STATEMENT E

POTENTIAL COMPETITION
FOR THE REVERSED SEAWAY PIPELINE

TABLE OF CONTENTS

Section **Page**

STATEMENT E

POTENTIAL COMPETITION FOR THE REVERSED SEAWAY PIPELINE

I. Introduction

In addition to the existing competitive alternatives described in Statement D and discussed in Statement G, there are numerous potential competitive alternatives in the subject markets. These potential competitive alternatives further ensure that the Reversed Seaway Pipeline will not be able to exercise market power in its origin market or its destination market.

Crude oil production in North America has increased dramatically over the last several years and is expected to continue increasing. The areas where major increases have occurred include: (1) the Western Canadian tar sands; (2) the Bakken oil shale area in North Dakota; (3) the Niobrara oil shale area in Northeastern Colorado; (4) the Eagle Ford oil shale area in Southwest Texas; and (5) the revitalized Texas-New Mexico Permian Basin area. The Reversed Seaway Pipeline will provide 375 MBD of incremental capacity that will facilitate the delivery of crude oil produced in all of the five areas listed above to the U.S. Gulf Coast.

Further, there are numerous other projects that would facilitate the absorption (transportation and processing) of this incremental crude oil production. The other projects can be grouped into six categories as follows: (1) the construction of new pipelines; (2) the expansion of capacity on existing pipelines; (3) the increased use of rail and waterborne movements of crude oil; (4) the increased use of barge movements

of crude oil; (5) increases in the total capacity of refiners to process crude oil; and (6) refinery upgrades to facilitate the processing of the heavy sour crude oil produced in the Western Canadian tar sands area. The status of these projects ranges from being in the initial planning stage to being under construction to being completed. Projects have been completed or are underway in each of the six areas listed above, and there are numerous proposed projects to do more in each of these six areas.

The projects discussed below are grouped by their competitive effects on the Reversed Seaway Pipeline's destination and origin markets. The first group of projects, if implemented, would increase the competitiveness of both the Reversed Seaway Pipeline's Gulf Coast destination market and its Cushing origin market. The second group of projects would increase the competitiveness of the Reversed Seaway Pipeline's Gulf Coast destination market. The third group of projects would increase the competitiveness of the Reversed Seaway Pipeline's Cushing origin market.

II. Projects that Would Increase Competition in Both the Gulf Coast Destination Market and the Cushing Origin Market

A. TransCanada's Keystone XL Project

TransCanada's Keystone XL Pipeline ("Keystone XL") project is the second step of its Keystone Pipeline project. The first step involved constructing the 591 MBD Keystone Pipeline from Hardisty, Alberta to Patoka, Illinois which began service in June 2010 followed, in February 2011, with the completion of the 591 MBD Keystone Cushing Extension. The Keystone Cushing Extension begins at a pump station on the Keystone Pipeline in Steele City, Nebraska and ends at Cushing, Oklahoma.

TransCanada has allocated the use of the 591 MBD of capacity between the Hardisty to Patoka movement (435 MBD) and the Hardisty to Cushing movement (155 MBD).[1]

TransCanada's proposed Keystone XL project would have a capacity of 700 MBD and would transport Western Canadian crude oil from Hardisty, Alberta to Port Arthur, Texas on the Gulf Coast passing through Cushing, Oklahoma.[2] TransCanada also has obtained shipper support for a 100 MBD pipeline that would move crude oil from the Bakken oil shale area to the Keystone XL pipeline which would deliver the Bakken crude oil to the U.S. Gulf Coast.[3] TransCanada also is seeking support for a pipeline that would transport crude oil delivered to Port Arthur by Keystone XL to Houston, Texas.[4] TransCanada did not indicate a planned capacity for its proposed Port Arthur to Houston pipeline. Presumably, its capacity would be determined based on shipper commitments to use the pipeline. Figure E.1 below shows the current Keystone Pipeline as well as the proposed Keystone XL Pipeline.

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1 Canadian Association of Petroleum Producers ("CAPP"), *Crude Oil Forecast, Markets & Pipelines*, June 2011, pages 19-21 (hereinafter "CAPP Report"), http://www.capp.ca/forecast/Pages/default.aspx#Caq3cWol6sSg.

2 *Id*., page 22. *See also*, TransCanada, Keystone XL Projects, http://www.transcanada.com/keystone.html. TransCanada also proposed constructing a separate Cushing to Port Arthur pipeline (the Cushing market center) to be able to provide Cushing to Port Arthur movements with a capacity of 150 MBD as early as the first quarter of 2013 and ultimately with 400 MBD of capacity. The combined capacity of the Keystone XL and Cushing Marketlink pipelines from Cushing to Port Arthur would be 1,100 MBD. See TransCanada, Cushing Market Link Open Season, August 15, 2011 http://www.transcanada.com/cushing.html. See also CAPP Report, page 22 and Calgary Herald, "TransCanada Opens Bids for Cushing Link," August 16, 2011 http://www.calgaryherald.com/business/TransCanada+opens+bids+Cushing+link/5259778/story.html?cid=megadrop_story.

3 TransCanada, Bakken Market Link Project, http://www.transcanada.com/bakken.html.

4 TransCanada, Keystone Houston Lateral Open Season, August 15, 2011, http://www.transcanada.com/houstonlateral.html.

Figure E.1
Keystone Pipeline Including Keystone XL

Notes: (1) The portions of Keystone Pipeline currently in operation are represented by the solid orange line.

(2) The Keystone XL project, including the lateral from Port Arthur to Houston, is represented by the dashed yellow line.

