Appendix 3A

Correspondence Related to No-Action Alternative

Appendix 3A

Correspondence Related to No-Action Alternative

Appendix 3A is a collection of correspondence related to the issue of how to define the No-Action Alternative. There are several items as described below:

- The first item is the affidavit of William Lumpkin of Exxon Pipeline Company (EPC). The item appeared in the draft EA. It addresses the issue as to whether the former EPC pipeline has been continuously maintained between its use as a crude oil pipeline to September 1998 when it was turned over to Longhorn.
- Correspondence from Longhorn in response to Lead Agency and Department of Justice questions related to Longhorn's intentions should Longhorn not be allowed to go forward with its proposal to ship refined product from east to west. These two letters, from Longhorn's attorney Barry Cannaday, support their position that resumption of crude oil shipments from west to east is a feasible alternative to the proposed action and therefore should be the baseline against which the mitigated proposed project should be measured.
- An excerpt from a public comment letter from ECONorthwest commissioned by one of the plaintiffs. This excerpt takes issue with Longhorn's position that it is feasible and likely that Longhorn would resume crude oil shipments.
- A report commissioned by Longhorn to respond to ECONorthwest's claims that there is not economic justification nor crude oil availability to support Longhorn's contention that resumption of crude oil shipments is a plausible alternative. This report was prepared by Muse, Stancil & Co.
- The final item is a letter from Longhorn in response to a Lead Agency request. It specifies which of the mitigation measures in the Longhorn Mitigation Plan (LMP) would remain in place should Longhorn resume crude oil shipments from west to east.

Affidavit of William Lumpkin relating to the continuity of maintenance from idling of Exxon pipeline to purchase by Longhorn

AFFIDAVIT OF WILLIAM C. LUMPKIN

STATE OF TEXAS \$

COUNTY OF HARRIS \$

BEFORE ME, the undersigned authority, on this day personally appeared William C. Lumpkin who being by me duly sworn on his oath did state as follows:

- 1. My name is William C. Lumpkin. I am over the age of 21, of sound mind, and capable of making this affidavit. Based upon my job responsibilities with Exxon Pipeline Company as described below and my examination of the business records of Exxon Pipeline Company, I have personal knowledge of the facts herein stated and they are true and correct.
- I graduated from Georgia Institute of Technology in 1969 with a Bachelor of Science in Industrial Engineering and immediately thereafter began my employment with Humble Pipe Line Company, which subsequently became Exxon Pipeline Company. During my almost thirty years of employment with Exxon Pipeline, I have held a variety of positions including positions involving pipeline design engineering, project management, project cost analysis, business development, and various management positions in operations and technical services. I am currently a Senior Engineering Advisor at Exxon Pipeline Company ("EPC") and have served in that capacity since 1996. In such capacity, I provide technical analysis and support to operations and project personnel concerning the design, construction, maintenance and operation of EPC's pipelines.

RAD 23798

- 3. The pipeline easement that is the subject of the captioned lawsuit was originally granted to Humble Pipe Line Company by Mary Francis Spiller on November 8, 1949, and is recorded in Volume 58, Pages 133 to 134 of the Deed Records of Kimble County, Texas. Humble Pipe Line Company changed its name to Exxon Pipeline Company effective January 1, 1973, by means of a Certificate of Amendment of Certificate of Incorporation filed with the Secretary of State of Delaware, a copy of which is attached. EPC held title to the subject easement until October 21, 1997, when EPC sold all of its interest in the subject easement and the pipeline located thereon to Longhorn Partners Pipeline, L.P. (Longhorn). I am personally familiar with EPC's activities in connection with the 450 mile pipeline segment that EPC sold to Longhorn from the date of that sale (October 21, 1997) until September 15, 1998, when the operation of that line was transferred to Longhorn's contract operator, Williams. Prior to October 1997, I was first personally involved with this 450 mile pipe line segment, which was referred to within EPC as the Crane to Baytown crude oil line, starting in 1985 when I became the Division Manager of EPC's Southwest Texas Division which included a section of this line.
- 4. In 1993, the Crane to Baytown line was identified as a potential candidate for conversion to a refined products pipe line since west Texas production was declining and there was an available alternative to move crude to the Gulf Coast (Rancho Pipe Line). During 1994, EPC explored industry interest in such a conversion or alternately, the purchase of the Crane to Baytown line. As a result of these exploratory discussions in 10-94, EPC decided to sell the Crane to Baytown line and to run what is referred to in the industry as a "smart pig", an internal inspection device to aid in evaluating the condition and integrity of a pipeline. The planning for this smart pig inspection began in late 1994 and was completed by May 1995. During the period from June to October 1995, an EPC contractor evaluated the smart pig results and completed the physical inspection and required repairs of potential areas of concern identified by the smart pig. On or about November 1, 1995, EPC idled the line and began displacing the crude in the line with water which was planned to be used in a hydrotest of the Crane to Baytown line. I was designated as the project manager for the Crane to Baytown hydrotest in late August 1995. I continued in that position until March 1996 when the hydrotest was completed and documented. Both the smart pig inspection and the hydrotest were intended to determine the integrity of this 450 mile pipe line segment and thereby help establish the true value of the line.
- 5. From late 1994, until the present, EPC's operations and activities involving the Crane to Baytown line were primarily intended to facilitate EPC's efforts to sell this line. As noted above, EPC conducted a smart pig run, line investigation and repairs based on the smart pig results, a hydrotest and finally, the injection of nitrogen to protect the line from corrosion at a combined cost of slightly more than \$6,600,000.00. During this same period, EPC continued normal maintenance operations on this line including, without limitation, aerial surveillance, right-of-way monitoring, one-call response, cathodic protection (corrosion/rust protection), repair and replacement of pipe (as appropriate), inspections and documentation required under State and Federal laws and regulations as well as EPC's policies.

6. As can be seen from the foregoing, at no time did EPC intend to or take any action consistent with the abandonment of its Crane to Baytown line or the right-of-way associated with that line. Rather, EPC spent millions of dollars testing and maintaining the line in preparation for the sale of the line and after the sale to continue maintaining and monitoring the line and right-of-way while it was being converted by Longhorn to a refined petroleum products line.

FURTHER AFFIANT SAYETH NOT:

Dated: December 17, 1998

Villiam C. Lumpkin

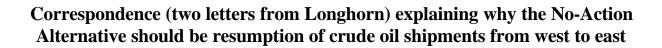
SUBSCRIBED AND SWORN TO before me on this 17th day of December, 1998

My commission expires 9/14/01

Notary Public in and for the State of Texas



RAD 23800



ENDAL:27944.1 29694-00007 3A-4

A PROFESSIONAL CORPORATION

MEMORANDUM

To: Bob Davis, Radian VIA E-MAIL and TELECOPY

From: Barry Cannaday

Date: July 21, 1999

Re: Response to Questions for Longhorn regarding the No-Action Alternative in the

Longhorn EA

The following responses are provided to the questions set out in your memorandum dated July 20, 1999 regarding the No-Action Alternative. Because Longhorn has had very little time to provide the following responses, it reserves the right to provide supplemental and/or additional responses as further information is developed. Subject to the foregoing, the following specific responses are provided to your questions:

1. From a regulatory/permitting standpoint, what would Longhorn need to do to legally resume crude oil shipments from Crane to Houston area?

