

Midstream Infrastructure Growth Matches Escalating Shale Play Activity

By Al Pickett
Special Correspondent

The emergence of shale plays not only has changed the dynamics of the natural gas industry in North America, but it also is creating billions of dollars in growth opportunities for the midstream industry to provide treating, processing, storage and transportation infrastructure to get the new supplies of shale gas to market.

"It really is exciting," says Billy Lemmons, one of three managing partners of EnCap Flatrock Midstream. "The new shale resource plays have great repeatability on the upstream side, and the midstream follows the success of the upstream. About 14,000 wells have been drilled over the past decade in the Barnett Shale (with more than 8 trillion cubic feet of cumulative gas produced to date, according to reports). As in the Barnett, large numbers of wells are being drilled in each shale gas play. Every one of those wells needs pipe and other midstream infrastructure."

The industrywide shift to concentrate on the "liquids windows" within each shale play to produce dry gas as well as premium-priced liquids such as butane and propane, light oil and condensate only heightens the need for increased gathering and processing capacity, Lemmons notes. "The wetter the gas, the larger the requirement for gathering systems and processing facilities," he states.



EnCap Flatrock Midstream, headquartered in San Antonio, has more than \$1.2 billion in midstream equity under management. The company began raising its current fund in the summer of 2008, which Bill Waldrip, another managing partner, admits was a difficult time to raise money. "But we closed the fund with \$800 million after teaming with EnCap Investments," he reports. "Both companies saw opportunity in the midstream sector and we came together to form a partnership to manage the EnCap Energy Infrastructure Fund (EEIF)."

EEIF provides private equity capital to management teams focusing on midstream energy infrastructure opportunities in North America, including natural gas gathering, treating, compression, processing, liquid fractionation, storage and transportation, as well as oil gathering and handling produced water.

"Our focus is close to the wellhead: gathering, treating and processing gas as well as handling crude oil and NGLs," Waldrip continues. "So far, we have backed five portfolio companies that have been actively involved in shale resource plays, and have gone back with second offerings a couple times."

'Patient Capital'

Meritage Midstream Services and

Caiman Energy LLC are two examples of relatively new midstream companies that have been backed by private equity from EnCap Flatrock Midstream and its EEIF fund. Jack Lafield, president and chief executive officer of Caiman Energy, says the private equity funding of these new midstream projects is a growing trend in the industry.

"Master limited partnerships were the darlings of the past decade," he explains. "But even prior to the 2008 capital markets crash, MLPs were having difficulty raising new equity. They were built primarily around acquisitions and consolidation. When real growth started in shale plays in 2005, the midstream projects needed more risk money. With new infrastructure development, cash flow does not show up as fast, so the MLPs were unable to make immediate distributions.

"The void has been filled by what I call 'patient capital,' where investors are not requiring immediate distributions," Lafield continues. "So new shale midstream infrastructure has become a significant opportunity for private equity. In 2010 and going into this year, private equity is the capitalization plan for higher-risk infrastructure. It takes patient capital and smart management teams to assess reservoir risk and give producers time to

develop an area."

Lemmons says projects funded by the EEIF have gas flowing across the country from the Marcellus Shale in Pennsylvania and West Virginia, to the Woodford Shale in Oklahoma and the Eagle Ford Shale in South Texas. EnCap Flatrock Midstream also is pursuing activity in the Bakken Shale in North Dakota, the Avalon/Bone Spring play in New Mexico and West Texas, and the Granite Wash in western Oklahoma and the Texas Panhandle, according to Lemmons.

Most of those projects are in areas in which the gas is rich in liquids. "One of our key philosophies is to look at the upstream side of the business and the economics for upstream producers," Waldrip says. "The areas that contain NGL-rich gas are where the economics look better at this time. Some rich gas areas are seeing increased activity because of the added value associated with the liquids. For example, we are seeing rigs being relocated from the Haynesville to the Eagle Ford and Marcellus."

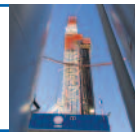
Lemmons says the industry is fundamentally different than it was only a decade ago. "The coming decades will be dominated by shales," he maintains. "People traditionally track rig counts as a barometer of industry activity, but with the success of horizontal drilling and multistage hydraulic fracturing, you do not have to have as many rigs running. The yield per rig is so much greater, and there are more multiwell pads. That makes sense operationally and environmentally. It also creates a very robust environment for the midstream industry."

