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WATCHING GOVERNMENT



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Nick Snow

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Nick Snow

The US House approved a fiscal 2017 appropriations bill for the US Department of the Interior and related federal entities including the US Environmental Protection Agency by 231 to 196 votes.

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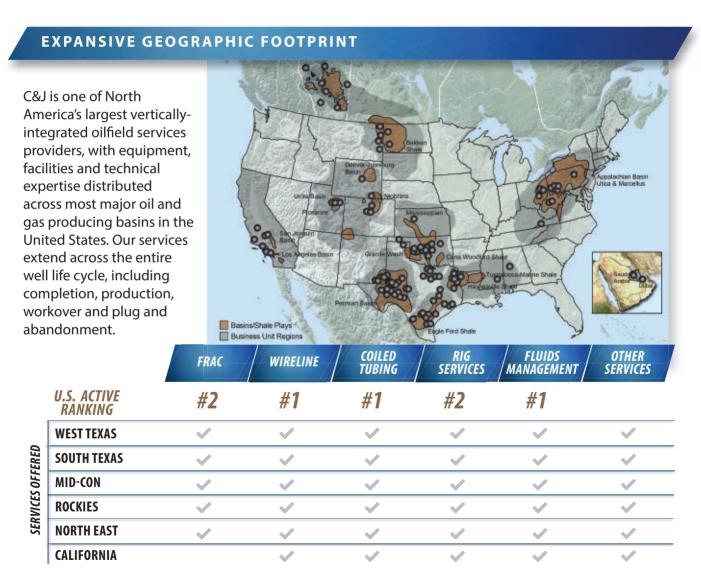
## COVER

BP PLC has hired Bibby Offshore for a 15-day project next month across three of its North Sea assets, supplying air and saturation diving support for operations including spool and flowline disconnection, evaluation and installation of conductor clamp guides, alignment clamp installation, and modifications to a gas lift system. Work sites include the central North Sea-based Bruce platform, east of Shetland-based Magnus, and Mirren field, part of the Eastern Trough Area Project. The Bibby Topaz diving support vessel will perform the work. Photo from Bibby Offshore.



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## **GENERAL INTEREST** QUICK TAKES

## BP's Macondo well blowout liability tops \$60 billion

BP PLC has lifted its total cumulative pretax charge for the 2010 Macondo well blowout and oil spill by \$5.2 billion to \$61.6 billion after making "significant progress in resolving outstanding claims," the firm said on July 14.

The charge includes the estimated cost of settling all outstanding business and economic loss claims under the 2012 Plaintiffs' Steering Committee (PSC) settlement. Those are expected to be paid by 2019.

A vast majority of economic loss and property damage claims made by an estimated 85,000 plaintiffs who either opted out or were excluded from that settlement have since been settled or dismissed. The cost of the remaining claims, expected to be paid by yearend, is also included in the charge.

BP, which expects to take an aftertax nonoperating charge of \$2.5 billion in its second-quarter results, believes any further outstanding Macondo-related claims will not have a material impact on the group's financial performance.

BP expects to continue to use divestment proceeds to meet its Macondo commitments. The firm last year reached agreements to settle outstanding federal, state, and local government claims (OGJ Online, Oct. 5, 2015).

## Restructured UK government drops DECC

The UK Department of Energy & Climate Change apparently has been abolished.

The government being formed by incoming Prime Minister Theresa May announced on the DECC web site that Greg Clark had been named to the new position of secretary of state for business, energy, and industrial strategy. Amber Ruud, who had been head of the DECC, was named home secretary.

Whether the new Department of Business, Energy, and Industrial Strategy will handle policy for climate change as well as energy was not immediately clear.

Clark, however, issued a statement indicating department functions will be "delivering a comprehensive industrial strategy, leading government's relationship with business, furthering our world-class science base, delivering affordable, clean energy, and tackling climate change."

May became prime minister after the resignation of David

Cameron, who called for a referendum on the question whether the UK should stay in the European Union. Against his wishes, a majority of voters favored leaving the EU.

## Woodside to buy ConocoPhillips's Senegal interests

Woodside Petroleum Ltd., Perth, has agreed to acquire all of ConocoPhillips's interests in Senegal for \$350 million plus a completion adjustment of \$80 million.

The purchase covers 35% of three production-sharing contract exploration blocks offshore Senegal: Rufisque Offshore, Sangomar Offshore, and Sangomar Deep Offshore. The stake includes 35% interest in the 560 million-bbl SNE deepwater oil discovery as well as the FAN oil discovery closer to shore (OGJ Online, May 19, 2016; Nov. 20, 2015).

Woodside also has the option to operate the future development of the resource. Current operator Cairn Energy PLC, which has a 40% share of the permits, has indicated it would like to sell down its interest (OGJ Online, Mar. 19, 2013).

Other interest holders are FAR Ltd. 15% and Senegal national company Petrosen 10%.

The purchase has an effective date of Jan. 1 and completion of the deal is expected by yearend, pending agreement from the Senegal government.

The move also builds on Woodside's recent agreement to acquire 65% interest in the AGC Profond exploration block to the south in the Senegal-Guinea Bissau joint development zone.

## EIA: US oil companies closer to self-finance

As US oil firms' spending falls and crude oil prices increase, their immediate financial situations are improving and the need for companies to find external sources of funding may decline.

According to an analysis from the US Energy Information Administration, first-quarter 2016 financial results from US onshore producers reveal an improving balance between capital expenditure and operating cash flow. Although operating cash flow was the lowest in any quarter in the past 5 years, larger reductions to capital expenditure brought these companies closest to self-finance, when capital investment can be paid for entirely from operating cash flow.

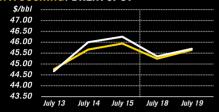
"Operating cash flow has declined over the past year, but it nonetheless has covered an increasing share of capital expenditure as companies are reducing their investment budgets

Oil & Gas Journal

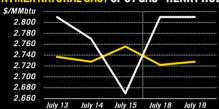
## **ICE BRENT/NYMEX LIGHT SWEET CRUDE**



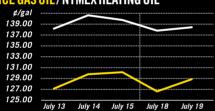
## WTI CUSHING / BRENT SPOT



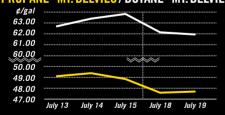
## NYMEX NATURAL GAS/SPOT GAS - HENRY HUB



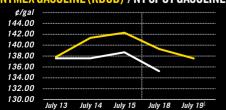
## ICE GAS OIL / NYMEX HEATING OIL



## PROPANE - MT. BELVIEU / BUTANE - MT. BELVIEU



## NYMEX GASOLINE (RBOB)2/NY SPOT GASOLINE3



 $^1\mathrm{Not}$  available  $^2\mathrm{Reformulated}$  gasoline blendstock for oxygen blending  $^3\mathrm{Nonoxygenated}$  regular unleaded

## US INDUSTRY SCOREBOARD — 7/25

Latest week 7/8 Product supplied, 1,00	4 wk. average	4 wk. avg. year ago¹	Change, %	YTD average <sup>1</sup>	YTD avg. year ago¹	Change, %
Motor gasoline Distillate Jet fuel Residual Other products TOTAL PRODUCT SUPPLIED Supply, 1,000 b/d	9,738 3,760 1,702 258 4,706 20,164	9,581 3,693 1,588 167 4,852 19,881	1.6 1.8 7.2 54.5 (3.0) 1.4	9,390 3,742 1,595 293 4,918 19,938	9,048 3,988 1,542 200 4,791 19,569	3.8 (6.2) 3.4 46.5 2.7 1.9
Crude production NGL production <sup>2</sup> Crude imports Product imports Other supply <sup>2 3</sup> TOTAL SUPPLY Net product imports	8,553 3,508 8,050 2,418 2,371 24,900 (1,435)	9,591 3,214 7,237 2,265 2,347 24,654 (1,476)	(10.8) 9.1 11.2 6.8 1.0 1.0	8,929 3,413 7,831 2,153 2,092 24,418 (1,741)	9,396 3,108 7,238 2,091 2,316 24,149 (1,542)	(5.0) 9.8 8.2 3.0 (9.7) 1.1
Refining, 1,000 b/d						
Crude runs to stills Input to crude stills % utilization	16,608 16,896 92.3	16,525 17,006 94.3	0.5 (0.6)	16,138 16,351 89.7	16,132 16,368 91.2	0.0 (0.1)

Latest week 7/8 Stocks, 1,000 bbl	Latest week	Previous week <sup>1</sup>	Change	Same week year ago¹	Change	Change, %
Crude oil Motor gasoline Distillate Jet fuel-kerosine Residual	521,804 240,089 152,997 40,638 41,337	524,350 238,876 148,939 40,241 40,043	(2,546) 1,213 4,058 397 1,294	461,417 218,010 141,280 43,509 40,194	60,387 22,079 11,717 (2,871) 1,143	13.1 10.1 8.3 (6.6) 2.8
Stock cover (days) <sup>4</sup>		Change, %		C	hange, %	
Crude Motor gasoline Distillate Propane	31.4 24.7 40.7 109.1	31.7 24.5 38.1 97.2	(0.9) 0.8 6.8 12.2	27.8 22.8 38.3 99.8	12.9 8.3 6.3 9.3	
Futures prices <sup>5</sup> <b>7/15</b>			Change		Change (	Change,%
Light sweet crude (\$/bbl) Natural gas, \$/MMbtu	45.59 2.73	46.15 2.78	(0.56) (0.05)	52.41 2.73	(6.82)	(13.0)

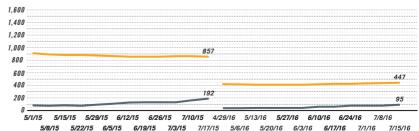
<sup>1</sup>Based on revised figures. <sup>2</sup>OGJ estimates. <sup>3</sup>Includes other liquids, refinery processing gain, and unaccounted for crude oil. <sup>4</sup>Stocks divided by average daily product supplied for the prior 4 weeks. <sup>5</sup>Weekly average of daily closing futures prices. Source: Energy Information Administration, Wall Street Journal

## BAKER HUGHES INTERNATIONAL RIG COUNT: TOTAL WORLD/TOTAL ONSHORE/TOTAL OFFSHORE



Note: Monthly average count

## BAKER HUGHES RIG COUNT: US / CANADA



Note: End of week average count

more quickly," EIA said. "Smaller investment budgets are lowering the amount of cash US onshore oil producers need to raise through outside sources."

With crude oil prices such as the global benchmark Brent price in the second quarter averaging more than \$45/bbl—a 34% increase from first-quarter 2016—cash flow may improve and help offset declining revenue from lower production.

The companies included in this analysis are 39 public US crude oil producers operating only onshore fields. Their collective production averaged 2.1 million b/d, or 30% of US Lower 48 production in first-quarter 2016. These companies will release second-quarter 2016 results in mid-August.

## **EXPLORATION & DEVELOPMENT** QUICK TAKES

## Devon STACK spacing test flows 1,400 boe/d/well

Devon Energy Corp.'s Alma spacing pilot in the overpressured oil window of the Oklahoma STACK play tested five wells per section across a single interval in the Mississippian Upper Meramec, delivering 30-day production rates averaging 1,400 boe/d/well, of which 60% was light oil.

In addition to the strong initial production rates, early flow-back results from the Alma pilot indicate minimal interference between wells, suggesting potential for tighter spacing in the overpressured oil window, Devon says.

The Alma wells were drilled with 5,000-ft laterals. They were brought online on <sup>12</sup>/<sub>64</sub>-in. chokes, gradually increased to <sup>20</sup>/<sub>64</sub>-in.

In the overpressured oil window in southwest Kingfisher County, the Pony Express 27-1H well, drilled with a 5,000-ft lateral, recorded a 30-day average rate of 2,100 boe/d, 70% oil.

Devon says oil productivity from the Pony Express is the highest of any Meramec well drilled to date in the play on a per-lateral-foot basis.

After the Alma test, Devon says it has two successful spacing pilots in the core of the Meramec oil window. Production from the two-well Born Free pilot continues to perform well, achieving a 90-day average rate of 1,500 boe/d/well, of which 60% is oil. The Born Free pilot wells were 400 ft apart and landed in two intervals in the Upper Meramec.

Devon's next pilot is the Pump House test in southwest Kingfisher County. The Pump House is testing seven wells per section in a single interval in the Upper Meramec. Initial flow rates are expected in the third quarter.

To determine the optimal approach for developing stackedpay intervals in the Meramec, the firm is participating in several additional spacing pilots during the remainder of the year.

The spacing pilots are focused in the overpressured oil window, testing up to eight wells per section in a single Meramec interval and evaluating the joint development of multiple stacked-pay intervals through staggered well pilots.

The firm expects to start full-field development in 2017.

## PPL well yields possible tight gas discovery

The Pakistan Petroleum Ltd.-operated Hadi X-1A exploration well, located on the Gambat South block in the Sanghar district of Pakistan's Sindh province, flowed 0.85 MMscfd on a <sup>32</sup>/<sub>64</sub>-in. choke, confirming the presence of natural gas.

Hadi X-1A was spudded on Feb. 5, and reached the final depth of 4,020 m on Apr. 19. Based on wireline logs interpretation, potential hydrocarbon bearing zones were identified in the Sembar formation.

During initial testing in Sembar, gas flowed at the surface for 3 days and the reservoir appeared to be tight, PPL says. To further evaluate the tight gas potential, a frac job was conducted after which flow rates improved significantly.

Post-frac results suggest a tight gas discovery. However, PPL says further evaluation is needed to determine its size and commerciality based on post-well studies and integration with geological, geophysical, and engineering data collected during drilling and testing of the well.

PPL holds 65% interest in Gambat South alongside joint venture partners Government Holdings Private Ltd. 25% and Asia Resources Oil Ltd. 10%.

PPL in May reported the Kotri X-1 well on the Kotri block of the Hyderabad district in Sindh province flowed gas at 3.4 MMcfd with a wellhead pressure of 608 psi (OGJ Online, May 24, 2016).

## Alliance formed for Xanadu prospect off Australia

Norwest Energy NL and Transerv Energy Ltd., both of Perth, have formed an alliance to facilitate the farmout and drilling of the Xanadu prospect in shallow territorial waters just offshore Western Australia.

Xanadu lies in permit TP/15 about 20 km south of Cliff Head oil field, which is producing in the offshore North Perth basin.

The new alliance also takes in Norwest's onshore permits in the basin, including EP 368 and EP 426, which lie east and adjacent to the Waitsia gas discovery, and EP 413, which contains the Arrowsmith discovery.

As part of the alliance, Transerv will acquire, via a share placement, 100 million shares for \$200,000 (Aus.) in Norwest. Transerv also will have the right to participate in farmout wells in all of Norwest's Perth basin permits.

The placement to Transerv will take place alongside further placements of a total of 300 million shares to professional investors. The combined placements will raise \$800,000 (Aus.).

The planned Xanadu-1 well will target the prominent Horst block feature, which lies parallel to the Western Australia coast. The primary target is the Dongara Sandstone at a depth of about 800 m subsurface. Secondary targets are the Irwin River coal measures and the High Cliff Sandstone.

Other programs in the alliance include plans to drill Lockyer Deep-1 in EP 368 and Arrowsmith-3 in EP 413.

## DRILLING & PRODUCTION QUICK TAKES

## **Gazprom Neft conducts 30-stage frac operation**

PJSC Gazprom Neft said it completed a 30-stage hydraulic fracturing operation in Russia's Yuzhno-Priobskoye field.

The company conducted an 18-stage operation in the same field in March and a 15-stager last December (OGJ Online, Mar. 17, 2016). The well's total length was more than 4,600 m. The 30-stage operation was in a 1,500-m horizontal section, and the company used 1,200 tonnes of propant.

The oil-bearing strata lies at a depth of more than 2,600 m. The anticipated operational capacity of the well is likely to be in excess of 130 tonnes/day, some 20% higher than forecast levels following lower-stage fracing operations.

