GAS PROCESSORS REPORT

Global Gas & NGL Must-Read Projects, Prices & Feedstock and Product Market Intelligence

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HARTENERGY

ANGA: Eagle Ford Shale Will Likely Add \$11.6 Billion to Texas' GSP by 2020

Although it hasn't yet reached its full production potential, the Eagle Ford shale is already having a large economic impact on the surrounding regions as well as the State of Texas.

In just three years, the play has grown to account for about 6% of the gross regional product (GRP) for the 24-county area it inhabits and added nearly US\$1.3 billion to Texas' gross state product (GSP), according to a recent study by the America's Natural Gas Alliance (ANGA). The study was prepared for ANGA by the University of Texas at San Antonio Institute for Economic Development's Center for Community and Business Research.

Titled, *Economic Impact of the Eagle Ford Shale*, the assessment found that the play also accounts for 12,601 full-time jobs while adding \$2.9 billion in total economic output and generating nearly \$60.9 million in state revenue.

The biggest reason for these sizable economic projections is because of the play's mixture of oil and gas along with a favorable business climate in Texas compared to other states, such as Pennsylvania and New York that house parts of the Marcellus shale.

Using IMPLAN software, the study was able to calculate the direct, indirect and induced impacts from the operations of producers and other related companies in the Eagle Ford. Report authors – Dominique Halaby, Javier Oyakawa, Christine Shayne, Carter Keairns and Alan Dutton – noted that the study took a more conservative approach to their economic



forecasts by only using existing oil and gas sector linkages to the IMPLAN economic database.

In addition, the report focused on four different economic sectors included in the play: Oil and gas extraction; drilling oil and gas wells; support activities for oil and gas operations; and oil and gas pipeline and related structures construction. The report authors also took into consideration projected spending occurring from royalty and lease payments that will have local impacts and help create more jobs.

As the play continues to grow, the report estimates that its economic impact for the State of Texas will also grow to a much larger extent. "Under moderate assumptions, by 2020

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(in 2010 dollars), the Eagle Ford shale is expected to account for close to \$11.6 billion in gross state product, \$21.6 billion in total economic impact (or revenue) impact and support close to 67,971 full-time jobs in the area," according to the study.

This growth is witnessed in the substantial increase in drilling permits in the past three years. Drilling permits increased from 33 in 2008 to 1,018 in the first 11 months of 2010 in the Eagle Ford.

"We recognize that not all permits issued will translate into completed wells; however, the sharp increase in permits is a strong indicator of increased drilling activity and production," the authors stated.

The report estimated that in 2010 there were 241 wells completed in the Eagle Ford with 143 being oil wells and 98 being gas wells with more than 50 operators managing this total. Further, 180 were horizontal, and 61 were vertical.

The Eagle Ford production has not only helped increase revenue for the state and add jobs, but it's also resulted in higher-paying jobs.

According to the Texas Workforce Commission, the average wage for all employees in the 24-county region of the Eagle

Ford shale was \$32,680 compared with an average salary of \$76,874 for workers in the oil and gas extraction industry.

"Though initially it is expected that some skilled workers will be imported from other areas of the state, the Eagle Ford shale activity will likely present important employment opportunities for area residents provided they have the required skills," according to the report.

In 2010, the study found that oil and gas extraction firms in the shale had an estimated \$721.9 million in total impact in revenues and supported 2,137 full-time jobs. This activity also resulted in the addition of \$280 million worth of investment in midstream development in the play. This added \$404.3 million on output impact on the region and added \$188.8 million in gross state product impact while supporting 3,608 full-time jobs.

"With over 130 miles of new pipeline activity including the continued development of the Chisholm, Dilley, Dos Hermanas, Leona and Fox Creek pipelines, all indications are that over the next three to five years midstream activities will continue to play a significant role in the construction activities of the region," the report said. – Frank Nieto

INSIDE LOOK AT PROCESSING TRENDS

Regency Energy on Track for Investment Grade Metrics by End of 2011

While 2010 was a year of change for Regency Energy Partners – the company's general partner was acquired by Energy Transfer Equity and introduced a new leadership team guided by president and CEO Mike Bradley – the company's overall goals of reaching investment grade status by the end of 2011 and increasing cash distributions remained the focal point of its activities.

