

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

**FORM 10-K**

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE  
SECURITIES EXCHANGE ACT OF 1934  
For the Fiscal Year Ended **December 31, 2017**

Commission file number: **001-33841**

**VULCAN MATERIALS COMPANY**

(Exact Name of Registrant as Specified in Its Charter)

**New Jersey** (State or other jurisdiction of incorporation or organization) **20-8579133** (I.R.S. Employer Identification No.)

**1200 Urban Center Drive, Birmingham, Alabama 35242**  
(Address of Principal Executive Offices) (Zip Code)

**(205) 298-3000**  
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
<b>Common Stock, \$1 par value</b>	<b>New York Stock Exchange</b>

Securities registered pursuant to Section 12(g) of the Act: **None**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes  No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

Yes  No

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes  No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

Yes  No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act (Check one):

Large accelerated filer  Accelerated filer  Smaller reporting company

Non-accelerated filer  (Do not check if a smaller reporting company)  Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes  No

Aggregate market value of voting and non-voting common stock held by non-affiliates as of June 30, 2017: \$16,712,817,912

Number of shares of common stock, \$1.00 par value, outstanding as of February 13, 2018: 132,482,375

**DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the registrant's annual proxy statement for the annual meeting of its shareholders to be held on May 11, 2018, are incorporated by reference into Part III of this Annual Report on Form 10-K.

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# ANNUAL REPORT ON FORM 10-K

## FISCAL YEAR ENDED DECEMBER 31, 2017

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Unless otherwise stated or the context otherwise requires, references in this report to "Vulcan," "the Company," "we," "our," or "us" refer to Vulcan Materials Company and its consolidated subsidiaries.

## PART I

### "SAFE HARBOR" STATEMENT UNDER THE PRIVATE SECURITIES LITIGATION REFORM ACT OF 1995

Certain of the matters and statements made herein or incorporated by reference into this report constitute forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934. All such statements are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. These statements reflect our intent, belief or current expectation. Often, forward-looking statements can be identified by the use of words, such as "anticipate," "may," "believe," "estimate," "project," "expect," "intend" and words of similar import. In addition to the statements included in this report, we may from time to time make other oral or written forward-looking statements in other filings under the Securities Exchange Act of 1934 or in other public disclosures. Forward-looking statements are not guarantees of future performance, and actual results could differ materially from those indicated by the forward-looking statements. All forward-looking statements involve certain assumptions, risks and uncertainties that could cause actual results to differ materially from those included in or contemplated by the statements. These assumptions, risks and uncertainties include, but are not limited to:

- general economic and business conditions
- the timing and amount of federal, state and local funding for infrastructure
- changes in our effective tax rate
- the increasing reliance on information technology infrastructure for our ticketing, procurement, financial statements and other processes could adversely affect operations in the event that the infrastructure does not work as intended or experiences technical difficulties or is subjected to cyber attacks
- the impact of the state of the global economy on our businesses and financial condition and access to capital markets
- changes in the level of spending for private residential and private nonresidential construction
- the highly competitive nature of the construction materials industry
- the impact of future regulatory or legislative actions, including those relating to climate change, wetlands, greenhouse gas emissions, the definition of minerals, tax policy or international trade
- the outcome of pending legal proceedings
- pricing of our products
- weather and other natural phenomena
- energy costs
- costs of hydrocarbon-based raw materials
- healthcare costs
- the amount of long-term debt and interest expense we incur
- changes in interest rates
- volatility in pension plan asset values and liabilities, which may require cash contributions to the pension plans
- the impact of environmental cleanup costs and other liabilities relating to existing and/or divested businesses
- our ability to secure and permit aggregates reserves in strategically located areas
- our ability to manage and successfully integrate acquisitions
- the effect of changes in tax laws, guidance and interpretations, including those related to the Tax Cuts and Jobs Act that was enacted on December 22, 2017
- the potential of goodwill or long-lived asset impairment
- changing technologies could disrupt the way we do business and how our products are distributed
- the risks set forth in Item 1A "Risk Factors," Item 3 "Legal Proceedings," Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations," and Note 12 "Commitments and Contingencies" to the consolidated financial statements in Item 8 "Financial Statements and Supplementary Data," all as set forth in this report
- other assumptions, risks and uncertainties detailed from time to time in our filings made with the Securities and Exchange Commission

All forward-looking statements are made as of the date of filing or publication. We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise, except to the extent required by law. Investors are cautioned not to rely unduly on such forward-looking statements when evaluating the information presented in our filings, and are advised to consult any of our future disclosures in filings made with the Securities and Exchange Commission and our press releases with regard to our business and consolidated financial position, results of operations and cash flows.

Vulcan Materials Company, a New Jersey corporation, is the nation's largest supplier of construction aggregates (primarily crushed stone, sand and gravel) and a major producer of asphalt mix and ready-mixed concrete. Delivered by trucks, ships, barges and trains, our products are the indispensable materials building homes, offices, places of worship, schools, hospitals and factories, as well as vital infrastructure including highways, bridges, roads, ports and harbors, water systems, campuses, dams, airports and rail networks. As of December 31, 2017, we had 375 active aggregates facilities, 64 asphalt facilities and 57 concrete facilities.

## BUSINESS STRATEGY

We provide the basic materials for the infrastructure needed to maintain and expand the U.S. economy. We operate primarily in the U.S. and are the nation's largest supplier of construction aggregates (primarily crushed stone, sand and gravel) and a major producer of asphalt mix and ready-mixed concrete. Our strategy and competitive advantage are based on our strength in aggregates. Aggregates are used in most types of construction and in the production of asphalt mix and ready-mixed concrete. Our materials are used to build the roads, tunnels, bridges, railroads and airports that connect us, and to build the hospitals, schools, shopping centers, factories and places of worship that are essential to our lives and the economy.

### BUSINESS STRATEGIES

Our business strategies include: (1) aggregates focus, (2) coast-to-coast footprint, (3) profitable growth, (4) managing volume, product mix and price to grow profitability, and (5) effective land management.

#### 1. AGGREGATES FOCUS

Aggregates are used in virtually all types of public and private construction and practically no substitutes for quality aggregates exist. Given our focus on aggregates, we:

**BUILD AND HOLD SUBSTANTIAL RESERVES:** Our reserves are critical to our long-term success. They are strategically located throughout the United States in high-growth areas that are expected to require large amounts of aggregates to meet future construction demand. Moreover, there are significant barriers to entry in many metropolitan markets due to stringent zoning and permitting regulations. Aggregates operations have flexible production capabilities and, other than energy inputs required to process the materials, require virtually no other raw material. Our downstream businesses (asphalt and concrete) use Vulcan-produced aggregates almost exclusively.

**TAKE ADVANTAGE OF SIZE AND SCALE:** Each aggregates operation is unique because of its location within a local market with particular geological characteristics. Every operation, however, uses a similar group of assets to produce saleable aggregates and provide customer service. We are the largest aggregates supplier in the U.S. Our 375 active aggregates facilities as of December 31, 2017, provide opportunities to standardize operating practices and procure equipment (fixed and mobile), parts, supplies and services in an efficient and cost-effective manner, both regionally and nationally. Additionally, we are able to share best practices across the organization and leverage our size for administrative support, customer service, accounting, procurement, technical support and engineering.

## 2. COAST-TO-COAST FOOTPRINT

Demand for construction aggregates correlates positively with changes in population growth, household formation and employment. We have pursued a strategy to increase our presence in U.S. metropolitan areas that are expected to grow the most rapidly. Our strategic locations serve 19 of the top 25 highest-growth U.S. metropolitan areas in 20 states plus the District of Columbia .



## 3. PROFITABLE GROWTH

Our long-term growth is a result of strategic acquisitions and investments in key operations .

**STRATEGIC ACQUISITIONS AND DISPOSITIONS :** Since becoming a public company in 1957 , Vulcan has principally grown by mergers and acquisitions. For example, in 1999 we acquired CalMat Co., thereby expanding our aggregates operations into California and Arizona and making us one of the nation's leading producers of asphalt mix. In 2007, we acquired Florida Rock Industries, Inc., the largest acquisition in our history. This acquisition expanded our aggregates business in Florida and our aggregates and ready-mixed concrete businesses in other southeastern and mid-Atlantic states .

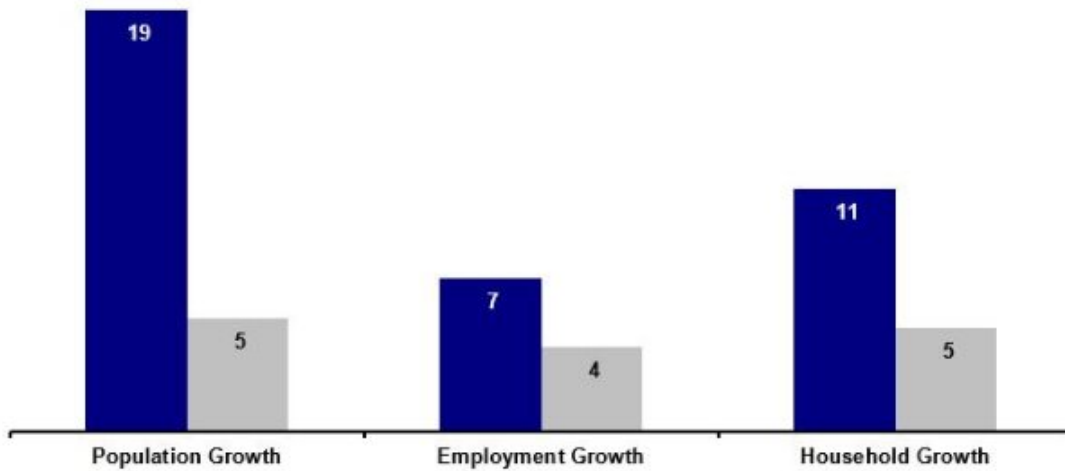
Additionally, throughout our history we have completed many bolt-on acquisitions that have contributed significantly to our growth. In 2017, we made a number of bolt-on acquisitions, making attractive additions to our coast-to-coast footprint in states ranging from Georgia to California and up to Illinois and Virginia. We added approximately 615 million tons of proven and probable reserves to our leading reserve base, further strengthened our best-in-class aggregates distribution network (adding 16 new rail yards in our Florida, Georgia and South Carolina markets) and added asphalt operations in Tennessee to take further advantage of our strong aggregates position.

- **REINVESTMENT OPPORTUNITIES WITH HIGH RETURNS** : Demand for our products is dependent on construction activity and correlates positively with changes in population growth, household formation and employment. During the period 2018 - 2028, Moody's Analytics projects that 79% of the U.S. population growth, 70% of household formation and 64% of new jobs will occur in Vulcan-served states. The close proximity of our production facilities and our aggregates reserves to this projected population growth creates many opportunities to invest capital in high-return projects — projects that will add reserves, increase production capacity and decrease costs.

### Projected Demographic Growth, 2018 to 2028

(Millions)

■ Vulcan States   ■ Non-Vulcan States



Source: Moody's Analytics as of December 13, 2017

#### 4. MANAGING VOLUME, PRODUCT MIX AND PRICE TO GROW PROFITABILITY

We focus on three major profit drivers that must be managed in combination.

- **Price for Service** — We seek to receive full and fair value for the quality of products and services we provide. We should be paid appropriately for helping our customers be successful. Our expanding margins will continue to benefit from the compounding pricing gains associated with cyclical recoveries.
- **Operating Efficiency and Leverage** — We focus on rigorous cost management throughout the economic cycle. Small savings per ton add up to significant cost reductions. We are operating a capital-intensive business well below full capacity and are extremely well positioned to further leverage fixed costs to sales as we move forward.
- **Sales and Production Mix** — We adjust production levels to meet varying market conditions. Managing inventories responsibly results in improved cost performance and an improved return on capital. As the recovery continues and as we see a larger portion of new construction activity in the end-use mix, we will sell the entire production mix much more efficiently and at fuller value.

We manage these factors locally, and align our talent and incentives accordingly. Our knowledgeable and experienced workforce and our flexible production capabilities allow us to manage operational and overhead costs aggressively. Recovery in demand serves as a tailwind for all three major profit drivers.



## 5. EFFECTIVE LAND MANAGEMENT

We own or lease well over 200,000 acres of land, and we manage it carefully throughout all phases of its productive use. We believe that effective land management is both a business strategy and a social responsibility that contributes to our success. As a land-based company, we feel a special responsibility to the environment and the communities around us. Good stewardship requires the careful use of existing resources as well as long-term planning because mining, ultimately, is an interim use of the land. Therefore, we strive to achieve a balance between the value we create through our mining activities and the value we create through effective post-mining land management. We continue to focus our actions on prudent decisions regarding the life cycle management of the land we own.

## PORTFOLIO MANAGEMENT

Our aggregates reserves are strategically located throughout the United States in areas that are projected to grow faster than the national average and that require large amounts of aggregates to meet construction demand. Vulcan-served states are estimated to generate 79 % of the total growth in U.S. population and 70 % of the total growth in U.S. household formations between 2018 and 2028.

### VULCAN'S TOP TEN REVENUE PRODUCING STATES IN 2017

1. California	6. Florida
2. Texas	7. Arizona
3. Virginia	8. North Carolina
4. Tennessee	9. South Carolina
5. Georgia	10. Illinois

Our top ten revenue producing states accounted for 85 % of our 2017 revenues while our top five accounted for 60 %.

We take a disciplined approach to strengthening our footprint by increasing our presence in U.S. metropolitan areas that are expected to grow more rapidly and by divesting assets that are no longer considered part of our long-term growth strategy. In 2017, we swapped our concrete operations in Arizona for strategic asphalt operations also in Arizona. Additionally, we strengthened our positions in our top ten revenue producing states via bolt-on acquisitions in California, Texas, Virginia, Tennessee, Georgia, Florida, Arizona, South Carolina and Illinois.

## PRODUCT LINES

We have four operating (and reportable) segments organized around our principal product lines:

1. Aggregates – 73 % of 2017's total revenues and 86 % of gross profit
2. Asphalt – 16 % of 2017's total revenues and 9 % of gross profit
3. Concrete – 11 % of 2017's total revenues and 5 % of gross profit
4. Calcium – less than 1 % of 2017's total revenues and less than 1 % of gross profit

See Note 15 "Segment Reporting" in Item 8 "Financial Statements and Supplementary Data."

## 1. AGGREGATES

Our construction aggregates are used in a number of ways:

- as a base material underneath highways, walkways, airport runways, parking lots and railroads
- to aid in water filtration, purification and erosion control
- as a raw material used in combination with other resources to construct many of the items we rely on to sustain our quality of life including:
  - houses and apartments
  - roads, bridges and parking lots
  - schools and hospitals
  - commercial buildings and retail space
  - sewer systems
  - power plants
  - airports and runways

Factors that affect the U.S. aggregates industry and our businesses include:

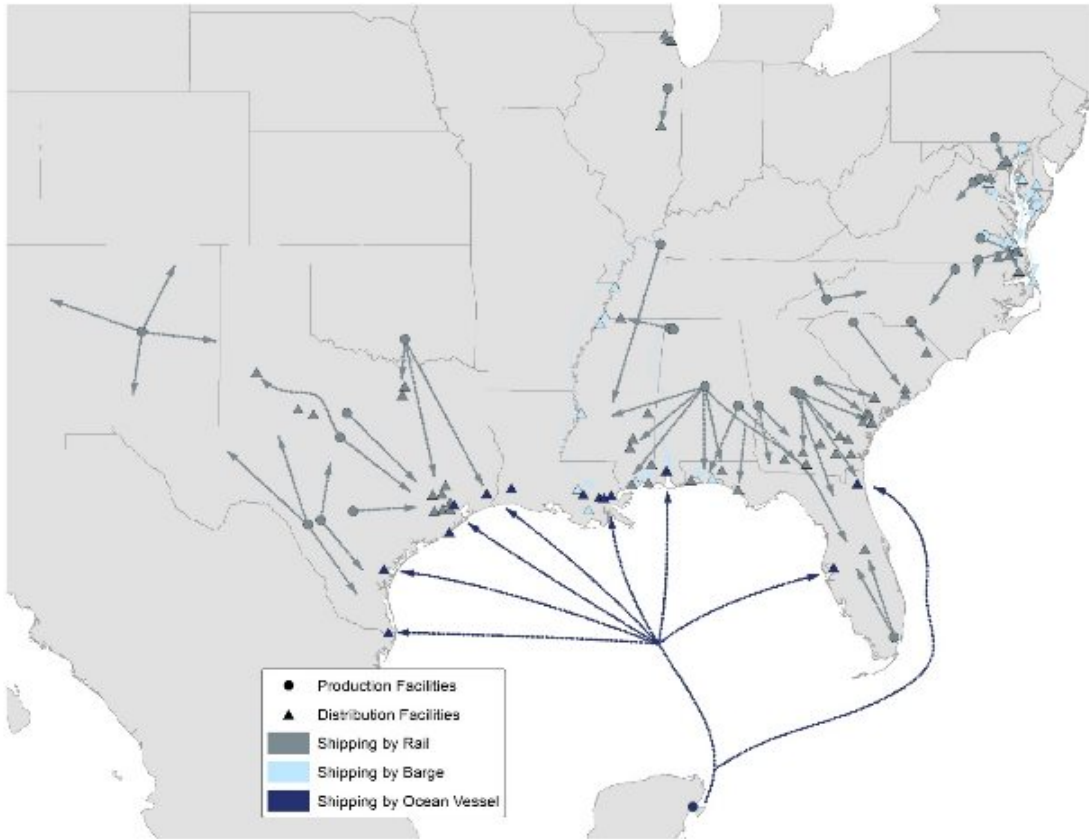
- **LOCATION OF RESERVES:** We currently have 16.0 billion tons of permitted and proven or probable aggregates reserves. The bulk of these reserves are located in areas where we expect greater than average rates of growth in population, jobs and households, which require new infrastructure, housing, offices, schools and other development. Zoning and permitting regulations in some markets have made it increasingly difficult for the aggregates industry to expand existing quarries or to develop new quarries. These restrictions curtail expansion in certain areas, but they also increase the value of our reserves at existing locations.
- **LIMITED PRODUCT SUBSTITUTION:** There are limited substitutes for quality aggregates. Recycled concrete and asphalt have certain applications as a lower-cost alternative to virgin aggregates. However, due to technical specifications many types of construction projects cannot be served by recycled concrete and require the use of virgin aggregates to meet specifications and performance-based criteria for durability, strength and other qualities. Moreover, the amount of recycled asphalt included in asphalt mix as a substitute for aggregates is limited due to specifications.
- **HIGHLY FRAGMENTED INDUSTRY:** The U.S. aggregates industry is composed of over 5,700 companies that manage more than 10,000 operations. This fragmented structure provides many opportunities for consolidation. Companies in the industry commonly enter new markets or expand positions in existing markets through the acquisition of existing facilities.

Through strategic acquisitions and investments, we have developed an unmatched coast-to-coast footprint of strategically located permitted reserves concentrated in and serving the nation's key growth centers. We have over 20,000 customers in 20 states, the District of Columbia, Mexico and the Bahamas.

- **FLEXIBLE PRODUCTION CAPABILITIES:** The production of aggregates is a mechanical process in which stone is crushed and, through a series of screens, separated into various sizes depending on how it will be used. Production capacity can be flexible by adjusting operating hours to meet changing market demand.
- **RAW MATERIAL INPUTS LARGELY UNDER OUR CONTROL:** Unlike typical industrial manufacturing industries, the aggregates industry does not require the input of raw material beyond owned or leased aggregates reserves. Stone, sand and gravel are naturally occurring resources. However, production does require the use of explosives, hydrocarbon fuels and electric power.

- **LOCAL MARKETS:** Aggregates have a high weight-to-value ratio and, in most cases, must be produced near where they are used; if not, transportation can cost more than the materials, rendering them uncompetitive compared to locally produced materials. Exceptions to this typical market structure include areas along the U.S. Gulf Coast and the Eastern Seaboard where there are limited supplies of locally available high-quality aggregates. We serve these markets from quarries that have access to cost-effective long-haul transportation — shipping by barge and rail — and from our quarry on Mexico's Yucatan Peninsula with our fleet of Panamax-class, self-unloading ships.

We operate an extensive logistics network along the U.S. Gulf Coast and the Eastern Seaboard as shown below:



Where practical, we have operations located close to our local markets because the cost of trucking materials long distances is prohibitive. Approximately 80% of our total aggregates shipments are delivered exclusively from the producing location to the customer by truck, and another 15% are delivered by truck after reaching a sales yard by rail or water. The remaining 5% of aggregates shipments are delivered directly to the customer by rail or water.

- **DEMAND CYCLES:** Long-term growth in demand for aggregates is largely driven by growth in population, jobs and households. While short-term and medium-term demand for aggregates fluctuates with economic cycles, declines have historically been followed by strong recoveries, with each peak establishing a new historical high. The drivers underpinning demand recovery — and sustained, multi-year volume and pricing growth — remain firmly in place, in both the public and private sectors of the economy. They include: population growth; gains in total employment and in household income and wages; a continuing increase in household formations; the growing need for additional housing stock and housing demand; a multi-year federal transportation law in place and continuing increases in transportation funding at state and local levels; record state tax receipts; public investment in infrastructure that is still well below the long-term trend-line, and increasing political awareness and acceptance of the need to invest in infrastructure.

**AGGREGATES MARKETS**

We focus on the U.S. markets with above-average long-term expected population growth and where construction is expected to expand. Because transportation is a significant part of the delivered cost of aggregates, our facilities are typically located in the markets they serve or have access to economical transportation via rail, barge or ship to a particular end market. We serve both the public and the private sectors.

Public sector construction activity has historically been more stable and less cyclical than privately funded construction, and generally requires more aggregates per dollar of construction spending. Private sector construction (primarily residential and nonresidential buildings) typically is more affected by general economic cycles than publicly funded projects (particularly highways, roads and bridges), which tend to receive more consistent levels of funding throughout economic cycles.



Source: Company estimates

## PUBLIC SECTOR CONSTRUCTION

Public sector construction includes spending by federal, state, and local governments for highways, bridges, buildings, airports, schools and prisons as well as other infrastructure construction for sewer and waste disposal systems, water supply systems, dams, reservoirs and other public construction projects. Construction for power plants and other utilities is funded from both public and private sources. In 2017, publicly funded construction accounted for approximately 46% of our total aggregates shipments, and approximately 24% of our aggregates sales by volume were used in highway construction projects.

▪ **PUBLIC SECTOR FUNDING:** Generally, public sector construction spending is more stable than private sector construction spending; public sector spending is less sensitive to interest rates and spending has historically been supported by multi-year laws, which provide certainty in funding amounts, program structures, and rules and regulations. Federal spending is governed by authorization, budget and appropriations laws. The level of state and local spending on infrastructure varies across the United States and depends on individual state needs and economies. In 2017, seven state legislatures voted to raise motor fuel taxes for transportation investments, bringing the total to 31 states since 2012. States are also raising revenues through one-time increases in revenues outside of fuel taxes. In the 2017 general election, voters in twenty states approved more than 80% of local transportation investment ballot measures; since 2007, 74% of more than 1,200 measures have been approved.

▪ **FEDERAL HIGHWAY FUNDING:** In December 2015, President Obama signed a new, long-term federal highway and transit authorization bill, Fixing America's Surface Transportation Infrastructure Act (FAST Act), into law after the final legislation received strong, bipartisan support in both the House and the Senate. The FAST Act provides multi-year funding to state and local governments in support of road, bridge, intermodal and public transportation projects.

The FAST Act increases Federal-Aid Highway Program funding from \$41 billion in the federal fiscal year (FFY) 2015 to \$47 billion in FFY 2020. Federal spending for highways is supported by \$208 billion in excise taxes on gasoline and diesel fuels, taxes on heavy truck sales and use, and heavy truck tire taxes and by a \$70 billion transfer of general funds to the Federal Highway Trust Fund.

The long-term nature of the FAST Act is important. The Federal-Aid Highway Program is the largest component of the law and has provided, on average, 52% of all state capital investment in roads and bridges over the last 10 years. This multi-year authorization and the associated dedicated funding provides state departments of transportation with the ability to plan and execute long-range, complex highway projects.

The FAST Act also contains important policy changes. To further accelerate the project delivery process, it augments the environmental review and permitting process reforms contained in the prior law, Moving Ahead for Progress in the 21<sup>st</sup> Century Act (MAP-21). The new law also provides assistance for states making investments in major capital projects — particularly freight projects. In states where we operate, we are well-positioned to serve the large general contractors who will compete for new freight and other major capacity projects that will move forward with this FAST Act funding and policy implementation.

Project financing remains an important additional component of overall surface transportation spending, with the Transportation Infrastructure Finance & Innovation Act (TIFIA) program authorized at \$275 million (in line with the previous program outlays) and growing to \$300 million by 2020. The FAST Act also created a new National Surface Transportation and Innovative Finance Bureau to provide technical assistance to states seeking to pursue public-private partnerships and other financing arrangements for transportation projects.

▪ **WATER INFRASTRUCTURE:** The Water Infrastructure Improvements for the Nation Act of 2016 (WIIN), which we and numerous other business allies strongly supported, was signed into law in December 2016. This law is the successor to the Water Resources Reform and Development Act of 2014 (WRRDA). It reauthorizes needed investment in America's ports, channels, locks, dams, and other infrastructure that supports the maritime and waterways transportation system and provides flood protection for communities. It also provides funding to the Water Infrastructure Financing and Innovation Act (WIFIA), which was modeled after the highly popular TIFIA program in the surface transportation sector. Created in WRRDA, WIFIA will allow for federal credit assistance to water resources projects in the form of low-cost loans, loan guarantees and lines of credit.

## PRIVATE SECTOR CONSTRUCTION

The private sector construction market includes both nonresidential building construction and residential construction and are considerably more cyclical than public construction. In 2017, privately-funded construction accounted for approximately 54% of our total aggregates shipments.

- **NONRESIDENTIAL CONSTRUCTION:** Private nonresidential building construction includes a wide array of projects. Such projects generally are more aggregate intensive than residential construction. Overall demand in private nonresidential construction generally is driven by job growth, vacancy rates, private infrastructure needs and demographic trends. The growth of the private workforce creates demand for offices, hotels and restaurants. Likewise, population growth generates demand for stores, shopping centers, warehouses and parking decks as well as hospitals, places of worship and entertainment facilities. Large industrial projects, such as a new manufacturing facility, can increase the need for other manufacturing plants to supply parts and assemblies. Construction activity in this end market is influenced by a firm's ability to finance a project and the cost of such financing. This end market also includes capital investments in public nonresidential facilities to meet the needs of a growing population.

Nonresidential construction is expected to continue to be a stable source of volume growth in 2018 based on the following assumptions: (1) continuing employment growth should provide support, as it has in the past, (2) current backlogs that our customers, industry groups and outside economists are reporting should continue to be a source of demand, and (3) with a stable tax base, local governments should use funds to make capital investments in schools and other public nonresidential facilities to meet the needs of a growing population.

- **RESIDENTIAL CONSTRUCTION:** Household formations in our markets continue to outpace household formations in the rest of the United States. The majority of residential construction is for single-family housing with the remainder consisting of multi-family construction (i.e., two family houses, apartment buildings and condominiums). Public housing comprises only a small portion of housing demand. Construction activity in this end market is influenced by the cost and availability of mortgage financing and builders' ability to maintain skilled labor.

U.S. housing starts, as measured by Dodge Data & Analytics data, peaked in early 2006 at over 2 million units annually. By the end of 2009, total housing starts had declined to less than 0.6 million units, well below prior historical lows of approximately 1 million units annually. In 2017, total annual housing starts in the U.S. reached almost 1.3 million units. Housing starts were particularly robust in our markets, which grew at almost twice the rate of the nation as a whole. The consistent growth in residential construction bodes well for continued recovery in our markets.

## ADDITIONAL AGGREGATES PRODUCTS AND MARKETS

We sell aggregates that are used as ballast for construction and maintenance of railroad tracks. We also sell riprap and jetty stone for erosion control along roads and waterways. In addition, stone can be used as a feedstock for cement and lime plants and for making a variety of adhesives, fillers and extenders. Coal-burning power plants use limestone in scrubbers to reduce harmful emissions. Limestone that is crushed to a fine powder can be sold as agricultural lime.

We sell a relatively small amount of construction aggregates outside of the United States, principally in the areas surrounding our large quarry on the Yucatan Peninsula in Mexico. Nondomestic sales and long-lived assets outside the United States are reported in Note 15 "Segment Reporting" in Item 8 "Financial Statements and Supplementary Data."

## VERTICAL INTEGRATION

While aggregates is our focus and primary business, we believe vertical integration between aggregates and downstream products, such as asphalt mix and ready-mixed concrete, can be managed effectively in certain markets generating acceptable financial returns and enhancing financial returns in our core Aggregates segment. We produce and sell asphalt mix and/or ready-mixed concrete primarily in our mid-Atlantic, Georgia, Southwestern, Tennessee and Western markets. Aggregates comprise approximately 95% of asphalt mix by weight and 80% of ready-mixed concrete by weight. In both of these downstream businesses, aggregates are primarily supplied from our operations.

## 2 . ASPHALT

We produce and sell asphalt mix in Arizona, California, New Mexico , Tennessee and Texas . In December 2017, we strengthened our asphalt position in Arizona by swapping ready-mixed concrete operations for an asphalt mix operation. In January 2017 , we entered the Tennessee market through the acquisition of several asphalt mix operations and a construction paving business. This segment relies on our reserves of aggregates, functioning essentially as a customer to our aggregates operations. Aggregates are a major component in asphalt mix, comprising approximately 95% by weight of this product . We meet the aggregates requirements for our Asphalt segment primarily through our Aggregates segment. These product transfers are made at local market prices for the particular grade and quality of material required.

Because asphalt mix hardens rapidly, delivery typically is within close proximity to the producing facility. The asphalt mix production process requires liquid asphalt cement , which we purchase from third-party producers. We do not anticipate any significant difficulties in obtaining the raw materials necessary for this segment to operate. We serve our Asphalt segment customers either directly from our local production facilities or through our distribution yards .

## 3 . CONCRETE

We produce and sell ready-mixed concrete in California, Georgia, Maryland, New Mexico, Texas, Virginia, Washington D.C. and the Bahamas. In May 2015, we entered the Arizona ready-mixed concrete market through the acquisition of ready-mixed concrete operations in conjunction with the acquisition of aggregates operations in Arizona and New Mexico. As noted above, in December 2017 we exited the Arizona ready-mixed concrete market via a swap for an asphalt mix operation continuing our strategy to focus on asphalt mix in that market. In January 2015, we swapped our ready-mixed concrete operations in California for asphalt mix operations, primarily in Arizona . In March 2017, we reentered the California ready-mixed concrete market through an acquisition. For additional details see Note 19 “Acquisitions and Divestitures” in Item 8 “Financial Statements and Supplementary Data.”

This segment relies on our reserves of aggregates, functioning essentially as a customer to our aggregates operations. Aggregates are a major component in ready-mixed concrete, comprising approximately 80% by weight of this product . We meet the aggregates requirements of our Concrete segment primarily through our Aggregates segment. These product transfers are made at local market prices for the particular grade and quality of material required.

We serve our Concrete segment customers from our local production facilities or by truck. Because ready-mixed concrete hardens rapidly, delivery typically is within close proximity to the producing facility. Ready- mixed concrete production also requires cement which we purchase from third- party producers . We do not anticipate any significant difficulties in obtaining the raw materials necessary for this segment to operate.

## 4. CALCIUM

Our Calcium segment is composed of a single calcium operation in Brooksville, Florida. This facility produces calcium products for the animal feed, plastics and water treatment industries with high quality calcium carbonate material mined at the Brooksville quarry.

## OTHER BUSINESS - RELATED ITEMS

### SEASONALITY AND CYCLICAL NATURE OF OUR BUSINESS

Almost all of our products are produced and consumed outdoors. Seasonal changes and other weather-related conditions can affect the production and sales volumes of our products. Therefore, the financial results for any quarter do not necessarily indicate the results expected for the year. Normally, the highest sales and earnings are in the third quarter and the lowest are in the first quarter. Furthermore, our sales and earnings are sensitive to national, regional and local economic conditions , demographic and population fluctuations, and particularly to cyclical swings in construction spending, primarily in the private sector.

## COMPETITORS

We operate in a generally fragmented industry with a large number of small, privately-held companies. We estimate that the ten largest aggregates producers accounted for less than one-third of total U.S. aggregates production in 2017. Despite being the industry leader, Vulcan's total U.S. market share is less than 10%. Other publicly traded companies among the ten largest U.S. aggregates producers include the following:

- Cemex S.A.B. de C.V.
- CRH plc
- Heidelberg Cement AG
- Lafarge Holcim
- Martin Marietta Materials, Inc.
- MDU Resources Group, Inc.
- Summit Materials, Inc.

Because the U.S. aggregates industry is highly fragmented, with over 5,700 companies managing more than 10,000 operations during 2017, many opportunities for consolidation exist. Therefore, companies in the industry tend to grow by acquiring existing facilities to enter new markets or extend their existing market positions.

## CUSTOMERS

No material part of our business depends upon any single customer whose loss would have a significant adverse effect on our business. In 2017, our five largest customers accounted for 7.3% of our total revenues (excluding internal sales), and no single customer accounted for more than 2.4% of our total revenues. Our products typically are sold to private industry and not directly to governmental entities. Although approximately 45% to 55% of our aggregates shipments have historically been used in publicly funded construction, such as highways, airports and government buildings, relatively insignificant sales are made directly to federal, state, county or municipal governments/agencies. Therefore, although reductions in state and federal funding can curtail publicly funded construction, our business is not directly subject to renegotiation of profits or termination of contracts with state or federal governments.