Waldrip predicts as much as \$10 billion a year will be spent on midstream infrastructure in the near term. "There will be tremendous development over the next decade to two," he foresees. "Of course, midstream development activity will cycle with pricing. But for every \$1.00 spent on the upstream, there will be \$0.15-\$0.35 spent on associated midstream infrastructure. That is a lot of capital that will need to be deployed."

Even in areas where the shale plays sit adjacent to historical conventional gas resources, Lemmons says the old infrastructure is not sufficient from a size and pressure standpoint to handle high-volume shale wells, especially those rich in NGLs. "I cannot underscore enough the opportunities we see within the next 10-20 years," he adds. "We feel fortunate to be



Caiman Energy has secured \$400 million in capital commitments and approximately 400,000 acres in contractual acreage dedications from Marcellus Shale producers in a liquids-rich area of Southwest Pennsylvania and Northwest West Virginia that it projects will produce more than 1 billion cubic feet a day within the next five years. The initial infrastructure development includes laying a 24-inch trunk line through the center of the area and more than 100 miles of gathering lines.



Seeking to capitalize on opportunities created by the emergence of the giant Marcellus Shale gas play, Inergy has a number of projects under way to develop an integrated energy storage hub in the Northeast. At the center of the company's strategy in the Northeast is the Stagecoach high-performance, multicycle storage facility—the nearest facility to the New York City market.

off to a great start. Our portfolio companies are successful because they are great at meeting the needs of producers. At the end of the day, the midstream is a service business.”

Growth Opportunities

So what and where are the growth opportunities for midstream service companies? “Emerging liquids-rich shale gas plays are creating the need for significant infrastructure buildup everywhere, but the Marcellus is number one on the list,” responds William R. Moler, senior vice president for natural gas midstream operations for Inergy LP, a Kansas City-based company whose business platform includes the largest independent natural gas and liquid propane storage operations in the Northeast.

“Although the first U.S. oil well was drilled in Pennsylvania and large numbers of conventional shallow Oriskany gas wells have been drilled in the region, northern Pennsylvania and upstate New York are infrastructure-short,” he goes on. “This area has never seen this level of drilling activity or the kinds of highly productive horizontal wells being drilled today in the Marcellus.”

That has created a tremendous opportunity for Inergy, which has a number of projects under way to develop an integrated energy storage hub in the Northeast, according to Moler. At the center of Inergy’s

strategy is the Stagecoach natural gas storage facility, which is located near the New York-Pennsylvania border 150 miles northwest of New York City, he says. “It is the closest storage facility to the New York City market,” Moler points out. “If it gets cold in New York City, we get the first call.”

Stagecoach is a high-performance, multicycle gas storage facility with a working gas capacity of 26.5 billion cubic feet, injection capabilities of 250 million cubic feet a day and withdrawal capabilities of 500 MMcf/d. It has connections to both the Millennium and Tennessee Gas interstate pipelines. To expand Stagecoach’s capacity, Moler says Inergy has two new projects under way.

The first is the Marc I Hub Line, expected to be completed in the summer of 2012. The 432-mile, 30-inch bidirectional gas pipeline will run through Sullivan County, Pa., providing firm wheeling opportunities between TGP, Millennium, Transco and all points in between in Northeast Pennsylvania—a portion of the Marcellus Shale play that Moler describes as producing “very prolific initial production rates.”

Meanwhile, the North-South Project includes additional compression and measurement facilities to serve shippers seeking to wheel gas on a firm basis through Inergy’s existing Stagecoach North or South laterals. It was expected to be in service

by the heating season.

When completed, the two projects will allow Inergy to wheel volumes on a firm transportation basis through 75 miles of pipe to and from Tennessee Gas Pipeline Company’s 300, Transco’s Leidy, and the Millennium pipelines, according to Moler. “Combined, these two projects are expected to add more than 45,000 horsepower of additional compression and 875,000 dekatherms/day of transportation capacity to our midstream business in the Northeast,” he reports.