During a conference call to discuss fourth-quarter 2010 earnings, Bradley said that

Regency plans on following four objectives in order to meet these goals: maximizing its assets; expanding and enhancing its portfolio; capital management; and leveraging relationships.

"One of the top priorities [to maximizing assets] will be to optimize returns of our core assets. We will do this by improving operational efficiencies and leveraging synergies across our business segments. Additionally, we will strategically pursue organic growth projects and joint ventures which meet producers needs, complement our core assets and provide a strategic platform for additional growth," he said.

The company will also focus on diversifying its portfolio in order to provide multiple earning streams and reduce risk. In accordance with this strategy, Regency plans on expanding into new businesses and basins through joint ventures and strategic acquisitions complementing its core value chain and footprint with attractive rates of return. Bradley said that the company will also maintain a comprehensive hedging program to mitigate the impact of commodity price fluctuations. Regency will explore utilizing the capital markets to fund potential acquisitions and large growth projects in order to maintain a solid balance sheet.

The company's growth will also be furthered by its relationship with not only Energy Transfer Equity, but also its relationships with key customers. "We will align interests, share expertise and capitalize on strategic growth opportunities. By aligning our interests with producers and customers, we will provide services tailored to their needs positioning us to grow together in providing the services necessary for their expansions as well."

While company officials declined to address specific plans growth projects ahead of its investor day next month, its growth capex is targeted at US\$250 million and Jim Holotik, the company's chief commercial officer, said that Regency is looking at ways to expand in the Eagle Ford.

"We've got an existing footprint that consists primarily of gathering with some additional treating in the south Texas

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area. We are currently moving somewhere between 200-250 million cubic feet per day out of the area... in the liquids-rich portion of the Eagle Ford shale... [W]e have just recently expanded one of our systems to where we could have additional volumes out of the area and we'll be looking for additional capacity in the future....They're establishing essentially where the lines are for just dry gas, the liquids-rich gas, the more oil-producing areas. As they discover these new positions, there's going to be more and more calls for infrastructure in the area," Holotik said.

ONEOK Won't Focus on Acquisitions for Growth

ONEOK Partners is planning between US\$1.8 billion and \$2.1 billion in new growth projects based on the successful completion of its \$2 billion capital program that ended in 2009. This program resulted in higher volumes of natural gas and natural gas liquids (NGL) moving through the system, resulting in more fees collected, greater earnings and has created additional opportunities, John Gibson, president and CEO of ONEOK Inc., said during a conference call to discuss fourth-quarter 2010 results.

While the company is focusing on growth, this will continue to be primarily driven by organic means rather than through acquisitions. "We are very confident of our ability to continue to grow. While we remain active on the acquisition front, evaluating many of the assets that are publicly known to be for sale, and some that are not, we have not completed any transactions for a number of reasons," he said.

The biggest reason is that the company's current growth projects, including those just completed, those being built and those being evaluated, provides ONEOK with attractive returns. In addition, these projects also deliver stable cash flow growth, which enables the company to forecast its three-year growth targets and the ability to consistently increase its dividends. "Bottom line, we do not have to wait on the next big acquisition, probably at pricing multiples, to grow and reward our investors at ONEOK or at ONEOK

New Doubts Raised on 'Clean' Shale Gas to Replace Coal

U.S. Rep. Ed Markey (D-Massachusetts) on February 26 unveiled a letter to U.S. Environmental Protection Agency (EPA) demanding an investigation into radioactive materials in water produced by shale-gas "fracking."

Shale gas has been touted as "the answer" to coal-fired power pollution (and carbon dioxide emissions) in the U.S. (and possibly elsewhere) thanks to relatively new "fracking" techniques that liberate supposedly "limitless" gas supplies. Bradley added that its projected growth spending could be much longer than the \$250 million forecasted. "We've got several projects that we are pursuing that could add significantly to that number...Also we continue to look hard at acquisitions. So I think that there is the potential to significantly upsize that number if we're successful on some of these fronts." – Frank Nieto

Partners. Our growth continues to be embedded with our own assets," Gibson said.

This strategy helped the company report \$473 million in net income in fiscal year (FY) 2010, up from \$434 million in FY 2009. ONEOK anticipates this figure growing to \$525 million to \$575 million.