## ENVIRONMENTAL COSTS AND GOVERNMENTAL REGULATION

Our operations are subject to numerous federal, state and local laws and regulations relating to the protection of the environment and worker health and safety; examples include regulation of facility air emissions and water discharges, waste management, protection of wetlands, listed and threatened species, noise and dust exposure control for workers, and safety regulations under both Mine Safety and Health Administration (MSHA) and Occupational Safety and Health Administration (OSHA). Compliance with these various regulations requires a substantial capital investment, and ongoing expenditures for the operation and maintenance of systems and implementation of programs. We estimate that capital expenditures for environmental control facilities in 2018 and 2019 will be \$14.9 million and \$29.4 million, respectively. These anticipated expenditures are not expected to have a material impact on our earnings or competitive position.

We have received notices from the United States Environmental Protection Agency (EPA) or similar state or local agencies that we are considered a potentially responsible party (PRP) at a limited number of sites under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or Superfund) or similar state and local environmental laws. Generally we share the cost of remediation at these sites with other PRPs or alleged PRPs in accordance with negotiated or prescribed allocations. There is inherent uncertainty in determining the potential cost of remediating a given site and in determining any individual party's share in that cost. As a result, estimates can change substantially as additional information becomes available about the nature or extent of site contamination, remediation methods, other PRPs and their probable level of involvement, and actions by or against governmental agencies or private parties.

For additional information about litigation and environmental matters, see Notes 1 and 12 to the consolidated financial statements in Item 8 "Financial Statements and Supplementary Data."



Frequently, we are required by state and local regulations or contractual obligations to reclaim our former mining sites. These reclamation liabilities are recorded in our financial statements as a liability at the time the obligation arises. The fair value of such obligations is capitalized and depreciated over the estimated useful life of the owned or leased site. The liability is accreted through charges to operating expenses. To determine the fair value, we estimate the cost for a third party to perform the legally required reclamation, which is adjusted for inflation and risk and includes a reasonable profit margin. All reclamation obligations are reviewed at least annually. Reclaimed quarries often have potential for use in commercial or residential development or as reservoirs or landfills. However, no projected cash flows from these anticipated uses have been considered to offset or reduce the estimated reclamation liability.

For additional information about reclamation obligations (referred to in our financial statements as asset retirement obligations), see Notes 1 and 17 to the consolidated financial statements in Item 8 "Financial Statements and Supplementary Data."

## PATENTS AND TRADEMARKS

We do not own or have a license or other rights under any patents, registered trademarks or trade names that are material to any of our reporting segments.

## OTHER INFORMATION ABOUT VULCAN

Vulcan is a New Jersey corporation incorporated on February 14, 2007, while its predecessor company was incorporated on September 27, 1956. Our principal sources of energy are electricity, diesel fuel and natural gas. We do not anticipate any difficulty in obtaining sources of energy required for operation of any of our reporting segments in 2018.

As of January 1, 2018, we employed 7,900 people in the United States. Of these employees, 643 are represented by labor unions. Also, as of that date, we employed 386 people in Mexico and 1 in the Bahamas, 310 of whom are represented by labor unions. We do not anticipate any significant issues with any unions in 2018.

We generally ship our products upon receipt of a purchase order or in some cases simply a price quote. Therefore, we do not have a significant order backlog.

## EXECUTIVE OFFICERS OF THE REGISTRANT

The names, positions and ages, as of February 20, 2018, of our executive officers are as follows:

Name	Position	Age
J. Thomas Hill	Chairman, President and Chief Executive Officer	58
John R. McPherson	Executive Vice President, Chief Financial and Strategy Officer	49
Stanley G. Bass	Chief Growth Officer	56
Michael R. Mills	Chief Administrative Officer	57
Thompson S. Baker II	Senior Vice President	59
Jerry F. Perkins Jr.	General Counsel and Secretary	48
Ejaz A. Khan	Vice President, Controller and Chief Information Officer	60
Jason P. Teter	Vice President, Finance	43
David P. Clement <sup>1</sup>	President, Central Division	57
C. Brockway Lodge, Jr. <sup>1</sup>	President, Western Division	45

<sup>1</sup> These Division Presidents are designated as Executive Officers as a result of their significant policy-making function and direct reporting relationship to J. Thomas Hill.

The principal occupations of the executive officers during the past five years are set forth below:

J. Thomas Hill was elected Chairman of the Board of Directors effective January 1, 2016. He was elected President and Chief Executive Officer in July 2014. Prior to that, he served as Executive Vice President and Chief Operating Officer (January 2014 – July 2014), Senior Vice President – South Region (December 2011 – December 2013). Prior to that, he served in a number of positions with Vulcan including President, Florida Rock Division (September 2010 – December 2011).

John R. McPherson was elected Executive Vice President, Chief Financial and Strategy Officer in July 2014. Prior to that, he served as Executive Vice President and Chief Financial Officer (January 2014 – July 2014), Senior Vice President – East Region (November 2012 – December 2013) and Senior Vice President, Strategy and Business Development (October 2011 – November 2012). Before joining Vulcan in October 2011, Mr. McPherson was a senior partner at McKinsey & Company, a global management consulting firm, from 1995 to 2011.

Stanley G. Bass was elected Chief Growth Officer in February 2016. He served as Senior Vice President – Western and Mountain West Divisions from January 2015 to February 2016. He served as Senior Vice President – West Region from September 2013 to December 2014. Prior to that, he served as Senior Vice President – Central and West Regions (February 2013 – September 2013), Senior Vice President – Central Region (December 2011 – February 2013). Prior to that, he served in a number of positions with Vulcan including President, Midsouth and Southwest Divisions (September 2010 – December 2011).

Michael R. Mills was elected Chief Administrative Officer in February 2016. He served as Senior Vice President and General Counsel from November 2012 to February 2016; and as Senior Vice President – East Region from December 2011 to October 2012. Prior to that, he was President, Southeast Division.

Thompson S. Baker II was elected Senior Vice President in March 2017. He served in a number of positions with Vulcan, including President – Florida Rock Division, prior to serving as Chief Executive Officer of FRP Holdings, Inc. from October 2010 to March 2017 and President and Chief Executive Officer of Patriot Transportation Holding, Inc. from December 2014 to March 2017.

Jerry F. Perkins Jr. was elected General Counsel and Secretary in February 2016. He served as Assistant General Counsel and Secretary since 2011.

Ejaz A. Khan was elected Vice President and Controller in February 1999. He was elected Chief Information Officer in February 2000.

Jason P. Teter began serving as Vice President, Finance on January 1, 2017. Prior to that, he served as President, Southern and Gulf Coast Division from January 2015 to December 2016 and as Vice President – Business Development from October 2013 to December 2014. Before joining Vulcan, he was the Vice President and General Manager, Georgia Aggregates for Lafarge North America.

David P. Clement was named President, Central Division effective January 1, 2015. He served as Senior Vice President – Central Region from September 2013 through December 2014. During the five years prior to such role, he served in a number of positions with Vulcan including Vice President and General Manager, Midwest Division and Vice President of Operations, Midwest Division.

C. Brockway (Brock) Lodge, Jr. was named President, Western Division in February 2016. He served as Vice President and General Manager, Western Division from April 2015 to February 2016. Before that, he was Senior Area General Manager – Central Division (June 2013 – March 2015) and Director of Sales and Marketing – Midsouth Division (April 2010 – May 2013).

## SHAREHOLDER RETURN PERFORMANCE PRESENTATION

Below is a graph comparing the performance of our common stock, with dividends reinvested, to that of the Standard & Poor's 500 Stock Index (S&P 500) and the Materials and Services Sector of the Wilshire 5000 Index (Wilshire 5000 M&S) from December 31, 2012 to December 31, 2017. The Wilshire 5000 M&S is a market capitalization weighted sector containing public equities of firms in the Materials and Services sector, which includes our company and approximately 1,300 other companies.



	2012	2013	2014	2015	2016	2017
<b>Comparative Total Return <sup>1</sup></b>						
Vulcan Materials Company	\$ 100.00	\$ 114.20	\$ 126.76	\$ 183.93	\$ 244.08	\$ <b>252.38</b>
S&P 500	\$ 100.00	\$ 132.40	\$ 150.54	\$ 152.65	\$ 170.96	\$ <b>208.23</b>
Wilshire 5000 M&S	\$ 100.00	\$ 136.20	\$ 147.50	\$ 154.58	\$ 172.21	\$ <b>219.74</b>

<sup>1</sup> Assumes an initial investment at December 31, 2012 of \$100 in each stock/index, with quarterly reinvestment of dividends.

## INVESTOR INFORMATION

We make available on our website, [www.vulcanmaterials.com](http://www.vulcanmaterials.com), free of charge, copies of our :

- Annual Report on Form 10-K
- Quarterly Reports on Form 10-Q
- Current Reports on Form 8-K

Our website also includes amendments to those reports filed with or furnished to the Securities and Exchange Commission (SEC) pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 as well as all Forms 3, 4 and 5 filed with the SEC by our executive officers and directors, as soon as the filings are made publicly available by the SEC on its EDGAR database ([www.sec.gov](http://www.sec.gov)).

The public may read and copy materials filed with the SEC at the Public Reference Room of the SEC at 100 F Street, NE, Washington, D. C. 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-732-0330. In addition to accessing copies of our reports online, you may request a copy of our Annual Report on Form 10-K, including financial statements, by writing to Jerry F. Perkins Jr., General Counsel and Secretary, Vulcan Materials Company, 1200 Urban Center Drive, Birmingham, Alabama 35242.

We have a :

- Business Conduct Policy applicable to all employees and directors
- Code of Ethics for the CEO and Senior Financial Officers

Copies of the Business Conduct Policy and the Code of Ethics are available on our website under the heading "Corporate Governance." If we make any amendment to, or waiver of, any provision of the Code of Ethics, we will disclose such information on our website as well as through filings with the SEC.

Our Board of Directors has also adopted:

- Corporate Governance Guidelines
- Charters for our Audit, Compensation, Executive, Finance, Governance and Safety, Health & Environmental Affairs Committees

These documents meet all applicable SEC and New York Stock Exchange (NYSE) regulatory requirements.

The Charters of the Audit, Compensation and Governance Committees are available on our website under the heading, "Corporate Governance," or you may request a copy of any of these documents by writing to Jerry F. Perkins Jr., General Counsel and Secretary, Vulcan Materials Company, 1200 Urban Center Drive, Birmingham, Alabama 35242.

Information included on our website is not incorporated into, or otherwise made a part of, this report.

## CERTIFICATIONS AND ASSERTIONS

The certifications of our Chief Executive Officer and Chief Financial Officer made pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 are included as exhibits to this Annual Report on Form 10-K. Additionally, on June 6, 2017 our Chief Executive Officer submitted to the NYSE the annual written affirmation required by the rules of the NYSE certifying that he was not aware of any violations of Vulcan Materials Company of NYSE corporate governance listing standards.

The following risks could materially and adversely affect our business, financial condition and results of operations, and cause the trading price of our common stock to decline. These risk factors do not identify all risks that we face; our operations could also be affected by factors that are not presently known to us or that we currently consider to be immaterial to our operations. Due to risks and uncertainties, known and unknown, our past financial results may not be a reliable indicator of future performance and historical trends should not be used to anticipate results or trends in future periods. You should also refer to the other information set forth in this Annual Report on Form 10-K, including Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations" and Item 8 "Financial Statements and Supplementary Data."

#### **EC ONOMIC/POLITICAL RISKS**

**Changes in legal requirements and governmental policies concerning zoning, land use, environment and other areas of the law may result in additional liabilities, a reduction in operating hours and additional capital expenditures** — Our operations are affected by numerous federal, state and local laws and regulations related to zoning, land use and environmental matters. Despite our compliance efforts, we have an inherent risk of liability in the operation of our business. These potential liabilities could have an adverse impact on our operations and profitability. In addition, our operations are subject to environmental, zoning and land use requirements and require numerous governmental approvals and permits, which often require us to make significant capital and operating expenditures to comply with the applicable requirements. Stricter laws and regulations, or more stringent interpretations of existing laws or regulations, may impose new liabilities, taxes or tariffs on us, reduce operating hours, require additional investment by us in pollution control equipment, create restrictions on our products or impede our opening new or expanding existing plants or facilities.

**Our business may be materially affected by changes to fiscal and tax policies** — The Tax Cuts and Jobs Act (TCJA) was enacted on December 22, 2017. As explained in Note 9 "Income Taxes" in Item 8 "Financial Statements and Supplementary Data," we have included provisional adjustments in the financial statements for certain projected impacts of the legislation and no adjustments for certain other aspects. Our accounting for these items could be adjusted during the measurement period, which could be as late as December 2018.

**Our business is dependent on the timing and amount of federal, state and local funding for infrastructure** — Our products are used in a variety of public infrastructure projects that are funded and financed by federal, state and local governments. In 2017, three state legislatures in Vulcan-served areas — California, Tennessee and South Carolina — passed new long-term highway funding legislation. In 2016, three states saw one-time revenue increases for transportation and numerous ballot measures were passed to increase investment in several Vulcan-served areas including northern and southern California, Georgia, North Carolina and South Carolina. The federal FAST Act, a five year, fully-funded road, bridge and public transportation authorization law, is providing assistance to state DOTs and metro areas. However, given varying state and local budgetary situations and the associated pressure on infrastructure spending, we cannot be entirely assured of the existence, amount and timing of appropriations for future public infrastructure projects.

**Climate change and climate change legislation or regulations may adversely impact our business** — A number of governmental bodies have introduced or are contemplating legislative and regulatory change in response to the potential impacts of climate change. Such legislation or regulation, if enacted, potentially could include provisions for a "cap and trade" system of allowances and credits or a carbon tax, among other provisions.

Other potential impacts of climate change include physical impacts, such as disruption in production and product distribution due to impacts from major storm events, shifts in regional weather patterns and intensities, and potential impacts from sea level changes. There is also a potential for climate change legislation and regulation to adversely impact the cost of purchased energy and electricity.

The impacts of climate change on our operations and the company overall are highly uncertain and difficult to estimate. However, climate change legislation and regulation concerning greenhouse gases could have a material adverse effect on our future financial position, results of operations or cash flows.

**We are subject to various risks arising from our international business operations and relationships, which could adversely affect our business** — We have international operations and are subject to both the risks of conducting international business and the requirements of the Foreign Corrupt Practices Act of 1977 (the FCPA). We face political and other risks associated with our international operations, including our largest production facility located in Playa del Carmen, Mexico. These risks may include changes in international trade policies, such as the North American Free Trade Agreement, imposition of duties, taxes or government royalties, arbitrary changes to permits, zoning classifications or operating agreements, or overt acts by foreign governments. In addition, failure to comply with the FCPA may result in legal claims against us.

#### **GROWTH AND COMPETITIVE RISKS**

**Within our local markets, we operate in a highly competitive industry which may negatively impact prices, volumes and costs** — The construction aggregates industry is highly fragmented with a large number of independent local producers in a number of our markets. Additionally, in most markets, we also compete against large private and public companies, some of which are significantly vertically integrated. Therefore, there is intense competition in a number of markets in which we operate. This significant competition could lead to lower prices and lower sales volumes in some markets, negatively affecting our earnings and cash flows.

**The expanded use of aggregates substitutes could have a material adverse effect on our business, financial condition and results of operations** — Recycled concrete and asphalt are increasingly being used in a number of our markets, particularly urban markets, as a substitute for aggregates. The expanded use of recycled concrete and asphalt could cause a significant reduction in the demand for aggregates.

**Our long-term success depends upon securing and permitting aggregates reserves in strategically located areas. If we are unable to secure and permit such reserves it could negatively affect our future earnings** — Construction aggregates are bulky and heavy and, therefore, difficult to transport efficiently. Because of the nature of the products, the freight costs can quickly surpass the production costs. Therefore, except for geographic regions that do not possess commercially viable deposits of aggregates and are served by rail, barge or ship, the markets for our products tend to be localized around our quarry sites and are served by truck. New quarry sites often take years to develop; therefore, our strategic planning and new site development must stay ahead of actual growth. Additionally, in a number of urban and suburban areas in which we operate, it is increasingly difficult to permit new sites or expand existing sites due to community resistance. Therefore, our future success is dependent, in part, on our ability to accurately forecast future areas of high growth in order to locate optimal facility sites and on our ability to secure operating and environmental permits to operate at those sites.

**Our future growth depends in part on acquiring other businesses in our industry and successfully integrating them with our existing operations. If we are unable to integrate acquisitions successfully, it could lead to higher costs and could negatively affect our earnings** — The expansion of our business is dependent in part on the acquisition of existing businesses that own or control aggregates reserves. Disruptions in the availability of financing could make it more difficult to capitalize on potential acquisitions. Additionally, with regard to the acquisitions (including Aggregates USA acquired in December 2017) we are able to complete, our future results will depend in part on our ability to successfully integrate these businesses with our existing operations.

#### **FINANCIAL/ACCOUNTING RISKS**

**Our industry is capital intensive, resulting in significant fixed and semi-fixed costs. Therefore, our earnings are highly sensitive to changes in product shipments** — Due to the high levels of fixed capital required for extracting and producing construction aggregates, our profits are negatively affected by significant decreases in shipments.

**Significant downturn in the construction industry may result in an impairment of our goodwill** — We test goodwill for impairment on an annual basis or more frequently if events or circumstances change in a manner that would more likely than not reduce the fair value of a reporting unit below its carrying value. While we have not identified any events or changes in circumstances since our annual impairment test on November 1, 2017 that indicate the fair value of any of our reporting units is below its carrying value, a significant downturn in the construction industry may have a material effect on the fair value of our reporting units. A significant decrease in the estimated fair value of one or more of our reporting units could result in the recognition of a material, noncash write-down of goodwill.

**A deterioration in our credit ratings and/or the state of the capital markets could negatively impact our business** — We currently have \$ 2.9 billion of debt with maturities between 2018 and 2047. Given our current credit metrics and ratings, together with other factors, we expect to refinance our nearer term debt maturities rather than repay them when due. Furthermore, we expect to finance acquisitions with a combination of cash flows from existing operations, additional debt and/or additional equity. The mix of financing sources for acquisitions will be situational dependent.

A deterioration in our credit ratings, regardless of the cause, could limit our debt financing options and increase the cost of such debt financing (whether for refinancing existing debt or financing acquisitions). While we do not anticipate a credit ratings downgrade, and plan to manage our capital structure consistent with investment-grade credit metrics, we cannot assure our current credit ratings.

A deterioration in the state of the capital markets, regardless of our credit rating, could impact our access to, and cost of, new debt or equity capital.

**We use estimates in accounting for a number of significant items. Changes in our estimates could adversely affect our future financial results** — As discussed more fully in "Critical Accounting Policies" under Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations," we use significant judgment in accounting for:

- goodwill impairment
- impairment of long-lived assets excluding goodwill
- business combinations and purchase price allocation
- pension and other postretirement benefits
- environmental compliance costs
- claims and litigation including self-insurance
- income taxes

These assumptions and estimates could change significantly in the future and could adversely affect our financial position, results of operations, or cash flows.

#### **PERSONNEL RISKS**

**Our future success greatly depends upon attracting and retaining qualified personnel, particularly in sales and operations** — A significant factor in our future profitability is our ability to attract, develop and retain qualified personnel. Our success in attracting qualified personnel, particularly in the areas of sales and operations, is affected by changing demographics of the available pool of workers with the training and skills necessary to fill the available positions, the impact on the labor supply due to general economic conditions, and our ability to offer competitive compensation and benefit packages.

**Disputes with organized labor could disrupt our business operations** — Labor unions represent approximately 11% of our workforce. Disputes with our trade unions, or the inability to renew our labor agreements, may lead to strikes or other actions that could disrupt our business operations leading to higher costs and/or reduced revenues resulting in lower earnings.

#### **OTHER RISKS**

**We are dependent on information technology and our systems and infrastructure face certain risks, including cybersecurity risks and data leakage risks** — Any significant breakdown, invasion, destruction or interruption of our systems by employees, others with authorized access to our systems or unauthorized persons could negatively impact operations. There is also a risk that we could experience a business interruption, theft of information, or reputational damage, which could adversely affect our results of operations, as a result of a cyber-attack, such as an infiltration of a data center, or data leakage of confidential information either internally or at our third-party providers. While we have invested in the protection of our data and informational technology to reduce these risks and periodically test the security of our information systems network, there can be no assurance that our efforts will prevent breakdowns or breaches in our systems that could adversely affect our business. Management is not aware of a cybersecurity incident that has had a material impact on our operations.

**Weather can materially affect our operating results** — Almost all of our products are consumed outdoors in the public or private construction industry, and our production and distribution facilities are located outdoors. Inclement weather affects both our ability to produce and distribute our products and affects our customers' short-term demand because their work also can be hampered by weather.

**O ur products are transported by truck, rail, barge or ship, often by third-party providers. Significant delays or increased costs affecting these transportation methods could materially affect our operations and earnings** — Our products are distributed either by truck to local markets or by rail, barge or oceangoing vessel to remote markets. The c osts of transporting our products could be negatively affected by factors outside of our control, including rail service interruptions or rate increases, tariffs, rising fuel costs , truck/railcar/barge shortages and capacity constraint s. Additionally, inclement weather, including hurricanes, tornadoes and other weather events, can negatively impact our distribution network.

**We use large amounts of electricity, diesel fuel, liquid asphalt and other petroleum-based resources that are subject to potential supply constraints and significant price fluctuation, which could affect our operating results and profitability** — In our production and distribution processes, we consume significant amounts of electricity, diesel fuel, liquid asphalt and other petroleum-based resources. The availability and pricing of these resources are subject to market forces that are beyond our control. Our suppliers contract separately for the purchase of such resources and our sources of supply could be interrupted should our suppliers not be able to obtain these materials due to higher demand or other factors that interrupt their availability. Variability in the supply and prices of these resources could materially affect our operating results from period to period and rising costs could erode our profitability.

**We are involved in a number of legal proceedings. We cannot predict the outcome of litigation and other contingencies with certainty** — We are involved in several complex litigation proceedings, some arising from our previous ownership and operation of our Chemical s b usines s . Although we divested our Chemicals business in June 2005, we retained certain liabilities related to the business. As required by generally accepted accounting principles, we establish reserves when a loss is determined to be probable and the amount can be reasonably estimated. Our assessment of probability and loss estimates are based on the facts and circumstances known to us at a particular point in time. Subsequent developments in legal proceedings may affect our assessment and estimates of a loss contingency, and could result in an adverse effect on our financial position, results of operations or cash flows. For a description of our current significant legal proceedings see Note 12 " Commitments and Contingencies " in Item 8 " Financial Statements and Supplementary Data. "

**Our construction paving business may subject us to contractually imposed penalties or lost profits** — As a result of a 2017 acquisition, w e operate a construction paving business in Tennessee. In some instances, including many of our fixed price paving contracts, we agree to complete a project by a certain date. If we fail to complete the project as scheduled, we may be held responsible for costs resulting from the delay . Consequently , the total project cost could exceed our original estimate and we could experience reduced profit s or even a loss on the project .

**We are involved in certain environmental matters. We cannot predict the outcome of these contingencies with certainty** — We are involved in environmental investigations and cleanups at sites where we operate or have operated in the past or sent materials for recycling or disposal. As required by generally accepted accounting principles, we establish reserves when a loss is determined to be probable and the amount can be reasonably estimated. Our assessment of probability and loss estimates are based on the facts and circumstances known to us at a particular point in time. Subsequent developments related to these matters may affect our assessment and estimates of loss contingency, and could result in an adverse effect on our financial position, results of operations or cash flows. For a description of our current significant environmental matters see Note 12 "Commitments and Contingencies" in Item 8 "Financial Statements and Supplementary Data."

## ITEM 1B

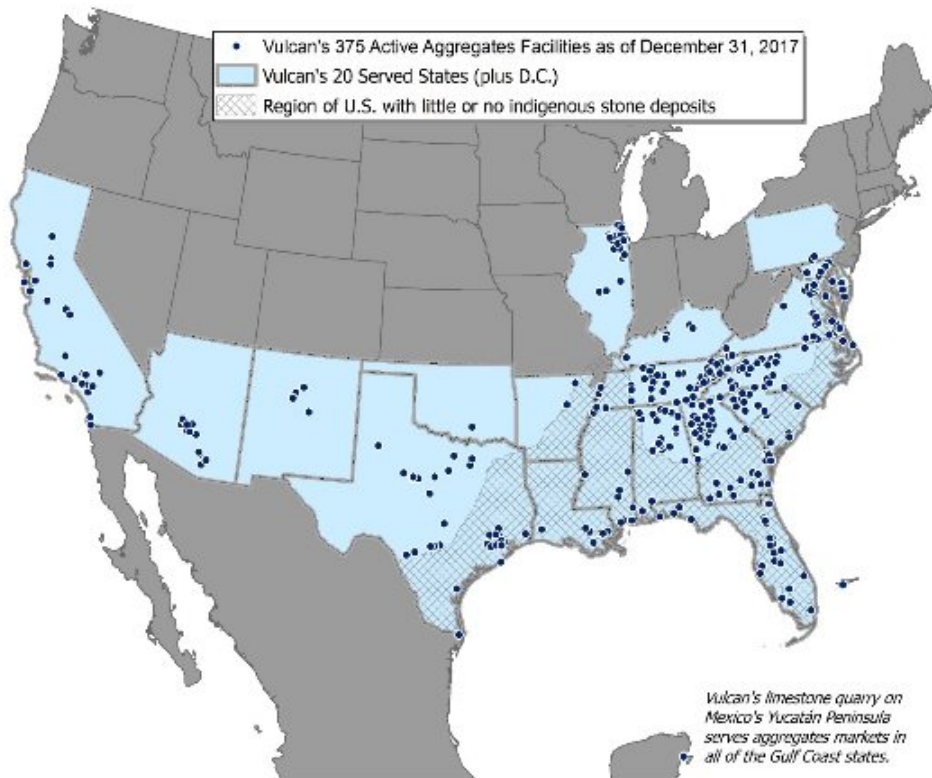
### UNRESOLVED STAFF COMMENTS

We have not received any written comments from the Securities and Exchange Commission staff regarding our periodic or current reports under the Exchange Act of 1934 that remain unresolved.



## AGGREGATES

As the largest U.S. supplier of construction aggregates, we have operating facilities across the U.S. and in Mexico and the Bahamas. We principally serve markets in 20 states, Washington D.C. and the local markets surrounding our operations in Mexico and the Bahamas. Our primary focus is serving states and metropolitan markets in the U.S. that are expected to experience the most significant growth in population, households and employment. These three demographic factors are significant drivers of demand for aggregates.



Our current estimate of 16.0 billion tons of proven and probable aggregates reserves reflects an increase of 0.5 billion tons from the prior year's estimate. Estimates of reserves are of recoverable stone, sand and gravel of suitable quality for economic extraction, based on drilling and studies by our geologists and engineers, recognizing reasonable economic and operating restraints as to maximum depth of overburden and stone excavation, and subject to permit or other restrictions.

Proven, or measured, reserves are those reserves for which the quantity is computed from dimensions revealed by drill data, together with other direct and measurable observations, such as outcrops, trenches and quarry faces. The grade and quality of those reserves are computed from the results of detailed sampling, and the sampling and measurement data are spaced so closely and the geologic character is so well defined that size, shape, depth and mineral content of reserves are well established. Probable, or indicated, reserves are those reserves for which quantity, grade and quality are computed partly from specific measurements and partly from projections based on reasonable, though not drilled, geologic evidence. The degree of assurance, although lower than that for proven reserves, is high enough to assume continuity between points of observation.

Reported proven and probable reserves include only quantities that are owned in fee or under lease, and for which all appropriate zoning and permitting have been obtained. Leases, zoning, permits, reclamation plans and other government or industry regulations often set limits on the areas, depths and lengths of time allowed for mining, stipulate setbacks and slopes that must be left in place, and designate which areas may be used for surface facilities, berms, and overburden or waste storage, among other requirements and restrictions. Our reserve estimates take into account these factors. Technical and economic factors also affect the estimates of reported reserves regardless of what might otherwise be considered proven or probable based on a geologic analysis. For example, excessive overburden or weathered rock, rock quality issues, excessive mining depths, groundwater issues, overlying wetlands, endangered species habitats, and rights of way or easements may effectively limit the quantity of reserves considered proven and probable. In addition, computations for reserves in-place are adjusted for estimates of unsaleable sizes and materials as well as pit and plant waste.

The 16.0 billion tons of estimated proven and probable aggregates reserves reported at the end of 2017 include reserves at inactive and greenfield (undeveloped) sites. The table below presents, by division, the tons of proven and probable aggregates reserves as of December 31, 2017 and the types of facilities operated.

Division <sup>1</sup>	(millions of tons)			2017 Production	Number of Aggregates Operating Facilities <sup>2</sup>		
	Aggregates Reserves				Stone	Sand and	
	Proven	Probable	Total			Gravel	Sales Yards
Central	2,942.2	894.2	3,836.4	34.8	58	5	12
International	566.8	0.0	566.8	11.5	1	0	0
Mideast	2,443.2	1,003.7	3,446.9	35.3	35	6	23
Mountain West	183.5	126.6	310.1	7.6	2	15	2
Southeast <sup>3</sup>	3,109.4	871.5	3,980.9	41.5	43	13	24
Southern Gulf Coast	1,252.3	30.3	1,282.6	13.2	20	1	23
Southwest	1,229.5	9.5	1,239.0	20.7	15	1	19
Western	797.5	503.7	1,301.2	20.4	6	13	2
<b>Total</b>	<b>12,524.4</b>	<b>3,439.5</b>	<b>15,963.9</b>	<b>185.0</b>	<b>180</b>	<b>54</b>	<b>105</b>

<sup>1</sup> The divisions are defined by states /countries as follows:

Central Division — Arkansas, Illinois, Kentucky and Tennessee

International Division — Mexico

Mideast Division — Delaware, Maryland, North Carolina, Pennsylvania, Virginia and Washington D.C.

Mountain West Division — Arizona and New Mexico

Southeast Division — Florida (excluding panhandle), Georgia, South Carolina and the Bahamas

Southern Gulf Coast Division — Alabama, Florida Panhandle, Louisiana and Mississippi

Southwest Division — Oklahoma and Texas

Western Division — California

<sup>2</sup> In addition to the facilities included in the table above, we operated 36 recycled concrete plants which are not dependent on reserves.

<sup>3</sup> Includes a maximum of 352.0 million tons of reserves encumbered by volumetric production payments as defined in Note 1 "Summary of Significant Accounting Policies" in Item 8 "Financial Statements and Supplementary Data" under the caption Deferred Revenue.

Of the 16.0 billion tons of aggregates reserves at December 31, 2017, 8.9 billion tons or 56% are located on owned land and 7.1 billion tons or 44% are located on leased land.

The following table lists our ten largest active aggregates facilities based on the total proven and probable reserves at the sites. None of our aggregates facilities, other than Playa del Carmen, contributed more than 5 % to our total revenues in 2017.

<i>(millions of tons)</i> <i>Location (nearest major metropolitan area)</i>	<i>Reserves at 12/31/2017</i>			<i>2017 Production</i>
	<i>Proven</i>	<i>Probable</i>	<i>Total</i>	
Playa del Carmen (Cancun), Mexico	566.8	0.0	566.8	11.5
Hanover (Harrisburg), Pennsylvania	229.1	236.4	465.5	2.8
McCook (Chicago), Illinois	110.3	266.5	376.8	4.0
Corona (Los Angeles), California	15.0	321.5	336.5	2.2
Postell (Macon), Georgia	199.1	72.3	271.4	5.0
Gold Hill (Charlotte), North Carolina	149.7	121.2	270.9	1.0
DeKalb (Chicago), Illinois	108.1	150.0	258.1	0.3
San Emidio (Bakersfield), California	250.0	0.0	250.0	1.3
Macon, Georgia	121.0	128.0	249.0	1.8
Norcross (Atlanta), Georgia	189.7	27.7	217.4	3.0

## ASPHALT, CONCRETE AND CALCIUM

As of December 31, 2017, we operated a number of facilities producing asphalt mix, ready-mixed concrete and calcium in several of our divisions as reflected in the table below:

<i>Division<sup>1</sup></i>	<i>Asphalt<sup>2</sup> Facilities</i>	<i>Concrete<sup>3</sup> Facilities</i>	<i>Calcium<sup>4</sup> Facilities</i>
Central	10	0	0
Mideast	0	32	0
Mountain West	21	2	0
Southeast	0	10	1
Southwest	11	8	0
Western	22	5	0

<sup>1</sup> International and Southern Gulf Coast Divisions have no asphalt, concrete or calcium facilities.

<sup>2</sup> Central Division Asphalt is comprised of asphalt mix facilities and a construction paving business.

<sup>3</sup> Southeast Division Concrete is comprised of ready-mixed concrete facilities and 1 block plant.

<sup>4</sup> Comprised of a ground calcium plant.

The asphalt and concrete facilities are able to meet their needs for raw material inputs with a combination of internally sourced and purchased raw materials. Our Calcium segment operates a quarry at Brooksville, Florida which provides feedstock for the ground calcium operation.

