

# Albemarle Corporation

## Investor Presentation

May 2019



# Forward-Looking Statements

Some of the information presented in this presentation, the earnings conference call and discussions that follow, including, without limitation, information related to outlook and guidance, conversion capacity, acquisitions and joint ventures market trends, pricing, expected growth, earnings and demand for our products, tax rates, stock repurchases, dividends, cash flow generation, capital projects, economic trends and all other information relating to matters that are not historical facts may constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Actual results could differ materially from the views expressed.

Factors that could cause actual results to differ materially from the outlook expressed or implied in any forward-looking statement include, without limitation: changes in economic and business conditions; changes in financial and operating performance of our major customers and industries and markets served by us; the timing of orders received from customers; the gain or loss of significant customers; competition from other manufacturers; changes in the demand for our products or the end-user markets in which our products are sold; limitations or prohibitions on the manufacture and sale of our products; availability of raw materials; increases in the cost of raw materials and energy, and our ability to pass through such increases to our customers; changes in our markets in general; fluctuations in foreign currencies; changes in laws and government regulation impacting our operations or our products; the occurrence of regulatory actions, proceedings, claims or litigation; the occurrence of cyber-security breaches, terrorist attacks, industrial accidents, natural disasters or climate change; the inability to maintain current levels of product or premises liability insurance or the denial of such coverage; regulatory approvals and the satisfaction of other closing conditions with respect to pending acquisitions; political unrest affecting the global economy, including adverse effects from terrorism or hostilities; political instability affecting our manufacturing operations or joint ventures; changes in accounting standards; the inability to achieve results from our global manufacturing cost reduction initiatives as well as our ongoing continuous improvement and rationalization programs; changes in the jurisdictional mix of our earnings and changes in tax laws and rates; changes in monetary policies, inflation or interest rates that may impact our ability to raise capital or increase our cost of funds, impact the performance of our pension fund investments and increase our pension expense and funding obligations; volatility and uncertainties in the debt and equity markets; technology or intellectual property infringement, including cyber-security breaches, and other innovation risks; decisions we may make in the future; the ability to successfully execute, operate and integrate acquisitions and divestitures; and the other factors detailed from time to time in the reports we file with the SEC, including those described under “Risk Factors” in our Annual Report on Form 10-K and our Quarterly Reports on Form 10-Q. These forward-looking statements speak only as of the date of this presentation. We assume no obligation to provide any revisions to any forward-looking statements should circumstances change, except as otherwise required by securities and other applicable laws.

# Non-GAAP Financial Measures

It should be noted that Adjusted net income attributable to Albemarle Corporation (“Adjusted earnings”), Adjusted diluted earnings per share attributable to Albemarle Corporation, Adjusted effective income tax rates, segment operating profit, segment income, pro-forma net sales, net sales excluding the impact of foreign exchange translation (“ex FX”), EBITDA, Adj. EBITDA, Adj. EBITDA by operating segment, EBITDA margin, Adj. EBITDA margin, pro-forma Adj. EBITDA, pro-forma Adj. EBITDA margin, Adj. EBITDA excluding the impact of foreign exchange translation (“ex FX”), Adj. EBITDA margin excluding the impact of foreign exchange translation (“ex FX”), net debt to Adj. EBITDA, gross debt to Adj. EBITDA, free cash flow, and Adjusted free cash flow are financial measures that are not required by, or presented in accordance with, accounting principles generally accepted in the United States, or GAAP. These measures are presented here to provide additional useful measurements to review our operations, provide transparency to investors and enable period-to-period comparability of financial performance. The Company’s chief operating decision maker uses these measures to assess the ongoing performance of the Company and its segments, as well as for business and enterprise planning purposes.

A description of these and other non-GAAP financial measures that we use to evaluate our operations and financial performance, and reconciliation of these non-GAAP financial measures to the most directly comparable financial measures calculated and reported in accordance with GAAP, can be found in the Appendix to this presentation. The Company does not provide a reconciliation of forward looking non-GAAP financial measures to the most directly comparable financial measures calculated and reported in accordance with GAAP, as the Company is unable to estimate significant non-recurring or unusual items without unreasonable effort. The amounts and timing of these items are uncertain and could be material to the Company’s results calculated in accordance with GAAP.

# Albemarle Snapshot

Founded	1887
Global Employees	~5,600
Countries <sup>1</sup>	~100
Dividend Yield <sup>2</sup>	2.0%
Market Cap <sup>3</sup>	\$7.7B

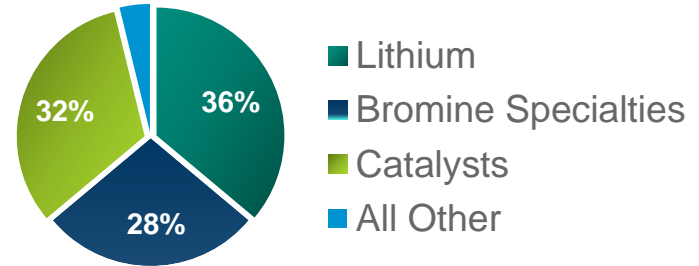
## Financial Highlights

Twelve Months Ended March 31, 2019

Net Sales	\$3.4B
Net Income <sup>4</sup>	\$695M
Adj. EBITDA	\$984M
Adj. EBITDA Margin	29%

## Net Sales by Segment

Twelve Months Ended March 31, 2019



*Providing innovative solutions to power the potential of energy efficiency*

<sup>1</sup>Based on destinations of FY2018 product sales.

<sup>2</sup>\$72.61 closing price as of May 9th, 2019; annualized dividend of \$1.47 per share announced February 26, 2019.

<sup>3</sup>\$72.61 closing price as of May 9th, 2019; 105,950 million shares outstanding as of March 31, 2019.