## Marathon begins gas flow off Equatorial Guinea

Marathon Oil Corp. has started natural gas production at its Alba B3 compression platform at the Alba gas and condensate field, 32 km offshore Malabo in the Gulf of Guinea.

Production from the B3 platform allows Marathon Oil to convert 130 million boe of proved undeveloped reserves, more than doubling the company's remaining proved developed reserve base in Equatorial Guinea.

"The Alba B3 compression project will allow us to maintain plateau production for the next 2 years, mitigating base decline, while extending the Alba field's life by up to 8 years," said Mitch Little, Marathon Oil vice-president, conventional.

Execution of the Alba B3 compression project involved engineering and construction in four countries with Heerema Fabrication Group (HFG) serving as the general contractor.

The Alba B3 platform is connected by bridge to the existing Alba B2 platform, where gas and condensate are currently sent to an onshore gas plant at Punta Europa for processing into various products, including propane and butane.

Marathon Oil's wholly owned subsidiary Marathon EG Production Ltd. is operator of Alba field with 63% working interest—65% with government carry. Samedan of North Africa LLC, a subsidiary of fellow Houston independent Noble Energy Inc., holds the remaining 35%.

Marathon also owns 52% interest in an Alba LPG plant, 45% interest in Atlantic Methanol Production Co. LLC and its plant that produces 3,000 gross tonnes/day of methanol, and 60% interest in a 3.7 million-gross-tonnes/year LNG production facility on Bioko Island.

## **Contract let for Zubair water injection installation**

A group led by Eni SPA awarded a water-injection installation contract worth about \$60 million in the ongoing redevelopment of supergiant Zubair oil field in southern Iraq. Drake & Scull International PJSC announced July 18 that it received an engineering, procurement, and construction contract.

Drake & Scull Oil & Gas also will oversee construction of a natural gas pipeline to a power plant. The EPC water-injection

contract calls for installation of flow lines, trunk lines, manifolds, and wellhead hookup work to enhance oil recovery. The work is scheduled to be completed by early 2018.

Zubair produces about 360,000 b/d of oil, twice its level when a technical services contract with South Oil Co. for field redevelopment went into effect in February 2010 (OGJ Online, Mar. 3, 2016).

Production is expected to increase during the next few years to 850,000 b/d, a target renegotiated from the originally agreed 1.2 million b/d.

Eni leads a consortium that includes Korea Gas Corp., Occidental Petroleum Corp., and state partner Missan Oil Co. OGJ

## **PROCESSING** QUICK TAKES

## Kazakhstan advances refinery revamp projects

Kazakhstan's state-owned KazMunaiGas (KMG), through a contractor, has let a contract to Ergil Group, Istanbul, to supply equipment for the second phase of the \$2.9-billion revamp of its 5 million-tonne/year refinery Atyrau, Kazakhstan (OGJ Online, Jan. 7, 2015).

Ergil will manufacture and supply shell and tube heat exchangers to be installed as part of the Atyrau refinery's deep oil refining complex (DORC) project, the service provider said

Scope of delivery for the order will include a mix of 11 heat exchangers total comprised of the following types: diethanolamine regenerator reboiler, methyldiethanolamine regenerator reboiler, reboiler sour-water stripping, hydrogenation cooler, and stripped-water trim cooler.

Ergil disclosed neither a value of the contract nor a timeframe for equipment delivery.

Initiated in 2010, the Atyrau modernization and reconstruction comes as part of KMG's program to boost Kazakhstan's overall crude processing capacity.

KMG commissioned Stage 1 of Atyrau's overhaul, which involved construction of a complex for production of aromatic hydrocarbons, in December 2015, according to the company's latest annual report.

Designed to expand the refinery's crude processing efficiency up to 5.5 million tpy as well as increase its ability to convert residual heavy oils into finished fuels that meet Euro 4 and 5-equivalent specifications, Stage 2's deep oil conversion complex, or DORC, is scheduled for startup by yearend.

Modernization and reconstruction projects under way at KMG's 6 million-tpy Shymkent refinery and 6 million-tpy Pavlodar refining and petrochemical complex are due to be completed by yearend 2017, the company said (OGJ Online, Oct. 30, 2014).

## Petro Rabigh partially restarts ethylene unit

Rabigh Refining & Petrochemical Co. (Petro Rabigh), a joint venture of Saudi Aramco and Sumitomo Chemical Co., has initiated restart of the 1.6 million-tonnes/year ethane cracker

at its refinery and chemicals complex in the port city of Rabigh on the Red Sea following a preventative shutdown of the unit in late June (OGJ Online, Oct. 22, 2012).

Petro Rabigh began restarting the cracker on July 14 after completing temporary repairs to damage in an associated turbine generator that led to the unit's precautionary shutdown on June 21, the company said in a July 17 filing to the Saudi Stock Exchange (Tadawul).

Full repair work on the unit, however, cannot be completed until the company receives a requisite new spare part from the manufacturer.

The unit's unscheduled shutdown will negatively impact gross-profit margins for the second and third quarters of 2016 by about 350 million riyals (\$93.3 million), Petro Rabigh said.

The company disclosed no details regarding either the current status of operations at the cracker or an estimated time-frame for its return to full production rates.

Earlier in the year, Petro Rabigh completed the Rabigh Phase 2 ethane cracker expansion, which lifted ethane gas processing capacity at the complex by 30 MMcfd to 125 MMcfd and raised ethylene production capacity to 1.6 million tonnes/year from a previous output of 1.3 million tpy (OGJ Online, Apr. 26, 2016).

## Vaquero commissions Delaware basin gas plant

Vaquero Midstream LLC, The Woodlands, Tex., has commissioned its Caymus I natural gas processing plant in Pecos County, Tex., in the southern Delaware basin.

Supported by long-term commitments with major producers in the area, the Caymus 1 development consists of a UOP Russell 200-MMcfd cryogenic processing plant on 330 acres to enable expansions of as many as four additional 200-MMcfd trains for accommodating future production growth in the region, Vaquero Midstream said.

Alongside connection to a Vaquero-owned and dedicated electrical substation that will ensure uninterrupted power service to the facility, the Caymus 1 plant is equipped with the following features: oversized inlet-liquids handling with 5,000 b/d of condensate stabilization and storage, inlet compression to minimize field pressure, amine treating, propane refrigeration prior to cryogenic processing, and Energy Transfer Technologies Ltd.'s proprietary Dual-Drive residue compression.

Given its configuration, Caymus 1 has flexibility to handle future production from Avalon, Wolfcamp, and Bone Spring shale formations, the operator said.

The plant receives feed gas via an 80-mile, 800-MMcfd, high-pressure gathering pipeline system directly connecting to Pecos, Reeves, Ward, and Culberson counties, while a residue header connects multiple outlets at the WAHA market, including connections with Atmos, Enterprise, Northern Natural Gas, and Oneok's WestTex Transmission system, the latter of which connects to the Roadrunner gas transmission pipeline.

These four connections allow processed volumes from Caymus 1 access to more than 12 residue gas outlets in the US Midwest, US Gulf Coast, as well as California and Mexico.

Vaquero's NGL header line additionally includes outlets connecting to Lone Star's West Texas Gateway pipeline and Enterprise Chaparral systems, the company said.

## TRANSPORTATION QUICK TAKES

## Wolf Midstream to buy Devon's stake in Access line

Wolf Midstream Inc., a portfolio company of the Canada Pension Plan Investment Board (CPPIB), has agreed to acquire Devon Energy Corp.'s 50% ownership interest in Access pipeline for \$1.4 billion (Can.).

Expected to close in the third quarter, the deal also includes the potential for an incremental \$150 million payment with the sanctioning and development of a new thermal-oil project on Devon's Pike lease in Alberta.

Under terms of the agreement, Devon's thermal-oil acreage is dedicated to Access pipeline for an initial term of 25 years. A market-based toll will be applied to production from Devon's three Jackfish projects, which are fully operational.

The agreement also includes the potential for the Access pipeline toll to be reduced by as much as 30% with the development of new thermal-oil projects in the future. Devon's next potential project is the first phase of Pike, immediately adjacent to the Jackfish complex.

Devon is operator of the joint venture leasehold with 50% working interest. Front-end engineering and design work at the first phase of Pike is complete, but the project has not been sanctioned.

Devon says its divestiture program is now complete with proceeds totaling \$3.2 billion, surpassing the top end of its \$2-3 billion guidance range.

CPPIB, alongside Broe Group, struck a deal last year to acquire Encana Corp.'s DJ basin assets in Colorado for \$900 million (OGJ Online, Oct. 8, 2015).

## Saudi shipping firm to be top VLCC operator

National Shipping Co. of Saudi Arabia (Bahri) says it will become the world's largest operator of very large crude carriers (VLCCs) following acquisitions by a shipping fund it's launching with Arab Petroleum Investments Corp. (APICORP).

The APICORP Bahri Oil Shipping Fund plans to acquire 15 VLCCs in three phases with debt and equity investments totaling as much as \$1.5 billion.

APICORP will invest 85% in the 10-year, closed-end fund and be the fund manager. Bahri will invest the remainder and be the exclusive commercial and technical manager.

Bahri CEO Ibrahim Al Omar said the targeted acquisitions will join 36 VLCCs now in the company fleet and 10 VLCCs under construction to be delivered during 2017-18.

## **Evaluating a measured recovery**

Low oil prices have challenged the economic viability of many deepwater projects, resulting in project delays and cancellations. Some companies such as ConocoPhillips and Marathon Oil Corp. have made significant strategic shifts away from deepwater in favor of shorter-cycle US unconventional plays.

Things will likely get worse for deepwater drillers before they improve. A wide consensus is that, beyond a rebound in oil prices, recovery in the expensive deepwater industry could take years.

Analysts from Simmons & Co., an energy investment banking firm, are apparently more optimistic. "We believe early-stage recovery in deepwater investment is nearing," they said in a recent research note. Particularly, their latest review of leading deepwater operators' capital plans and project lists yields an encouraging opportunity set.

"Although the industry is by no means positioned for a frenetic V-shaped recovery, even a measured recovery as we envision for 2017-18 would mark a significant improvement for the woefully underutilized service and equipment sector, as well as for investor sentiment, which has grown excessively jaundiced about the marginalization of deepwater," they said.



Simmons & Co. reviewed the most up-to-date capital plans of the top eight deepwater operators: Petrobras, BP, Shell, Chevron, ExxonMobil, Total, Eni, and Statoil. Total production from this peer group is heavily weighted to offshore, predominately in deep water. These companies compose a robust study sample as they represent 65-70% of the deepwater market, as measured by rig counts and tree orders.

The spending outlook of these major deepwater operators remains muted due to the cash flow and balance sheet constraints that restrains capex flexibility in the event of higher-than expected oil prices.

However, the ongoing movement to radically reform deepwater economics, such as cost reduction and efficiency gains, is resulting in a material reduction in threshold oil prices that is required to sanction projects. Accordingly, a critical mass of major and mid-sized final investment decision (FID) candidates for the near-to-intermediate horizon is emerging, according to Simmons & Co.

At the recent analyst presentation in Baku, BP

identifies 8-10 projects that could be sanctioned by 2017, including Mad Dog Phase 2, Atoll, Angola Block 18 Platina, and Snadd. On June 20, BP sanctioned a fast-track development of the Atoll Phase 1 gas project offshore Egypt. Also, BP's Mad Dog project, which originally had a cost of \$20 billion, has now been brought down to \$9 billion.

Kaikias, a 40,000-b/d tieback to the Mars-Ursa development, is on top of the Shell's "select" pre-FID option list.

Liza Phase-1, ExxonMobil's deepwater Guyana discovery, will likely see an early production floating production, storage, and offloading vessel fast-tracked in 2017, followed by another one or two FPSOs in 2018-19 and beyond.

According to Simmons & Co., these potential high-profile FIDs, combined with a select few highlights from other operators, yield a plausible bucket of 20-25 significant deepwater projects that screen well against a \$60-70/bbl price deck for 2017-18.

By contrast, only one major deepwater oil project—Shell's Appomttox—and a small handful of smaller offshore FIDs have been sanctioned over the preceding 2 years.

## Strategic commitment

Although offshore and deepwater investments have paused, most major deepwater operators remain very much strategically committed to the resource base.

"The inexorable importance of deepwater to the supermajors is an important reality that seems too easily dismissed by the deepwater bear camp," said Simmons & Co.

Chevron is somewhat unique among the supermajors with its significant strategy shift in favor of shorter cycle US unconventional plays.

About this shift, Simmons & Co. said, "One could argue that Chevron has too much capital—physical, technological, and intellectual—invested in deepwater to transition fully and permanently away from the resource play. As the cost curve continues to decline, and as the major project vacuum invariably presents growth challenges, we would not be surprised to see the pendulum swing back toward deepwater for Chevron late this decade, particularly given their strong free cash flow by that point in time."



Senior Editor-Economics

■ Denotes new listing or Engineering, Lona change in previously published information.

## **JULY 2016**

International Conference on Oil. Gas & Coal Technology, Zurich, web site: waset.org/ conference/2016/07/ zurich/ICOGCT 21-22.

World Congress on Petroleum & Refinery, Brisbane, web site: petroleum.omicsgroup. com/ 21-23.

## AUGUST 2016

SPE/AAPG/SEG Unconventional Resources Technology Conference (URTeC), San Antonio, web site: www.urtec.org/ 1-3.

Society of Petroleum Engineers (SPE) Nigeria Annual International Conference & Exhibition, Lagos, web site: connect.spe.org/spenc/ naice/naice2016/ 2-4.

International Conference on Oil Reserves & Estimation Techniques, Seattle, web site: waset.org/conference/2016/08/seattle/ ICORET 8-9.

NAPE Expo, Houston, web site: napeexpo. com/shows/about-theshow/houston/ 10-11.

EnerCom's The Oil & Gas Conference-2016, Denver, web site: www. theoilandgasconference.com/ 14-18.

4th International Conference on Petroleum

don, web site: www. petroleumengineering. conferenceseries.com/ 15-17.

IADC/SPE Asia Pacific **Drilling Technology** Conference & Exhibition, Singapore, web site: www.spe.org/ events/apdt/2016/ 22-24.

GeoBaikal 2016: Expand Horizons, Irkutsk, Russia, web site: www.eage.org/event/ index.php?eventid =1433&Opendivs=s3 22-26.

SPE Asia Pacific Hydraulic Fracturing Conference, Beijing, web site: www.spe. org/events/aphf/2016/ pages/general/call\_for\_ European Associapapers.php 24-26.

2nd International Congress & Expo on Biofuels & Bioenergy. Sao Paulo, web site: biofuels-bioenergy. conferenceseries.com/ 29-31.

15<sup>th</sup> European Conference on the Mathematics of Oil Recovery (ECMOR XV), Amsterdam, web site: www.eage.org/event/ index.php?eventid= 1416&Opendivs=s3 Aug. 29-Sept. 1.

Offshore Northern Seas, Stavanger, web site: www.tofairs.com/ expo.php?fair=103366 Aug. 29-Sept. 1.

2<sup>nd</sup> International Congress & Expo on Biofuels & Bioenergy, Sao Paulo, web site: biofuels-bioenergy. conferenceseries.com/ 29-31.

Ultradeepwater & Onshore Technology Conference, Galveston, Tex., web site: www. rpsea.org/events/503 30-31.

## SEPTEMBER 2016

Second Applied Shallow Marine Geophysics Conference, Barcelona, web site: www. Eage.org/event/ index.php?eventid= 1421&Opendivs=s3

**EAGE First Conference** on Geophysics for Mineral Exploration and Mining, Barcelona, web site: www.eage.org/ event/?eventid=1420 4-8.

tion of Geoscientists & Engineers (EAGE) First Conference on Geophysics for Mineral Exploration & Mining. Barcelona, web site: www.eage.org/event/ index.php?eventid =1420&Opendivs=s3 4-8.

