Southeastern Ohio Oil and Gas Association
Gas Committee Report
December, 2018

PRICING

Prices December 11, 2018

NYMEX Settle – December -2018 $4.25
One Year NYMEX strip (Jan., 2018 – Dec., 2019) $3.26
Summer NYMEX strip for 2019 (April-October, 2019) $2.90

TCO Index Posting –December, 2018 $4.53
DTI Index Posting – December, 2018 $4.32

Working gas in underground storage, Lower 48 states

<table>
<thead>
<tr>
<th>Region</th>
<th>11/30/18</th>
<th>11/23/18</th>
<th>net change</th>
<th>implied flow</th>
<th>Year ago (11/30/17)</th>
<th>Bcf</th>
<th>% change</th>
<th>5-year average (2013-17)</th>
<th>Bcf</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>East</td>
<td>752</td>
<td>778</td>
<td>-26</td>
<td>-26</td>
<td>869</td>
<td>1135</td>
<td>-13.5</td>
<td>876</td>
<td>1142</td>
<td>-14.2</td>
</tr>
<tr>
<td>Midwest</td>
<td>914</td>
<td>938</td>
<td>-24</td>
<td>-24</td>
<td>1,059</td>
<td>1,260</td>
<td>-13.7</td>
<td>1,046</td>
<td>1,212</td>
<td>-12.6</td>
</tr>
<tr>
<td>Mountain</td>
<td>168</td>
<td>171</td>
<td>-3</td>
<td>-3</td>
<td>221</td>
<td>248</td>
<td>-24.0</td>
<td>213</td>
<td>252</td>
<td>-21.1</td>
</tr>
<tr>
<td>Pacific</td>
<td>253</td>
<td>254</td>
<td>-1</td>
<td>-1</td>
<td>313</td>
<td>342</td>
<td>-19.2</td>
<td>342</td>
<td>375</td>
<td>-26.0</td>
</tr>
<tr>
<td>South Central</td>
<td>905</td>
<td>914</td>
<td>-9</td>
<td>-9</td>
<td>1,232</td>
<td>1,265</td>
<td>-26.5</td>
<td>1,239</td>
<td>-27.0</td>
<td></td>
</tr>
<tr>
<td>Salt</td>
<td>263</td>
<td>259</td>
<td>4</td>
<td>4</td>
<td>358</td>
<td>352</td>
<td>-26.5</td>
<td>352</td>
<td>375</td>
<td>-25.3</td>
</tr>
<tr>
<td>Nonsalt</td>
<td>642</td>
<td>654</td>
<td>-12</td>
<td>-12</td>
<td>874</td>
<td>887</td>
<td>-26.5</td>
<td>887</td>
<td>911</td>
<td>-27.6</td>
</tr>
</tbody>
</table>

Totals may not equal sum of components because of independent rounding.
Summary

Working gas in storage was 2,991 Bcf as of Friday, November 30, 2018, according to EIA estimates. This represents a net decrease of 63 Bcf from the previous week. Stocks were 704 Bcf less than last year at this time and 725 Bcf below the five-year average of 3,716 Bcf. At 2,991 Bcf, total working gas is below the five-year historical range.

Working gas in underground storage compared with the 5-year maximum and minimum

Source: U.S. Energy Information Administration

Note: The shaded area indicates the range between the historical minimum and maximum values for the weekly series from 2013 through 2017. The dashed vertical lines indicate current and year-ago weekly periods.

EIA WEEKLY REPORT OCTOBER 4, 2018:

Natural Gas

Northeast prices rise as cold front moves through. At the Algonquin Citygate, which serves Boston-area consumers, prices increased 98¢ from $5.98/MMBtu last Wednesday to $6.96/MMBtu yesterday. Algonquin prices saw an especially large jump from $5.03/MMBtu on Friday to $11.60/MMBtu on Monday as a cold front moved into the Northeast over the weekend. At the Transcontinental Pipeline Zone 6 trading point for New York City, prices increased 46¢
from $4.53/MMBtu last Wednesday to $4.99/MMBtu yesterday, with a high of $6.03/MMBtu on Tuesday.

