# Albemarle Corporation

**Investor Presentation and** 

Non-GAAP Reconciliations

November 2018



# 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 product development, production capacity, committed volumes, market trends, pricing, expected growth, earnings and demand for our products, input costs, surcharges, tax rates, stock repurchases, dividends, cash flow generation, costs and cost synergies, capital projects, economic trends, outlook 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 cybersecurity 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; political unrest affecting the global economy, including adverse effects form 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 forwardlooking 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 by operating segment, EBITDA margin, Adj. EBITDA margin, pro-forma Adj. EBITDA, pro-forma 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	Financial Highlights <sup>4</sup> Trailing Twelve Months Ended September 30, 2018		30, 2018
Global Employees	~5,400	Net Sales	\$3.3B
Countries1	100	Net Income <sup>5</sup>	\$346M
Countries <sup>1</sup>	~100	Adj. EBITDA	\$988M
Dividend Yield <sup>2</sup>	1.3%	Adj. EBITDA Margin <sup>6</sup>	30%
Market Cap <sup>3</sup>	\$10.9B	Net Sales by Segment <sup>4</sup> Trailing Twelve Months Ended September	r 30, 2018

# Providing innovative solutions to power the potential of energy efficiency



<sup>■</sup> Lithium
■ Bromine Specialties
■ Catalysts
■ All Other

Based on destinations of FY2017 product sales.

<sup>&</sup>lt;sup>2</sup>\$102.38 closing price as of November 9, 2018; annualized dividend of \$1.34 per share announced October 30, 2018. <sup>3</sup>\$102.38 closing price as of November 9, 2018; 106,187 million diluted shares outstanding as of September 30, 2018.

Includes financial contribution from Polyolefin Catalysts & components business divested April 3, 2018.
 Attributable to Albemarle Corporation.

<sup>6</sup>Non-GAAP measure. Adjusted EBITDA margin calculated by dividing net sales by Adjusted EBITDA.

#### Albemarle Path to Achieve Growth

#### 2016

Diversified specialty chemical company with strong free cash flow to fund growth

Lithium Wave I & II: Expand current resources and BG conversion capacity

**Lithium Wave III: Explore new resources** 

**Bromine Specialties: Strong cash flow** 

Catalysts: Strengthen R&D and technology

Supported by Productivity and Operational Excellence

#### 2021

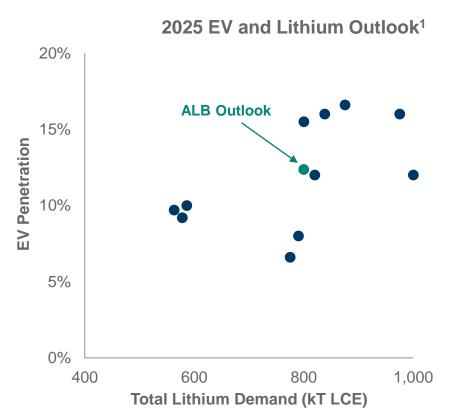
- 165,000 MT LCE annual capacity
- New Lithium resources in development with goal of 265,000 MT LCE capacity mid-2020s
- Strong free cash flow to reinvest in growth businesses
- Ability to sustain margins in mature businesses
- Stronger overall product portfolio offering in refinery catalyst

#### **CORPORATE GOALS**

Sales Growth: 7 – 10% annualized Adj. EBITDA Margins: 32 – 35%

Every Part of the Portfolio Contributes to the Strategy

## Battery Markets Continue to Accelerate Lithium Demand



#### **Demand Buildup by Application**

Applications	2017 Demand	'17 – '25 CAGR	2025 Demand
Transportation	50	35%	550 ←
Consumer Electronics <sup>2</sup>	60	8%	110
All Other/Industrial	110	3 – 4%	140
Total	220	~18%	800