22<sup>nd</sup> European Meeting of Environmental and Engineering Geophysics, Barcelona. web site: www. eage.org/event/ index.php?eventid =1419&Opendivs=s3 4-8.

SPE Offshore Europe. Aberdeen, web site: www.offshore-europe. co.uk/ 5-8.

SPE Intelligent Energy Conference. Aberdeen, web site: www. intelligentenergyevent. com/ 6-8.

NACE Egypt Corrosion Conference, Cairo, web 14-15.

site: egyptcorrosion. nace.org/ 6-8.

AAPG SEG International Conference & Exhibition 2016. Cancun, web site: www.aapg.org/publications/blogs/events/ article/articleid/23667/ increase-vour-exposure-exhibition-andsponsorship-opportuni- 14-16. ties-available/ 6-9.

AAPG SEG 2016 International Conference & Exhibition, Cancun, web site: www.aapg. org/events/conferences/ice/announcement/ articleid/20311/aapgseg-2016-internationalconference-exhibitioncancun 6-9.

23rd Annual India Oil & Gas Review Summit & International Exhibition, Mumbai, web site: www.oilgas-events. com/india-oil-gas 9-10. com/ 19-21.

International Conference on Chemical Engineering, Phoenix, web site: chemicalengineering.conferenceseries.com/ 12-14.

Geomodel 2016, Gelendzhik, Russia, web site: www. eage.org/event/ index.php?eventid= 1448&Opendivs=s3 12-15.

**ESOPE International** Exhibition & Symposium for the Pressure Equipment Industry, Paris, web site: www. esope-paris.com/ 13-15.

SPE Deepwater Drilling & Completions Conference, Galveston, Tex., web site: www.spe. org/events/ddc/2016/

2nd Annual IoT in Oil & Corrosion Technology Gas, Houston, web site: Week 2016, Houston, energyconferencenetwork.com/iot-in-oiland-gas-2016/14-15.

Rio Oil & Gas Expo & Conference, Rio de Janeiro, web site: www.whereinfair.com/ rio-oil-gas-expo/riode-ianeiro/2016-Sep/

International Conference on Oil & Gas Transportation, Zurich. web site: waset.org/ conference/2016/09/ zurich/ICOGT 15-16.

Turbomachinery & Pump Users Symposium, Houston, web site: tps.tamu.edu/ event-info 15-17.

Iran International Petroleum Congress (IIPC), Tehran, web site: www. iranpetroleumcongress. 3rd Annual Uncon-

The CWC World LNG & Design, Onshore 2016, Gas Series: Asia Pacific Houston, web site: Summit, Singapore, web site: asiapacific. cwclng.com/ 20-23.

SPE Liquids-Rich Basins Conference—North America, Midland, Tex., web site: www.spe.org/events/ Irbc/2016/ 21-22.

International Conference on Petroleum Industry & Energy, Los Angeles, web site: www.waset.org/conference/2016/09/losangeles/ICPIE 22-23.

Eastern Section, American Association of Petroleum Geologists International Confer-2016 Annual Meeting, Lexington, Ky., web site: www.esaapgmtg. org/ 25-27.

web site: ctw.nace.org/ 25-29.

SPF Annual Technical Conference & Exhibition (ATCE), Dubai, web site: www.spe.org/ atce/2016/ 26-28.

SPE Annual Technical Conference & Exhibition, Dubai, web site: www.spe.org/events/ calendar/ 26-28.

■ US-China Oil & Gas Industry Forum (OGIF), Tysons Corner, Va., web site: www.cvent. com/d/hfgw6c 27-29.

Flexible & Cost Effective Well Site Facilities Onshore 2016. Houston, web site: www.facilities-designonshore.com 28-29.

ventional Production & Well Site Facilities www.facilities-designonshore.com/program/ 28-29.

Global Oil & Gas South East Europe & Mediterranean Conference, Athens, web site: www. oilgas-events.com/ Global-Oil-Gas-Black-Sea-Mediterranean-Conference/ 28-29.

International Conference on Petroleum & Petrochemical Engineering, London, web site: www.waset.org/ conference/2016/09/ london/ICPPE 29-30.

ence on Geophysics, Vancouver, web site: geophysics.conferenceseries.com/ 29-30.

The energy platforms—1

## **Major-party contrasts**

Party platforms assembled before this year's general election in the US cover the full ideological spectrum on energy. Some advocate reliance on markets, while others would put the government at the center of decision-making. Distinctions are sharp.

Platforms don't bind individual candidates to specific positions. Written by party activists, they represent guidance rather than commitment. Candidates can and do stray from them. Still, platforms are instructive. They express collective will and set intellectual boundaries within which candidates must navigate to keep core operatives, donors, and voters happy.

In two parts, this editorial series reviews energy platforms of the five political parties with presidential candidates on ballots in at least 10 states. The first part shows how starkly different the two major parties have become on energy.

## **Democrats: climate precaution**

Extending the approach of President Barack Obama's administration, the Democratic Party fuses energy policy to climate precaution, calling climate change "an urgent threat and a defining challenge of our time." Its platform targets an 80% cut in greenhouse-gas emissions from 2005 levels by 2050 and supports goals from last year's Paris agreement: global average temperature no more than 2° C. above preindustrial levels and efforts to limit the increase to 1.5° C.

"America must be running entirely on clean energy by midcentury," the platform declares.

Within a decade, under the Democratic vision, the US would derive half its electricity from "cleanenergy sources." Within 4 years, 500 million solar panels would be installed, and renewable-energy supply would be sufficient to power every home in the country. The platform seeks aggressive conservation and transformation of energy use for transportation "by reducing oil consumption through cleaner fuels; making new investments in public transportation; expanding electrification of the vehicle fleet; increasing the fuel efficiency of cars, boilers, ships, and trucks; and by building bicycle and pedestrian infrastructure." The platform calls for elimination of "special tax breaks and subsidies for fossil-fuel companies" and extension of "tax incentives for energy efficiency and clean energy."

Guided by their platform, Democrats would defend the Clean Power Plan's ambitious targets for emission cuts, fuel-economy standards for vehicles, building code and appliance standards, and requirements for lower methane emissions from oil and gas production. They would support rejection of the Keystone XL pipeline border crossing.

The Democratic platform seeks "environmental justice," asserting that environmental problems affecting poor people amount to "environmental racism." It calls on the Justice Department to investigate "allegations of corporate fraud" against fossil fuel companies allegedly misleading the public about "the scientific reality of climate change." And it opposes oil and gas drilling in the Arctic and off the Atlantic Coast. "We can phase down extraction of fossil fuels from our public lands, starting with the most polluting sources, while making our public lands and water engines of the clean-energy economy and creating jobs across the country," it says.

## Republicans: energy independence

The Republic Party's platform emphasizes energy independence and mentions climate change only briefly in a section critical of current policy. "Our common theme is to promote development of all forms of energy, enable consumer choice to keep energy costs low, and ensure that America remains competitive in the global marketplace," it says.

The platform relates energy security with national security and promotes "a strong and stable energy sector" as "a job generator and a catalyst of economic growth." It seeks an end to what it calls the Environmental Protection Agency's "war on coal."

On oil and gas, the Republican platform calls for "a reasoned approach to all offshore energy development on the East Coast and other appropriate waters," with revenue sharing for coastal states. It supports opening the Arctic National Wildlife Refuge coastal plain. And it calls for approval of the Keystone XL project, timely processing of applications for new nuclear projects, and cost-effective development of renewable energy. "But the taxpayers should not serve as venture capitalists for risky endeavors," it says.

Next week: three "third parties." OGJ



## **OCTOBER 2016**

ICOGPE 2016: 18th International Conference on Oil. Gas & Petrochemical Engineering. Barcelona, web site: www.waset.org/conference/2016/10/barce-Iona/ICOGPE 3-4.

Kazakhstan International Oil & Gas Confer- ICORP 17-18. ence (KIOGE) 2016. Almaty, Kazakhstan, web site: kioge.kz/en/ conference/aboutconference 5-6.

USEA 9th Annual Energy Supply Forum, Washington, DC, web site: https://www.usea. org/event/usea-9thannual-energy-supplyforum 6.

International Conference on Geosciences Orlando, web site: geosciences.conferenceseries.com/ 6-7.

Cyber Security for Critical Assets LATAM, Rio de Janeiro, web site: www.criticalcybersecurity.com/latam/ 6-7.

23rd World Energy Conference, Istanbul, web site: www. wec2016istanbul.org. tr/ 9-13.

International Conference on Oil Reserves & money.com/ 18-19. Energy Management, New York, web Site: www.waset.org/conference/2016/10/newvork/ICOREM 10-11.

The 2016 API Tank, Valves, & Piping Conference & Expo. Las Vegas, web site: www. api.org/events-andtraining/calendar-of-

bition and 86th Annual Meeting, Dallas, web site: www.seg.org/web/ annual-meeting-2016/ 16-21.

International Conference on Oil Reserves & Production, London, web site: www. waset.org/conference/2016/10/london/

The 8th Saudi Arabia International Oil & Gas Exhibition (SAOGE). Dammam, web site: www.saoge.org/ 17-19.

SPE Well Construction Fluids 2025 Forum: Meeting the Challenges, Dubai, web site: www.spe.org/ events/16fmel/ 17-19.

2016 Fall Committee on Petroleum Measurement Standards Meeting, Los Angeles, web site: www.api. org/Events-and-Training/Calendar-of-Events/2016/fallcopm 17-21.

Permian Basin International Oil Show, Odessa, Tex., web site: www.pboilshow.org 18-20.

The 37th Oil & Money Conference, London, web site: www.oiland-

Society of Petroleum Engineers (SPE) African Health, Safety, Security, Environment & Social Responsibility Conference & Exhibition, Accra, Ghana, web site: www.spe. org/events/hsea/2016/ 18-20.

events/2016/tvp 10-13. SPE Latin America & Caribbean Heavy Oil & SEG International Exhi- Extra Heavy Oil Confer-

ence, Lima, web site: www.spe.org/events/ laho/2016/ 19-20.

Arctic Technology Conference (ATC) St John's. Newfoundland & Labrador, web site: www.arctictechnologyconference.org/ 24-26.

SPE Russian Petroleum Technology Conference 2nd International Con-& Exhibition, Moscow, web site: www.spe. org/events/rpc/2016/ 24-26.

SPE North America Artificial Lift Conference & Exhibition. The Woodlands, Tex., web site: www.spe. org/events/alce/2016/ 25-27.

SPE Asia Pacific Oil & Gas Conference & Exhibition (APOGCE) Perth. web site: www.spe.org/events/ apogce/2016/ 25-27.

The 10th Element Oilfield Engineering with Polymers Conference, London, web site: oilfieldpolymers.nace. org/ 25-27.

Bottom of the Barrel Technology Conference (BBTC) Middle East & Africa 2016, Manama, web site: www.bbtcmena.biz 26-27.

International Conference & Expo on Oil & Gas. Rome. web site: oil-gas.conferenceseries.com/ 27-28.

**Gulf Safety Forum** (GSF) 2016, Doha, web site: www.gulfsafetvforum.com/ 30-31.

23rd Africa Oil Week Africa Upstream Conference 2016, Cape Town, web site: www.

an-Event/Africa-Oil-Week/ Oct 31-Nov 04.

## NOVEMBER 2016

4th Iran Europe Oil & Gas Summit, Berlin. web site: www.iransummit.com/1-3.

ference & Expo on Oil & Gas, Istanbul, web site: oil-gas.omicsgroup.com/ 2-3.

The Abu Dhabi International Petroleum Exhibition & Conference. (ADIPEC). Abu Dhabi, web site: www. adipec.com/ 7-10.

RefComm Mumbai 2016. Mumbai. web site: refiningcommunitv.com/refcommmumbai-2016/ **7-11**.

International Petroleum **Technology Conference** (IPTC), Bangkok, web site: www.iptcnet.org/ pages/about/futuredates.php 14-16.

4th East Africa Oil & Gas Summit & Exhibition, Nairobi, web site: eaogs.com/15-17.

21st Annual Oil & Gas of Turkmenistan (OGT) Conference 2016, Ashgabat, web site: ogt. theenergyexchange. co.uk/ 16-17.

International Conference on Shale Oil & Gas Engineering, London, web site: www.waset.org/conference/2016/11/london/ ICSOGE 24-25.

5<sup>th</sup> International Confer- Operational Excellence ence on Petroleum Geology & Petroleum Industry, Dubai, web

oilgas-events.com/Find- site: petroleumgeology. conferenceseries.com/ 24-25.

> Oil & Gas Safety & Health Conference 2016 OSHA Exploration ence.network.com/ & Production, Houston, oil-gas-supply-chainfetyconference.org/ Events/ugm/Osha2016/ SPE Heavy Oil Conferdefault.aspx 29-30.

Society of Petroleum Engineers (SPE) Middle hoce/2016/6-8. East Artificial Lift Conference & Exhibition, Manama, Bahrain, web site: www.spe.org/ events/meal/2016/ Nov. greenforum.ae 8. 30-Dec. 1.

## DECEMBER 2016

International Conference on Energy Engineering & Oil Reserves, Hong Kong, web site: www.waset.org/conference/2016/12/hongkong/ICEEOR 5-6.

International Conference on Oil Reserves & Energy Technologies. Hong Kong, web site: www.waset.org/conference/2016/12/hongkong/ICORET 5-6.

5th World Congress on Petrochemistry & Chemical Engineering, Phoenix, web site: www.petrochemistry. omicsgroup.com/ 5-7.

Third EAGE Integrated Reservoir Modelling Conference, Kuala Lumpur, web site: www.eage.org/event/ index.php?eventid= 1477&Opendivs=s3 5-7.

OpEx MENA 2016 in Oil, Gas & Petrochemicals, Abu Dhabi, web site: www.opex. hiz **5-7**.

Oil & Gas Supply Chain Procurement. Houston. web site: energyconferweb site: www.oshasa- procurement-2016/6-7.

> ence & Exhibition. Kuwait City, web site: www.spe.org/events/

Green Forum: Oil. Gas. & Petrochemicals, Abu Dhabi, web site: www.

ICOGPE 2016: 18th International Conference on Oil. Gas & Petrochemical Engineering, Dubai, web site: www.waset.org/ conference/2016/12/ dubai/ICOGPF/home/ 26-27.

## JANUARY 2017

Global Oil & Gas Middle East & North Africa Conference, Cairo, web site: www. oilgas-events.com/ Find-an-Event/Global-Oil-Gas-Middle-East-North-Africa-(1) 24-26.

SPE Hydraulic Fracturing Technology Conference, The Woodlands, Tex., web site: www. spe.org/events/ hftc/2017/ 24-26.

NACE International Pipeline Coating Technology Conference, Houston, web site: pipelinecoating.nace. org/ 24-26.

Offshore West Africa, Lagos, web site: www. offshorewestafrica.com/ index.html 24-26.

# BOEM notifies offshore leaseholders of decommissioning rule changes

## **Nick Snow**

Washington Editor

The US Bureau of Ocean Energy Management notified federal offshore oil and gas leaseholders that it is updating financial assurance and risk management requirements to ensure that taxpayers never have to pay for decommissioning and removing a company's offshore production facilities. Officials from two trade associations quickly criticized the agency's action.

National Ocean Industries Association Pres. Randall B. Luthi said NOIA is reviewing the July 14 notice. He acknowledged that the notice's provisions followed extensive discussions between BOEM and federal offshore lessees, but questioned whether they were necessary and suggested they possibly might be counterproductive.

An Independent Petroleum Association of America official warned that the new requirements could push many smaller producers off the US Outer Continental Shelf. "It's widely known that offshore development is an economically challenging business," IPAA Senior Vice-Pres. for Government Relations and Political Affairs Daniel T. Naatz said. "[BOEM's] new mandatory financial requirements will force each lease owner to fully insure upfront all of its exploration wells, despite the fact that these wells may never be drilled."