ANSWER:

Longhorn currently has a T-4 Permit (Permit No. 05431) with the Texas Railroad Commission (which the Railroad Commission refers to as a "Registration") under which the Railroad Commission has certified that Longhorn has complied with rule 70 of the Commission Rules and Regulations governing pipelines in accordance with Article 6018 et seq. R.C.S. to operate a hazardous liquids pipeline from Crane to Houston. All that would be required to change the service from refined products to crude oil products would be an amendment of the existing Permit/Registration. During the period of time that Exxon Pipeline Company operated the line as a crude products line, it had in place an OPA '90 facility response plan for crude oil service from Crane to Houston. That facility's response plan would have to be refiled with the Department of Transportation.

2. Was the Crane-to-Baytown Segment ever "abandoned" or "surplused"?

ANSWER:

The Crane to Baytown segment was never abandoned or surplused. At all periods of time since the line was last used for crude oil service, first Exxon Pipeline Company and then Longhorn, intended to return this line to service. The concept that either Exxon or Longhorn ever intended to "abandon" or "surplus" this line

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makes absolutely no sense in light of all of the facts surrounding this transaction. In this regard, see paragraph 6 of the Affidavit of William C. Lumpkin which is attached hereto.

3. Has maintenance per DOT 195 continued since operation of the line for crude oil shipments ceased?

ANSWER: Please refer to the Affidavit of William C. Lumpkin (RAD 23798). After the line ceased to be used for crude oil service, it was continually maintained by Exxon Pipeline Company, during all periods of time Exxon was responsible for maintaining the pipeline, in a manner intended to comply with all state and federal laws and regulations, including DOT regulations. Subsequent to the termination of Exxon's role in maintaining the line, Longhorn has endeavored, in good faith, to maintain the line in compliance with all state and federal laws and regulations, including DOT regulations.

4. Has the IRS treatment of this asset for tax purposes been changed in any way since its operation as a crude oil pipeline? What is its current status for purposes of IRS reporting? Please explain.

ANSWER: Between the time that Exxon last used this line for crude oil service and the time the line was sold/contributed by Exxon to Longhorn, the tax treatment of the pipeline did not change. Subsequent to Longhorn's acquisition of the line, Longhorn has treated the line as a business asset for income tax purposes.

5. Please provide the approximate volume of crude oil shipments through the Crane-to-Baytown EPC line for <u>each</u> of its last ten years of operation (1986-95) and its highest three years of operation.

ANSWER: Because of the manner in which Exxon Pipeline Company maintained its records relating to shipments of crude oil on this line, it is not easy to extract information about annual volumes shipped through the pipeline. For example, different volumes entered the line at various points along the line. How are those volumes calculated for purposes of your question? Nevertheless, the following volumes are provided as Exxon Pipeline Company's good faith estimate of the volumes shipped through the pipeline during the 10 year time period specified:

1986: 43,800,000 barrels 1987: 41,829,000 barrels 1988: 36,938,000 barrels 1989: 37,522,000 barrels

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1990: 31,098,000 barrels 1991: 26.353.000 barrels 1992: 19,491,000 barrels 1993: 24.820.000 barrels 1994: 30,879,000 barrels

1995: 26,827,500 barrels (annualized)

In the Affidavit of William C. Lumpkin (RAD 23798), Item 4 begins as follows: 6. In 1993, the Crane to Baytown line was identified as a potential candidate for conversion to a refined products pipe line since west Texas production was declining and there was an available alternative to move crude to the Gulf Coast (Rancho Pipe Line).

In brief, why should resumption of crude oil shipments from Crane-to-Houston be considered the most likely "No-Action Alternative"?

The resumption of crude oil shipments from Crane-to-Houston is the most likely ANSWER:

"No-Action Alternative" because, if the pipeline is not used for refined products, use of the pipeline for crude oil service is the next best use of the pipeline. This pipeline is a valuable asset for which significant money has been paid and invested. The concept that it would be abandoned without being put to its next highest and best use makes no economic or logical sense. This pipeline was initially constructed for the purpose transporting crude oil and it has undergone significant improvements which make it a safer pipeline for purposes of shipping crude oil if that next best use of the line is forced upon Longhorn. Although west Texas production has declined, there is still available production and other sources of crude oil that could be shipped on the line at various points between El Paso and Houston and it is even possible that crude oil could be shipped from west to east for other purposes.

Do not hesitate to contact me if you should have any questions concerning the foregoing.

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MEMORANDUM

To: Bob Davis, Radian International, LLC

FROM: Barry F. Cannaday

DATE: September 20, 1999

SUBJECT: No Action Alternative

The following responses are provided to the Department of Justice's additional questions related to the "no-action alternative."

- 1. General Response: As I advised earlier, the concept that Longhorn would spend hundreds of millions of dollars purchasing, refurbishing, constructing and upgrading a pipeline system and then abandon it in the inconceivable event that it was denied the right to use the line for refined products service, defies all human logic and common sense. The management of Longhorn has determined that the "no action alternative" is crude service and it is not the place or function of the Department of Justice to question the legitimate business decisions of Longhorn. Further, the Department of Justice needs to keep in mind that if Longhorn was denied the right to operate its pipeline in refined products service, then the economics involved with evaluating any alternatives would ignore "sunk costs". That is, any use of the pipeline system that would generate an acceptable operating profit on a going forward basis would justify its continued use for that purpose as an asset.
- 2. <u>Specific Responses</u>: The following specific responses are provided to the additional questions posed by the Department of Justice:

QUESTION 1: The Cannaday memorandum indicated that "although west Texas production has declined, there is still available production and other sources of crude oil that could be shipped on the line at various points between El Paso and Houston." Can you provide some additional factual support for this statement?

ANSWER: The graph attached as Exhibit A details historic crude production from Texas Railroad Commission Districts 7C, 8 and 8A consolidated with production from the southeastern New Mexico counties Lea, Eddy and Chaves. Crude production from these areas comprises the bulk of the total crude production from the so-called Permian Basin. These volumes represent the total crude supply available for local refineries and for export to refineries located in other regions. Note that although crude volumes have shown a sharp decline within the last 18 months, a significant portion of that decline

represents the shutting in of production and a temporary decline in drilling activities rather than depletion of available reserves since short term crude decline in the region is highly dependent on crude price. Long term overall decline in the region is about 3 percent annually. As can be seen, there is still an abundant supply of crude oil that is available to be shipped from west Texas to the Gulf Coast.

Crude volumes from other areas such as the U.S. West Coast or Alaska can also create demand for crude transportation capacity from west Texas to Houston. The primary link for these volumes from the west is the All American pipeline system.

QUESTION 2: The Cannaday memorandum also indicated that "it is even possible that crude oil could be shipped from east to west for other purposes." Can you further explain or support this statement as well.

