



## O&G Market Update

Valuation Considerations Amid Uncertainty in the Oil and Gas Sector

# David Scott

## Managing Director, Alternative Asset Advisory Energy & Mining Co-Leader



Duff & Phelps, LLC  
Dallas  
+1 469 547 3914  
David.Scott@duffandphelps.com

David Scott is the head of Energy and Infrastructure Portfolio Valuation at Duff & Phelps and global co-leader of Duff & Phelps' Energy & Mining Group. David has worked throughout the Alternative Asset Advisory, Financial Reporting, Transaction Opinion and Dispute Consulting practices within Duff & Phelps nearly 20 years of experience in the energy industry and 17 years with Duff & Phelps.

David's professional experience includes valuation of business enterprises, equity and debt interests, various fixed and intangible assets associated with businesses, portfolio analysis, transactional analysis, allocation of purchase price and litigation support purposes. David has managed a range of engagement types, including valuation of minority and control equity interests for various purposes, portfolio valuation assurance, ESOPs, corporate planning, recapitalizations and arbitrations and litigations. A significant amount of David's experience in the valuation of business enterprises and equity and debt interests has focused on the valuation of illiquid securities of private equity, hedge funds, fund of fund investors, pensions and endowments. He specializes in valuations of portfolios of illiquid interests held by alternative investors and has valued management fees and carried interest for private equity management entities.

David's private equity and hedge fund experience includes the quarterly valuation of private loans, including senior secured and subordinated debt, convertible preferred and common equity, warrants and other derivatives, and limited partner and general partner interests.

David authored the Energy Valuation section of PEI's Private Equity Valuation "Definitive Guide to Valuing Investments Fairly", by D&P (2014).

David specializes in the energy and infrastructure sectors, focused on upstream, midstream and downstream oil and gas, nuclear, fossil, renewable power, transmission & distribution, and utility sectors. David has extensive experience in advising and assisting clients within the energy industry with the application of Accounting Standards Codification (ASC) 820 - Fair Value Measurements, ASC 805 - Business Combinations and ASC 350 - Goodwill and Other Intangibles. David's power industry experience includes the valuation of combined cycle, simple cycle, coal/lignite and nuclear power plants as well as several types of renewable assets. David's oil and gas expertise includes the valuation of world-wide upstream, midstream and downstream assets in various stages of development.

David also has extensive experience in economic forecast modeling and has teamed with various analytics and market forecast consultants on numerous engagements. He has performed engagements in numerous locations throughout North America, Africa, Asia, Australia, Central America, Europe, and South America.

Prior to joining Duff & Phelps, David was an analyst with El Paso Merchant Energy Company. David received a B.S. with the highest distinction in finance, with significant coursework in economics, from University of Oklahoma. He also received a B.A. in political science from the University of Oklahoma. David currently serves on the Advisory Council of the Master of Science in Finance program at the University of Texas.

# Eraj Weerasinghe

## Managing Director, Valuation Advisory Services



Duff & Phelps, LLC

San Francisco

+1 415 656 6044

eraj.weerasinghe@duffandphelps.com

Eraj Weerasinghe is a managing director in the valuations practice at Duff & Phelps specializing in the oil and gas and infrastructure sectors. Eraj has over two decades of global valuations and deal experience across the oil and gas value chain, including upstream, midstream, downstream including petrochemicals and commodities trading; LNG liquefaction, regas and trading; and, oil field services.

His clients have included the oil and gas majors, including Shell, BP, Chevron and ExxonMobil; major national oil companies such as Saudi Aramco, QatarGas, Kuwait Foreign Petroleum Exploration Company, KazMunayGas and Tamoil; independent oil and gas companies including the former BG Group (now Shell), Neptune, Delonex, Serica plc, Premier Oil and Delek Group; services companies including, GE Oil & Gas, Baker Hughes, Amec Foster Wheeler, Weir Group, amongst others.

Eraj is an experienced valuer of projects, businesses, shares, intangible assets and debt instruments. He has performed these valuations in the oil and gas space for a number of purposes including, helping clients support tax positions, for investment appraisal and economic assessments, commercial mergers and acquisitions (including bid defense valuation strategy planning for publicly listed companies, and the issuing of public opinions on the fairness and reasonableness of values), for financial reporting purposes under IFRS and US GAAP (as part of business combinations, impairment testing and for fair value reporting for investment funds), regulatory valuations, and has supported litigations in the role of an expert valuer in the sector.

He has led the valuation work on large deals in the sector including Royal Dutch Shell's USD54bn acquisition of BG Group plc, where he reviewed the fair values of individual assets and liabilities and the reconciliation of goodwill. Key upstream assets assessed included those in Brazil, Australia, Kazakhstan, Europe and Tanzania. During the 2014 oil price rout he assisted a number of lenders and companies work through scenarios of economic value of assets and going concern and financial viability issues in the UK North Sea and West Africa.

He has valued upstream assets in all the major oil and gas basins and has a working knowledge of the UK and Norwegian North Sea, the US Gulf of Mexico, the Permian, pre-salt Brazil, the Atlantic basin, a number of West African production sharing agreements, fiscal regimes in Angola, South Africa, Mozambique, Tanzania, Thailand, Malaysia, India and Australia.

His recent downstream experience includes the separation of the Motiva joint venture and as part of that transaction reviewed the valuation of the Port Arthur refining complex. He also opined on the Gelsenkirchen refining complex in Germany as part of the separation of that asset. Over the years he has valued a number of major US refineries including Cherry Point and Texas City, as well as major refining complexes throughout Western and Eastern Europe.

Eraj has a BSc and an MSc in Economics from the London School of Economics and Political Science. He is a Chartered Financial Analyst (CFA) Charterholder from the CFA Institute, a Chartered Surveyor (Business Valuations) from the Royal Institute of Chartered Surveyors and a member of the ICAEW Valuation Group. Prior to joining Duff & Phelps, Eraj was a valuations associate partner at EY based in London, UK. He started his valuations career at Arthur Andersen in 1998.

# Miguel Peleteiro

## Managing Director, Head of Oil & Gas Americas Corporate Finance Advisory



Duff & Phelps  
Mexico City  
+52 55 6820 6940  
Miguel.Peleteiro@duffandphelps.com

Miguel is a Managing Director at Duff & Phelps and is the Americas Head of Oil & Gas Corporate Finance Advisory.

Miguel has over 20 years of experience in the hydrocarbon sector and advises governments, major oil companies (NOCs and IOCs), as well as midstream and distribution companies on mergers and acquisitions and strategic and financial topics.

Miguel has been named as an independent advisor by a variety of governments and some of the largest oil companies around the world. His clients are mainly based in Europe, the Americas, Africa, and the Middle East.

His main areas of expertise include divestments of non-core assets, market entry strategies, restructuring and turnarounds, and capital raising transactions.

He was appointed advisor in the strategy and design of an action plan developed by an Oil & Gas company against an African government due to the expropriation of certain assets, licenses, exploration and exploitation rights of unconventional resources and other businesses owned by a local subsidiary of the group.

He assessed the damages suffered by an LNG terminal due to the lack of supplied volumes by its supplier, as well as the breach by the supplier of the supply contract signed between the parties.

He was appointed advisor and negotiator by a major Oil & Gas company, together with the government of Venezuela, for the development of plants along the Orinoco belt and the expropriation process carried out on certain production assets, as well as the preparation of the business plan for the development of the area.

Miguel began his career at Morgan Stanley in their M&A group in London. He later joined the Spanish Transaction Services team of PwC. In 2004 he was hired by E&Y's Transaction Advisory Services department, a group that he left in 2006 to found Accuracy Spain, a consulting boutique specialized in Corporate Finance where he was as a Partner in charge of the Oil & Gas practice.

Miguel holds a degree in Business Administration and Management from CUNEF and is a member of the Association of International Petroleum Negotiators.

Languages: Spanish, English and Portuguese.

# Leo Miki

## Managing Director, Valuation Advisory Services



Duff & Phelps, LLC  
San Francisco  
+1 415 693 5322  
leo.miki@duffandphelps.com

Leo Miki is a Managing Director in the San Francisco office of Duff & Phelps, LLC and is part of the Valuation Advisory Services practice. Leo specializes in financial reporting and tax valuations in the energy industry.