The US Department of the Interior agency said that its notice to lessees and operators (NTL) details improved procedures to determine a lessee's ability to carry out its lease obligations—primarily the decommissioning of OCS facilities—and whether to require lessees to furnish additional financial assurance.

The new requirements take effect on Sept. 12, it indicated. They replace those in NTL No. 2008-N07, and provide updated procedures for requiring additional financial security for oil and gas or sulfur leases.

All federal OCS leases require that when decommissioning, a company must remove all facilities and restore the site to its pre-lease state, BOEM said. Due in part to the oil and gas industry's move into deeper Gulf of Mexico waters, decommissioning costs have risen significantly, it explained.

## Liabilities around \$40 billion

As existing infrastructure ages, some larger companies are

transferring older facilities to smaller or less-experienced firms, it said. BOEM estimates that current routine decommissioning liabilities on the federal OCS are \$40 billion.

BOEM said the revised NTL will provide updated criteria for determining a lessee's ability to self-insure its OCS liabilities based on the lessee's financial capacity and financial strength. It also provides new methods and additional flexibility for lessees to meet their additional financial security requirements through a tailored plan.

The guidance and clarification will apply to all BOEM regions and planning areas. In addition to leaseholders, the NTL also applies to right-of-use and easement holders, the agency said.

It said it would work with leaseholders to develop an approach that works best for the government and for each company while focusing on the highest-risk properties first—namely, properties for which there is only one leaseholder responsible for decommissioning. Those leaseholders will have to comply within 60 days from the date of an order requiring additional financial security.

BOEM said for all other holdings, lessees will have 120 days from the date they receive an order to provide additional security, if required. Alternatively, lessees can provide a tailored financial plan to BOEM, which will permit the use of forms of financial security other than surety bonds and pledges of treasury securities, and allow companies to phase in funding of the additional security.

The updated guidance is within the parameters of the bureau's existing regulations so it was not necessary to propose a new rule, the agency noted.

## Subject of extensive dialogue

Responding to BOEM's announcement, NOIA's Luthi said the association was reviewing the financial assurance and risk management requirements in BOEM's NTL, which has been the subject of extensive dialogue between the federal offshore leasing regulator and the oil and gas industry for a long period.

"Existing laws and regulations allow federal regulators the flexibility to cooperate with operators to ensure that decommissioning costs are adequately covered, and we remain concerned that this is largely a solution in search of a problem, as US taxpayers have never been left on the hook for offshore decommissioning costs," Luthi said. NOIA urges the federal regulators to recognize that private agreements between companies can fully address potential liability, he said.

"When a company purchases a lease from another company, funds or private bonds are a likely part of the purchase and transfer agreement, making additional supplemental bonding potentially unnecessary," he explained. "Any additional bonding required by the regulator could create a lose-lose scenario by reducing the amount of capital a company could use to develop a successful well, and thereby decreasing the potential of future revenue to the federal government by what could be millions of dollars.

"This NTL could cause some of the very financial instability it purports to protect against," Luthi warned.

IPAA's Naatz said the requirements unfairly place the financial burden on independent producers, removing operators' flexibility and making it much harder for these smaller offshore independents to stay in business. "The new financial requirements will double the cost of insurance premiums for offshore companies and tie up much-needed capital that otherwise would be available for development, American jobs, and revenue to states and the federal government," Naatz said.

# House passes Interior appropriations bill with several restrictions

## **Nick Snow**

Washington Editor

The US House of Representatives approved a fiscal 2017 appropriations bill for the US Department of the Interior and related federal entities including the US Environmental Protection Agency by 231 to 196 votes. The July 14 action nearly followed party lines as 13 Republicans voted with Democrats against the measure.

Supporters clearly wanted to send a message to the Obama administration. "[Its] executive overreach is in overdrive as the president's second term nears an end," Natural Resources Committee Chairman Rob Bishop (R-Utah) declared following the vote.

"They've prioritized their regulatory regime over the American people. With that, there is a need for Congress to reassert the power of the purse. Through this legislation we limit the seemingly endless list of regulatory attacks on domestic natural resource development," he continued.

Officials from national oil and gas associations applauded the House's approval of the bill, which prohibits or denies funding for several programs that the administration has announced in the last 12-18 months. But the measure's prospects of moving further remained uncertain.

The committee said that HR 5538's provisions affecting oil and gas included:

- Prohibition of funds to implement the well control rule and US Bureau of Land Management's methane rule.
- Denial of funds to implement or enforce BLM's final hydraulic fracturing rule on federal and Indian lands.
- Prohibition of funds to implement the US Bureau of Ocean Energy Management's offshore Arctic oil and gas rule.
- Denial of funds to remove three Arctic sales from DOI's proposed 2017-22 US Outer Continental Shelf oil and gas leasing program.
- Prevention of funding for BOEM to update existing financial assurance regulations on financial assurance provisions in its recently announce offshore well decommissioning rule changes (OGJ Online, July 14, 2016).
- Denial of funds to implement a final plan designating areas of the Arctic National Wildlife Refuge in Alaska as wilderness.
- Prevention of the US Fish and Wildlife Service's listing of the greater sage grouse or lesser prairie chicken as endangered or threat under the federal Endangered Species Act
- Prohibition of BLM's implementation of resource management plans for the Greater Sage Grouse that are inconsistent with states' conservation plans.
- Denial of funds for FWS to implement or enforce the threatened species or endangered species listing of any plant or wildlife that has not undergone a periodic 5-year review

Officials from oil and gas industry groups responded favorably to the House's action. "The House will go a long way to creating American jobs by supporting the industry's ability to explore, develop, transport and deliver the affordable energy that US consumers rely upon," said Louis Finkel, the American Petroleum Institute's executive vice-president for government affairs.

"This bill supports the continued advancement of the US energy renaissance and provides an alternative vision from the attempts by the administration to force the US to take a step backwards on energy policy," he indicated.

"The bill prevents the federal government from implementing the flawed one-size-fits-all well control rule until numerous implementation questions are fully answered," National Ocean Industries Association Pres. Randall B. Luthi said. "[It] also delays implementation of new offshore decommissioning bonding requirements which are based on incomplete data and amount to a solution in search of

## WATCHING GOVERNMENT



## A different federal-state standoff

Recent oil and gas standoffs between the federal and state governments usually have involved Republicans charging that Obama administration regulatory actions have impinged on states' rights. When the US House Science, Space, and Technology Committee's GOP majority issued subpoenas to Massachusetts' and New York's attorneys general and eight environmental groups on July 13, however, it was the Democrats who cried foul.

"The attorneys general have appointed themselves to decide what is valid and what is invalid regarding climate change. [They] are pursuing a political agenda at the expense of scientists' right to free speech," Chairman LaMar Smith (Tex.) charged in announcing the subpoenas for documents that he said relate to coordinated efforts to deprive companies, nonprofit organizations, scientists, and scholars of their First Amendment rights.

"Since March, these attorneys general have attempted to use questionable legal tactics to force the production of documents and communications from a broad group of scientists, companies, and nonprofit organizations," added space subcommittee Chairman Brian Babin (Tex.). "These actions are an attempt to chill the scientific research of those who do not support the attorneys' general and environmental groups' political positions."

Committee Democrats disagreed. They said 17 state AGs and the eight environmental groups began to send responses to the Republicans' June letter, but are resisting the majority's demands.

"This is not about legitimate oversight;

this is about harassing and intimidating those who are working to expose the truth about ExxonMobil's actions to hide its knowledge of ongoing climate change," Ranking Minority Member Eddie Bernice Johnson (Tex.) said. "Yet again, the Republicans have decided to launch an anti-science witch hunt that does not serve this committee or the nation."

Counsels in the offices of Massachusetts AG Maura Healey and New York AG Eric T. Schneiderman, both Democrats, said in July 6 letters their investigations aren't attempts to chill differing scientific opinion. They characterized them as legitimate inquiries into whether what was then Exxon Corp. misled investors over several decades in violation of state law by allegedly suppressing research that found climate change was a growing global threat.

## ExxonMobil's challenges

Richard A. Johnson, chief legal counsel in Healey's office, also noted that ExxonMobil has challenged in Massachusetts state court and federal district court in Texas the Massachusetts AG office's civil investigative demand, and the company has not supplied any documents to that office.

"Thus, the vast majority of existing documents sought by the committee and in [the Massachusetts AG office's] possession constitutes core attorney work product, attorney-client communications, deliberative process documents, and other privileged materials that are protected from disclosure," he said. This dispute apparently isn't going to cool off anytime soon.

a problem, and it keeps the government from implementing the overly prescriptive and generally unworkable Arctic drilling regulations."

He added that HR 5538 also would keep federal waters, including offshore Alaska areas, open for oil and gas exploration, which Luthi said would strengthen the nation's economic and energy future.

"Likewise, by keeping Atlantic and eastern Gulf of Mexico waters open to research and exploration using modern seismic surveys, we can help further our understanding of America's true offshore energy potential," NOIA's president said. "The bill rightfully keeps Gulf of Mexico Energy Security Act funds in states that host offshore energy development, prevents further implementation of the administration's ocean zoning executive order, and allows for the continued use of environmentally safe well-stimulation techniques offshore California."

Independent Petroleum Association of America Pres. Barry Russell said that the House-approved measure addressed several of IPAA's key regulatory priorities, "including prohibiting the Interior Department from implementing its 'Washington knows best' approach to regulate hydraulic fracturing and its 'onesize-fits-all' mandate on offshore drilling; enforcement of the [DOI's] proposal to address methane emissions; and providing reasonable implementation of the 2015 National Ambient Air Quality Standards for ozone."

Russell said that one of Congress's key responsibilities, as outlined in the US Constitution, is to appropriate funds for the federal government to operate. "Any opportunity to pass an appropriations bill through regular order, with the input of the people's elected representatives, is simply good governance," he observed.

## US Senate picks members for conference on broad energy policy reforms

## **Nick Snow**

Washington Editor

The US Senate named seven of its members on July 12 to confer with a group from the House of Representatives on broad energy policy reform legislation. "This vote is a critical milestone that will allow Congress to begin the first conference on major energy legislation in more than a decade," said Senate Energy and Natural Resources Committee Chair Lisa Murkowski (R-Alas.), who introduced the original bill with Ranking Minority Member Maria E. Cantwell (D-Wash.) in 2015.

"While we have differences to resolve, I am confident we are up to the task. Our bicameral negotiations will begin immediately so that a good final bill can be signed into law this year," Murkowski continued. She and Cantwell were named to the conference with Republicans John A. Barrasso (Wyo.), James Rich (Ida.) and John Cornyn (Tex.); Democrat Ronald L. Wyden (Ore.) and Independent Bernie Sanders (Vt.).

"We met with our House colleagues, [Energy and Commerce Committee Chairman Fred Upton (R-Mich.) and Natural Resource Committee Chairman Rob Bishop (R-Utah), who said that they didn't want to waste time on things that are going to be vetoed by [President Barack Obama)," Cantwell separately said. "We took that as a good sign that they were willing to sit down and talk about legislation that could move forward in a positive fashion."

The House passed an amended version of energy policy reform legislation in late May that the US Senate previously approved (OGJ Online, May 26, 2016). House Speaker Paul D. Ryan (R-Wis.) appointed Energy and Commerce Committee Chairman Fred Upton and 12 other Republicans to help lead House negotiators in the upcoming conference with the Senate.

Officials from several oil and gas industry associations said the Senate's most recent action represents continued progress on legislation to reform national energy policies that have been in place for decades.

"At a time when Congress is perceived as accomplishing little, it is gratifying to see that progress is being made on what could be the first comprehensive energy bill passed in nearly a decade," National Ocean Industries Association Pres. Randall B. Luthi said. "Much has changed since Congress passed its last energy bill in 2007. Through ingenuity and hard-work, the US is the global leader now in oil and gas production. With the right federal policies, it is well-positioned to retain this title for the foreseeable future."

"This bill could help continue the US energy renaissance by strengthening our nation's energy infrastructure, ensuring that American natural gas has a dominant place on the world market, and putting in place a 21st century workforce," American Petroleum Institute Executive Vice-Pres. Lewis Finkel separately noted. "It's estimated that almost a million jobs could be created by 2020 if our nation's current renaissance continues."

Center for Liquefied Natural Gas Executive Director Charlie Riedl urged conference committee members to ensure that the final bill contains provisions that expedite reviews of LNG export applications. "Both chambers have previously passed legislation with bipartisan support that would establish a defined window of time for the US Department of Energy to act on export applications to non-free trade agreement countries once National Environmental Policy Act reviews are complete," he said.

## Senators introduce bill to extend CCS tax credit

## **Nick Snow**

Washington Editor

US Sens. Heidi Heitkamp (D-ND) and Sheldon Whitehouse (D-RI) introduced a bill to promote carbon capture technologies by extending a federal tax credit that encourages investment in carbon capture, utilization, and sequestration.

Using the 45Q tax credit as a starting point, the measure would support a path forward for coal and other existing electricity generation sources while encouraging carbon dioxide's use in enhanced oil recovery and beyond, they jointly said on July 13.

Extending the tax credit would provide certainty to utilities and other industrial  $CO_2$  sources, and incentives to build industrial projects to capture  $CO_2$  for more EOR and carbon utilization, the conversion of the gas into useable products, the senators said.

They said the 45Q provision is one of the most important in the federal tax code for providing carbon capture incentives. The bill would provide the federal support necessary to encourage carbon capture investment and implementation through tax credits and other mechanisms, the senators said.

The bill also would make support for carbon capture technologies more robust by increasing the "commence construction" window for carbon capture projects to 7 years from 5, and by increasing the number of years to claim the credits to 12 years from 10, they said.

Four other Senate Democrats—Cory Booker (NJ), Timothy M. Kaine (Va.), Brian Schatz (Ha.), and Jon Tester (Mont.)—are cosponsors. A diverse coalition of utilities, organized labor, and environmental organizations also support the measure, Heitkamp and Whitehouse said.

They noted that a group including Occidental Petroleum Corp. Chief Executive Officer Stephen I. Chazen wrote Senate Finance Committee Chairman Orrin G. Hatch (R-Utah) and Ranking Minority Member Ronald L. Wyden (D-Ore.) an Apr. 5 letter seeking a Section 45Q extension "in any legislative vehicle for tax provisions that emerges in 2016."

US Rep. K. Michael Conaway (R-Tex.) and 16 cosponsors introduced a carbon capture bill, H.R. 4622, on Feb. 25 in the House.

Brad Crabtree, vice-president for fossil energy at the Great Plains Institute and co-director of the National Enhanced Oil Recovery Initiative, said on July 13 that the Heitkamp-Whitehouse bill "provides a performance-based incentive to capture  $CO_2$ , put it to productive use, and store it safely and permanently underground, helping to preserve and create goodpaying jobs, increase US oil production, and reduce emissions from the use of America's domestic energy resources."

# Upstream independents protest PHMSA's proposal for gathering lines

## **Nick Snow**

Washington Editor

Independent oil and gas producers are asking the US Pipeline & Hazardous Materials Safety Administration to not begin regulating gathering and production lines as part of the US Department of Transportation agency's latest proposed pipeline safety rules. PHMSA failed to comply with a congressional mandate before proposing new regulations for gathering lines, the Independent Petroleum Association of America and 11 state associations said in July 7 comments.

The producers particularly protested PHMSA's proposing to define "onshore production facilities" as "terminat[ing] at the furthermost downstream point where: measurement for the purpose of calculating minerals severance occurs; or there is commingling of the flow stream of two or more wells."

The definition not only ignores PHMSA's jurisdictional constraints by ignoring the line's actual function, but it completely dismisses the traditional understanding of production operations reflected in RP-80, said Gregory D. Russell, a co-chairman of IPAA's Pipeline Safety Task Force (PSTF) and a partner at Vorys, Sater, Seymour & Pease LLP in Columbus, Ohio.

It also dismisses the reality of multiwell horizontal development from a single well pad where under the proposed definition, regulated gathering could begin on the well pad, at or near the wellhead, Russell said.