A large portion of the company's growth will be centered on the Bakken shale, where it anticipates investing \$1.5 billion to \$1.8 billion in Bakken midstream projects. These include adding the Garden Creek plant, Stateline I and II natural gas processing plants, which will each have 100 million cubic feet per day (MMcf/d) in capacity. The addition of these plants will increase the company's processing capacity in the region to nearly 400 MMcf/d.

The company is also planning on adding over \$700 million in NGL infrastructure projects related to the play, including the 500+ mile Bakken pipeline that will transport 60,000 barrels per day of raw NGLs to the Overland Pass pipeline.

While the Bakken will be a primary focus area for growth, Gibson said that the company is also considering projects in Mont Belvieu, Texas. These projects would likely be centered on the NGL side with fractionation projects, pipeline expansions, and storage being the prime areas of focus in the region. – Frank Nieto

But more questions are being raised about gas fracking, including a February 26 investigative report by the *New York Times* detailing the presence of radioactive materials in the produced water from gas-fracking wells.

"The *Times* article shows that the radioactively contaminated wastewater derived from the so-called 'fracking' process to produce natural gas from shale rock and other formations is being sent to sewage plants that do not have

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the capacity to remove radioactive radium or other materials, and these hazardous waste materials are then dumped into rivers and streams where they enter our drinking water supplies," Markey wrote in his letter to U.S. EPA.

"Exposure to highly radioactive radium, one of the materials discussed in the *Times* report, can lead to cancer and other harmful health effects," he said.

"These disturbing revelations raise the prospect that natural gas production has turned our rivers and streams into this generation's [toxic water contaminated] 'Love Canals,'" said Rep. Markey in separate comments.

"The natural gas industry has repeatedly claimed that fracking can be done safely. We now know we need a full investigation into exactly how fracking is done and what it does to our drinking water and our environment. [North] Americans should not have to consume radioactive materials from their drinking water as a byproduct of natural gas production.

"The millions of gallons of produced wastewater that are a byproduct of the hydraulic fracturing process have been transported to sewage treatment facilities, where they are treated and then dumped into nearby rivers.

"The wastewater from wells drilled in Pennsylvania and West Virginia that are sent to sewage plants in Pennsylvania, New York, West Virginia and other states contains levels of radioactivity or radium that can be hundreds or even thousands of times as high as the standards allowed for drinking water.

Crosstex Anticipates Growth With Leaner, More Efficient Business Model

Barry Davis, president and CEO of Crosstex Energy, announced that the company had successfully achieved its goal of recapitalization, improving its balance sheet and restoring distributions and dividends in fiscal year (FY) 2010.

He noted that the company currently has no significant near-term debt maturities and more than US\$300 million available under its existing debt facilities. The company's strategic plan also resulted in an 18% improvement in EBITDA (earnings before interest, taxes, depreciation and amortization) to \$186.9 million in FY 2010 from the prior year. There was also a 17% increase in EBITDA for the fourth quarter to \$50.2 million from the prior year's quarter.

"We have access to debt and capital markets at attractive rates for growth, and we have organizational capabilities and experience to build and operate large scale shale midstream projects including gathering, processing and NGL (natural gas liquids) handling. Today, we are a leaner, more efficient organization focused on performance in long-term growth," Davis said during a conference call to discuss quarterly earnings. "A previously confidential study commissioned by the EPA concluded that these sewage plants were technologically incapable of removing radium, salts and other contaminants from drilling waste, and that by dumping the contaminated water after it underwent inadequate treatment, these facilities were probably breaking state and federal law. Nevertheless, this radioactive water was still allowed to be dumped into rivers in several states that together provide drinking water to millions of people.

"Even when the wastewater is dumped into a larger body of water such as a river, EPA and the oil and gas industry knew that dilution alone could not remove the radiation or the risk that it posed.

"Additionally, because of these risks, in December 2009, EPA scientists sent a letter to New York State regulators advising that sewage treatment plants should not accept drilling waste with levels of radium that were more than twelve times the drinking water standard, and should not discharge wastewater that contained higher levels of radium than the drinking water standard.