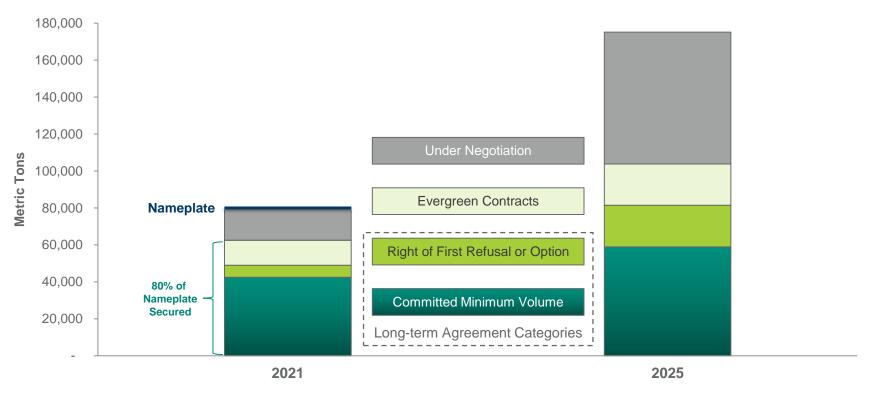
2025 Transportation Demand Buildup	% of Light Vehicles Sold	Vehicle Count (million)	Battery Size (KWh per Vehicle)	Lithium Demand (kT LCE)
BEV	6.7%	7.4	51	360
PHEV	5.6%	6.2	13	80
HEV	45%	50	0.6	30
e-buses, e-trucks, & other	N/A	<1	96	80
Total Transportation	·	·		550 —

- Lithium Content: 0.85 kg LCE/kWh for cathode; 0.10 kg LCE/kWh electrolyte
- Penetration figures based on 110 million light vehicles sold in 2025



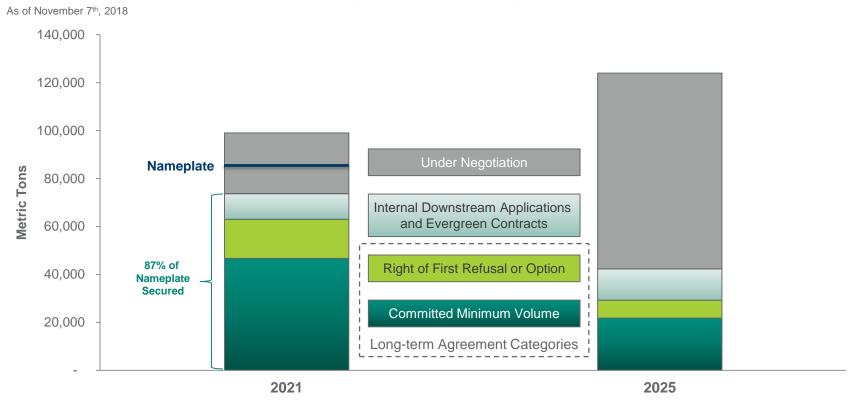
## Current State of Lithium Hydroxide Under Contract

As of November 7th, 2018



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

### Current State of Lithium Carbonate Under Contract



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

### Wave I On Track; Wave II Updated; Chile V / VI On Hold

All figures in kt LCE and represent only lithium nameplate conversion capacity On Hold Hydroxide 225 Hydroxide Lithium Carbonate 165 Hydroxide 20 Shift Forward 85 Lithium Carbonate Carbonate 85 Hvdroxide Lithium 65 Hydroxide 20 Lithium 140 Hydroxide 80 2017 Xinyu II Chile Wave II La Negra Kemerton I / II Wave I Kemerton III Kemerton Nameplate III / IV IV / V V / VI(2019)(2021)Nameplate (2021/2022)Nameplate Capacity<sup>1</sup> (2020)Capacity Capacity (Base) (2021)Year indicates planned commissioning start period



# 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
- Short-term target lower to stay flexible for investment

### 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

- Multi-year journey has resulted in a more focused and growth-oriented portfolio underpinned by energy efficiency macro drivers
- Clear strategy with the people, cash generation and resources necessary to execute the strategy
- 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)



www.albemarle.com

# Appendix A

GBU Summaries and Other Supporting Materials



# Leadership Across Businesses Is Driven By Core Strengths

	Lithium	Bromine Specialties	Catalysts <sup>2</sup>	
Global Ranking	#1	#2	#2	
TTM Adj. EBITDA <sup>1</sup>	\$505M	\$282M	\$292M	
TTM Adj. EBITDA Margin¹	43%	31%	26%	
Key Competitors	SQM THE WORLDWIDE BUSINESS FORMULA	LANXESS ICL	The Chemical Company  LANXESS  Energizing Chemistry  AlizoNobel	
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