He has performed numerous valuation services for financial reporting and tax purposes for large and middle-market companies in the Petroleum, Power and Utility, Construction and Engineering, Financial Services, Consumer Products, and Insurance Industries. Valuation experience includes valuation of tangible assets, intangible assets, business enterprises and share value/royalty interest for purposes such as ASC 805 and § 1060 Purchase Price Allocation, ASC 350 Goodwill and ASC 360 Impairment Analysis, Tax Restructuring and FIRPTA, valuation for federal and state grants/incentives, § 864(e) Fair Market Value Interest Allocation Elections and Studies; and ASC718/IRC § 409A Share Based Compensation.

Leo has performed valuation services for global and regional companies including Occidental Petroleum, International Petroleum Investment Company, Peabody Energy, Tronox Limited, Osaka Gas, NRG Energy, Exelon, Schlumberger Ltd., The AES Corporation, ExxonMobil, Covanta, Foster Wheeler, InterGen, Haliburton, Dresser, Inc., EnergySolutions, Tesoro, URS Corporation, Jacobs Engineering, Tutor Perini Corporation, GenCorp, JVC Kenwood Corporation, Citibank, and Mitsubishi UFJ Group .

Leo received his B.S. in economics from the Boston University and his Master of Science in Finance from Boston College.

---

# David Juneau

## Managing Director, Valuation Advisory Services



David Juneau is a Managing Director in the Valuation Services Advisory business unit located in Houston, Texas. He has over ten years of valuation experience at Duff & Phelps.

David has significant experience advising clients within the oil and gas industry, assisting companies in the oilfield service & equipment, exploration & production, storage & transportation, and refining & logistics sectors. David also advises clients in the commodity chemicals industry, working with global manufacturers of basic chemicals, polymers, vinyls, and building products.

David assists his clients with financial reporting valuation requirements with respect to Accounting Standards Codification (“ASC”) 820 Fair Value Measurements. His practice focuses on assisting companies with purchase price allocation requirements pursuant to ASC 805 Business Combinations, goodwill and asset impairment testing required under ASC 350 and ASC 360, and valuations supporting stock based compensation in connection with ASC 718.

Additionally, David has substantial experience performing valuations for tax planning and reporting, including legal entity and asset valuation for intercompany transactions and purchase price allocations supporting tax reporting requirements. He has presented on valuation topics at the Tax Executives Institute (TEI) Houston chapter tax school.

David has completed coursework and testing requirements towards the Accredited Senior Appraiser (ASA) and Certified in Entity and Intangible Valuation (CEIV) designations. David received his B.S. in finance from Louisiana State University.

Duff & Phelps, LLC  
Houston, TX  
+1 713 237 5379  
David.Juneau@duffandphelps.com

---

# Jason Neal

## Director, Property Tax



Jason Neal is a Director in the Houston office of Duff & Phelps, LLC. Jason has 24 years of property tax experience as an attorney and a consultant. He has consulting and litigation experience with industrial and manufacturing properties, corporate campuses, office buildings, industrial warehouses, and multi-family properties. Additionally, Jason previously led an outsourcing team responsible for compliance, assessment, appeals, and tax bill processing, and audit support. Combined with his legal and consulting experience, Jason has provided property tax services in all 50 states and the District of Columbia. Prior to joining Duff & Phelps in 2020, Jason was the National Practice Leader - Property Tax with Ryan Law Firm, LLP. In addition to managing his own trial docket, Jason managed the other offices and consulted on their litigation as well.

Prior to practicing law, Jason was a Senior Manager for Deloitte Tax's property tax practice. Jason has a B.A. and J.D. from Washburn University and an M.B.A. from Sam Houston State University. He is a licensed Senior Property Tax Consultant and member of the Texas Bar. Jason is a member of the International Association of Assessing Officers.

Duff & Phelps, LLC  
Houston  
+1 713 237 5340  
Jason.Neal@duffandphelps.com

# Duff & Phelps

Duff & Phelps is the global advisor that protects, restores and maximizes value for clients in the areas of valuation, corporate finance, disputes and investigations, cyber security, claims administration and regulatory issues. We work with clients across diverse sectors on matters of good governance and transparency.

**~4,000**  
TOTAL  
PROFESSIONALS  
GLOBALLY

MORE THAN  
**19,000**  
ENGAGEMENTS  
PERFORMED IN 2019

**13,500**  
CLIENTS INCLUDING NEARLY  
**47%** OF THE  
**S&P 500**

THE  
AMERICAS  
  
**~2,000**  
PROFESSIONALS

EUROPE AND  
MIDDLE EAST  
  
**1,100+**  
PROFESSIONALS

ASIA  
PACIFIC  
  
**700+**  
PROFESSIONALS



## Enhancing Value Across a Range of Expertise

### VALUATION ADVISORY

Valuation and consulting for financial reporting, tax, investment and risk management purposes

- Valuation Services
- Alternative Asset Advisory
- Real Estate Advisory
- Tax Services
- Transfer Pricing
- Fixed Asset Management and Insurance Solutions



### CORPORATE FINANCE

Objective guidance to management teams and stakeholders throughout restructuring, financing and M&A transactions, including independent fairness and solvency opinions

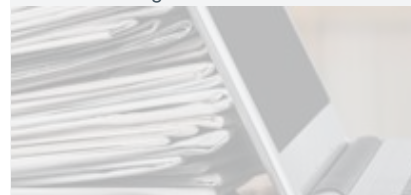
- M&A Advisory
- Fairness Opinions
- Solvency Opinions
- Transaction Advisory
- ESOP and ERISA Advisory
- Commercially Reasonable Debt Opinions
- Distressed M&A and Special Situations



### GOVERNANCE, RISK, INVESTIGATIONS AND DISPUTES

Combined Duff & Phelps and Kroll risk management and mitigation, disputes and other advisory services

- Business Intelligence and Investigations
- Disputes
- Cross-Border Restructuring
- Cyber Risk
- Legal Management Consulting
- Security Risk Management
- Compliance Risk and Diligence
- Compliance and Regulatory Consulting



### PRIME CLERK

Provides bankruptcy and class action claims administration through its proprietary software and industry leading management team.

- Chapter 11
- Strategic Communications
- Contract Review
- Corporate Actions
- Class Action



# Oil & Gas Advisory

Experts across the hydrocarbon value chain

Duff & Phelps has a specialized team in the Oil & Gas industry, combining both financial and technical knowledge in assisting clients across all sectors of the industry

## Upstream



Exploration  
Development  
Production

## Midstream



Pipelines  
Storage / Terminating  
LNG  
Transport

## Downstream



Refining  
Distribution  
Petrochemicals  
Specialties

## Oilfield Services



Drilling and Completion  
Seismic  
Processing and Separation

Duff & Phelps has a team to help you, wherever your concerns are focused on

- We specialize in the Oil & Gas industry, perfectly combining the two essential aspects of the sector: industrial and technical knowledge of an experienced engineering team, and the financial knowledge, both economic and accounting, contributed by our team of financial advisors across the globe
- We are experts, with **more than 200 full-time energy professionals** dedicated to the execution of projects in the industry, boasting experience across the world and go wherever our clients need us.