Until early November 2011, TransCanada expected to obtain final approval from the U.S. Department of State to proceed with Keystone XL which, according to TransCanada, would have resulted in the completion of the Keystone XL Pipeline project by late 2013 or early 2014.[5] However, on November 10, 2011, the U.S. Department of State announced that, due to "concerns regarding the environmental sensitivities of the current proposed route [of Keystone XL] through the Sand Hills area of Nebraska, the Department has determined it needs to undertake an in-depth assessment of potential alternative routes in Nebraska."[6] The U.S. Department of State stated that this in-depth assessment "could be completed as early as the first quarter of 2013."[7] If Keystone were to obtain U.S. Department of State approval during the first quarter of 2013, the completion of the Keystone XL Pipeline would most likely be delayed until at least early 2015. Since the U.S. Department of State's decision, TransCanada has been working with the State of Nebraska to expedite the selection of a mutually acceptable new route for Keystone XL that would not traverse the Sand Hills area of Nebraska.[8] However, TransCanada recognizes that selecting and obtaining Nebraska approval for an alternative route may take substantial time.[9]

Based on the above, it appears that the earliest that TransCanada might receive permission to construct a rerouted Keystone XL Pipeline would be done the first quarter

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5 TransCanada, Keystone Status and Timelines, http://www.transcanada.com/keystone.html. See also, CAPP Report, page 22.

6 U.S. Department of State, Media Note, "Keystone XL Pipeline Project Review Process: Decision to Seek Additional Information," November 10, 2011, http://www.state.gov/r/pa/prs/ps/2011/11/176964.htm.

7 *Id.*

8 TransCanada, Media Advisory, "State of Nebraska to Pay Major Role in Defining New Keystone XL Route Away From Sand Hills," November 14, 2011, http://www.transcanada.com/5896.html.

of 2013, which implies that the Keystone XL Pipeline would not be operational until sometime in 2015.

B. Enterprise Eagle Ford Projects

Enterprise has a number of projects to transport crude oil, as well as natural gas and natural gas liquids, out of the Eagle Ford area to markets in and near Houston and in southwest Texas.[10] Enterprise has agreements with Eagle Ford crude oil producers to provide transportation services from the Eagle Ford area to the Houston area.[11] Phase I of the crude oil projects is a 24" diameter pipeline from Karnes County, Texas, south of San Antonio to Sealy, Texas west of Houston. The Phase I pipeline has a capacity of 350 MBD and is expected to be in service in the second quarter of 2012.[12] The Phase I pipeline is the solid dark purple line in Figure E.2 below. From Sealy, existing Enterprise pipelines can transport the crude oil into Enterprise's ECHO Crude Oil Terminal. Phase II of the projects is a pipeline that would begin further southwest in the Eagle Ford area and connect with the Phase I pipeline in Karnes County. Phase II

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9 World Herald, "TransCanada: New Rate May Take Time," November 23, 2011, http://www.omaha.com/article/20111123/NEWS01/711239873.

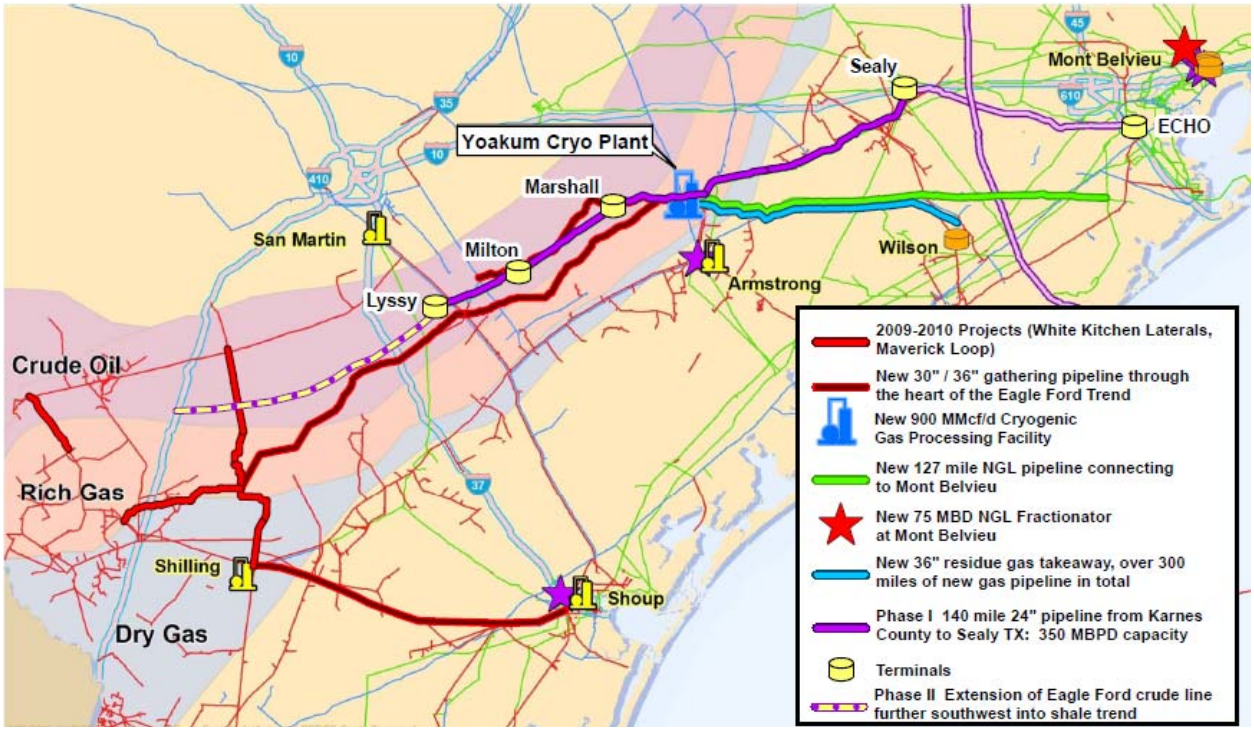
10 *See* Eagle Ford Shale on Enterprise's homepage (http://www.enterpriseproducts.com/misc/eagleford.shtm) and Enterprise Credit Suisse Vertical Tour MLP Infrastructure Panel Presentation, November 8, 2011 (http://phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9NDQ2OTk4fENoaWxkSUQ9NDcwNjA0fFR5cGU9MQ==&t=1).