#### **TTM Financials**

Twelve Months Ended September 30, 2018

Net Sales \$898M

Adj. EBITDA \$282M

Adj. EBITDA Margin 31%

#### **Applications**



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

#### **Characteristics**

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

#### **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

TTM Financials	1		Characteristics
Twelve Months Ended Septemb Net Sales Adj. EBITDA Adj. EBITDA Margin	ser 30, 2018 \$1,108M \$292M 26%	<ul> <li>Technology and</li> <li>Focused on value</li> <li>Long-term, collar</li> <li>High barriers-to</li> <li>Strong free cash</li> </ul>	ns in FCC and HPC catalysts I applications knowledge ue creation for refiners aborative customer relationships -entry In flow <sup>1</sup> generation with growth and technical service
Fluid Cracking Catalysts (FCC)	Clean Fuels Ted	chnology (CFT)	Polymer Catalyst Solutions (PCS)
<ul><li>FCC Catalyst</li><li>Cracks oil feedstock</li><li>Makes gasoline</li><li>Makes propylene</li></ul>	<ul><li>HPC Catalyst</li><li>Removes sulfur</li><li>Makes clean die</li><li>Makes clean oil</li></ul>		PCS  • Polymers  • Rubbers  • Pharma Synthesis  • Coatings

#### **Alkylation & Isomerization Catalyst**

Makes clean high-octane gasoline

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



## Lithium Snapshot

#### **TTM Financials**

Twelve Months Ended September 30, 2018

Net Sales \$1,176M

Adj. EBITDA \$505M

Adj. EBITDA Margin 43%

#### **Applications**

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



#### Characteristics

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

#### **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



#### 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)
Regulatory Authority	Enforces operating permit that defines brine pump rate at the Salar de Atacama	Authorizes production of lithium	Authorizes sales of lithium
Permits and Agreements	January 2016 Permit: 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.	Original Agreement: 0.6 million LCE remaining as of January 2017 January 2017 Amendment: Provides Albemarle with authorization to produce an incremental 1.4 million MTs LCE March 2018 Amendment: If Albemarle elects to build Chile V / VI, allows Albemarle to produce an incremental 1.4 million MTs LCE	January 2017 Authorization: Authorizes sale of lithium production quota granted by CORFO in January 2017 Amendment.  March 2018: Simultaneous with March 2018 CORFO Amendment, Albemarle submitted request to increase the lithium sales authorization  September 2018: CCHEN rejected March 2018 submission  November 2018: Albemarle working with CCHEN to address concerns prior to resubmission
Estimated Annual Volume through 2043 (MTs LCE per year)	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



#### Cash Flow and Net Debt

Nine Months Ended September 30					
(\$ in millions)	<u>2018</u>	<u>2017</u>			
Net Cash from Operations	\$377	\$75			
Less: Capital Expenditures	(472)	(188)			
Add Back: Pension Contributions <sup>1</sup>	11	16			
Free Cash Flow	(\$84)	(\$97)			
Non-recurring and other unusual cash items	82	78			
Cash taxes on repatriation/Chemetall® sale	40	255			
Adjusted Free Cash Flow	\$38	\$236			

Selected Financial Metrics		
(\$ in millions)	(as of 09/30/2018)	
Dividends Paid:	\$109	
Dividend Growth (Y/Y) <sup>2</sup> :	5%	
Cash Balance:	\$641	
Gross Debt <sup>3</sup> :	\$1,698	
Net Debt to Adj. EBITDA4:	1.1x	





Expect August 2018 \$250 million accelerated share repurchase program to complete by end of 2018



<sup>3</sup>Excludes JV debt not guaranteed by Company.

<sup>&</sup>lt;sup>4</sup>Gross Debt to Adj. EBITDA and Net Debt to Adj. EBITDA ratios are based on the bank covenant definition. See appendix for reconciliations.