---

## What has changed? What is known or knowable?

- Uncertainty has increased
- Sheltering in place requirements put in place, eased or removed, then re-introduced
- U.S. unemployment rate changes
- Public market prices fall then rebound, remain volatile
- Oil prices down 35 - 40% YTD
- Impact of pandemic varies by industry
- Liquidity crunch
- Monetary and fiscal stimulus
- Governments experiencing a cash crunch (less tax revenue)

---

## What has not changed? What is not known or knowable?

- The definition of fair value: *the price that would be received TO SELL an asset or paid to transfer a liability in an ORDERLY transaction between market participants at the measurement date.*
- Fair Value  $\neq$  Fire Sale Price
- Fair Value must consider current market conditions
- The need for fair value: decision making, financial reporting, exercising fiduciary duty.
- Timing of effective treatment and vaccine
- Impact of resurgence/growth of COVID-19 cases
- Full return of consumer spending and demand
- Public market recovery a sustained **V** or could it be a **W** or ?
- Timing, depth, geographical impact, and length of potential recession
- Future unemployment rates

---

# Panel Discussion Topics

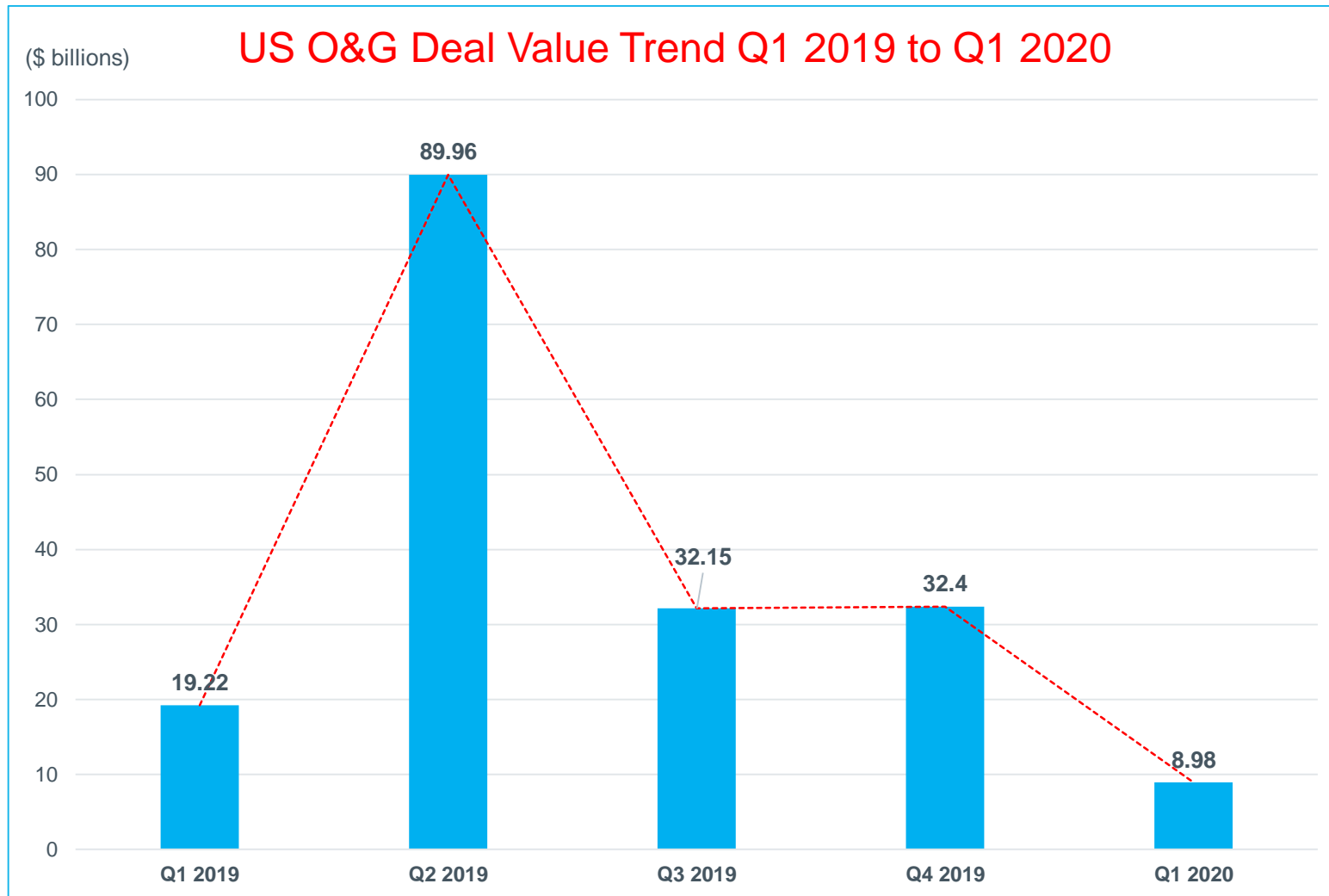
- I. Current Valuation Considerations Facing the Industry**
- II. Transactions landscape**
- III. Impairments**
- IV. Joint venture arrangements**
- V. Bankruptcy and fresh start accounting**
- VI. Energy Transition**

---

# Valuation Considerations in the Energy Industry

- Ask yourself: How would we underwrite in this environment?
- Are general increases of Weighted Average Costs of Capital across sectors the new normal?
- Appropriate application of comparable company multiples and company specific metrics
- Strip pricing vs. analyst consensus forecasts
- Access to Main Street Loan Facilities or other government programs (accelerated environmental approval for certain asset classes)
- O&G borrowing base redeterminations
- Will Wall Street return to the sector?
- Hedge profiles and leverage profiles
  - Review of fund documents for any obligation triggers (clawback, reserve/leverage provisions)
- Review of any contracts and counterparty viability/risk

# Transaction Landscape



Source: GlobalData April 2020

# Transaction Landscape

## Transaction Activity Across O&G Sectors

---

- Upstream
  - Since Q4 2019 Rystad Energy estimated over 12.5 billion boe of recoverable reserves, outside of unconventional and US onshore, for sale globally
  - US deal activity slow
  - European players are backing out or finding creative ways of renegotiating deals
- Midstream/Downstream
  - Observed some transactions in 2020 but appears to have been in the works for sometime and consolidation efforts
    - » \$1.88bn merger of EQM Midstream Partners and Equitrans Midstream
    - » Eversource Energy's \$1.1bn acquisition of Columbia Gas of Massachusetts
  - Transaction volume will remain low until better future visibility of supply and demand
  - Expectation of Private money and oversea investment into North AMERICAN market
- OFS Sector
  - Impact of downturn is mixed
    - » Deal cancellations (June 2020: Forbes – Superior Energy merger terminated)
    - » Companies look to divest underperforming assets (May 2020: Baker Hughes shops PPS unit)
    - » Management changes in preparation for M&A (Key Energy and Parker Drilling appoint new C-level execs)
    - » Some small deals (May 2020: Flotek – JP3 Measurement; Quintana & KLX Energy Services)



# Impairments: Headlines...

## Understanding the starting point for a potential impairment

March 24, 2020

“another wave of **massive** oil-industry **spending cuts**”



April 7, 2020

“12 oil majors to slash capex by \$43.6B amid price collapse...”

**S&P Global**

April 20, 2020

“**Sub-zero** oil prices threaten **big losses...**”

May, 2020

“ExxonMobil **suffers** \$610m **loss** after hit from oil and gas prices”



December, 2019

“Shell expects impairment charges of up to \$2.3bn in fourth quarter”

May, 2020

“Marathon... **US's biggest oil refiner**, posted... loss of \$9.2bn after taking a \$12.4bn **impairment charge**, as fuel demand began to fall during the coronavirus lockdowns.”

June, 2020

“BP Takes \$17.5 Billion **Write-Down**, Expects Oil Price to Stay Low”



April, 2020

“Coronavirus Poses Hurdle for **Goodwill Impairment Tests**”

# Impairments: Upstream Considerations

## Understanding the starting point for a potential impairment

### Scenario 1: Historical cost

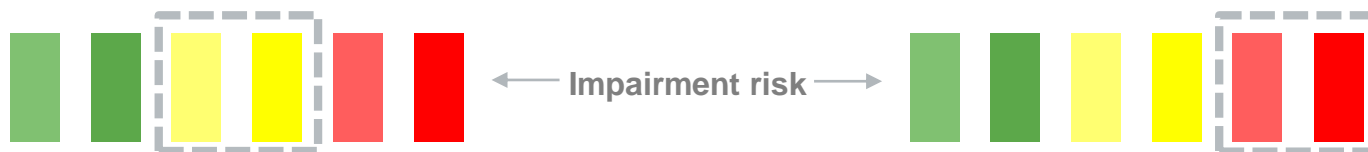
- CGU is the company; internally developed reserves

Asset reporting unit	\$	Basis
Oil and gas properties	100	Historical cost
Exploration intangibles	10	Historical cost
<b>Total assets</b>	<b>110</b>	<b>Historical cost</b>

