major oil companies?" W. Monte Taylor, Exxon's Manager of Alaska Operations has provided his firm's answer. In a press release reported mid-November, he stated clearly that in Exxon's opinion Petrochemical Production is a non-economic venture in Alaska."

   (From Report to the Alaska Royalty Oil and Gas Development Advisory Board, David Reaume, Principle Economist, Division of Economic Enterprise, State of Alaska, December 14, 1977.)

2. "The weight of expert opinion clearly supports the notion that the petrochemical industry has entered a period of slower more hesitant growth and that Alaska is not an economic location for petrochemical manufacturing. In such an atmosphere, buyers of petrochemicals will have considerable control over the prices they pay and may be unwilling to enter in the long-term purchase contracts on anything but the most favorable terms. While we cannot be certain, it is likely that this is at least one of the reasons why the Dow Chemical Company withdrew its letter of interest from Alaska Petrofining. Indeed, in a 1975 study, Dow itself concluded that petrochemical processing in Alaska would only be feasible if a variety of incentives were offered, including a reduced price for feedstock."

   (From Report to the Alaskan Royalty Oil and Gas Development Advisory Board, David Reaume, Principle Economist, Division of Economic Enterprise, State of Alaska, December 14, 1977.)

3. "My fourth observation is that ALPETCO's view of the economics of Alaska refining and petrochemical and of the world petrochemical market is a minority view. It is a view that is generally not shared by the major oil or chemical companies, by the trade press, or by government specialists in energy and chemicals in either the United States or Japan. The more general view is that Alaska is not presently a competitive location for a world-scale plant because of transportation factors plus high construction and operating costs."

   (From Statement by Arlon Tussing to the Royalty Oil and Gas Development Advisory Board, February 22, 1978.)

4. "Taken together, the higher product transportation costs, the higher capital costs and the higher operating costs add up to the fact that Alaska products would arrive at a West Coast location at appreciable higher cost than the products of an identical West Coast refinery. Therefore, in order to compete with West Coast products, the only resources the royalty refinery has is to obtain royalty crude at a discounted price. Hence, the old maxim: 'In the oil business, always transport the oil as crude oil to the point nearest the ultimate consumer.' Guam Oil (one of the prospective royalty oil bidders) is quoted as saying the required discount is in the $1.75 - $4.25 per barrel range. Taking the low figure, each of the 400 permanent jobs in the royalty refinery costs Alaskan taxpayers $240,000 per year.

In closing, all of the foregoing is even more applicable for petrochemicals. Alaska has about a zero market for petrochemicals and the transportation costs of shipping chemicals are horrendous as compared with shipping crude oil."

(From a letter-to-the-Editor by E. L. Patton, Alaska Construction and Oil, January, 1978.)

TIMING

1. "In summary, most oil and chemical companies, both Japanese and American, think that this is the time to wait and see what happens."

   (From Statement by Arlon Tussing to the Royalty Oil and Gas Development Advisory Board, February 22, 1978.)

2. "And, as I said last time, and I simply quickly summarize. In the state of the circumstances, if you the Legislators have significant doubts about the balance between the benefit to Alaska and the risk, I don't think Alaska loses too much by deferring the decision. This, of course, is contingent upon whether you think royalty oil will be available in the future, whether you think one or two years or three years of draw-down of reserves is going to prejudice your ability later on. But the way in which one sees the future suggests that the perception of all parties as to the value of assured access may improve over time. And, there's no question about it, that the success of this project depends upon the participation of other participants, and the stronger the other participants are, the more closely entwined they are, the more they appear as a party of the first part, the more chances there are for success."

   (From testimony by Milton Lipton, Walter J. Levy, and Associates before the Special Committee on Royalty Oil and Gas.)

3. "But, I would think that a year or two is not going to be tragic for Alaska, except that, in a sense, what you're saying is we are turning our back on what has come to us in good faith, because we are hoping for something more. I would...This has to do with the psychological. But, the companies who might otherwise be involved with the ALPETCO group are not going to disappear in a year or two. They are still going to be there for ALPETCO or anybody else, or maybe come in as a party of the first part. I don't know, and I certainly don't hold tis out as something of great promise.

   (From testimony by Milton Lipton, Walter J. Levy and Associates, before the Special Committee on Royalty Oil and Gas, March 15, 1978.)

RISK

1. "I think the biggest risk is that the contract will collapse, as we personally assess the probability of success is not all that great. And this is the risk. Now, what's the cost to Alaska if it does? That is, if an honest effort has been made and you've got this protection, and, whether it's eighteen months or twenty-four months, the ALPETCO group will be out a considerable amount of money. What has Alaska lost? It's a subtle thing. I guess you don't have the answer to that, but let me tell you the impression I have.

   Alaska has been involved now in a series of episodes involving contracts with off-takers. And, first, it was on the joint resolution of the Legislature and then it was on the sale of the royalty gas - all for a specific purpose. Has Alaska suffered because of this? Well, at some point, if there is misadventure after misadventure, questions begin to arise abcut how solid is the thinking up there in Alaska about these things. If the contract doesn't come to fruition in the nineteen months or the twenty-four months, I don't think Alaska has lost a great deal. But, it's just become one more episode. But, I think that's about the greatest risk.