# Appendix B

Guidance as per Q3 2018 Earnings Released November 7<sup>th</sup>, 2018



### Full Year 2018 Business Guidance vs 2017

Business Unit	Outlook	Business Environment
Lithium	1	<ul> <li>FY 2018 Adj. EBITDA expected to increase low 20's on % basis vs prior year</li> <li>Favorable outlook driven by strong volume and price improvements, primarily in battery grade product portfolio</li> </ul>
Bromine Specialties	1	<ul> <li>FY 2018 Adj. EBITDA expected to be up low double-digits vs prior year</li> <li>Outlook driven by solid demand for flame retardants and higher pricing in most derivatives partially offset by higher raw material and freight costs</li> </ul>
Catalysts <sup>1</sup>	1	<ul> <li>FY 2018 Adj. EBITDA expected to increase high single-digit vs prior year on pro-forma<sup>1</sup> basis driven by higher volume, favorable product mix and higher pricing in FCC</li> <li>Collected approximately \$4 million year-to-date for Hurricane Harvey insurance settlement</li> </ul>

Better than 2017



#### Full Year 2018 Guidance On Track

	FY 2017	FY 2017 Pro Forma <sup>3</sup>	FY 2018 Guidance <sup>4</sup>	2018 Guidance vs FY 2017 Pro-Forma³
Net Sales	\$3.07B	\$3.00B	\$3.3 - \$3.5B	10% – 17%
Adjusted EBITDA <sup>1</sup>	\$885M	\$859M	\$990 - \$1,020M	15% – 19%
Adjusted EBITDA Margin <sup>1</sup>	29%	29%	29% – 30%	
Adjusted Diluted EPS <sup>1</sup>	\$4.59	\$4.40	\$5.30 – \$5.50	20% – 25%
D&A	\$197	\$192	\$195 - \$205	
Capital Expenditures	\$318M	\$313M	\$800 - \$900M	
Adjusted Free Cash Flow <sup>2</sup>	\$354M	\$333M	(\$150) — \$50M	



<sup>&</sup>lt;sup>1</sup>Non-GAAP measure. See Non-GAAP reconciliation in Appendix for 2017 figures.

<sup>&</sup>lt;sup>2</sup>Free Cash Flow is a non-GAAP measure defined as Net Cash from Operations, add back pension and post-retirement contributions and subtract capital expenditures. See slide 17 for details.

<sup>3</sup>The FY 2017 Pro Forma calculation excludes the financial contribution from Polyolefin Catalyst & Components for the final nine months of 2017 because Albemarle closed the sale on April 3, 2018. Pro Forma FY 2017 Net Cash from Operations is calculated by subtracting the Adjusted EBITDA associated with the Polyolefin Catalysts & Components. Pro Forma FY 2017 Adjusted Free Cash Flow calculated by subtracting the Adjusted EBITDA and adding back the Capital Expenditures associated with the Polyolefin Catalysts & Components.

<sup>&</sup>lt;sup>4</sup>FY 2018 Guidance includes financial contribution from Polyolefin Catalysts & Components during Q1 2018 only.

# Appendix C

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

Weighted-average common shares outstanding - diluted

		September 30,	
(\$ in thousands)	2018		2017
Net income attributable to Albemarle Corporation	\$ 129	,745 \$	118,670
Add back:			
Non-operating pension and OPEB items (net of tax)	(1	,856)	(694)
Non-recurring and other unusual items (net of tax)	13	3,568	2,575
Adjusted net income attributable to Albemarle Corporation	141	,457	120,551
Pro-forma: Net impact of income from divested business (net of tax)			(8,710)
Pro-forma adjusted net income attributable to Albemarle Corporation	\$ 141	,457 \$	111,841
Adjusted diluted earnings per share	\$	1.31 \$	1.08
Pro-forma adjusted diluted earnings per share	\$	1.31 \$	1.00