# 2018 was another step towards strategy announced in 2017

## Grow



### Invest in Lithium to meet market demand

- Lithium grew adj. EBITDA 19% (FY 2018 vs FY 2017)
- La Negra III / IV expansion 4Q 2020/ 1Q 2021 commissioning
- Started Xinyu II commissioning process
- Commenced site work at Kemerton
- Extended a number of critical long-term agreements at 2018 price levels

## Maintain



### Strengthen and make the most of Bromine, Catalysts and other mature businesses

- Bromine and Catalysts each contributed double digit adj. EBITDA growth<sup>1</sup>
- SAYTEX® CP-2000 (tetrabrom) expansion at JBC

### Build on manufacturing excellence and integration successes to drive efficiencies

- Implemented first of four deployments on new SAP system

# 2018 was another step towards strategy announced in 2017

## Assess



### Active and continuous assessment of our portfolio of businesses

- Completed sale of Polyolefin Catalyst & Components

### Opportunities to accelerate and strengthen strategy

- Definitive agreement to form Lithium Hydroxide JV with Mineral Resources Limited
- Exercised option on Antofalla resource in Argentina and completed drilling program at Kings Mountain









## Invest



### Maintain a disciplined approach to capital allocation

- \$145 million in dividends; 24<sup>th</sup> consecutive year of increases
- Completed \$500 million in share buybacks
- \$700 million in CapEx for returns at least 2x cost of capital

# Leadership Across Businesses Is Driven By Core Strengths

	Lithium	Bromine Specialties	Catalysts
Global Ranking	#1	#2	#2
Adj. EBITDA <sup>1</sup>	\$515M	\$297M	\$276M
Adj. EBITDA Margin <sup>1</sup>	42%	32%	25%
Key Competitors	 	 	   
Advantages	Globally Diversified, Low Cost Resources; Leading Processing and Application Expertise; Customer Relationships	Globally Diversified, Low Cost Resources; Integrated Product Portfolio	Leading Technology and Application Expertise; Product Stewardship; Customer Relationships

# Bromine Specialties Snapshot

## Annual Financials

*Twelve Months Ended March 31, 2019*

<b>Net Sales</b>	<b>\$941M</b>
<b>Adj. EBITDA</b>	<b>\$297M</b>
<b>Adj. EBITDA Margin</b>	<b>32%</b>

## Characteristics

- Mineral extraction and processing
- Low-cost position on global cost curve
- Vertically integrated
- Stable and sustainable cash flow

## Applications



- Flame retardants for electronics and construction materials
- Completion fluids for oilfield
- Industrial water treatment
- Plastic and synthetic rubber
- Ag and pharma synthesis

## Business Environment

- Stable flame retardants demand across electronics, construction and automotive
- Current completion fluid weakness due to oil prices, with a favorable and long-term outlook
- Excess bromine capacity is limited to few suppliers

**Advantaged Position. Stable End Markets. Strong Sustainable Cash Flow.**



# Catalysts Snapshot

## Annual Financials

*Twelve Months Ended March 31, 2019*

<b>Net Sales</b>	<b>\$1,092M</b>
<b>Adj. EBITDA</b>	<b>\$276M</b>
<b>Adj. EBITDA Margin</b>	<b>25%</b>

## Characteristics

- Leading positions in FCC and HPC catalysts
- Technology and applications knowledge
- Focused on value creation for refiners
- Long-term, collaborative customer relationships
- High barriers-to-entry
- Strong free cash flow<sup>1</sup> generation with growth
- Safety, scale and technical service

### Fluid Cracking Catalysts (FCC)

#### FCC Catalyst

- Cracks oil feedstock
- Makes gasoline
- Makes propylene

### Clean Fuels Technology (CFT)

#### HPC Catalyst

- Removes sulfur and contaminants
- Makes clean diesel
- Makes clean oil-feedstock

#### Alkylation & Isomerization Catalyst

- Makes clean high-octane gasoline

### Polymer Catalyst Solutions (PCS)

#### PCS

- Polymers
- Rubbers
- Pharma Synthesis
- Coatings

Leadership in FCC and HPC catalysts with High Margin Business with High Barriers-to-Entry

# Lithium Snapshot

## Annual Financials

*Twelve Months Ended March 31, 2019*

<b>Net Sales</b>	<b>\$1,222M</b>
<b>Adj. EBITDA</b>	<b>\$515M</b>
<b>Adj. EBITDA Margin</b>	<b>42%</b>

## Characteristics

- Mining and specialty chemicals capability
- Vertically integrated from natural resource to specialty performance products
- Low cost position globally

## Applications

- Energy storage (Batteries)
- Glasses and Ceramics
- Greases and Lubricants
- Pharmaceutical Synthesis
- Polyolefins and Elastomers



## Business Environment

- Volume growth driven by energy storage
- Public policy accelerating e-mobility / renewables
- Battery cost declining / performance improving
- Long-term supply agreements becoming industry standard

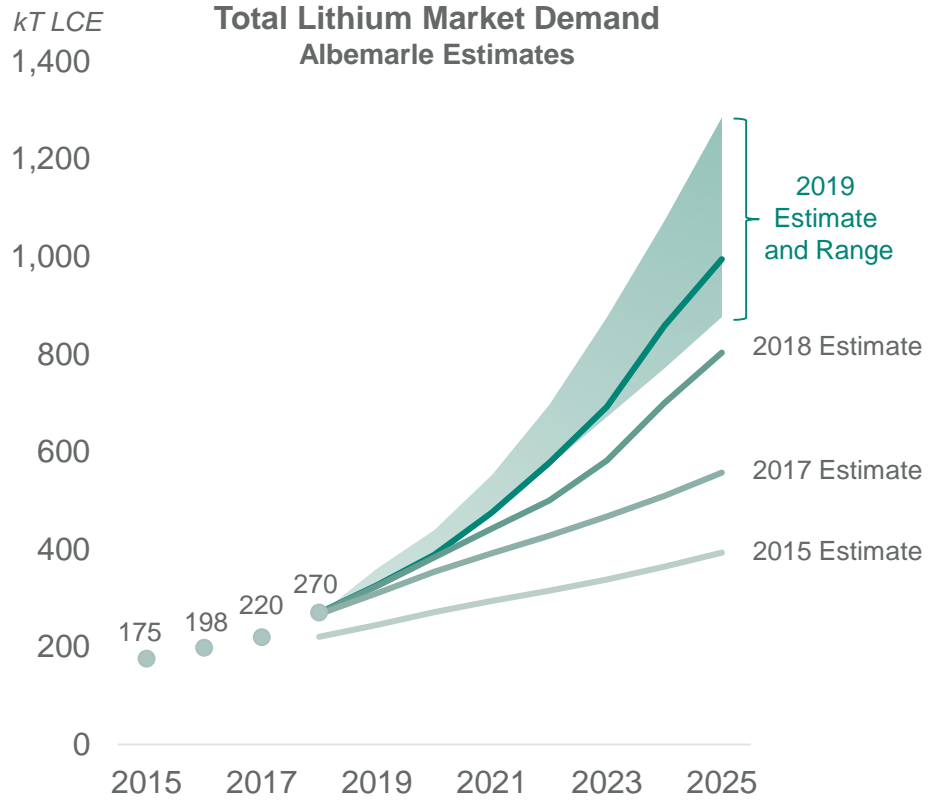
Best-In-Class Resources Coupled with Derivatives Expertise Are Differentiators