Storage Facilities

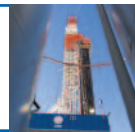
Inergy also has agreed to purchase the Seneca Lake natural gas storage facility in Schuyler County, N.Y., and two related pipelines for \$63 million from New York State Electric & Gas Corporation. Seneca Lake is an underground salt cavern storage facility located on Inergy’s U.S. Salt property outside Watkins Glen, N.Y., and has a maximum withdrawal capacity of 145 MMcf/d and a maximum injection capacity of 75 MMcf/d, Moler relates.

Seneca Lake is connected to the Dominion Transmission System through the 16-inch, 20-mile Seneca West Pipeline and indirectly to the city gate of Binghamton, N.Y., by way of the 12-inch, 37.5-mile Seneca East Pipeline, which runs within four miles of Inergy’s Stagecoach North Lateral interconnect with the Millennium and Empire pipelines. Moler says the capacity of the Seneca Lake facility is being expanded from 2 Bcf to 12 Bcf.

Inergy owns two gas storage facilities in Steuben County, N.Y.: the Steuben Gas Storage Company (6.2 Bcf working gas capacity and a facility-owned 12-inch, 12.5-mile pipeline connected to the Dominion, TGP and Millennium pipelines), and Thomas Corners (7.0 Bcf capacity), as well as two liquefied petroleum gas storage facilities in New York: Bath (1.6 million barrels of capacity) and Finger Lakes near Watkins Glen (construction is expected to be completed next spring to expand capacity up to 5 million barrels).

“The LPG storage facilities will help the market handle the excess LPG from the rich gas produced in lower Pennsylvania,” Moler explains. “The Finger Lakes facility positions Inergy as the largest LPG storage provider in the Northeast. It is connected to the Teppco Pipeline, and

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also has rail and truck access.”

The storage facility expansions are positioning Inergy to provide what Moler terms “significant Marcellus gas supplies” to the market, but he says there is another way to view it: “Storage and transportation expansions are bringing the market to the Marcellus,” he claims. “We have all of the Northeast local distribution companies and eight of the top 10 gas marketers participating in our assets, so if producers get their gas to our assets, they are able to get their gas to market.”

Jumping from the Appalachian Basin to South Texas, Moler reports that Inergy closed a deal in October to acquire Tres Palacios, a gas storage facility located 100 miles southwest of Houston in Matagorda County, Tx. The Tres Palacios facility offers the same strategy that Inergy employs with its Marcellus storage facilities in the Northeast, he says.

“It is located between the major markets of San Antonio and Houston, and close to the liquids-rich Eagle Ford Shale,” he says. “Tres Palacios, which has 38.4 Bcf of working gas capacity with planned expansion to 47.9 Bcf, also is situated near the largest gas-fired power generation market in the United States.”

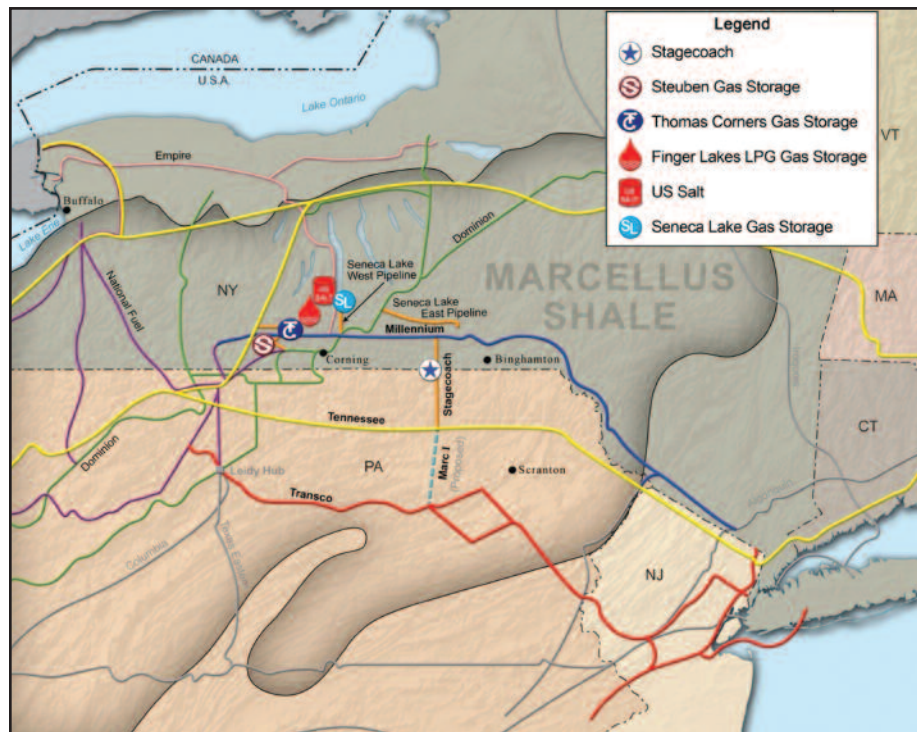
The acquisition includes a 40-mile, 24-inch bidirectional header system that is connected to 10 intrastate and interstate pipelines serving markets in Texas as well as the U.S. Northeast, Midwest, Southeast and Mid-Atlantic, and Mexico. Tres Palacios has a maximum withdrawal capacity of 2.5 Bcf/d and a maximum injection capacity of 1.0 Bcf/d.