11 *See* Enterprise News Release, "Enterprise to Provide Crude Oil Transportation Services under Long-Term Agreement with Eagle Ford Producers," March 22, 2011 (http://phx.corporate-ir.net/phoenix.zhtml?c=80547&p=irol-newsArticle&ID=1541750&highlight=) and Enterprise News Release, "Enterprise to Extend Eagle Ford Shale Crude Oil Pipeline System as Part of Long-Term Transportation Agreement with Chesapeake Energy Corporation Affiliate," May 3, 2011 (http://phx.corporate-ir.net/phoenix.zhtml?c=80547&p=irol-newsArticle&ID=1558356&highlight=).

12 *See* Enterprise News Release, "Enterprise to Provide Crude Oil Transportation Services under Long-Term Agreement with Eagle Ford Producers," March 22, 2011 (http://phx.corporate-ir.net/phoenix.zhtml?c=80547&p=irol-newsArticle&ID=1541750&highlight=).

has a capacity of 200 MBD and is epxected to be in service in the first quarter of 2013.[13] The Phase II pipeline is the yellow and purple striped line in Figure E.2.

Figure E.2
Enterprise Eagle Ford Projects



C. Magellan's Proposed Cushing to Houston Pipeline

On August 3, 2011, Magellan Midstream Partners LP ("Magellan") announced that "it was exploring a project to cobble existing pipelines from Cushing, Oklahoma to refineries along the U.S. Gulf Coast."[14] Magellan also stated that "shippers have already shown significant interest in the pipeline, which would be able to carry between

[13] *See* Enterprise News Release, "Enterprise to Extend Eagle Ford Shale Crude Oil Pipeline System as Part of Long-Term Transportation Agreement with Chesapeake Energy Corporation Affiliate," May 3, 2011 (http://phx.corporate-ir.net/phoenix.zhtml?c=80547&p=irol-newsArticle&ID=1558356&highlight=).

[14] Reuters, "Update 1 – Magellan's Latest in Cushing-to-Gulf Oil Pipeline Race," August 3, 2011, http://www.reuters.com/article/2011/08/03/magellan-cushingpipeline-idUSN1E7721OY20110803.

60,000 and 70,000 barrels per day to the Gulf Coast."[15] Magellan stated that the pipeline could be operating within about one year after it obtained sufficient shipper commitment.[16] More recently, in its 3rd Quarter 2011 earnings call, on November 2, 2011, Michael Mears, Chairman, President, and CEO of Magellan, stated that Magellan was still evaluating its proposed Cushing to Gulf Coast pipeline project.[17] In response to a question regarding the viability of Magellan's Cushing-to-Gulf Coast pipeline project, Mr. Mears stated that its pipeline project's advantages were that the Magellan project would not require any new pipeline construction or minimal pipeline construction to connect existing systems,[18] which implied that its pipeline project would provide "a fairly low cost to transport crude oil to the market."[19] Mr. Mears further states that Magellan was currently in the process of negotiating with potential shippers.[20] Given the delay until at least 2015 before Keystone XL begins operating, there might be revitalized shipper interest in Magellan's small 60-70 MBD Cushing to the Gulf Coast pipeline because it is relatively low cost and could be completed relatively quickly given that, at most, minimal new pipeline construction would be required. If shipper commitments could be obtained in 2012, the pipeline could be operational in 2013.[21]

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15 *Id*.

16 *Id*.

17 Magellan Midstream Partners L.P. MMP Q3 2011 Earnings Call Transcript, November 2, 2011, at 7, 9.

18 *Id*. at 9.

19 *Id*.

20 *Id*.

21 Reuters, "Update 1 – Magellan's Latest in Cushing-to-Gulf Oil Pipeline Race," August 3, 2011, http://www.reuters.com/article/2011/08/03/magellan-cushingpipeline-idUSN1E7721OY20110803.

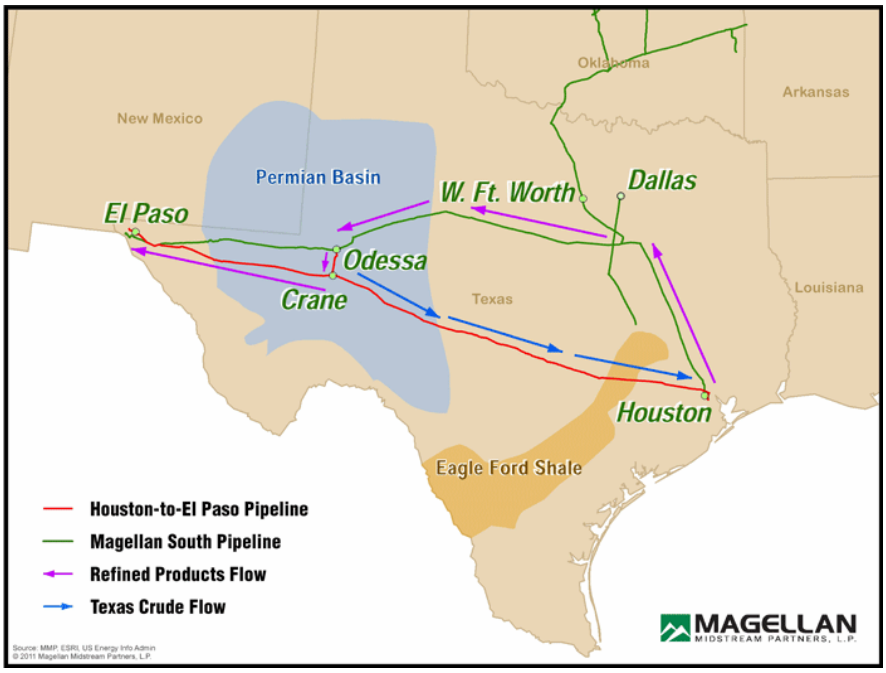
D. Longhorn Pipeline from Permian Basin to Houston

Magellan is in the process of reversing a portion of its Houston to El Paso, TX refined products pipeline (Longhorn Pipeline) to carry crude oil from Crane, TX in the Permian Basin to refineries in the Houston area.[22] See Figure E.3. The reversed pipeline is expected to have an initial capacity of 135 MBD expandable to 225 MBD. The project also includes construction of crude oil storage at Crane and East Houston, extension of pipelines from Magellan's East Houston terminal to connect to several Houston Ship Channel refineries, and alternate routing of refined products to El Paso, TX. The project is expected to be completed by mid 2013 and cost approximately $275 million for 135 MBD capacity with additional costs of $80 to $150 million for the higher 225 MBD capacity and a connection to Midland, TX. Magellan expects that the reversed Longhorn Pipeline will be moving crude oil from the Permian Basin to Houston by early 2013.[23]

[22] Magellan Press Release, "Magellan Midstream Proceeds with Reversal and Conversion of Houston-to-El Paso Pipeline to Crude Oil Service," September 1, 2011 (http://www.magellanlp.com/magellannews.aspx?id=685).