# Energy Storage Continues to Drive Lithium Demand

Demand by Application (kT LCE)		2018 Estimate	'18 – '25 CAGR	2025 Forecast
Electric Vehicles BEV & PHEV	Energy Storage	70	36%	610
Other Mobility e-buses, e-trucks & other		25	22%	100
Consumer Electronics		45	10%	90
Grid Storage (ESS)		10	29%	60
All Other/Industrial		120	2%	140
<b>Total Lithium Demand</b>		<b>270</b>	<b>21%</b>	<b>1,000</b>

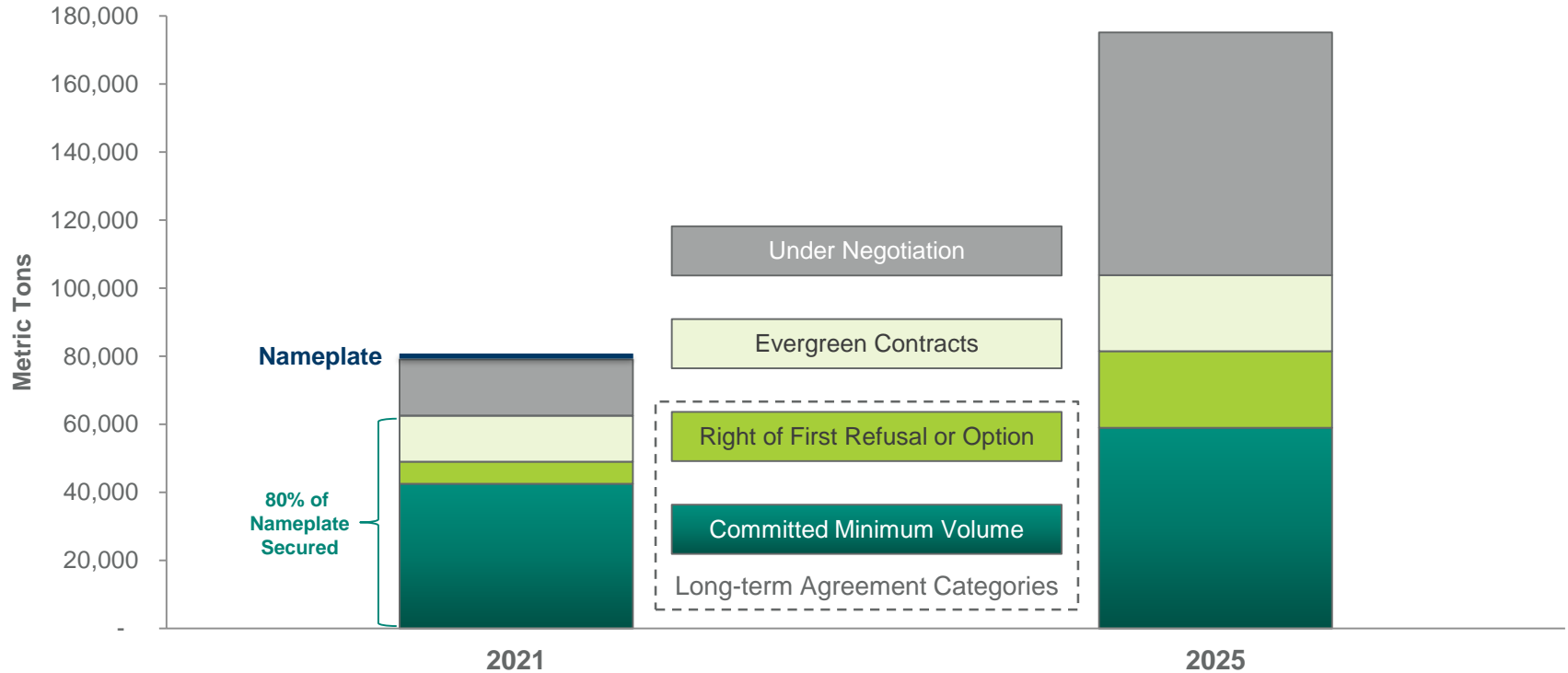
Electric Vehicle Demand Buildup		2018 Estimate	2025 Forecast
EV Penetration % of New Car Sales	PHEV	0.5%	6.0%
	BEV	1.5%	8.5%
	All EVs	2.0%	15%
Battery Size kWh per EV	PHEV	12	14
	BEV	44	60
	Average	32	41
Lithium Demand kT LCE	PHEV	9	85
	BEV	61	525
	<b>Total</b>	<b>70</b>	<b>610</b>



Lithium Intensity: 0.95 and 0.93 kg LCE/kWh in 2018 and 2025, respectively; New Car Sales: 95 and 109 million in 2018 and 2025, respectively