Focused On Storage

John Hopper, chief executive officer of Peregrine Midstream Partners LLC, says the standard answer to where midstream infrastructure is needed is, of course, the new shale gas plays. But he says the answer for his company is where more storage is needed.

Peregrine’s Ryckman Creek Resources gas storage project concluded its non-binding open season in November for firm natural gas storage service at its proposed high-deliverability, multicycle natural gas storage facility in Uinta County, Wyo.

In response to Ryckman’s offer of 15 Bcf of capacity beginning in April 2012, it received market-priced bids requesting



In addition to developing storage infrastructure, Inergy has two projects under way to expand Stagecoach’s capacity to allow volumes to be wheeled on a firm transportation basis through 75 miles of pipe to and from large regional pipeline systems. Combined, the two projects are expected to add more than 45,000 horsepower of compression and 875,000 dekatherms/day of transportation capacity to Inergy’s midstream business.

53 Bcf of capacity from 29 companies representing different sectors of the industry, Hopper reports. Peregrine expects to receive Federal Energy Regulatory Commission authorization by April for its Ryckman Creek project, which will allow Peregrine to meet the project’s targeted April 2012 in-service date. Ryckman plans to have additional storage capacity available, for a total of 35 Bcf, by the spring of 2013, according to Hopper. Based on the open season responses, Peregrine now is considering a phase two expansion up to 50 Bcf at Ryckman Creek.

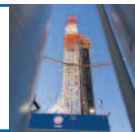
“The Opal (Wyo.) hub, located just north of our Ryckman Creek facility, is processing a lot of unconventional gas,” Hopper says. “We have interconnects with pipelines running both east and west out of Opal. This is the most liquid gas pipeline hub in the United States and it has no storage. And the two largest pipelines out of Opal—Kern River and Rockies Express—have no storage on their systems, either. So there clearly is a need in this part of the Rockies for more gas storage capacity.”

Hopper contends that storage offers producers more options for their gas. “It gives them the flexibility to capture optimal value through interconnects with multiple pipelines as well as the ability to capture pricing spreads between off-peak and peak seasons,” he says.

Storage also is important in liquids-rich plays, according to Hopper. “Especially when there is processing involved, producers want their gas to flow, even in a down market, so they can capture value for their liquids,” he comments. “The residue gas has to go somewhere.”

Hopper says Peregrine has another storage project planned near the Delhi Hub in Northeast Louisiana, which he describes as another underserved pipeline hub. “We want to be where the gas is,” he says. “We look for a confluence of pipelines and underserved markets, because we have all this shale gas that needs storage. In the fall before it turns cold in the Northeast and Midwest, the storage facilities get full. We have seen record storage built the past couple years. If we keep setting records, it must mean we need more storage. The gas will keep flowing,

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Peregrine's Ryckman Creek gas storage project concluded its nonbinding open season in November for firm natural gas storage service at its proposed high-deliverability, multicycle natural gas storage facility in the Ryckman Creek Field in Uinta County, Wyo. Located just south of the Opal hub, Ryckman Creek has interconnects with pipelines running both east and west. In response to strong industry interest in Ryckman Creek capacity, Peregrine already is considering a phase two expansion.

and if there is no market for it to go to, then it will have to go into storage. Where else will it go?"