Three Months Ended

108.302

111.975

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

	Three Months Ended									
		September 3								
(\$ in thousands)		2018		2017						
Net income attributable to Albemarle Corporation	\$	129,745	\$	118,670						
Add back:										
Interest and financing expenses		12,988		15,792						
Income tax expense		33,167		18,495						
Depreciation and amortization		49,707		49,895						
EBITDA		225,607		202,852						
Non-operating pension and OPEB items		(2,195)		(1,028)						
Non-recurring and other unusual items (excluding items associated with interest expense)		11,670		7,559						
Adjusted EBITDA		235,082		209,383						
Pro-forma: Net impact of adjusted EBITDA from divested business		_		(10,493)						
Pro-forma adjusted EBITDA	\$	235,082	\$	198,890						
Net sales	\$	777,748	\$	754,866						
Pro-forma: Net impact of net sales from divested business		_		(26,976)						
Pro-forma net sales	\$	777,748	\$	727,890						
EBITDA margin		29.0%		26.9%						
Adjusted EBITDA margin		30.2%		27.7%						
Pro-forma adjusted EBITDA margin		30.2%		27.3%						

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 September 30)

(\$ in thousands)		Lithium	Bro	omine Specialties	Catalysts	Reportable Segments Total	All Other	Corporate	Cc	onsolidated Total
Three months ended September 30, 2018:										
Net income (loss) attributable to Albemarle Corporation	\$	90,313	\$	67,967	\$ 50,491	\$ 208,771	\$ 1,978	\$ (81,004)	\$	129,745
Depreciation and amortization		23,370		10,618	12,111	46,099	1,990	1,618		49,707
Non-recurring and other unusual items		(54)		_	_	(54)	_	11,724		11,670
Interest and financing expenses		_		_	_	_	_	12,988		12,988
Income tax expense		_		_	_	_	_	33,167		33,167
Non-operating pension and OPEB items		_						(2,195)		(2,195)
Adjusted EBITDA	\$	113,629	\$	78,585	\$ 62,602	\$ 254,816	\$ 3,968	\$ (23,702)	\$	235,082
Three months ended September 30, 2017:										
Net income (loss) attributable to Albemarle Corporation	\$	89,745	\$	53,760	\$ 47,846	\$ 191,351	\$ (1,776)	\$ (70,905)	\$	118,670
Depreciation and amortization		22,316		10,176	13,798	46,290	2,082	1,523		49,895
Non-recurring and other unusual items		883		_	(1,250)	(367)	_	7,926		7,559
Interest and financing expenses		_		_	_	_	_	15,792		15,792
Income tax expense		_		_	_	_	_	18,495		18,495
Non-operating pension and OPEB items					_			(1,028)		(1,028)
Adjusted EBITDA	\$	112,944	\$	63,936	\$ 60,394	\$ 237,274	\$ 306	\$ (28,197)	\$	209,383
Pro-forma: Net impact of adjusted EBITDA from divested business	,	_		_	(10,493)	(10,493)	_	_		(10,493)
Pro-forma adjusted EBITDA	\$	112,944	\$	63,936	\$ 49,901	\$ 226,781	\$ 306	\$ (28,197)	\$	198,890

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 September 30)

(\$ in thousands)	Lithium	Bromine Specialties			All Other	Consolidated Tot			
Three months ended September 30, 2018:									
Net sales	\$ 270,928	\$ 232,616	\$	251,139	\$ 754,683	\$	23,065	\$	777,748
Net income (loss) attributable to Albemarle Corporation	33.3%	29.2%		20.1%	27.7%		8.6%		16.7%
Depreciation and amortization	8.6%	4.6%		4.8%	6.1%		8.6%		6.4%
Non-recurring and other unusual items	—%	—%		—%	—%		—%		1.5%
Interest and financing expenses	—%	-%		—%	—%		-%		1.7%
Income tax expense	—%	—%		—%	—%		—%		4.3%
Non-operating pension and OPEB items	—%	-%		—%	—%		-%		(0.3)%
Adjusted EBITDA Margin	41.9%	33.8%		24.9%	33.8%		17.2%		30.2%
						_			
Three months ended September 30, 2017:									
Net sales	\$ 269,238	\$ 212,923	\$	244,594	\$ 726,755	\$	28,021	\$	754,866
Pro-forma: Net impact of net sales from divested business	_	_		(26,976)	(26,976)		_		(26,976)
Pro-forma net sales	\$ 269,238	\$ 212,923	\$	217,618	\$ 699,779	\$	28,021	\$	727,890
Adjusted EBITDA	\$ 112,944	\$ 63,936	\$	60,394	\$ 237,274	\$	306	\$	209,383
Net income (loss) attributable to Albemarle Corporation	33.3%	25.2%		19.6%	26.3%		(6.3)%		15.7%
Depreciation and amortization	8.3%	4.8%		5.6%	6.4%		7.4%		6.6%
Non-recurring and other unusual items	0.3%	-%		(0.5)%	(0.1)%		—%		1.0%
Interest and financing expenses	—%	—%		—%	—%		—%		2.1%
Income tax expense	—%	-%		—%	—%		-%		2.4%
Non-operating pension and OPEB items	—%	—%		—%	—%		—%		(0.1)%
Adjusted EBITDA Margin	41.9%	30.0%		24.7%	32.6%		1.1%		27.7%
Pro-forma Adjusted EBITDA Margin	41.9%	30.0%		22.9%	32.4%		1.1%		27.3%