[23] Bloomberg, "Magellan Expects Oil in Reversed Longhorn Pipe By Early 2013," October 27, 2011, http://www.bloomberg.com/news/print/2011-10-27/magellan-expects-oil-in-reversed-longhorn-pipe-by-early-2013-1-.html.

Figure E.3
Longhorn Pipeline Reversal, Crane, TX to Houston, TX



E. Incremental Rail Movements from the Bakken Oil Shale Area and Western Canada

Rail movements of crude oil from the Bakken oil shale area or from Western Canada to the U.S. Gulf Coast (or to other refining centers not currently being supplied from these production areas) provide competition to the Reversed Seaway Pipeline in its Cushing origin market because the crude oil transported by rail might otherwise be available for transportation from Cushing to the U.S. Gulf Coast by the Reversed Seaway Pipeline (*i.e.*, rail takes potential business from the Reversed Seaway Pipeline). Rail movements of crude oil from the Bakken or Western Canadian areas to the U.S. Gulf Coast also provides competition to the Reversed Seaway Pipeline in its Gulf Coast destination market because the crude oil transported by rail might otherwise be

available for delivery to the Gulf Coast destination market by the Reversed Seaway Pipeline.

According to the U.S. Energy Information Administration ("EIA"), in early November 2011, the BNSF Railroad ("BNSF") began transporting crude oil from the Bakken Oil Express's terminal in the Bakken oil shale area in North Dakota to St. James, Louisiana.[24] The EIA stated that the Bakken Oil Express's terminal in the Bakken oil shale area now had a loading capacity of 100 MBD which is slated to be increased to 250 MBD.[25]

According to a recent study by Goldman Sachs, the total existing rail car loading capability in the Bakken oil shale area is about 190 MBD, and this loading capability is expected to increase to 826 MBD by the end of 2012.[26] From these rail loading facilities, the crude oil produced in the Bakken oil shale area can be transported to refineries on the U.S. Gulf Coast, the U.S. West Coast, and the U.S. East Coast.[27]

To make rail deliveries of crude oil to the U.S. Gulf Coast efficiently, there need to be rail terminals capable of handling unit trains. Currently, the existing U.S. Gulf Coast rail terminals have an unloading capability of 142 MBD, and this unloading capability is expected to increase to 410 MBD by the end of 2012.[28] In addition, most

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[24] U.S. Energy Information Administration, "Rail Delivery of Crude Oil and Petroleum Rising," November 16, 2011 ("EIA on Rail Delivery"), http://www.eia.gov/todayinenergy/detail.cfm?id=3930.

[25] *Id*.

[26] Goldman Sachs Report, *Global Energy Watch*, October 4, 2011, ("Goldman Sachs Report"), pp. 23-24 (Goldman Sachs Report, *Global Energy Watch*, October 4, 2011, Exhibit 22, p. 20 (http://www.energianews.com/newsletter/files/d4e414c4cbb6b83f0e64c4de14638dde.pdf).

[27] Goldman Sachs Report, pp. 24-25. There also is an existing rail movement from the Bakken oil shale area to the Cushing area.

[28] Goldman Sachs Report, p. 25.

U.S. Gulf Coast refineries have direct rail access, but these rail facilities may not be able to handle unit trains.[29] To unload a unit train at a refinery that was incapable of handling a unit train, the unit trains would have to be broken down into smaller groups which would be inefficient and thereby increase costs.[30] However, there may be existing rail facilities on the U.S. Gulf Coast that could be converted relatively quickly to be capable of unloading unit trains.[31]

According to Goldman Sachs, tanker rail car availability might be the most critical bottleneck to increasing rail movements.[32] However, BNSF railway stated that it alone would be able to transport 730 MBD of Bakken crude oil to the U.S. Gulf Coast by the time Bakken crude oil production rose to require the movement of this volume.[33] Canadian Pacific ("CP") railroad estimates that it will transport about 25 MBD of crude oil from the Bakken oil shale area in 2011 with about 80% going to the U.S. Gulf Coast (or about 20 MBD).[34] Further, CP estimates that its movements of crude oil from the Bakken oil shale area could rise to about 134 MBD, which would imply about 107 MBD would be moved to the U.S. Gulf Coast.[35] By 2013, CP and BNSF could be transporting 315 MBD of crude oil from the Bakken oil shale area.[36] If 80% of this were moved to the U.S. Gulf Coast, then rail movements by CP and BNSF in 2013 from the Bakken oil

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29 *Id*.

30 *Id*.

31 *Id*.

32 Goldman Sachs Report at 27.

33 Goldman Sachs Report at 27-28.

34 *Calgary Herald*, "CPR Sees Potential Boom Transporting Oil By Rail," October 26, 2011, (http://www.calgaryherald.com/business/sees+potential+boom+transporting+rail/5607673/story.html).

35 *Id*.