Developing A Niche

Caiman Energy's Lafield says he believes his company has developed its niche in the Marcellus Shale. Caiman announced in July that the company had secured commitments totaling \$400 million to support its growing inventory of midstream development projects across the Marcellus play. He says Caiman, based in Dallas, also secured approximately 400,000 acres in contractual acreage dedications from Marcellus producers in the liquids-rich area of Southwest Pennsylvania and Northwest West Virginia.

"It is a chicken and egg thing," Lafield offers. "You cannot drill without infrastructure, and you cannot build infrastructure without operators drilling. We studied the reservoir itself and gathered data to support our need to clearly understand the resource play. Range Resources was to the north and Chesapeake was to the south, so we were able to surmise that this area had a high quality of shale rock. We feel that the risk for us is not in the reservoir, but in the timing and execution of how development takes place."

Lafield says Caiman believes its niche area will produce more than 1 Bcf/d over

the next four or five years. "So we are developing infrastructure that can be added to," he adds. "We are laying a 24-inch trunk line through the center of the area, and we are putting in more than 100 miles of gathering lines."

Construction of Caiman's Ft. Beeler processing plant, a 120 MMcf/d cryogenic processing facility, was expected to be completed and operational by early December, according to Lafield. "We have ordered another 200 MMcf/d of processing capacity, and in the second quarter,

we probably will need to order a third plant to add another 200 MMcf/d in capacity," he continues. "By the end of 2011, we will have committed \$400 million of capital."

Located near Cameron, W.V., south of Wheeling, the facility is named after an old frontier fort that was located near the site. "The Marcellus is still a gold rush," Lafield points out. "There is still a lot of active leasing. I would say 95 percent of the area needs infrastructure, so this is still in the early stages. You have to be somewhat of a pioneer, so this is a great area for Caiman to operate."

The Ft. Beeler facility will interconnect with the Texas Eastern Pipeline, which runs through the area from the south on its way to major Northeast markets. Although Caiman also has access to a number of other pipelines, Lafield says he believes gas from Marshall and Wetzel counties in West Virginia and Greene County, Pa., eventually will replace gas from Louisiana and Texas in the Texas Eastern Pipeline.

Caiman also is expanding its 20 miles of pipeline for gathering condensate, which is designed to mitigate environmental concerns associated with production by greatly reducing the amount of truck traffic required to transport product, Lafield notes. The company also has commenced constructing a new fractionation and terminal facility that will be located along the Ohio River in Marshall County, W.V. An NGL pipeline will run 25 miles from



Caiman Energy's new Ft. Beeler 120 MMcf/d cryogenic processing plant was expected to be operational by early December. The company has ordered another 200 MMcf/d processing plant, and expects to order a third plant in the second quarter to expand capacity by another 200 MMcf/d. Located near Cameron, W.V., the facility interconnects with the Texas Eastern Pipeline.



Meritage Midstream Services' Eagle Ford Escondido gathering system in Webb County, Tx., includes 70 miles of large-diameter, high-pressure pipeline in a dry gas window of the Eagle Ford Shale. This fall, Meritage Midstream completed two lateral extensions to the Escondido system as part of an agreement with Swift Energy to provide gathering and treating services for Eagle Ford production from Swift's Fasken Ranch operating area.

the Ft. Beeler processing plant to the new fractionation facility.

"The fractionation facility will take a blended liquid hydrocarbon product called 'Y Grade,' and separate the Y Grade into purity propane to be sold throughout the Northeast, and butane and natural gasoline to be sold to refineries for blending with motor fuel," he explains, adding that the facility initially will handle 12,500 barrels of Y Grade feedstock, and offer rail and truck loading facilities as well as the potential of barge transportation on the Ohio River.

Eagle Ford Facilities

Only a year old but backed by equity commitments from EnCap Flatrock Midstream and TPH Partners, Meritage Midstream Services launched its first project in South Texas by building the Eagle Ford Escondido gathering system in Webb County on the western edge of the play, reports Steve Huckaby, president and chief executive officer of the Golden, Co.-based company.

"We signed our anchor tenant in March and were flowing gas within six months. We have come a long way in the Eagle Ford in a very short period. We are finishing 70 miles of large-diameter, high-pressure pipeline in the dry window of the play," says Huckaby. "We are gathering for several producers, including Laredo Energy LLC and Swift Energy Company."