### Scenario 2: Fair value

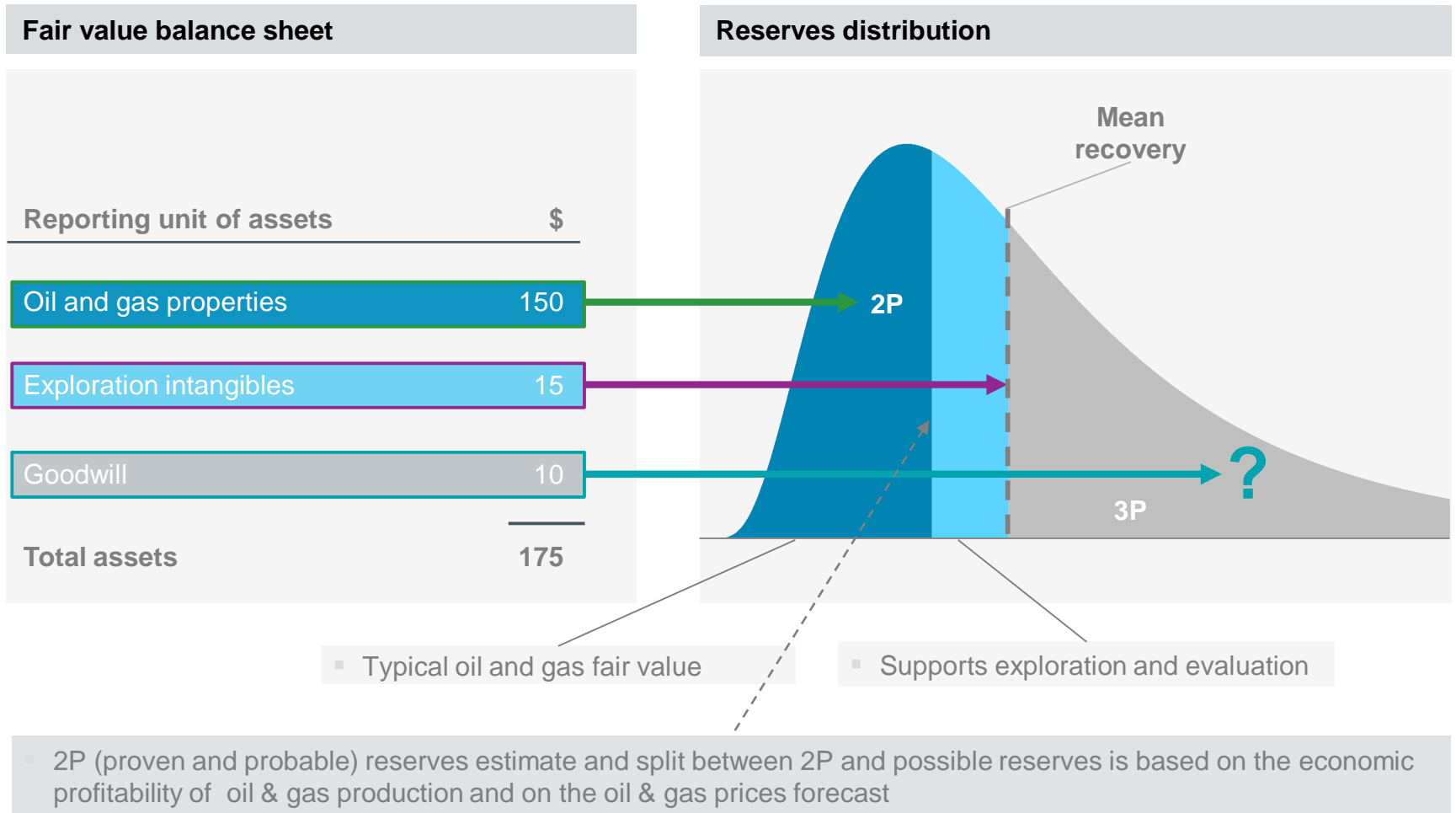
- Same company as in scenario 1, **but**:
  - Acquired and consolidated on acquirer's balance sheet

Asset reporting unit	\$	Basis
Oil and gas properties	150	Fair value
Exploration intangibles	15	Fair value
<b>Goodwill</b>	<b>10</b>	Purchase price less fair value of assets
<b>Total assets</b>	<b>175</b>	<b>Purchase price</b>



# Impairments: Upstream Considerations

## Reconciling the fair value balance sheet to reserve distribution



# Impairments/Fair Values: Upstream Considerations

## A fundamental look at valuation: income or market approach?

### Income approach – discounted cash flows (DCF)

- Two components, each with potential pitfalls:
  1. Cash flows
    - Real vs. nominal
    - Post-tax vs. pre-tax, tax to buyer or seller (market participant?)
    - Risk adjusted for project status
  2. Discount rates
    - Real vs. nominal
    - Differences between fair value less cost of disposal and value-in-use?
    - Impact of yield compression
    - Economic factors such as country risk – not straightforward
    - Currency denomination
    - Comparison to investment appraisal framework and hurdle rates

### Market approach – where has the market gone?

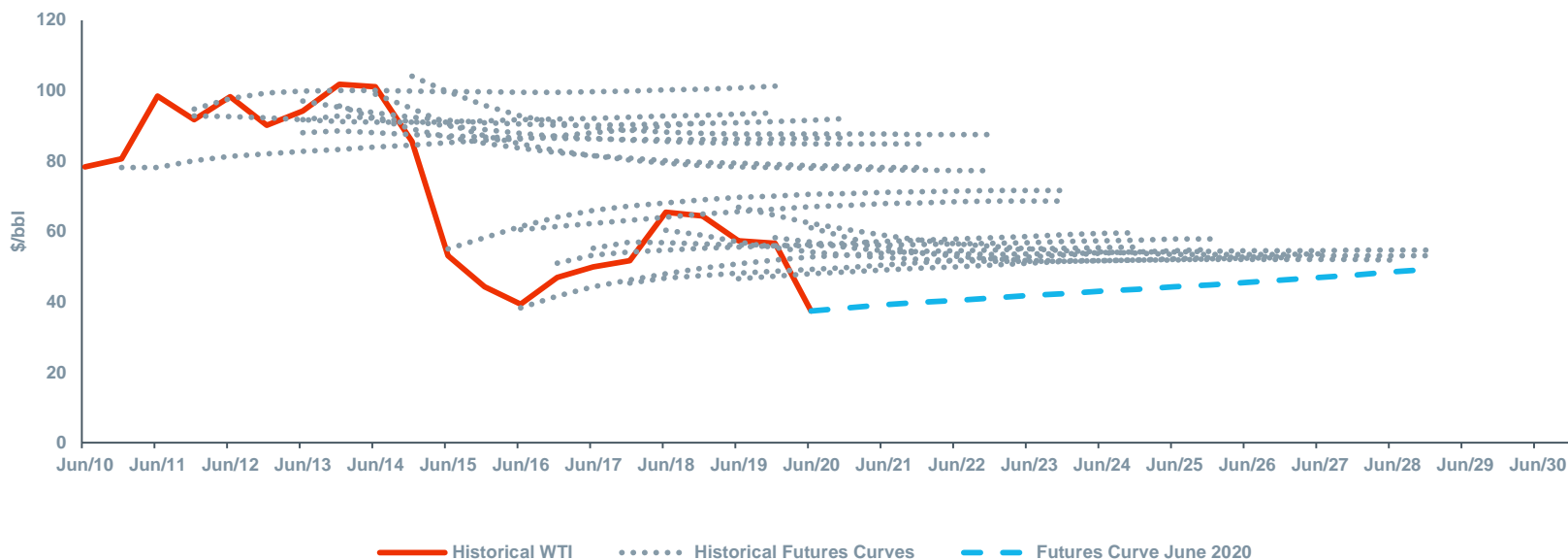
- Liquidity in private transactions of assets
- US\$/boe – be wary of those transaction data points!
  - Eg., oil price expectations at the transaction date and other synergy value priced in