<i>(millions of tons)</i> <i>Location</i>	<i>Reserves at 12/31/2017</i>			<i>2017 Production</i>
	<i>Proven</i>	<i>Probable</i>	<i>Total</i>	
Brooksville	5.3	7.1	12.4	0.3

Our Brooksville limestone quarry is mined and processed primarily as a supplement for end-use products, such as animal feed and plastics. High purity limestone is inert and relatively inexpensive compared to the other components used in these end-use products. The Brooksville limestone quarry has an average calcium carbonate (CaCO<sub>3</sub>) content of 95%.

## HEADQUARTERS

Our headquarters are located in an office complex in Birmingham, Alabama. The office space consists of approximately 184,410 square feet and is leased through December 31, 2023, with three five-year renewal periods thereafter. The annual rental cost for the current term of the lease is approximately \$ 3.6 million.

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### ITEM 3

#### LEGAL PROCEEDINGS

We are subject to occasional governmental proceedings and orders pertaining to occupational safety and health or to protection of the environment, such as proceedings or orders relating to noise abatement, air emissions or water discharges. As part of our continuing program of stewardship in safety, health and environmental matters, we have been able to resolve such proceedings and to comply with such orders without any material adverse effects on our business.

We are a defendant in various lawsuits in the ordinary course of business. It is not possible to determine with precision the outcome of, or the amount of liability, if any, under these lawsuits, especially where the cases involve possible jury trials with as yet undetermined jury panels.

We were not subject to any penalties in 2017 for failure to disclose transactions identified by the Internal Revenue Service as abusive under Internal Revenue Code Section 6707A.

See Note 12 " Commitments and Contingencies " in Item 8 " Financial Statements and Supplementary Data " for a discussion of our material legal proceedings.

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### ITEM 4

#### MINE SAFETY DISCLOSURES

The information concerning mine safety violations or other regulatory matters required by Section 1503(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 104 of Regulation S-K is included in Exhibit 95 of this report.

**MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS  
AND ISSUER PURCHASES OF EQUITY SECURITIES**

Our common stock is traded on the New York Stock Exchange (ticker symbol VMC). As of February 13, 2018, the number of shareholders of record was 2,714. The prices in the following table represent the high and low sales prices for our common stock as reported on the New York Stock Exchange and the quarterly dividends declared by our Board of Directors in 2017 and 2016.

	<i>Common Stock Prices</i>		<i>Dividends Declared</i>
	<i>High</i>	<i>Low</i>	
<b>2017</b>			
First quarter	\$ 136.82	\$ 108.95	\$ 0.25
Second quarter	\$ 134.92	\$ 116.26	\$ 0.25
Third quarter	\$ 130.12	\$ 111.77	\$ 0.25
Fourth quarter	\$ 129.63	\$ 115.01	\$ 0.25
<b>2016</b>			
First quarter	\$ 106.78	\$ 78.83	\$ 0.20
Second quarter	\$ 121.22	\$ 104.61	\$ 0.20
Third quarter	\$ 127.20	\$ 106.42	\$ 0.20
Fourth quarter	\$ 138.18	\$ 105.71	\$ 0.20

The future payment of dividends is within the discretion of our Board of Directors and depends on our profitability, capital requirements, financial condition, business opportunities and other factors which our Board of Directors deems relevant. We are not a party to any contracts or agreements that currently materially limit our ability to pay dividends.

On February 9, 2018, our Board declared a dividend of 28 cents per share for the first quarter of 2018. This represents a 3 cent (12%) per share increase over the prior quarter.

### ISSUER PURCHASES OF EQUITY SECURITIES

Purchases of our equity securities during the quarter ended December 31, 2017 are summarized below.

<i>Period</i>	<i>Total Number of Shares Purchased</i>	<i>Average Price Paid Per Share</i>	<i>Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs</i>	<i>Maximum Number of Shares that May Yet Be Purchased Under the Plans or Programs<sup>1</sup></i>
<b>2017</b>				
Oct 1 - Oct 31	0	\$ 0.00	0	9,489,717
Nov 1 - Nov 30	0	\$ 0.00	0	9,489,717
Dec 1 - Dec 31	0	\$ 0.00	0	9,489,717
<b>Total</b>	<b>0</b>	<b>\$ 0.00</b>	<b>0</b>	

<sup>1</sup> On February 10, 2006, our Board of Directors authorized us to purchase up to 10,000,000 shares of our common stock. On February 10, 2017, there were 1,756,757 shares remaining under this authorization, and our Board of Directors authorized us to purchase an additional 8,243,243 shares to refresh the number of shares we are authorized to purchase to 10,000,000. As of December 31, 2017, there were 9,489,717 shares remaining under this authorization. Depending upon market, business, legal and other conditions, we may purchase shares from time to time through the open market (including plans designed to comply with Rule 10b5-1 of the Securities Exchange Act of 1934) and/or through privately negotiated transactions. The authorization has no time limit, does not obligate us to purchase any specific number of shares, and may be suspended or discontinued at any time.

We did not have any unregistered sales of equity securities during the fourth quarter of 2017.

The selected earnings data, per share data and balance sheet data for each of the five most recent years ended December 31 set forth below have been derived from our audited consolidated financial statements. The following data should be read in conjunction with our consolidated financial statements and notes to consolidated financial statements in Item 8 "Financial Statements and Supplementary Data."

	2017	2016	2015	2014	2013
<i>As of and for the years ended December 31</i>					
<i>in millions, except per share data</i>					
Total revenues	\$ 3,890.3	\$ 3,592.7	\$ 3,422.2	\$ 2,994.2	\$ 2,770.7
Gross profit	\$ 1,000.6	\$ 1,000.8	\$ 857.5	\$ 587.6	\$ 426.9
Gross profit margin	25.7%	27.9%	25.1%	19.6%	15.4%
Earnings from continuing operations <sup>1</sup>	\$ 593.4	\$ 422.4	\$ 232.9	\$ 207.1	\$ 20.8
Earnings (loss) on discontinued operations, net of tax <sup>2</sup>	\$ 7.8	\$ (2.9)	\$ (11.7)	\$ (2.2)	\$ 3.6
Net earnings	\$ 601.2	\$ 419.5	\$ 221.2	\$ 204.9	\$ 24.4
Basic earnings (loss) per share					
Continuing operations	\$ 4.48	\$ 3.17	\$ 1.75	\$ 1.58	\$ 0.16
Discontinued operations	0.06	(0.02)	(0.09)	(0.02)	0.03
Basic net earnings (loss) per share	\$ 4.54	\$ 3.15	\$ 1.66	\$ 1.56	\$ 0.19
Diluted earnings (loss) per share					
Continuing operations	\$ 4.40	\$ 3.11	\$ 1.72	\$ 1.56	\$ 0.16
Discontinued operations	0.06	(0.02)	(0.08)	(0.02)	0.03
Diluted net earnings (loss) per share	\$ 4.46	\$ 3.09	\$ 1.64	\$ 1.54	\$ 0.19
Cash and cash equivalents	\$ 141.6	\$ 259.0	\$ 284.1	\$ 141.3	\$ 193.7
Total assets	\$ 9,504.9	\$ 8,471.5	\$ 8,301.6	\$ 8,041.1	\$ 8,233.1
Working capital	\$ 737.2	\$ 764.9	\$ 731.1	\$ 468.6	\$ 652.4
Current maturities and short-term debt	\$ 41.4	\$ 0.1	\$ 0.1	\$ 150.1	\$ 0.2
Long-term debt	\$ 2,813.5	\$ 1,982.8	\$ 1,980.3	\$ 1,834.6	\$ 2,496.2
Equity	\$ 4,968.9	\$ 4,572.5	\$ 4,454.2	\$ 4,176.7	\$ 3,938.1
Cash dividends declared per share	\$ 1.00	\$ 0.80	\$ 0.40	\$ 0.22	\$ 0.04

<sup>1</sup> Earnings from continuing operations for 2017 include pretax interest changes of \$148.0 million referable to debt purchases and \$297.0 million of discrete net tax benefits. Earnings from continuing operations for 2014 include a pretax gain of \$211.4 million referable to the sale of our cement and concrete businesses in the Florida area.

<sup>2</sup> Discontinued operations include the results attributable to our former Chemicals business.

## EXECUTIVE SUMMARY

**FINANCIAL SUMMARY FOR 2017 (compared to 2016)**

- Total revenues increased \$ 297.6 million, or 8 %, to \$ 3,890.3 million
- Gross profit decreased \$ 0.3 million to \$ 1,000.6 million
- Aggregates segment sales increased \$ 134.3 million, or 5 %, to \$ 3,096.1 million
- Aggregates segment freight-adjusted revenues increased \$ 98.5 million, or 4 %, to \$ 2,392.7 million
  - Shipments increased 1 %, or 1.8 million tons, to 183.2 million tons
  - Freight-adjusted sales price increased 3 %, or \$ 0.41 per ton
  - Segment gross profit decreased \$ 13.1 million, or 2 %, to \$ 860.0 million
    - Segment gross profit margin was 27.8 %, compared to 29.5 %
- Asphalt, Concrete and Calcium segment gross profit increased \$ 12.8 million, or 10 %, to \$ 140.5 million, collectively
- Selling, administrative and general (SAG) expenses increased 3% to \$323.9 million and decreased 0.45 percentage points (45 basis points) as a percentage of total revenues
- Operating earnings decreased \$ 32.5 million, or 5 %, to \$ 647.1 million
- Earnings from continuing operations were \$ 593.4 million, or \$ 4.40 per diluted share, compared to \$ 422.4 million, or \$ 3.11 per diluted share
  - Discrete items in 2017 include:
    - \$ 297.0 million of net tax benefits (including \$268.2 million related to the Tax Cuts and Jobs Act (TCJA) and a \$28.8 million partial release of a net operating loss (NOL) carryforward valuation allowance)
    - pretax interest charges of \$ 153.1 million related to the July and December debt purchases (\$148.0 million) and carried interest on the March debt issuance (\$5.1 million)
    - pretax gains of \$ 10.5 million for the sale of real estate and businesses
    - pretax charges of \$4.3 million for property donation
    - pretax charges of \$ 18.1 million for divested operations
    - pretax charges of \$6.7 million for one-time employee bonuses
    - pretax charges of \$ 3.1 million associated with business development, net of an asset purchase agreement termination fee
    - pretax charges of \$ 1.9 million for restructuring
  - Discrete items in 2016 include:
    - \$ 11.3 million of tax benefits
    - pretax gains of \$16.2 million on the sale of real estate
    - pretax gains of \$ 11.0 million for business interruption claims
    - pretax charges of \$ 16.9 million for divested operations
    - pretax losses of \$ 10.5 million from asset impairment
- Net earnings were \$ 601.2 million, an increase of \$ 181.7 million, or 43 %
- Adjusted EBITDA was \$ 981.9 million, an increase of \$ 15.9 million, or 2 %
- Return of capital to shareholders via dividends (\$ 132.3 million versus \$ 106.3 million) and share repurchases (\$ 60.3 million versus \$ 161.5 million)

2017 results were negatively impacted by unusually harsh weather: severe flooding in California during the first quarter; extreme rainfall in core Southeastern markets (Alabama, Florida, Georgia, Louisiana and Mississippi) during the second quarter; and hurricanes (Harvey and Irma)/tropical storm (Nate) conditions across our Florida, Georgia, Gulf Coast, North Carolina, South Carolina and coastal Texas markets during the third quarter; and their lingering effects on costs into the fourth quarter.

We closed the acquisition of Aggregates USA on December 29, 2017 for \$616 million (net of \$287 million immediately disposed and including \$6 million of liabilities assumed). This transaction complements and expands our service offerings in Georgia, South Carolina and Florida with 3 granite quarries and 16 rail distribution yards. The integration is proceeding as planned. Although full synergy capture will require at least 18 to 24 months, we still expect this acquisition to be accretive to 2018 earnings (\$50 million of EBITDA).

For the full year, capital expenditures were \$464.2 million. This amount included \$296.5 million of core operating and maintenance capital investments to improve or replace existing property, plant & equipment, in line with expectations. In addition, we invested \$167.7 million in internal growth projects to secure new aggregates reserves, develop new production sites, enhance our distribution capabilities and support the targeted growth of our asphalt and concrete operations.

At the end of the fourth quarter, total debt was \$2,854.9 million and cash and cash equivalents was \$141.6 million. In 2017, we early retired \$1,087.4 million of notes due in 2021 and 2018 for \$1,228.2 million. One-time interest charges related to these early debt retirements were \$148.0 million. In December, we also entered into a 6-month \$350.0 million term loan that we refinanced on a long-term basis in February 2018.

Our record safety performance in 2017 reinforces our confidence that our core operating disciplines remain strong.

## 2017 ACQUISITIONS

We continue to pursue opportunities for value-creating acquisitions, swaps and greenfield investments. We completed a number of important bolt-on acquisitions, making attractive additions to our coast-to-coast footprint in states ranging from Georgia to California and up to Illinois and Virginia. Of particular note was the acquisition of Aggregates USA, which added approximately 460 million tons of proven and probable reserves to our leading reserve base and further strengthened our best-in-class distribution network, adding 16 new rail distribution yards in our Florida, Georgia and South Carolina markets.

We will continue to make disciplined investments in organic and acquisition-led growth, while continuing to emphasize capital returns and cost control. We are completely focused on actions that improve returns to our shareholders. We seek continuous, compounding improvement, generating big results through small actions. Our capital allocation priorities remain unchanged:

- deploying operating capital to sustain our franchise
- maintaining the financial strength and flexibility needed through the cycle
- strategic growth through mergers and acquisitions and internal development
- returning excess cash to shareholders through a healthy mix of sustainable dividend growth and stock repurchases

For a detailed discussion of our acquisitions and divestitures, see Note 19 "Acquisitions and Divestitures" in Item 8 "Financial Statements and Supplementary Data."

## ESTIMATED IMPACT OF TAX REFORM

While the full impact of the TCJA continues to be assessed, we expect our earnings and cash flows will benefit meaningfully going forward. On a net basis, and leaving all other factors unchanged, our total effective tax rate should decline from approximately 28% to 20%.

We continue to evaluate other aspects of the TCJA including immediate deductibility of certain qualified capital spending. We expect core capital spending (necessary to support an increased level of shipments and further improve production costs and operating efficiencies) of approximately \$250 million. We also plan for over \$350 million in internal growth capital expenditures during 2018, including the development of strategic quarry sites in California and Texas. At this time, we do not know how much of this \$600 million of capital spending will qualify for immediate deductibility.



## MARKET DEVELOPMENTS AND OUTLOOK

We expect strong earnings growth in 2018. Leading indicators, such as the pre-construction pipeline and construction starts in our markets, as well as our own order backlogs, point toward growth. Private demand continues to grow and public demand is strengthening after relative weakness in 2016 and part of 2017. These positive trends provide greater visibility into demand and indicate the continuation of a favorable pricing environment. Recent acquisitions are performing well and should make meaningful contributions to our earnings growth in 2018 and beyond.

Private demand in Vulcan-served markets continues to recover, and public demand appears to be firming up after a disappointing 2017. The pricing climate for our materials remains positive, supported by solid demand visibility, rising diesel prices, rising cement prices, and expanding contractor margins. For 2018 we expect same-store aggregates shipment growth of 4% to 6% and aggregates pricing growth of 3% to 5%, albeit with significant variability across individual markets.

We also expect our margin performance to return to its longer-term trend of continuous, compounding improvements. Weather-related cost pressures faced in 2017 are not anticipated, and rising diesel and distribution costs should flow-through to pricing, although with a lag. Tax reform and the acquisition of Aggregates USA will also support growth in earnings and in cash flow.

Management expectations for 2018 include:

- Same-store aggregates shipments growth of 4% to 6%
- Inclusive of Aggregates USA operations (~ 7 million tons), total aggregates shipments in the range of 200 million tons
- Same-store aggregates freight-adjusted price increase of 3% to 5%
- High single-digit gross profit growth in Asphalt, Concrete and Calcium segments, collectively
- SAG expenses of approximately \$33.5 million, including \$5 million related to Aggregates USA
- Net Earnings of \$5.85 to \$6.35 million
- Adjusted EBITDA of \$1.150 to \$1.250 billion, including \$50 million from Aggregates USA
- Interest expense of approximately \$1.25 million, excluding charges associated with refinancing activities
- Depreciation, depletion, accretion and amortization expense of approximately \$340 million
- An effective tax rate of approximately 20%
- Earnings from continuing operations of \$4.00 to \$4.65 per diluted share

The ultimate level and quarterly timing of shipments in 2018 will depend in part on the pace of starts and construction activity for larger, publicly-funded projects. However, we have better visibility than we did one year ago. We expect pricing to improve throughout the year, partly in response to rising diesel costs and other inflationary trends. With a return to approximately 5% same-store shipment growth, we anticipate a return to the incremental flow-through rates achieved earlier in the recovery cycle.

## COMPETITIVE ADVANTAGES

Zoning and permitting regulations have made it increasingly difficult to expand existing quarries or to develop new quarries. Such regulations, while curtailing expansion, also increase the value of our reserves. The competitive advantages of our aggregates focused business strategy include:

### STRATEGICALLY LOCATED COAST-TO-COAST ASSETS

- Largest aggregates supplier in the U.S. with diversified regional exposure
- Reserves are primarily located in high-growth markets that require large amounts of aggregates to meet local demand
- Complementary asphalt and concrete businesses in select markets

### BETTER SALES AND SERVICE

- Empowered local leadership teams with intimate knowledge of local markets, leveraged with the strength and knowledge of the largest aggregates supplier in the U.S.
- Extensive and advantaged logistics network (as shown on map on page 8)
- Benefits of scale in operations, procurement and administrative support

### POSITIONED TO CAPITALIZE ON MARKET RECOVERY

- 79% of U.S. population growth from 2018 to 2028 is projected to occur in Vulcan served states
- Currently operating at well below full capacity and extremely well positioned to further leverage fixed costs to sales as we move forward
- Effective post-mining land management to generate significant additional value

## OUR COMMITMENTS

We crush rocks for a living, but at its core, this is a relationship business. We are deeply committed to our customers and our people, and deeply embedded in our communities. Over our more than six decades as a public company, we have built a strong, resilient and vital business on this foundation of doing things the right way.

**Our commitment to customers** — We have the capabilities to fulfill our customers' needs on large, complex jobs with unmatched performance and service and we aim to be the supplier of choice for smaller contractors. With all of our customers, we strive to maintain and improve our relationships, to provide outstanding value and service for a fair price by being a solution provider rather than simply an aggregates provider.

**Our commitment to our employees** — We work hard to ensure our employees' safety and health, in a positive environment where each person can thrive. We are completely focused on the things that we can control, and it is here that our people continue to make all the difference: increasing unit profitability, delivering incremental earnings and improving our world-class aggregates franchise every day.

**Our commitment to our communities** — Our people contribute to the cities, towns and neighborhoods where they live and work, in big ways and in small; from disaster relief to the support of education and a wide variety of other social causes and programs. At Vulcan, this means a great deal more than just financial support. Our people throughout the United States, and in Mexico, are generously volunteering their time, talent and energy to improve the world around them.

**Our commitment to the environment** — We take a long-term approach that bears in mind the demands of the present and the needs of the future. As we continue to build on our legacy, we do so with a clear view of our responsibility to future generations.

**Our commitment to our shareholders** — We work hard every day to generate returns that exceed market averages. We are good stewards, with responsible operating and capital project expenditures, to achieve a healthy return on our shareholders' investment in us. We will continue to strive to be the market leader, winning on margin performance, consistent strength of execution and pricing performance; earning a superior return on the very significant capital invested in our business.

## RECONCILIATION OF NON-GAAP FINANCIAL MEASURES

Gross profit margin excluding freight and delivery revenues is not a Generally Accepted Accounting Principle (GAAP) measure. We present this metric as it is consistent with the basis by which we review our operating results. Likewise, we believe that this presentation is consistent with our competitors and consistent with the basis by which investors analyze our operating results considering that freight and delivery services represent pass-through activities. Reconciliation of this metric to its nearest GAAP measure is presented below:

### GROSS PROFIT MARGIN IN ACCORDANCE WITH GAAP

<i>dollars in millions</i>	2017	2016	2015
Gross profit	\$ 1,000.6	\$ 1,000.8	\$ 857.5
Total revenues	\$ 3,890.3	\$ 3,592.7	\$ 3,422.2
Gross profit margin	25.7%	27.9%	25.1%

### GROSS PROFIT MARGIN EXCLUDING FREIGHT AND DELIVERY REVENUES

<i>dollars in millions</i>	2017	2016	2015
Gross profit	\$ 1,000.6	\$ 1,000.8	\$ 857.5
Total revenues	\$ 3,890.3	\$ 3,592.7	\$ 3,422.2
Freight and delivery revenues <sup>1</sup>	528.9	536.0	538.1
Total revenues excluding freight and delivery revenues	\$ 3,361.4	\$ 3,056.7	\$ 2,884.1
Gross profit margin excluding freight and delivery revenues	29.8%	32.7%	29.7%

<sup>1</sup> Includes freight to remote distribution sites.

### SAME-STORE

We have provided certain information on a same-store basis. When discussing our financial results in comparison to prior periods, we may exclude the operating results of recently acquired/divested businesses that do not have comparable results in the periods being discussed. These recently acquired/divested businesses are disclosed in Note 19 "Acquisitions and Divestitures" in Item 8 "Financial Statements and Supplementary Data." This approach allows us to evaluate the performance of our operations on a comparable basis. We believe that measuring performance on a same-store basis is useful to investors because it enables evaluation of how our operations are performing period over period without the effects of acquisition and divestiture activity. Our same-store information may not be comparable to similar measures used by other entities.

Aggregates segment gross profit margin as a percentage of freight-adjusted revenues is not a GAAP measure. We present this metric as it is consistent with the basis by which we review our operating results. We believe that this presentation is consistent with our competitors and meaningful to our investors as it excludes freight, delivery and transportation revenues, which are pass-through activities. It also excludes immaterial other revenues related to services, such as landfill tipping fees, that are derived from our aggregates business. Incremental gross profit as a percentage of freight-adjusted revenues represents the year-over-year change in gross profit divided by the year-over-year change in freight-adjusted revenues. Reconciliations of these metrics to their nearest GAAP measures are presented below:

### AGGREGATES SEGMENT GROSS PROFIT MARGIN IN ACCORDANCE WITH GAAP

<i>dollars in millions</i>	2017	2016	2015
<b>Aggregates segment</b>			
Gross profit	\$ 860.0	\$ 873.1	\$ 755.7
Segment sales	\$ 3,096.1	\$ 2,961.8	\$ 2,777.8
Gross profit margin	27.8%	29.5%	27.2%
Incremental gross profit margin	n/a	63.8%	

### AGGREGATES SEGMENT GROSS PROFIT AS A PERCENTAGE OF FREIGHT-ADJUSTED REVENUES

<i>dollars in millions</i>	2017	2016	2015
<b>Aggregates segment</b>			
Gross profit	\$ 860.0	\$ 873.1	\$ 755.7
Segment sales	\$ 3,096.1	\$ 2,961.8	\$ 2,777.8
Less			
Freight, delivery and transportation revenues <sup>1</sup>	670.7	651.9	644.7
Other revenues	32.7	15.7	20.6
Freight-adjusted revenues	\$ 2,392.7	\$ 2,294.2	\$ 2,112.5
Gross profit as a percentage of freight-adjusted revenues	35.9%	38.1%	35.8%
Incremental gross profit as a percentage of freight-adjusted revenues	n/a	64.6%	

<sup>1</sup> At the segment level, freight, delivery and transportation revenues include intersegment freight & delivery revenues, which are eliminated at the consolidated level.

GAAP does not define "cash gross profit" and it should not be considered as an alternative to earnings measures defined by GAAP. We present this metric for the convenience of investment professionals who use such metrics in their analyses and for shareholders who need to understand the metrics we use to assess performance. We and the investment community use this metric to assess the operating performance of our business. Additionally, we present this metric as we believe that it closely correlates to long-term shareholder value. We do not use this metric as a measure to allocate resources. Aggregates segment cash gross profit per ton is computed by dividing Aggregates segment cash gross profit by tons shipped. Reconciliation of this metric to its nearest GAAP measure is presented below:

## CASH GROSS PROFIT

<i>in millions, except per ton data</i>	2017	2016	2015
<b>Aggregates segment</b>			
Gross profit	\$ 860.0	\$ 873.1	\$ 755.7
Depreciation, depletion, accretion and amortization	245.2	236.5	228.5
Aggregates segment cash gross profit	\$ 1,105.2	\$ 1,109.6	\$ 984.2
Unit shipments - tons	183.2	181.4	178.3
Aggregates segment cash gross profit per ton	\$ 6.03	\$ 6.12	\$ 5.52
<b>Asphalt segment</b>			
Gross profit	\$ 91.9	\$ 97.7	\$ 78.2
Depreciation, depletion, accretion and amortization	25.4	16.8	16.4
Asphalt segment cash gross profit	\$ 117.3	\$ 114.5	\$ 94.6
<b>Concrete segment</b>			
Gross profit	\$ 46.1	\$ 26.5	\$ 20.2
Depreciation, depletion, accretion and amortization	13.8	12.1	11.4
Concrete segment cash gross profit	\$ 59.9	\$ 38.6	\$ 31.6
<b>Calcium segment</b>			
Gross profit	\$ 2.5	\$ 3.5	\$ 3.5
Depreciation, depletion, accretion and amortization	0.7	0.8	0.7
Calcium segment cash gross profit	\$ 3.2	\$ 4.3	\$ 4.2

GAAP does not define "Earnings Before Interest, Taxes, Depreciation and Amortization" (EBITDA) and it should not be considered as an alternative to earnings measures defined by GAAP. We present this metric for the convenience of investment professionals who use such metrics in their analyses and for shareholders who need to understand the metrics we use to assess performance. We use this metric to assess the operating performance of our business and as a basis for strategic planning and forecasting as we believe that it closely correlates to long-term shareholder value. We do not use this metric as a measure to allocate resources. We adjust EBITDA for certain items to provide a more consistent comparison of earnings performance from period to period. Reconciliation of this metric to its nearest GAAP measure is presented below:

## EBITDA AND ADJUSTED EBITDA

<i>in millions</i>	2017	2016	2015
Net earnings	\$ 601.2	\$ 419.5	\$ 221.2
Income tax expense (benefit)	(232.1)	124.9	94.9
Interest expense, net of interest income	291.1	133.3	220.3
(Earnings) loss on discontinued operations, net of tax	(7.8)	2.9	11.7
EBIT	652.4	680.6	548.1
Depreciation, depletion, accretion and amortization	306.0	284.9	274.8
EBITDA	\$ 958.4	\$ 965.5	\$ 822.9
Gain on sale of real estate and businesses <sup>1</sup>	\$ (10.5)	\$ (16.2)	\$ (6.3)
Property donation	4.3	0.0	0.0
Business interruption claims recovery, net of incentives	0.0	(11.0)	0.0
Charges associated with divested operations	18.1	16.9	7.1
Business development, net of termination fee <sup>2</sup>	3.1	0.0	1.0
One-time employee bonuses	6.7	0.0	0.0
Asset impairment	0.0	10.5	5.2
Restructuring charges	1.9	0.3	5.0
Adjusted EBITDA	\$ 981.9	\$ 966.0	\$ 834.9
Depreciation, depletion, accretion and amortization	306.0	284.9	274.8
Adjusted EBIT	\$ 675.9	\$ 681.1	\$ 560.1

<sup>1</sup> The 2016 amount includes a \$4.3 million gain (reflected within Other operating income, net) for plant relocation reimbursement.

<sup>2</sup> Includes only non-routine business development charges.

## 2018 PROJECTED EBITDA

The following reconciliation to the mid-point of the range of 2018 Projected EBITDA excludes adjustments for charges associated with divested operations, asset impairment and other unusual gains and losses. Due to the difficulty of forecasting the timing or amount of items that have not yet occurred, are out of our control, or cannot be reasonably predicted, we are unable to estimate the significance of this unavailable information.

<i>in millions</i>	2018 Projected Mid-point
Net earnings	\$ 585
Income tax expense	150
Interest expense, net of interest income	125
Discontinued operations, net of tax	0
Depreciation, depletion, accretion and amortization	340
Projected EBITDA	\$ 1,200

## RESULTS OF OPERATIONS

Total revenues include sales of product to customers, net of any discounts and taxes, and freight and delivery revenues billed to customers. Related freight and delivery costs are included in cost of revenues. This presentation is consistent with the basis on which we review our consolidated results of operations. We discuss separately our discontinued operations, which consist s of our former Chemicals business.

The following table highlights significant components of our consolidated operating results including EBITDA and Adjusted EBITDA .

### CONSOLIDATED OPERATING RESULT HIGHLIGHTS

<i>For the years ended December 31 in millions, except per share data</i>	<b>2017</b>	<b>2016</b>	<b>2015</b>
Total revenues	\$ 3,890.3	\$ 3,592.7	\$ 3,422.2
Cost of revenues	2,889.7	2,591.9	2,564.7
Gross profit	\$ 1,000.6	\$ 1,000.8	\$ 857.5
Selling, administrative and general expenses	\$ 323.9	\$ 315.0	\$ 286.8
Operating earnings	\$ 647.1	\$ 679.6	\$ 549.8
Interest expense	\$ 295.5	\$ 134.1	\$ 220.6
Earnings from continuing operations before income taxes	\$ 361.3	\$ 547.3	\$ 327.9
Earnings from continuing operations	\$ 593.4	\$ 422.4	\$ 232.9
Earnings (loss) on discontinued operations, net of income taxes	7.8	(2.9)	(11.7)
Net earnings	\$ 601.2	\$ 419.5	\$ 221.2
Basic earnings (loss) per share			
Continuing operations	\$ 4.48	\$ 3.17	\$ 1.75
Discontinued operations	0.06	(0.02)	(0.09)
Basic net earnings per share	\$ 4.54	\$ 3.15	\$ 1.66
Diluted earnings (loss) per share			
Continuing operations	\$ 4.40	\$ 3.11	\$ 1.72
Discontinued operations	0.06	(0.02)	(0.08)
Diluted net earnings per share	\$ 4.46	\$ 3.09	\$ 1.64
EBITDA	\$ 958.4	\$ 965.5	\$ 822.9
Adjusted EBITDA	\$ 981.9	\$ 966.0	\$ 834.9

Net earnings for 2017 were \$ 601.2 million ( \$ 4.46 per diluted share ) compared to \$ 419.5 million ( \$ 3.09 per diluted share ) in 2016 and \$ 221.2 million ( \$ 1.64 per diluted share ) in 2015 . Each year's results were impacted by discrete items , as follows:

Net earnings for 2017 include :

- \$ 297.0 million of net tax benefits ( TCJA — \$268.2 million and partial release of the Alabama NOL carryforward valuation allowance — \$28.8 million )
- pretax gain s of \$ 10.5 million related to the sale of real estate and businesses
- pretax charges of \$4.3 million for property donation
- pretax charges of \$ 18.1 million associated with divested operation s
- pretax charges of \$6.7 million for one-time employee bonuses
- pretax charges of \$ 3.1 million associated with business development, net of an asset purchase agreement termination fee
- pretax charges of \$ 1.9 million for restructuring
- a pretax loss on debt purchase s of \$ 148.0 million presented as a component of interest expense (see Note 6 “Debt” in Item 8 “Financial Statements and Supplementary Data ” )

Net earnings for 2016 include:

- \$ 11.3 million of tax benefits (utilization of foreign tax credits — \$ 6.5 million, and partial release of the Alabama NOL carryforward valuation allowance — \$ 4.8 million )
- pretax gain s of \$16.2 million related to the sale of real estate
- pretax gain s of \$ 11.0 million for business interruption claims (net of incentives)
- pretax charges of \$ 16.9 million associated with divested operations
- pretax losses of \$ 10.5 million from asset impairmen t

Net earnings for 2015 include:

- \$ 1.8 million of net tax charges ( foreign tax credit carryforward impairment — \$6.5 million, and partial release of the Alabama NOL carryforward valuation allowance — \$4.7 million)
- pretax gain s of \$ 6.3 million related to the sale of real estate and businesses
- pretax charges of \$7.1 million associated with divested operation s
- pretax losses of \$ 5.2 million from asset impairment
- pretax charges of \$ 5.0 million for restructuring
- a pretax loss on debt purchase s of \$ 67.1 million presented as a component of interest expense (see Note 6 “Debt” in Item 8 “Financial Statements and Supplementary Data ” )

## EARNINGS FROM CONTINUING OPERATIONS BEFORE INCOME TAXES

Year-over-year changes in earnings from continuing operations before income taxes are summarized below:

<i>in millions</i>	2015	\$ 327.9	2016	\$ 547.3
Higher (lower) aggregates gross profit		117.5		(13.1)
Higher (lower) asphalt gross profit		19.5		(5.7)
Higher concrete gross profit		6.4		19.6
Higher (lower) calcium gross profit		0.0		(1.0)
Higher selling, administrative and general expenses		(28.1)		(8.9)
Higher gain on sale of property, plant & equipment and businesses		5.5		2.4
Lower (higher) restructuring charges		4.7		(1.6)
Lower (higher) interest expense		86.5		(161.4)
All other		7.4		(16.3)
	<b>2016</b>	<b>\$ 547.3</b>	<b>2017</b>	<b>\$ 361.3</b>



## OPERATING RESULTS BY SEGMENT

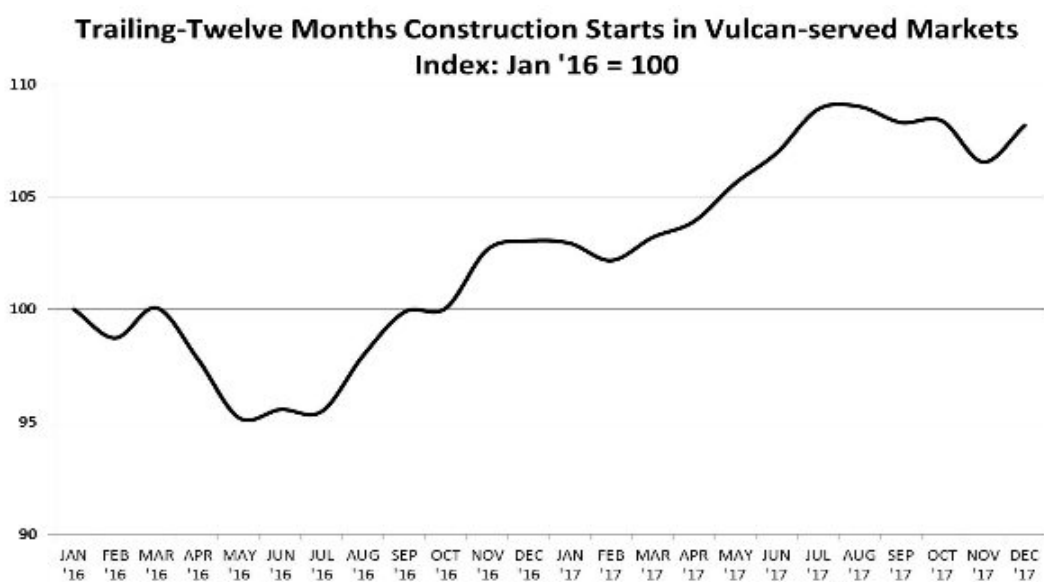
We present our results of operations by segment at the gross profit level. We have four operating (and reportable) segments organized around our principal product lines: (1) Aggregates, (2) Asphalt, (3) Concrete and (4) Calcium. Management reviews earnings for the product line reporting segments principally at the gross profit level.