   The other risk is that everything is going to go, and the investment's all going to be made, and it may lead to a very, very difficult time. And you may be faced with things which, under the contract, you do not anticipate; that is to say, a real sense of responsibility on the then-administration in the State of Alaska and the Legislature at that time that, hell, we can't let this go down the drain. Maybe that's not all so bad, because, if the thing does come to fruition - if you have to hold for five years or seven years - that's not in the contract, but that's a risk you may have to do this, and it may not even be all that bad.

   But, if you're asking me honestly to give you a personal judgment, that we've all discussed, it seems this is the way we assess it. Now you've got to decide whether, if the worst of these come to fruition, how much does Alaska suffer by it? I can't answer that question, but this is about the way which we will try to evaluate. The biggest risk and the highest probability, I think, is that it will not come to pass. What does it cost you? You decide now.

Risk Cont.

The other risk is way down the road, and then you may face things that your successors will feel obligated to do, even though the contract doesn't call for it. They may not be so terrible, if worse comes to worse, and if it turns out to be only a short holding operation. But, these are risks.

CHAIRMAN MILES:

You're talking about another set of risks if everything goes, and then some new unforeseen, or heretofore undiscussed, problems (indisc.). What does...Okay, What are some of those that you haven't yet discussed?

MR. LIPTON:

Well, look...that every step along the line the project looks like it's working out, then the fact you do have off-take contracts. And on the basis of the off-take contracts, commitments are made to finance, whether it's net capital or whether it's equity capital and joint ventures, but commitments are made, because everybody perceives step by step down the line that it's working out. And on that basis, ALPETCO has performed according to the due dates of the contract. But then, about the time when...While all of this is going on, other people are making their own investment decisions, too, in similar expectations, and it turns out that, when the first crude oil is being processed, and the first gas oil from the refinery is going into an ethylene operation, and naphtha is being cracked and products are coming out, all of a sudden you don't have as firm volumes, which changes your average cost of processing, and the prices are somewhat lower than have been anticipated in all the calculations, because nobody is committing you to a firm price in the future. You are going to have to meet competitive prices, whoever is doing this operation. This could put an on-going operation in a cash bind for some time. And that's not a matter of something unforeseen happening. Everybody who is looking at this is willing to acknowledge that this could happen. These imponderables that happen in the world chemical industry. All I'm saying is that at that point the State of Alaska may be faced with commitments they feel obliged to undertake, which go beyond that of the contract, simply because this is one of your major investment projects in Alaska. And, one way or another, you are not going to allow it to founder for the lack of cash flow.

(From testimony of Milton Lipton before the Special Committee on Royalty Oil and Gas, March 15, 1978.)

Risk Cont.

2. "The marketing plan we talked about has two elements. One is the expectation of getting long-term, hell or high-water, take or bake contracts from Japanese chemical consumers - Japanese industry. I did an investigation of this for the Commissioner and found no reason whatever to believe that there was any possibility that they would accomplish that, and I would say that the odds on that part of their program are - maybe they are finite - very clost to zilch. Now it is conceivable that the notion that they can market on the West Coast... there is a substantial possibility that, given their cost structure, they can market on the West Coast. There is no basic petrochemical-producing facility on the West Coast."

(From Statement by Dr. Arlon Tussing before the Special Committee on Royalty Oil and Gas, March 16, 1978.)

3. "I think the problem with ALPETCO is that its proposal is a little different. It proposes, rather than conventional financing, what is called project financing where the companies that own ALPETCO are putting up any their own faith in credit. They are not proposing to support the thing. So the bond holders have no recourse against Alaska interest. They can't take Anchorage Natural Gas; They have no recourse. They can't put a lien on Sea Train's ships, they can't put a lien on a native corporation's lands or future income, or anything of that sort. So, their only recourse is against the project itself. So they are going to look with even greater scrutiny than they would at the income statement and whether there is enough income to cover the debt service. Again, the problem here is that the owners don't propose to put up any capital. They propose one-hundred percent debt financing, or, if I read it correctly, there is something like a hundred...seven percent financing. When the thing goes on-stream the facility will have a negative net worth. That is, they will owe more than the plant is worth. And so the only security...the thing that they have to do, since there is no security in terms of an equity cushion, say all the cash flow has to be available for debt repayment - there is no equity cushion - they're not taking any bath, there's no recourse against the owners. Then what is absolutely essential is there be somebody that they can have recourse against. Well, I've convinced the Commissioner and his staff of adequately protecting the State against any legal recourse against the state, or against its revenues, or its royalty oil.

(From statement by Arlon Tussing, Page 19)

JAPANESE MARKETS

1. "The fuel oil expected to be produced in the refinery will be sold in Alaska while the petrochemicals are destined for the most part for the Japanese market. However, a period of time is required during which consumer contracts will be executed, perportedly by Japanese end users. Such a concept might very well be plagued with time delays associated with International political bargaining between the United States and Japanese governments on matters wholely unrelated to this project. These time delays might be quite substantial. Furthermore, an investigatory trip to Japan on the week of January 24 did not discover a major Japanese credit capable of shepherding such a deal through the government bureaucracy. Additionally, our research indicates each of the three leading Japanese trading companies have similar projects underway elsewhere in the world and that at least one of these may have been placed in a holding pattern.