Tennessee Zone 4 Marcellus spot prices increased 6¢ from $4.27/MMBtu last Wednesday to $4.33/MMBtu yesterday. Prices at Dominion South in southwest Pennsylvania rose 8¢ from $4.21/MMBtu last Wednesday to $4.29/MMBtu yesterday.

Prices at the Waha Hub in West Texas, which is located near Permian Basin production activities, averaged $0.46/MMBtu last Wednesday, $3.98/MMBtu lower than Henry Hub prices. Yesterday, prices at the Waha Hub averaged $2.12/MMBtu, $2.50/MMBtu lower than Henry Hub prices. This increase in Waha prices came amid colder temperatures in the Southwest.

Nymex prices fall. At the Nymex, the December 2018 contract expired last Wednesday at $4.715/MMBtu. In contrast to spot prices, the January 2019 contract decreased to $4.469/MMBtu, down 23¢/MMBtu from last Wednesday to yesterday. The price of the 12-month strip averaging January 2019 through December 2019 futures contracts declined 1¢/MMBtu to $3.249/MMBtu.

Supply remains flat. According to data from PointLogic Energy, the average total supply of natural gas remained the same as in the previous report week, averaging 92.7 Bcf/d. Dry natural gas production remained constant week over week. Average net imports from Canada decreased by 1% from last week.

Demand falls. Total U.S. consumption of natural gas fell by 1% compared with the previous report week, according to data from PointLogic Energy. Natural gas consumed for power generation climbed by 2% week over week. Industrial sector consumption decreased by 1% week over week. In the residential and commercial sectors, consumption declined by 4%. Despite the cold front that moved through the country this week, the previous report week was also cold and actually had more population-weighted heating degree days. Natural gas exports to Mexico decreased 1%.

U.S. LNG exports increase week over week. Eight LNG vessels (six from the Sabine Pass liquefaction terminal and two from Cove Point) with a combined LNG-carrying capacity of 27.9 Bcf departed the United States from November 29 to December 5, according to Bloomberg shipping data.

A tanker waiting to load the first LNG produced from the new Corpus Christi liquefaction terminal in Texas has been berthed at the terminal since December 5, according to Bloomberg shipping data.

U.S. LNG exports in November set a new record with 31 loaded cargoes (26 from Sabine Pass and 5 from Cove Point), exceeding the previous record set in July with 29 exported cargoes.

Second Quarter – 2018 – Utica Production Volumes:

During the second quarter of 2018, Ohio’s horizontal shale well produced 4,488,104 barrels of oil and 554,306,916 Mcf (545 billion cubic feet) of natural gas, according to figures released today by the Ohio Department of Natural Resources (ODNR).
Natural gas production from the second quarter of 2018 showed a 42.25% increase over the second quarter of 2017, while oil production increased 10.98% for the same period.

<table>
<thead>
<tr>
<th></th>
<th>2017 Quarter 2 (Shale)</th>
<th>2018 Quarter 2 (Shale)</th>
<th>Percentage Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barrels of oil</td>
<td>4,044,072 bbl</td>
<td>4,488,104 bbl</td>
<td>10.98%</td>
</tr>
<tr>
<td>Mcf of natural gas</td>
<td>389,662,485 Mcf</td>
<td>554,306,916 Mcf</td>
<td>42.25%</td>
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</table>

The ODNR quarterly report lists 2,035 horizontal shale wells, 2,002 of which reported oil and natural gas production during the quarter. Of the wells reporting oil and natural gas results:

- The average amount of oil produced was 2,242 barrels.
- The average amount of natural gas produced was 276,877 Mcf.
- The average number of second quarter days in production was 85.

As of December 8, 2018, there have been 2,948 Utica shale permits issues in Ohio, and 2,467 of them have been developed.

There are currently 2,002 Utica shale wells in production, with 17 rigs running.