ANSWER: The existing Chevron/RHC refinery facilities at El Paso consists of two distinct plant sites with two different owners. These facilities are currently operated as a consolidated unit. Although existing commercial arrangements limit the economic feasibility of expanded operations, it is feasible that Chevron/RHC or a future owner of the facilities might elect to significantly expand crude processing capabilities at the facility at some point in time. Longhorn would provide the connection to the vast array of crude grades readily available at the U.S. Gulf Coast. As regional crude supply declines and if expanded operations include more complex processing facilities, shipments of lower quality, imported crude would be required to meet local demand.

QUESTION 3: In the Affidavit of William C. Lumpkin (RAD 23798), Item 4 begins as follows: "In 1993, the Crane to Baytown line was identified as a potential candidate for conversion to a refined products pipeline since west Texas production was declining and there was an available alternative to move crude to the Gulf Coast (Rancho Pipe Line)." Do you have any information supporting the feasibility of resuming crude oil shipments from west Texas to the Gulf Coast despite the availability of the Rancho Pipe Line and any other existing alternative routes?

ANSWER: Although the Rancho Pipe Line is the largest alternative system available for the shipment of crude from west Texas to the Gulf Coast, the capacity of the Rancho system presents some disadvantages as crude volumes in region decline relative to systems like Longhorn with lower throughput capacities. As capacity utilization drops, it will become increasingly difficult to maintain batch integrity throughout the pipeline resulting in a higher degree of degradation of the lighter, sweeter batches moving through the system. Transit times through the system also increase. All this will tend to give Longhorn a competitive edge if the Longhorn system were placed in crude service. Further, given the fact that the existing Longhorn system has a substantially lower capacity than the Rancho system, the Rancho system is likely to be abandoned sooner due to the higher cost associated with product losses from contamination as well as longer transit times. Finally, Longhorn would, at all times, attempt to provide quality

services at a price that would attract crude shippers to use Longhorn in preference to Rancho.

In addition to pipeline operational considerations, several events have favorably impacted the crude supply/demand balance in west Texas for crude shippers since 1993 when Exxon identified the opportunity to convert the Crane to Houston line. In 1997, Mobil sold their 16-inch crude pipeline that operated between Midland and Corsicana. This line had the capacity to move approximately 200,000 barrels per day of west Texas crude east to connect with systems moving crude to refineries located in the Midwestern U.S. This line was subsequently converted to refined products service and is currently operated by Equilon. The sources of crude handled by that line now have to find another outlet and Longhorn could compete for that market if it were in crude oil service.

In March of 1998, Pride Companies, L.P. completed the shutdown of its Abilene, Texas refinery. Closure of the Abilene facility resulted in a drop in crude demand in west Texas of 30,000 to 40,000 barrels per day. Equilon's Odessa refinery has also been idled reducing total regional demand by an additional 30,000 barrels per day.

Other structural changes will also impact the crude supply/demand balance in west Texas in the near ten-n in ways that are favorable to potential crude oil shippers. As a result of the on-going industry consolidation, many companies are seeking to alter their newly combined asset portfolios.

The Total-Fina merger has altered Fina's traditional business strategy as evidenced by the current auction process for the sale of their Southwest Business Group that includes the Amdel pipeline. Amdel has historically moved west Texas crude from Midland to the U.S. Gulf Coast and, more specifically, Fina's Port Arthur refinery. Fina is currently in the process of reconfiguring the Port Arthur facility to integrate its operation with existing petrochemical facilities. This change in operating philosophy will ultimately result in a change in the feedstock requirements for the Port Arthur refinery and a reduction in the regional demand for west Texas crude of approximately 40,000 barrels per day.

Also included in the sale of the Southwest Business Group is the 60,000-barrel-per-day Big Spring refinery. Future operation of the refinery is highly dependent on the result of the auction process and the new owner's strategy for the exploitation of these assets. Closure of the Big Spring facility coupled with the change in operating strategy at the Port Arthur facility could result in an approximately 100,000 barrels per day of incremental west Texas crude requiring transportation to new markets outside of the region.

The proposed merger of BP Amoco and ARCO currently undergoing FTC scrutiny also presents the opportunity for changes in asset infrastructure in west Texas. Amoco and ARCO both have significant crude pipeline assets in the west Texas area. The Amoco system transports crude from southeastern New Mexico and west Texas to refineries in

the midwest. BP has already begun to restructure the combined BP Amoco asset portfolio with the ale of the Belle Chase refinery in the southeast and had identified a targeted reduction of some \$3 billion in assets from the combined company in the near future. Other, as yet unidentified divestitures of not only BP Amoco, but also ARCO assets, such as crude producing properties, transportation assets, and refining assets could have a significant impact on the supply, demand and transportation situation in west Texas.

Additionally, structural changes will also evolve from proposed regulatory changes in fuel specifications that may improve the economics for crude oil shippers from the west Texas area. Although the final specifications for permitted sulfur levels are still being debated, it is clear that reductions in overall product sulfur levels will be mandated to begin within the next few years. Substantial capital investments are currently anticipated to meet the new specifications and some regional refiners may elect to shut down facilities rather than make the investments required to achieve compliance.

QUESTION 4: Do you have any other factual information (besides the Cannaday memorandum and the Affidavit of William Lumpkin) (e.g. quantity of crude oil, other available economic information) which further establishes the practicality and likelihood of the resumption of crude oil shipment as the no-action alternative?

ANSWER: Based on historic crude oil production data (shown in the answer to Question 1 above), the average crude oil production rate in the Permian Basis has declined from 1,115,000 to 919,000 barrels per day in the period from January 1993 to June 1999. Therefore, crude supply has declined approximately 200,000 barrels per day during this time. However, during the same period, two large crude pipelines, Exxon (Crane to Houston) and Mobile (Midland to Corsicana), with approximate total crude capacities of 380,000 barrels per day have been removed from crude service which effectively results in a net surplus of available crude for shipment from west Texas.

In addition to the reduction in total crude transportation capacity from west Texas, two regional refineries have shut down since 1997. The Pride Refinery at Abilene shut down in the first quarter of 1998 resulting in an additional 35,000 to 40,000 barrels per day of available supply in the region which could be shipped from west to east. Equilon's Odessa refinery has also been shut down contributing an additional 30,000 barrels per day of available supply to the area.

Longer term, additional demand for export transportation capacity from west Texas may result from the pending regulatory changes associated with the sulfur content in both gasoline and diesel fuels. Although the specifications for sulfur are still being debated, it is clear that reductions in overall product sulfur levels will be mandated to begin within the next few years. Substantial capital investments are currently anticipated to meet the new specifications and some regional refiners may elect to shut down facilities rather than make the investments required to achieve compliance.