### 1. AGGREGATES

Our year-over-year aggregates shipments:

- increased 1% in 2017
- increased 2% in 2016
- increased 10% in 2015

Through the first nine months of 2017, shipments were down 1% due to extreme weather — severe flooding, winds and wildfires in California; hurricanes/tropical storms in our Texas and Southeastern markets. Shipment trends rebounded in the fourth quarter as drier weather allowed for some catch-up on deferred work. Fourth quarter shipments improved markedly year-over-year in California and across the Southeast, with most markets experiencing double-digit gains. We expect the shipment growth seen in the fourth quarter to continue into 2018. Private demand in Vulcan-served markets continues to recover, and public demand appears to be firming up after a disappointing 2017.



Source: Dodge Data & Analytics

Our year-over-year freight-adjusted selling price<sup>1</sup> for aggregates:

- increased 3% in 2017
- increased 7% in 2016
- increased 7% in 2015

<sup>1</sup> We routinely arrange the delivery of our aggregates to the customer. Additionally, we incur transportation costs to move aggregates from the production site to remote distribution sites. These costs are passed on to our customers in the aggregates price. We remove these pass-through freight and transportation revenues (and any other aggregates-derived revenues, such as landfill tipping fees) from the freight-adjusted selling price for aggregates. See the Reconciliation of Non-GAAP Financial Measures within this Item 7 for a reconciliation of freight-adjusted revenues.

Pricing increased 3% , or \$0. 41 per ton, despite negative geographic and product mix impacts . Excluding mix impact, aggregates price increased 4% . Pricing remained particularly strong in California (up 7% ) and Georgia (up 9 % ) supported by strong visibility to continued demand recovery. Texas experienced relative pricing weakness as storms negatively impacted not only total demand but also the mix of work . The pricing climate for aggregates remains positive, supported by solid demand visibility and expanding contractor margins .

### AGGREGATES SEGMENT SALES AND FREIGHT-ADJUSTED REVENUES

in millions



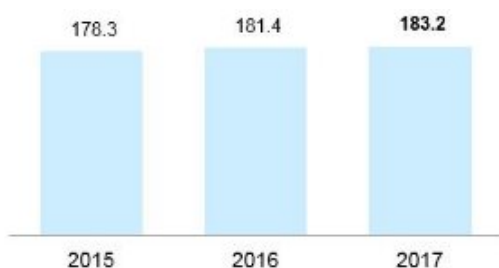
### AGGREGATES GROSS PROFIT AND CASH GROSS PROFIT

in millions



### AGGREGATES UNIT SHIPMENTS

in millions



### AGGREGATES SELLING PRICE AND CASH GROSS PROFIT PER TON

Freight-adjusted average sales price per ton <sup>2</sup>



<sup>2</sup> Freight-adjusted sales price is calculated as freight-adjusted revenues divided by aggregates unit shipments

Aggregates segment gross profit decreased \$ 13.1 million ( 2 % ). Unit gross profit decreased 2 % , to \$ 4.69 per ton, while unit cash gross profit decreased 1 % to \$ 6.03 per ton. These results were lower than 2016 due in large part to the aforementioned weather events which, while difficult to quantify, negatively impacted segment gross profit . Additionally, a 22% increase in the unit cost of diesel fuel, costs related to the transition to two new, more efficient ships to transport aggregates from our quarry in Mexico and certain expenses related to acquired operations negatively impacted segment gross profit in comparison to 2016.

## 2. ASPHALT

Our year-over-year asphalt mix shipments:

- increased 11 % in 2017<sup>1</sup>
- increased 3% in 2016
- increased 30 % in 2015<sup>2</sup>

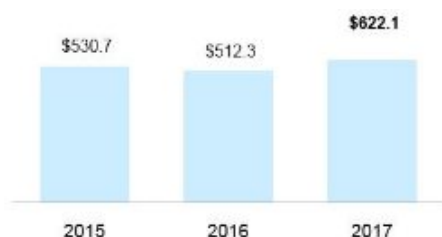
<sup>1</sup> The 11% increase in asphalt mix shipments in 2017 was largely attributable to a January 2017 acquisition of asphalt mix operations and a construction paving business in Tennessee.

<sup>2</sup> The 30% increase in asphalt mix shipments in 2015 was largely attributable to the January 2015 swap of our concrete operations in California for asphalt mix operations, primarily in Arizona.

Asphalt shipments were 10.4 million tons in total and 9.4 million tons on a same-store basis. Same-store shipments increased 1 % versus the prior year, as volumes in Arizona and New Mexico accounted for the year-over-year increase. Asphalt segment gross profit decreased 6 % to \$91.9 million. A 10% increase in liquid asphalt unit cost negatively affected materials margins by \$14.2 million.

### ASPHALT SEGMENT SALES

in millions



### ASPHALT GROSS PROFIT AND CASH GROSS PROFIT

in millions



### 3. CONCRETE

Our year-over-year ready-mixed concrete shipments:

- increased 19 % in 2017<sup>1</sup>
- increased 7 % in 2016
- decreased 25 % in 2015<sup>2</sup>

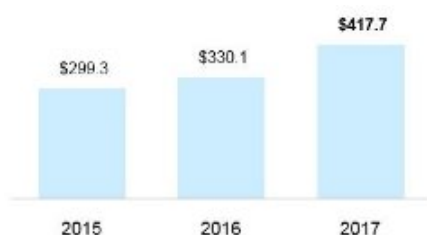
<sup>1</sup> Of the 19% increase in ready-mixed concrete shipments in 2017, 9% was attributable to a March 2017 acquisition of ready-mixed concrete facilities in California.

<sup>2</sup> The 25% decrease in ready-mixed concrete shipments in 2015 was largely attributable to the aforementioned January 2015 swap of our concrete operations in California.

Concrete segment gross profit increased 74 % and gross profit margin increased three percentage points (300 basis points) versus the prior year driven by increased shipments and improved materials margins. Shipments increased 19% versus the prior year. On a same-store basis, shipments increased 9 %. Materials margins per cubic yard improved 3% versus the prior year.

#### CONCRETE SEGMENT SALES

in millions



#### CONCRETE GROSS PROFIT AND CASH GROSS PROFIT

in millions

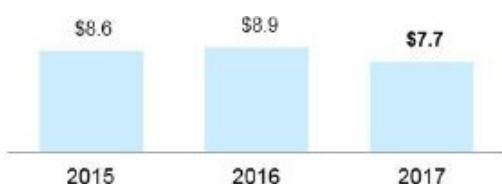


### 4. CALCIUM

Our Calcium segment volumes and sales were negatively impacted by the aforementioned hurricanes and tropical storm resulting in a \$1.0 million decrease in segment gross profit.

#### CALCIUM SEGMENT SALES

in millions



#### CALCIUM GROSS PROFIT AND CASH GROSS PROFIT

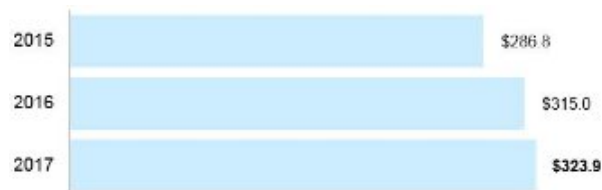
in millions



In total, the 2017 gross profit contributions from our three non-aggregates (Asphalt, Concrete and Calcium) segments was \$140.5 million, a 10 % increase over 2016, and a 38 % increase over 2015.

## SELLING, ADMINISTRATIVE AND GENERAL EXPENSES

in millions



As a percentage of total revenues, SAG expense was:

- 8.3 % in 2017 — decreased 0.45 percentage points (45 basis points)
- 8.8 % in 2016 — increased 0.4 percentage points (40 basis points)
- 8.4 % in 2015 — decreased 0.7 percentage points (70 basis points)

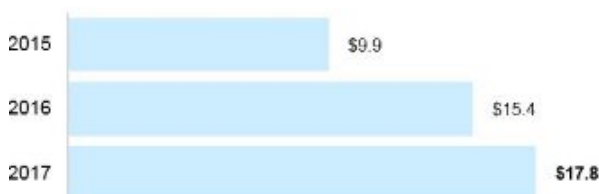
Our comparative total company employment levels at year end:

- increased 15 % in 2017
- increased 4% in 2016
- increased 4 % in 2015

We work continuously to improve our organizational support of operations and create a more scalable and efficient overhead structure. Subsequently, in January 2018, we reorganized several of our staff functions for the purpose of more effectively and efficiently supporting long-term growth and margin improvement.

## GAIN ON SALE OF PROPERTY, PLANT & EQUIPMENT AND BUSINESSES

in millions



The 2017 gain on sale of property, plant & equipment and businesses of \$ 17.8 million includes \$ 8.0 million of pretax gain from a swap of ready-mixed concrete operations for an asphalt operation (all in Arizona) and \$2.5 million of pretax gain related to a property donation. The 2016 gain includes \$11.9 million of pretax gain from surplus land sales in Virginia and California. The 2015 gain includes a \$5.9 million pretax gain from the previously mentioned asset exchange (we exited the ready-mixed concrete business in California and added thirteen asphalt plant locations, primarily in Arizona). See Note 19 "Acquisitions and Divestitures" in Item 8 "Financial Statements and Supplementary Data."

## OTHER OPERATING EXPENSE, NET

Other operating expense, which has an approximate run-rate of \$ 16.0 million a year (exclusive of discrete items), is composed of various operating items not specifically presented in the accompanying Consolidated Statements of Comprehensive Income. The total other operating expense, net and significant items included in the total were:

- \$ 47.4 million in 2017 — includes discrete items as follows:
  - \$ 3.1 million of business development charges, net of a termination fee. These net charges were composed of \$ 11.1 million of non-routine business development charges partially offset by an \$8.0 million credit related to an asset purchase agreement termination fee
  - \$ 18.1 million of charges associated with divested operations including \$ 16.6 million of environmental liability accruals related to the Hewitt Landfill matter (see Note 12 to the consolidated financial statements)
  - \$6.7 million of one-time cash bonuses for non-incentive employees (\$1,000 per employee)
  - \$4.3 million of charges related to a property donation
  - \$ 1.9 million of managerial restructuring charges
- \$ 21.7 million in 2016 — includes discrete items as follows:
  - \$ 16.9 million of charges associated with divested operations, including charges associated with office space no longer needed and vacated (\$5.2 million), the write-off of a prepaid royalty asset resulting from a change in long-term mining plans (\$3.6 million), a property litigation settlement (\$1.9 million), a pension withdrawal settlement revision (\$1.5 million), and environmental liability accruals associated with previously divested properties (\$ 4.5 million)
  - \$10.5 million of impairment charges related to the termination of a nonstrategic aggregates site lease we no longer intended to develop (\$9.6 million) and wrote off nonrecoverable project costs related to two Aggregates segment capital projects that we no longer intend to complete (\$0.9 million)
  - \$11.7 million gain referable to the settlement of business interruption claims related to the 2010 Gulf Coast oil spill
  - \$4.3 million gain referable to a plant relocation
- \$ 30.8 million in 2015 — includes discrete items as follows:
  - \$7.1 million of charges associated with divested operations, including severance (\$1.4 million) and environmental liability accruals associated with previously divested properties (\$5.7 million)
  - \$ 5.2 million of impairment charges related to our decision not to renew an Aggregates segment lease on a California land parcel
  - \$5.0 million of restructuring charges related to changes to our executive management team and a new divisional organization structure

## INTEREST EXPENSE

in millions



Interest expense was \$ 295.5 million in 2017 compared to \$ 134. 1 million in 2016. The higher interest expense resulted from the \$ 148.0 million of charges related to the 2017 debt purchases coupled with \$5.1 million of carried interest on debt issued in March. Interest expense in 2016 decreased \$ 86.5 million from 2015, as interest expense for 2015 included charges for debt purchases of \$ 67.1 million. See Note 6 “Debt” in Item 8 “Financial Statements and Supplementary Data” for additional discussion.

## INCOME TAXES

Our income tax expense (benefit) from continuing operations for the years ended December 31 is shown below:

<i>dollars in millions</i>	<i>2017</i>	<i>2016</i>	<i>2015</i>
Earnings from continuing operations before income taxes	\$ 361.3	\$ 547.3	\$ 327.9
Income tax expense (benefit)	\$ (232.1)	\$ 124.9	\$ 94.9
Effective tax rate	<b>-64.2%</b>	22.8%	29.0%

The \$ 357.0 million decrease in our 2017 income tax expense is primarily due to the year-over-year reduction in our earnings from continuing operations plus \$330.4 million of tax benefits (remeasurement of our deferred tax assets and liabilities at the new 21% federal corporate income tax rate — \$301.6 million and the partial release of the Alabama NOL carry forward valuation allowance — \$28.8 million), partially offset by \$ 21.1 million of lost tax benefits associated with tax deductions accelerated in to 2017 (e.g., lost U . S . production deduction) and a \$12.3 million tax expense for the one-time Deemed Repatriation Transition Tax (see Note 9 “Income Taxes” in Item 8 Financial Statements and Supplementary Data”).

The \$30.0 million increase in our 2016 income tax expense is primarily related to the year-over-year improvement in our earnings from continuing operations partially offset by \$36.1 million of tax benefits (utilization of foreign tax credits — \$ 6.5 million, partial release of the Alabama NOL carryforward valuation allowance — \$ 4.8 million, and excess tax benefits related to share-based compensation — \$ 24.8 million). The excess tax benefit from share-based compensation resulted from our early adoption of ASU 2016-09 (see Note 1 “Significant Accounting Policies” in Item 8 “Financial Statements and Supplementary Data” under the caption Share-based Compensation). The 2016 reduction in the effective tax rate was due primarily to higher benefits from the statutory depletion deduction (related to higher aggregates sales) and the early adoption of ASU 2016-09.

A reconciliation of the federal statutory rate of 35% to our effective tax rates for 2017, 2016 and 2015 is presented in Note 9 “Income Taxes” in Item 8 “Financial Statements and Supplementary Data.”

## DISCONTINUED OPERATIONS

Pretax earnings ( loss ) from discontinued operations were:

- \$ 13.0 million in 2017
- \$ ( 4.9 ) million in 2016
- \$( 19.3 ) million in 2015

The \$ 13.0 million, \$ ( 4.9 ) million and \$ ( 19.3 ) million pretax earnings (loss) from discontinued operations for 2017, 2016 and 2015, respectively, resulted primarily from general and product liability costs, including legal defense costs and environmental remediation costs associated with our former Chemicals business. The 2017 results also include insurance recoveries from previously incurred general liability costs. For additional information about discontinued operations, see Note 2 "Discontinued Operations" in Item 8 "Financial Statements and Supplementary Data."

## LIQUIDITY AND FINANCIAL RESOURCES

Our primary sources of liquidity are cash provided by our operating activities and a substantial, committed bank line of credit. Additional sources of capital include access to the capital markets, the sale of surplus real estate, and dispositions of nonstrategic operating assets. We believe these financial resources are sufficient to fund our business requirements for 2018, including:

- cash contractual obligations
- capital expenditures
- debt service obligations
- dividend payments
- potential share repurchases
- potential acquisitions

Our balanced approach to capital deployment remains unchanged. We intend to balance reinvestment in our business, growth through acquisitions and return of capital to shareholders, while sustaining financial strength and flexibility. In 2017 and 2016, we returned \$ 132.3 and \$ 106.3 million, respectively, in cash to shareholders through our dividends and \$ 60.3 million and \$ 161.5 million, respectively, through share repurchases.

We actively manage our capital structure and resources in order to minimize the cost of capital while properly managing financial risk. We seek to meet these objectives by adhering to the following principles:

- maintain substantial bank line of credit borrowing capacity
- proactively manage our debt maturity schedule such that repayment/refinancing risk in any single year is low
- maintain an appropriate balance of fixed-rate and floating-rate debt
- minimize financial and other covenants that limit our operating and financial flexibility

## CASH

Included in our December 31, 2017 cash and cash equivalents and restricted cash balances of \$ 146.6 million is \$ 54.4 million of cash held at our foreign subsidiaries. All of this \$ 54.4 million of cash relates to earnings that are indefinitely reinvested offshore. Use of this cash is currently limited to our foreign operations.



## CASH FROM OPERATING ACTIVITIES

in millions



Net cash provided by operating activities is derived primarily from net earnings before noncash deductions for depreciation, depletion, accretion and amortization.

<i>in millions</i>	2017	2016	2015
Net earnings	\$ 601.2	\$ 419.5	\$ 221.2
Depreciation, depletion, accretion and amortization (DDA&A)	306.0	284.9	274.8
Net earnings before noncash deductions for DDA&A	\$ 907.2	\$ 704.4	\$ 496.0
Net gain on sale of property, plant & equipment and businesses	(17.8)	(15.4)	(9.9)
Contributions to pension plans	(20.0)	(9.6)	(14.0)
Cost of debt purchase	140.8	0.0	67.1
Other operating cash flows, net <sup>1</sup>	(365.5)	(34.8)	(19.7)
Net cash provided by operating activities	\$ 644.7	\$ 644.6	\$ 519.5

<sup>1</sup> Primarily reflects changes to working capital balances. The increase from 2016 to 2017 reflects a \$301.6 million reduction of our net deferred income liabilities as a result of the TCJA.

2017 VERSUS 2016 — Net cash provided by operating activities was \$ 644.7 million during 2017 and \$644.6 million during 2016. Although net earnings increased by \$181.7 million compared to 2016, 2017 earnings included discrete deferred tax benefits of \$301.6 million referable to the TCJA (see Note 9 “Income Taxes” in Item 8 “Financial Statements and Supplementary Data”) partially offset by cost of debt purchases of \$140.8 million (see Note 6 “Debt” in Item 8 “Financial Statements and Supplementary Data”). Cash paid for debt purchases is presented as a component of financing activities.

2016 VERSUS 2015 — Net cash provided by operating activities was \$644.6 million during 2016, a \$125.1 million increase compared to 2015. This increase was primarily attributable to the \$198.3 million increase in net earnings, \$67.1 million of which was due to the 2015 charges associated with debt purchases (see Note 6 “Debt” in Item 8 “Financial Statements and Supplementary Data”). Cash paid for this debt purchase is presented as a component of financing activities. Additionally, upon our 2016 early adoption of ASU 2016-09 (see Note 1 “Significant Accounting Policies” in Item 8 “Financial Statements and Supplementary Data”) under the caption Share-based Compensation, gross excess tax benefits for 2016 of \$28.0 million are classified as operating cash flows. Conversely, gross excess tax benefits of \$18.4 million for 2015 are classified as financing cash flows.

## CASH FROM INVESTING ACTIVITIES

in millions

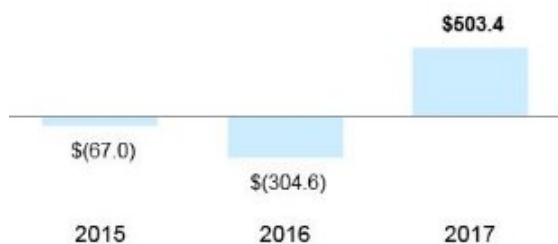


2017 VERSUS 2016 — Net cash used for investing activities was \$ 1,269.5 million during 2017, a \$ 912.3 million increase compared to 2016. We invested \$ 459.6 million in our existing operations in 2017, a \$ 109.4 million increase compared to 2016. Of this \$ 459.6 million, \$ 167.7 million was invested in internal growth projects to secure new aggregates reserves, develop new production sites, enhance our distribution capabilities and support the targeted growth of our asphalt and concrete operations. Additionally, during 2017, we acquired several businesses for \$ 822.4 million of cash consideration (excluding the assets immediately divested in the Aggregates USA acquisition for \$287.3 million) as described in Note 19 “Acquisitions and Divestitures” in Item 8 “Financial Statements and Supplementary Data.” During 2016, we expanded our aggregates distribution capabilities in Georgia and completed two strategic bolt-on acquisitions in New Mexico and Texas for \$32.5 million of cash consideration.

2016 VERSUS 2015 — Net cash used for investing activities was \$ 357.2 million during 2016, a \$ 48.6 million increase compared to 2015. We invested \$350.1 million in our existing operations in 2016, a \$60.9 million increase compared to 2015. Of this \$350.1 million, \$99.2 million was invested in shipping capacity enhancements, new site developments and other growth opportunities. As noted above, acquisitions during 2016 totaled \$32.5 million in cash consideration. Comparatively, acquisitions during 2015 totaled \$27.2 million in cash consideration (see Note 19 “Acquisitions and Divestitures” in Item 8 “Financial Statements and Supplementary Data”).

## CASH FROM FINANCING ACTIVITIES

in millions



2017 VERSUS 2016 — Net cash provided by financing activities in 2017 was \$ 503.4 million, an increase of \$ 808.0 million compared with the cash used during 2016. This increase was primarily attributable to the 2017 debt issuances (as described in the section below) which provided net proceeds of \$ 2,184.7 million partially offset by the repayment of our \$235.0 million line of credit and the early retirement of notes due in 2018 and 2021 for a total cost of \$ 1,228.2 million (\$ 1,087.4 million principal and \$ 140.8 million cost of debt purchase). Additionally, we increased dividends to our shareholders by \$ 26.0 million (\$ 1.00 per share compared to \$0.80 per share). Share repurchases decreased by \$ 101.2 million (510,283 shares @ \$ 118.18 per share compared to 1,426,659 shares @ \$ 113.18 per share).

2016 VERSUS 2015 — Net cash used for financing activities in 2016 was \$304.6 million, an increase of \$237.6 million from 2015. This increase was primarily attributable to a \$193.1 million increase in return of capital to our shareholders via increased dividends (\$0.80 per share compared to \$0.40 per share) and share repurchases (1,426,659 shares @ \$113.18 per share compared to 228,000 shares @ \$94.19 per share). Additionally, there were no proceeds from the exercise of employee stock options in 2016 (compared to \$73.0 million in 2015) as only stock-only stock appreciation rights (SOSARs) remained outstanding at the beginning of the year. Finally, we early adopted ASU 2016-09 in 2016 resulting in gross excess tax benefits of \$28.0 million classified as operating cash flows rather than financing cash flows.

## DEBT

Certain debt measures as of December 31 are outlined below:

<i>dollars in millions</i>	2017	2016
<b>Debt</b>		
Current maturities of long-term debt	\$ 41.4	\$ 0.1
Short-term debt	0.0	0.0
Long-term debt <sup>1</sup>	2,813.5	1,982.8
Total debt	\$ 2,854.9	\$ 1,982.9
<b>Capital</b>		
Total debt	\$ 2,854.9	\$ 1,982.9
Equity	4,968.9	4,572.5
Total capital	\$ 7,823.8	\$ 6,555.4
<b>Total Debt as a Percentage of Total Capital</b>	<b>36.5%</b>	30.2%
<b>Weighted-average Effective Interest Rates</b>		
Line of credit <sup>2</sup>	1.25%	1.25%
Term debt	4.26%	7.52%
<b>Fixed versus Floating Interest Rate Debt</b>		
Fixed-rate debt	61.8%	88.3%
Floating-rate debt	38.2%	11.7%

<sup>1</sup> Includes borrowing under our line of credit for which we have the intent and ability to extend repayment beyond twelve months, as follows: December 31, 2017 — \$ 250.0 million and December 31, 2016 — \$235.0 million. The December 31, 2017 long-term debt also includes a \$350.0 million unsecured term loan due 2018 which was subsequently refinanced in February 2018.

<sup>2</sup> Reflects the margin above LIBOR for LIBOR-based borrowings; we also paid upfront fees that are amortized to interest expense and pay fees for unused borrowing capacity and standby letters of credit.

### LINE OF CREDIT

Covenants, borrowings, cost ranges and other details are described in Note 6 “Debt” in Item 8 “Financial Statements and Supplementary Data.” As of December 31, 2017, we were in compliance with the line of credit covenants and the credit margin for the London Interbank Offered Rate (LIBOR) borrowings was 1.25 %, the credit margin for base rate borrowings was 0.25 %, and the commitment fee for the unused portion was 0.15 %.

As of December 31, 2017, our available borrowing capacity under the line of credit was \$ 456.8 million. Utilization of the borrowing capacity was as follows:

- \$ 250.0 million was borrowed
- \$ 43.2 million was used to provide support for outstanding standby letters of credit

### TERM DEBT

All of our \$2,631.5 million of term debt is unsecured. \$ 2,031.3 million of such debt is governed by two essentially identical indentures that contain customary investment-grade type covenants. The primary covenant in both indentures limits the amount of secured debt we may incur without ratably securing such debt. \$ 600.0 million of such debt is governed, as described below, largely by the same credit agreement that governs our line of credit. As of December 31, 2017, we were in compliance with all term debt covenants.

In December 2017, we early retired via tender offer, \$564.9 million of the 7.50% notes due 2021 at a cost of \$662.6 million including a premium of \$96.2 million and transaction costs of \$1.6 million. Additionally, we recognized net noncash expense of \$4.2 million with the acceleration of deferred debt issuance costs. Subsequently, in January 2018 we early retired via redemption the remaining \$35.1 million of the 7.50% notes due 2021 at a cost of \$40.7 million including a premium of \$5.6 million.

Also in December 2017, we entered into a 6-month \$350.0 million unsecured term loan with one of the banks that provides our line of credit. Borrowings bear interest at LIBOR plus 1.25%, and may be prepaid any time without penalty. This term loan incorporates by reference the representations, covenants and events of default contained in the credit agreement for the line of credit. As such, it is subject to the same affirmative, negative and financial covenants.

The December 2017 early debt retirement and acquisition of Aggregates USA were funded by a combination of cash on hand, our line of credit and the new 6-month unsecured term loan.

In June 2017, we issued \$1,000.0 million of debt composed of three issuances as follows: (1) \$700.0 million of 4.50% senior notes due June 2047, (2) \$50.0 million of 3.90% senior notes due April 2027 (these notes are a further issuance of, and form a single series with, the 3.90% notes issued in March 2017), and (3) \$250.0 million of floating-rate senior notes due June 2020. These issuances resulted in proceeds of \$989.5 million (net of original issue discounts/premiums, underwriter fees and other transaction costs). The proceeds were used to partially finance an acquisition and to early retire the notes due in 2018 (\$272.5 million @ 7.00% and \$250.0 million @ 10.375%). This early retirement was completed in July at a cost of \$565.6 million (including a \$43.0 million premium) and \$3.0 million of noncash expense associated with the acceleration of unamortized discounts, deferred debt issuance costs and deferred interest rate derivative settlement losses.

As a result of these 2017 early debt retirements described above, we recognized \$139.2 million of premiums, \$1.6 million of transaction costs and \$7.2 million of net noncash expense associated with the acceleration of unamortized discounts, deferred debt issuance costs and deferred interest rate derivative settlement losses. The combined charge of \$148.0 million was a component of interest expense for the year ended December 31, 2017.

In June 2017, we drew the full \$250.0 million on the unsecured delayed draw term loan entered into in December 2016. These funds were used to repay the \$235.0 million borrowed on our line of credit and for general corporate purposes. Borrowings bear interest in the same manner as the line of credit. The term loan principal will be repaid quarterly beginning March 2018 as follows: quarters 5 – 8 @ \$1.6 million/quarter; 9 – 12 @ \$3.1 million/quarter; 13 – 19 @ \$4.7 million/quarter and \$198.4 million for quarter 20 (December 2021). The term loan may be prepaid at any time without penalty. It is provided by the same group of banks that provides our line of credit, and is governed by the same credit agreement as the line of credit. As such, it is subject to the same affirmative, negative, and financial covenants.

In March 2017, we issued \$350.0 million of 3.90% senior notes due April 2027 for proceeds of \$345.5 million (net of original issue discounts, underwriter fees and other transaction costs). The proceeds were used for general corporate purposes. This series of notes now totals \$400.0 million due to the additional \$50.0 million of notes issued in June (as described above).

In March, April and August of 2015, we completed the refinancing of \$485.1 million principal amount of debt as described in Note 6 "Debt" in Item 8 "Financial Statements and Supplementary Data." And, in December 2015 we refinanced at maturity the \$150.0 million of 10.125% notes via borrowing on our line of credit. These refinancing actions had the following benefits, among others: (1) eliminated \$621.1 million of debt maturities in 2015 – 2018, (2) extended the weighted-average life of our debt portfolio, and (3) lowered our weighted-average interest rate.

The 2015 refinancing actions resulted in charges totaling \$67.1 million. Such charges are detailed in Note 6 "Debt" in Item 8 "Financial Statements and Supplementary Data" and are presented in the accompanying Consolidated Statement of Comprehensive Income as a component of interest expense for the year ended December 31, 2015.

## DEBT PAYMENTS AND MATURITIES

There were no significant scheduled debt payments during 2017 and 2016. Scheduled debt payments during 2015 included \$150.0 million in December to retire the 10.125% notes (which were refinanced via long-term borrowings on our line of credit). Additionally, we refinanced \$485.1 million of debt in 2015 as described in Note 6 "Debt" in Item 8 "Financial Statements and Supplementary Data."

As of December 31, 2017, maturities for the next four quarters and maturities (excluding borrowings on the line of credit) for the next five years are due as follows:

<i>2018</i>		<i>Debt</i>	
<i>in millions</i>	<i>Debt Maturities</i>	<i>in millions</i>	<i>Maturities</i>
First quarter 2018	\$ 36.6	2018	\$ 391.4
Second quarter 2018	351.6	2019	12.5
Third quarter 2018	1.6	2020	268.8
Fourth quarter 2018	1.6	2021	218.5
		2022	0.1

As previously noted, in January 2018, we early retired via redemption the remaining \$35.1 million of the 7.50% notes due 2021 (reflected in the \$36.6 million first quarter maturities above). Additionally, in February 2018, we refinanced the \$350.0 unsecured term loan due second quarter 2018 by issuing \$350.0 million of 30-year 4.70% notes due 2048.

## DEBT RATINGS

Our debt ratings and outlooks as of December 31, 2017 are as follows:

	<i>Rating/Outlook</i>	<i>Date</i>	<i>Description</i>
<b>Senior Unsecured Term Debt <sup>1</sup></b>			
Fitch	BBB-/stable	2/20/2018	rating/outlook affirmed
Moody's	Baa3/stable	2/20/2018	rating/outlook affirmed
Standard & Poor's	BBB/stable	2/20/2018	rating/outlook affirmed

<sup>1</sup> Not all of our long-term debt is rated.

## EQUITY

Our common stock issuances and purchases are as follows :

<i>in thousands</i>	<b>2017</b>	<b>2016</b>	<b>2015</b>
Common stock shares at January 1, issued and outstanding	<b>132,339</b>	133,172	131,907
<b>Common Stock Issuances</b>			
Share-based compensation plans	<b>495</b>	594	1,493
<b>Common Stock Purchases</b>			
Purchased and retired	<b>(510)</b>	(1,427)	(228)
Common stock shares at December 31, issued and outstanding	<b>132,324</b>	132,339	133,172

On February 10, 2006, our Board of Directors authorized us to purchase up to 10,000,000 shares of our common stock. On February 10, 2017, there were 1,756,757 shares remaining under this authorization and our Board of Directors authorized us to purchase an additional 8,243,243 shares to refresh the number of shares we are authorized to purchase to 10,000,000 . As of December 31, 2017, there were 9,489,717 shares remaining under the authorization. Depending upon market, business, legal and other conditions, we may purchase shares from time to time through the open market ( including plans designed to comply with Rule 10b5-1 of the Securities Exchange Act of 1934 ) and/or privately negotiated transactions . The authorization has no time limit, does not obligate us to purchase any specific number of shares, and may be suspended or discontinued at any time.