### Practical challenges

- Market approach
  - Less credible when transactions are few and far between for comparable assets
- Income approach
  - DCF most common approach at CGU level
  - DCF (*where possible*) at **post-tax level**; then “back solve” using pre-tax cash flows to determine **pre-tax discount rate** for disclosure purposes
  - For finite lived assets: possible **material differences** under different methods:
    - Grossing up post-tax discount rate
    - Using pre-tax cash flows and iterating to calculate the implied discount rate (IRR)

# Impairments/Fair Values: Upstream Challenges

## WTI Crude: Futures price versus other forecasts



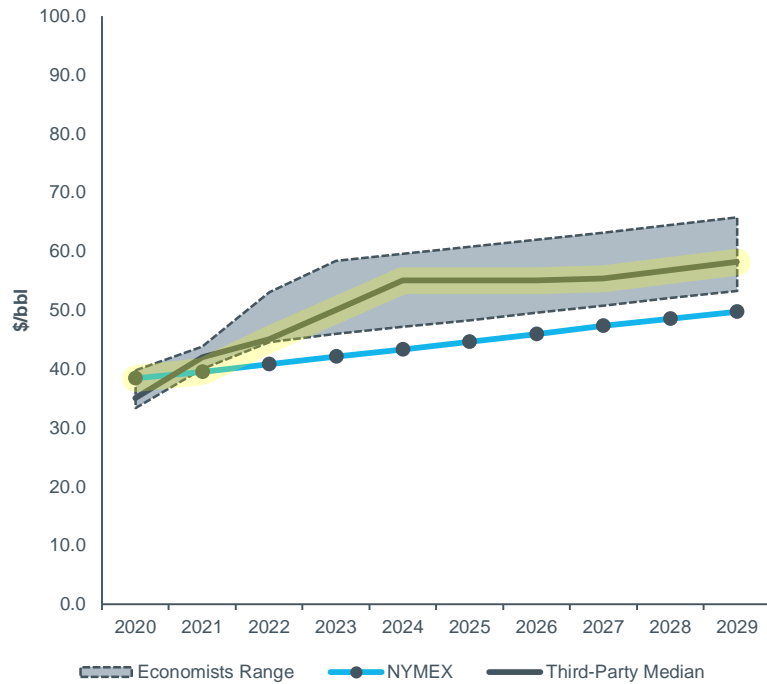
Monthly Averages	2020	2021	2022	2023	2024	2025	2026	2027
Futures Price (\$/bbl)	38.4	39.5	40.8	42.1	43.3	44.6	45.9	47.4
Open Interest	237,757.0	52,318.4	10,139.8	3,684.6	1,251.4	170.5	171.0	824.0
Volume	115,951.4	5,668.8	789.6	151.0	72.0	1.0	-	-

- Generally, IFRS 13/ ASC 820 requires using level 1 inputs where possible in fair value estimations. In case of oil & gas prices level 1 inputs are futures prices. However, the liquid part of the Brent/WTI oil price forward curve can be observed for the next 18 months (2020 and 2021). From 2022 onwards, the recommendation is to look to other observable inputs. Here the market typically refers to investment analysts covering oil & gas stocks and petroleum economists, as well as, where available, any transaction data points used by market participants.

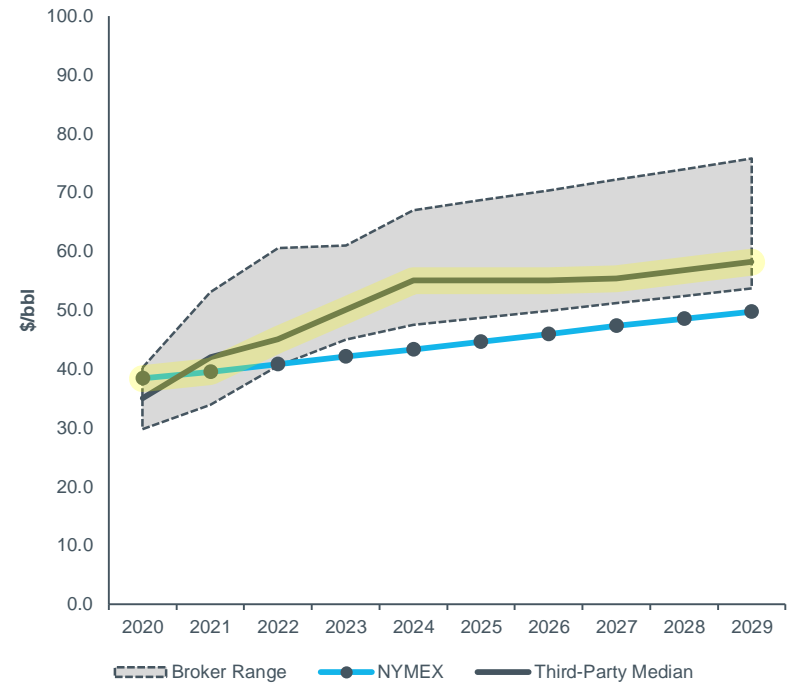
# Impairments/Fair Values: Upstream Considerations

## WTI Crude: Broker consensus vs market practice for financial reporting

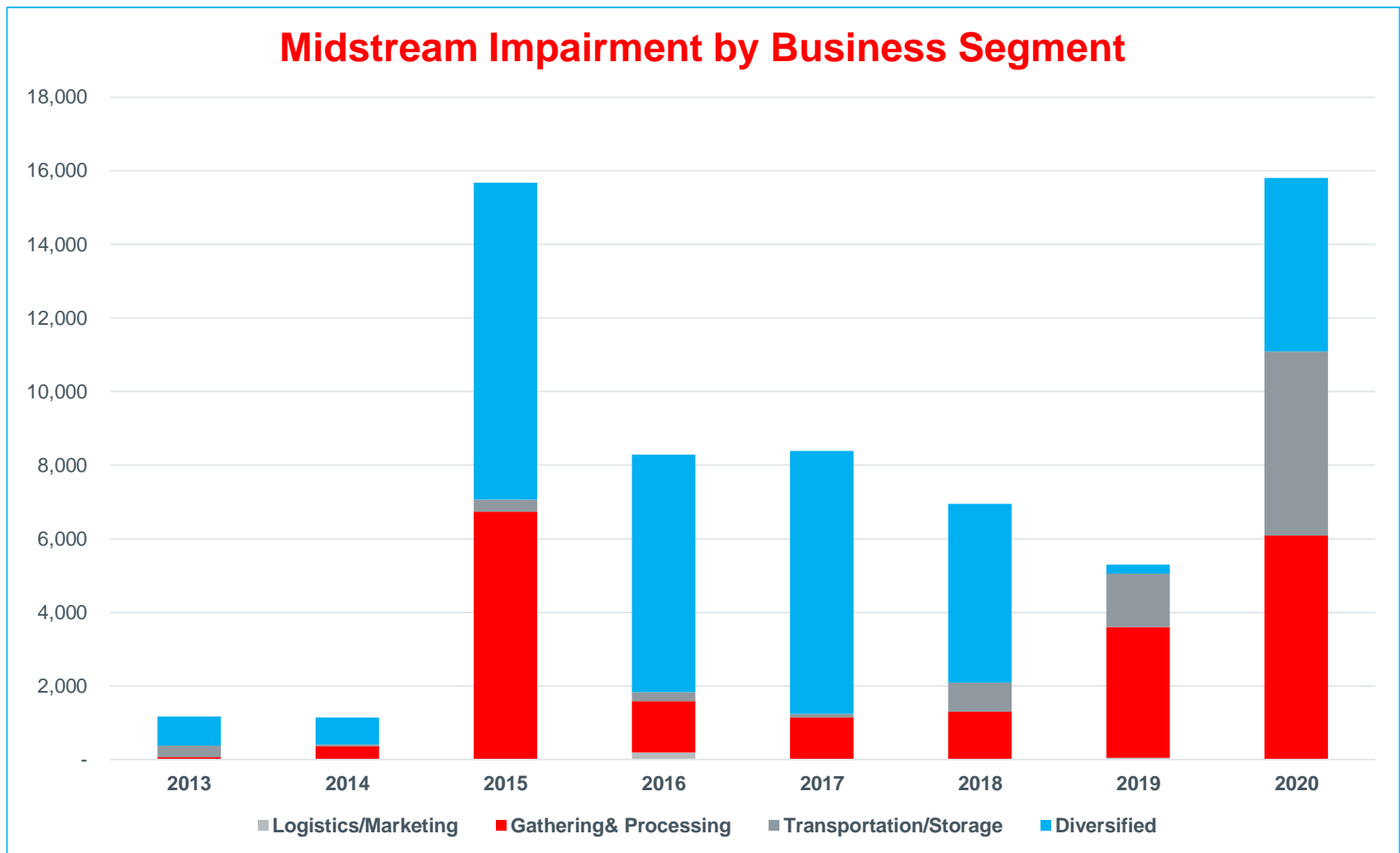
### Futures curve versus analyst projections