This memorandum is being e-mailed to you with a "hard copy" with Exhibit "A" to follow by overnight mail. Do not hesitate to give me a call if you have any questions.

cc: Carter Montgomery Horace Hobbs Excerpts from public comment letter (ECONorthwest) that disputes the draft EA definition of the No-Action Alternative

III. IF ECONOMICS IS RELEVANT, THEN SHIPPING CRUDE OIL FROM CRANE TO HOUSTON IS NOT THE NO-ACTION ALTERNATIVE

The Environmental Assessment (EA) states:

"The Lead Agencies have determined that the No-Action Alternative is the resumption of crude oil transport through the former Exxon Pipeline Company (EPC) pipeline between Crane and Houston." (Vol. One, p. 9-1) "There is considerable evidence that a return to crude operation is feasible and the Lead Agencies believe it is unlikely that valuable pipeline infrastructure would be abandoned." (Vol. One, p. 9-1)

The EA—Radian—has chosen shipping crude oil as Longhorn's no-action alternative despite compelling evidence that shipping crude oil to the Gulf Coast is not economically viable.

A. If Shipping Crude Oil from Crane to Houston Isn't Economically Viable, then It Can't Serve As the No-Action Alternative

While this may qualify as stating the obvious, prudence, reinforced by reading the EA's Chapter 9 and its Appendix 9-A, suggests stating it anyway: If it doesn't make sense economically for Longhorn to resume shipping crude oil from the Permian Basin to the Gulf Coast, then crude-oil shipments can't serve as the no-action alternative.

B. In Choosing Crude-Oil Shipments As the No-Action Alternative, the EA Has Accepted Cannaday's Confusion of Cost with Value and Supply with Demand

Radian asked Barry Cannaday, "In brief, why should resumption of crude oil shipments from Crane-to-Houston be considered the most likely "No-Action Alternative"?" (Vol. Two, p. A-3)

Barry Cannaday's response warrants scrutiny, because Radian and the EA apparently regard it as persuasive. They shouldn't have.

We—ECONorthwest—address Cannaday's response, one sentence at a time.

Cannaday's 1st sentence: "The resumption of crude oil shipments from Crane-to-Houston is the most likely "No-Action Alternative" because, if the pipeline is not used for refined products, use of the pipeline for crude oil service is the next best use of the pipeline." (Vol. Two, p. 9A-3)

This is a tautology. As such, it explains nothing, and simply begs the question Radian posed.

Cannaday's 2nd sentence: "This pipeline is a valuable asset for which significant money has been paid and invested." (Vol. Two, p. 9A-3)

The value of an asset today turns on the demand for it today and tomorrow, not on how much was spent on it yesterday. Economists David Ricardo, Jeremy Bentham and Francis Edgeworth understood this over 100 years ago. There isn't a microeconomics textbook in the country that doesn't endorse the concept. It's what led, in part, to the economic advice, "Ignore sunk costs." While Cannaday uses the term "sunk costs" (Vol. Two, p. 9A-4), he doesn't appear to understand it. There are thousands of miles of once-valuable-though-now-idle crude-oil pipeline around the country, pipeline on which millions, probably billions, of dollars were spent in construction and maintenance. (Source: Bureau of Transportation Statistics, 1998, Table 1-8; Eno Foundation, Inc., personal communication) The lack of value today stems from lack of demand, not from having had little spent on them.

Cannaday's 3rd sentence: "The concept that it would be abandoned without being put to its next highest and best use makes no economic or logical sense." (Vol. Two, p. A-3)

Again, Cannaday offers only a tautology. This one also begs the question Radian has posed, namely, Why is its next highest and best use shipping crude oil to the Gulf Coast?

Cannaday's 4th sentence: "This pipeline was initially constructed for the purpose [of] transporting crude oil and it has undergone significant improvements which make it a safer pipeline for purposes of shipping crude oil if that next best use of the line is forced upon Longhorn." (Vol. Two, p. A-3)

Granted that the pipeline was constructed for transporting crude oil and that it's been improved, but that's yesterday's story and today's sunk cost. The question remains, Why is its next highest and best use shipping crude oil to the Gulf Coast? What drives its value today and tomorrow?

Cannaday's 5th sentence: "Although west Texas production has declined, there is still available production and other sources of crude oil that could be shipped on the line at various points between El Paso and Houston and it is even possible that crude oil could be shipped from west to east for other purposes." (Vol. Two, p. 9A-3)

Both Cannaday and William Lumpkin (in the latter's Affidavit, on which Cannaday relies) concede that west Texas production has declined, but Radian followed up only by asking for documentation of the decline and not why it occurred (Vol. Two, p. 9A-4). Cannaday states here and in his responses to followup questions from Radian that there's plenty of supply left. (For example, see Vol. Two, p. 9A-5.) He appears to think that if there's supply, then demand will follow. But despite Kevin Costner's faith that he expressed in the movie, "Field of Dreams," if you supply it, they won't necessarily demand it. If supply doesn't explain the decline, then falling demand must explain it. If falling demand explains the decline, then Cannaday's argument for crude-oil shipments as the no-action alternative unravels.

C. The EA Fails to See the Threat Foreign Crude Oil and Excess Pipeline Capacity Pose for Its Choice of Crude-Oil Shipments as the No-Action Alternative

In the questions Radian posed to Cannaday (Vol. Two, pp. 9A-1 to 9A-7), Radian appears to have understood the threat that the existence of excess pipeline capacity poses to crudeoil shipments as the no-action alternative. On what we—ECONorthwest—interpret to be the demand side, Cannaday stated that "long-term overall decline in the region is about 3 percent annually." (Vol. Two, p. 9A-5). On the supply side, Cannaday offered a two-part response. First, "... there is still an abundant supply of crude oil that is available to be shipped from west-Texas to the Gulf Coast." (Vol. Two, p. 9A-5). Second, many of Longhorn's potential competitors as crude-oil shippers have stopped shipping to the Gulf Coast, or are in the process of stopping shipping to the Gulf Coast, so that Longhorn would be well-positioned to fill the gap. (Vol. Two, pp. 9A-5 to 9A-7) Furthermore, Cannaday argued, Longhorn's biggest remaining potential competitor—Rancho—is too big. That is, Longhorn (at 225 MBD) is small enough relative to Rancho (at 388 MBD; Source: Energy Analysts International, Inc., 1997, p. CH-2) to avoid diseconomies of scale. Cannaday attributes to pipelines trying to "maintain batch integrity." (Vol. Two, p. 9A-5). Cannaday added that since Rancho is bigger than Longhorn's proposed pipeline, its cost-effectiveness would be lower and would therefore shutdown sooner than Longhorn would. (Vol. Two, p. 9A-5).

Cannaday, though, appears to have substantially underestimated the forecasted declines in production from the Permian Basin. For the years 1999-2010, Energy Analysts International (EAI) forecasts substantially larger annual decreases than Cannaday's 3 percent: -7.3% in 1999, -5.4% in 2000, and declining from -4.6% in 2001 to -4.1 in 2010. (Energy Analysts International, Inc., 1999, Table PRM-1).