Our common stock purchases ( all of which were open market purchases) are detailed below:

<i>in thousands, except average cost</i>	<b>2017</b>	<b>2016</b>	<b>2015</b>
<b>Shares Purchased and Retired</b>			
Number	<b>510</b>	1,427	228
Cost <sup>1</sup>	<b>\$ 60,303</b>	\$ 161,463	\$ 21,475
Average cost per share <sup>1</sup>	<b>\$ 118.18</b>	\$ 113.18	\$ 94.19

<sup>1</sup> Excludes commissions of \$0.02 per share.

There were no shares held in treasury as of December 31, 2017, 2016 and 2015 .

## OFF-BALANCE SHEET ARRANGEMENTS

We have no off-balance sheet arrangements, such as financing or unconsolidated variable interest entities, that either have or are reasonably likely to have a current or future material effect on our:

- results of operations and financial position
- capital expenditures
- liquidity and capital resources

## STANDBY LETTERS OF CREDIT

For a discussion of our standby letters of credit see Note 6 "Debt" in Item 8 "Financial Statements and Supplementary Data."

## CASH CONTRACTUAL OBLIGATIONS

We expect core capital spending (excluding growth) of \$ 250.0 million during 2018. Excluding future cash requirements for capital expenditures and immaterial or contingent contracts, our obligations to make future contractual payments as of December 31, 2017 are summarized in the table below:

in millions	Note Reference	Payments Due by Year				Total
		2018	2019-2020	2021-2022	Thereafter	
<b>Cash Contractual Obligations</b>						
Bank line of credit <sup>1</sup>						
Principal payments	Note 6	\$ 0.0	\$ 0.0	\$ 250.0	\$ 0.0	\$ 250.0
Interest payments and fees <sup>2</sup>	Note 6	8.9	20.0	10.0	0.0	38.9
Term debt						
Principal payments	Note 6	391.4	281.3	218.6	1,740.2	2,631.5
Interest payments	Note 6	102.4	193.3	172.3	1,144.5	1,612.5
Operating leases	Note 7	36.4	64.9	48.2	106.3	255.8
Mineral royalties	Note 12	22.5	34.0	22.7	132.2	211.4
Unconditional purchase obligations						
Capital	Note 12	134.5	0.0	0.0	0.0	134.5
Noncapital <sup>3</sup>	Note 12	10.4	15.1	3.6	3.0	32.1
Benefit plans <sup>4</sup>	Note 10	11.7	36.9	32.0	78.4	159.0
<b>Total cash contractual obligations <sup>5,6</sup></b>		<b>\$ 718.2</b>	<b>\$ 645.5</b>	<b>\$ 757.4</b>	<b>\$ 3,204.6</b>	<b>\$ 5,325.7</b>

<sup>1</sup> Bank line of credit represents borrowings under our unsecured \$750.0 million line of credit that expires December 2021.

<sup>2</sup> Includes fees for unused borrowing capacity, and fees for standby letters of credit. The figures for all years assume that the amount of unused borrowing capacity and the amount of standby letters of credit do not change from December 31, 2017, and borrowing costs reflect a rising LIBOR.

<sup>3</sup> Noncapital unconditional purchase obligations relate primarily to transportation and electricity contracts.

<sup>4</sup> Payments in "Thereafter" column for benefit plans are for the years 2023-2027.

<sup>5</sup> The above table excludes discounted asset retirement obligations in the amount of \$ 218.1 million at December 31, 2017, the majority of which have an estimated settlement date beyond 2022 (see Note 17 "Asset Retirement Obligations" in Item 8 "Financial Statements and Supplementary Data").

<sup>6</sup> The above table excludes liabilities for unrecognized tax benefits in the amount of \$ 11.6 million at December 31, 2017, as we cannot make a reasonably reliable estimate of the amount and period of related future payment of these uncertain tax positions (for more details, see Note 9 "Income Taxes" in Item 8 "Financial Statements and Supplementary Data").

## CRITICAL ACCOUNTING POLICIES

We follow certain significant accounting policies when preparing our consolidated financial statements. A summary of these policies is included in Note 1 " Summary of Significant Accounting Policies " in Item 8 " Financial Statements and Supplementary Data. "

We prepare these financial statements to conform with accounting principles generally accepted in the United States of America. These principles require us to make estimates and judgments that affect reported amounts of assets, liabilities, revenues and expenses, and the related disclosures of contingent assets and contingent liabilities at the date of the financial statements. We base our estimates on historical experience, current conditions and various other assumptions we believe reasonable under existing circumstances and evaluate these estimates and judgments on an ongoing basis. The results of these estimates form the basis for our judgments about the carrying values of assets and liabilities as well as identifying and assessing the accounting treatment with respect to commitments and contingencies. Our actual results may materially differ from these estimates.

We believe the following critical accounting policies require the most significant judgments and estimates used in the preparation of our consolidated financial statements:

1. Goodwill impairment
2. Impairment of long-lived assets excluding goodwill
3. Business combinations and purchase price allocation
4. Pension and other postretirement benefits
5. Environmental compliance costs
6. Claims and litigation including self-insurance
7. Income taxes

### 1. GOODWILL IMPAIRMENT

Goodwill represents the excess of the cost of net assets acquired in business combinations over the fair value of the identifiable tangible and intangible assets acquired and liabilities assumed in a business combination. Goodwill impairment exists when the fair value of a reporting unit is less than its carrying amount. Goodwill is tested for impairment on an annual basis or more frequently whenever events or changes in circumstances would more likely than not reduce the fair value of a reporting unit below its carrying amount. The impairment evaluation is a critical accounting policy because goodwill is material to our total assets (as of December 31, 2017, goodwill represents 33 % of total assets) and the evaluation involves the use of significant estimates, assumptions and judgment.

#### HOW WE TEST GOODWILL FOR IMPAIRMENT

Goodwill is tested for impairment at the reporting unit level, one level below our operating segments. We have identified 17 reporting units ( of which 9 carry goodwill ) based primarily on geographic location . We have the option of either assessing qualitative factors to determine whether it is more likely than not that the carrying value of our reporting units exceeds their respective fair value or proceeding directly to a quantitative test. We elected to perform the quantitative impairment test for all years presented.

The quantitative impairment test compares the fair value of a reporting unit to its carrying value, including goodwill. If the fair value exceeds its carrying value, the goodwill of the reporting unit is not considered impaired . However, if the carrying value of a reporting unit exceeds its fair value, we recognize an impairment loss equal to that excess.

#### HOW WE DETERMINE CARRYING VALUE AND FAIR VALUE

First, we determine the carrying value of each reporting unit by assigning assets and liabilities, including goodwill, to those units as of the measurement date. Then, we estimate the fair values of the reporting units using both an income approach ( which involves discounting estimated future cash flows ) and a market approach ( which involves the application of revenue and EBITDA multiples of comparable companies ) . We consider market factors when determining the assumptions and estimates used in our valuation models . Finally, to assess the reasonableness of the reporting unit fair values, we compare the total of the reporting unit fair values to our market capitalization.



## OUR FAIR VALUE ASSUMPTIONS

We base our fair value estimates on market participant assumptions we believe to be reasonable at the time, but such assumptions are subject to inherent uncertainty and actual results may differ. Changes in key assumptions or management judgment with respect to a reporting unit or its prospects may result from a change in market conditions, market trends, interest rates or other factors outside of our control, or underperformance relative to historical or projected operating results. These conditions could result in a significantly different estimate of the fair value of our reporting units, which could result in an impairment charge in the future.

The significant assumptions in our discounted cash flow models include our estimate of future profitability, capital requirements and the discount rate. The profitability estimates used in the models were derived from internal operating budgets and forecasts for long-term demand and pricing in our industry. Estimated capital requirements reflect replacement capital estimated on a per ton basis and if applicable, acquisition capital necessary to support growth estimated in the models. The discount rate was derived using a capital asset pricing model.

## RESULTS OF OUR IMPAIRMENT TESTS

The results of our annual impairment tests for:

- November 1, 2017 indicated that the fair values of all reporting units with goodwill substantially exceeded (in excess of 100%) their carrying values
- November 1, 2016 indicated that the fair values of all reporting units with goodwill substantially exceeded (in excess of 100%) their carrying values
- November 1, 2015 indicated that the fair values of all reporting units with goodwill substantially exceeded (in excess of 100%) their carrying values

For additional information about goodwill, see Note 18 "Goodwill and Intangible Assets" in Item 8 "Financial Statements and Supplementary Data."

## 2. IMPAIRMENT OF LONG-LIVED ASSETS EXCLUDING GOODWILL

We evaluate the carrying value of long-lived assets, including intangible assets subject to amortization, when events and circumstances indicate that the carrying value may not be recoverable. The impairment evaluation is a critical accounting policy because long-lived assets are material to our total assets (as of December 31, 2017, net property, plant & equipment represents 41% of total assets, while net other intangible assets represents 11% of total assets) and the evaluation involves the use of significant estimates, assumptions and judgment. The carrying value of long-lived assets is considered impaired when the estimated undiscounted cash flows from such assets are less than their carrying value. In that event, we recognize a loss equal to the amount by which the carrying value exceeds the fair value.

Fair value is estimated primarily by using a discounted cash flow methodology that requires considerable judgment and assumptions. Our estimate of net future cash flows is based on historical experience and assumptions of future trends, which may be different from actual results. We periodically review the appropriateness of the estimated useful lives of our long-lived assets.

We test long-lived assets for impairment at the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets. As a result, our long-lived asset impairment test is at a significantly lower level than the level at which we test goodwill for impairment. In markets where we do not produce downstream products (e.g., asphalt mix and ready-mixed concrete), the lowest level of largely independent identifiable cash flows is at the individual aggregates operation or a group of aggregates operations collectively serving a local market. Conversely, in vertically integrated markets, the cash flows of our downstream and upstream businesses are not largely independently identifiable as the selling price of the upstream products (aggregates) impacts the profitability of the downstream business.

During 2017, we recorded no loss on impairment of long-lived assets. During 2016, we recorded a \$10.5 million impairment loss resulting from the termination of a nonstrategic aggregates lease and the write off of nonrecoverable project costs related to two Aggregates segment capital projects that we no longer intend to complete. During 2015, we recorded a \$5.2 million impairment loss resulting from exiting a lease for an Aggregates segment site.

We maintain certain long-lived assets that are not currently being used in our operations. These assets totaled \$ 415.7 million at December 31, 2017, representing a 11% increase from December 31, 2016. Of the total \$ 415.7 million, approximately 50% relates to real estate held for future development and expansion of our operations. In addition, approximately 25% is comprised of real estate (principally former mining sites) pending development as commercial or residential real estate, reservoirs or landfills. The remaining 25% is composed of aggregates, a asphalt and concrete operating assets idled temporarily as a result of a decline in demand for our products. We anticipate moving idled assets back into operation as demand recovers. We evaluate the useful lives and the recoverability of these assets whenever events or changes in circumstances indicate that carrying amounts may not be recoverable.

For additional information about long-lived assets and intangible assets, see Note 4 "Property, Plant & Equipment" and Note 18 "Goodwill and Intangible Assets" in Item 8 "Financial Statements and Supplementary Data."

### 3. BUSINESS COMBINATIONS AND PURCHASE PRICE ALLOCATION

Our strategic long-term plans include potential investments in value-added acquisitions of related or similar businesses. When an acquisition is completed, our consolidated statements of comprehensive income includes the operating results of the acquired business starting from the date of acquisition, which is the date that control is obtained.

#### HOW WE DETERMINE AND ALLOCATE THE PURCHASE PRICE

The purchase price is determined based on the fair value of consideration transferred to and liabilities assumed from the seller as of the date of acquisition. We allocate the purchase price to the fair values of the tangible and identifiable intangible assets acquired and liabilities assumed as of the date of acquisition. Goodwill is recorded for the excess of the purchase price over the net of the fair value of the identifiable assets acquired and liabilities assumed. The purchase price allocation is a critical accounting policy because the estimation of fair values of acquired assets and assumed liabilities is judgmental and requires various assumptions. Additionally, the amounts assigned to depreciable and amortizable assets compared to amounts assigned to goodwill, which is not amortized, can significantly affect our results of operations.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction, and therefore represents an exit price. A fair value measurement assumes the highest and best use of the asset by market participants. The fair value hierarchy prioritizes the inputs to valuation techniques used to measure fair value into three broad levels as described below:

**Level 1:** Quoted prices in active markets for identical assets or liabilities

**Level 2:** Inputs that are derived principally from or corroborated by observable market data

**Level 3:** Inputs that are unobservable and significant to the overall fair value measurement

Level 1 fair values are used to value investments in publicly-traded entities and assumed obligations for publicly-traded long-term debt.

Level 2 fair values are typically used to value acquired machinery and equipment, land, buildings, and assumed liabilities for asset retirement obligations, environmental remediation and compliance obligations. Additionally, Level 2 fair values are typically used to value assumed contracts at other-than-market rates.

Level 3 fair values are used to value acquired mineral reserves as well as leased mineral interests (referred to in our financial statements as contractual rights in place) and other identifiable intangible assets. We determine the fair values of owned mineral reserves and leased mineral interests using a lost profits approach and/or an excess earnings approach. These valuation techniques require management to estimate future cash flows. The estimate of future cash flows is based on available historical information and future expectations and assumptions determined by management, but is inherently uncertain. Key assumptions in estimating future cash flows include sales price, shipment volumes, production costs and capital needs. The present value of the projected net cash flows represents the fair value assigned to mineral reserves and mineral interests. The discount rate is a significant assumption used in the valuation model and is based on the required rate of return that a hypothetical market participant would require if purchasing the acquired business, with an adjustment for the risk of these assets not generating the projected cash flows.

Other identifiable intangible assets may include, but are not limited to noncompetition agreements and favorable/unfavorable lease agreements. The fair values of these assets are typically determined by an excess earnings method, a replacement cost method or a market approach.

#### MEASUREMENT PERIOD ADJUSTMENTS

We may adjust the amounts recognized in an acquisition during a measurement period after the acquisition date. Any such adjustments are the result of subsequently obtaining additional information that existed at the acquisition date regarding the assets acquired or the liabilities assumed. Measurement period adjustments are generally recorded as increases or decreases to goodwill, if any, recognized in the transaction. The cumulative impact of measurement period adjustments on depreciation, amortization and other income statement items are recognized in the period the adjustment is determined. The measurement period ends once we have obtained all necessary information that existed as of the acquisition date, but does not extend beyond one year from the date of acquisition. Any adjustments to assets acquired or liabilities assumed beyond the measurement period are recorded through earnings.

#### 4. PENSION AND OTHER POSTRETIREMENT BENEFITS

Accounting for pension and postretirement benefits requires that we make significant assumptions about the valuation of benefit obligations and the performance of plan assets. Each year we review the following primary assumptions:

- **DISCOUNT RATES** — The discount rate used in calculating the present value of projected benefit payments and the discount rates used to measure service cost and interest cost
- **EXPECTED RETURN ON PLAN ASSETS** — The expected future return on plan assets reduces the recorded net benefit costs
- **RATE OF COMPENSATION INCREASE** — Annual pay increases after 2015 will not increase our pension plan obligations as a result of a 2013 plan amendment
- **RATE OF INCREASE IN THE PER CAPITA COST OF COVERED HEALTHCARE BENEFITS** — Future increases in the per capita cost after 2015 will not increase our postretirement medical benefits obligation as a result of a 2012 plan amendment to cap medical coverage cost at the 2015 level

#### HOW WE SET OUR ASSUMPTIONS

The effective discount rate is the weighted-average of the spot rates for each cash flow on the yield curve for high-quality bonds as of the measurement date. At December 31, 2017, the discount rates for our various plans ranged from 3.24% to 3.79% (December 31, 2016 ranged from 3.43% to 4.41%).

In estimating the expected return on plan assets, we consider past performance and long-term future return expectations for the types of investments held by the plan as well as the expected long-term allocation of plan assets to these investments. At December 31, 2017, the expected return on plan assets remained at 7.00%.

Changes to the assumptions listed above would have an impact on the projected benefit obligations and the annual net benefit cost. The following table reflects the favorable and unfavorable outcomes associated with a change in certain assumptions:

<i>in millions</i>	<i>(Favorable) Unfavorable</i>			
	<i>0.5 Percentage Point Increase</i>		<i>0.5 Percentage Point Decrease</i>	
	<i>Inc (Dec) in Benefit Obligation</i>	<i>Inc (Dec) in Annual Benefit Cost</i>	<i>Inc (Dec) in Benefit Obligation</i>	<i>Inc (Dec) in Annual Benefit Cost</i>
<b>Actuarial Assumptions</b>				
Discount rates				
Pension	\$ (63.9)	\$ (1.3)	\$ 70.8	\$ 1.4
Other postretirement benefits	(1.3)	0.0	1.3	0.0
Expected return on plan assets	not applicable	(4.3)	not applicable	4.3

As of the December 31, 2017 measurement date, the fair value of our pension plan assets increased from \$ 749.5 million for the prior year-end to \$ 840.9 million due to investment gains and \$10.6 million of contributions to the qualified pension plans.

We use a full yield curve approach to estimate the service and interest cost, applying the specific spot rates along the yield curve to the relevant projected cash flows. The weighted-average discount rates used to measure service and interest costs for 2017 were 4.63 % and 3.63 %, respectively, for our pension plans and 3.96 % and 2.89 %, respectively, for our other postretirement plans. The weighted-average discount rates used to measure service and interest costs for 2016 were 4.68% and 3.79%, respectively, for our pension plans and 3.77% and 2.81%, respectively, for our other postretirement plans.

During 2018, we expect to recognize net pension credit of \$ (5.5) million and net postretirement credit of \$ (3.1) million compared to expense of \$ 3.2 million and credit of \$ (3.4) million, respectively, in 2017. The reductions in cost recognition are primarily due to strong asset returns during 2017 and anticipated discretionary contributions to the pension plans.

We do not anticipate contributions to the funded pension plans will be required during 2018; however, we do anticipate making discretionary contributions of \$100.0 million. We currently do not anticipate that the funded status of any of our plans will fall below statutory thresholds requiring accelerated funding or constraints on benefit levels or plan administration.

For additional information about pension and other postretirement benefits, see Note 10 "Benefit Plans" in Item 8 "Financial Statements and Supplementary Data."

## 5. ENVIRONMENTAL COMPLIANCE COSTS

Our environmental compliance costs include the cost of ongoing monitoring programs, the cost of remediation efforts and other similar costs. Our accounting policy for environmental compliance costs is a critical accounting policy because it involves the use of significant estimates and assumptions and requires considerable management judgment.

### HOW WE ACCOUNT FOR ENVIRONMENTAL COSTS

To account for environmental costs, we:

- expense or capitalize environmental costs consistent with our capitalization policy
- expense costs for an existing condition caused by past operations that do not contribute to future revenues
- accrue costs for environmental assessment and remediation efforts when we determine that a liability is probable and we can reasonably estimate the cost

At the early stages of a remediation effort, environmental remediation liabilities are not easily quantified due to the uncertainties of various factors. The range of an estimated remediation liability is defined and redefined as events in the remediation effort occur, but generally liabilities are recognized no later than completion of the remedial feasibility study. When we can estimate a range of probable loss, we accrue the most likely amount. If no amount in the range of probable loss is considered most likely, the minimum loss in the range is accrued. As of December 31, 2017, the difference between the amount accrued and the maximum loss in the range for all sites for which a range can be reasonably estimated was \$ 3.1 million — this amount does not represent our maximum exposure to loss for all environmental remediation obligations as it excludes those sites for which a range of loss cannot be reasonably estimated at this time. Our environmental remediation obligations are recorded on an undiscounted basis.

Accrual amounts may be based on technical cost estimations or the professional judgment of experienced environmental managers. Our Safety, Health and Environmental Affairs Management Committee routinely reviews cost estimates and key assumptions in response to new information, such as the kinds and quantities of hazardous substances, available technologies and changes to the parties participating in the remediation efforts. However, a number of factors, including adverse agency rulings and anticipated conditions as remediation efforts progress, may cause actual results to differ materially from accrued costs.

For additional information about environmental compliance costs, see Note 8 "Accrued Environmental Remediation Costs" in Item 8 "Financial Statements and Supplementary Data."

## 6. CLAIMS AND LITIGATION INCLUDING SELF-INSURANCE

We are involved with claims and litigation, including items covered under our self-insurance program. We are self-insured for losses related to workers' compensation up to \$ 2.0 million per occurrence and automotive and general/product liability up to \$ 3.0 million per occurrence. We have excess coverage on a per occurrence basis beyond these retention levels.

Under our self-insurance program, we aggregate certain claims and litigation costs that are reasonably predictable based on our historical loss experience and accrue losses, including future legal defense costs, based on actuarial studies. Certain claims and litigation costs, due to their unique nature, are not included in our actuarial studies. For matters not included in our actuarial studies, legal defense costs are accrued when incurred.

Our accounting policy for claims and litigation including self-insurance is a critical accounting policy because it involves the use of significant estimates and assumptions and requires considerable management judgment.

### HOW WE ASSESS THE PROBABILITY OF LOSS

We use both internal and outside legal counsel to assess the probability of loss, and establish an accrual when the claims and litigation represent a probable loss and the cost can be reasonably estimated. Significant judgment is used in determining the timing and amount of the accruals for probable losses, and the actual liability could differ materially from the accrued amounts.

For additional information about claims and litigation including self-insurance, see Note 1 "Summary of Significant Accounting Policies" in Item 8 "Financial Statements and Supplementary Data" under the caption Claims and Litigation Including Self-insurance.

## 7. INCOME TAXES

### VALUATION OF OUR DEFERRED TAX ASSETS

We file federal, state and foreign income tax returns and account for the current and deferred tax effects of such returns using the asset and liability method. We recognize deferred tax assets and liabilities (which reflect our best assessment of the future taxes we will pay) based on the differences between the book basis and tax basis of assets and liabilities. Deferred tax assets represent items to be used as a tax deduction or credit in future tax returns while deferred tax liabilities represent items that will result in additional tax in future tax returns.

Significant judgments and estimates are required in determining our deferred tax assets and liabilities. These estimates are updated throughout the year to consider income tax return filings, our geographic mix of earnings, legislative changes and other relevant items. We are required to account for the effects of changes in income tax rates on deferred tax balances in the period in which the legislation is enacted. Refer to Note 9 "Income Taxes" in Item 8 "Financial Statements and Supplementary Data" for a discussion of the impact of the Tax Cuts and Jobs Act enacted in December 2017.

Each quarter we analyze the likelihood that our deferred tax assets will be realized. Realization of the deferred tax assets ultimately depends on the existence of sufficient taxable income of the appropriate character in either the carryback or carryforward period. A valuation allowance is recorded if, based on the weight of all available positive and negative evidence, it is more likely than not (a likelihood of more than 50%) that some portion, or all, of a deferred tax asset will not be realized. A summary of our deferred tax assets is included in Note 9 "Income Taxes" in Item 8 "Financial Statements and Supplementary Data."

## **L IABILITY FOR UNRECOGNIZ ED TA X BENEFITS**

We recognize a tax benefit associated with a tax position when we judge it is more likely than not that the position will be sustained based upon the technical merits of the position . For a tax position that meets the more likely than not recognition threshold, we measure the income tax benefit as the largest amount that we judge to have a greater than 50% likelihood of being realized. A liability is established for the unrecognized portion of any tax position. Our liability for unrecognized tax benefits is adjusted periodically due to changing circumstances, such as the progress of tax audits, case law developments and new or emerging legislation.

The years open to tax examinations vary by jurisdiction. While it is often difficult to predict the final outcome or the timing of resolution of any particular tax matter, we believe our liability for unrecognized tax benefits is appropriate .

We consider a tax position to be resolved at the earlier of the issue being "effectively settled," settlement of an examination , or the expiration of the statute of limitations. Upon resolution of a tax position, any liability for unrecognized tax benefits will be released.

Our liability for unrecognized tax benefits is generally presented as noncurrent. However, if we anticipate paying cash within one year to settle an uncertain tax position, the liability is presented as current. We classify interest and penalties associated with our liability for unrecognized tax benefits as income tax expense.

## **NEW ACCOUNTING STANDARDS**

For a discussion of accounting standards recently adopted or pending adoption and the effect such accounting changes will have on our results of operations, financial position or liquidity, see Note 1 " Summary of Significant Accounting Policies " in Item 8 " Financial Statements and Supplementary Data " under the caption New Accounting Standards.

## **FORWARD-LOOKING STATEMENTS**

The foregoing discussion and analysis, as well as certain information contained elsewhere in this Annual Report, contain " forward-looking statements " within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, and are intended to be covered by the safe harbor created thereby. See the discussion in Safe Harbor Statement under the Private Securities Litigation Reform Act of 1995 in Part I, above.

## MARKET RISK

We are exposed to certain market risks arising from transactions that are entered into in the normal course of business. To manage these market risks, we may use derivative financial instruments. We do not enter into derivative financial instruments for speculative or trading purposes.

As discussed in the Liquidity and Financial Resources section of Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations," we actively manage our capital structure and resources to balance the cost of capital and risk of financial stress. Such activity includes balancing the cost and risk of interest expense. In addition to floating-rate borrowings, we at times use interest rate swaps to manage the mix of fixed-rate and floating-rate debt.

While floating-rate debt exposes us to rising interest rates, it is typically cheaper than issuing fixed-rate debt at any point in time but can become more expensive than previously issued fixed-rate debt. However, a rising interest rate environment is not necessarily harmful to our financial results. Over time, our EBITDA and operating income are positively correlated to floating interest rates (as measured by 3-month LIBOR). As such, our business serves as a natural hedge to rising interest rates, and floating-rate debt serves as a natural hedge against weaker operating results due to general economic weakness.

At December 31, 2017, the estimated fair value of our long-term debt including current maturities was \$ 3,024.8 million compared to a book value of \$ 2,854.9 million. The estimated fair value was determined by averaging several asking price quotes for the publicly traded notes and assuming par value for the remainder of the debt. The fair value estimate is based on information available as of the balance sheet date. The effect of a decline in interest rates of one percentage point would increase the fair value of our debt by approximately \$ 236.9 million.

We are exposed to certain economic risks related to the costs of our pension and other postretirement benefit plans. These economic risks include changes in the discount rate for high-quality bonds and the expected return on plan assets. The impact of a change in these assumptions on our annual pension and other postretirement benefits costs is discussed in greater detail within the Critical Accounting Policies section of this Annual Report.

## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors of Vulcan Materials Company:

### Opinion on the Financial Statements

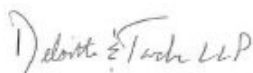
We have audited the accompanying consolidated balance sheets of Vulcan Materials Company and subsidiaries (the "Company") as of December 31, 2017 and 2016, the related consolidated statements of comprehensive income, equity, and cash flows, for each of the three years in the period ended December 31, 2017, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and 2016, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2017, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2017, based on the criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 27, 2018 expressed an unqualified opinion on the Company's internal control over financial reporting.

### Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.



Birmingham, Alabama  
February 27, 2018

We have served as the Company's auditor since 1956.



VULCAN MATERIALS COMPANY AND SUBSIDIARY COMPANIES

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

	2017	2016	2015
<i>For the years ended December 31</i>			
<i>in thousands, except per share data</i>			
Total revenues	\$ 3,890,296	\$ 3,592,667	\$ 3,422,181
Cost of revenues	2,889,735	2,591,850	2,564,648
Gross profit	1,000,561	1,000,817	857,533
Selling, administrative and general expenses	323,918	314,986	286,844
Gain on sale of property, plant & equipment and businesses	17,827	15,431	9,927
Other operating expense, net	(47,362)	(21,680)	(30,838)
Operating earnings	647,108	679,582	549,778
Other nonoperating income (expense), net	5,293	944	(1,678)
Interest income	4,437	807	345
Interest expense	295,522	134,076	220,588
Earnings from continuing operations before income taxes	361,316	547,257	327,857
Income tax expense (benefit)			
Current	354	94,254	89,340
Deferred	(232,429)	30,597	5,603
Total income tax expense (benefit)	(232,075)	124,851	94,943
Earnings from continuing operations	593,391	422,406	232,914
Earnings (loss) on discontinued operations, net of tax (Note 2)	7,794	(2,915)	(11,737)
Net earnings	\$ 601,185	\$ 419,491	\$ 221,177
Other comprehensive income (loss), net of tax			
Reclassification adjustment for cash flow hedges	1,862	1,194	5,828
Adjustment for funded status of benefit plans	(14,106)	(20,583)	23,832
Amortization of actuarial loss and prior service cost for benefit plans	2,154	82	11,985
Other comprehensive income (loss)	(10,090)	(19,307)	41,645
Comprehensive income	\$ 591,095	\$ 400,184	\$ 262,822
Basic earnings (loss) per share			
Continuing operations	\$ 4.48	\$ 3.17	\$ 1.75
Discontinued operations	0.06	(0.02)	(0.09)
Net earnings	\$ 4.54	\$ 3.15	\$ 1.66
Diluted earnings (loss) per share			
Continuing operations	\$ 4.40	\$ 3.11	\$ 1.72
Discontinued operations	0.06	(0.02)	(0.08)
Net earnings	\$ 4.46	\$ 3.09	\$ 1.64
Weighted-average common shares outstanding			
Basic	132,513	133,205	133,210
Assuming dilution	134,878	135,790	135,093

The accompanying Notes to Consolidated Financial Statements are an integral part of these statements.

VULCAN MATERIALS COMPANY AND SUBSIDIARY COMPANIES

CONSOLIDATED BALANCE SHEETS

	2017	2016
<i>As of December 31</i>		
<i>in thousands</i>		
<b>Assets</b>		
Cash and cash equivalents	\$ 141,646	\$ 258,986
Restricted cash	5,000	9,033
Accounts and notes receivable		
Customers, less allowance for doubtful accounts		
2017 — \$2,649; 2016 — \$2,813	434,089	398,488
Other	154,248	93,333
Inventories	384,338	345,616
Prepaid expenses	60,780	31,726
<b>Total current assets</b>	<b>1,180,101</b>	<b>1,137,182</b>
Investments and long-term receivables	35,115	39,226
Property, plant & equipment, net	3,918,931	3,261,438
Goodwill	3,122,321	3,094,824
Other intangible assets, net	1,063,630	769,052
<b>Other noncurrent assets</b>	<b>184,793</b>	<b>169,753</b>
<b>Total assets</b>	<b>\$ 9,504,891</b>	<b>\$ 8,471,475</b>
<b>Liabilities</b>		
Current maturities of long-term debt	41,383	138
Trade payables and accruals	197,335	145,042
Accrued salaries, wages and management incentives	87,208	91,455
Accrued interest	11,664	9,751
<b>Other current liabilities</b>	<b>105,282</b>	<b>125,858</b>
<b>Total current liabilities</b>	<b>442,872</b>	<b>372,244</b>
Long-term debt	2,813,482	1,982,751
Deferred income taxes, net	464,081	702,854
Deferred management incentive and other compensation	19,856	19,698
Pension benefits	245,449	247,784
Other postretirement benefits	37,856	39,533
Asset retirement obligations	218,117	223,872
Deferred revenue	191,476	198,388
<b>Other noncurrent liabilities</b>	<b>102,809</b>	<b>111,875</b>
<b>Total liabilities</b>	<b>\$ 4,535,998</b>	<b>\$ 3,898,999</b>
Other commitments and contingencies (Note 12)		
<b>Equity</b>		
Common stock, \$1 par value, Authorized 480,000 shares, Outstanding 132,324 and 132,339 shares, respectively	132,324	132,339
Capital in excess of par value	2,805,587	2,807,995
Retained earnings	2,180,448	1,771,518
Accumulated other comprehensive loss	(149,466)	(139,376)
<b>Total equity</b>	<b>4,968,893</b>	<b>4,572,476</b>
<b>Total liabilities and equity</b>	<b>\$ 9,504,891</b>	<b>\$ 8,471,475</b>

The accompanying Notes to Consolidated Financial Statements are an integral part of these statements.