"Last year, EPA scientists checked to see whether some Pennsylvania rivers were capable of diluting the radium to the point where it would no longer be a threat. They concluded that this could not be done," Markey said, citing the *Times* investigation.

He added that the company is focusing on three areas for its growth initiatives: adding infrastructure in emerging liquids-rich regions; increasing fractionation capacity in Louisiana due to increased NGL production; and the acquisition of assets that are synergistic with its current assets.

"We believe that we have strategic advantages to be successful in growing our business. First, we have tremendous experience with large rapidly expanding shale developments such as the Barnett shale where we have established a significant gathering and transmission footprint. Second, we have substantial NGL capabilities and market knowledge. Our capabilities include excess fractionation capacity in Louisiana with truck, rail and barge access. This helps us compete to build new gathering and processing infrastructure for producers in liquids-rich plays. We should benefit from developing new gathering and processing infrastructure and NGL services we offer. Third, we have the organizational capabilities, the people and the systems to identify and develop opportunities and efficiently operate assets that we may develop or acquire," Davis said.

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Although the company will focus on these areas for growth, the Barnett continues to be a strong area in terms of not only natural gas production and economic returns, but also future growth for Crosstex.

The company's assets are located in the core of the Barnett and Davis anticipates increased development around its assets. "We continue to see opportunities for incremental growth in north Texas due to the significant investment we've made in our Barnett infrastructure for nearly five years. We have two very good projects under way with firm volume dedications and relatively low capital investment compared with their cash flow impact." These projects, expected to come online by the end of first-quarter 2011, are expected to add 100 million cubic feet per day (MMcf/d) in gathering volumes in 2011 and 150-175 MMcf/d in 2020 at a total cost of \$35 million.

"As we look at 2011 and beyond, our vision is to be the best midstream energy solutions provider. We will accomplish this by aggressively competing as a preferred partner, driving growth with a highly-skilled experienced team promoting a culture of safety, ensuring Crosstex's strength and remaining true to our core company values," Davis said.

- Frank Nieto

MIDSTREAM NEWS

Murphy Oil Begins Operations at BC Processing Plant

Murphy Oil Co. Ltd., a subsidiary of Murphy Oil Corp., began operations at the 180 million cubic feet per day (MMcf/d) Tupper West natural gas processing plant in Dawson Creek, British Columbia, Canada.

The company anticipates production from the facility to average more than 85 MMcf/d in 2011 with year-end exit rates projected to be greater than 120 MMcf/d. The facility is located on the Tupper Main facility site in the Montney.

Norse Energy to Sell Select Midstream Assets for US\$20.7 Million

Norse Energy Corp. ASA announced that – through its subsidiary Norse Energy Holdings, Inc. – it has executed purchase and sale agreements to sell certain of its midstream assets to Appalachian Transportation and Marketing LLC for a total consideration of US\$20.7 million.

The midstream assets consist of the Company's Norse Pipeline, LLC, Nornew Energy Supply, Inc. and Mid-American Natural Resources, LLC.

Norse Pipeline and Nornew are subject to regulation by the New York Public Service Commission ("Commission"), who must therefore approve the transfer to Appalachian.

Kitimat LNG Partners to Purchase Pacific Trail Pipelines Interest

Kitimat LNG partners Apache Canada Ltd. (Apache Canada) and EOG Resources Canada, Inc. (EOG Canada) have agreed to purchase the 50% interest in the Pacific Trail Pipelines Ltd. Partnership (PTPLP) they do not already own from Pacific Northern Gas Ltd. (PNG) for C\$50 million (US\$51.4 million).

Apache Canada and EOG Canada will pay PNG C\$30 million (US\$30.9 million) on closing – expected by the end of February – and a second payment of C\$20 million

"We are very pleased to bring this project on stream ahead of schedule and on budget. This is another important growth milestone for our Canadian business. Ramp up of this lowcost Montney gas play adds to our growing production profile and is a key component of our North American resource portfolio," David M. Wood, president and CEO, said.

"With the sale in 2008 of the majority of our production properties in western New York, these midstream assets were no longer core to our exploration and production activities which have focused on the Herkimer Sandstone and Marcellus and Utica Shale potential of central New York," Norse Energy CEO Mark Dice said. "This transaction is reflective of our approach to non-core assets, when the opportunity is presented to divest on favorable terms and remain focused on exploration and production."