More to the point of the no-action alternative, Cannaday appears to have dramatically overstated the demand in the relevant market, namely, crude-oil shipments from the Permian Basin to the Gulf Coast. Not incidentally, this appears to be the EA's basis for the no-action alternative. While EAI estimates total supply of crude from the Permian Basin will decline from 1,497.3 MBD in 1992 to 918.9 MBD in 2005, it estimates shipments from the Permian Basin will decline from 262.8 MBD in 1992 to 15.6 MBD in 2000, and zero in 2001 and thereafter. (Source: Energy Analysts International, Inc., 1999, Table PRM-1) EAI attributes this marked decline in Permian Basin exports to the Gulf Coast to foreign-crude imports. "... distribution patterns have shifted supply from the Gulf Coast to the northern areas as foreign imports have penetrated the Gulf Coast market." (Source: Energy Analysts International, Inc., 1997, p. CH-1) This is consistent with the overall trend in the U.S. where we find that foreign crude as a percent of total U.S. supply has increased from 43.4 percent in 1989 to 59.2 percent in 1999, the highest ever. (Source: Energy Information Administration, Petroleum Supply Monthly, December 1999, Table S2.)

Cannaday's arguments about how well-positioned Longhorn is for the remaining Gulf Coast market for west Texas crude have now unraveled. There appear to be good reasons why so much pipeline capacity has been diverted to other markets or shutdown. Furthermore, Rancho continues to operate, and thereby offers competition. Moreover, the smaller Amdel (36 MBD) and Texas-New Mexico (67 MBD) pipelines are inactive, though could re-enter the market, if, as Cannaday believes, there's still demand for smaller pipelines.

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A report from resumption	Muse, Stancil & on of crude oil sh	Company that i	supports the via No-Action Alte	ability of the rnative

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A PROFESSIONAL CORPORATION

MEMORANDUM

To: Robert C. Davis

Rob Lawrence Rod Seeley

From: Barry F. Cannaday

DATE: June 28, 2000

SUBJECT: Muse, Stancil & Co. Economic Analysis

Attached is a revised analysis prepared by Muse, Stancil & Co. which evaluates the economic viability of returning the Longhorn Pipeline to crude oil service in the unlikely event that Longhorn is not permitted to commence operations as a refined products pipeline. This report replaces the prior Muse, Stancil reports provided to Radian.

Do not hesitate to contact me if you should have any questions concerning the enclosed study.

BFC:sre

cc: Carter R. Montgomery (w/o encl.)

Pat Sullivan (w/o encl.)

Lesa S. Adair (w/o encl.)

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June 28, 2000

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Mr. Robert C. Davis Radian International, LLC 8501 N. Mopac Blvd. Austin, Texas 78759

RE: Longhorn Pipeline Company, Draft EA

Dear Mr. Davis:

Muse, Stancil & Co. (Muse Stancil) has been retained by Longhorn Pipeline to provide information relating to the economic feasibility of returning the existing Longhorn pipeline system to crude transportation service. The following discussion provides a summary of the information reviewed and assessed to date.

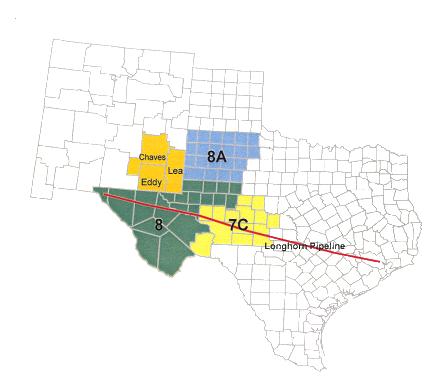
QUALIFICATIONS

Muse Stancil specializes in providing strategic advisory and asset valuation services to the downstream energy industry. Muse Stancil professionals have hands-on technical and commercial experience working directly with a cross section of industry operating companies. Our professional depth includes expertise in refining technology, the commercial aspects of refining and product marketing, pipeline operations and management, crude and products marketing and trading, risk management, and contract interpretation/negotiation. My personal qualifications include industry experience as a crude oil marketer and trader with ARCO Oil & Gas Company.

CRUDE TRANSPORTATION ON LONGHORN PIPELINE

The Longhorn pipeline system provides a transportation link from the Gulf Coast to far West Texas. If returned to crude service, the line would logically be refitted to move crude oil produced in West Texas and New Mexico to U.S. Gulf Coast refineries. As shown on the graphic below, the demand for transportation of indigenous crude production from southeastern New Mexico, far West Texas, and the Texas Panhandle to the Gulf Coast would be met by Longhorn. Crude produced in these same areas was traditionally transported by the Longhorn system to the Gulf Coast prior to the system's reversal for potential products transportation service.

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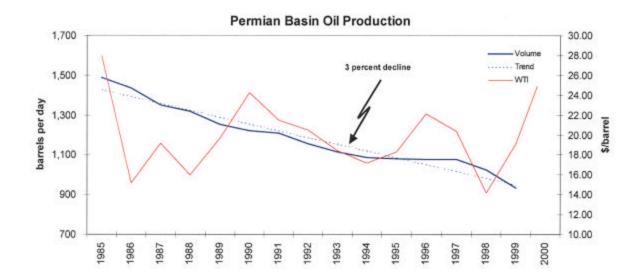


In addition to the regional crude production, All American Pipeline has historically transported crude produced on the U.S. West Coast, Outer Continental Shelf, and Alaska to connecting carriers for delivery to refineries located on the Gulf Coast. The All American Line can deliver crude to connecting carriers at Wink in West Texas and near McCamey in Southwest Texas.

CRUDE SUPPLY TRANSPORTATION DEMAND

The graph below details historic crude production for the period from 1985 through 1999 from Texas Railroad Commission Districts 7C, 8, and 8A consolidated with production from the southeastern New Mexico counties of Lea, Eddy, and Chaves. The graph also depicts the average annual spot prices for West Texas Intermediate (WTI), a regional marker crude, during the same period.

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Sources: Texas Oil & Gas Production Database [ACTI Database] for RRC Districts 7C, 8, and 8A, Texas Railroad Commission; and, Energy, Minerals and Natural Resources Department, State of New Mexico for production from southeast New Mexico.

Price is well known in the industry as the key driver of crude oil exploration and production activities and, therefore, of crude oil production volumes. As evidenced by the data shown above, crude production in the Permian Basin responds to the overall level of crude price.

As shown in the table below, a detailed review of historic production relative to absolute crude price reveals that essentially no decline in crude production occurred in the period from 1994 to 1997 as crude prices stabilized in the range of \$20 WTI. During 1998 and 1999, crude prices dropped to their lowest levels since 1985, with 1998 WTI averaging \$14.15 per barrel.

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	Volume		WTI
<u>Year</u>	Mbpd	Decline	\$/barrel
1985	1,488		27.99
1986	1,434	-3.6%	15.13
1987	1,349	-5.9%	19.18
1988	1,316	-2.4%	15.98
1989	1,251	-5.0%	19.67
1990	1,219	-2.5%	24.23
1991	1,208	-0.9%	21.50
1992	1,156	-4.3%	20.47
1993	1,115	-3.5%	18.37
1994	1,084	-2.8%	17.12
1995	1,079	-0.5%	18.30
1996	1,077	-0.3%	22.10
1997	1,077	-0.1%	20.34
1998	1,023	-5.0%	14.15
1999	931	-9.1%	19.10
	Average	-3.3%	19.58

Further support for the industry's response to overall levels of price is evidenced by the behavior of domestic production operators in the period since 1997. Many operators shut in wells that were in need of maintenance due to the absolute level of crude price during 1997, 1998, and early 1999. This is supported by the fact that the operating Well Workover Rig count in West Texas has recovered from a low of 201 active rigs in March 1999 to the March 2000 level of 256 active rigs (Source: Baker Hughes). These levels compare to an average Workover Rig Count of 330 active rigs in West Texas in the period from January 1994 through December 1997 when crude prices were relatively stable (Source: Baker Hughes).