**VULCAN MATERIALS COMPANY AND SUBSIDIARY COMPANIES**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**

	2017	2016	2015
<i>For the years ended December 31</i>			
<i>in thousands</i>			
<b>Operating Activities</b>			
Net earnings	\$ 601,185	\$ 419,491	\$ 221,177
Adjustments to reconcile net earnings to net cash provided by operating activities			
Depreciation, depletion, accretion and amortization	305,965	284,940	274,823
Net gain on sale of property, plant & equipment and businesses	(17,827)	(15,431)	(9,927)
Contributions to pension plans	(20,023)	(9,576)	(14,047)
Share-based compensation expense	26,635	20,670	18,248
Excess tax benefits from share-based compensation	0	0	(18,376)
Deferred tax expense (benefit)	(235,697)	33,591	3,069
Cost of debt purchase	140,772	0	67,075
(Increase) decrease in assets excluding the initial effects of business acquisitions and dispositions			
Accounts and notes receivable	(81,561)	(72,763)	(42,164)
Inventories	(14,121)	1,625	(20,925)
Prepaid expenses	(28,445)	2,558	(5,288)
Other assets	(23,759)	(18,236)	34,863
Increase (decrease) in liabilities excluding the initial effects of business acquisitions and dispositions			
Accrued interest and income taxes	1,303	(7,187)	26,605
Trade payables and other accruals	9,823	30,353	26,491
Other noncurrent liabilities	(32,592)	(29,138)	(42,702)
Other, net	13,020	3,691	616
<b>Net cash provided by operating activities</b>	<b>\$ 644,678</b>	<b>\$ 644,588</b>	<b>\$ 519,538</b>
<b>Investing Activities</b>			
Purchases of property, plant & equipment	(459,566)	(350,148)	(289,262)
Proceeds from sale of property, plant & equipment	15,756	23,318	8,218
Proceeds from sale of businesses, net of transaction costs	287,292	0	0
Payment for businesses acquired, net of acquired cash	(1,109,725)	(32,537)	(27,198)
Other, net	(3,248)	2,173	(350)
<b>Net cash used for investing activities</b>	<b>\$ (1,269,491)</b>	<b>\$ (357,194)</b>	<b>\$ (308,592)</b>
<b>Financing Activities</b>			
Proceeds from short-term debt	5,000	3,000	441,000
Payment of short-term debt	(5,000)	(3,000)	(206,000)
Payment of current maturities and long-term debt	(1,463,308)	(130)	(695,060)
Proceeds from issuance of long-term debt	2,200,000	0	400,000
Debt discounts and issuance costs	(15,291)	(1,860)	(7,382)
Purchases of common stock	(60,303)	(161,463)	(21,475)
Dividends paid	(132,335)	(106,333)	(53,214)
Proceeds from exercise of stock options	0	0	72,971
Share-based compensation, shares withheld for taxes	(25,323)	(34,799)	(16,225)
Excess tax benefits from share-based compensation	0	0	18,376
<b>Net cash provided by (used for) financing activities</b>	<b>\$ 503,440</b>	<b>\$ (304,585)</b>	<b>\$ (67,009)</b>
Net increase (decrease) in cash and cash equivalents and restricted cash	(121,373)	(17,191)	143,937
Cash and cash equivalents and restricted cash at beginning of year	268,019	285,210	141,273
<b>Cash and cash equivalents and restricted cash at end of year</b>	<b>\$ 146,646</b>	<b>\$ 268,019</b>	<b>\$ 285,210</b>

*The accompanying Notes to Consolidated Financial Statements are an integral part of these statements.*

**VULCAN MATERIALS COMPANY AND SUBSIDIARY COMPANIES**  
**CONSOLIDATED STATEMENTS OF EQUITY**

<i>in thousands</i>	<u>Common Stock</u>		<i>Capital in Excess of Par Value</i>	<i>Retained Earnings</i>	<i>Accumulated Other Comprehensive Income (Loss)</i>	<i>Total</i>
	<i>Shares</i>	<i>Amount</i>				
Balances at December 31, 2014	131,907	\$ 131,907	\$ 2,734,661	\$ 1,471,845	\$ (161,714)	\$ 4,176,699
Net earnings	0	0	0	221,177	0	221,177
Share-based compensation plans, net of shares withheld for taxes	1,493	1,493	51,240	0	0	52,733
Purchase and retirement of common stock	(228)	(228)	0	(21,247)	0	(21,475)
Share-based compensation expense	0	0	18,248	0	0	18,248
Excess tax benefits from share-based compensation	0	0	18,376	0	0	18,376
Cash dividends on common stock (\$0.40 per share)	0	0	0	(53,214)	0	(53,214)
Other comprehensive income	0	0	0	0	41,645	41,645
Other	0	0	53	(54)	0	(1)
Balances at December 31, 2015	133,172	\$ 133,172	\$ 2,822,578	\$ 1,618,507	\$ (120,069)	\$ 4,454,188
Net earnings	0	0	0	419,491	0	419,491
Share-based compensation plans, net of shares withheld for taxes	594	594	(35,363)	0	0	(34,769)
Purchase and retirement of common stock	(1,427)	(1,427)	0	(160,036)	0	(161,463)
Share-based compensation expense	0	0	20,670	0	0	20,670
Cash dividends on common stock (\$0.80 per share)	0	0	0	(106,333)	0	(106,333)
Other comprehensive loss	0	0	0	0	(19,307)	(19,307)
Other	0	0	110	(111)	0	(1)
Balances at December 31, 2016	132,339	\$ 132,339	\$ 2,807,995	\$ 1,771,518	\$ (139,376)	\$ 4,572,476
Net earnings	0	0	0	601,185	0	601,185
Share-based compensation plans, net of shares withheld for taxes	495	495	(29,168)	0	0	(28,673)
Purchase and retirement of common stock	(510)	(510)	0	(59,793)	0	(60,303)
Share-based compensation expense	0	0	26,635	0	0	26,635
Cash dividends on common stock (\$1.00 per share)	0	0	0	(132,335)	0	(132,335)
Other comprehensive loss	0	0	0	0	(10,090)	(10,090)
Other	0	0	125	(127)	0	(2)
<b>Balances at December 31, 2017</b>	<b>132,324</b>	<b>\$ 132,324</b>	<b>\$ 2,805,587</b>	<b>\$ 2,180,448</b>	<b>\$ (149,466)</b>	<b>\$ 4,968,893</b>

*The accompanying Notes to Consolidated Financial Statements are an integral part of these statements.*

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## NOTE 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

### NATURE OF OPERATIONS

Vulcan Materials Company (the "Company," "Vulcan," "we," "our"), a New Jersey corporation, is the nation's largest supplier of construction aggregates (primarily crushed stone, sand and gravel) and a major producer of asphalt mix and ready-mixed concrete.

We operate primarily in the United States and our principal product — aggregates — is used in virtually all types of public and private construction projects and in the production of asphalt mix and ready-mixed concrete. We serve markets in twenty states, Washington D.C., and the local markets surrounding our operations in Mexico and the Bahamas. Our primary focus is serving metropolitan markets in the United States that are expected to experience the most significant growth in population, households and employment. These three demographic factors are significant drivers of demand for aggregates. While aggregates is our focus and primary business, we produce and sell asphalt mix and/or ready-mixed concrete in our mid-Atlantic, Georgia, Southwestern, Tennessee and Western markets.

Due to the 2005 sale of our Chemicals business as described in Note 2, the results of the Chemicals business are presented as discontinued operations in the accompanying Consolidated Statements of Comprehensive Income.

### PRINCIPLES OF CONSOLIDATION

The consolidated financial statements include the accounts of Vulcan Materials Company and all our majority or wholly-owned subsidiary companies. Partially-owned affiliates are either consolidated or accounted for at cost or as equity investments depending on the level of ownership interest or our ability to exercise control over the affiliates' operations. All intercompany transactions and accounts have been eliminated in consolidation.

### USE OF ESTIMATES IN THE PREPARATION OF FINANCIAL STATEMENTS

The preparation of these financial statements in conformity with accounting principles generally accepted (GAAP) in the United States of America requires us to make estimates and judgments that affect reported amounts of assets, liabilities, revenues and expenses, and the related disclosures of contingent assets and contingent liabilities at the date of the financial statements. We evaluate these estimates and judgments on an ongoing basis and base our estimates on historical experience, current conditions and various other assumptions that are believed to be reasonable under the circumstances. The results of these estimates form the basis for our judgments about the carrying values of assets and liabilities as well as identifying and assessing the accounting treatment with respect to commitments and contingencies. Actual results may differ materially from these estimates. The most significant estimates included in the preparation of these financial statements are related to goodwill and long-lived asset impairments, business combinations and purchase price allocation, pension and other postretirement benefits, environmental compliance, claims and litigation including self-insurance, and income taxes.

### BUSINESS COMBINATIONS

We account for business combinations under the acquisition method of accounting. The purchase price of an acquisition is allocated to the underlying identifiable assets acquired and liabilities assumed based on their respective fair values. The purchase price is determined based on the fair value of consideration transferred to and liabilities assumed from the seller as of the date of acquisition. We allocate the purchase price to the fair values of the tangible and identifiable intangible assets acquired and liabilities assumed as of the date of acquisition. Goodwill is recorded for the excess of the purchase price over the net of the fair value of the identifiable assets acquired and liabilities assumed.

Determining the fair values of assets acquired and liabilities assumed requires judgment and often involves the use of significant estimates and assumptions. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction, and therefore represents an exit price. A fair value measurement assumes the highest and best use of the asset by market participants.

We may adjust the amounts recognized in an acquisition during a measurement period after the acquisition date. Any such adjustments are the result of subsequently obtaining additional information that existed at the acquisition date regarding the assets acquired or the liabilities assumed. Measurement period adjustments are generally recorded as increases or decreases to goodwill, if any, recognized in the transaction. The cumulative impact of measurement period adjustments on depreciation, amortization and other income statement items are recognized in the period the adjustment is determined .

#### **FOREIGN CURRENCY TRANSACTIONS**

The U. S . dollar is the functional currency for all of our operations. For our non-U.S. subsidiaries, local currency inventories and long-term assets such as property, plant & equipment and intangibles are remeasured into U.S. dollars at approximate rates prevailing when acquired; all other assets and liabilities are remeasured at year-end exchange rates. Inventories charged to cost of sales and depreciation are remeasured at historical rates; all other income and expense items are remeasured at average exchange rates prevailing during the year. Gains and losses which result from remeasurement are included in earnings and are not material for the years presented.

#### **CASH EQUIVALENTS**

We classify as cash equivalents all highly liquid securities with a maturity of three months or less at the time of purchase. The carrying amount of these securities approximates fair value due to their short-term maturities.

#### **RESTRICTED CASH**

Restricted cash consists of cash proceeds from the sale of property held in escrow for the acquisition of replacement property under like-kind exchange agreements and cash reserved by other contractual agreements (such as asset purchase agreements) for a specified purpose and therefore not available for use in our operations. The escrow accounts are administered by an intermediary. Cash restricted pursuant to like-kind exchange agreements remains restricted for a maximum of 180 days from the date of the property sale pending the acquisition of replacement property. Restricted cash is included with cash and cash equivalents in the accompanying Consolidated Statements of Cash Flows.

#### **ACCOUNTS AND NOTES RECEIVABLE**

Accounts and notes receivable from customers result from our extending credit to trade customers for the purchase of our products. The terms generally provide for payment within 30 days of being invoiced. On occasion, when necessary to conform to regional industry practices, we sell product under extended payment terms, which may result in either secured or unsecured short-term notes; or, on occasion, notes with durations of less than one year are taken in settlement of existing accounts receivable. Other accounts and notes receivable result from short-term transactions (less than one year) other than the sale of our products, such as interest receivable; insurance claims; freight claims; tax refund claims; bid deposits or rents receivable. As of December 31, 2017, income tax receivables of \$106,980,000 are included in other accounts and notes receivable in the accompanying Consolidated Balance Sheet. There were similar receivables of \$10,201,000 as of December 31, 2016.

Receivables are aged and appropriate allowances for doubtful accounts and bad debt expense are recorded. Bad debt expense ( net recoveries) for the years ended December 31 was as follows: 2017 — \$ 812,000 , 2016 — \$ ( 1, 190 ,000 ) and 2015 — \$ 1,450 ,000 . Write-offs of accounts receivables for the years ended December 31 were as follows: 2017 — \$ 1,384,000 , 2016 — \$1, 544 ,000 and 2015 — \$ 1,483 ,000 . The bad debt recovery in 2016 relates to the collection of previously reserved receivables primarily attributable to the 2014 sale of our Florida area concrete and cement businesses.

#### **INVENTORIES**

Inventories and supplies are stated at the lower of cost or net realizable value . We use the last-in, first-out (LIFO) method of valuation for most of our inventories because it results in a better matching of costs with revenues. Such costs include fuel, parts and supplies, raw materials, direct labor and production overhead. An actual valuation of inventory under the LIFO method can be made only at the end of each year based on the inventory levels and costs at that time. Accordingly, interim LIFO calculations are based on our estimates of expected year-end inventory levels and costs and are subject to the final year-end LIFO inventory valuation. Substantially all operating supplies inventory is carried at average cost. For additional information about our inventories see Note 3.

## PROPERTY, PLANT & EQUIPMENT

Property, plant & equipment are carried at cost less accumulated depreciation, depletion and amortization. The cost of properties held under capital leases, if any, is equal to the lower of the net present value of the minimum lease payments or the fair value of the leased property at the inception of the lease.

Capitalized software costs of \$ 4,446,000 and \$ 4,732,000 are reflected in net property, plant & equipment as of December 31, 2017 and 2016, respectively. We capitalized software costs for the years ended December 31 as follows: 2017 — \$ 1,988,000, 2016 — \$ 152,000 and 2015 — \$ 1,482,000.

For additional information about our property, plant & equipment see Note 4.

## REPAIR AND MAINTENANCE

Repair and maintenance costs generally are charged to operating expense as incurred. Renewals and betterments that add materially to the utility or useful lives of property, plant & equipment are capitalized and subsequently depreciated. Actual costs for planned major maintenance activities, related primarily to periodic overhauls on our oceangoing vessels, are capitalized and amortized to the next overhaul.

## DEPRECIATION, DEPLETION, ACCRETION AND AMORTIZATION

Depreciation is generally computed by the straight-line method at rates based on the estimated service lives of the various classes of assets, which include machinery and equipment (3 to 35 years), buildings (7 to 20 years) and land improvements (8 to 20 years). Capitalized software costs are included in machinery and equipment and are depreciated on a straight-line basis beginning when the software project is substantially complete.

Cost depletion on depletable land is computed by the unit-of-sales method based on estimated recoverable units.

Accretion reflects the period-to-period increase in the carrying amount of the liability for asset retirement obligations. It is computed using the same credit-adjusted, risk-free rate used to initially measure the liability at fair value.

Leaseholds are amortized over varying periods not in excess of applicable lease terms or estimated useful lives.

Amortization of intangible assets subject to amortization is computed based on the estimated life of the intangible assets.

A significant portion of our intangible assets is contractual rights in place associated with zoning, permitting and other rights to access and extract aggregates reserves. Contractual rights in place associated with aggregates reserves are amortized using the unit-of-sales method based on estimated recoverable units. Other intangible assets are amortized principally by the straight-line method.

Depreciation, depletion, accretion and amortization expense for the years ended December 31 is outlined below:

<i>in thousands</i>	<i>2017</i>	<i>2016</i>	<i>2015</i>
<b>Depreciation, Depletion, Accretion and Amortization</b>			
Depreciation	\$ 250,835	\$ 238,237	\$ 228,866
Depletion	19,342	17,812	18,177
Accretion	11,415	11,059	11,474
Amortization of leaseholds	608	267	688
Amortization of intangibles	23,765	17,565	15,618
Total	\$ 305,965	\$ 284,940	\$ 274,823

## DERIVATIVE INSTRUMENTS

We periodically use derivative instruments to manage our mix of fixed-rate and floating-rate debt and to manage our exposure to currency exchange risk or price fluctuations on commodity energy sources consistent with our risk management policies. We do not use derivative financial instruments for speculative or trading purposes.

Additional disclosures about our derivative instruments are presented in Note 5.

## FAIR VALUE MEASUREMENTS

Fair value is defined as 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. The fair value hierarchy prioritizes the inputs to valuation techniques used to measure fair value into three broad levels as described below:

**Level 1:** Quoted prices in active markets for identical assets or liabilities

**Level 2:** Inputs that are derived principally from or corroborated by observable market data

**Level 3:** Inputs that are unobservable and significant to the overall fair value measurement

Our assets at December 31 subject to fair value measurement on a recurring basis are summarized below:

<i>in thousands</i>	<i>Level 1 Fair Value</i>	
	<i>2017</i>	<i>2016</i>
<b>Fair Value Recurring</b>		
Rabbi Trust		
Mutual funds	\$ 20,348	\$ 6,883
Equities	0	10,033
<b>Total</b>	<b>\$ 20,348</b>	<b>\$ 16,916</b>

<i>in thousands</i>	<i>Level 2 Fair Value</i>	
	<i>2017</i>	<i>2016</i>
<b>Fair Value Recurring</b>		
Rabbi Trust		
Money market mutual fund	\$ 1,203	\$ 1,705
<b>Total</b>	<b>\$ 1,203</b>	<b>\$ 1,705</b>

We have two Rabbi Trusts for the purpose of providing a level of security for the employee nonqualified retirement and deferred compensation plans and for the directors' nonqualified deferred compensation plans. The fair values of these investments are estimated using a market approach. The Level 1 investments include mutual funds and equity securities for which quoted prices in active markets are available. Level 2 investments are stated at estimated fair value based on the underlying investments in the fund (short-term, highly liquid assets in commercial paper, short-term bonds and certificates of deposit).

Net gains (losses) of the Rabbi Trusts' investments were \$ 2,441,000 , \$ 2,741,000 and \$ (1,517,000 ) for the years ended December 31, 2017 , 2016 and 2015 , respectively. The portions of the net gains (losses) related to investments still held by the Rabbi Trusts at December 31, 2017 , 2016 and 2015 were \$ (3,618,000) , \$1,599,000 and \$ (1,769,000) , respectively.

The carrying values of our cash equivalents, restricted cash, accounts and notes receivable, short-term debt, trade payables and accruals, and all other current liabilities approximate their fair values because of the short-term nature of these instruments. Additional disclosures for derivative instruments and interest-bearing debt are presented in Notes 5 and 6, respectively.

Assets subject to fair value measurement on a nonrecurring basis in 2017 and 2016 are summarized below:

<i>in thousands</i>	<i>Year ending December 31, 2017</i>		<i>Year ending December 31, 2016</i>	
	<i>Level 2</i>	<i>Impairment Charges</i>	<i>Level 2</i>	<i>Impairment Charges</i>
<b>Fair Value Nonrecurring</b>				
Property, plant & equipment	\$ 0	\$ 0	\$ 0	\$ 1,359
Other intangible assets, net	0	0	0	8,180
Other assets	0	0	0	967
<b>Totals</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 10,506</b>

We recorded \$ 10,506,000 of losses on impairment of long-lived assets in 2016 reducing the carrying value of these Aggregates segment assets to their estimated fair values of \$ 0 . Fair value was estimated using a market approach (observed transactions involving comparable assets in similar locations).



## **G GOODWILL IMPAIRMENT**

Goodwill represents the excess of the cost of net assets acquired in business combinations over the fair value of the identifiable tangible and intangible assets acquired and liabilities assumed in a business combination. Goodwill impairment exists when the fair value of a reporting unit is less than its carrying amount. As of December 31, 2017, goodwill totaled \$ 3,122,321,000, as compared to \$3,094,824,000 at December 31, 2016. Goodwill represents 33% of total assets at December 31, 2017 compared to 37% at December 31, 2016.

Goodwill is tested for impairment annually, as of November 1, or more frequently whenever events or changes in circumstances would more likely than not reduce the fair value of a reporting unit below its carrying amount. Goodwill is tested for impairment at the reporting unit level, one level below our operating segments. We have four operating segments organized around our principal product lines: Aggregates, Asphalt, Concrete and Calcium. Within these four operating segments, we have identified 17 reporting units (of which 9 carry goodwill) based primarily on geographic location. We have the option of either assessing qualitative factors to determine whether it is more likely than not that the carrying value of our reporting units exceeds their respective fair value or proceeding directly to a quantitative test. We elected to perform the quantitative impairment test for all years presented.

The quantitative impairment test compares the fair value of a reporting unit to its carrying value, including goodwill. If the fair value exceeds its carrying value, the goodwill of the reporting unit is not considered impaired. However, if the carrying value of a reporting unit exceeds its fair value, we recognize an impairment loss equal to that excess.

The results of the annual impairment tests performed as of November 1, 2017, 2016 and 2015 indicated that the fair values of all reporting units with goodwill substantially exceeded their carrying values. Accordingly, there were no charges for goodwill impairment in the years ended December 31, 2017, 2016 or 2015.

We estimate the fair values of the reporting units using both an income approach (which involves discounting estimated future cash flows) and a market approach (which involves the application of revenue and EBITDA multiples of comparable companies). Determining the fair value of our reporting units involves the use of significant estimates and assumptions and considerable management judgment. We base our fair value estimates on assumptions we believe to be reasonable at the time, but such assumptions are subject to inherent uncertainty and actual results may differ. Changes in key assumptions or management judgment with respect to a reporting unit or its prospects, which may result from a change in market conditions, market trends, interest rates or other factors outside of our control, or underperformance relative to historical or projected operating results, could result in a significantly different estimate of the fair value of our reporting units, which could result in an impairment charge in the future.

For additional information about goodwill see Note 18.

## **IMPAIRMENT OF LONG-LIVED ASSETS EXCLUDING GOODWILL**

We evaluate the carrying value of long-lived assets, including intangible assets subject to amortization, when events and circumstances indicate that the carrying value may not be recoverable. The carrying value of long-lived assets is considered impaired when the estimated undiscounted cash flows from such assets are less than their carrying value. In that event, we recognize a loss equal to the amount by which the carrying value exceeds the fair value. Fair value is determined primarily by using a discounted cash flow methodology that requires considerable judgment and assumptions. Our estimate of net future cash flows is based on historical experience and assumptions of future trends, which may be different from actual results. We periodically review the appropriateness of the estimated useful lives of our long-lived assets.

We test long-lived assets for impairment at the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets. As a result, our long-lived asset impairment test is at a significantly lower level than the level at which we test goodwill for impairment. In markets where we do not produce downstream products (e.g., asphalt mix and ready-mixed concrete), the lowest level of largely independent identifiable cash flows is at the individual aggregates operation or a group of aggregates operations collectively serving a local market. Conversely, in vertically integrated markets, the cash flows of our downstream and upstream businesses are not largely independently identifiable as the selling price of the upstream products (aggregates) determines the profitability of the downstream business.

As of December 31, 2017, net property, plant & equipment represents 41 % of total assets, while net other intangible assets represents 11 % of total assets. During 2017, we recorded no loss on impairment of long-lived assets. During 2016, we recorded a \$ 10,506,000 loss on impairment of long-lived assets resulting from the termination of a nonstrategic aggregates lease and the write off of nonrecoverable project costs related to two Aggregates segment capital projects that we no longer intend to complete. During 2015, we recorded a \$5,190,000 impairment loss related to exiting a lease for an aggregates site.

For additional information about long-lived assets and intangible assets see Notes 4 and 18.

#### TOTAL REVENUES AND REVENUE RECOGNITION

Total revenues include sales of product and services to customers, net of any discounts and taxes, and freight and delivery revenues billed to customers. Freight and delivery generally represent pass-through transportation we incur (including our administrative costs) and pay to third-party carriers to deliver our products to customers. The cost related to freight and delivery is included in cost of revenues.

Revenue for product sales is recognized at the time the selling price is fixed, the product's title is transferred to the buyer and collectibility of the sales proceeds is reasonably assured (typically occurs when finished products are shipped to the customer).

#### SALES TAXES

Sales taxes collected from customers are recorded as liabilities (within other current liabilities) until remitted to taxing authorities and therefore, are not reflected in the Consolidated Statements of Comprehensive Income.

#### DEFERRED REVENUE

In 2013 and 2012, we sold a percentage interest in future production structured as volumetric production payments (VPPs).

The VPPs:

- relate to eight quarries in Georgia and South Carolina
- provide the purchaser solely with a nonoperating percentage interest in the subject quarries' future production from aggregates reserves
- are both time and volume limited
- contain no minimum annual or cumulative production or sales volume, nor minimum sales price

Our consolidated total revenues excludes the sales of aggregates owned by the VPP purchaser.

We received net cash proceeds from the sale of the VPPs of \$ 226,926,000. These proceeds were recorded as deferred revenue on the balance sheet and are amortized to revenue on a unit-of-sales basis over the terms of the VPPs (expected to be approximately 25 years, limited by volume rather than time).

Reconciliation of the deferred revenue balances (current and noncurrent) is as follows:

<i>in thousands</i>	<b>2017</b>	<b>2016</b>	<b>2015</b>
<b>Deferred Revenue</b>			
Balance at beginning of year	\$ 206,468	\$ 214,060	\$ 219,968
Amortization of deferred revenue	<b>(6,912)</b>	(7,592)	(5,908)
Balance at end of year	<b>\$ 199,556</b>	\$ 206,468	\$ 214,060

Based on expected sales from the specified quarries, we expect to recognize \$ 8,080,000 of deferred revenue as income in 2018 (reflected in other current liabilities in our 2017 Consolidated Balance Sheet).

## STRIPPING COSTS

In the mining industry, the costs of removing overburden and waste materials to access mineral deposits are referred to as stripping costs.

Stripping costs incurred during the production phase are considered costs of extracted minerals under our inventory costing system, inventoried, and recognized in cost of sales in the same period as the revenue from the sale of the inventory. The production stage is deemed to begin when the activities, including removal of overburden and waste material that may contain incidental saleable material, required to access the saleable product are complete. Stripping costs considered as production costs and included in the costs of inventory produced were \$ 65,944,000 in 2017, \$ 55,987,000 in 2016 and \$ 50,409,000 in 2015.

Conversely, stripping costs incurred during the development stage of a mine (pre-production stripping) are excluded from our inventory cost. Pre-production stripping costs are capitalized and reported within other noncurrent assets in our accompanying Consolidated Balance Sheets. Capitalized pre-production stripping costs are expensed over the productive life of the mine using the unit-of-sales method. Pre-production stripping costs included in other noncurrent assets were \$ 81,241,000 as of December 31, 2017 and \$ 70,227,000 as of December 31, 2016. This year-over-year increase resulted primarily from the removal of overburden at a greenfield site in California.

## SHARE-BASED COMPENSATION

We account for share-based compensation awards using fair-value-based measurement methods. These result in the recognition of compensation expense for all share-based compensation awards based on their fair value as of the grant date. Compensation cost is recognized over the requisite service period.

A summary of the estimated future compensation cost (unrecognized compensation expense) as of December 31, 2017 related to share-based awards granted to employees under our long-term incentive plans is presented below:

<i>dollars in thousands</i>	<i>Unrecognized Compensation Expense</i>	<i>Expected Weighted-average Recognition (Years)</i>
<b>Share-based Compensation</b>		
SOSARs <sup>1</sup>	\$ 4,623	1.5
Performance shares	18,424	1.8
Restricted shares	5,244	2.6
<b>Total/weighted-average</b>	<b>\$ 28,291</b>	<b>1.9</b>

<sup>1</sup> Stock-Only Stock Appreciation Rights (SOSARs)

Pretax compensation expense related to our employee share-based compensation awards and related income tax benefits for the years ended December 31 are summarized below:

<i>in thousands</i>	<b>2017</b>	2016	2015
<b>Employee Share-based Compensation Awards</b>			
Pretax compensation expense	\$ 24,367	\$ 17,823	\$ 16,362
Income tax benefits	6,226	6,925	6,347

We receive an income tax deduction for share-based compensation equal to the excess of the market value of our common stock on the date of exercise or issuance over the exercise price. Tax benefits resulting from tax deductions in excess of the compensation cost recognized (excess tax benefits) are reflected as discrete income tax benefits in the period of exercise or issuance. Prior to our early adoption of Accounting Standards Update (ASU) 2016-09, "Improvement to Employee Share-Based Payment Accounting" in 2016, excess tax benefits were recorded directly to equity (APIC). For 2017 and 2016, net excess tax benefits of \$ 22,962,000 (federal \$ 20,740,000 and state \$ 2,222,000) and \$ 24,847,000 (federal \$ 22,443,000 and state \$ 2,404,000), respectively, were recorded as reductions to our income tax expense (see Note 9) and were reflected as operating cash flows. For 2015, net excess tax benefits of \$ 18,115,000 were recorded directly to APIC and gross excess tax benefits of \$ 18,376,000 were reflected as financing cash flows.

For additional information about share-based compensation, see Note 11 under the caption Share-based Compensation Plans.

## RECLAMATION COSTS

Reclamation costs resulting from normal use of long-lived assets are recognized over the period the asset is in use when there is a legal obligation to incur these costs upon retirement of the assets. Additionally, reclamation costs resulting from normal use under a mineral lease are recognized over the lease term when there is a legal obligation to incur these costs upon expiration of the lease. The obligation, which cannot be reduced by estimated offsetting cash flows, is recorded at fair value as a liability at the obligating event date and is accreted through charges to operating expenses. This fair value is also capitalized as part of the carrying amount of the underlying asset and depreciated over the estimated useful life of the asset. If the obligation is settled for other than the carrying amount of the liability, a gain or loss is recognized on settlement.

To determine the fair value of the obligation, we estimate the cost ( including a reasonable profit margin) for a third party to perform the legally required reclamation tasks. This cost is then increased for both future estimated inflation and an estimated market risk premium related to the estimated years to settlement. Once calculated, this cost is discounted to fair value using present value techniques with a credit-adjusted, risk-free rate commensurate with the estimated years to settlement.

In estimating the settlement date, we evaluate the current facts and conditions to determine the most likely settlement date. If this evaluation identifies alternative estimated settlement dates, we use a weighted-average settlement date considering the probabilities of each alternative.

We review reclamation obligations at least annually for a revision to the cost or a change in the estimated settlement date. Additionally, reclamation obligations are reviewed in the period that a triggering event occurs that would result in either a revision to the cost or a change in the estimated settlement date. Examples of events that would trigger a change in the cost include a new reclamation law or amendment of an existing mineral lease. Examples of events that would trigger a change in the estimated settlement date include the acquisition of additional reserves or the closure of a facility.

The carrying value of these obligations was \$ 218,117,000 as of December 31, 201 7 and \$22 3,872 ,000 as of December 31, 201 6 . For additional information about reclamation obligations (referred to in our financial statements as asset retirement obligations) see Note 17.

## PENSION AND OTHER POSTRETIREMENT BENEFITS

Accounting for pension and postretirement benefits requires that we make significant assumptions about the valuation of benefit obligations and the performance of plan assets. The primary assumptions are as follows:

- DISCOUNT RATE — The discount rate is used in calculating the present value of projected benefit payments
- EXPECTED RETURN ON PLAN ASSETS — The expected future return on plan assets reduces the recorded net benefit costs
- RATE OF COMPENSATION INCREASE — Annual pay increases after 2015 will not increase our pension plan obligations as a result of a 2013 plan amendment
- RATE OF INCREASE IN THE PER CAPITA COST OF COVERED HEALTHCARE BENEFITS — Increases in the per capita cost after 2015 will not increase our postretirement medical benefits obligation as a result of a 2012 plan amendment

Accounting standards provide for the delayed recognition of differences between actual results and expected or estimated results. This delayed recognition of actual results allows for a smoothed recognition in earnings of changes in benefit obligations and asset performance. The differences between actual results and expected or estimated results are recognized in full in other comprehensive income. Amounts recognized in other comprehensive income are reclassified to earnings in a systematic manner over the average remaining service period of participants for our active plans or the average remaining lifetime of participants for our inactive plans.

For additional information about pension and other postretirement benefits see Note 10.

## ENVIRONMENTAL COMPLIANCE

Our environmental compliance costs are undiscounted and include the cost of ongoing monitoring programs, the cost of remediation efforts and other similar costs. We accrue costs for environmental assessment and remediation efforts when we determine that a liability is probable and we can reasonably estimate the cost. At the early stages of a remediation effort, environmental remediation liabilities are not easily quantified due to the uncertainties of various factors. The range of an estimated remediation liability is defined and redefined as events in the remediation effort occur, but generally liabilities are recognized no later than completion of the remedial feasibility study.

When we can estimate a range of probable loss, we accrue the most likely amount. If no amount in the range of probable loss is considered most likely, the minimum loss in the range is accrued. As of December 31, 2017, the spread between the amount accrued and the maximum loss in the range for all sites for which a range can be reasonably estimated was \$ 3,105,000 — this amount does not represent our maximum exposure to loss for all environmental remediation obligations as it excludes those sites for which a range of loss cannot be reasonably estimated at this time. Accrual amounts may be based on technical cost estimations or the professional judgment of experienced environmental managers. Our Safety, Health and Environmental Affairs Management Committee routinely reviews cost estimates and key assumptions in response to new information, such as the kinds and quantities of hazardous substances, available technologies and changes to the parties participating in the remediation efforts. However, a number of factors, including adverse agency rulings and encountering unanticipated conditions as remediation efforts progress, may cause actual results to differ materially from accrued costs.

For additional information about environmental compliance costs see Note 8.

## CLAIMS AND LITIGATION INCLUDING SELF-INSURANCE

We are involved with claims and litigation, including items covered under our self-insurance program. We are self-insured for losses related to workers' compensation up to \$ 2,000,000 per occurrence and automotive and general/product liability up to \$ 3,000,000 per occurrence. We have excess coverage on a per occurrence basis beyond these retention levels.

Under our self-insurance program, we aggregate certain claims and litigation costs that are reasonably predictable based on our historical loss experience and accrue losses, including future legal defense costs, based on actuarial studies. Certain claims and litigation costs, due to their unique nature, are not included in our actuarial studies. We use both internal and outside legal counsel to assess the probability of loss, and establish an accrual when the claims and litigation represent a probable loss and the cost can be reasonably estimated. For matters not included in our actuarial studies, legal defense costs are accrued when incurred. The following table outlines our self-insurance program at December 31:

<i>dollars in thousands</i>	<b>2017</b>	<b>2016</b>
<b>Self-insurance Program</b>		
Self-insured liabilities (undiscounted)	\$ 58,216	\$ 49,310
Insured liabilities (undiscounted)	7,892	72,644
Discount rate	1.93%	1.40%
<b>Amounts Recognized in Consolidated Balance Sheets</b>		
Other accounts and notes receivable	\$ 6,158	\$ 67,631
Investments and long-term receivables	7,246	16,133
Other current liabilities	(20,036)	(69,549)
Other noncurrent liabilities	(41,792)	(49,074)
Net liabilities (discounted)	\$ (48,424)	\$ (34,859)

The decrease in liabilities and offsetting decrease in receivables as noted above are due primarily to the settlement, funded by our insurer, of a litigation matter related to our former Chemicals business as discussed in Note 12.