(US\$20.6 million) when the purchasers decide to proceed with construction of the Kitimat liquefied natural gas (LNG) export facility.

"Acquiring the PTP is an important step in building a comprehensive system that will enable Apache and EOG to tap Asian markets for our abundant natural gas resources in the Horn River Basin and elsewhere in Western Canada," said Janine McArdle, president of Kitimat LNG. PTPLP is planning to build a 463-kilometer (287-mile), 914-millimeter (36-inch) diameter underground line from Summit Lake, British Columbia, to Kitimat, the location of the planned LNG export terminal on the northern British Columbia coast. Following the completion of the purchase, Apache Canada will own 51% of the partnership and EOG Canada, through its wholly owned subsidiaries, will own the remaining 49%.

PNG will operate and maintain the planned pipeline under a seven-year agreement with Apache Canada and EOG Canada with provisions for five-year renewals. Apache Canada and EOG Canada also agreed to 20-year transportation service arrangements requiring them to use a portion of PNG's current pipeline capacity.

"Having this project under one operational manager – KM LNG Operating General Partnership – will provide an opportunity to integrate the supply chain from the point of natural gas production to the point of liquefaction," said Tim Wall, Apache Canada president.

"We are committed to moving this project ahead and keeping the development process on schedule. Apache Canada

Gastar Adds Acreage in Liquids-Rich Portion of Marcellus

Joint venture partners Gastar Exploration Ltd. and Atinum Marcellus I LLC have leased an additional 3,300 gross acres in Marshall County, West Virginia, a liquids-rich portion of the Marcellus.

Terms call for Gastar to pay 45% of the leasing costs for its 50% share of the joint venture, which is located at PPG Industries' Natrium, West Virginia, chemicals along the Ohio River. This location will be able to ensure that the location has strong access to both natural gas infrastructure and water.

Gastar will be the operator of the site and anticipates starting drilling in the second half of 2011 after identifying up and EOG Canada commend the work that PNG has done in advancing the pipeline, and we look forward to maintaining existing relationships with all the parties involved in this project," Wall added.

"This purchase ensures continuity for this project and is a very positive move for the advancement of the facility," said L.W. "Billy" Helms Jr., vice president and general manager for EOG Canada.

"We are very confident that the project will progress quickly under KM LNG, and that it will deliver significant benefits to our customers and the communities and First Nations along the route," said Greg Weeres, PNG's vice president of operations and engineering. "Moreover, with our responsibility for operating and maintaining the new pipeline, we look forward to a long-term relationship with KM LNG."

Apache Canada and EOG Canada are in marketing discussions with potential Asia-Pacific LNG customers. The producers expect to have firm sales commitments in place by the time the export facility is forecasted to begin operating in 2015.

to 30 potential drilling locations that will be drilled over the next few years.

"We are pleased PPG's acreage to our Marcellus portfolio, and we look forward to getting operations underway later this year. This lease, when combined with our existing leasehold in Marshall and Wetzel counties, helps Gastar create a large and mostly contiguous block of acreage within an area that is ultra-rich in natural gas liquids (NGL) and condensate yields," J. Russell Porter, president and CEO of Gastar Exploration, said.

GPA Annual Convention Highlights New Role, Bright Future

The 90th Annual <u>Gas Processors Association (GPA)</u> Convention, which will be held in San Antonio, Texas, from April 3-6, is fast approaching. This year's theme is "High Definition at 90: Advancing the Midstream Vision" and will focus on the association's new role as a midstream association along with its bright and clear future.

Hart Energy has been endorsed by GPA to publish three daily newspapers showcasing the event. *GPA 2011 Convention News* will contain feature stories previewing the conference; a full conference program; a diagram of the layout

of meeting facilities at the Marriott Rivercenter; a summary of major new developments and industry trends from 2010, written by the editors of *Gas Processors Report*; other news, events and opinions of interest to GPA convention attendees and members; and abstracts of papers that will be presented at the convention.

Sponsorship, advertising and editorial contributions are being accepted now for *GPA 2011 Convention News*. For more information, contact **Lesley Hart** at <u>lhart@hartenergy</u>. <u>com</u> or 713-260-6462.