On Sept. 28, Meritage Midstream announced it had entered an agreement with Swift Energy to provide natural gas gathering and treating services in the Eagle

Ford Shale. The 25-mile pipeline project includes two lateral extensions to Meritage's Escondido gathering system: a 14.5-mile, 12-inch pipeline to the northwest into Swift's Fasken operating area, and a 10.5-mile, 16-inch extension to the southeast to increase take-away capacity. Meritage also will expand its treating capacity at its South Calahan facility as volumes on the gathering system increase, according to Huckaby.

Then on Nov. 18, Meritage Midstream

announced it had completed the Fasken Ranch lateral pipeline and had started flowing gas. "It took less than two months from the time we announced the pipeline to start flowing first gas," Huckaby marvels. "Our engineers and construction people got it done quickly. Meritage's rapid response to the crucial need for infrastructure in the Eagle Ford Shale means our customers are able to begin flowing natural gas from day one."

Huckaby says liquids-rich plays such as the Eagle Ford and Marcellus have all the momentum today, and he adds that Meritage is working on projects that "would give us exposure in other 'oily' shale plays."

He adds that his company's business plan is focused on medium and small independents that need to move quickly in shale plays. "Our team has a strong and well established history of working with producers that have to execute fast," Huckaby remarks. We have been successful because we have the experience and the flexibility to come in early and get the job done quickly. That gives us a competitive edge."

Texas Focused

Houston-based Eagle Rock Energy Partners is both a midstream and upstream



Although it also has upstream operations, two-thirds of Eagle Rock Energy Partners' business is midstream and focused in the Texas Panhandle and East Texas. In the Panhandle, where Eagle Rock has 3,943 miles of pipeline, 137,370 compression horsepower and seven processing plants with a combined capacity of 200 MMcf/d in 10 counties, activity is experiencing a rebirth with horizontal drilling and large multistage fracs in the liquids-rich Granite Wash, Cleveland sands and Tonkawa.



Eagle Rock owns 1,195 miles of pipeline, 43,700 horsepower compression and seven processing plants in the Haynesville Shale, Deep Bossier/Angelina River and Austin Chalk plays in East Texas, including both the East Texas main line that runs north and south and the Brookeland system that runs east and west.

company, according to Joseph Mills, chairman and chief executive officer. However, he says two-thirds of Eagle Rock's business is midstream, calling the company "Texas based and Texas focused."

Eagle Rock's midstream operations are focused in two areas: the Texas Panhandle and East Texas.

"The Panhandle is one of the great gas basins, producing since the 1920s," Mills exclaims. "But that area is seeing a rebirth with horizontal drilling and large multistage fracs in the Granite Wash, the Cleveland sands, and now the Tonkawa. The Granite Wash is liquids-rich, with 3.5 to 4.5 gallons of liquids per Mcf of gas. We are a sizable processor and gatherer in the Panhandle."

Mills says the Texas Panhandle is laced with pipelines, but they were built in a different era and handled much lower volumes. "We are building pipe and processing systems to handle the rebirth," he offers. "The initial production rates of these new wells are impressive, with some as high as 20 MMcf/d-30 MMcf/d. Of course, there has to be processing to handle the wet gas."

Eagle Rock has 3,943 miles of pipeline and 137,370 compression horsepower across 10 counties in the Panhandle, as well as seven processing plants with a combined capacity of 200 MMcf/d. The plants are running about 60 percent capacity, according to Mills.

He says the company refurbished its Phoenix plant in Hemphill County, which went on line in October with 50 MMcf/d and the potential to expand to 80 MMcf/d of capacity through additional compression.

Eagle Rock's East Texas operations include both the East Texas main line that runs north and south and the Brookeland system that runs east and west. The Brookeland processing plant, located in Jasper County, services the Austin Chalk, which Mills says like the Texas Panhandle, is seeing a resurgence because of the application of advanced horizontal drilling and hydraulic fracturing techniques.

"They are drilling dual laterals—a down dip and an updip lateral—with multistage fracs," Mills observes. "The results have been extremely impressive. These new wells are deeper and hotter."