# Lithium Hydroxide Under Contract

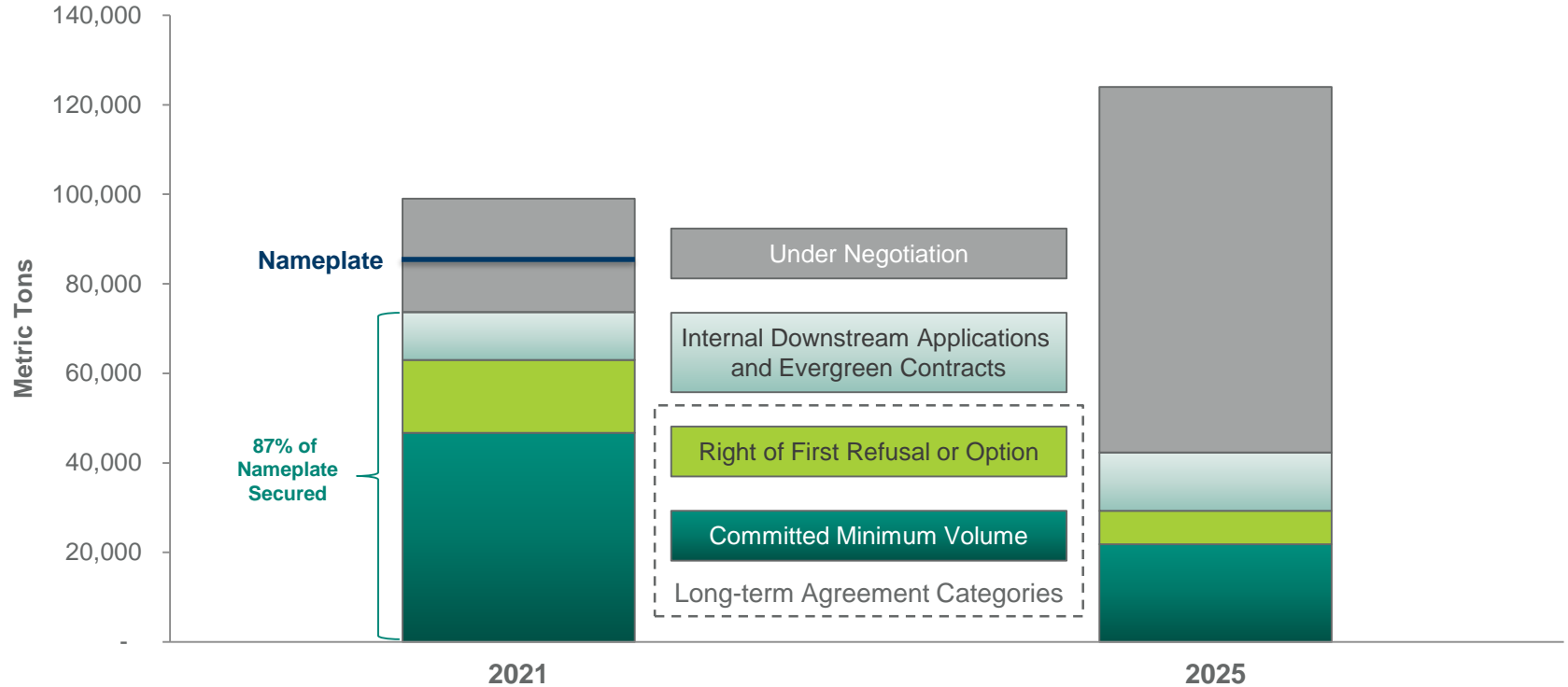
As of November 7<sup>th</sup>, 2018



2021 and 2025 sales price for Committed Minimum Volume is equal to or greater than the 2018 average selling price

# Lithium Carbonate Under Contract

As of November 7<sup>th</sup>, 2018



2021 and 2025 sales price for Committed Minimum Volume is equal to or greater than the 2018 average selling price

# Lithium Contract Definitions

**Committed Minimum Volume:** The minimum volume that customer has committed to purchase under long-term agreement.

**Right of First Refusal (ROFR):** If customer has demand above the **Committed Minimum Volume**, it must offer that volume to Albemarle. Albemarle has the option, but is not required, to supply this volume.

**Option:** Customer demand above the **Committed Minimum Volume** and **ROFR** categories. Albemarle has the option, but is not required, to supply this volume.

**Evergreen Contracts:** One to two-year contracts with customers (the majority for use in greases, ceramics and lubricants) with evergreen provisions, many of which have already extended beyond their initial term. Contracts with evergreen provisions are automatically renewed (rolled over) after the then expiring term until cancelled by either party.

**Internal Downstream Applications:** Lithium volume that is converted by Albemarle to downstream derivatives such as lithium hydroxide, butyl lithium, lithium metal and lithium halides.

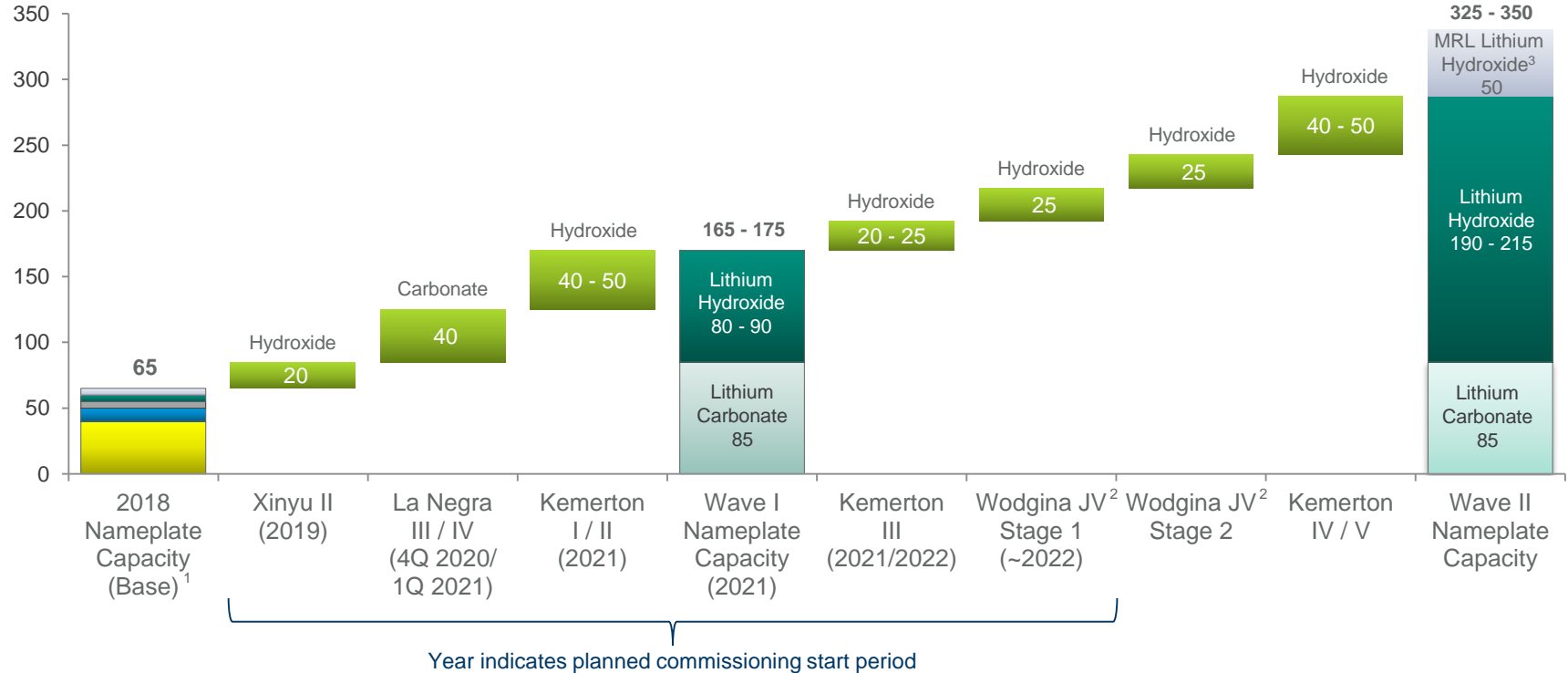
# Chile Regulatory Environment and Status