Secondary and tertiary recovery projects that were not economic at prices below \$15 per barrel, will be economic at current oil prices. Many crude producing formations in the Permian Basin have proven to be very prolific under secondary and tertiary production mechanisms. Projects that were planned and had been announced in 1995 and 1996 were subsequently cancelled due to market price. Those projects are likely to be reactivated as a result of the current higher crude prices.

New development wells will also be drilled in the Permian Basin given today's higher crude prices. The rotary rig count in Texas Railroad Commission Districts 7C, 8, and 8A has recovered from a low of 51 active rigs on average in 1999 to

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70 active rigs in early April 2000 (Source: Baker Hughes). This compares with an active rig count in these districts on average of 88 rigs in the period from 1994 through 1997.

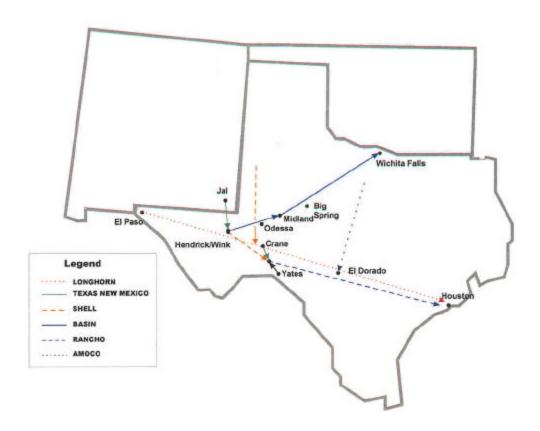
In summary, the overall level of production decline in the Permian Basin will be reduced from recent higher than historic average levels given an increase in well maintenance activities, the initiation of secondary and tertiary recovery projects tabled due to low prices in 1996/997, and new well drilling in the region. Given price stability in the market, the long-term production decline in the Permian Basin should return to historic levels on average of about 3 percent annually.

Additional crude transportation demand could also result from changes in the existing crude oil refining infrastructure in the West Texas area. Significant government-mandated changes in refined products specifications will require extensive process modifications to regional refineries in the next four years and could result in the shut down of some existing regional crude oil refining capacity. Loss of regional refining capacity will result in the need to transport crude currently refined in the region to other refining centers, such as the Gulf Coast for processing.

CRUDE PIPELINE INTERCONNECTIONS

Since the original section of the Longhorn system was initially operated in crude transportation service, it is well positioned to reconnect with the crude gathering and transportation pipeline systems that historically delivered crude to the origin at Crane, Texas. The new section of the line might also be utilized for crude transportation if connected to existing crude gathering and transportation lines in the Hendrick/Wink area. A map depicting the primary crude carriers in the region is shown below:

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Both Equilon and Enron Oil Trading and Transportation (EOTT) have posted tariffs to provide crude oil transportation services from Jal, N.M.¹ and Wink/Hendrick, Texas,² to Crane (Equilon) and from Midland, Texas, to Crane (EOTT). Both the Equilon and EOTT systems transport crudes produced in the counties located to the north and west of Crane to the Crane area and ultimately to the origin of the Longhorn system. Additionally, crude oil producers operating south and west of Crane could easily exchange crude oil with producers having supplies in Midland or east of Midland, thus delivering crude to the Longhorn system origin while minimizing crude transportation costs for all parties.

Recently, All American Pipe Line (All American) announced the sale of the existing crude pipeline from California to Texas to El Paso Natural Gas (El Paso). At present, El Paso is operating multiple lines between West Texas and

1 Imports from New Mexico to Texas during the first quarter of 1999 averaged 115,000 barrels per day (b/d).

Additionally, an average of 55,000 b/d of crude was gathered into the Basin mainline system at Wink/Hendrick in the same period.

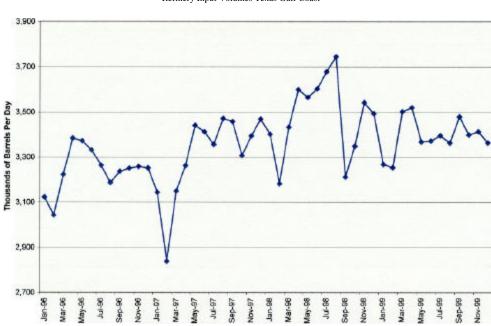
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California in natural gas service. It is likely that El Paso will consolidate the operation of their multiple lines into the single, larger All American line thus freeing up their smaller lines for crude oil or petroleum products service. If a line is returned to crude service, the Longhorn system would provide capacity for movement of these incremental shipments to the Texas Gulf Coast.

DEMAND FOR CRUDE OIL INPUT TO REFINERIES - TEXAS GULF COAST

The annual average of crude inputs to refineries on the Texas Gulf Coast has increased 4.5 percent from about 3.2 million b/d in 1996 to 3.4 million b/d in 1999. The trend in crude inputs has been up during that period as shown in the chart below.



Refinery Input Volumes Texas Gulf Coast

Demand for crude oil input to refineries on the Texas Gulf Coast will continue to increase due in part to capacity creep expected to accompany upcoming capital spending required to meet more stringent product specifications, and in part to ongoing creep associated with typical refinery additions and equipment upgrades.

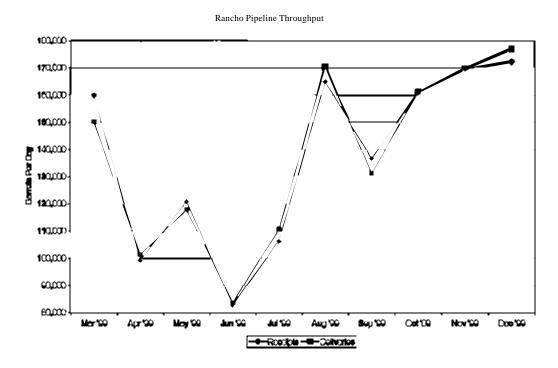
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CRUDE SUPPLY ON THE TEXAS GULF COAST

Worldwide crude supply is controlled at the margin in the short-term by OPEC. As we have observed in recent months, OPEC's member countries tend to be unpredictable and undisciplined. It is virtually impossible to predict the exact volume and the precise quality of the crude that will be offered for sale along the Texas Gulf Coast at any point in the future.

The demand for West Texas crudes on the Texas Gulf Coast fluctuates based on the supply and quality of foreign crudes available in the region from month to month. As shown on the chart below, throughput on the Rancho system has actually increased in the last several months as crude supplies on the Texas Gulf Coast have been in short supply. During this same period, some OPEC-associated suppliers have declared force majure on existing contracts and failed to meet contracted supply obligations.