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FRACTIONATION SPREAD

Propane, C₅₊ Margins Increase on Higher Prices

The large gains posted for C_{5+} and propane prices coupled with the modest gains for natural gas feedstock prices at both Conway and Mont Belvieu resulted in sizable frac spread margin improvements for both NGLs (natural gas liquids) this week.

The biggest improvement at either hub was for Conway C_{5+} , which had a 16% improvement in margin. The biggest improvement was for Mont Belvieu C_{5+} with an 11% gain in margin from the prior week. Propane posted the second largest gains in margin at both hubs as its margin rose 14% at Conway and 8% at Mont Belvieu.

Isobutane, which had the largest price drops at both hubs this week, also had the largest drops in frac spread margin at both hubs this week. The Conway margin was down 9% from last week while the Mont Belvieu margin was down just under 1%. The only other natural gas liquid (NGL) to experience a drop in margin at either hub was Conway ethane, which was down 2% from last week following a slight price drop.

As most NGLs experienced both improved prices and margins, the theoretical barrel prices at both hubs did the same this week. The Conway theoretical barrel price rose 6% to US\$55.20 per barrel (/bbl) with a margin improvement of 8% to \$41.10/bbl. The Mont Belvieu theoretical barrel price rose 5% to \$59.25/bbl with a margin improvement of 7% to \$45.11/bbl.

The most profitable NGL to make at both hubs remained C_{5+} at \$2.11 per gallon (/gal) at Conway and \$1.99/gal at Mont Belvieu. This was followed, in order, by isobutane at \$1.51/gal at Conway and \$1.56/gal at Mont Belvieu; butane at \$1.32/gal at Conway and \$1.42/gal at Mont Belvieu; propane at \$1.01/gal at Conway and \$1.12/gal at Mont Belvieu; and ethane at 22¢/gal at Conway and 43¢/gal at Mont Belvieu.

Natural gas in storage for the week of February 25, the most recent data available from the U.S. Energy Information Administration, was down 85 billion cubic feet to 1.745 trillion cubic feet (Tcf) from 1.830 Tcf recorded the previous week. This was 1% below the storage figure of 1.754 Tcf recorded last year at the same time and 1% below the 1.760 Tcf five-year average.

The U.S. National Weather Service's forecast for the coming week includes a cold front throughout much of the country. Normal late winter temperatures are expected along the Southwest, Gulf Coast and into the Tri-State region. Parts of the Southeast are expected to experience slightly warmer temperatures than normal for this time of year. – Frank Nieto

Current Frac Spread (Cents/Gal)								
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	Conway	Change from Last Week	Mont Belvieu	Last Week				
Ethane	47.06		68.53					
Shrink	25.59		25.66					
Margin	21.47	-2.00%	42.87	3.39%				
Propane	135.85		147.35					
Shrink	35.36		35.45					
Margin	100.49	13.53%	111.90	8.42%				
Normal Butane	172.00		182.46					
Shrink	40.03		40.13					
Margin	131.97	2.73%	142.33	2.72%				
Iso-Butane	189.50		194.13					
Shrink	38.45		38.55					
Margin	151.05	-8.92%	155.58	-0.70%				
Pentane+	253.83		241.68					
Shrink	42.81		42.92					
Margin	211.02	15.88%	198.76	10.87%				
NGL \$/Bbl	55.20	6.19%	59.25	4.99%				
Shrink	14.10		14.14					
Margin	41.10	8.18%	45.11	6.47%				
Gas (\$/mmBtu)	3.86	0.78%	3.87	0.52%				
Gross Bbl Margin (in cents/gal)	94.11	8.36%	105.24	6.49%				
NGL Value in \$/mmBtu								
Ethane	2.59	-0.51%	3.77	2.30%				
Propane	4.72	9.91%	5.12	6.41%				
Normal Butane	1.86	2.27%	1.97	2.23%				
Iso-Butane	1.18	-7.11%	1.21	-0.46%				
Pentane+	3.27	13.02%	3.12	8.88%				
Total Barrel Value in \$/mmbtu	13.62	5.75%	15.18	4.72%				
Margin	9.76	7.85%	11.31	6.24%				

Price, Shrink of 42-gal NGL barrel based on following: Ethane, 36.5%; Propane, 31.8%; Normal Butane, 11.2%; Isobutane, 6.2%; Pentane+, 14.3%, Fuel, frac, transport costs not included. Conway gas based on NGPL Midcontinent zone, Mont Belvieu based on Houston Ship Channel.