	Chile Environmental Superintendent (SMA)	Chile's Economic Development Agency (CORFO)	The Chilean Nuclear Energy Commission (CCHEN)
<b>Regulatory Authority</b>	Enforces operating permit that defines brine pump rate at the Salar de Atacama	Authorizes production of lithium	Authorizes sales of lithium
<b>Permits and Agreements</b>	<b>January 2016 Permit:</b> Allows Albemarle to pump brine at an annual average rate of 442 liters per second by the end of 2018. This permit expires in 2044.	<b>Original Agreement:</b> 0.6 million LCE remaining as of January 2017 <b>January 2017 Amendment:</b> Provides Albemarle with authorization to produce an incremental 1.4 million MTs LCE <b>March 2018 Amendment:</b> If Albemarle elects to build Chile V / VI, allows Albemarle to produce an incremental 1.4 million MTs LCE	<b>January 2017 Authorization:</b> Authorizes sale of lithium production quota granted by CORFO in January 2017 Amendment. <b>March 2018:</b> Simultaneous with March 2018 CORFO Amendment, Albemarle submitted request to increase the lithium sales authorization <b>September 2018:</b> CCHEN rejected March 2018 submission <b>November 2018:</b> Albemarle working with CCHEN to address concerns prior to re-submission
<b>Estimated Annual Volume through 2043 (MTs LCE per year)</b>	80,000 at current lithium yield; SMA enforces brine pump rate, not lithium production quota	80,000 <sup>1</sup> ; increases up to 145,000 <sup>1</sup> if Albemarle builds Chile V / VI	80,000 <sup>1</sup> with current authorization; would increase up to 145,000 <sup>1</sup> when new submission is approved

**Albemarle has the permits, agreements and authorizations in place to produce and sell at least 80,000 MTs annually through 2043**

# Wave I & II Conversion Capacity Plan

All figures in kt LCE and represent estimates of lithium nameplate conversion capacity



<sup>1</sup>Conversion capacity does not include approximately 10 kt LCE of technical grade spodumene to non-battery applications.

<sup>2</sup>Represents ALB 50% share of Wodgina JV capacity, subject to transaction closing.

<sup>3</sup>Represents MRL 50% share of Wodgina JV that ALB would have 100% marketing responsibility for upon transaction closing.



# Cash Flow and Net Debt

## Three Months Ended March 31

(\$ in millions)

	<u>2019</u>	<u>2018</u>
<b>Net Cash from Operations</b>	<b>\$55</b>	<b>\$122</b>
Less: Capital Expenditures	(216)	(132)
Add Back: Pension Contributions	4	4
<b>Free Cash Flow</b>	<b>(\$157)</b>	<b>(\$6)</b>

- Capital expenditures for Q1 on track with full year guidance of \$800 - \$900 million due to ramp on Kemerton, continued build out of La Negra and start of the Salar yield improvement.

## Selected Financial Metrics

(\$ in millions)

(as of 03/31/2019)

<b>Dividends Paid (YTD):</b>	<b>\$35</b>
<b>Dividend Growth (Y/Y)<sup>1</sup>:</b>	<b>10%</b>
<b>Cash Balance:</b>	<b>\$465</b>
<b>Gross Debt<sup>2</sup>:</b>	<b>\$1,820</b>

## Net Debt to Adj. EBITDA<sup>3</sup>



<sup>1</sup>Represents annual increase in dividend per share.

<sup>2</sup>Excludes JV debt not guaranteed by Company.

<sup>3</sup>Gross Debt to Adj. EBITDA and Net Debt to Adj. EBITDA ratios are based on the bank covenant definition. See appendix for reconciliations.

# Disciplined Capital Allocation Strategy – Our Priorities

**Invest for Growth, Maintain Flexibility and Deliver Shareholder Value**

**Invest for Growth in High Return Projects**

- Strategically grow Lithium

**Disciplined M&A Strategy**

- Must support or accelerate our strategy

**Maintain Investment Grade Rating**

- Long-term Net Debt to Adjusted EBITDA<sup>1</sup> Target: 2.0x – 2.5x

**Fund Dividend Growth**

- Increase dividend annually: 24 consecutive years since going public in 1994

**Repurchase Shares**

- When excess balance sheet capability available

# Albemarle Is Well Positioned to Maximize Long-Term Shareholder Value Creation







- 1 Multi-year journey has resulted in a more focused and growth-oriented portfolio underpinned by energy efficiency macro drivers
- 2 Clear strategy with the people, cash generation and resources necessary to execute the strategy
- 3 Experienced and focused management team with clear deliverables
- 4 Actively managing our portfolio in a disciplined and focused manner to drive shareholder value
- 5 Strong balance sheet and disciplined approach to capital allocation with focus on highest returns (reinvestment, strategic acquisitions and returns to shareholders)




# Appendix A

Guidance as per Q1 2019 Earnings Released  
May 8, 2019

# Full Year 2019 Business Guidance vs 2018

As of May 8, 2019

Business Unit	Prior Outlook	Updated Outlook	Business Environment
Lithium			<ul style="list-style-type: none"> <li>Adj. EBITDA growth expected to be in the high teens vs prior year</li> <li>Favorable outlook driven by volume growth and flat to inflationary price increases</li> <li>Increased costs related to plant startups and tolled volumes; expect adj. EBITDA margins to remain above 40%</li> </ul>
Bromine Specialties			<ul style="list-style-type: none"> <li>Adj. EBITDA growth expected to be up mid to high single digits on a percentage basis</li> <li>Outlook driven by stable demand across portfolio and improving second half expectations</li> <li>Historically, Bromine segment impacted earliest and most negatively by economic slowdown</li> </ul>
Catalysts <sup>1</sup>			<ul style="list-style-type: none"> <li>Adj. EBITDA expected to be flat vs prior year on a pro-forma<sup>1</sup> basis</li> <li>PCS headwind of \$11 million adj. EBITDA in 2019 from loss of customer contract</li> <li>Refining Catalysts adj. EBITDA expected to be up mid single digit, excluding 2018 one-time settlements of ~\$9 million</li> </ul>

 Better than 2018  
  Better than 2018; reduced from Prior Outlook  
  Flat vs 2018

# Full Year 2019 Guidance vs 2018

As of May 8, 2019

	FY 2018	FY 2018 Pro-forma <sup>1</sup>	FY 2019 Guidance	2019 Guidance vs FY 2018 Pro-Forma <sup>1</sup>
<b>Net Sales</b>	\$3.37B	\$3.35B	\$3.65B – \$3.85B	9% – 15%
<b>Adjusted EBITDA</b>	\$1,007M	\$996M	\$1,070M – \$1,140M	7% – 14%
<b>Adjusted EBITDA Margin</b>	30%	30%	29% – 31%	
<b>Adjusted Diluted EPS</b>	\$5.48	\$5.43	\$6.10 – \$6.50	12% – 20%
<b>Net Cash from Operations</b>	\$546M	\$535M	\$700M – \$800M	40% – 50%
<b>Capital Expenditures</b>	\$700M	\$700M	\$800M – \$900M	

**FY Guidance is unchanged**

# Additional Inputs for 2019 Plan

(\$ in millions)