The supply of crudes produced by OPEC nations will continue to be unpredictable. Therefore, the future price of crude oil worldwide and the supply of foreign imports available at the Texas Gulf Coast will continue to be unpredictable in the future. The demand for West Texas crude on the Texas Gulf Coast will fluctuate given shifts in overall worldwide supply and demand.

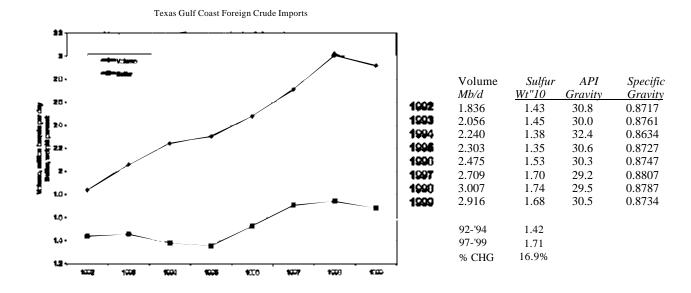


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Currently, the Rancho Pipeline System (Rancho) transports crude gathered in West Texas, the Texas Panhandle, and South Central Texas to the Gulf Coast. The line originated near McCamey, Texas, and terminates in Houston with interconnections allowing distribution of crude to many of the area's refineries. As shown above, in March 1999, receipts into the system at McCamey averaged 129,000 b/d; second quarter average receipts totaled 85,000 b/d.

In total, Rancho delivered 150,000 b/d of crude into the Houston area in March 1999 and made average deliveries of approximately 110,000 b/d during the second quarter 1999. Additional crude receipts entered the Rancho system from West Central Texas at El Dorado and LaGrange. Since mid-1999, throughput on the Rancho system has more than doubled from approximately 83,000 b/d to nearly 180,000 b/d at end of year 1999.

Another consideration, relative to the supply of foreign crudes on the Texas Gulf Coast, has to do with the quality of those crudes. Worldwide crude supply is trending toward heavier, higher sulfur crudes. Foreign crude imports to the Texas Gulf Coast exemplify the trend toward higher sulfur. As shown in the table below, in the period from 1992 to 1999 the average barrel of imported foreign crude on the Texas Gulf Coast exhibited a 17 percent increase in sulfur content (based on the total weight percent of sulfur).



Source: www.eia.doe.go/loi/gas/petroleum/data_publications/company_level_imports/cli.html

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Comparison of 1999 Refinery Input Volume on the Texas Gulf Coast of 3.4 million b/d to average foreign imports in 1999 of 2.9 million barrels results in approximately 0.5 million b/d of capacity utilized in processing domestic crudes.

Specifications for fuels derived from crude are becoming more stringent particularly with respect to sulfur content because of air pollution concerns. In the U.S., the Clean Air Act Amendment of 1990 forced refiners to freeze fuel quality at 1990 levels and improve fuel quality over time. Recently mandated regulations go further dictating an overall reduction in gasoline sulfur from 300 parts per million (ppm) to 30 ppm by 2006. Reductions in total sulfur content of distillate are still being debated but discussions are underway to address the new limit that will take effect in 2008. Industry is currently anticipating a significant reduction from the current on-road pool average of 400 to 420 ppm sulfur, to somewhere from zero, to as high as 30 ppm total sulfur.

In addition to concerns about sulfur emission resulting from the combustion of refined fuels, Texas Gulf Coast refiners, and in particular those refiners located along the Houston Ship Channel, are currently facing mandated reductions in overall nitrogen oxide emission levels from refinery processes. New air emissions standards will become effective within the next three to four years that are expected to reduce current emission levels by 90 to 95 percent with no allowance for emission from new sources. Reduction of nitrogen oxide emissions is technically achieved through use of catalytic processes that are extremely sensitive to sulfur. In order for these refiners to meet mandated reductions in emissions, they must reduce the total sulfur content of their emissions simultaneously.

Today's available foreign imports to the Texas Gulf Coast have more than three times the sulfur content of WTI crude (1.65 weight percent for foreign imports in 1999 versus the WTI sulfur specification of 0.5 weight percent sulfur). Thus WTI has a quality advantage that may become increasingly important to some Texas Gulf Coast refiners in the future.

Not all refiners on the Texas Gulf Coast can process unlimited volumes of foreign crudes. Some of the crudes that move to the Texas Gulf Coast are utilized in the production of specialty products such as lubricating base oils. The production of these specialty products requires that a stable source of crude feedstock of predictable quality and specifications is available.

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In addition, refineries that are less technologically sophisticated may have difficulties with variability in feedstock characteristics and are thus limited by the amount of foreign imported crude that can be economically processed. These refineries are also more likely to have technical limitations on installed hardware that drastically limit their abilities to process imported crudes.

Finally, many refineries rely on the stability of crude supplied via pipeline to minimize the price risk in holding large inventories of batch-delivered feedstocks such as foreign imports. Refineries that are connected to pipeline-delivered crude supplies are also typically able to operate with fewer crude storage tanks, thus limiting crude tank emissions issues relative to refineries with larger feedstock tankage requirements.

The availability of foreign imports at the Texas Gulf Coast is controlled to a large extent by OPEC. OPEC can, and does, from time-to-time vary the availability of foreign imports worldwide to control the overall price of crude worldwide, as evidenced by what has happened in crude markets over the last several months.

Foreign imports have deteriorated in quality in terms of both sulfur content and gravity over the past seven years. The trend toward heavier, higher sulfur foreign imports is expected to continue. The higher sulfur nature of these crudes will become an increasing disadvantage for those crudes relative to sweeter domestic crude grades like WTI as mandated product specifications result in lower and lower sulfur concentrations in fuels.

OTHER CRUDE PIPELINES

The federally mandated changes in product specifications will potentially create a shift in traditional crude supply and demand patterns in the region. The current split between shipments of crude to the Midwest and the U.S. Gulf Coast may be altered as refiners seek to minimize the capital investments required to meet the reduced sulfur content specifications in gasoline. Some refineries will shut down while others will alter the crude feedstocks that they have traditionally processed. As these changes take place, the use of some existing crude pipeline capacity will change.

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For example, historic throughput rates for Rancho are far below the nominal capacity of the 24-inch line (approximately 300,000 b/d from McCamey to El Dorado and approximately 400,000 bfd from El Dorado to Houston). Underutilization of the capacity results in transit times from McCamey to Houston of about 16 days for crude received into the system at McCamey. In addition, underutilized systems typically operate at lower efficiencies than do systems that operate at rates nearer to design capacity. This is particularly true with respect to realized losses during transit as it becomes increasingly difficult to maintain batch integrity and batch separation at lower pipeline velocities.