Shrink is defined as Btus that are removed from natural gas through the gathering and processing operation.

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BOX SCORE

Butane, C₄ Prices Benefit from Greater Crude Prices, but Iso Surprisingly Falls

The continued price increases for crude oil caused a price spike in C_{5+} prices at both Mont Belvieu and Conway, although isobutane prices unexpectedly dropped at both hubs this week.

Conway C_{5+} rose 11% this week to US\$2.54, which was the highest price at the hub since it was \$2.67 the week of July 30, 2008. The Mont Belvieu price rose 8% from last week to \$2.42, the hub's highest price since it was \$2.50 the week of August 27, 2008. Not so coincidentally, these previous highs correspond to the last run up in oil prices.

Although refining demand for butanes has been expected to decline as the demand for winter-grade gasoline diminishes, butane prices rose 2% on the back of improved crude oil prices. Mont Belvieu butane was up to \$1.83, its highest price since it was \$1.94 the week of August 27, 2008. Butane at Conway finished this week at \$1.72, which was the highest price at the hub since it was \$1.82 the week of August 27.

While these two heavy natural gas liquids (NGL) benefited from the run up in crude prices this week, isobutane surprisingly did not fare as well. Indeed, prices

fell at both hubs for the NGL and there isn't a consensus reason why this would happen. Some observers believe that this week was a market correction, while others think it could be residual effects from the explosion at Enterprise Products Partners' Mont Belvieu western storage facility several weeks ago that has artificially increased the price of butane due to possible market shortages of that product. We hope to provide some clarity to this situation in next week's issue.

Regardless of the reason, Mont Belvieu isobutane was down slightly from last week to \$1.94 while the Conway price plummeted 7% to \$1.90. While the Texas price was the second highest price at the hub in over two years, the Kansas price was the lowest price at the hub in nearly a month.

While we can't say for certain whether or not the explosion at Enterprise's Mont Belvieu facility had a negative impact on isobutane prices, we can say that it drove up propane prices this week. The LDH hub at Mont Belvieu has been

Box Score							
Mont Belvieu	Eth	Pro	Norm	lso	Pen+	NGL Bbl	
Feb. 23 - March 1, '11	68.53	147.35	182.46	194.13	241.68	\$59.25	
Feb. 16 - 22, '11	66.99	138.48	178.48	195.03	221.97	\$56.43	
Feb. 9 - 15, '11	64.13	133.66	169.64	184.28	220.00	\$54.54	
Feb. 2 - 8, '11	53.56	133.42	166.92	179.04	219.02	\$52.53	
February '11	61.86	137.14	173.64	187.12	224.73	\$55.21	
January '11	59.41	134.69	168.71	178.54	214.96	\$53.39	
4th Qtr '10	59.07	126.07	162.01	168.24	198.89	\$50.59	
3rd Qtr '10	44.99	106.98	138.23	143.25	171.45	\$42.37	
2nd Qtr '10	50.97	108.43	145.01	157.23	178.04	\$44.64	
1st Qtr '10	70.80	123.84	151.72	165.09	183.29	\$50.45	
Feb. 24 - March 2, '10	72.54	121.62	150.88	165.10	180.16	\$50.20	
Conway, Group 140	Eth	Pro	Norm	lso	Pen+	NGL Bbl	
Feb. 23 - March 1, '11	47.06	135.85	172.00	189.50	253.83	\$55.20	
Feb. 16 - 22, '11	47.30	123.60	168.18	204.00	224.58	\$51.99	
Feb. 9 - 15, '11	45.02	124.10	158.90	189.88	219.20	\$50.44	
Feb. 2 - 8, '11	40.12	125.92	157.56	182.33	217.23	\$49.45	
February '11	44.36	126.61	161.11	191.61	224.17	\$51.13	
January '11	44.01	128.53	162.52	174.39	207.59	\$49.79	
4th Qtr '10	47.01	120.80	157.16	161.69	193.86	\$47.80	
3rd Qtr '10	31.16	101.46	132.39	141.93	163.91	\$39.04	
2nd Qtr '10	31.56	103.03	130.96	145.20	172.55	\$39.90	
1st Qtr '10	59.82	123.81	143.58	160.70	181.55	\$48.69	
Feb. 24 - March 2, '10	60.20	120.82	142.45	153.70	180.50	\$48.08	