36 *Progressive Railroading*, "Railroads Aim To Tap Bakken Shale's Vast Traffic Potential," May 2011, page 2, ("*Progressive Railroading*"), http://www.progressiverailroading.com/class_is/article/Railroads-aim-to-tap-Bakken-Shale39s-vast-traffic-potential--26587.

shale area to the U.S. Gulf Coast would be 252 MBD. Union Pacific ("UP") railroad also is transporting crude oil from the Bakken oil shale area and can transport this crude oil to the U.S. Gulf Coast.[37] Kansas City Southern ("KCS") railroad is evaluating making movements from the Bakken oil shale area to Port Arthur, Texas.[38] Finally, Canadian National ("CN") railroad is offering rail deliveries of Western Canadian crude oil to the U.S. Gulf Coast as well as to other areas.[39] CN already has moved some Bakken crude oil.[40]

The estimated cost to transport crude oil from the Bakken oil shale area in North Dakota to the U.S. Gulf Coast by rail is about $7-8 per barrel.[41] For rail movements from Western Canada to the U.S. Gulf Coast, the estimated cost is about $14-18 per barrel.[42]

F. Incremental Waterborne Movements from the Upper Midwest to the Gulf Coast

Waterborne deliveries of crude oil from the Upper Midwest to the U.S. Gulf Coast provide competition to the Reversed Seaway Pipeline in both its Cushing origin market and its Gulf Coast destination market. Crude oil that is transported by barge from the Upper Midwest to the U.S. Gulf Coast is crude oil that is not available for the Reversed

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37 *Id*. at 5-6. *See also Financial Post*, "Oil Returns to U.S. Rails, "October 18, 2011 ("*Financial Post*"), http://www.princegeorgecitizen.com/article/20110216/PRINCEGEORGE0101/302169984/-1/PRINCEGEORGE/cn-examining-oil-shipment-by-rail.

38 *Progressive Railroading* at 6.

39 *Prince George Citizen*, "CN Examining Oil Shipment By Rail," February 16, 2011.

40 *Financial Post*.

41 Goldman Sachs Report at 27. *See also Financial Post*.

42 Goldman Sachs Report at 27.

Seaway Pipeline to transport (*i.e.*, these waterborne crude oil movements take potential business away from the Reversed Seaway Pipeline).

Currently, there are substantial barge movements of crude oil from the Wood River, Illinois area to the U.S. Gulf Coast. This crude oil is delivered to Wood River from the Western Canada and the Rocky Mountain crude oil production areas including the Bakken oil shale area. Crude oil barge loadings at Wood River in the second half of 2011 have averaged about 50 MBD.[43] During the same period, waterborne deliveries from the Upper Midwest ("PADD 2") to the U.S. Gulf Coast ("PADD 3") averaged about 40 MBD, or 80% of the total loadings at Wood River.[44] These barge movements could increase substantially in a relatively short time. The estimated cost of barging crude oil from Wood River to the U.S. Gulf Coast is $8 per barrel.[45]

III. Projects that Would Increase Competition in the Gulf Coast Destination Market

A. Kinder Morgan Pipeline from Eagle Ford Oil Shale Area to Houston

Kinder Morgan's South Texas Crude/Condensate project is being constructed. This pipeline consists of approximately 170 miles of new build and converted existing natural gas pipeline. This pipeline will move crude oil and condensate from the Eagle Ford Shale area in DeWitt County in southwestern Texas to the Houston Ship Channel. See Figure E.4.[46] Condensate is a natural gas liquid recovered from gas wells by lease

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43 Goldman Sachs Report at 29, Exhibit 29.

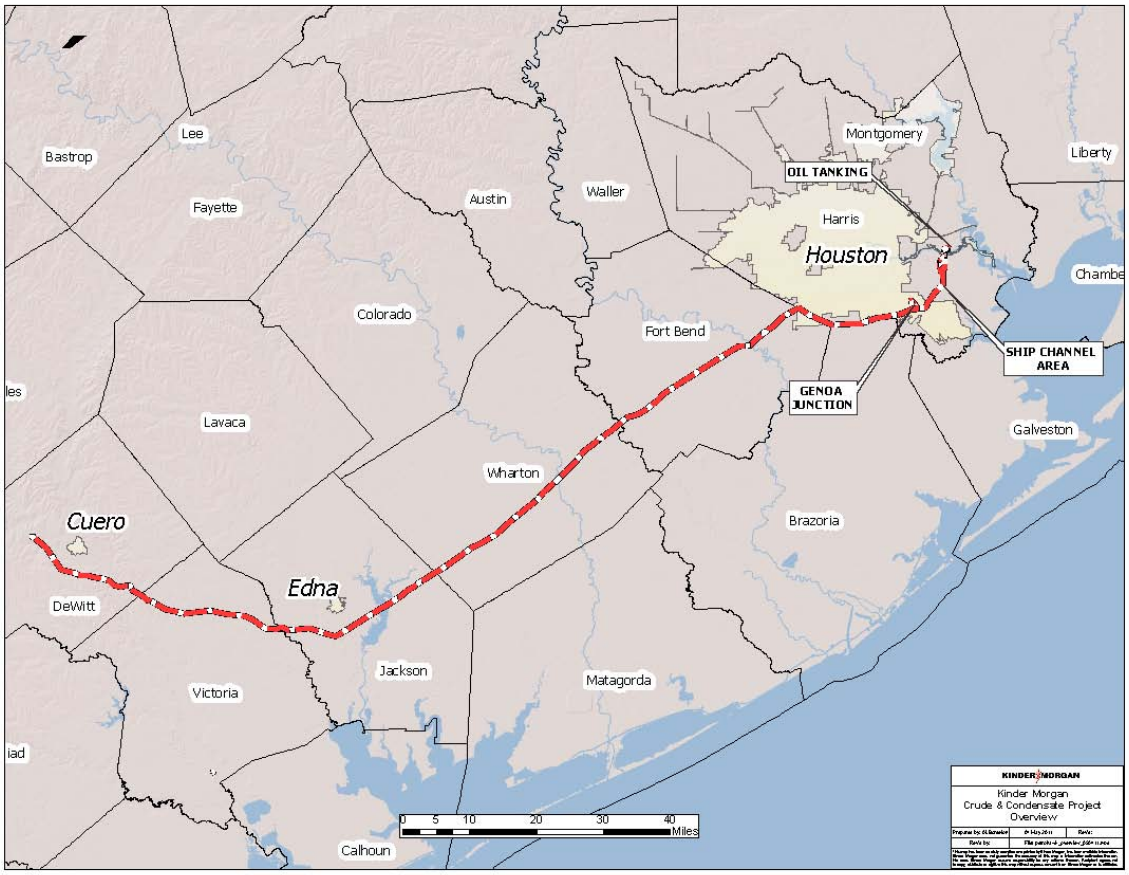
44 EIA, "Gulf Coast (PADD 3) Receipts by Tanker and Barge from Midwest (PADD 2) of Crude Oil," (http://tonto.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=MCRMTP3P21&f=M).