See above for adjusted EBITDA margin, a non-GAAP financial measure defined as adjusted EBITDA divided by net sales. See slide 29 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.



# Adjusted EBITDA - Continuing Operations (twelve months ended)

Twelve Months Ended												
	Sep 30, 2017		Dec 31, 2017		Mar 31, 2018		Jun 30, 2018		Sep 30, 2018			
\$	875,306	\$	54,850	\$	135,397	\$	334,525	\$	345,600			
	193,774		196,928		202,188		203,540		203,352			
	89,214		102,660		101,914		(113,484)		(109,373)			
	117,216		115,350		60,375		59,093		56,289			
	88,324		431,817		440,207		497,179		511,851			
	(559,974)		_		_		_		_			
	23,224		(16,125)		(17,259)		(18,410)		(19,577)			
\$	827,084	\$	885,480	\$	922,822	\$	962,443	\$	988,142			
	(32,798)		(37,123)		(41,287)		(31,521)		(21,028)			
\$	794,286	\$	848,357	\$	881,535	\$	930,922	\$	967,114			
¢	2 010 842	¢	3 071 076	¢	2 171 5/2	•	2 200 150	•	3,311,040			
Ψ	(97,595)	Ψ	(99,491)	Ψ	(106,013)	Ψ	(80,282)	Ψ	(53,306)			
\$	2,813,247	\$	2,972,485	\$	3,065,529	\$	3,207,876	\$	3,257,734			
	200/		200/		200/		200/		30%			
		193,774 89,214 117,216 88,324 (559,974) 23,224 \$ 827,084 (32,798) \$ 794,286 \$ 2,910,842 (97,595)	\$ 875,306 \$ 193,774 89,214 117,216 88,324 (559,974) 23,224 \$ 827,084 (32,798) \$ 794,286 \$ \$ 2,910,842 \$ (97,595) \$ 2,813,247 \$	\$ 875,306 \$ 54,850 193,774 196,928 89,214 102,660 117,216 115,350 88,324 431,817 (559,974) — 23,224 (16,125) \$ 827,084 \$ 885,480 (32,798) (37,123) \$ 794,286 \$ 848,357 \$ 2,910,842 \$ 3,071,976 (97,595) (99,491) \$ 2,813,247 \$ 2,972,485	Sep 30, 2017     Dec 31, 2017       \$ 875,306     \$ 54,850     \$ 193,774       \$ 89,214     102,660       \$ 117,216     \$ 115,350       \$ 88,324     \$ 431,817       \$ (559,974)     —       \$ 23,224     \$ (16,125)       \$ 827,084     \$ 885,480       \$ (32,798)     \$ (37,123)       \$ 794,286     \$ 848,357       \$ 2,910,842     \$ 3,071,976       \$ (97,595)     \$ (99,491)       \$ 2,813,247     \$ 2,972,485       \$ \$ 2,972,485     \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Sep 30, 2017         Dec 31, 2017         Mar 31, 2018           \$ 875,306         \$ 54,850         \$ 135,397           193,774         196,928         202,188           89,214         102,660         101,914           117,216         115,350         60,375           88,324         431,817         440,207           (559,974)         —         —           23,224         (16,125)         (17,259)           \$ 827,084         \$ 885,480         \$ 922,822           (32,798)         (37,123)         (41,287)           \$ 794,286         \$ 848,357         \$ 881,535           \$ 2,910,842         \$ 3,071,976         \$ 3,171,542           (97,595)         (99,491)         (106,013)           \$ 2,813,247         \$ 2,972,485         \$ 3,065,529	Sep 