Data Provided by Intercontinental Exchange. Individual product prices in cents per gallon. NGL barrel in \$/42 gallons

having propane shortages due to having less throughput capacity from the Enterprise Western Storage facility than before the explosion on February 8. This has caused propane prices to reach their highest prices in over two years at Mont Belvieu and in over a year at Conway.

The Mont Belvieu price rose 5% to \$1.47, the highest price at the hub since it was \$1.49 the week of September 24, 2008. The Conway price of \$1.36 was a 7% increase from last week and the highest price at the hub since it was \$1.37 the week of February 3, 2010.

Mont Belvieu ethane prices continue to benefit from cracker switching to ethane from naphtha, as the price rose 2% to 69¢. This was the highest price at the hub in almost exactly a year – since it was 69¢ the week of March 3, 2010. However, the Conway price fell very slightly to 47¢ this week as demand wasn't quite as high in the Midcontinent.

- Frank Nieto

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HARTENERGY

PIPELINE NEWS

GE Oil & Gas Selected for US\$120-Million TENP Upgrade

GE Oil & Gas has been awarded a contract of more than US\$120 million (€90 million) to overhaul nine gas turbines located at four compression stations along the Trans Europa Naturgas Pipeline (TENP), which runs from the German-Netherlands border to the German-Swiss border.

The company will convert the nine GE MS3002 gas turbines - including three new units and six fully over-hauled units - to dry low NO_x (DLN) technology, which is expected to lower NO_x and CO₂ emissions to meet stringent future German legal requirements.

Andrew Way, vice president of Global Services at GE Oil & Gas, said: "GE is committed to helping customers boost performance and efficiency on a sustainable basis. We will

INTERNATIONAL NEWS

ConocoPhillips, Marathon Announce Nikiski LNG Plant Closing

ConocoPhillips and Marathon Oil Corp. plan to shut down the Nikiski liquefied natural gas (LNG) plant in Alaska after more than 40 years in operation because of deterioration in the LNG market.

The plant had been exporting surplus natural gas to Japan, and Tokyo Electric Power Co., Inc. had a purchase agreement slated to end next month. A Marathon official told The Associated Press the contract was not renewed

Officials at both companies said they wanted to focus on supplying gas to the local market in south-central Alaska.

Dan Clark, manager of Cook Inlet assets for ConocoPhillips Alaska said exports would likely cease by April or May, and the process - which could take several months - of mothballing the plant would then begin. He said that process could take months.

Lawmakers in the state capital expressed disappointment and say that the plant closure is not a surprise.

complete this important Trans Europa Naturgas Pipeline upgrade project by maintaining the existing footprint of the units and with minimal impact to the balance of plant operations. In addition, we will ensure optimum fuel performance for the refurbished gas turbines."

In addition to converting the nine units to DLN operation, the scope of GE's contract includes replacement of the gas turbine skids and auxiliaries, replacing and installing heat recuperators, installing new control logic functions into the existing controls systems, site installation activities, and a full-string test for the first upgraded unit. All of the upgraded units will be shipped to the project sites and will enter service over the next four years.

"I think that a number of us have been able to see it coming over time," said House Speaker Mike Chenault, whose district covers Nikiski.

He cites regulatory burden and the need for repeated license renewals as factors contributing to the closure.

"It's just those kinds of barriers that make it harder and harder to do business in Alaska," said Chenault.

Sen. Mark Begich (D-Alaska) called the shut down a "wake-up call" that Alaska must push for more development in Cook Inlet and on the North Slope.

Gov. Sean Parnell says his first concern is for the Alaskan families who have lost jobs. He says the Department of Labor will work with ConocoPhillips and the local community to assist employees with job information and referrals.

HARTENERGY

March 4, 2011

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