### Futures curve versus economists and agencies



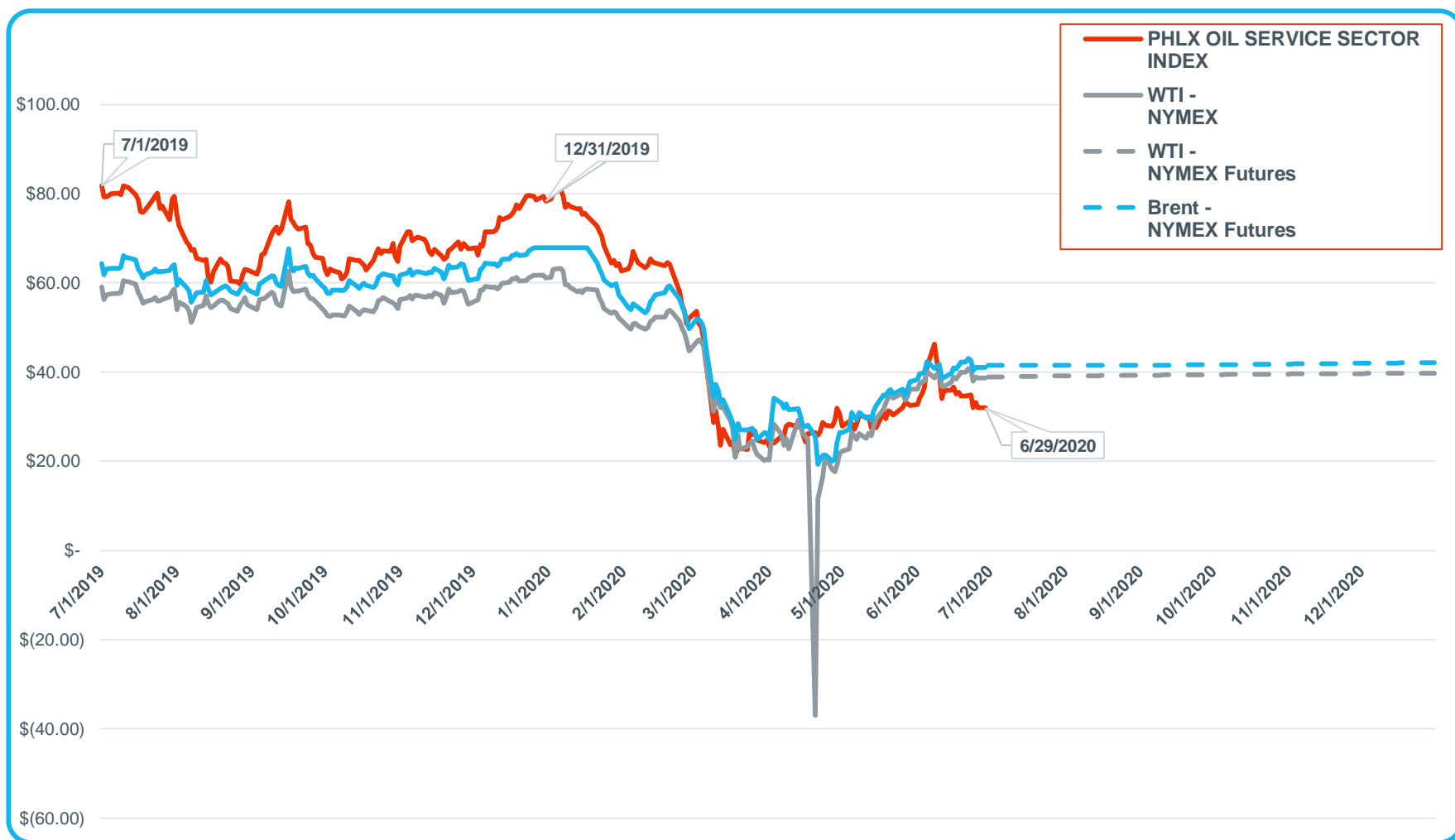
# Q1 Impairment: Midstream Considerations



Source: S&P Global Market Intelligence May 22, 2020

# Oilfield Service Sector

## OFS Sector Market Value Correlation with Oil Prices

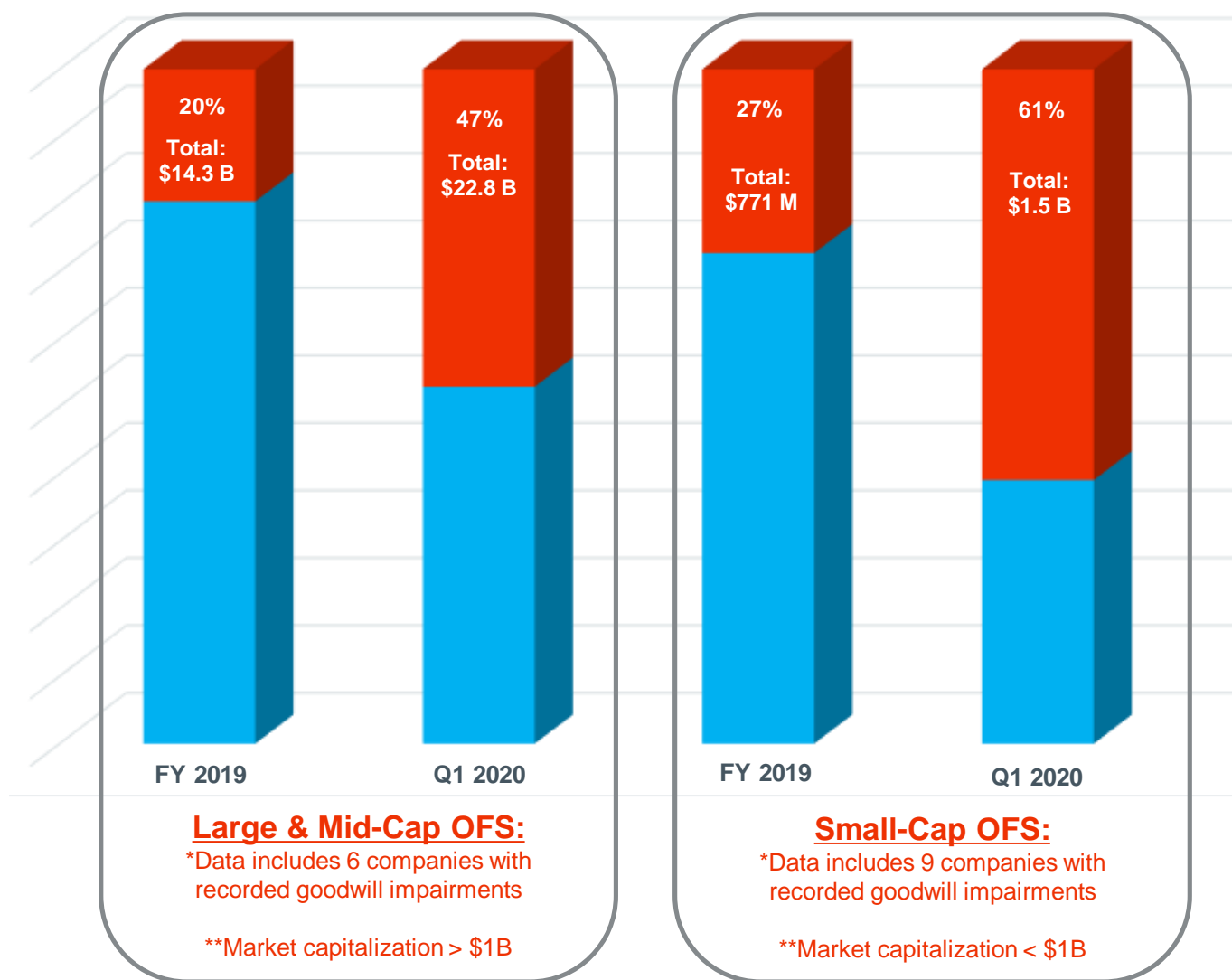


\* Based on data provided by S&P's Capital IQ database through June 19, 2020.