30, 2017         Dec 31, 2017         Mar 31, 2018           \$ 875,306         \$ 54,850         \$ 135,397         \$ 193,774           \$ 193,774         \$ 196,928         \$ 202,188           \$ 89,214         \$ 102,660         \$ 101,914           \$ 117,216         \$ 115,350         \$ 60,375           \$ 88,324         \$ 431,817         \$ 440,207           \$ (559,974)         —         —           \$ 23,224         \$ (16,125)         \$ (17,259)           \$ 827,084         \$ 885,480         \$ 922,822           \$ (32,798)         \$ (37,123)         \$ (41,287)           \$ 794,286         \$ 848,357         \$ 881,535           \$ 2,910,842         \$ 3,071,976         \$ 3,171,542           \$ (97,595)         \$ (99,491)         \$ (106,013)           \$ 2,813,247         \$ 2,972,485         \$ 3,065,529	Sep 30, 2017         Dec 31, 2017         Mar 31, 2018         Jun 30, 2018           \$ 875,306         \$ 54,850         \$ 135,397         \$ 334,525           193,774         196,928         202,188         203,540           89,214         102,660         101,914         (113,484)           117,216         115,350         60,375         59,093           88,324         431,817         440,207         497,179           (559,974)         —         —         —           23,224         (16,125)         (17,259)         (18,410)           \$ 827,084         \$ 885,480         \$ 922,822         \$ 962,443           (32,798)         (37,123)         (41,287)         (31,521)           \$ 794,286         \$ 848,357         \$ 881,535         \$ 930,922           \$ 2,910,842         \$ 3,071,976         \$ 3,171,542         \$ 3,288,158           (97,595)         (99,491)         (106,013)         (80,282)           \$ 2,813,247         \$ 2,972,485         \$ 3,065,529         \$ 3,207,876	Sep 30, 2017         Dec 31, 2017         Mar 31, 2018         Jun 30, 2018           \$ 875,306         \$ 54,850         \$ 135,397         \$ 334,525         \$ 193,774         196,928         202,188         203,540           89,214         102,660         101,914         (113,484)         (113,484)         (117,216         115,350         60,375         59,093         497,179         497,179         —         —         —         —         —         —         23,224         (16,125)         (17,259)         (18,410)         \$ 827,084         \$ 885,480         \$ 922,822         \$ 962,443         \$ (32,798)         (37,123)         (41,287)         (31,521)         \$ 794,286         \$ 848,357         \$ 881,535         \$ 930,922         \$ \$ (97,595)         (99,491)         (106,013)         (80,282)         \$ 2,813,247         \$ 2,972,485         \$ 3,065,529         \$ 3,207,876         \$ \$			

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)