	FY 2018	FY 2019 Estimate	Comments
Depreciation and amortization	\$201	\$210 – \$215	
Adjusted effective income tax rate	21.6%	22% – 24%	Geographic mix results in higher tax rate YoY
Corporate Costs	\$112	\$115 – \$120	YoY increase due to low bonus payout in 2018
Interest and financing expenses	\$52	\$40 – \$50	
Weighted-average common shares outstanding – diluted	109M	~107M	YoY decrease due to \$500 million in share buybacks in 2018

# Appendix B

Non-GAAP Reconciliations and  
Supplemental Information



# Definitions of Non-GAAP Measures

Non-GAAP Measure	Description
Adjusted net income	Net income attributable to Albemarle Corporation before non-recurring, other unusual and non-operating pension and OPEB.
Pro-forma adjusted net income	Net income attributable to Albemarle Corporation before non-recurring, other unusual and non-operating pension and OPEB items, and the net impact of the divested business.
Adjusted diluted EPS	Diluted EPS before non-recurring, other unusual and non-operating pension and OPEB.
Pro-form adjusted diluted EPS	Diluted EPS before non-recurring, other unusual and non-operating pension and OPEB items, and the net impact of the divested business.
EBITDA	Net income attributable to Albemarle Corporation before interest and financing expenses, income taxes, and depreciation and amortization.
Adjusted EBITDA	EBITDA before non-recurring, other unusual and non-operating pension and OPEB.
Pro-forma adjusted EBITDA	Adjusted EBITDA before the net impact of EBITDA of the divested business.
Pro-forma Net Sales	Net Sales before the impact of Net Sales from the divested business.
Adjusted Effective Income Tax Rate	Reported effective income tax rate before the tax impact of non-recurring, other unusual and non-operating pension and OPEB items.

# Adjusted Net Income - Pro-forma

	Three Months Ended	
	March 31,	
	2019	2018
<i>(\$ in thousands)</i>		
Net income attributable to Albemarle Corporation	\$ 133,569	\$ 131,760
Add back:		
Non-operating pension and OPEB items (net of tax)	(569)	(1,866)
Non-recurring and other unusual items (net of tax)	(2,012)	15,319
Adjusted net income attributable to Albemarle Corporation	130,988	145,213
Pro-forma: Net impact of income from divested business (net of tax)	—	(8,355)
Pro-forma adjusted net income attributable to Albemarle Corporation	\$ 130,988	\$ 136,858
Adjusted diluted earnings per share	\$ 1.23	\$ 1.30
Pro-forma adjusted diluted earnings per share	\$ 1.23	\$ 1.22
Weighted-average common shares outstanding – diluted	106,356	111,867

See above for a reconciliation of adjusted net income and pro-forma adjusted net income, the non-GAAP financial measures, to Net income attributable to Albemarle Corporation, the most directly comparable financial measure calculated and reported in accordance with GAAP.

# EBITDA and Adjusted EBITDA - Pro-forma

<i>(\$ in thousands)</i>	Three Months Ended	
	March 31,	
	2019	2018
Net income attributable to Albemarle Corporation	\$ 133,569	\$ 131,760
Add back:		
Interest and financing expenses	12,586	13,538
Income tax expense	37,514	20,361
Depreciation and amortization	49,283	50,330
<b>EBITDA</b>	<b>232,952</b>	<b>215,989</b>
Non-operating pension and OPEB items	(583)	(2,197)
Non-recurring and other unusual items	(6,502)	34,926
<b>Adjusted EBITDA</b>	<b>225,867</b>	<b>248,718</b>
Pro-forma: Net impact of adjusted EBITDA from divested business	—	(10,872)
<b>Pro-forma adjusted EBITDA</b>	<b>\$ 225,867</b>	<b>\$ 237,846</b>
<b>Net sales</b>	<b>\$ 832,064</b>	<b>\$ 821,629</b>
Pro-forma: Net impact of net sales from divested business	—	(27,082)
<b>Pro-forma net sales</b>	<b>\$ 832,064</b>	<b>\$ 794,547</b>
EBITDA margin	28.0%	26.3%
Adjusted EBITDA margin	27.1%	30.3%
Pro-forma adjusted EBITDA margin	27.1%	29.9%

See above for a reconciliation of EBITDA, adjusted EBITDA, and pro-forma adjusted EBITDA, the non-GAAP financial measures, to Net income attributable to Albemarle Corporation, the most directly comparable financial measure calculated and reported in accordance with GAAP.

See above for a reconciliation of pro-forma net sales, the non-GAAP financial measure, to net sales, the most directly comparable financial measure calculated and reported in accordance with GAAP.

# Adjusted EBITDA - by Segment *(three months ended March 31)*

(\$ in thousands)

	Lithium	Bromine Specialties	Catalysts	Reportable Segments Total	All Other	Corporate	Consolidated Total
<b>Three months ended March 31, 2019:</b>							
Net income (loss) attributable to Albemarle Corporation	\$ 93,169	\$ 67,480	\$ 47,859	\$ 208,508	\$ 5,206	\$ (80,145)	\$ 133,569
Depreciation and amortization	22,092	11,117	12,212	45,421	2,037	1,825	49,283
Non-recurring and other unusual items	355	—	—	355	—	(6,857)	(6,502)
Interest and financing expenses	—	—	—	—	—	12,586	12,586
Income tax expense	—	—	—	—	—	37,514	37,514
Non-operating pension and OPEB items	—	—	—	—	—	(583)	(583)
<b>Adjusted EBITDA</b>	<b>\$ 115,616</b>	<b>\$ 78,597</b>	<b>\$ 60,071</b>	<b>\$ 254,284</b>	<b>\$ 7,243</b>	<b>\$ (35,660)</b>	<b>\$ 225,867</b>
<b>Three months ended March 31, 2018:</b>							
Net income (loss) attributable to Albemarle Corporation	\$ 108,334	\$ 59,536	\$ 55,660	\$ 223,530	\$ 1,760	\$ (93,530)	\$ 131,760
Depreciation and amortization	24,065	10,433	12,170	46,668	2,102	1,560	50,330
Non-recurring and other unusual items	(1,385)	—	—	(1,385)	—	36,311	34,926
Interest and financing expenses	—	—	—	—	—	13,538	13,538
Income tax expense	—	—	—	—	—	20,361	20,361
Non-operating pension and OPEB items	—	—	—	—	—	(2,197)	(2,197)
<b>Adjusted EBITDA</b>	<b>\$ 131,014</b>	<b>\$ 69,969</b>	<b>\$ 67,830</b>	<b>\$ 268,813</b>	<b>\$ 3,862</b>	<b>\$ (23,957)</b>	<b>\$ 248,718</b>
Pro-forma: Net impact of adjusted EBITDA from divested business	—	—	(10,872)	(10,872)	—	—	(10,872)
<b>Pro-forma adjusted EBITDA</b>	<b>\$ 131,014</b>	<b>\$ 69,969</b>	<b>\$ 56,958</b>	<b>\$ 257,941</b>	<b>\$ 3,862</b>	<b>\$ (23,957)</b>	<b>\$ 237,846</b>

See above for a reconciliation of adjusted EBITDA on a segment basis, the non-GAAP financial measure, to Net income attributable to Albemarle Corporation ("earnings"), the most directly comparable financial measure calculated and reporting in accordance with GAAP.