Estimated payments (undiscounted and excluding the impact of related receivables) under our self-insurance program for the five years subsequent to December 31, 2017 are as follows:

*in thousands*

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**Estimated Payments under Self-insurance Program**

2018	\$ 22,697
2019	11,874
2020	7,856
2021	4,709
2022	3,088

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Significant judgment is used in determining the timing and amount of the accruals for probable losses and the actual liability could differ materially from the accrued amounts.

**INCOME TAXES**

We file federal, state and foreign income tax returns and account for the current and deferred tax effects of such returns using the asset and liability method. We recognize deferred tax assets and liabilities (which reflect our best assessment of the future taxes we will pay) based on the differences between the book basis and tax basis of assets and liabilities. Deferred tax assets represent items to be used as a tax deduction or credit in future tax returns while deferred tax liabilities represent items that will result in additional tax in future tax returns.

Significant judgments and estimates are required in determining our deferred tax assets and liabilities. These estimates are updated throughout the year to consider income tax return filings, our geographic mix of earnings, legislative changes and other relevant items. We are required to account for the effects of changes in income tax rates on deferred tax balances in the period in which the legislation is enacted. The impact of the Tax Cuts and Jobs Act is presented in Note 9.

Each quarter we analyze the likelihood that our deferred tax assets will be realized. Realization of the deferred tax assets ultimately depends on the existence of sufficient taxable income of the appropriate character in either the carryback or carryforward period. A valuation allowance is recorded if, based on the weight of all available positive and negative evidence, it is more likely than not (a likelihood of more than 50%) that some portion, or all, of a deferred tax asset will not be realized. A summary of our deferred tax assets is included in Note 9.

U.S. income taxes are not provided on foreign earnings when such earnings are indefinitely reinvested offshore. At least annually, we evaluate our investment strategies for each foreign tax jurisdiction in which we operate to determine whether foreign earnings will be indefinitely reinvested offshore.

We recognize a tax benefit associated with a tax position when, in our judgment, it is more likely than not that the position will be sustained based upon the technical merits of the position. For a tax position that meets the more likely than not recognition threshold, we measure the income tax benefit as the largest amount that we judge to have a greater than 50% likelihood of being realized. A liability is established for the unrecognized portion of any tax position. Our liability for unrecognized tax benefits is adjusted periodically due to changing circumstances, such as the progress of tax audits, case law developments and new or emerging legislation.

The years open to tax examinations vary by jurisdiction. While it is often difficult to predict the final outcome or the timing of resolution of any particular tax matter, we believe our liability for unrecognized tax benefits is appropriate.

We consider a tax position to be resolved at the earlier of the issue being "effectively settled," settlement of an examination, or the expiration of the statute of limitations. Upon resolution of a tax position, any liability for unrecognized tax benefits will be released.

Our liability for unrecognized tax benefits is generally presented as noncurrent. However, if we anticipate paying cash within one year to settle an uncertain tax position, the liability is presented as current. We classify interest and penalties associated with our liability for unrecognized tax benefits as income tax expense.

Our largest permanent item in computing both our taxable income and effective tax rate is the deduction allowed for statutory depletion. The impact of statutory depletion on the effective tax rate is presented in Note 9. The deduction for statutory depletion does not necessarily change proportionately to changes in pretax earnings.

## COMPREHENSIVE INCOME

We report comprehensive income in our Consolidated Statements of Comprehensive Income and Consolidated Statements of Equity. Comprehensive income comprises two subsets: net earnings and other comprehensive income (OCI). OCI includes fair value adjustments to cash flow hedges, actuarial gains or losses and prior service costs related to pension and postretirement benefit plans.

For additional information about comprehensive income see Note 14.

## EARNINGS PER SHARE (EPS)

Earnings per share are computed by dividing net earnings by the weighted-average common shares outstanding (basic EPS) or weighted-average common shares outstanding assuming dilution (diluted EPS), as set forth below:

<i>in thousands</i>	2017	2016	2015
Weighted-average common shares outstanding	132,513	133,205	133,210
Dilutive effect of			
SOSARs	1,295	1,339	1,027
Other stock compensation plans	1,070	1,246	856
Weighted-average common shares outstanding, assuming dilution	134,878	135,790	135,093

All dilutive common stock equivalents are reflected in our earnings per share calculations. In periods of loss, shares that otherwise would have been included in our diluted weighted-average common shares outstanding computation would be excluded.

Antidilutive common stock equivalents are not included in our earnings per share calculations. The number of antidilutive common stock equivalents for which the exercise price exceeds the weighted-average market price for the years ended December 31 is as follows:

<i>in thousands</i>	2017	2016	2015
Antidilutive common stock equivalents	79	97	544

## RECLASSIFICATIONS

Certain items previously reported in specific financial statement captions have been reclassified to conform with the 2017 presentation. Refer to Accounting Standards Recently Adopted (Cash Flow Classification, immediately below) for the impact of reclassifying restricted cash on our Statement of Cash Flows.

## NEW ACCOUNTING STANDARDS

### ACCOUNTING STANDARDS RECENTLY ADOPTED

**CASH FLOW CLASSIFICATION** During the fourth quarter, we early adopted Accounting Standards Update (ASU) 2016-15, "Classification of Certain Cash Receipts and Cash Payments" and ASU 2016-18, "Restricted Cash." These ASUs add or clarify guidance on eight specific cash flow issues in addition to providing guidance on the presentation of restricted cash in statements of cash flows. The impact to us is limited to the presentation of restricted cash. Restricted cash is now presented in the accompanying Consolidated Statements of Cash Flows as a component of cash and cash equivalents and restricted cash rather than as an investing activity. For the years presented, net cash used for investing activities increased (decreased) as a result of this ASU as follows: 2017 — \$ 4,033,000, 2016 — \$ (7,883,000) and 2015 — \$ (1,150,000).

**HEDGE ACCOUNTING** During the fourth quarter of 2017, we early adopted ASU 2017-12, "Targeted Improvements to Accounting for Hedging Activities." This ASU simplifies certain aspects of hedge accounting and improves disclosures of hedging arrangements through the elimination of the requirement to separately measure and report hedge ineffectiveness and generally requires, for qualifying hedges, the entire change in the fair value of a hedging instrument to be presented in the same income statement line as the hedged item. The adoption of this standard had no material impact on our consolidated financial statements.

**GOODWILL IMPAIRMENT TESTING** During the fourth quarter of 2017, we early adopted ASU 2017-04, "Simplifying the Test for Goodwill Impairment," which eliminates the requirement to calculate the implied fair value of goodwill (Step 2) to measure a goodwill impairment charge. Instead, entities will record an impairment charge based on the excess of a reporting unit's carrying value over its fair value. We early adopted this standard as of our November 1, 2017 annual impairment test. As the fair value of all our reporting units substantially exceeded their carrying values, the adoption of this standard had no impact on our consolidated financial statements.

**MODIFICATION ACCOUNTING FOR SHARE-BASED COMPENSATION** During the second quarter of 2017, we early adopted ASU 2017-09, "Scope of Modification Accounting." The ASU provides guidance on the types of changes to the terms or conditions of share-based payment awards to which modification accounting is applied. Specifically, modification accounting is not applied if the fair value, vesting conditions and classification of the awards are the same immediately before and after the modification. We applied this ASU on a prospective basis to awards modified on or after the adoption date. The adoption of this standard had no impact on our consolidated financial statements.

**INVENTORY MEASUREMENT** During the first quarter of 2017, we adopted ASU 2015-11, "Simplifying the Measurement of Inventory." This ASU prospectively changed the measurement principle for inventory from the lower of cost or market principle to the lower of cost and net realizable value principle. The guidance applied to inventories measured by the first-in, first-out (FIFO) or average cost method, but did not apply to inventories measured by the last-in, first-out (LIFO) or retail inventory method. We used the LIFO method for approximately 66% of our inventory (based on the December 31, 2016 balances); therefore, this ASU did not apply to the majority of our inventory. The adoption of this standard had no material impact on our consolidated financial statements.

**DEFINITION OF A BUSINESS** During the first quarter of 2017, we early adopted ASU 2017-01, "Clarifying the Definition of a Business." This ASU changed the definition of a business for, among other purposes, determining whether to account for a transaction as an asset acquisition or a business combination. Under the new guidance, an entity first determines whether substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or a group of similar identifiable assets. If this threshold is met, it is not a business combination. If it is not met, the entity then evaluates whether the acquired assets and activities meet the requirements that a business include, at a minimum, an input and a substantive process that together significantly contribute to the ability to create outputs. This change in definition did not impact any of our transactions during 2017.

#### **ACCOUNTING STANDARDS PENDING ADOPTION**

**PRESENTATION OF NET PERIODIC BENEFIT PLANS** In March 2017, the Financial Accounting Standards Board (FASB) issued ASU 2017-07, "Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost," which changes the presentation of the net periodic benefit cost in the income statement. Employers will present the service cost component of net periodic benefit cost in the same income statement line item(s) as other employee compensation costs. The other components of net benefit cost will be included in nonoperating expense. This ASU is effective for annual reporting periods beginning after December 15, 2017, and interim reporting periods within those annual reporting periods. Retrospective application of the change in income statement presentation is required. A practical expedient is provided that permits entities to use the components of cost disclosed in prior years as a basis for the retrospective application of the new income statement presentation. We will adopt ASU 2017-07 in the first quarter of 2018. The adoption of this standard will not have a material impact on our consolidated financial statements; the other components of net benefit cost (credit) were as follows: 2017 — \$( 8,102,000 ), 2016 — \$( 13,715, 000 ) and 2015 — \$ 11,339, 000 .



**INTRA-ENTITY ASSET TRANSFERS** In October 2016, the FASB issued ASU 2016-16, "Intra-Entity Transfers of Assets Other Than Inventory," which requires the tax effects of intercompany transactions other than inventory to be recognized currently. ASU 2016-16 is effective for annual reporting periods beginning after December 15, 2017, and interim reporting periods within those annual reporting periods. We do not expect the adoption of this standard to have a material impact on our consolidated financial statements.

**CREDIT LOSSES** In June 2016, the FASB issued ASU 2016-13, "Measurement of Credit Losses on Financial Instruments," which amends guidance on the impairment of financial instruments. The new guidance estimates credit losses based on expected losses, modifies the impairment model for available-for-sale debt securities and provides for a simplified accounting model for purchased financial assets with credit deterioration. ASU 2016-13 is effective for annual reporting periods beginning after December 15, 2019, and interim reporting periods within those annual reporting periods. Early adoption is permitted for annual reporting periods beginning after December 15, 2018. While we are still evaluating the impact of ASU 2016-13, we do not expect the adoption of this standard to have a material impact on our consolidated financial statements.

**LEASE ACCOUNTING** In February 2016, the FASB issued ASU 2016-02, "Leases," which amends existing accounting standards for lease accounting and adds additional disclosures about leasing arrangements. Under the new guidance, lessees are required to recognize lease assets and lease liabilities on the balance sheet for all leases with terms longer than 12 months. Leases will be classified as either finance or operating, with classification affecting the pattern of expense recognition in the income statement and presentation of cash flow in the statement of cash flows. This ASU is effective for annual reporting periods beginning after December 15, 2018, and interim reporting periods within those annual reporting periods. Early adoption is permitted and modified retrospective application is required. We will adopt this standard in the first quarter of 2019. While we expect the adoption of this standard to have a material effect on our consolidated financial statements and related disclosures, we have yet to quantify the effect.

**CLASSIFICATION AND MEASUREMENT OF FINANCIAL INSTRUMENTS** In January 2016, the FASB issued ASU 2016-01, "Recognition and Measurement of Financial Assets and Financial Liabilities," which amends certain aspects of current guidance on the recognition, measurement and disclosure of financial instruments. Among other changes, this ASU requires most equity investments be measured at fair value. Additionally, the ASU eliminates the requirement to disclose the method and significant assumptions used to estimate the fair value for instruments not recognized at fair value in our financial statements. This ASU is effective for annual reporting periods beginning after December 15, 2017, and interim reporting periods within those annual reporting periods. We do not expect the adoption of this standard to have a material impact on our consolidated financial statements.

**REVENUE RECOGNITION** In May 2014, the FASB issued ASU 2014-09, "Revenue From Contracts With Customers," which outlines a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and supersedes most current revenue recognition guidance, including industry-specific guidance. This ASU provides a more robust framework for addressing revenue issues and expands required revenue recognition disclosures. This ASU is effective for annual reporting periods beginning after December 15, 2017, and interim reporting periods within those annual reporting periods. Further, in applying this ASU an entity is permitted to use either the full retrospective or cumulative effect transition approach. We expect to identify similar performance obligations under ASU 2014-09 compared with the deliverables and separate units of account we have identified under existing accounting standards. As a result, we expect the timing of our revenues to remain generally the same. We will adopt this standard in the first quarter of 2018 using the cumulative effect transition approach.

## NOTE 2: DISCONTINUED OPERATIONS

In 2005, we sold substantially all the assets of our Chemicals business to Basic Chemicals, a subsidiary of Occidental Chemical Corporation. The financial results of the Chemicals business are classified as discontinued operations in the accompanying Consolidated Statements of Comprehensive Income for all periods presented. There were no revenues from discontinued operations for the years presented. Results from discontinued operations are as follows:

<i>in thousands</i>	<b>2017</b>	<b>2016</b>	<b>2015</b>
<b>Discontinued Operations</b>			
Pretax earnings (loss)	\$ 12,959	\$ (4,877)	\$ (19,326)
Income tax (expense) benefit	(5,165)	1,962	7,589
Earnings (loss) on discontinued operations, net of tax	\$ 7,794	\$ (2,915)	\$ (11,737)

The 2017, 2016 and 2015 pretax earnings (loss) from discontinued operations of \$ 12,959,000, \$ (4,877,000) and \$ (19,326,000), respectively, include charges related to general and product liability costs, including legal defense costs, and environmental remediation costs associated with our former Chemicals business. The 2017 results reflect charges and related insurance recoveries, including those associated with the Texas Brine matter, as further discussed in Note 12. During 2016, we settled one of the cases in the Texas Brine matter. This settlement was covered by our insurance policy, which also reimbursed a portion of our past legal expenses such that the net loss for this matter was immaterial for the year. The 2015 loss resulted primarily from charges associated with the Lower Passaic and Texas Brine matters (see Note 12).

## NOTE 3: INVENTORIES

Inventories at December 31 are as follows:

<i>in thousands</i>	<b>2017</b>	<b>2016</b>
<b>Inventories</b>		
Finished products <sup>1</sup>	\$ 327,711	\$ 293,619
Raw materials	27,152	22,648
Products in process	1,827	1,480
Operating supplies and other	27,648	27,869
Total	\$ 384,338	\$ 345,616

<sup>1</sup> Includes inventories encumbered by volumetric production payments (see Note 1, caption Deferred Revenue), as follows: December 31, 2017 — \$ 2,808 thousand and December 31, 2016 — \$ 2,841 thousand.

In addition to the inventory balances presented above, as of December 31, 2017 and December 31, 2016, we have \$ 11,810,000 and \$ 15,285,000, respectively, of inventory classified as long-term assets (other noncurrent assets) as we do not expect to sell the inventory within one year of their respective balance sheet dates. Inventories valued under the LIFO method total \$ 252,808,000 at December 31, 2017 and \$ 239,187,000 at December 31, 2016. During 2017, 2016 and 2015, inventory reductions resulted in liquidations of LIFO inventory layers carried at lower costs prevailing in prior years as compared to current-year costs. The effect of the LIFO liquidation on 2017 results was to decrease cost of revenues by \$ 2,714,000 and increase net earnings by \$ 1,662,000. The effect of the LIFO liquidation on 2016 results was to decrease cost of revenues by \$ 3,956,000 and increase net earnings by \$ 2,419,000. The effect of the LIFO liquidation on 2015 results was to decrease cost of revenues by \$ 3,284,000 and increase net earnings by \$ 2,010,000.

Estimated current cost exceeded LIFO cost at December 31, 2017 and 2016 by \$ 168,829,000 and \$ 155,576,000, respectively. We use the LIFO method of valuation for most of our inventories as it results in a better matching of costs with revenues. In periods of increasing costs, LIFO generally results in higher cost of revenues than under FIFO. In periods of decreasing costs, the results are generally the opposite. We provide supplemental income disclosures to facilitate comparisons with companies not on LIFO. The supplemental income calculation is derived by tax-affecting the change in the LIFO reserve for the periods presented. If all inventories valued at LIFO cost had been valued under first-in, first-out (FIFO) method, the approximate effect on net earnings would have been an increase of \$ 8,092,000 in 2017, a decrease of \$ (8,338,000) in 2016 and a decrease of \$ (7,614,000) in 2015.

## NOTE 4: PROPERTY, PLANT & EQUIPMENT

Balances of major classes of assets and allowances for depreciation, depletion and amortization at December 31 are as follows:

<i>in thousands</i>	2017	2016
<b>Property, Plant &amp; Equipment</b>		
Land and land improvements <sup>1</sup>	\$ 2,742,285	\$ 2,374,051
Buildings	135,655	127,369
Machinery and equipment	4,740,212	4,316,243
Leaseholds	17,354	17,595
Deferred asset retirement costs	172,631	168,258
Construction in progress	161,175	182,302
<b>Total, gross</b>	<b>\$ 7,969,312</b>	<b>\$ 7,185,818</b>
Less allowances for depreciation, depletion and amortization	4,050,381	3,924,380
<b>Total, net</b>	<b>\$ 3,918,931</b>	<b>\$ 3,261,438</b>

<sup>1</sup> Includes depletable land, as follows: December 31, 2017 — \$ 1,606,303 thousand and December 31, 2016 — \$ 1,327,402 thousand.

Capitalized interest costs with respect to qualifying construction projects and total interest costs incurred before recognition of the capitalized amount for the years ended December 31 are as follows:

<i>in thousands</i>	2017	2016	2015
Capitalized interest cost	\$ 5,177	\$ 7,468	\$ 2,930
Total interest cost incurred before recognition of the capitalized amount	300,699	141,544	223,518

## NOTE 5: DERIVATIVE INSTRUMENTS

During the normal course of operations, we are exposed to market risks including interest rates, foreign currency exchange rates and commodity prices. From time to time, and consistent with our risk management policies, we use derivative instruments to balance the cost and risk of such expenses. We do not use derivative instruments for trading or other speculative purposes.

The accounting for gains and losses that result from changes in the fair value of derivative instruments depends on whether the derivatives have been designated and qualify as hedging instruments and the type of hedging relationship. The interest rate agreements described below were designated as either cash flow hedges or fair value hedges. Changes in fair value of cash flow hedges are recorded in accumulated other comprehensive income (AOCI) and are reclassified into interest expense in the same period the hedged items affect earnings. Changes in fair value of fair value hedges are recorded as interest expense consistent with the change in the fair value of the hedged items attributable to the risk being hedged.

## CASH FLOW HEDGES

During 2007, we entered into fifteen forward starting interest rate locks on \$1,500,000,000 of future debt issuances to hedge the risk of higher interest rates. Upon the 2007 and 2008 issuances of the related fixed-rate debt, underlying interest rates were lower than the rate locks and we terminated and settled these forward starting locks for cash payments of \$89,777,000. This amount was booked to AOCI and is being amortized to interest expense over the term of the related debt.

This amortization was reflected in the accompanying Consolidated Statements of Comprehensive Income for the years ended December 31 as follows:

<i>in thousands</i>	<i>Location on Statement</i>	<i>2017</i>	<i>2016</i>	<i>2015</i>
<b>Cash Flow Hedges</b>				
Loss reclassified from AOCI (effective portion)	Interest expense	\$ (3,070)	\$ (2,008)	\$ (9,759)

The losses reclassified from AOCI for the years ended December 31, 2017 and 2015 include the acceleration of deferred losses in the amount of \$1,405,000 and \$7,208,000, respectively, referable to the debt purchases as described in Note 6.

For the 12-month period ending December 31, 2018, we estimate that \$399,000 of the pretax loss in AOCI will be reclassified to earnings.

## FAIR VALUE HEDGES

In June 2011, we entered into two interest rate-swap agreements totaling \$65,000,000. In August 2011, we terminated and settled these interest rate swap agreements for \$25,382,000 of cash proceeds. The resulting gain was added to the carrying value of the related debt and was amortized as a reduction to interest expense over the terms of the related debt using the effective interest method.

This deferred gain amortization was reflected in the accompanying Consolidated Statements of Comprehensive Income for the years ended December 31 as follows:

<i>in thousands</i>	<i>2017</i>	<i>2016</i>	<i>2015</i>
<b>Deferred Gain on Settlement</b>			
Amortized to earnings as a reduction to interest expense	\$ 0	\$ 0	\$ 3,036

The deferred gain was fully amortized in December 2015, concurrent with the retirement of the 10.125% notes due 2015.

## NOTE 6: DEBT

Debt at December 31 is detailed as follows:

<i>in thousands</i>	<i>Effective Interest Rates</i>	<b>2017</b>	<b>2016</b>
<b>Short-term Debt</b>			
Bank line of credit expires 2021 <sup>1,2</sup>	<i>n/a</i>	\$ 0	\$ 0
Total short-term debt		\$ 0	\$ 0
<b>Long-term Debt</b>			
Bank line of credit expires 2021 <sup>1,2</sup>	<i>1.25%</i>	\$ 250,000	\$ 235,000
Term loan due 2018 <sup>2,3</sup>	<i>2.96%</i>	350,000	0
7.00% notes due 2018	<i>n/a</i>	0	272,512
10.375% notes due 2018	<i>n/a</i>	0	250,000
Floating-rate notes due 2020	<i>2.22%</i>	250,000	0
7.50% notes due 2021	<i>7.75%</i>	35,111	600,000
8.85% notes due 2021	<i>8.88%</i>	6,000	6,000
Term loan due 2021 <sup>2</sup>	<i>2.75%</i>	250,000	0
4.50% notes due 2025	<i>4.65%</i>	400,000	400,000
3.90% notes due 2027	<i>4.00%</i>	400,000	0
7.15% notes due 2037	<i>8.05%</i>	240,188	240,188
4.50% notes due 2047	<i>4.59%</i>	700,000	0
Other notes <sup>2</sup>	<i>6.46%</i>	230	365
Total long-term debt - face value		\$ 2,881,529	\$ 2,004,065
Unamortized discounts and debt issuance costs		(26,664)	(21,176)
Total long-term debt - book value		\$ 2,854,865	\$ 1,982,889
Less current maturities		41,383	138
Total long-term debt - reported value		\$ 2,813,482	\$ 1,982,751
Estimated fair value of long-term debt		\$ 2,983,419	\$ 2,243,213

<sup>1</sup> Borrowings on the bank line of credit are classified as short-term debt if we intend to repay within twelve months and as long-term debt otherwise.

<sup>2</sup> Non-publicly traded debt.

<sup>3</sup> This short-term loan was refinanced on a long-term basis in February 2018 as discussed below.

Discounts and debt issuance costs are amortized using the effective interest method over the terms of the respective notes resulting in \$9,808,000 and \$4,418,000, respectively, of net interest expense for these items for 2017 and 2016.

The estimated fair value of our debt presented in the table above was determined by: (1) averaging several asking price quotes for the publicly traded notes and (2) assuming par value for the remainder of the debt. The fair value estimates for the publicly traded notes were based on Level 2 information (as defined in Note 1, caption Fair Value Measurements) as of their respective balance sheet dates.

Subsequent to year-end, on February 23, 2018, we issued \$350,000,000 of 4.70% notes due 2048 and \$500,000,000 of floating-rate notes due 2021. The proceeds, together with cash on hand, were used to retire/repay without penalty or premium: (1) the \$350,000,000 term loan due 2018, (2) the \$250,000,000 term loan due 2021, and (3) the \$250,000,000 bank line of credit borrowings. As a result, the \$350,000,000 term loan due 2018 is reflected as long-term debt and its initial proceeds are presented as from the issuance of long-term debt on the 2017 consolidated statement of cash flow.

Additionally, on February 20, 2018, we commenced an exchange offer to the holders of the \$240,188,000 of 7.15% notes due 2037 through which we would exchange any and all of these notes for newly issued notes due 2048 (these notes would be in addition to, and fungible with, the \$350,000,000 million of notes due 2048) and cash. The amount of notes due 2037 tendered for exchange, and the amount of newly issued notes due 2048 and cash to be exchanged, will be determined in March 2018. We will receive no proceeds from the issuance of the notes due 2048 in the exchange offer.

## LINE OF CREDIT

In December 2016, among other favorable changes, we extended the maturity date of our unsecured \$750,000,000 line of credit from June 2020 to December 2021. The credit agreement contains affirmative, negative and financial covenants customary for an unsecured investment-grade facility. The primary negative covenant limits our ability to incur secured debt. The financial covenants are: (1) a maximum ratio of debt to EBITDA of 3.5 :1 (upon certain acquisitions, the maximum ratio can be 3.75 :1 for three quarters), and (2) a minimum ratio of EBITDA to net cash interest expense of 3.0 :1. As of December 31, 2017, we were in compliance with the line of credit covenants.

Borrowings on our line of credit are classified as short-term debt if we intend to repay within twelve months and as long-term debt if we have the intent and ability to extend repayment beyond twelve months. Borrowings bear interest, at our option, at either LIBOR plus a credit margin ranging from 1.00% to 1.75%, or SunTrust Bank's base rate (generally, its prime rate) plus a credit margin ranging from 0.00% to 0.75%. The credit margin for both LIBOR and base rate borrowings is determined by our credit ratings. Standby letters of credit, which are issued under the line of credit and reduce availability, are charged a fee equal to the credit margin for LIBOR borrowings plus 0.175%. We also pay a commitment fee on the daily average unused amount of the line of credit that ranges from 0.10% to 0.25% determined by our credit ratings. As of December 31, 2017, the credit margin for LIBOR borrowings was 1.25%, the credit margin for base rate borrowings was 0.25%, and the commitment fee for the unused amount was 0.15%.

As of December 31, 2017, our available borrowing capacity was \$456,761,000. Utilization of the borrowing capacity was as follows:

- \$250,000,000 was borrowed
- \$43,239,000 was used to provide support for outstanding standby letters of credit

## TERM DEBT

All of our \$2,631,529,000 of term debt is unsecured. \$2,031,299,000 of such debt is governed by two essentially identical indentures that contain customary investment-grade type covenants. The primary covenant in both indentures limits the amount of secured debt we may incur without ratably securing such debt. \$600,000,000 of such debt is governed, as described below, largely by the same credit agreement that governs our line of credit. As of December 31, 2017, we were in compliance with all of the term debt covenants.

In December 2017, we early retired via tender offer, \$564,889,000 of the 7.50% notes due 2021 at a cost of \$662,613,000 including a premium of \$96,167,000 and transaction costs of \$1,558,000. Additionally, we recognized net noncash expense of \$4,228,000 with the acceleration of deferred debt issuance costs. Subsequently, in January 2018 we early retired via redemption the remaining \$35,111,000 of the 7.50% notes due 2021 at a cost of \$40,719,000 including a premium of \$5,608,000.

Also in December 2017, we entered into a 6-month \$350,000,000 unsecured term loan with one of the banks that provides our line of credit. Borrowings bear interest at LIBOR plus 1.25%, and may be prepaid any time without penalty. This term loan incorporates by reference the representations, covenants and events of default contained in the credit agreement for the line of credit. As such, it is subject to the same affirmative, negative and financial covenants.

In June 2017, we issued \$1,000,000,000 of debt composed of three issuances as follows: (1) \$700,000,000 of 4.50% senior notes due June 2047, (2) \$50,000,000 of 3.90% senior notes due April 2027 (these notes are a further issuance of, and form a single series with, the 3.90% notes issued in March 2017), and (3) \$250,000,000 of floating-rate senior notes due June 2020. These issuances resulted in proceeds of \$989,512,000 (net of original issue discounts/premiums, underwriter fees and other transaction costs). The proceeds were used to partially finance an acquisition and to early retire the notes due in 2018 (\$272,512,000 @ 7.00% and \$250,000,000 @ 10.375%). This early retirement was completed in July at a cost of \$565,560,000 including a \$43,020,000 premium, transaction costs of \$28,000 and \$3,029,000 of noncash expense associated with the acceleration of unamortized discounts, deferred debt issuance costs and deferred interest rate derivative settlement losses.

As a result of the 2017 early debt retirements described above, we recognized \$139,187,000 of premiums, \$1,586,000 of transaction costs and \$7,257,000 of net noncash expense associated with the acceleration of unamortized discounts, deferred debt issuance costs and deferred interest rate derivative settlement losses. The combined charge of \$148,030,000 was a component of interest expense for the year ended December 31, 2017.

In June 2017, we drew the full \$250,000,000 on the unsecured delayed draw term loan entered into in December 2016. These funds were used to repay the \$235,000,000 borrowed on our line of credit and for general corporate purposes. Borrowings bear interest in the same manner as the line of credit. The term loan principal will be repaid quarterly beginning March 2018 as follows: quarters 5 - 8 @ \$1,562,500/quarter; 9 - 12 @ \$3,125,000/quarter; 13 - 19 @ \$4,687,500/quarter and \$198,437,500 for quarter 20 (December 2021). The term loan may be prepaid at any time without penalty. It is provided by the same group of banks that provides our line of credit, and is governed by the same credit agreement as the line of credit. As such, it is subject to the same affirmative, negative, and financial covenants.

In March 2017, we issued \$350,000,000 of 3.90% senior notes due April 2027 for proceeds of \$345,450,000 (net of original issue discounts, underwriter fees and other transaction costs). The proceeds were used for general corporate purposes. This series of notes now totals \$400,000,000 due to the additional \$50,000,000 of notes issued in June (as described above).

In 2015, we issued \$400,000,000 of 4.50% senior notes due 2025. Proceeds (net of underwriter fees and other transaction costs) of \$395,207,000, together with cash on hand and borrowings under our line of credit, funded: (1) the purchase, via tender offer, of \$127,488,000 principal amount (33%) of the 7.00% notes due 2018, (2) the redemption of \$218,633,000 principal amount (100%) of the 6.40% notes due 2017, and (3) the redemption of \$125,001,000 principal amount (100%) of the 6.50% notes due 2016. These debt purchases cost \$530,923,000, including a \$59,293,000 premium above the principal amount of the notes and transaction costs of \$508,000. The premium primarily reflects the trading price of the notes relative to par before the tender offer commencement. Additionally, we recognized \$7,274,000 of net noncash expense associated with the acceleration of a proportional amount of unamortized discounts, deferred debt issuance costs, and deferred interest rate derivative settlement gains and losses. The combined charge of \$67,075,000 was a component of interest expense for the year ended December 31, 2015.

Additionally in 2015, we repaid our \$150,000,000 10.125% notes due 2015 and our \$14,000,000 industrial revenue bond due 2022 via borrowing on our line of credit. These repayments did not incur any prepayment penalties.

#### DEBT PAYMENTS

During 2017, our debt payments, excluding the line of credit, were composed of \$1,087,536,000 principal, \$143,226,000 interest and \$140,772,000 cost of debt purchase. As described above, during the third and fourth quarters of 2017, we early retired \$1,087,401,000 of debt.

During 2016, our debt payments, excluding the line of credit, were composed of \$130,000 principal and \$125,748,000 interest.

The total scheduled (principal and interest) debt payments, excluding the line of credit, for the five years subsequent to December 31, 2017 are as follows:

<i>in thousands</i>	<i>Total</i>	<i>Principal</i>	<i>Interest</i>
<b>Debt Payments (excluding the line of credit)</b>			
2018	\$ 493,801	\$ 391,383	\$ 102,418
2019	111,068	12,523	98,545
2020	363,480	268,775	94,705
2021	308,537	218,526	90,011
2022	82,309	28	82,281

## STANDBY LETTERS OF CREDIT

We provide, in the normal course of business, certain third-party beneficiaries with standby letters of credit to support our obligations to pay or perform according to the requirements of an underlying agreement. Such letters of credit typically have an initial term of one year, renew automatically, and can only be modified or cancelled with the approval of the beneficiary. All of our standby letters of credit are issued by banks that participate in our \$750,000,000 line of credit, and reduce the borrowing capacity thereunder. Our standby letters of credit as of December 31, 2017 are summarized by purpose in the table below:

<i>in thousands</i>	
<b>Standby Letters of Credit</b>	
Risk management insurance	\$ 38,111
Reclamation/restoration requirements	5,128
<b>Total</b>	<b>\$ 43,239</b>

## NOTE 7: OPERATING LEASES

Rental expense from continuing operations under nonmineral operating leases for the years ended December 31, exclusive of rental payments made under leases of one month or less, is summarized as follows:

<i>in thousands</i>	2017	2016	2015
<b>Operating Leases</b>			
Minimum rentals	\$ 59,536	\$ 52,713	\$ 49,461
Contingent rentals (based principally on usage)	50,822	57,278	60,380
<b>Total</b>	<b>\$ 110,358</b>	<b>\$ 109,991</b>	<b>\$ 109,841</b>

Future minimum operating lease payments under all leases with initial or remaining noncancelable lease terms in excess of one year, exclusive of mineral leases (see Note 12), as of December 31, 2017 are payable as follows:

<i>in thousands</i>	
<b>Future Minimum Operating Lease Payments</b>	
2018	\$ 36,358
2019	33,986
2020	30,888
2021	27,331
2022	20,880
Thereafter	106,351
<b>Total</b>	<b>\$ 255,794</b>

Lease agreements frequently include renewal options and require that we pay for utilities, taxes, insurance and maintenance expense. Options to purchase are also included in some lease agreements.