		Twelve Months Ended												
(\$ in thousands)		Sep 30, 2017		Dec 31, 2017		Mar 31, 2018		Jun 30, 2018		Sep 30, 2018				
Lithium														
Net income attributable to Albemarle Corporation	\$	314,707	\$	342,992	\$	373,712	\$	409,185	\$	409,753				
Depreciation and amortization		86,409		87,879		92,879		95,744		96,798				
Non-recurring and other unusual items		15,977		15,781		11,223		(698)		(1,635)				
Adjusted EBITDA		417,093		446,652		477,814		504,231		504,916				
Net Sales		937,461		1,018,885		1,100,688		1,174,430		1,176,120				
Adjusted EBITDA Margin		44%		44%		43%		43%		43%				
Bromine Specialties														
Net income attributable to Albemarle Corporation	\$	201,336	\$	218.839	\$	219,681	\$	227,615	\$	241.822				
Depreciation and amortization	*	40.112	Ť	40.062	Ť	40,701	Ť	40.059	Ť	40,501				
Adjusted EBITDA		241,448		258,901		260,382		267,674		282,323				
Net Sales		830,572		855,143		861,591		878,160		897,853				
Adjusted EBITDA Margin		29%		30%		30%		30%		31%				
Catalysts														
Net income attributable to Albemarle Corporation	\$	216,405	\$	230,665	\$	229,359	\$	456,252	\$	458,897				
Depreciation and amortization		53,160		54,468		53,855		53,342		51,655				
Non-recurring and other unusual items		(1,250)		(1,250)		(1,250)		(219,955)		(218,705)				
Adjusted EBITDA		268,315		283,883		281,964		289,639		291,847				
Pro-forma: Net impact of adjusted EBITDA from divested business		(33,323)		(37,123)		(41,287)		(31,521)		(21,028)				
Pro-forma Adjusted EBITDA		234,992		246,760		240,677		258,118		270,819				
Net Sales		1,019,593		1,067,572		1,074,731		1,101,442		1,107,987				
Pro-forma: Net impact of net sales from divested business		(97,595)		(99,491)		(106,013)		(80,282)		(53,306)				
Pro-forma Net Sales	_	921,998		968,081		968,718		1,021,160		1,054,681				
Pro-forma Adjusted EBITDA Margin		25%		25%		25%		25%		26%				

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)	 welve Months Ended		Three Mo	nth	s Ended	
	 Sep 30, 2018	Sep 30, 2018	Jun 30, 2018	_	Mar 31, 2018	Dec 31, 2017
Adjusted EBITDA	\$ 988,142	\$ 235,082	\$ 258,562	\$	248,718	\$ 245,780
Net income attributable to noncontrolling interests	40,419	13,734	8,225		7,165	11,295
Equity in net income of unconsolidated investments (net of tax)	(90,951)	(22,081)	(18,969)		(20,677)	(29,224)
Dividends received from unconsolidated investments	 60,280	2,749	4,583	_	25,462	27,486
Consolidated EBITDA	\$ 997,890	\$ 229,484	\$ 252,401	\$	260,668	\$ 255,337
Total Long Term Debt (as reported)	\$ 1,697,793					
Off balance sheet obligations and other	 69,300					
Consolidated Funded Debt	\$ 1,767,093					
Less Cash	641,226					
Consolidated Funded Net Debt	\$ 1,125,867					
Consolidated Funded Debt to Consolidated EBITDA Ratio	1.8					
Consolidated Funded Net Debt to Consolidated EBITDA Ratio	1.1					

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



### **Effective Tax Rate**

(\$ in thousands)	and equity	ore income taxes in net income of ated investments		Income tax expense	Effective income tax rate
Three months ended September 30, 2018:					
As reported	\$	154,565	\$	33,167	21.5%
Non-recurring, other unusual and non-operating pension and OPEB items		9,475		(2,237)	
As adjusted	\$	164,040	\$	30,930	18.9%
Three months ended September 30, 2017:					
As reported	\$	129,644	\$	18,495	14.3%
Non-recurring, other unusual and non-operating pension and OPEB items		6,531		4,650	
As adjusted	\$	136,175	\$	23,145	17.0%
Non-recurring, other unusual and non-operating pension and OPEB items	\$	6,531	_	4,650	

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**

	_		Т	hree Months En	ded	September 30,			Nine Months Ended September 30,									
	_	2			2		_	2	018		_	20						
(\$ in thousands)	_	Equity Income	N	loncontrolling Interest		Equity Income		Noncontrolling Interest		Equity Income		Noncontrolling Interest	Equity Income			Noncontrolling Interest		
Lithium	\$	17,901	\$	_	\$	13,292	\$	_	\$	48,819	\$	_	\$	39,999	\$	_		
Bromine Specialties		_		(13,717)		_		(11,520)		_		(29,073)		_		(33,331)		
Catalysts		4,180		_		5,752		_		12,908		_		15,264		_		
Corporate		_		(17)		_		(3)		_		(51)		_		8		
Total Company	\$	22,081	\$	(13,734)	\$	19,044	\$	(11,523)	\$	61,727	\$	(29,124)	\$	55,263	\$	(33,323)		





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