Moving to the north, Eagle Rock's East Texas main line in Angelina, Nacogdoches, Rusk and Shelby counties is servicing several formations, including the James Lime, Bossier and Haynesville. "The Haynesville has been an extraordinary game changer, with 20 MMcf/d-35 MMcf/d IPs," he continues.

Unlike the Panhandle and the Austin Chalk areas, however, the Haynesville and Middle Bossier formations produce very dry gas, according to Mills. "It has a little carbon dioxide, so it must be treated, but there is very little liquid content," he notes. "There are significant

pipelines in the area, but because of the growth of the Haynesville and Bossier plays, we are looking to build more infrastructure."

Eagle Rock owns 1,195 miles of pipeline, 43,700 horsepower in compression and seven processing plants in the Haynesville Shale, Deep Bossier/Angelina River and Austin Chalk plays in East Texas.

Mills says many areas in the country are similar to Eagle Rock's experience in the Texas Panhandle and East Texas because they have old infrastructure and need high-pressure pipelines and increased processing capacity to handle the high-rate and/or liquids-rich gas plays. He lists the Marcellus, Eagle Ford, Bakken, Niobrara in northern Colorado and Wyoming, and the Cana Shale in Oklahoma as examples.

"I am still amazed at the level of drilling today in the Haynesville where the gas is dry, but many operators are shifting rigs to liquids-rich areas because of strong NGL prices," he comments.

Mills notes that take-away capacity is always a concern. He says Eagle Rock has ample take-away in the Panhandle, extending a contract with ONEOK through 2020 to take 14,000 bbl/d out of the Mid-Continent to a fractionation facility. He adds that the company also maintains a year-to-year contract on a 19-mile NGL pipeline to the Black Lake facility in East Texas.

Fayetteville Shale

Frontier Energy Services LLC's management team has more than 150 years of combined experience in all phases of the midstream industry. Frontier manages \$600 million in capital, which includes 4,000 miles of pipeline, 1.3 Bcf/d in processing capacity and 260 MMcf/d in treating capacity, according to Dave Presley, president and chief executive officer.

The company is one of the largest third-party gatherers in the Fayetteville Shale in Arkansas, and also has a foothold in the Granite Wash in the Texas Panhandle, Presley says. "We have five systems and approximately 100 miles of low-pressure gathering lines and 40 miles of high-pressure transmission lines with nominal capacity of 500 MMcf/d in Arkansas," he says.

The Fayetteville Shale has become a world-class reservoir with the success of

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horizontal drilling and multistage fracs, Presley comments. Although the Fayetteville produces dry gas, he adds that drilling activity has been robust, with more than 1,190 permits issued in the past 12 months. There is approximately 2.2 Bcf/d producing from the Fayetteville Shale, and Presley says he expects the volume of Fayetteville production to continue to increase over the next several years.

“Everybody is drilling to simply hold acreage through production,” Presley points out. “I think we will see that continue through 2011, but then we will start seeing infill drilling, especially as gas prices begin to recover. The IPs and EURs continue to improve as Fayetteville producers increase lateral lengths. Our customers have said publicly that the Fayetteville Shale is economic, and we believe production will continue to grow.”

Frontier has interconnects with all the major interstate pipelines in the area, according to Presley, including the Ozark, Fayetteville Express and Boardwalk pipelines. “The gas has some carbon diox-



Frontier Energy Services is one of the largest third-party gatherers in the Fayetteville Shale in Arkansas, with five systems consisting of 100 miles of low-pressure gathering lines and 40 miles of high-pressure transmission lines with nominal capacity of 500 MMcf/d. Frontier has interconnects with all the major interstate pipelines in the area, including the Ozark, Fayetteville Express and Boardwalk pipelines.

ide and requires treating prior to delivery into the interstate pipelines,” Presley notes.

However, the high liquids content of the production stream also makes the Granite Wash a world-class reservoir as well, Presley adds. He says Frontier has a 36 MMcf/d, state-of-the-art cryogenic processing plant in Roberts County in the Texas Panhandle, and is constructing

another 60 MMcf/d expansion to address a shortage of processing capacity in the Granite Wash play.

Frontier Energy Services also is looking to expand into the Eagle Ford Shale, where rig counts continue to tick upward. “The Eagle Ford has a lot infrastructure needs,” Presley relates. “Where there is a need, there is an opportunity.” □