45 Goldman Sachs Report at 29.

46 See Kinder Morgan Press Release, "Kinder Morgan to Purchase Midstream Shale Assets for $920 Million and Build Crude/Condensate Pipeline," May 5, 2011 (http://phx.corporate-ir.net/phoenix.zhtml?c=119776&p=irol-newsArticle&ID=1559898&highlight=) and Kinder Morgan Crude

separators or field facilities.[47] The pipeline has a capacity of approximately 300 MBD and is expected to cost approximately $220 million. The pipeline is expected to be in service in the second quarter of 2012.

Figure E.4
Kinder Morgan Pipeline from Eagle Ford to Houston



Source: Kinder Morgan.

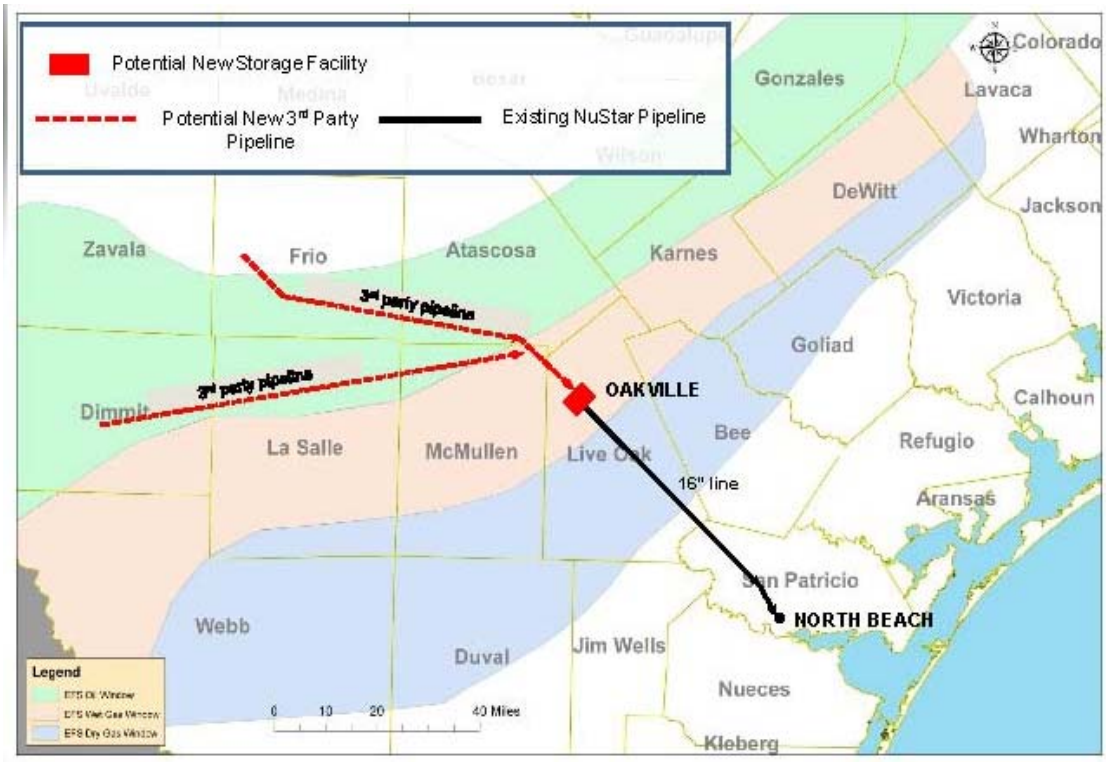
and Condensate Pipeline Project (http://www.kindermorgan.com/business/products_pipelines/KMCrudeCondensatePipeline.cfm).

47 *Id.*

B. NuStar Joint Ventures to Move Crude Oil from the Eagle Ford Oil Shale Area to Refineries in Three Rivers and Corpus Christi

NuStar and joint venture partners are building two pipelines from the Eagle Ford oil shale area to Oakville, near Valero's Three Rivers refinery.[48] See Figure E.5. The two pipelines have a combined capacity of 220 MBD and both are expected to begin service in 2012.[49]

Figure E.5
NuStar/TexStar and NuStar/Velocity Eagle Ford to Corpus Christi Projects



Source: NuStar Analyst Day, September 21, 2011, p. 27 (http://www.nustarenergy.com/Investors/Pages/ManagementPresentations.aspx).

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[48] NuStar News Releases, "NuStar and TexStar Announce Plans to Expand Infrastructure to Move Eagle Ford Shale Crude and Condensate to South Texas," April 5, 2011, http://phx.corporate-ir.net/phoenix.zhtml?c=123440&p=irol-newsArticle_print&ID=1546892&highlight=); and Nustar and Velocity Sign Letter o Intent to Develop Pipeline for Eagle Ford Shale Condensate, June 27, 2011, http://phx.corporate-ir.net/phoenix.zhtml?c=123440&p=irol-newsArticle_print&ID=1579989&highlight=.

[49] *Id*.

NuStar and Valero have entered into an agreement for NuStar to reconfigure its South Texas crude oil system to supply Eagle Ford area crude oil to Valero's refineries in Three Rivers, TX and Corpus Christi.[50] See Figure E.6. NuStar has already reversed a refined products pipeline that currently runs from Corpus Christi to Three Rivers and converted it to crude oil service. The pipeline provides capacity to transport Eagle Ford crude oil and condensate to Valero's Corpus Christi refinery. The line was placed into service on September 15, 2011. This portion of the project is expected to cost less than $5 million.[51] NuStar is also constructing a new crude oil pipeline from Corpus Christi to Valero's Three Rivers refinery.[52] See Figure E.6. This new pipeline is expected to be in service by the second quarter of 2012.[53]

[50] NuStar News Release, **"**NuStar, Valero Agree to South Texas Pipeline Projects Aimed at Increasing Transportation of Eagle Ford and Other Crude Sources," September 7, 2011 ("NuStar-Valero Agreement"), (http://www.nustarenergy.com/Investors/Pages/NewsReleases.aspx).