"We are independent producers of America's reliable energy resources, a high responsibility," said Tom Stewart of Oilfield Policy Advisors LLC (OPA) and the PSTF's other cochairman. "In our comments we ask only that the agencies obey the law, regulate as necessary, yet respect the authorization provided them by Congress," he said.

Tom Stewart of OPA and another PSTF co-chairman, said, "We all have mutual goals of protecting the public interest. But we will fight unwarranted and intrusive regulators who think they have the right to rise above the rule of law, even as we will operate our investments in America's energy infrastructure to the highest standards possible."

## Shut-ins would be likely

Susan W. Ginsberg, IPAA's senior vice-president of regulatory affairs, said producers want to operate safely and reliably. "What PHMSA has proposed would not further that goal, and would likely result in smaller producers having to shut in production, particularly from marginal wells," she warned.

Joining IPAA in the comments were the American Exploration & Production Council, the Colorado Oil & Gas Association, the Independent Oil & Gas Association of West Virginia, the Kansas Independent Oil & Gas Association, the Kentucky Oil & Gas Association, the Michigan Oil & Gas Association, the Ohio Oil & Gas Association, the Pennsylvania Independent Oil & Gas Association, the Texas Alliance of Energy Producers, the Virginia Oil & Gas Association, and the West Virginia Oil & Natural Gas Association.

The Interstate Natural Gas Association of America and American Gas Association also recommended changes to PHMSA's proposed rule in their separate July 7 comments.

NGAA identified three key provisions that PHMSA should remove or modify in its comments. It suggested that the agency:

- Allow the use of alternative methods for validating maximum allowable operating pressure to ensure the ongoing development and implementation of technologies and practices that improve pipeline safety.
- Withdraw the proposal for spike hydrostatic pressure testing.
- Remove overly prescriptive material verification criteria from the proposed rulemaking.

AGA, like INGAA and IPAA, expressed strong support in its July 7 comments for working with PHMSA and stakeholders to improve safety. It also said the agency's proposal represents a shift away from performance-based regulations, which recognize the unique characteristics of each pipeline system, to prescriptive regulations, which define how an activity is to take place regardless of the circumstances or the characteristics of the system.

## API, AFPM applaud FAA bill's oil and gas drone use provision

## **Nick Snow**

Washington Editor

American Petroleum Institute and American Fuel & Petrochemical Manufacturers officials separately expressed their pleasure as the US Senate approved a Federal Aviation Administration reauthorization bill with language permitting the use of unmanned aircraft for oil and gas operations.

The Senate's 89-4 vote on July 13 sent the measure to the White House for US President Barack Obama's signature days before the FAA's current reauthorization was to expire on July 15.

Making drone technology available to producers, pipelines, and refinery and petrochemical plant operators will help the industry achieve its goal of zero incidents, API Midstream Director Robin Rorick said following the Senate's action.

"Drone technology will complement the comprehensive safety practices that the industry has in place to ensure that all Americans continue to enjoy the affordable, reliable fuels they depend on," Rorick said. "The ability to

use drones will allow the industry to use the latest technologies to continue to effectively monitor infrastructure and facilities while minimizing the risk to personnel."

AFPM Pres. Chet Thompson separately said that drones are an incredible asset to the association's member companies, and the unmanned aircraft's responsible use should not be restricted. "Today's decision by Congress to include language in the FAA reauthorization bill that allows their use will help to improve safety and reliability at our refining and petrochemical facilities," he said.

AFPM said the US Department of Transportation and the FAA finalized operational rules for small unmanned aircraft systems on June 21 that did not permit drones to fly beyond the line of sight or allow nighttime operations.

The FAA reauthorization bill passed by Congress not only acknowledges the important role of drones operating over critical infrastructure, but makes an important legislative fix to the final rule, allowing owners and operators to fly drones over their facilities beyond the line of sight during daytime or night-time hours, the trade association said. "This important provision will strengthen energy security and critical infrastructure resilience nationwide," it said.

# WoodMac: Improvements seen for viability of US tight oil

Global oil-market analysis from research and consultancy firm Wood Mackenzie Ltd. indicates that 70% of new drilling in US tight oil plays and pre-final investment decision (FID) conventional oil projects are commercial at Brent crude oil prices below \$60/bbl.

Just 50% of those plays were commercial a year ago. Wood-Mac says that these "projects are crucial to offset global demand growth and declines from existing production," noting that some 13 million b/d of new supply could be developed globally from both tight oil and conventional projects by 2025.

Global breakeven costs for tight oil and conventional developments have dropped \$19/bbl to the current weighted average of \$51/bbl since a peak in 2014 and \$8/bbl over the past 12 months.

Of the 13 million b/d, 9 million b/d is commercial at Brent fetching \$60/bbl, which is better than any point since 2009 and 1.5 million b/d more than a year ago. Most of the 9 million b/d is US tight oil, reflecting productivity improvements and cost deflation in the key growth plays.

WoodMac says the "big winners" as a result of these im-

provements are incumbent operators in the major tight oil growth plays such as the Midcontinent and Permian basin, including US independents EOG Resources Inc., Pioneer Natural Resources Co., Continental Resources Inc., and Apache Corp.; and majors ExxonMobil Corp. and Chevron Corp.

"In contrast, the majority of conventional pre-FID projects are not commercial at \$60/bbl," said Harry Paton, WoodMac research analyst. "These projects will be needed to meet demand growth into the next decade but higher prices or significant additional cost reductions are required for many to be commercial. If prices remain at around \$50/bbl, then many major conventional projects are at risk of deferral or cancellation."

WoodMac's breakeven analysis shows that deepwater projects are highest on the cost curve despite some progress on cost deflation. Deepwater Angola and Nigeria projects have already suffered cancellations and more are at risk. Brazil in contrast holds its own in the middle of the cost curve with a weighted average breakeven of \$50/bbl due to world-class projects of scale such as Libra (OGJ Online, July 12, 2016).

## Regulators propose stricter safety rules for California refiners

## **Robert Breisford**

Downstream Technology Editor

California's Department of Industrial Relations (DIR), the Governor's Office of Emergency Services (Cal OES), and the California Environmental Protection Agency (CalEPA) have proposed a series of heightened regulations aimed at strengthening workplace and environmental safety at the state's refineries.

A result of multiyear state and federal efforts following the August 2012 chemical release and fire at Chevron Corp.'s 257,000-b/d Richmond, Calif., refinery, the regulatory proposals would enhance two existing complementary regulations by implementing new strategies recommended by California's interagency working group on refinery safety for preventing major incidents at refineries and protecting plant workers, as well as surrounding communities, from exposure to health and safety risks, the agencies said (OGJ Online, Aug. 7, 2012; July 15, 2013).

The proposal specifically involves one set of revisions that would overhaul California's Division of Occupational Safety & Health (Cal/OSHA) worker safety regulations as they apply to process safety management (PSM) at refineries, with a second set of revisions intended to strengthen California Accidental Release Prevention program (CalARP) regulations that outline rules for preventing accidental releases of hazardous substances harmful to public health and the environment.

Developed jointly by DIR, Cal OES, and CalEPA in cooperation with refinery workers, community and environmental organizations, and industry leaders, the proposed regulations, if approved, would require California's refineries to comply with the following key provisions:

• Increased employer accountability for mechanical integrity of refinery equipment.

- Requirements to adopt inherently safer designs and systems, to the greatest extent feasible.
- Increased employee involvement in all aspects of the safety and prevention program.
- Periodic workplace safety culture assessments to evaluate whether management is appropriately emphasizing safety over production pressures.
- Authority for refinery personnel to shut down a unit if needed in the event of an unsafe condition or emergency, as well as provisions for anonymous reporting of safety hazards.
- Requirements for investigations to determine root causes of any incidents that do occur, as well as development of interim and permanent corrective measures in response to those incidents.
- Annual public reporting of refinery safety metrics.

## Federal nod

The US Chemical Safety Board (CSB), which previously proposed its own heightened safety management regulatory framework for California refineries following its own investigation into the Chevron Richmond incident, hailed the regulatory proposal from state regulators (OGJ Online, Dec. 17, 2013; Apr. 15, 2013).

"The proposed amendments to the [PSM and CalARP programs] are significant improvements that will strengthen protections for workers, communities, and the environment based on lessons learned and best practices," CSB Chairperson Vanessa Allen Sutherland said.

"We look forward to seeing the final regulations implemented, and we hope that they prove to be a model for refinery worker protection and public safety for the rest of the country," Sutherland added.

Cal OES and DIR's Occupational Standards Board, which has provided a minimum of 45 days to solicit comment on the proposal, will hold a public hearing on the Cal/OSHA PSM regulation in Sacramento, Calif., on Sept. 15.

A public hearing on the proposed CalARP regulation has yet to be scheduled.

## THE EDITOR'S PERSPECTIVE

# US renewable fuel program straining soap manufacturers

by Bob Tippee, Editor

One of many problems with governmental manipulation of markets is that governments seldom anticipate ancillary consequences accurately if at all.

A seemingly sensible policy can turn out harmful in unforeseen ways.

It can seem sensible, for example, to encourage the use of waste materials in the production of energy for transportation.

Who, for example, can object to making diesel out of animal fat?

People for whom animal fat represents not waste but feedstock--that's who.

The American Cleaning Institute (ACI) is urging the Environmental Protection Agency to exempt or limit the use of animal fat in the Renewable Fuel Standards program.

Animal fat is raw material for soap, laundry detergent, fabric softeners, hard-surface cleaners, dish detergents, personal-care products, and other consumer and industrial products.

As a feedstock for US biodiesel and renewable diesel, which receive tax credits and count toward fulfillment of RFS requirements, animal fat ranks far below vegetable oil.

For the cleaning-products industry, it's far more important.

Commenting on EPA's RFS proposal for 2017, the ACI wrote, "The proposed volumes would continue to divert large quantities of a finite, inelastic supply of animal fats to the biofuels market, thereby critically disadvantaging the domestic oleochemical industry."

According to the institute, the price of animal fat has increased 95% since 2006 because of the RFS and biofuel tax incentives. Current policies, the group warned in a press release, "threaten not only the price but the availability of animal fats for oleochemical production."

Switching to palm oil from outside the US, ACI said, threatens 25,000 American jobs.

"The future of a longstanding domestic industry is at stake," the group warned EPA.

The phenomenon of concern has an analog in the fuel-ethanol part of the RFS program. Mandates raised demand for corn faster than agricultural capacity could adjust, and corn prices jumped. Inevitably, food prices jumped, too.

Governments either can't or won't account for all adjustments markets make to their incursions. They'd preclude much distress by simply leaving markets alone.

(From the subscription area of www.ogj. com, posted July 15, 2016; author's e-mail: bobt@ogjonline.com)

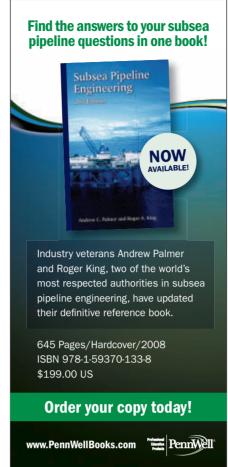


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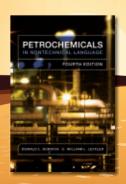
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## IMPORTS OF CRUDE AND PRODUCTS

	— Distri	cts 1-4 —	— Dist	trict 5 —		— Total US -	
	7-8 2016	7-1 2016	7-8 2016	7-1 2016 – 1,000 b/	7-8 2016 d	7-1 2016	7-10* 2015
Total motor gasoline	761 645 48 200 28 67 893	728 649 61 187 25 59 890	59 59 9 120 68 17 3	36 36 0 64 0 12 142	820 704 57 320 96 84 896	764 685 61 251 25 71 1,033	683 672 146 114 167 76 913
Total products	1,997	1,950	276	254	2,273	2,205	2,099
Total crude	6,402	7,037	1,439	1,324	7,841	8,361	7,354
Total imports	8,399	8,987	1,715	1,578	10,114	10,565	9,453

Source: US Energy Information Administration Data available at PennEnergy Research Center.

## **EXPORTS OF CRUDE AND PRODUCTS**

	Zotal IIC	
7-8-16	7-1-16 —— 1,000 b/d ——	*7-10-15
395 138 1,305 353 661 1,042 3,894 598 4,492	395 138 1,305 353 661 1,042 3,894 598 4,492	366 144 1,228 390 600 1,013 <b>3,741</b> <b>571</b> <b>4,312</b>
5,622 (1,621) 7,243	6,076 (1,689) 7,765	5,141 (1,642) 6,783
	395 138 1,305 353 661 1,042 3,894 598 4,492	1,000 b/d  395 395 138 138 1,305 353 353 661 661 1,042 1,042 3,894 3,894 598 4,492 4,492  5,622 6,076 (1,621) (1,689)

<sup>\*</sup>Revised

Source: Oil & Gas Journal

Data available at PennEnergy Research Center.

Additional analysis of market trends is available through OGJ Online, Oil & Gas Journal's electronic information source, at http://www.ogj.com.



OGJ CRACK SPREAD
7-15-16 7-17-15\* Change Change,

SPOT PRICES           Product value         56.61         72.90         (16.29)         (22.35           Brent crude         45.54         57.17         (11.63)         (20.35           Crack spread         11.07         15.73         (4.66)         (29.62			-\$/bbl —		%
	Product value Brent crude	45.54	57.17	(11.63)	(20.35)

FUTURES MARKET PRICES One month						
one monui						
Product value	59.15		(17.38) (22.71)			
Light sweet crude	45.53		(6.16) (11.91)			
Crack spread	13.61	24.84	(11.22) (45.19)			
Six month						
Product value	59.24	69.33	(10.09) (14.56)			
Light sweet crude	48.88	54.09				
Crack spread	10.35	15.24	(4.89) (32.06)			

\*Average for week ending. Source: Oil & Gas Journal Data available at PennEnergy Research Center.

## CRUDE AND PRODUCT STOCKS

		Motor	gasoline —— Blending	Jet fuel,	Fuel	nils ————	Propane-
District -	Crude oil	Total	comp.	kerosine 1,000 bbl	Distillate	Residual	propylene
PADD 1 PADD 2 PADD 3 PADD 4 PADD 5	16,392 150,134 272,160 24,717 58,401	72,064 52,500 79,301 7,596 28,628	67,149 46,408 68,106 5,661 26,107	10,247 7,315 14,308 670 8,098	59,176 29,724 47,096 3,523 13,479	10,222 1,279 24,382 274 5,180	4,249 27,314 52,974 1 2,822
July 8, 2016 July 1, 2016 July 10, 2015 <sup>2</sup>	521,804 524,351 461,418	240,089 238,876 218,011	213,431 214,088 192,612	40,638 40,241 43,510	152,998 148,939 141,279	41,337 40,043 40,193	87,359 84,788 87,382

<sup>&</sup>lt;sup>1</sup>Includes PADD 5. <sup>2</sup>Revised.

Source: US Energy Information Administration Data available at PennEnergy Research Center.

## REFINERY REPORT—JULY 8, 2016

		REFINERY		REFINERY OUTPUT			
District	Gross inputs	Crude oil inputs  OOO b/d	Total motor gasoline	Jet fuel, kerosine	——— Fuel Distillate —— 1,000 b/d —	oils ——— Residual	Propane- propylene
PADD 1	1,124 3,651 8,814 627 2,689	1,057 3,650 8,669 625 2,543	3,163 2,646 2,422 318 1,630	81 243 883 37 483	369 1,026 2,852 202 585	38 50 216 9 75	160 386 942 191
July 8, 2016 July 1, 2016 July 10, 2015 <sup>2</sup>	16,905 16,927 17,111	16,544 16,687 16,825	10,179 10,449 9,806	1,727 1,736 1,657	5,034 4,951 5,093	388 400 373	1,679 1,708 1,652
	18,320 Ope	rable capacity	92.3 utilizati	on rate			

<sup>1</sup>Includes PADD 5. <sup>2</sup>Revised. Source: US Energy Information Administration Data available at PennEnergy Research Center.