# Oilfield Service Sector Impairments

FY 2019 & Q1 2020: Average Goodwill Impairments as % of NBV



\* Based on a survey of 29 SEC filers in the OFS Sector. Based on information provided in SEC filings.

# Oilfield Service Sector Impairments

FY 2019 & Q1 2020 Long-Lived Asset Impairments

## Summary of OFS Asset Impairments

- **15 of 29 companies** surveyed took asset impairments in **FY 2019**, totaling approximately **\$19.9B**
- FY 2019 asset impairments range from approx. **\$2M to \$12.2B**
- **17 of 29 companies** surveyed took asset impairments as of **Q1 2020**, totaling approximately **\$12.9B**
- Q1 2020 asset impairments range from approx. **\$7M to \$5.2B**
- Notable impairment: SLB \$12.2B as of FY 2019 and \$5.2B as of Q1 2020

## Service Areas with Impairments

- Production
- Land Drilling
- Pressure Pumping
- Well Completion
- Drilling & Evaluation
- Wireline

## Key Factors Driving Impairments

- Price
- Short-lived asset base
- Short-lived customer agreements
- Increased counterparty (customer) risk

*\*Based on a survey of 29 SEC filers in the OFS Sector. Based on information provided in SEC filings.*

# Joint Ventures: Why do JVs Matter?

## Diversifying Risks and Reducing Capital Intensity Across the Asset Portfolio

- Joint ventures have become a convenient tool for energy companies in general to diversify risk and share capital costs with other companies
- Especially upstream projects have relied upon the diversification benefits of sharing capital exposure, subsurface risk, and above ground risks with third parties and/or host governments
- Therefore, JVs better align interests along the value chain, as energy consumers (i.e. Power companies) share into the risks of the upstream side of a project (i.e. integrated Natural Gas-LNG projects)
- In general, JVs are widely spread across the industry

**5,400+** Operated Assets Worldwide

**2,400+** Joint Ventures Worldwide

**500+** Operators (incl. Sole Operators)

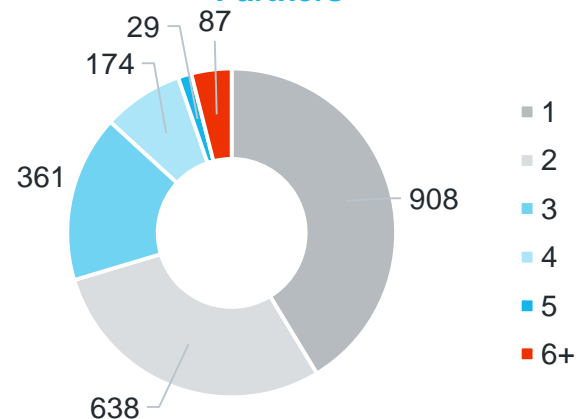
### Assets:

**5,000+** In Production

**150+** Under Evaluation

**190+** In Development

# Active Upstream JVs by Partners



---

# A Quick Buck: Joint Venture Audits

## Checks and Balances on Operators

### Key JOA characteristics....

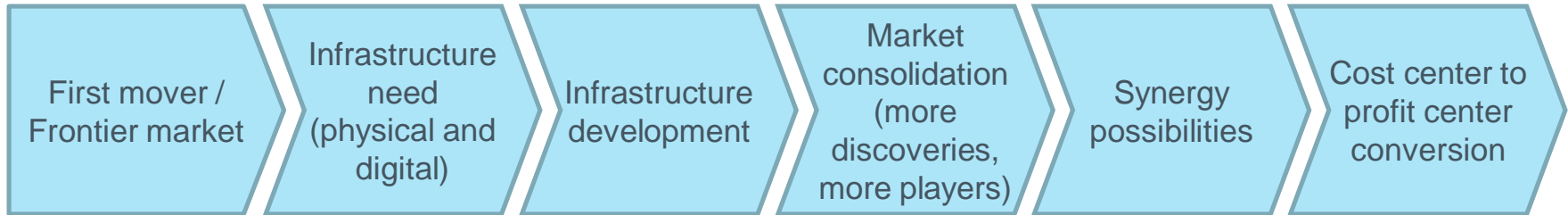
- ✓ Multi-party contract that generally includes competitors (E&P companies) and may include parties with divergent interests (governments)
- ✓ Governs multi-decade and multi-billion dollar investment projects that will most likely see various operators, teams, technological advances, market cycles, come and go so they need to be flexible enough to absorb evolution but leave no room for interpretation error → that's why you pay lawyers so much money!
- ✓ Typical principal – agent situation where the operator needs to be able to make decisions without negatively impacting day-to-day operations and non-operators are left to supervise without many tools to intervene
- ✓ **For that effect, JOAs usually grant the non-operator(s) the right to run periodic joint venture audits**

### ...lead to certain key non-operator questions

- ? Is the Operator overcharging the Joint Account for headquarter/overhead costs?
- ? Are direct and indirect costs classified and allocated in accordance with the rules set out in the Joint Operating Agreement?
- ? How is the joint account affected if certain facilities, materials or services (i.e. pipeline, tubing, helicopter transport) are shared with other assets?
- ? Are revenues correctly accounted for, considering that production is blended with other JVs in which I don't participate?
- ? Am I aware of all "off-balance" commitments and risks, in particular those related to decommissioning and abandonment?
- ? Is the Operator optimizing cash management for funds collected through cash calls?
- ? Are the operational problems that I'm aware of being reflected in the Audit report through procedural recommendations?

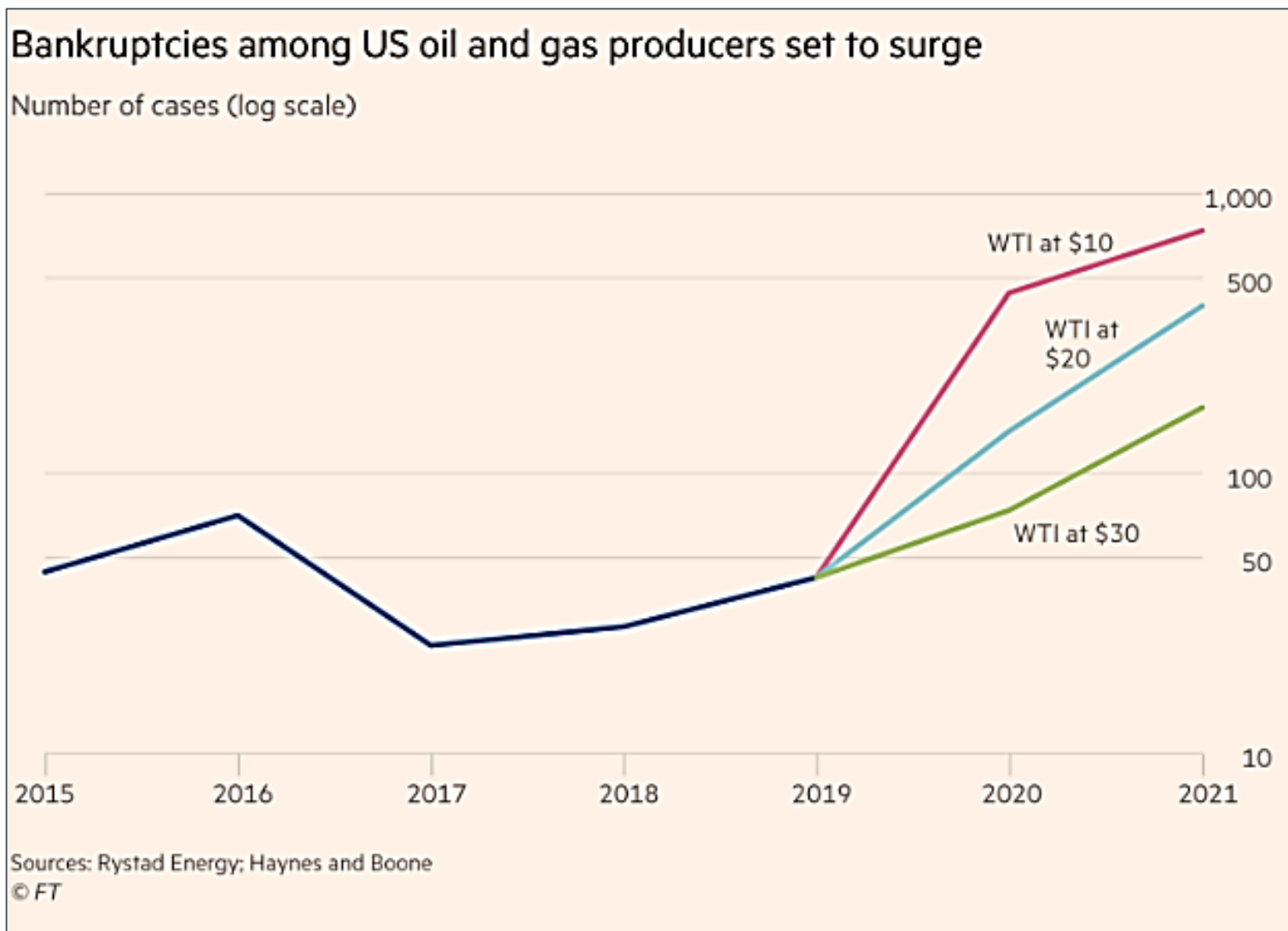
# A Look Inside: Turning Cost Centers into Profit Centers