[51] NuStar Analyst Day, September 21, 2011. (http://www.nustarenergy.com/Investors/Pages/ManagementPresentations.aspx). As part of the same project, NuStar will also build 55 miles of new 12-inch pipeline that will connect to existing pipeline segments to move crude oil from Corpus Christi to Valero's Three Rivers refinery. This system is expected to be completed and in service by the second quarter of 2012. This portion of the project is expected to cost close to $60 million.

[52] See NuStar-Valero Agreement.

[53] *Id.*

Figure E.6
NuStar/Valero Eagle Ford to Corpus Christi Project

Source: NuStar Analyst Day, September 21, 2011, p. 25 (http://www.nustarenergy.com/Investors/Pages/ManagementPresentations.aspx).

C. Plains All American Eagle Ford Oil Shale Area Infrastructure Project

Plains All American has entered into a commitment to construct a crude oil and condensate pipeline from the Eagle Ford area to Corpus Christi and storage capacity and a marine facility in Corpus Christi.[54] See Figure E.7. The project will connect the Eagle Ford area to Corpus Christi refineries and other Gulf Coast refineries through waterborne transport. The pipeline would have a capacity of 300 MBD is expected to

[54] See Plains All American News Release, "Plains All American Announces Commitment to Construct Eagle Ford Infrastructure," May 17, 2011 (http://www.b2i.us/profiles/investor/ResLibraryView.asp?ResLibraryID=45280&GoTopage=2&Category=117&BzID=789) and Plains All American presentation at Raymond James North American Equities Conference, September 13, 2011, (http://b2icontent.irpass.cc/789%2F128146.pdf?AWSAccessKeyId=1Y51NDPSZK99KT3F8VG2&Expires=1317679852&Signature=1DOxRkLG3hxn%2FZtu4F0Ej%2BLkQ2Q%3D).

be in operation in the fourth quarter of 2012. The project will cost approximately $330 million.

Figure E.7
Plains All American Eagle Ford Project

Source: Plains All American Presentation at Raymond James North American Equities Conference, September 13, 2011.

D. Reversal of Shell's Ho-Ho Pipeline

On November 10, 2011, Shell greenlighted the Ho-Ho oil pipeline reversal.[55] Ho-Ho has a capacity of 300 MBD,[56] and currently moves crude oil from St. James, Louisiana to Houston, Texas and to numerous locations between these two points including Beaumont-Port Arthur, Texas, and Lake Charles, Louisiana. The reversed Ho-Ho Pipeline is expected to begin service in 2013.[57] The reversal of Shell's Ho-Ho

[55] Reuters, "Update 2 – Shell Greenlights Ho-Ho Oil Pipeline Reversal," November 10, 2011, http://www.reuters.com/article/2011/11/10/shell-pipeline-Ho-Ho-idUSN1E7A90ZJ20111110.

[56] *Id*.

[57] *Id*.

Pipeline will eliminate a supplier to the Houston to Lake Charles Area definition of the Gulf Coast Destination Market (*i.e.*, it will reduce competition in this definition of the Gulf Coast definition market). However, the reversal provides a west to east pipeline linkage from Houston through Beaumont-Port Arthur, through Lake Charles and ultimately to the refineries in Baton Rouge, New Orleans, and those on the eastern edge of the Gulf Coast Area definition of the Gulf Coast Destination Market thereby making a strong case for this larger definition of the Reversed Seaway Pipeline's destination market.

IV. Projects that Would Increase Competition in the Cushing Origin Market

A. WTG Pipeline Expansion

On March 9, 2011, West Texas Gulf Pipeline Company ("WTG") announced that it planned to expand its capacity by 100 MBD from the Permian Basin to East Texas.[58] From East Texas, the crude oil can be transported either to the Upper Midwest or the Gulf Coast. In its First Quarter 2011 Earnings Conference call, Sunoco Logistics Partners L.P., the owners of WTG, stated that the WTG expansion was expected to be completed by the third quarter of 2012.[59]

[58] West Texas Gulf Pipeline Company News Release, "West Texas Gulf Announces Plans to Expand Takeaway Capacity Out of Permian Basin by a Minimum of 100,000 BPD," March 9, 2011 (http://www.sunocologistics.com/SiteData/docs/News%20Release%20No%20%201%20_2011_%20-%20West%20Texas%20Gulf.doc/e792dd1249954c1c4dc508b22c8b6e77/News%20Release%20No%20%201%20_2011_%20-%20West%20Texas%20Gulf.doc.pdf).

[59] Sunoco Logistics Partners L.P., "First Quarter 2011Earnings Conference Call," April 26, 2011 (http://www.sunocologistics.com/SiteData/docs/Q1%202011%20Earnings%20Conference%20Call%20Slides%20v3/17630a39e689456970e698f822b3b1a5/Q1%202011%20Earnings%20Conference%20Call%20Slides%20v3.pdf).

B. Increased Refinery Capacity in the U.S. Upper Midwest, the Rocky Mountain Area, and Western Canada

Increases in the capacity of refineries in the U.S. Upper Midwest provide incremental competition to the Reversed Seaway pipeline in its Cushing origin market because the increased crude oil processed by these refineries might otherwise be available for transport from Cushing to the U.S. Gulf Coast by the Reversed Seaway Pipeline (*i.e.*, increased refinery capacity in the U.S. Upper Midwest takes potential business from the Reversed Seaway Pipeline).[60] The current Wood River Refinery expansion project, expected to be completed by the second quarter of 2012, will increase this refinery's crude oil processing capacity by 50 MBD and will increase the refinery's capacity to process Western Canadian heavy sour crude oil by about 110 MBD.[61] By the second half of 2013, ongoing refinery expansion projects in the Upper Midwest are expected to increase the capacity of these refineries to process crude oil by 100 MBD.[62] Further, during the same time frame, upgrades to Upper Midwest refineries will increase the capacity of the Upper Midwest refiners to process Western Canada heavy sour crude oil will increase by at least 315 MBD.[63] Therefore, the increased competition for all crude oils provided by these refinery expansions is 100

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[60] Increases in the capacity of the refineries located in the vicinity of the Bakken oil shale area or in Western Canada would have the same pro-competitive effects.