<sup>2</sup>7-17-15

## OGJ GASOLINE PRICES

	Price ex tax 7-13-16	Pump price* 7-13-16 — ¢/gal —	Pump price 7-15-15
(Approx. prices for self-se	ervice unlead	led gasoline)	
Atlanta	156.7	206.1	260.2
Baltimore	168.1	219.1	263.4
Boston	165.0	209.9	266.4
Buffalo	159.1	220.1	277.2
Miami	154.1	209.1	270.2
Newark	172.7	205.6	255.9
New York	182.1	243.1	291.4
Norfolk	198.6	239.3	241.4
Philadelphia	149.3	218.1	286.0
Pittsburgh	167.0	235.8	283.0
Wash., DC	190.4	232.3	273.0
PAD I avg	169.4	221.7	269.8
Chicago	229.1	277.7	309.2
Cleveland	179.2	225.6	276.9
Des Moines	178.3	228.7	277.9
Detroit	177.7	226.6	276.9
Indianapolis	179.4	227.7	267.2
Kansas City	179.9	215.6	260.2
Louisville	177.3	221.7	292.9
Memphis	183.9	223.7	262.2
Milwaukee	163.4	214.7	286.2
MinnSt. Paul	170.7	217.7	278.5
Oklahoma City	163.8	199.2	249.5
Omaha	169.7	215.8	261.0
St. Louis	172.0	207.7	278.5
Tulsa	169.5	204.9	259.2
Wichita	170.2	212.6	262.2
PAD II avg	177.6	221.3	273.2
Albuquerque	157.2	194.4	259.4
Birmingham	169.0	208.2	250.4
Dallas-Fort Worth	164.2	202.6	255.0
Houston	166.8	205.2	251.4
Little Rock	164.1	204.3	256.4
New Orleans	163.9	202.3	255.4
San Antonio	164.2	202.6	252.6
PAD III avg	164.2	202.8	254.4
Cheyenne	176.8	219.2	268.2
Denver	188.8	229.2	279.1
Salt Lake City	183.4	231.2	289.7
PAD IV avg	183.0	226.6	279.0
Los Angeles	254.9	313.9	400.6
Phoenix	191.5	228.9	291.2
Portland	188.4	237.9	296.1
San Diego	228.9	287.9	394.6
San Francisco	234.9	293.9	410.9
Seattle	208.0	270.9	334.2
PAD V avg	217.7	272.2	354.6
Week's avg	179.3 188.3	226.0 234.9	281.2
June avg	176.1	234.9	276.9 267.0
May avg 2016 to date	176.1	206.1	207.0
2015 to date	200.6	247.9	
ZUIJ W WALE	200.0	241.3	

\*Includes state and federal motor fuel taxes and state sales tax. Local governments may impose additional taxes. Source: Oil & Gas Journal.

Data available at PennEnergy Research Center.

## BAKER HUGHES RIG COUNT

Arkansas         —           California         5         1           Land         5         1           Offshore         —         —           Colorado         20         33           Florida         —         —           Illinois         3         Inlinois           Indiana         —         —           Kansas         1         1           Kentucky         1         1           Louisiana         46         6           N. Land         16         2           S. Inland waters         3         3           S. Land         6         6         1           Offshore         21         3           Maryland         —         —           Michigan         —         —           Mississippi         2         2           Montana         —         —           New Mexico         25         5           N		7-15-16	7-17-15
Alaska 7 1 1 Arkansas	Alabama	1	_
Arkansas — California		7	11
Land         5         1           Offshore         —         —           Colorado         20         3           Florida         —         —           Illinois         3         —           Indiana         —         —           Kansas         1         1           Louisiana         46         66           N. Land         16         2           S. Inland waters         3         3           S. Land         6         11           Offshore         21         3           Maryland         —         —           Michigan         —         —           Michigan         —         —           Michigan         —         —           Mebraska         —         —           Nebraska         —         —           New Mexico         25         50           New Mexico         25         50           New York         —         —           New Horio         27         66           Ohio         12         1           Oklahoma         59         10           Pennsylvania <td></td> <td>_</td> <td>4</td>		_	4
Offshore         —           Colorado         20         3           Florida         —         —           Illinois         3         Indiana         —           Kansas         1         1         1           Kentucky         1         1         1           Louisiana         46         6         6         1           N. Land         16         2         3         3         S. Land         6         1         0         1         3         Maryland         —         —         Michigan         —         —         Michigan         —         —         Mississippi         2         2         Montana         —         —         Mississippi         2         Montana         —         —         Mew Mexico         25         5         5         New Wex Mexico         25         5         5         New Mexico         25         5         5         New Mex Mexico         25         5         5         7         2         1         0         1			1.
Colorado         20         33           Florida         —         —           Illinois         3         Indiana         —           Kansas         1         1         1           Kentucky         1         3         1		5	1.
Florida	Offshore	_	_
Illinois		20	39
Indiana		_	
Kansas       1         Kentucky.       1         Louisiana       46       66         N. Land       16       2         S. Inland waters       3       3         S. Land       6       1.         Offshore       21       3         Maryland       —       —         Michigan       —       —         Michigan       —       —         Michigan       —       —         Michigan       —       —         Mebraska       —       —         Nebraska       —       —         New Mexico       25       50         New Mexico       25       50         New Mexico       25       50         New York       —       —         North Dakota       27       66         Ohio       12       11         Oklahoma       59       10         Pennsylvania       14       44         South Dakota       —       —         Iexas       202       36         Offshore       —       —         Inland waters       —       —         Dis		3	2
Kentucky.         1           Louisiana         46         6           N. Land         16         2           S. Inland waters         3         3           S. Land.         6         1           Offshore         21         3           Maryland         —         —           Michigan         —         —           Mississippi         2         2           Montana         —         —           New Mexico         25         5           New Mork         —         —           New Hork			
Louisiana         46         6           N. Land         16         2           S. Inland waters         3         3           S. Land         6         1           Offshore         21         3           Maryland         —         —           Michigan         —         —           Mississippi         2         2           Montana         —         —           New Mexico         25         5           New York         —         —           Ohidahoma         59         10           Pennsylvania<			1
N. Land       16       2         S. Inland waters       3       3         S. Land       6       1         Offshore       21       3         Maryland       —       —         Michigan       —       —         Michigan       —       —         Mississippi       2       2         Montana       —       —         Nebraska       —       —         New Mexico       25       50         New York       —       —         North Dakota       27       66         Ohio       12       11         Oklahoma       59       10         Pennsylvania       14       4         South Dakota       —       —         Texas       202       36         Offshore       —       —         Inland waters       —       —         Dist       1       15       4         Dist       1       16       4         Dist       2       16       4         Dist       3       3       1         Dist       4       11       2      <		_	
S. Inland waters 3 S. Land			
S. Land.       6       1.         Offshore.       21       3         Maryland.       —       —         Michigan.       —       —         Mississippi.       2       —         Montana.       —       —         New Mexico.       25       5         New Work.       —       —         North Dakota.       27       66         Ohio.       12       1°         Oklahoma.       59       10         New Hork.       —       —         Pennsylvania.       14       4         South Dakota.       —       —         Texas.       202       36         Offshore.       —       —         Inland waters.       —       —         Dist. 1       15       4         Dist. 2       16       4         Dist. 3       3       1         Dist. 4       11       20         Dist. 5       2       2         Dist. 6       7       2         Dist. 7C       25       3         Dist. 7C       25       3         Dist. 8A       8       1			2
Offshore         21         3           Maryland         —         —           Michigan         —         —           Mississippi         2         —           Mebraska         —         —           Neb Mexico         25         50           New York         —         —           New Mexico         25         50           New York         —         —           New York         —         —           North Dakota         27         66           Ohio         12         11           Oklahoma         59         10           Pennsylvania         14         4           South Dakota         —         —           Texas         202         36           Offshore         —         —           Inland waters         —         —           Dist         1         15         4           Dist         2         16         4           Dist         3         3         1           Dist         4         11         2           Dist         4         11         2           Dis			
Maryland       —       —         Michigan       —       —         Mississippi       2       2         Montana       —       —         New Mexico       25       5         New Mexico       25       5         New Mexico       27       6         Ohio       12       1         Oklahoma       59       10         Oklahoma       59       10         South Dakota       —       —         Texas       202       36         Offshore       —       —         Inland waters       —       —         Dist       1       15       4         Dist       2       16       4         Dist       2       16       4         Dist       3       3       1         Dist       4       11       2         Dist       5       2       2         Dist       6       7       2       2         Dist       7       2       2       3       1         Dist       8       10       1       1       1         Dist			
Michigan       —         Mississippi       2         Montana       —         Nebraska       —         New Moxico       25         New York       —         North Dakota       27       66         Ohio       12       1'         Oklahoma       59       10         Pennsylvania       14       4         South Dakota       —       —         Texas       202       36         Offshore       —       —         Inland waters       —       —         Dist       1       15       4         Dist       2       16       4         Dist       3       1       1         Dist       2       16       4         Dist       3       3       1         Dist       2       2       1         Dist       3       3       1         Dist       4       11       2         Dist       5       2       2         Dist       6       7       2       2         Dist       7       2       2       3      <		21	3.
Mississippi       2         Montana       —         Nebraska       —         New Mexico       25         New York       —         North Dakota       27       66         Ohio       12       1         Oklahoma       59       10         Pennsylvania       14       4         South Dakota       —       —         Texas       202       36         Offshore       —       —         Inland waters       —       —         Dist       1       15       4         Dist       2       16       4         Dist       3       3       1       2         Dist       4       11       2       2         Dist       5       2       2       2       3       1       1       2       1		_	_
Montana		_	_
Nebraska		2	
New Mexico.         25         5           New York.          8           North Dakota         27         66           Ohio.         12         11           Oklahoma         59         10           Pennsylvania         14         4           South Dakota             Texas         202         36           Offshore             Inland waters             Dist 1         15         4           Dist 2         16         4           Dist 3         3         1         2           Dist 4         11         2         2           Dist 5         2         2         2           Dist 6         7         2         2           Dist 7B         5         5         5           Dist 7C         25         3         3           Dist 8         102         14           Dist 10         8         1           Utah         3         3           West Virginia         10         1           West Virginia         10		_	
New York.         —           North Dakota         27         6           Ohio.         12         11           Oklahoma         59         10           Pennsylvania         14         4           South Dakota         —         —           Texas         202         36           Offshore         —         —           Inland waters         —         —           Dist         1         15         4           Dist         2         16         4           Dist         3         3         1           Dist         2         11         2           Dist         3         3         1           Dist         2         2         1           Dist         6         7         2           Dist         6         7         2           Dist         7         2         2           Dist         7         2         2           Dist         7         2         2           Dist         7         2         3           Dist         8         10           Ust			
North Dakota         27         66           Ohio         12         11           Ohio         12         11           Oklahoma         59         10           Pennsylvania         14         4           South Dakota         —         —           Texas         202         36           Offshore         —         —           Inland waters         —         —           Dist         15         4           Dist         2         16         4           Dist         3         1         1           Dist         4         11         2           Dist         3         1         1           Dist         4         11         2           Dist         5         2         2           Dist         6         7         2           Dist         7         2         3 <td< td=""><td></td><td>25</td><td>50</td></td<>		25	50
Ohio         12         1           Oklahoma         59         10           Pennsylvania         14         4           South Dakota         —         —           Texas         202         36i           Offshore         —         —           Inland waters         —         —           Dist         1         15         4           Dist         2         16         4           Dist         3         3         1           Dist         4         11         2           Dist         6         7         2           Dist         6         7         2           Dist         6         7         2           Dist         7         2         5           Dist         8         102         14           Dist         8         10         14           Dist         8         1         10           Dist         10         8         1           Utah         3         3         1           West Virginia         10         1           Wyoming         8         2			
Oklahoma     59     10       Pennsylvania     14     4       South Dakota     —     —       Texas     202     36       Offshore     —     —       Inland waters     —     —       Dist     15     4       Dist     2     16     4       Dist     2     11     2       Dist     3     1     11     2       Dist     6     7     2     2       Dist     6     7     2     2       Dist     6     7     2     2       Dist     7B     5     3       Dist     7C     25     3     3     1       Dist     7C     25     3     3     1       Dist     7C     25     3     1     1       Dist     8     10     14     1       Dist     9     —     —     1       Dist     10     8     1     1       Wyoming     8     2     2       Others ID-1     1     1     1       Total US     447     85     19       Grand total     542     1,04 <t< td=""><td></td><td></td><td></td></t<>			
Pennsylvania     14       South Dakota     —       Texas     202       Offshore     —       Inland waters     —       Dist. 1     15       Jist. 2     16       Joist. 3     3       Jist. 4     11       Dist. 5     2       Jist. 6     7       7     2       Jist. 7C     25       Jist. 8     102       Jist. 8A     8       Jist. 9     —       Jist. 10     8       Utah     3       West Virginia     10       West Virginia     10       Jump     1       Total US     447       Total US     447       Total US     447       Grand total     542     1,04       US gas rigs     357     63       US gas rigs     89     21       Total US offshore     22     3			
South Dakota         2         36           Texas         202         36           Offshore         —         —           Inland waters         —         —           Dist 1         15         4           Dist 2         16         4           Dist 3         3         1           Dist 4         11         2           Dist 5         2         2           Dist 6         7         2           Dist 7C         25         3           Dist 8         102         14           Dist 8         1         102         14           Dist 9         —         —         —           Dist 10         8         1         1           Utah         3         3         1         1           West Virginia         10         1         1           Weyming         8         2         2           Others ID-1         1         1         1           Total US         447         85         1           Total Canada         95         19         1           Grand total         542         1,04         US ga			
Texas         202         36           Offshore         —         —           Inland waters         —         —           Dist 1         15         4           Dist 2         16         4           Dist 3         3         11           Dist 4         11         2           Dist 5         2         2           Dist 6         7         2           Dist 7C         25         3           Dist 8         102         14           Dist 8A         8         1           Dist 9         —         —           Dist 10         8         1           Utah         3         3           West Virginia         10         1           Wyoming         8         2           Others ID-1         1         1           Total US         447         85           Total US         447         85           Total Canada         95         19           Grand total         542         1,04           US gas rigs         357         63           US gas rigs         89         21           To	Pennsylvania	14	4.
Offshore         —           Inland waters         —           Dist. 1         15         4           Dist. 2         16         4           Dist. 3         3         1           Dist. 4         11         2           Dist. 5         2         2           Dist. 6         7         2           Dist. 7C         25         3           Dist. 7C         25         3           Dist. 8         102         14           Dist. 9         —         —           Dist. 10         8         1           Utah         3         3           West Virginia         10         1           Wyoming         8         2           Others ID-1         1         1           Total US         447         85           Total Canada         95         19           Grand total         542         1,04           US gas rigs         357         63           US gas rigs         89         21           Total US offshore         22         3		202	201
Inland waters		202	300
Dist. 1     15     4       Dist. 2     16     4       Dist. 3     3     1       Dist. 4     11     20       Dist. 5     2     2       Dist. 6     7     2       Dist. 7B     5     3       Dist. 7C     25     3       Dist. 8     102     14       Dist. 8A     8     1       Ust. 10     8     10       Utah     3       West Virginia     10     1       Wyoming     8     2       Others ID-1     1       Total US     447     85       Total US     447     85       Total US     447     85       Total US oil rigs     357     63       US gas rigs     357     63       US gas rigs     89     21       Total US offshore     22     3		_	_
Dist 2         16         4           Dist 3         3         1           Dist 4         11         2           Dist 5         2         2           Dist 76         7         2           Dist 7C         25         3           Dist 8         102         14           Dist 8A         8         1           Dist 10         8         1           Utah         3         West Virginia         10         1           Wyoming         8         2           Others ID-1         1         1           Total US         447         85           Total Canada         95         19           Grand total         542         1,04           US gas rigs         357         63           US gas rigs         89         21           Total US offshore         22         3		15	41
Dist 3     3     1       Dist 4     11     2       Dist 5     2     2       Dist 6     7     2       Dist 7B     5     5       Dist 7C     25     3       Dist 8     102     14       Dist 8     8     1       Dist 9     —     -       Dist 10     8     1       Utah     3       West Virginia     10     1       Wyoming     8     2       Others ID-1     1     1       Total US     447     85       Total Canada     95     19       Grand total     542     1,04       US gas rigs     89     21       Total US offshore     22     3			
Dist. 4     11     20       Dist. 5     2       Dist. 6     7     2       Dist. 7B     5       Dist. 7C     25     3       Dist. 8     102     14       Dist. 8A     8     1       Dist. 9     —     10       Utah     3       West Virginia     10     1       Wyoming     8     2       Others ID-1     1       Total US     447     85       Total US     95     19       Grand total     542     1,04       US gil rigs     357     63       US gas rigs     89     21       Total US offshore     22     3			
Dist. 5.         2           Dist. 6.         7         2           Dist. 7B.         5         5           Dist. 7C.         25         3           Dist. 8.         102         14           Dist. 8A.         8         1           Dist. 9.         —         —           Dist. 10         8         1           Utah.         3         West Virginia         10         1           Wyoming.         8         2         2           Others ID-1.         1         1         1           Total US.         447         85         Total US         19           Grand total.         542         1,04         US oil rigs.         357         63           US gas rigs.         89         21         Total US offshore.         22         3			
Dist. 6.     7     2       Dist. 7B.     5     5       Dist. 7C.     25     3       Dist. 8.     102     14       Dist. 8A.     8     1       Dist. 9.     —     -       Dist. 10.     8     1       Utah.     3       West Virginia     10     1       Wyoming.     8     2       Others ID-1.     1       Total US.     447     85       Total Canada     95     19       Grand total.     542     1,04       US gas rigs.     357     63       US gas rigs.     89     21       Total US offshore     22     3			21
Dist. 7B     5       Dist. 7C     25       Dist. 8A     102       Dist. 8A     8       Dist. 9     —       Dist. 10     8       Utah     3       West Virginia     10       Utygming     8       2     2       Others ID-1     1       Total US     447     85       Total Canada     95     19       Grand total     542     1,04       US oil rigs     357     63       US gas rigs     89     21       Total US offshore     22     3			
Dist 7C         25         3           Dist 8         102         14           Dist 8A         8         1           Dist 9         -         -           Dist 10         8         1           Utah         3         West Virginia         10         1           Wyoming         8         2         2           Others ID-1         1         1         1           Total US         447         85         7           Total Canada         95         19         9           Grand total         542         1,04           US gas rigs         357         63           US gas rigs         89         21           Total US offshore         22         3			۷.
Dist. 8.         102         14           Dist. 8A.         8         1.           Dist. 9.         —         -           Dist. 10.         8         1.           Utah.         3         10           West Virginia.         10         1.           Wyoming.         8         2           Others ID-1.         1         1           Total US.         447         85           Total Canada.         95         19           Grand total.         542         1,04           US oil rigs.         357         63           US gas rigs.         89         21           Total US offshore.         22         3			3.
Dist. 8A         8         1.           Dist. 9         -         -           Dist. 10         8         1.           Utah         3         West Virginia         10         1.           Wyoming         8         2         2           Others ID-1         1         1         -           Total US         447         85         7         19           Grand total         95         19         -			
Dist. 9         B         1           Dist. 10         8         1           Utah         3         10         1           Wyoming         8         2           Others ID-1         1         1           Total US         447         85           Total Canada         95         19           Grand total         542         1,04           US pas rigs         357         63           US gas rigs         89         21           Total US offshore         22         3			
Dist. 10     8       Utah     3       West Virginia     10       Wyoming     8       Others ID-1     1       Total US     447       Total Canada     95     19       Grand total     542     1,04       US oil rigs     357     63       US gas rigs     89     21       Total US offshore     22     3		_	1.
Utah         3           West Virginia         10           10         11           Wyoming         8         2           Others ID-1         1           Total US         447         85           Total Canada         95         19           Grand total         542         1,04           US oil rigs         357         63           US gas rigs         89         21           Total US offshore         22         3		8	1/
West Virginia         10         1           Wyoming         8         2           Others ID-1         1         1           Total US         447         85           Total Canada         95         19           Grand total         542         1,04           US oil rigs         357         63           US gas rigs         89         21           Total US offshore         22         3			1
Wyoming         8         2           Others ID-1         1         1           Total US         447         85           Total Canada         95         19           Grand total         542         1,04           US oil rigs         357         63           US gas rigs         89         21           Total US offshore         22         3			15
Others ID-1         1           Total US         447         85           Total Canada         95         19           Grand total         542         1,04           US oil rigs         357         63           US gas rigs         89         21           Total US offshore         22         3			
Total US         447         85           Total Canada         95         19           Grand total         542         1,04           US oil rigs         357         63           US gas rigs         89         21           Total US offshore         22         3			-
Grand total         542         1,04           US oil rigs         357         63           US gas rigs         89         21           Total US offshore         22         3			
US oil rigs	Total US Total Canada		85 192
US oil rigs	Grand total	542	1.040
US gas rigs			
Total US offshore			219
Total US cum. avg. YTD			31
	Total US cum. avg. YTD		1,12