# Adjusted EBITDA - Margin by Segment *(three months ended March 31)*

*(\$ in thousands)*

	Lithium	Bromine Specialties	Catalysts	Reportable Segments Total	All Other	Consolidated Total
<b>Three months ended March 31, 2019:</b>						
Net sales	\$ 291,886	\$ 249,052	\$ 251,648	\$ 792,586	\$ 39,478	\$ 832,064
Net income (loss) attributable to Albemarle Corporation	31.9%	27.1%	19.0%	26.3%	13.2%	16.1%
Depreciation and amortization	7.6%	4.5%	4.9%	5.7%	5.2%	5.9%
Non-recurring and other unusual items	0.1%	—%	—%	—%	—%	(0.8)%
Interest and financing expenses	—%	—%	—%	—%	—%	1.5%
Income tax expense	—%	—%	—%	—%	—%	4.5%
Non-operating pension and OPEB items	—%	—%	—%	—%	—%	(0.1)%
<b>Adjusted EBITDA Margin</b>	<b>39.6%</b>	<b>31.6%</b>	<b>23.9%</b>	<b>32.1%</b>	<b>18.3%</b>	<b>27.1%</b>
<b>Three months ended March 31, 2018:</b>						
Net sales	\$ 298,032	\$ 225,639	\$ 260,717	\$ 784,388	\$ 37,165	\$ 821,629
Pro-forma: Net impact of net sales from divested business	—	—	(27,082)	(27,082)	—	(27,082)
Pro-forma net sales	\$ 298,032	\$ 225,639	\$ 233,635	\$ 757,306	\$ 37,165	\$ 794,547
Net income (loss) attributable to Albemarle Corporation	36.3%	26.4%	21.3%	28.5%	4.7%	16.0%
Depreciation and amortization	8.1%	4.6%	4.7%	5.9%	5.7%	6.1%
Non-recurring and other unusual items	(0.5)%	—%	—%	(0.2)%	—%	4.3%
Interest and financing expenses	—%	—%	—%	—%	—%	1.7%
Income tax expense	—%	—%	—%	—%	—%	2.5%
Non-operating pension and OPEB items	—%	—%	—%	—%	—%	(0.3)%
<b>Adjusted EBITDA Margin</b>	<b>44.0%</b>	<b>31.0%</b>	<b>26.0%</b>	<b>34.3%</b>	<b>10.4%</b>	<b>30.3%</b>
<b>Pro-forma Adjusted EBITDA Margin</b>	<b>44.0%</b>	<b>31.0%</b>	<b>24.4%</b>	<b>34.1%</b>	<b>10.4%</b>	<b>29.9%</b>

See above for adjusted EBITDA margin, a non-GAAP financial measure defined as adjusted EBITDA divided by net sales. See slide 20 for the related reconciliation of adjusted EBITDA on a segment basis, the non-GAAP financial measure, to Net income attributable to Albemarle Corporation (“earnings”), the most directly comparable financial measure calculated and reporting in accordance with GAAP.

Consolidated Total includes net sales from Corporate (not shown) of \$76 in the three months ended March 31, 2018.

# Adjusted EBITDA - Continuing Operations (twelve months ended)

(\$ in thousands)	Twelve Months Ended				
	Mar 31, 2018	Jun 30, 2018	Sep 30, 2018	Dec 31, 2018	Mar 31, 2019
<b>Continuing Operations</b>					
Net income attributable to Albemarle Corporation	\$ 135,397	\$ 334,525	\$ 345,600	\$ 693,562	\$ 695,371
Depreciation and amortization	202,188	203,540	203,352	200,698	199,651
Non-recurring and other unusual items (excluding items associated with interest expense)	101,914	(113,484)	(109,373)	(90,112)	(131,540)
Interest and financing expenses	60,375	59,093	56,289	52,405	51,453
Income tax expense	440,207	497,179	511,851	144,826	161,979
Non-operating pension and OPEB items	(17,259)	(18,410)	(19,577)	5,285	6,899
<b>Adjusted EBITDA</b>	<b>\$ 922,822</b>	<b>\$ 962,443</b>	<b>\$ 988,142</b>	<b>\$ 1,006,664</b>	<b>\$ 983,813</b>
Pro-forma: Net impact of adjusted EBITDA from divested businesses	(41,287)	(31,521)	(21,028)	(10,872)	—
<b>Pro-forma Adjusted EBITDA</b>	<b>\$ 881,535</b>	<b>\$ 930,922</b>	<b>\$ 967,114</b>	<b>\$ 995,792</b>	<b>\$ 983,813</b>
Net Sales	\$ 3,171,542	\$ 3,288,158	\$ 3,311,040	\$ 3,374,950	\$ 3,385,385
Pro-forma: Net impact of Net Sales from divested business	(106,013)	(80,282)	(53,306)	(27,082)	—
<b>Pro-forma Net Sales</b>	<b>\$ 3,065,529</b>	<b>\$ 3,207,876</b>	<b>\$ 3,257,734</b>	<b>\$ 3,347,868</b>	<b>\$ 3,385,385</b>
<b>Pro-forma Adjusted EBITDA Margin</b>	29%	29%	30%	30%	29%

See above for a reconciliation of adjusted EBITDA and pro-forma adjusted EBITDA, the non-GAAP financial measures, to Net income attributable to Albemarle Corporation, the most directly comparable financial measure calculated and reported in accordance with GAAP.

See above for a reconciliation of pro-forma net sales, the non-GAAP financial measure, to net sales, the most directly comparable financial measure calculated and reported in accordance with GAAP.