[61] Goldman Sachs Report at 30-31.

[62] *Id*. This capacity increase includes a 25 MBD increase at Valero's McKee refinery in West Texas (not in PADD 2) that is supplied, in part, from Cushing by pipeline.

[63] *Id*. The 315 MBD increase in the capability to process Western Canadian heavy sour crude oil is based on increases at Wood River (about 110 MB) and at Whiting (about 205 MBD). The three other refinery upgrade projects identified by Goldman Sachs were intended to expand the refinery's capacity to process crude oil and also to allow it to process a higher percentage of Western Canadian heavy sour crude oil. However, the publicly available information is not specific regarding the latter for these three refinery upgrade projects. Therefore, there will be more than a 315 MBD increase in the capacity of the Upper Midwest refineries to process Western Canadian heavy sour crude oil. See Goldman Sachs Report, pages 30-31.

MBD. However, the increased competition for Western Canadian heavy sour crude oil provided by the refinery upgrades is 315 MBD.

C. Increased Pipeline Capacity Out of Western Canada to New Markets

1. Pipelines to the Canadian West Coast

The proposed pipelines from Western Canada to the Canadian West Coast are Enbridge's Northern Gateway System and the expansion of Kinder Morgan Canada's TransMountain System. Enbridge's Northern Gateway Pipeline would transport crude oil from Western Canada to the Canadian West Coast at Kitimat, British Columbia. At Kitimat, the crude oil would be loaded into tankers and transported to the U.S. West Coast and the Far East.[64] See Figure E.8. The Northern Gateway Pipeline has a planned capacity of 525 MBD,[65] and, according to Enbridge, could not be completed until after 2015.[66] However, Enbridge has not secured binding shipper support for this pipeline.[67] If Enbridge's Northern Gateway Pipeline obtains firm shipper support, it is expected to face resistance on environmental grounds and be subject to contentious drawn out negotiations and potentially litigation to obtain right-of-ways across first nation lands.[68]

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64 *The Globe and Mail*, "Enbridge Touts Support, Others Call It Hollow," August 24, 2011, http://www.theglobeandmail.com/report-on-business/industry-news/energy-and-resources/enbridge-touts-support-others-call-it-hollow/article2140101/.

65 *Id.*

66 *See* Northern Gateway Pipeline Timeline, http://www.northerngateway.ca/public-review/timeline.

67 *The Globe and Mail*, "Enbridge Touts Support, Others Call It Hollow," August 24, 2011, http://www.theglobeandmail.com/report-on-business/industry-news/energy-and-resources/enbridge-touts-support-others-call-it-hollow/article2140101/.

68 See *Vancouver Sun*, "Keystone Delay Ramps Up Federal Support for Northern Gateway, November 15, 2011, http://www.vancouversun.com/business/Keystone+delay+ramps+federal+support+Northern+Gateway/5711185/story.html.

Figure E.8
Enbridge Northern Gateway Pipeline

Kinder Morgan is seeking support for an expansion of its TransMountain Pipeline System from Western Canada to the Canadian West Coast in the Vancouver, British Columbia area.[69] See Figure E.9. In the Vancouver area, the crude oil would be loaded onto tankers for transport to the U.S. West Coast and to the Far East.[70] The proposed expansion of the TransMountain Pipeline System would add 400 MBD of capacity,[71] and, according to Kinder Morgan, could not be completed until January 2017.[72]

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69 *The Globe and Mail*, "Kinder Morgan Aims to Expand TransMountain Pipeline," October 25, 2011, http://www.theglobeandmail.com/globe-investor/kinder-morgan-aims-to-expand-trans-mountain-pipeline/article2213590/.

70 *Id.*

71 *Id.*

72 TransMountain Pipeline Proposed Expansion; Notice of Open Season Procedure for Firm Service Capacity, October 20, 2011, http://www.kindermorgan.com/business/canada/TMX_Documentation/OSPOct20.pdf.

Figure E.9
Kinder Morgan TransMountain Pipeline Expansion

Source: TransMountain Pipeline Proposed Expansion; Notice of Open Season Procedure for Firm Service Capacity, October 20, 2011, http://www.kindermorgan.com/business/canada/TMX_Documentation/OSPOct20.pdf.

2. Pipelines to the U.S. East Coast

Enbridge is evaluating a pipeline to the U.S. East Coast that involves the reversal of Enbridge's Line 9 in eastern Canada and the reversal of the Portland Pipeline between Montreal, Quebec and Portland, Maine.[73] This project could be completed relatively quickly if firm shipper support could be secured, but the capacity of the existing reversed pipelines would be relatively small (*i.e.*, about 150 MBD).[74] This project to supply crude oil to the East Coast might be completed as early as 2014, but it is in an early evaluation stage.[75]

[73] *See* Bloomberg, "Enbridge Talking With Valero on East Coast Pipeline Reversal," October 6, 2011, http://mobile.bloomberg.com/news/2011-10-06/enbridge-talking-with-valero-on-east-coast-pipeline-reversal-1-.

[74] The 150 MBD capacity estimate is based on the capacity of Enbridge's earlier Trailbreaker pipeline project. See *Energy Pipeline News*, "Enbridge Puts Trailbreaker Pipeline Expansion on Hold," January 20, 2009, http://energypipelinenews.blogspot.com/2009/01/enbridge-puts-trailbreaker-pipeline_20.html.

[75] *See* Bloomberg, "Enbridge Talking With Valero on East Coast Pipeline Reversal," October 6, 2011, http://mobile.bloomberg.com/news/2011-10-06/enbridge-talking-with-valero-on-east-coast-pipeline-reversal-1-.