The operation of the Longhorn system as a crude carrier would impact the operations of other regional crude carriers. Given the level of recent historic shipments to Houston, the Longhorn system could cut the transit time on the Rancho system effectively in half. In addition, the relatively lower capacity of the Longhorn system of about 130,000 b/d is a better fit for the existing demand for crude transport to the U.S. Gulf Coast and should result in more efficient operations than the much larger Rancho system. The location of the Longhorn system allows utilization of existing crude tankage and terminal infrastructure making the conversion simple to accomplish and eliminating a long lead time to facilitate start-up.

Possible scenarios resulting from the new requirements that may impact shipments and could create additional volumes for the Longhorn System if returned to crude service include the following:

- 1. Increased demand for WTI or West Texas sour crude by certain refiners on the U.S. Gulf Coast.
- 2. Increased volumes of crude exports from West Texas due to shut down of existing regional refining capacity. This would result if refiners are unable or unwilling to employ the capital required to modify existing regional refining facilities to meet the new product specifications.

The Amdel system is also available to transport crude from West Texas; however, the Amdel line was taken out of crude service initially to support a joint venture project initiated by Fina and Holly. The joint venture publicly announced plans to reverse the line and convert it to refined products transportation service to affect the movement of products from Port Arthur into West Texas and the El Paso market. Although Fina and Holly did complete pipeline modifications to allow products to flow from Fina's Big Spring Refinery to El Paso, the parties

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never completed the conversion of the Amdel system into refined products service.

Longhorn is geographically much better positioned to provide crude transportation service to crude oil purchasers and sellers than Amdel. The Amdel system is disadvantaged because the system has limited connectivity in crude service at the delivery end in Port Arthur. As a general rule, limited connectivity results in fewer potential shippers for crude systems.

CRUDE SYSTEM OPERATING ECONOMICS

Pro forma cash flow analysis of the Longhorn System supports the conclusion that the system could reasonably be returned to crude service. The analysis was completed based on the following assumptions:

- 1. Cash operating costs for the system were estimated at \$0.10/bbl beginning in mid-2000.
- 2. Fixed costs of approximately \$3.2 million per year (base year 2000).
- 3. Property taxes of \$500,000 per year.
- 4. Sustaining Capital of \$1,000,000 per year.
- 5. Revenue generated solely by tariffs of \$0.30/bbl based on a review of competing pipeline through-tariffs to Houston and set based on Shell's posted through tariffs from Hendrick/Wink to Houston.
- 6. Initial system throughput of 95,000 b/d, declining throughout a 10-year forecast period by 3 percent annually.
- 7. Year 2000 capital expenditures estimated to be \$1.5 million dollars for conversion to crude oil service.

Given these base assumptions, which we believe to be reasonable, the Longhorn System could generate positive cash flow of about \$2 million annually beginning in 2001, decreasing with declining throughput. The economic limit for operations would be reached by about 2013. Under this scenario the net present value of the return to crude service is about \$7.0 million. Breakeven analysis shows that the system would generate a neutral cash flow at throughput rates in the range of 60,000 to 70,000 b/d.

The economic life of this alternative service would be significantly extended if certain potential events occur in the West Texas market. For example, the crude supply/demand balance in the region may change materially as the new federally mandated product specifications take effect. Refineries may shut down, reduce crude throughput, or elect to operate with different feedstocks than they have

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utilized historically. It is likely that all these events will occur to some extent as the regulations phase in. It is also likely the net impact of these events will be additional crude supply exports from the West Texas region.

Very truly yours,

MUSE, STANCIL & CO.

Lex A. Adair

Lesa S. Adair Vice President

LSA:dks

A letter from Longho provide should Long	rn listing the pa	rtial mitigation	that Longhorn	ı would
provide should Long	gnorn use its pip	emie to resume	crude on simple	ments

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A PROFESSIONAL CORPORATION

MEMORANDUM

To: Rob Lawrence (via facsimile)

Rod Seeley (via facsimile)

Bob Davis (via facsimile)

From: Barry F. Cannaday

Date: June 27, 2000

Subject: List of Mitigation Measures That Have Been or Will Be Implement if Longhorn

Returns to Crude Service

At the request of the Lead Agencies, Longhorn has prepared a list of mitigation measures that have been or will be implemented if Longhorn were forced to return to crude service. This list identifies mitigation measures that will be in place either because such mitigation measures have already been completed or substantially completed or because Longhorn would follow through with those mitigation measures in any event if crude service were resumed.

Do not hesitate to contact me if you should have any questions concerning the foregoing.

BFC:sre Enclosure

cc: Carter Montgomery (w/encl.)(via facsimile)

O.B. Harris (w/encl.)(via facsimile)

Vince Murchison (w/encl.)

Alan Wolff (w/end)(via facsimile)

List of Mitigation Measures that Have Been or Will be Implemented if Longhorn Returns to Crude Service

Mitigation Measure	Will it be implemented in whole or in part in connection with	
No.	crude service	Comments and/or Limitations
1	Yes - Fully Implemented	None
2	Yes - Fully Implemented	None
3	No	None
4	Yes - Fully Implemented	None
5	Yes - Fully Implemented	None
6	Yes - Fully Implemented	None
7	Yes - Fully Implemented	None
8	Yes - Fully Implemented	None
9	Yes - Partially Implemented	Hydrostatic tests will requalify the line to insure MASP will not be exceeded. Surge pressures in Tier II and III areas will not be limited to MOP but will comply with existing DOT regulations.
10	No	Internal inspection tools will be run in accordance with DOT regulations and good operating practices.
11	No	Internal inspection tools will be run in accordance with DOT regulations and good operating practices.
12	No	Internal inspection tools will be run in accordance with DOT regulations and good operating practices.
13	No	Leak detection monitoring will be conducted in accordance with DOT regulations and good operating practices.
14	Yes - Fully Implemented	None
15	Yes - Fully Implemented	None
16	Yes - Fully Implemented	None
17	Yes - Fully Implemented	None
18	Yes - Fully Implemented	None
19	Yes - Fully Implemented	None

20	No	Patrols will be conducted in accordance with DOT regulations and good operating practices.
21	No	Inspections and monitoring will be conducted in accordance with DOT regulations and good operating practices.
22	No	None
23	Yes - Partially Implemented	Response center will be developed that will provide emergency response capability consistent with DOT regulations and good operating practices.
24	Yes - Fully Implemented	None
25	Yes - Fully Implemented	None
26	Yes - Fully Implemented	None
27	Yes - Fully Implemented	None
28	Yes - Fully Implemented	None
29	No	None
30	Yes - Fully Implemented	None
31	Yes	None
32	Yes - Fully Implemented	None
33	Yes - Fully Implemented	None
34	No	Surge pressure will be limited in accordance with DOT regulations and good operating practices.
35	No	Not applicable
36	No	Not applicable
37	No	Liability insurance will be maintained in accordance with law and industry accepted standards.
38	Yes - Fully Implemented	None

If the Longhorn Pipeline is returned to crude service, the Longhorn System Integrity Plan will have to be modified to address the changes in Longhorn's Mitigation Commitments as set out above and to address differences between a refined products line flowing from the east to the west and a crude oil line running from the west to the east. Additionally, Longhorn would perform the ORA "in-house" and would not hire a third party consultant to perform the ORA.