# Adjusted EBITDA - by Segment (twelve months ended)

(\$ in thousands)	Twelve Months Ended				
	Mar 31, 2018	Jun 30, 2018	Sep 30, 2018	Dec 31, 2018	Mar 31, 2019
<b>Lithium</b>					
Net income attributable to Albemarle Corporation	\$ 373,712	\$ 409,185	\$ 409,753	\$ 428,212	\$ 413,047
Depreciation and amortization	92,879	95,744	96,798	95,193	93,220
Non-recurring and other unusual items	11,223	(698)	(1,635)	7,368	9,108
<b>Adjusted EBITDA</b>	<b>477,814</b>	<b>504,231</b>	<b>504,916</b>	<b>530,773</b>	<b>515,375</b>
Net Sales	1,100,688	1,174,430	1,176,120	1,228,171	1,222,025
Adjusted EBITDA Margin	43%	43%	43%	43%	42%
<b>Bromine Specialties</b>					
Net income attributable to Albemarle Corporation	\$ 219,681	\$ 227,615	\$ 241,822	\$ 246,509	\$ 254,453
Depreciation and amortization	40,701	40,059	40,501	41,607	42,291
<b>Adjusted EBITDA</b>	<b>260,382</b>	<b>267,674</b>	<b>282,323</b>	<b>288,116</b>	<b>296,744</b>
Net Sales	861,591	878,160	897,853	917,880	941,293
Adjusted EBITDA Margin	30%	30%	31%	31%	32%
<b>Catalysts</b>					
Net income attributable to Albemarle Corporation	\$ 229,359	\$ 456,252	\$ 458,897	\$ 445,604	\$ 437,803
Depreciation and amortization	53,855	53,342	51,655	49,131	49,173
Non-recurring and other unusual items	(1,250)	(219,955)	(218,705)	(210,428)	(210,428)
<b>Adjusted EBITDA</b>	<b>281,964</b>	<b>289,639</b>	<b>291,847</b>	<b>284,307</b>	<b>276,548</b>
Pro-forma: Net impact of adjusted EBITDA from divested business	(41,287)	(31,521)	(21,028)	(10,872)	—
<b>Pro-forma Adjusted EBITDA</b>	<b>240,677</b>	<b>258,118</b>	<b>270,819</b>	<b>273,435</b>	<b>276,548</b>
Net Sales	1,074,731	1,101,442	1,107,987	1,101,554	1,092,485
Pro-forma: Net impact of net sales from divested business	(106,013)	(80,282)	(53,306)	(27,082)	—
<b>Pro-forma Net Sales</b>	<b>968,718</b>	<b>1,021,160</b>	<b>1,054,681</b>	<b>1,074,472</b>	<b>1,092,485</b>
Pro-forma Adjusted EBITDA Margin	25%	25%	26%	25%	25%

See above for a reconciliation of adjusted EBITDA and pro-forma adjusted EBITDA on a segment basis, the non-GAAP financial measures, to Net income attributable to Albemarle Corporation (“earnings”), the most directly comparable financial measure calculated and reporting in accordance with GAAP.

See above for a reconciliation of pro-forma net sales on a segment basis, the non-GAAP financial measure, to net sales, the most directly comparable financial measure calculated and reported in accordance with GAAP.

# Adjusted EBITDA supplemental<sup>1</sup>

(\$ in thousands)

	Twelve Months Ended	Three Months Ended			
	Mar 31, 2019	Mar 31, 2019	Dec 31, 2018	Sep 30, 2018	Jun 30, 2018
<b>Adjusted EBITDA</b>	\$ 983,813	\$ 225,867	\$ 264,302	\$ 235,082	\$ 258,562
Net income attributable to noncontrolling interests	56,369	17,957	16,453	13,734	8,225
Equity in net income of unconsolidated investments (net of tax)	(103,768)	(35,181)	(27,537)	(22,081)	(18,969)
Dividends received from unconsolidated investments	34,987	3,034	24,621	2,749	4,583
<b>Consolidated EBITDA</b>	<b>\$ 971,401</b>	<b>\$ 211,677</b>	<b>\$ 277,839</b>	<b>\$ 229,484</b>	<b>\$ 252,401</b>
<b>Total Long Term Debt (as reported)</b>	<b>\$ 1,819,588</b>				
Off balance sheet obligations and other	72,700				
<b>Consolidated Funded Debt</b>	<b>\$ 1,892,288</b>				
Less Cash	465,274				
<b>Consolidated Funded Net Debt</b>	<b>\$ 1,427,014</b>				
<b>Consolidated Funded Debt to Consolidated EBITDA Ratio</b>	<b>1.9</b>				
<b>Consolidated Funded Net Debt to Consolidated EBITDA Ratio</b>	<b>1.5</b>				

<sup>1</sup> This supplemental is for net-debt-to-adjusted EBITDA ratio based on the bank covenant definition.



# Diluted EPS

	Three Months Ended	
	March 31,	
	2019	2018
Diluted earnings per share attributable to Albemarle Corporation	\$ 1.26	\$ 1.18
Add back:		
Non-operating pension and OPEB items (net of tax)	(0.01)	(0.02)
Non-recurring and other unusual items (net of tax)		
Acquisition and integration related costs	0.04	0.02
Gain on sale of property	(0.08)	—
Legal accrual	—	0.12
Environmental accrual	—	0.11
Other	(0.01)	—
Discrete tax items	0.03	(0.11)
Total non-recurring and other unusual items	(0.02)	0.14
Adjusted diluted earnings per share <sup>1</sup>	\$ 1.23	\$ 1.30

<sup>1</sup>Totals may not add due to rounding

# Effective Tax Rate

<i>(\$ in thousands)</i>	Income before income taxes and equity in net income of unconsolidated investments	Income tax expense	Effective income tax rate
<b>Three months ended March 31, 2019:</b>			
As reported	\$ 153,859	\$ 37,514	24.4%
Non-recurring, other unusual and non-operating pension and OPEB items	(7,085)	(4,504)	
As adjusted	\$ 146,774	\$ 33,010	22.5%
<b>Three months ended March 31, 2018:</b>			
As reported	\$ 138,609	\$ 20,361	14.7%
Non-recurring, other unusual and non-operating pension and OPEB items	32,729	19,276	
As adjusted	\$ 171,338	\$ 39,637	23.1%

See above for a reconciliation of the adjusted effective income tax rate, the non-GAAP financial measure, to the effective income tax rate, the most directly comparable financial measure calculated and reporting in accordance with GAAP.

# Equity Income and Noncontrolling Interest

	Three Months Ended March 31,			
	2019		2018	
	Equity Income	Noncontrolling Interest	Equity Income	Noncontrolling Interest
<i>(\$ in thousands)</i>				
Lithium	\$ 29,370	\$ —	\$ 16,190	\$ —
Bromine Specialties	—	(17,939)	—	(7,149)
Catalysts	5,811	—	4,487	—
Corporate	—	(18)	—	(16)
Total Company	\$ 35,181	\$ (17,957)	\$ 20,677	\$ (7,165)

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