Rotary rigs from spudding in to total depth. Definitions, see OGJ Sept. 18, 2006, p. 46. Source: Baker Hughes Inc. Data available at PennEnergy Research Center.

	7-13-16	1-11-13
Alabama	1	
Alaska	7	11
Arkansas		4
California	5	11
Land	5	11
Offshore		11
Colorado	20	39
Florida		1
Illinois	3	2
Indiana		
Kansas	1	11
Kentucky	1	3
Louisiana	46	69
N. Land	16	23
S. Inland waters	3	23
S. Land	6	13
	21	31
Offshore	21	31
Maryland	_	
Michigan		4
Mississippi	2	1
Montana	_	
Nebraska		2
New Mexico	25	50
New York		1
North Dakota	27	68
Ohio	12	19
Oklahoma	59	105
Pennsylvania	14	43
South Dakota		
Texas	202	366
Offshore	_	_
Inland waters		45
Dist. 1	15	45
Dist. 2	16	41
Dist. 3	. 3	17
Dist. 4	11	20
Dist. 5	2	4
Dist. 6	7	21
Dist. 7B	5	_ 4
Dist. 7C	25	37
Dist. 8	102	144
Dist. 8A	8	13
Dist. 9	_	4
Dist. 10	8	16
Utah	3	7
West Virginia	10	18
Wyoming	8	21
Others ID-1	1	1
2II leteT	447	857
Total US Total Canada	95	807 192
Grand total	542	1,049
US oil rigs	357	638
UO UII 11g5	33/	030

## OGJ PRODUCTION REPORT

	1,000	b/d ——
(Crude oil and lease	condensate)	
Alabama	18	27
Alaska	407	449
California	541	564
Colorado	303	334
Florida	6	6
Illinois	19	26
Kansas	95	124
Louisiana	1,285	1.390
Michigan	1,200	1,000
Mississippi	50	68
Montana	55	78
New Mexico	350	414
North Dakota	1.043	1.200
Ohio	67	72
Oklahoma	343	427
Pennsylvania	15	20
Toyac	3,547	3,748
Texas	82	102
Utah West Virginia	19	23
Whoming	189	239
Wyoming		
Other states	50	58
Total	8,497	9,386

<sup>1</sup>OGJ estimate. <sup>2</sup>Revised. Source: Oil & Gas Journal. Data available at PennEnergy Research Center.

## US CRUDE PRICES

	/-15-16 \$/bbl*
Alaska-North Slope 27°	22.77
Light Louisiana Sweet	41.32
California-Midway Sunset 13°	36.25
California Buena Vista Hills 26°	44.45
Wyoming Sweet	42.20
Fast Texas Sweet	40.50
West Texas Sour 34°	37.50
West Texas Intermediate	42.50
Oklahoma Sweet	42 50
Texas Upper Gulf Coast	36.25
Michigan Sour	34.50
Kansas Common	41.50
North Dakota Sweet	36.50
*Current major refiner's posted prices except N. Slope lags 2	months.

40° gravity crude unless differing gravity is shown. Source: Oil & Gas Journal. Data available at PennEnergy Research Center.

## WORLD CRUDE PRICES

OPEC reference basket Wkly. avg.	7-15-16 — Mo. avg.	\$/bbi 42.95 , \$/bbi —
	Apr16	May-16
OPEC reference basket	37.86	43.21
Arab light-Saudi Arabia	38.22	43.48
Basrah light-Iraq	36.62	42.05
Bonny light 37°-Nigeria	41.51	46.85
Es Sider-Libya	40.48	45.83
Girassol-Angola	41.25	46.58
Iran heavy-Iran	36.65	41.67
Kuwait export-Kuwait	36.33	41.60
Marine-Qatar	38.97	44.13
Merey-Venezuela	28.84	34.28
Minas 34°-Indonesia	38.52	48.64
Murban-UAE	42.47	47.12
Oriente-Ecuador	35.04	41.96
Saharan blend 44°-Algeria	42.33	47.73
Other crudes		
Fateh 32°-Dubai	39.00	44.29
Isthmus 33°-Mexico	38.14	44.76
Brent 38°-UK	41.48	46.83
Urals-Russia	39.89	45.08
Differentials		
WTI/Brent	(0.53)	0.01
Brent/Dubai	2.48	2.54

Source: OPEC Monthly Oil Market Report. Data available at PennEnergy Research Center.

## REFINED PRODUCT PRICES

	7-8-16 ¢/gal		7-8-16 ¢/gal
Spot market product p	prices		
Motor gasoline (Conventional-regular) New York Harbor 1 Gulf Coast 1		No. 2 Distillate Low sulfur diesel fuel New York Harbor Gulf Coast Los Angeles	137.20
Motor gasoline (RBOB-regular) New York Harbor 1	142.20	Kerosine jet fuel Gulf Coast	130.20
No. 2 heating oil New York Harbor	130.20	Propane Mont Belvieu	49.40

Source: EIA Weekly Petroleum Status Report. Data available at PennEnergy Research Center.

## IHS PETRODATA RIG COUNT

JULY 15, 2016

_0.0			
Total supply of rigs	Marketed supply of rigs	Marketed contracted	Marketed utilization rate (%)
108	52	38	73.1
56	52	42	80.8
107	87	69	79.3
68	56	30	53.6
166	157	123	78.3
94 834	79 697	35 497	44.3 71.3
	Total supply of rigs  108  56  107  68  166  94	Total supply of rigs         Marketed supply of rigs           108         52           56         52           107         87           68         56           166         157           94         79	Total supply of rigs         Marketed supply of rigs         Marketed contracted           108         52         38           56         52         42           107         87         69           68         56         30           166         157         123           94         79         35

Source: IHS Petrodata Data available in PennEnergy Research Center

## US NATURAL GAS STORAGE<sup>1</sup>

	7-8-16	7-1-16 —— bcf —	7-8-15	Change, %
East	678 785 208 319 1,253 355 898	654 764 202 313 1,246 354 893	602 603 162 333 1,036 303 732	12.6 30.2 28.4 (4.2) 20.9 17.2 22.7
Total US	3,243 Apr16	3,179 Apr15	2,736 Change,	18.5
Total US <sup>2</sup> ······	2,653	1,805	47.0	

<sup>1</sup>Working gas. <sup>2</sup>At end of period. Source: Energy Information Administration Data available at PennEnergy Research Center.

## WORLD OIL BALANCE

			EIA						IE/	1					OPI	:C		
	20	16		<u> </u>	i			2016 —		20	15			2016 ——		20	15	
	2nd	1st	4th	3rd	2nd	1st	2nd	1st	4th	3rd	2nd	1st	2nd	1st	4th	3rd	2nd	1st
	qtr.	qtr.	qtr. • Million b.	qtr. /d ———	qtr.	qtr.	qtr.	qtr.	qtr. Millio	qtr. n b/d —	qtr.	qtr.	qtr.	qtr.	qtr. – Million	qtr.	qtr.	qtr.
			William D	u					minio	11 b/ u					minion	D/ U		
DEMAND	45.0	40.0	40.4	40.7	45.4	40.5	45.0	40.0	40.0	40.7	45.0	40.5	45.7	40.0	40.0	40.5	45.4	40.4
OECD Non-OECD	45.6 49.3	46.6 47.7	46.4 47.8	46.7 48.3	45.4 48.0	46.5 46.4	45.9 49.7	46.6 48.6	46.3 49.2	46.7 49.0	45.3 48.8	46.5 47.1	45.7 47.6	46.6 46.5	46.3 47.7	46.5 47.4	45.4 46.6	46.4 45.5
TOTAL DEMAND	94.9	94.3	94.1	95.0	93.4	92.9	95.6	95.2	95.5	95.7	94.1	93.6	93.3	93.1	94.0	93.9	92.0	91.9
SUPPLY																		
Non-OPEC	00.0	07.0	07.1	00.0	00.4	00.0	00.7	04.0	04.0	00.0	00.5	00.0	04.1	05.0	05.5	05.0	04.0	05.0
0ECD Non-0ECD	26.0 30.7	27.0 30.2	27.1 30.8	26.8 30.8	26.4 30.7	26.6 30.4	22.7 28.5	24.0 28.9	24.2 29.1	23.9 28.9	23.5 29.0	23.8 29.2	24.1 31.2	25.3 31.7	25.5 32.0	25.3 31.8	24.9 31.9	25.2 32.0
Non-OLOD	30.7	30.2	30.0	30.0	30.7	30.4	20.5	20.3	23.1	20.3	23.0	23.2	31.2	31.7	32.0	31.0	31.3	32.0
OPEC	20.4	21.0	20.0	20.0	01.7	01.1	22.0	20.0	20.0	20.7	20.4	01.4	20.7	20.5	20.0	20.0	01.0	21.0
Crude Oil NGLs	32.4 6.9	31.8 6.7	32.0 6.6	32.2 6.6	31.7 6.6	31.1 6.5	33.0 6.8	32.8 6.8	32.6 6.7	32.7 6.7	32.4 6.7	31.4 6.6	32.7 6.3	32.5 6.2	32.2 6.2	32.2 6.2	31.9 6.2	31.0 6.0
TOTAL SUPPLY	95.9	95.6	96.5	96.4	95.4	94.6	95.8	96.5	97.2	97.0	96.3	95.5	94.3	95.7	95.9	95.5	94.9	94.2
Stock change	0.9	1.3	2.4	1.4	2.0	1.8	0.2	1.3	1.7	1.3	2.2	1.9	1.0	2.6	1.9	1.6	2.9	2.3

<sup>&</sup>lt;sup>1</sup>IEA total supply includes processing gains and global biofuels.
Source: US Energy Information Administration, International Energy Agency, OPEC Data available in PennEnergy Research Center.

## OECD TOTAL NET OIL IMPORTS

	Comb	A	lulu	Ct	Chg prev	ious
	Sept. 2015 ————	Aug. 2015	July 2015 — Million b/d	Sept. 2014	Volume	ar —— %
Canada US Mexico France Germany Italy Netherlands Spain Other importers Norway United Kingdom Total OECD Europe	(2,775) 4,451 (604) 1,787 2,247 1,082 898 1,354 4,442 (1,544) 613	(3,002) 5,205 (725) 1,423 2,258 1,221 1,064 1,153 4,257 (1,277) 694 <b>10,793</b>	(2,664) 4,544 (542) 1,612 2,063 1,106 823 1,177 4,369 (1,712) 371 <b>9,8</b> 09	(2,508) 5,234 (810) 1,633 2,190 947 838 1,152 4,097 (1,525) 574 <b>9,906</b>	(156) (690) 268 (21) (127) 159 (15) 25 272 (187) (203) (97)	6.2 (13.2) (33.1) (1.3) (5.8) 16.8 (1.8) 2.2 6.6 12.3 (35.4) (1.0)
Japan South Korea Other OECD	3,806 2,241 1,620	4,095 2,403 1,411	4,191 2,207 1,546	3,901 2,189 1,558	290 18 (12)	7.4 0.8 (0.8)
Total OECD	19,618	20,180	19,091	19,470	(379)	(1.9)

Source: US Energy Information Administration
Data available at PennEnergy Research Center. NOTE: No new data at press time.