   One must question if this plan is not too aggressive."

   (From the Sale of Royalty Oil, Review of Financial Proposals, Smith Barney, Harris Upham and Company, February 3, 1978.)

2. "On the whole, ALPETCO's stories simply do not check out. In no case have I been able to find evidence that any Japanese firm is seriously considering a long-term "take or pay" contract or a "hell or high water" contract to buy Alaska petrochemicals. I did, however, find instances where ALPETCO seems to have exagerated or misrepresented the nature of their contacts with the Japanese."

   (From a Statement by Arlon Tussing to the Royalty Oil and Gas Development Advisory Board, February 22, 1978.)

3. "It was conceivable that instances where ALPETCO's claims did not seem to check out were communications problems--which are certainly easy to have in dealing with the Japanese. Perhaps ALPETCO people naively but honestly mistook curiosity and politeness for active interest. Maybe we don't have the whole story.

Japanese Markets Cont.

Yet my experiences were enough to make me wary--and I think you should be wary--about other claims ALPETCO might make to the State of Alaska."

(From Statement by Arlon Tussing to the Royalty Oil and Gas Development Advisory Board, February 22, 1978.)

4. "The fifteen letters are not evidence ALPETCO will fail to get Japanese participation in their project. They are just not evidence of anything at all. What bothers me about their presenting the letters and about ALPETCO's representations about its Japanese connections generally is the hint that ALPETCO is more tuned to the public relations business, than to the chemical business, and that it may see Alaskans as ignorant provincials who can be influenced best by puffery and huxterism."

   (From the Statement by Arlon Tussing to the Royalty Oil and Gas Development Advisory Board, February 22, 1978)

5. "From the standpoint of securing the necessary resources from Japan, the proposal is very attractive; but in view of the fact that Japan already is seriously committed in the Saudi Arabian and Iranian petrochemical projects, it is considered very difficult to accept Alaska's proposal at this time.

   (From Japan Petroleum News.)

6. "My speculations would be based on the knowledge that they have for several years now, they (the Japanese) have been engaged in negotiations for these three petrochemical joint ventures that I mentioned; one in Singapore, one in Iran, and one in Saudi Arabia. And these projects have kind of been off and on. They'll negotiate for six months, then they'll announce that the Japanese are withdrawing from the negotiations, and then a year later they back into the negotiations. So these things have been going on for quite a long time. So in that sense I'm sure this planning and weighing process is constantly underway."

   (From Joe Moore, Consultant - Bonner and Moore, Associates, March 14, 1978.)

7. "The difficulty, of course, is that the companies who are in most direct control of the market are not the ones who are participating here. It becomes a matter of whether one can establish the relationship which makes it possible to do."

(From testimony of Milton Lipton, Walter J. Levy, Consultants, March 15, 1978.)

8. "I think that the foreign market, which is discussed, which is essentially the western perimeter of the Pacific, is probably the most elusive and the most difficult one. It's not because there isn't going to be a growth in chemical demand in Japan, Southeast Asia, and the Pacific basin as a whole; there will be a considerable increase in demand. But the areas from which that chemical demand can be supplied looks to be ever so much more attractive than out of Alaska. I'll give you our quick thinking on this."

(From testimony of Milton Lipton, Walter J. Levy, Consultants, March 15, 1978.)

9. "Now the ALPETCO group is operating on the premise that there are chemical purchasers, particularly in Japan, that will offer a premium for an assured supply of petrochemicals. I think they're a minority of one in that respect. They may be right, but none of the major chemical companies and none of the major oil companies believe. And they're going to have to beat their way into a market which is pretty much tied up by the majors already and in competition with a great number of new petrochemical facilities that are going in in OPEC countries and in third-world countries that want to have them for just the same reasons Alaska does. They want them for diversification of their economies, they want to create jobs, they want it as a symbol of national prestige, and in every case that I've looked at they are willing to subsidize. So they're willing to take a substantial amount of the risk. In Saudi Arabia, Saudi enterprises are taking fifty percent of the thing. In Korea, which has no feedstock advantage, the Korean government is undertaking to back-stop them on any operating losses. In Singapore, again, there seems to be...the government seems to be willing to share the risk. In Iran the government is contributing the feedstocks as its equity. And so, then, if there's a...they are in a

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position to do so. So we're looking at competition in the world market with a lot of jurisdictions where they're willing to offer something more than Alaska is to beat their way into the market. And there's a large ethylene-producing surplus in the world today. All the projections show that it will be greater in 1980 than it is today. Now that that surplus would be worked off in 1985 if we have normal rates of growth and if no new facilities are planned in other countries between now and then."

(From testimony of Dr. Arlon Tussing before the Special Committee for Royalty Oil and Gas, March 16, 1978.)