Recovering value from internal services from third parties



- A cost center turned profit center may be suitable to be spin off into a new venture, maximizing the value creation process by re-valuing the (partially) depreciated assets at market/transaction value paid by any potential acquirer
- When a company partners with a third party, the value creation view should not be limited to the crystallization of a potential revalorization or the monetization of certain assets. The new venture, should be structured in order to allocate the required services from the structure of the group, therefore the cost recovery process is an additional source of resources
- The joint venture structures are well known and developed in E&P projects, nevertheless the active management of these JVs, as well as the application of these schemes to other segments of the hydrocarbon value chain should be a priority during these times of budget constraints, reduction of CAPEX programs, etc.

# Bankruptcy: According to the press...



Source: FT, May 25, 2020

# Bankruptcy: According to the press...

#	Announced Date	Company	Industry Classifications
1	06/29/2020	Lilis Energy	Oil and Gas Exploration and Production
2	06/28/2020	Chesapeake Energy Corp	Oil and Gas Exploration and Production
3	06/26/2020	Sable Permian Resources	Oil and Gas Exploration and Production
3	06/24/2020	FieldPoint Petroleum Corporation	Oil and Gas Exploration and Production
4	06/22/2020	Rwdy Inc.	Energy Consulting Services
5	06/14/2020	Extraction Oil & Gas, Inc.	Oil and Gas Exploration and Production / Gathering and Processing
6	06/09/2020	Maalt Specialized Bulk LLC	Energy Equipment and Services
7	06/01/2020	Templar Energy LLC	Oil and Gas Exploration and Production
8	05/22/2020	Unit Corporation	Oil and Gas Exploration and Production / Gathering and Processing
9	05/19/2020	Hornbeck Offshore Services, Inc.	Energy Equipment and Services
10	05/15/2020	Gavilan Resources LLC	Oil and Gas Exploration and Production
11	05/14/2020	New Emerald Energy LLC	Oil and Gas Exploration and Production
12	05/14/2020	Ultra Petroleum Corp.	Oil and Gas Exploration and Production
13	05/11/2020	Freedom Oil and Gas Ltd	Oil and Gas Exploration and Production
14	05/06/2020	Victerra Energy Holding Co., LLC	Oil and Gas Exploration and Production
15	05/04/2020	Permico Midstream Partners LLC	Oil and Gas Storage and Transportation
16	04/30/2020	Buzzards Bench, LLC	Oil and Gas Exploration and Production
17	04/26/2020	Diamond Offshore Drilling, Inc.	Energy Equipment and Services
18	04/16/2020	Eco-Stim Energy Solutions, Inc.	Energy Equipment and Services
19	04/15/2020	Yuma Energy, Inc.	Oil and Gas Exploration and Production
20	04/09/2020	Temblor Petroleum Company, LLC	Oil and Gas Exploration and Production
21	04/06/2020	Amazing Energy MS, LLC	Oil and Gas Exploration and Production
22	04/01/2020	Whiting Petroleum Corporation	Oil and Gas Exploration and Production
23	04/01/2020	Sklar Exploration Company L.L.C.	Oil and Gas Exploration and Production
24	03/29/2020	CARBO Ceramics Inc.	Energy Equipment and Services
25	03/27/2020	Legion Rig Services LLC	Energy Equipment and Services
26	03/24/2020	Echo Energy Partners I, LLC	Oil and Gas Exploration and Production
27	03/23/2020	Sheridan Holding Company I, LLC	Oil and Gas Exploration and Production
28	03/16/2020	Tri-Point Oil & Gas Production Systems, LLC	Energy Equipment and Services
29	03/01/2020	Pioneer Energy Services Corp.	Energy Equipment and Services
30	02/17/2020	Dalf Energy, LLC	Oil and Gas Exploration and Production
31	01/31/2020	Siempre Energy, LLC	Oil and Gas Exploration and Production
32	01/27/2020	Southland Royalty Company LLC	Oil and Gas Exploration and Production
33	01/21/2020	McDermott International, Inc.	Energy Equipment and Services
34	01/14/2020	Bridgemark Corporation	Oil and Gas Exploration and Production

Source: S&P Capital IQ

---

## Closing Comments

- David Scott: + 1 469 547 3914; [david.scott@duffandphelps.com](mailto:david.scott@duffandphelps.com)
- Eraj Weerasinghe: +1 415 656 6044; [eraj.weerasinghe@duffandphelps.com](mailto:eraj.weerasinghe@duffandphelps.com)
- Miguel Peleteiro: +52 55 6820 6940; [miguel.peleteiro@duffandphelps.com](mailto:miguel.peleteiro@duffandphelps.com)
- Leo Miki: +1 415 693 5322; [leo.miki@duffandphelps.com](mailto:leo.miki@duffandphelps.com)
- David Juneau: +1 713 237 5379; [david.juneau@duffandphelps.com](mailto:david.juneau@duffandphelps.com)
- Jason Neal: +1 713 237 5340; [jason.neal@duffandphelps.com](mailto:jason.neal@duffandphelps.com)

**Any Questions?**

**Thank you for attending!**



For more information about our global locations and services, please visit:  
[www.duffandphelps.com](http://www.duffandphelps.com)

#### **About Duff & Phelps**

Duff & Phelps is the global advisor that protects, restores and maximizes value for clients in the areas of valuation, corporate finance, disputes and investigations, cyber security, claims administration and regulatory issues. We work with clients across diverse sectors on matters of good governance and transparency. With Kroll, the leading global provider of risk solutions, and Prime Clerk, the leader in complex business services and claims administration, our firm has nearly 4,000 professionals in 25 countries around the world. For more information, visit

*M&A advisory, capital raising and secondary market advisory services in the United States are provided by Duff & Phelps Securities, LLC. Member FINRA/SIPC. Pagemill Partners is a Division of Duff & Phelps Securities, LLC. M&A advisory, capital raising and secondary market advisory services in the United Kingdom are provided by Duff & Phelps Securities Ltd. (DPSL), which is authorized and regulated by the Financial Conduct Authority. M&A advisory and capital raising services in Germany are provided by Duff & Phelps GmbH, which is a Tied Agent of DPSL. Valuation Advisory Services in India are provided by Duff & Phelps India Private Limited under a category 1 merchant banker license issued by the Securities and Exchange Board of India.*