## US PETROLEUM IMPORTS FROM SOURCE COUNTRY

	Mar.	Feb.	Ave	rage ID ———	pre	g. vs. vious ear ——
	2016	2016	2016 — 1,000 b/d —	2015	Volume	%
Algeria Angola Kuwait Nigeria Saudi Arabia Venezuela Other OPEC Total OPEC	147 172 123 290 1,309 846 689 <b>3,576</b>	174 133 289 274 1,011 773 556 <b>3,210</b>	148 157 204 231 1,127 774 640 <b>3,281</b>	89 107 262 67 937 766 490 <b>2,718</b>	59 50 (58) 164 190 8 150 <b>563</b>	66.3 46.7 (22.1) 244.8 20.3 1.0 30.6 <b>20.7</b>
Canada	3,882 657 143 141 — 1,603 <b>6,426</b>	4,201 539 61 71 — 1,938 <b>6,810</b>	4,062 637 88 110 — 1,739 <b>6,636</b>	3,924 832 40 99  1,788 <b>6,683</b>	138 (195) 48 11 — (49) (47)	3.5 (23.4) 120.0 11.1 — (2.7) (0.7)
TOTAL IMPORTS	10,002	10,020	9,917	9,401	516	5.5

Source: US Energy Information Administration Data available at PennEnergy Research Center.

## OECD\* TOTAL GROSS IMPORTS FROM OPEC

	Lon	D	N		Chg. v previo	us
	Jan. 2016	Dec. 2015	Nov. 2015 — Million b/d -	Jan. 2015	Volume	r
Canada US Mexico	97 3,125 —	187 2,766 —	241 2,831 —	171 3,272 20	(74) (147) (20)	(43.3) (4.5) (100.0)
France	693 365 736 621 630 1,444	776 371 622 520 877 1,474	881 289 604 622 699 1,418	638 448 550 401 790 1,360	55 (83) 186 220 (160) 84	8.6 (18.5) 33.8 54.9 (20.3) 6.2
United Kingdom	399	419	499	575	(176)	(30.6)
Total OECD Europe	4,888	5,059	5,012	4,762	126	2.6
Japan South Korea	3,320 2,909	3,132 2,702	3,751 2,743	3,502 2,650	(182) 259	(5.2) 9.8
Other OECD	251	218	225	235	16	6.8
Total OECD	14,590	14,064	14,803	14,612	(22)	(0.2)

\*Organization for Economic Cooperation and Development.
Source: US Energy Information Administration
Data available at PennEnergy Research Center. NOTE: No new data at press time

## OIL STOCKS IN OECD COUNTRIES\*

	Feb.	Jan.	Dec.	Feb.	pre	g. vs. vious ear ——
	2016	2016	2015 — Million bb	2015 ol ————	Volume	%
France	169	171	168	170	(1)	(0.6)
Germany	289 123	287 120	285 117	286 113	3 10	1.0 8.8
Italy United Kingdom	81	83	81	75	6	o.o 8.0
Other OECD Europe	830	826	810	1.364	(534)	(39.1)
Total OECD Europe	1,492	1,487	1,461	1,383	109	7.9
CanadaUS	183 2,045	187 2,041	188 2,015	184 1,878	(1) 167	(0.5) 8.9
Japan	564	580	582	568	(4)	(0.7)
South Korea	233	219	228	198	35	17.7
Other OECD	106	110	108	111	(5)	(4.5)
Total OECD	4,623	4,624	4,582	4,322	301	7.0

\*End of period. Source: US Energy Information Administration Data available at PennEnergy Research Center.



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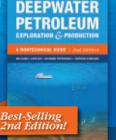
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## IN THE UNITED STATES BANKRUPTCY COURT

SOUTHERN DISTRICT OF TEXAS, HOUSTON DIVISION § Chapter 11 In re: MIDSTATES PETROLEUM

COMPANY, INC., et al.,1 Debtors.

§ Case No. 16-32237 (DRJ) § (Jointly Administered)

## NOTICE OF HEARING TO CONSIDER CONFIRMATION OF THE CHAPTER 11 PLAN FILED BY THE DEBTORS AND RELATED VOTING AND OBJECTION DEADLINES

PLEASE TAKE NOTICE THAT on July 13, 2016, the United States Bankruptcy Court for the Southern District of Texas (the "<u>Court</u>") entered an order (the "<u>Disclosure</u> <u>Statement Order</u>"): (a) authorizing Midstates Petroleum Company, Inc. and its affiliated debtor and debtor in possession (collectively, the "<u>Debtors</u>"), to solicit acceptances for the First Amended Joint Chapter 11 Plan of Reorganization of Midstates Petroleum Company, Inc. and its Debtor Affiliate (as modified, amended, or supplemented from time to time, the "Plan"); (b) approving the Disclosure Statement for the First Amended Joint Chapter 11 Plan of Reorganization of Midstates Petroleum Company, Inc. and its Debtor Affiliate (the "<u>Disclosure Statement</u>") as containing "adequate information" pursuant to section 1125 of the Bankruptcy Code; (c) approving the solicitation materials and documents to be included in the solicitation packages (the "<u>Solicitation Packages</u>"); and (d) approving procedures for soliciting, receiving, and tabulating votes on the Plan and for filing objections to the Plan.

PLEASE TAKE FURTHER NOTICE THAT the hearing at which the Court will con-sider Confirmation of the Plan (the "Confirmation Hearing") will commence on August 17, 2016, at 3:00 p.m., prevailing Central Time, before the Honorable David R. Jones, in the United States Bankruptry Court for the Southern District of Texas, located at 515 Rusk Street, Courtroom 400, Houston, TX 77002.

PLEASE TAKE FURTHER NOTICE THAT upon the filing of a Continuance Notice

(as such term is defined in the Disclosure Statement Order), the Confirmation Hearing will be continued to August 29, 2016, at 9:00 a.m., prevailing Central Time (the "Continued Confirmation Hearing Date

PLEASE TAKE FURTHER NOTICE THAT as soon as practicable following the filing of a Continuance Notice (as such term is defined in the Disclosure Statement Order) the Debtors will file and serve upon all parties on the Master Service List and any party who has timely objected to the Plan a notice announcing that the Confirmation

aring instead will commence on the Continued Confirmation Hearing Date.

PLEASE BE ADVISED: THE CONFIRMATION HEARING MAY OTHERWISE BE CON-TINUED FROM TIME TO TIME BY THE COURT OR THE DEBTORS **WITHOUT FURTHER** NOTICE OTHER THAN BY SUCH ADJOURNMENT BEING ANNOUNCED IN OPEN COURT OR BY A NOTICE OF ADJOURNMENT FILED WITH THE COURT AND SERVED ON ALL PARTIES ENTITI ED TO NOTICE

CRITICAL INFORMATION REGARDING VOTING ON THE PLAN Voting Record Date. The voting record date is <u>July 7, 2016</u> (the "<u>Voting Record</u> Date"), which is the date for determining which Holders of Claims in Classes 4, 5, 6, and 7 are entitled to vote on the Plan.

Voting Deadline. The deadline for voting on the Plan is on <u>August 10, 2016</u>, at 4:00 p.m. prevailing Central Time (the "<u>Voting Deadline</u>"). If you received a Solicitation Package, including a Ballot and intend to vote on the Plan you *must*: (a) follow the instructions carefully; (b) complete *all* of the required information on the ballot; and (c) execute and return your completed Ballot according to and as set forth in detail in the voting instructions so that it is *actually received* by the Debtors' notice and claims agent, Kurtzman Carson Consultants LLC (the "Notice and Claims Agent") on or before the Voting Deadline. A failure to follow such instructions may dis-

CRITICAL INFORMATION REGARDING OBJECTING TO THE PLAN
ARTICLE VIII OF THE PLAN CONTAINS RELEASE, EXCULPATION, AND INJUNI PROVISIONS, AND ARTICLE VIII.E. CONTAINS A THIRD-PARTY RELEASE. THUS, YOU ARE ADVISED TO REVIEW AND CONSIDER THE PLAN CAREFULLY BECAUSE YOUR RIGHTS MIGHT BE AFFECTED THEREUNDER. <u>Unless you timely and properly</u>
OPT OUT OF THE THIRD-PARTY RELEASE ON YOUR BALLOT OR TIMELY AND PROPERLY OBJECT TO THE THIRD-PARTY RELEASE AS SET FORTH HEREIN, YOU WILL BE DEEMED TO HAVE CONSENTED TO THE THIRD-PARTY RELEASE AND WILL BE FOREVER BOUND BY THE TERMS THEREOF.

Plan Objection Deadline. The deadline for filing objections to the Plan is August 10, 2016, at 4:00 p.m., prevailing Central Time (the "Plan Objection Deadline"). All objections to the relief sought at the Confirmation Hearing must: (a) be in writing; (b) conform to the Bankruptcy Rules, the Local Rules, and any orders of the Court; (c) state, with particularity, the legal and factual basis for the objection and if practicable a proposed modification to the Plan (or related materials) that would resolve such objection; **and** (d) be filed with the Court (contemporaneously with a proof of service) and served upon the following parties so as to be actually received on or before the Plan Objection Deadline: (i) Co-Counsel to the Debtors

Edward O.Sassower, P.C., Joshua A. Sussberg, P.C., KIRKLAND & ELLIS LLP, KIRKLAND & ELLIS INTERNATIONAL LLP, 601 Lexington Avenue, New York, New York 10022 -and- James H.M. Sprayregen, P.C., William A. Guerrieri, Jason Gott, KIRKLAND & ELLIS ILIP, KIRKLAND & ELLIS INTERNATIONAL LLP, 300 North LaSalle, Chicago, -and- Patricia B. Tomasco, Matthew D. Cavenaugh, Jennifer F. Wertz, JACKSON WALKER L.L.P., 1401 McKinney Street, Suite 1900, Houston, Texas 77010; (ii) U.S. Trustee: Diane Livingstone, OFFICE OF THE UNITED STATES TRUSTEE, SOUTHERN DISTRICT OF TEXAS, 515 Rusk Street, Suite 3516, Houston, Texas 77002 (iii) Counsel to the Agent Under the Debtors' First Lien Credit Facility: Charles S. Kelley, Joshua Wackerly, MAYER BROWN LLP, 700 Louisiana Street, Suite 3400, Houston, Texas 77002 -and- Frederick D. Hyman, Christine A. Walsh, MAYER BROWN LLP, 1221 Avenue of the Americas, New York, New York 10020; (iv) Counsel to the Consenting Second Lien Notes Ad Hoc Committee: Brian Resnick, Natasha Tsiouris, DAVIS POLK & WARDWELL LLP, 450 Lexington Avenue, New York, New York 10017 (v) Counsel to the Consenting Cross-Over Notes Ad Hoc Committee: Dennis Dunne, Tyson Lomazow, MILBANK, TWEED, HADLEY & MCCLOY LLP, 28 Liberty Street, New York, New York 10005; and (vi) Counsel to the Official Committee of Unsecured Creditors: Norman N. Kinel. Nava Hazan. SOUIRE PATTON BOGGS (US) LLP, 30 Rockefeller Plaza, New York, New York 10112 - and- Michael S. Forshey, Karo K. Denniston, SQUIRE PATTON BOGGS (US) LLP, 2000 McKinney Avenue, Suite 1700, Dallas, Texas 75201.

## ADDITIONAL INFORMATION

**Obtaining Solicitation Materials.** The materials in the Solicitation Package are intended to be self-explanatory. If you should have any questions or if you would like to obtain additional solicitation materials (or paper copies of solicitation materials if you received a CD-ROM), please feel free to contact the Debtors' Notice and Claims Agent, by: (a) contact Kurtzman Carson Consultants LLC, the notice and claims agent retained by the Debtors in the Chapter 11 Cases (the "Notice and Claims Agent") at no charge by: (i) accessing the Debtors' restructuring website at http://www.kccllc net/midstates; (ii) writing to the Notice and Claims Agent at Midstates Petroleum Company, Inc., Ballot Processing c/o Kurtzman Carson Consultants LLC, 2335 Alaska Avenue, El Segundo, CA 90245; (iii) calling the Notice and Claims Agent at (888) 733-1446 (toll free) or +1 (310) 751-2635 (international); or (iv) emailing MidstatesInfo@ kccllc.com; or (b) for a fee via PACER at https://ecf.txsb.uscourts.gov. Please be advised that the Notice and Claims Agent is authorized to answer questions about, and provide additional copies of, solicitation materials, but may **not** advise you as to whether you should vote to accept or reject the Plan.

The Plan Supplement. The Debtors will file the Plan Supplement (as defined in the Plan) on or before <u>August 3</u>, 2016, and will serve notice on all Holders of Claims entitled to vote on the Plan, which will: (a) inform parties that the Debtors filed the Plan Supplement; (b) list the information contained in the Plan Supplement; and (c)

explain how parties may obtain copies of the Plan Supplement.

BINDING NATURE OF THE PLAN: IF CONFIRMED, THE PLAN SHALL BIND ALL HOLDERS OF CLAIMS AND INTERESTS TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW. WHETHER OR NOT SUCH HOLDER WILL RECEIVE OR RETAIN ANY PROPERTY OR INTEREST IN PROPERTY UNDER THE PLAN, HAS FILED A PROOF OF CLAIM IN THE CHAPTER 11 CASES OR FAIL ED TO VOTE TO ACCEPT OR REJECT THE PLAN OR VOTED TO REJECT THE PLAN

Houston, Texas, Dated: July 13, 2016

/s/ Joshua A. Sussberg, P.C. Patricia B. Tomasco (TX Bar No. 01797600), Matthew D. Cavenaugh (TX Bar No. 24062656), Jennifer F. Wertz (TX Bar No. 24072822), JACKSON WALKER L.L.P., 1401 McKinney Street, Suite 1900, Houston, Texas 77010 Telephone: (713) 752-4200, Facsimile: (713) 752-4221, Email: ptomasco@jw.com, mcavenaugh@jw.com, jwertz@jw.com -and- Edward O. Sassower, P.C. (admitted pro hac vice), Joshua A. Sussberg, P.C. (admitted pro hac vice), KIRKLAND & ELLIS LLP, KIRKLAND & ELLIS INTERNATIONAL LLP, 601 Lexington Avenue, New York, New York 10022, Telephone: (212) 446-4800, Facsimile: (212) 446-4900, Email: edward.sassower@kirkland.com, joshua.sussberg@kirkland.com -and- James H.M. Sprayregen, P.C. (admitted *pro hac vice*), William A. Guerrieri (admitted *pro hac vice*), Jason Gott (admitted *pro hac vice*), KIRKLAND & ELLIS LLP, KIRKLAND & ELLIS INTERNATIONAL LLP, 300 North LaSalle, Chicago, Illinois 60654, Telephone: (312) 862-2000, Facsimile: (312) 862-2200, Email: james.sprayregen@kirkland.com, Email: will.guerrieri@kirkland.com, Email: jason.gott@kirkland.com, Co-Counsel to the Debtors and Debtors in Possession

The debtors in these chapter 11 cases, along with the last four digits of each debtor's federal tax identification number are: Midstates Petroleum Company, Inc. (1816) and Midstates Petroleum Company LLC (2434). The debtors' service address is: 321 South Roston Suite 1000 Tulsa Oklahoma 74103

Capitalized terms not otherwise defined herein have the same meanings as set forth in the Plan

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