## NOTE 8: ACCRUED ENVIRONMENTAL REMEDIATION COSTS

Our Consolidated Balance Sheets as of December 31 include accrued environmental remediation costs (measured on an undiscounted basis) as follows:

<i>in thousands</i>	2017	2016
<b>Accrued Environmental Remediation Costs</b>		
Continuing operations	\$ 21,784	\$ 9,136
Retained from former Chemicals business	10,704	10,716
<b>Total</b>	<b>\$ 32,488</b>	<b>\$ 19,852</b>

The long-term portion of the accruals noted above is included in other noncurrent liabilities in the accompanying Consolidated Balance Sheets and amounted to \$ 12,760,000 at December 31, 2017 and \$ 12,655,000 at December 31, 2016. The short-term portion of these accruals is included in other current liabilities in the accompanying Consolidated Balance Sheets.

The accrued environmental remediation costs in continuing operations relate primarily to the former Florida Rock, Tarmac, and CalMat facilities acquired in 2007, 2000 and 1999, respectively. The current increase primarily relates to the Hewitt Landfill Matter. The balances noted above for Chemicals relate to retained environmental remediation costs from the 2003 sale of the Performance Chemicals business and the 2005 sale of the Chloralkali business. Refer to Note 12 for additional discussion of contingent environmental matters.

## NOTE 9: INCOME TAXES

The Tax Cuts and Jobs Act (TCJA) was enacted on December 22, 2017. The TCJA, among other changes, (1) reduces the U.S. federal corporate income tax rate from 35% to 21%, (2) allows for the immediate 100% deductibility of certain capital investments, (3) eliminates the alternative minimum tax (though allows for the future use of previously generated alternative minimum tax credits), (4) repeals the domestic production deduction, (5) requires a one-time "transition tax" on earnings of certain foreign subsidiaries that were previously tax deferred, (6) limits the deductibility of interest expense, (7) further limits the deductibility of certain executive compensation and (8) taxes global intangible low taxed income.

The SEC staff issued Staff Accounting Bulletin (SAB) 118 to provide guidance for companies that have not completed their accounting for the income tax effects of the TCJA in the period of enactment. SAB 118 provides a one-year measurement period from the TCJA enactment date for companies to complete their income tax accounting. In accordance with SAB 118, a company must reflect the income tax effects of those aspects of the TCJA for which the income tax accounting is complete. To the extent that a company's accounting for certain income tax effects of the TCJA is incomplete but for which it is able to determine a reasonable estimate, it must record a provisional estimate in the financial statements. If a company is unable to determine a provisional estimate, it should account for its income taxes on the basis of the provisions of the tax laws that were in effect immediately before the enactment of the TCJA.

The components of earnings from continuing operations before income taxes are as follows:

<i>in thousands</i>	2017	2016	2015
<b>Earnings from Continuing Operations before Income Taxes</b>			
Domestic	\$ 346,668	\$ 513,721	\$ 293,547
Foreign	14,648	33,536	34,310
<b>Total</b>	<b>\$ 361,316</b>	<b>\$ 547,257</b>	<b>\$ 327,857</b>

Income tax expense (benefit) from continuing operations consists of the following:

<i>in thousands</i>	2017		2016		2015	
<b>Income Tax Expense (Benefit) from Continuing Operations</b>						
<b>Current</b>						
Federal	\$	(7,416)	\$	72,506	\$	67,521
State and local		4,661		14,774		14,035
Foreign		3,109		6,974		7,784
Total	\$	354	\$	94,254	\$	89,340
<b>Deferred</b>						
Federal	\$	(202,184)	\$	37,246	\$	11,192
State and local		(30,052)		(6,647)		(4,888)
Foreign		(193)		(2)		(701)
Total	\$	(232,429)	\$	30,597	\$	5,603
Total expense (benefit)	\$	(232,075)	\$	124,851	\$	94,943

Income tax expense (benefit) differs from the amount computed by applying the federal statutory income tax rate to earnings from continuing operations before income taxes. The sources and tax effects of the differences are as follows:

<i>dollars in thousands</i>	2017		2016		2015	
Income tax expense at the federal statutory tax rate of 35%	\$	126,461	35.0%	\$	191,540	35.0%
<b>Expense (Benefit) from Income Tax Differences</b>						
Statutory depletion	(28,995)	-8.0%	(32,230)	-5.9%	(27,702)	-8.4%
State and local income taxes, net of federal income tax benefit	8,115	2.2%	10,074	1.9%	10,600	3.2%
U.S. production deduction	2,452	0.7%	(8,790)	-1.6%	(5,099)	-1.6%
Foreign tax credit carryforward	0	0.0%	(6,513)	-1.2%	6,486	2.0%
Share-based compensation <sup>1</sup>	(20,740)	-5.7%	(22,443)	-4.1%	0	0.0%
Permanently reinvested foreign earnings	(2,211)	-0.6%	(4,578)	-0.8%	(6,396)	-2.0%
Foreign repatriation	12,301	3.4%	0	0.0%	0	0.0%
Revaluation - deferred tax balances	(301,567)	-83.5%	0	0.0%	0	0.0%
AI NOL valuation allowance release	(28,827)	-8.0%	(4,791)	-0.9%	(4,655)	-1.4%
Other, net	936	0.3%	2,582	0.4%	6,959	2.2%
Total income tax expense (benefit)/ Effective tax rate	\$	(232,075)	-64.2%	\$	124,851	22.8%
				\$	94,943	29.0%

<sup>1</sup> As discussed in Note 1 (under the caption Share-based Compensation), we early adopted ASU 2016-09 as of December 31, 2016.

We are required to account for the effects of changes in income tax rates on deferred tax balances in the period in which the legislation is enacted. We have completed our accounting for the effects of the U.S. federal corporate income tax rate reduction on our deferred income tax assets and liabilities. Consequently, we have recorded an income tax benefit of \$301,567,000 with a corresponding decrease to our net deferred income tax liability.

For various reasons that are discussed more fully below, we have not completed our accounting for the income tax effects of certain elements of the TCJA. If we were able to make reasonable estimates of the effects of elements for which our analysis is not yet complete, we recorded provisional adjustments. If we were not yet able to make reasonable estimates of the impact of certain elements, we have not recorded any adjustments related to those elements and have continued accounting for them in accordance with income tax accounting on the basis of the tax laws in effect before the TCJA.

Our accounting for the following elements of the TCJA is incomplete. However, we were able to make reasonable estimates of certain effects, and therefore, recorded provisional adjustments as follows:

- **DEEMED REPATRIATION TRANSITION TAX** — The TCJA subjects companies to a one-time Deemed Repatriation Transition Tax (Transition Tax) on previously untaxed foreign accumulated earnings and profits (E&P). To determine the amount of the Transition Tax, we must determine, in addition to other factors, the amount of post-1986 E&P of the relevant foreign subsidiaries, the amount of non-U.S. income taxes paid on such earnings, as well as the amount of E&P held in cash and other specified assets. Although not complete, we were able to make a reasonable estimate of the Transition Tax and recorded a provisional Transition Tax obligation of \$12,301,000. Due to the complexity of the calculation of the Transition Tax, and the information that must be gathered and analyzed, we are continuing to analyze our calculation of the Transition Tax.
- **DEDUCTIBILITY OF EXECUTIVE COMPENSATION** — The TCJA eliminates the performance-based compensation exception from the limitation on covered employee remuneration. The new law includes a transition rule that allows performance-based remuneration paid pursuant to a written binding contract in existence on November 2, 2017 and not modified in any material respect after that date to continue to be exempt from the non-deductibility provisions. We have not yet completed our evaluation of the transition rule's application to our compensation agreements. At this time, we believe that a portion of the performance-based remuneration accounted for in our deferred taxes will likely not qualify for the transition rule, and therefore, would be non-deductible. As such, we have included a provisional expense of \$1,403,000 to reduce certain deferred tax assets associated with executive compensation.

Our accounting for the following elements of the TCJA is incomplete, and we were not yet able to make reasonable estimates of the effects. Therefore, no provisional adjustments were recorded.

- **OUTSIDE BASIS DIFFERENCE IN FOREIGN SUBSIDIARIES** — For U.S. income tax purposes, the Transition Tax will greatly reduce outside basis differences in our foreign subsidiaries. Completing this calculation is dependent on first finalizing the Transition Tax liability. As a result, we are not yet able to reasonably estimate the outside basis difference remaining in our foreign subsidiaries after the Transition Tax, and therefore, will continue to assert that our undistributed earnings from foreign subsidiaries are indefinitely reinvested.
- **GLOBAL INTANGIBLE LOW TAXED INCOME** — Because of the complexity of the new global intangible low taxed income (GILTI) rules, we are continuing to evaluate this provision of the TCJA and its application under income tax accounting. We can make an accounting policy election of either (1) treating taxes due on the future U.S. inclusions in taxable income related to GILTI as a current period expense when incurred (period cost method) or (2) factoring such amounts into our measurement of deferred taxes (deferred method). Our selection of an accounting policy with respect to the new GILTI tax rules will depend, in part, on analyzing our global income to determine whether we expect to have future U.S. inclusions in taxable income related to GILTI and, if so, what the impact is expected to be. As a result, we have not made any adjustments related to potential GILTI tax in our financial statements and have not made a policy decision regarding whether to record deferred taxes on GILTI.

Deferred taxes on the balance sheet result from temporary differences between the amount of assets and liabilities recognized for financial reporting and tax purposes. The components of the net deferred income tax liability at December 31 are as follows:

<i>in thousands</i>	<b>2017</b>	<b>2016</b>
<b>Deferred Tax Assets Related to</b>		
Employee benefits	\$ 29,547	\$ 85,123
Asset retirement obligations & other reserves	47,116	63,617
Deferred compensation	59,010	103,947
State net operating losses	73,083	54,498
Federal credit carryforwards	51,284	18,139
Other	37,518	44,843
<b>Total gross deferred tax assets</b>	<b>\$ 297,558</b>	<b>\$ 370,167</b>
Valuation allowance	(29,723)	(44,237)
<b>Total net deferred tax assets</b>	<b>\$ 267,835</b>	<b>\$ 325,930</b>
<b>Deferred Tax Liabilities Related to</b>		
Property, plant & equipment	\$ 490,459	\$ 664,763
Goodwill/other intangible assets	216,039	327,666
Other	25,418	36,355
<b>Total deferred tax liabilities</b>	<b>\$ 731,916</b>	<b>\$ 1,028,784</b>
<b>Net deferred tax liability</b>	<b>\$ 464,081</b>	<b>\$ 702,854</b>

The above net deferred tax liabilities are reflected in the accompanying Consolidated Balance Sheets as noncurrent liabilities.

Each quarter we analyze the likelihood that our deferred tax assets will be realized. A valuation allowance is recorded if, based on the weight of all available positive and negative evidence, it is more likely than not (a likelihood of more than 50%) that some portion, or all, of a deferred tax asset will not be realized.

At December 31, 2017, we have state net operating loss carryforward deferred tax assets of \$ 73,083,000 , against which we have a valuation allowance of \$29,698,000 . Of these deferred tax assets, \$67,455,000 relates to Alabama. The Alabama net operating loss carryforward, if not utilized, would expire between 2023 and 2032.

From 2008 through the second quarter of 2015, we carried a full valuation allowance against the Alabama deferred tax asset for the following reasons:

- we had a substantial cumulative loss in Alabama
- due to our legal entity structure, we had no expectation of creating sufficient taxable income in Alabama

During the second quarter of 2015, we restructured our legal entities. Among other benefits, we anticipated that the restructuring would generate significant taxable income in Alabama, and therefore, allow for the utilization of some or all of the Alabama deferred tax asset.

Our Alabama cumulative loss is calculated as pretax earnings from continuing operations, discontinued operations and other comprehensive income plus permanent differences over the last three years. While evaluating all available positive and negative evidence, realizing the significance of the restructuring in our Alabama income tax filing, we determined that it was appropriate to adjust our Alabama cumulative loss calculation to consider the restructuring, remove pretax earnings from discontinued operations and other comprehensive income and remove any other significant nonrecurring items. We refer to this calculation as our Alabama adjusted earnings.

At the end of the second quarter of 2015, our Alabama adjusted earnings were negative. However, the Alabama adjusted earnings loss was dramatically smaller than our Alabama cumulative loss (of the three adjustments made, the restructuring had the greatest impact). In addition, we considered all other forms of positive and negative evidence, including the four sources of taxable income. The first three sources of taxable income (carryback potential, reversing temporary differences and tax planning strategies) provided very little positive evidence. Because our Alabama adjusted earnings were a loss, we did not project future Alabama taxable income (the fourth source). As a result, during the second quarter of 2015 we continued to carry a full valuation allowance against our Alabama deferred tax asset.

At the end of the third quarter of 2015, our Alabama adjusted earnings turned positive. This development provided sufficient positive evidence such that we determined it was appropriate to use projections of future Alabama taxable income in our assessment for the first time. However, because we had not yet returned to sustained profitability (i.e., an Alabama cumulative gain) we used our Alabama trailing twelve months adjusted earnings as the basis for an objectively verifiable projection of future Alabama taxable income. This projection, in addition to considering all other positive and negative evidence, led us to conclude in the third quarter that it was more likely than not that \$4,655,000 of the deferred tax asset was realizable. Therefore, we recognized a deferred tax benefit of \$4,655,000 in the third quarter of 2015 by reducing the valuation allowance. Our analysis in each of the four subsequent quarters further confirmed our third quarter of 2015 conclusion but resulted in no further reductions of the valuation allowance.

In the fourth quarter of 2016, we achieved three consecutive years of positive Alabama adjusted earnings. This development together with the projection of future Alabama taxable income (using our most recent trailing twelve months adjusted earnings) warranted an additional partial release of \$4,791,000 in the fourth quarter of 2016.

In the fourth quarter of 2017, we no longer have an Alabama cumulative loss. As discussed in previous filings, we believe this development provides sufficient positive evidence to conclude that we have returned to sustained profitability and should no longer limit our estimate of future taxable income to our Alabama trailing twelve months adjusted earnings. Instead, we utilized projections used for other purposes (e.g., goodwill impairment) to develop a reliable estimate of future Alabama taxable income. Based on this analysis, an additional partial release of \$28,827,000 was warranted in the fourth quarter of 2017. As of year-end 2017, we have recognized \$38,273,000 of the Alabama deferred tax asset and, at this time do not expect any future releases of the valuation allowance.

As of December 31, 2017, income tax receivables of \$106,980,000 are included in other accounts and notes receivable in the accompanying Consolidated Balance Sheet. The majority (\$106,000,000) of this receivable relates to 2017 federal estimated tax payments we have requested to be refunded. There were similar receivables of \$10,201,000 as of December 31, 2016.

Our liability for unrecognized tax benefits is discussed in our accounting policy for income taxes (see Note 1, caption Income Taxes). Changes in our liability for unrecognized tax benefits for the years ended December 31 are as follows:

<i>in thousands</i>	<b>2017</b>	<b>2016</b>	<b>2015</b>
Unrecognized tax benefits as of January 1	\$ 10,828	\$ 8,447	\$ 7,057
Increases for tax positions related to			
Prior years	27	1,368	491
Current year	1,039	1,040	942
Decreases for tax positions related to			
Prior years	(204)	0	0
Settlements with taxing authorities	0	0	0
Expiration of applicable statute of limitations	(47)	(27)	(43)
Unrecognized tax benefits as of December 31	\$ 11,643	\$ 10,828	\$ 8,447

We classify interest and penalties recognized on the liability for unrecognized tax benefits as income tax expense. Interest and penalties recognized as income tax expense (benefit) were \$420,000 in 2017, \$266,000 in 2016 and \$138,000 in 2015. The balance of accrued interest and penalties included in our liability for unrecognized tax benefits as of December 31 was \$1,789,000 in 2017, \$1,369,000 in 2016 and \$1,103,000 in 2015.

Our liability for unrecognized tax benefits at December 31 in the table above include \$10,673,000 in 2017, \$9,884,000 in 2016 and \$7,614,000 in 2015 that would affect the effective tax rate if recognized.

We are routinely examined by various taxing authorities. We anticipate no single tax position generating a significant increase in our liability for unrecognized tax benefits within 12 months of this reporting date. We anticipate the release of \$6,920,000 of our liability for unrecognized tax benefits in the third quarter of 2018 due to expiring statutes of limitation, all of which will impact the effective tax rate when recognized.

We file income tax returns in U.S. federal, various state and foreign jurisdictions. Generally, we are not subject to significant changes in income taxes by any taxing jurisdiction for the years before 2014.

## NOTE 10: BENEFIT PLANS

### PENSION PLANS

We sponsor three qualified, noncontributory defined benefit pension plans. These plans cover substantially all employees hired before July 2007, other than those covered by union-administered plans. Normal retirement age is 65, but the plans contain provisions for earlier retirement. Benefits for the Salaried Plan and the Chemicals Hourly Plan are generally based on salaries or wages and years of service; the Construction Materials Hourly Plan provides benefits equal to a flat dollar amount for each year of service. In addition to these qualified plans, we sponsor three unfunded, nonqualified pension plans. The projected benefit obligation presented in the table below includes \$ 82,136,000 and \$ 8 5,021 ,000 related to these unfunded, nonqualified pension plans for 201 7 and 201 6 , respectively.

Effective July 2007, we amended our defined benefit pension plans to no longer accept new participants. Effective December 2013, we amended our defined benefit pension plans to freeze future benefit accruals for salaried pension participants . E ffective Decembe r 2 015 , we amended our defined benefit pension plans to freeze earnings for salaried pension participants .

The following table sets forth the combined funded status of the plans and their reconciliation with the related amounts recognized in our consolidated financial statements at December 31:

<i>in thousands</i>	2017	2016
<b>Change in Benefit Obligation</b>		
Projected benefit obligation at beginning of year	\$ 1,006,674	\$ 988,453
Service cost	6,715	5,343
Interest cost	36,230	36,505
Plan amendment <sup>1</sup>	10,869	0
Actuarial (gain) loss	81,969	24,675
Benefits paid	(51,234)	(48,302)
Projected benefit obligation at end of year	\$ 1,091,223	\$ 1,006,674
<b>Change in Fair Value of Plan Assets</b>		
Fair value of assets at beginning of year	\$ 749,515	\$ 745,686
Actual return on plan assets	122,597	42,555
Employer contribution	20,023	9,576
Benefits paid	(51,234)	(48,302)
Fair value of assets at end of year	\$ 840,901	\$ 749,515
Funded status	(250,322)	(257,159)
Net amount recognized	\$ (250,322)	\$ (257,159)
<b>Amounts Recognized in the Consolidated</b>		
<b>Balance Sheets</b>		
Noncurrent assets	\$ 4,605	\$ 0
Current liabilities	(9,478)	(9,375)
Noncurrent liabilities	(245,449)	(247,784)
Net amount recognized	\$ (250,322)	\$ (257,159)
<b>Amounts Recognized in Accumulated</b>		
<b>Other Comprehensive Income</b>		
Net actuarial loss	\$ 250,581	\$ 250,099
Prior service cost (credit)	9,167	(361)
Total amount recognized	\$ 259,748	\$ 249,738

<sup>1</sup> Effective January 2017, we amended the Construction Materials Hourly Plan to increase the multiplier for years of service.

The accumulated benefit obligation (ABO) and the projected benefit obligation (PBO) exceeded plan assets for all of our defined benefit plans at December 31, 20 17 and December 31, 201 6 , except for the Chemicals Hourly Plan where the plan assets exceeded the ABO by \$ 5,346,000 and \$ 277,000 , respectively . The ABO for all of our defined benefit pension plans totaled \$ 1,090,482,000 (unfunded, nonqualified plans of \$ 82,136,000 ) at December 31, 201 7 and \$ 1,006,001,000 (unfunded, nonqualified plans of \$ 8 5,021, 000 ) at December 31, 201 6 .

The following table sets forth the components of net periodic benefit cost, amounts recognized in other comprehensive income and weighted-average assumptions of the plans at December 31:

<i>dollars in thousands</i>	2017	2016	2015
<b>Components of Net Periodic Pension Benefit Cost</b>			
Service cost	\$ 6,715	\$ 5,343	\$ 4,851
Interest cost	36,230	36,505	44,065
Expected return on plan assets	(48,506)	(51,562)	(54,736)
Settlement charge	0	0	2,031
Amortization of prior service cost (credit)	1,340	(43)	48
Amortization of actuarial loss	7,397	6,163	21,641
Net periodic pension benefit cost (credit)	\$ 3,176	\$ (3,594)	\$ 17,900
<b>Changes in Plan Assets and Benefit Obligations Recognized in Other Comprehensive Income</b>			
Net actuarial loss (gain)	\$ 7,879	\$ 33,682	\$ (3,615)
Prior service cost	10,868	0	0
Reclassification of actuarial loss	(7,397)	(6,163)	(23,672)
Reclassification of prior service (cost) credit	(1,340)	43	(48)
Amount recognized in other comprehensive income	\$ 10,010	\$ 27,562	\$ (27,335)
Amount recognized in net periodic pension benefit cost and other comprehensive income	\$ 13,186	\$ 23,968	\$ (9,435)
<b>Assumptions</b>			
<b>Weighted-average assumptions used to determine net periodic benefit cost for years ended December 31</b>			
Discount rate — PBO	4.29%	4.55%	4.14%
Discount rate — service cost	4.63%	4.68%	4.14%
Discount rate — interest cost	3.63%	3.79%	4.14%
Expected return on plan assets	7.00%	7.50%	7.50%
<b>Weighted-average assumptions used to determine benefit obligation at December 31</b>			
Discount rate	3.72%	4.29%	4.54%

The 2015 settlement charge noted above relates to a lump sum payment to a former employee from the nonqualified plan. This \$2,031,000 charge is reflected within both cost of revenues and selling, administrative and general expenses in our accompanying Consolidated Statement of Comprehensive Income for the year ended December 31, 2015.

The estimated net actuarial loss and prior service cost that will be amortized from accumulated other comprehensive income into net periodic pension benefit cost (credit) during 2018 are \$ 9,782,000 and \$ 1,339,000, respectively.

We establish our pension investment policy by evaluating asset/liability studies periodically performed by our consultants. These studies estimate trade-offs between expected returns on our investments and the variability in anticipated cash contributions to fund our pension liabilities. Our policy balances the variability in potential pension fund contributions to expected returns on our investments.

Our current strategy for implementing this policy is to invest in publicly traded equities and in publicly traded debt and private, nonliquid opportunities, such as venture capital, commodities, buyout funds and mezzanine debt. The target allocation ranges for plan assets are as follows: equity securities — 50 % to 77 % ; debt securities — 15 % to 27 % ; specialty investments — 0 % to 20 % ; commodities — 0 % to 6 % ; and cash reserves — 0 % to 5 % . Equity securities include domestic investments and foreign equities in the Europe, Australia and Far East (EAFE) and International Finance Corporation (IFC) Emerging Market Indices. Debt securities primarily include domestic debt instruments, while specialty investments include investments in venture capital, buyout funds, mezzanine debt, private partnerships and an interest in a commodity index fund.

The fair values and net asset values of our pension plan assets at December 31, 201 7 and 201 6 by asset category are as follows:

#### Fair Value Measurements at December 31, 201 7

<i>in thousands</i>	<i>Level 1</i> <sup>1</sup>	<i>Level 2</i> <sup>1</sup>	<i>Level 3</i> <sup>1</sup>	<i>Total</i>
<b>Asset Category</b>				
Debt securities	\$ 0	\$ 178,512	\$ 0	\$ 178,512
Investment funds				
Commodity funds	0	17,041	0	17,041
Equity funds	1,089	143,010	0	144,099
Investments in the fair value hierarchy	\$ 1,089	\$ 338,563	\$ 0	\$ 339,652
Interest in common/collective trusts (at NAV)				416,397
Venture capital and partnerships (at NAV)				84,852
<b>Total pension plan assets</b>				<b>\$ 840,901</b>

#### Fair Value Measurements at December 31, 201 6

<i>in thousands</i>	<i>Level 1</i> <sup>1</sup>	<i>Level 2</i> <sup>1</sup>	<i>Level 3</i> <sup>1</sup>	<i>Total</i>
<b>Asset Category</b>				
Debt securities	\$ 0	\$ 162,894	\$ 0	\$ 162,894
Investment funds				
Commodity funds	0	16,594	0	16,594
Equity funds	530	124,407	0	124,937
Investments in the fair value hierarchy	\$ 530	\$ 303,895	\$ 0	\$ 304,425
Interest in common/collective trusts (at NAV)				358,345
Venture capital and partnerships (at NAV)				86,745
<b>Total pension plan assets</b>				<b>\$ 749,515</b>

<sup>1</sup> See Note 1 under the caption *Fair Value Measurements* for a description of the fair value hierarchy.

At each measurement date, we estimate the fair values and net asset values of our pension assets using various valuation techniques. We use, to the extent available, quoted market prices in active markets or observable market inputs in estimating the fair value of our pension assets. When quoted market prices or observable market inputs are not available, we use valuation techniques that rely on unobservable inputs to estimate the fair value of our pension assets. The following describes the types of investments included in each asset category listed in the tables above and the valuation techniques we used to determine the fair values or net asset values as of December 31, 201 7 and 201 6 .

The debt securities category consists of bonds issued by U.S. federal, state and local governments, corporate debt securities, fixed income obligations issued by foreign governments, and asset-backed securities. The fair values of U.S. government and corporate debt securities are based on current market rates and credit spreads for debt securities with similar maturities. The fair values of debt securities issued by foreign governments are based on prices obtained from broker/dealers and international indices. The fair values of asset-backed securities are priced using prepayment speed and spread inputs that are sourced from the new issue market.



Investment funds consist of exchange traded and non-exchange traded funds. The commodity funds asset category consists of a single open-end commodity mutual fund. The equity funds asset category consists of a publicly traded mutual fund investing in domestic equities. For investment funds publicly traded on a national securities exchange, the fair value is based on quoted market prices. For investment funds not traded on an exchange, the total fair value of the underlying securities is used to determine the net asset value for each unit of the fund held by the pension fund. The estimated fair values of the underlying securities are generally valued based on quoted market prices. For securities without quoted market prices, other observable market inputs are used to determine the fair value.

Common/collective trust fund investments consist of index funds for domestic equities, an actively managed fund for international equities, and a short-term investment fund for highly liquid, short-term debt securities. Investments are valued at the net asset value (NAV) of units of a bank collective trust. The NAV is used as a practical expedient to estimate fair value. The NAV is based on the fair value of the underlying investments held by the fund less its liabilities. This practical expedient is not used when it is determined to be probable that the fund will sell the investment for an amount different than the reported NAV.

The venture capital and partnerships asset category consists of various limited partnership funds, mezzanine debt funds and leveraged buyout funds. NAV is used as a practical expedient to estimate fair value. The NAV of these investments has been estimated based on methods employed by the general partners, including consideration of, among other things, reference to third-party transactions, valuations of comparable companies operating within the same or similar industry, the current economic and competitive environment, creditworthiness of the corporate issuer, as well as market prices for instruments with similar maturities, terms, conditions and quality ratings. The use of different assumptions, applying different judgment to inherently subjective matters and changes in future market conditions could result in significantly different estimates of fair value of these securities.

Total employer contributions to the pension plans are presented below:

<i>in thousands</i>	<i>Pension</i>
<b>Employer Contributions</b>	
2015	\$ 14,047
2016	9,576
2017	20,023
2018 (estimated)	109,477

For our qualified pension plans, we made a discretionary contribution of \$ 10,600,000 during 2017 and made no contributions during 2016 and 2015. We anticipate making contributions of \$ 100,000,000 to our qualified pension plans in 2018. For our nonqualified pension plans, we contributed \$ 9,423,000, \$ 9,576,000 and \$ 14,047,000 during 2017, 2016 and 2015, respectively, and expect to contribute \$ 9,477,000 during 2018.

The following benefit payments, which reflect expected future service, as appropriate, are expected to be paid:

<i>in thousands</i>	<i>Pension</i>
<b>Estimated Future Benefit Payments</b>	
2018	\$ 56,227
2019	57,099
2020	58,382
2021	59,356
2022	60,948
2023-2027	309,844

We contribute to a number of multiemployer defined benefit pension plans under the terms of collective-bargaining agreements for union-represented employees. A multiemployer plan is subject to collective bargaining for employees of two or more unrelated companies. Multiemployer plans are managed by boards of trustees on which management and labor have equal representation. However, in most cases, management is not directly represented. The risks of participating in multiemployer plans differ from single employer plans as follows:

- assets contributed to a multiemployer plan by one employer may be used to provide benefits to employees of other participating employers
- if a participating employer stops contributing to the plan, the unfunded obligations of the plan may be borne by the remaining participating employers
- if we cease to have an obligation to contribute to one or more of the multiemployer plans to which we contribute, we may be required to pay those plans an amount based on the underfunded status of the plan, referred to as a withdrawal liability

None of the multiemployer pension plans that we participate in are individually significant. Our contributions to individual multiemployer pension funds did not exceed 5% of the fund's total contributions in the three years ended December 31, 2017, 2016 and 2015. Total contributions to multiemployer pension plans were \$ 9,253,000 in 2017, \$ 10,435,000 in 2016 and \$ 9,800,000 in 2015.

As of December 31, 2017, a total of 12.4 % of our domestic hourly labor force was covered by collective-bargaining agreements. Of such employees covered by collective-bargaining agreements, 4.3 % were covered by agreements that expire in 2018. We also employed 310 union employees in Mexico who are covered by a collective-bargaining agreement that will expire in 2018. None of our union employees in Mexico participate in multiemployer pension plans.

In addition to the pension plans noted above, we had one unfunded supplemental retirement plan as of December 31, 2017 and 2016. The accrued costs for the supplemental retirement plan were \$ 1,252,000 at December 31, 2017 and \$1,320,000 at December 31, 2016.

## POSTRETIREMENT PLANS

In addition to pension benefits, we provide certain healthcare and life insurance benefits for some retired employees. In 2012, we amended our postretirement healthcare plan to cap our portion of the medical coverage cost at the 2015 level. Substantially all our salaried employees and, where applicable, certain of our hourly employees may become eligible for these benefits if they reach a qualifying age and meet certain service requirements. Generally, Company-provided healthcare benefits end when covered individuals become eligible for Medicare benefits, become eligible for other group insurance coverage or reach age 65, whichever occurs first.

The following table sets forth the combined funded status of the plans and their reconciliation with the related amounts recognized in our consolidated financial statements at December 31:

<i>in thousands</i>	<i>2017</i>	<i>2016</i>
<b>Change in Benefit Obligation</b>		
Projected benefit obligation at beginning of year	\$ 45,546	\$ 48,605
Service cost	1,167	1,123
Interest cost	1,260	1,209
Actuarial loss (gain)	378	(111)
Benefits paid	(4,871)	(5,280)
Projected benefit obligation at end of year	\$ 43,480	\$ 45,546
<b>Change in Fair Value of Plan Assets</b>		
Fair value of assets at beginning of year	\$ 0	\$ 0
Actual return on plan assets	0	0
Fair value of assets at end of year	\$ 0	\$ 0
Funded status	\$ (43,480)	\$ (45,546)
Net amount recognized	\$ (43,480)	\$ (45,546)
<b>Amounts Recognized in the Consolidated Balance Sheets</b>		
Current liabilities	\$ (5,624)	\$ (6,013)
Noncurrent liabilities	(37,856)	(39,533)
Net amount recognized	\$ (43,480)	\$ (45,546)
<b>Amounts Recognized in Accumulated Other Comprehensive Income</b>		
Net actuarial gain	\$ (20,757)	\$ (22,685)
Prior service credit	(15,456)	(19,692)
Total amount recognized	\$ (36,213)	\$ (42,377)

The following table sets forth the components of net periodic benefit cost, amounts recognized in other comprehensive income, weighted-average assumptions and assumed trend rates of the plans at December 31:

<i>dollars in thousands</i>	2017	2016	2015
<b>Components of Net Periodic Postretirement Benefit Cost</b>			
Service cost	\$ 1,167	\$ 1,123	\$ 1,894
Interest cost	1,260	1,209	2,485
Amortization of prior service credit	(4,236)	(4,236)	(4,232)
Amortization of actuarial (gain) loss	(1,587)	(1,751)	37
Net periodic postretirement benefit cost (credit)	\$ (3,396)	\$ (3,655)	\$ 184
<b>Changes in Plan Assets and Benefit Obligations Recognized in Other Comprehensive Income</b>			
Net actuarial loss (gain)	\$ 342	\$ (111)	\$ (35,209)
Reclassification of actuarial gain (loss)	1,587	1,751	(37)
Reclassification of prior service credit	4,236	4,236	4,232
Amount recognized in other comprehensive income	\$ 6,165	\$ 5,876	\$ (31,014)
Amount recognized in net periodic postretirement benefit cost and other comprehensive income	\$ 2,769	\$ 2,221	\$ (30,830)
<b>Assumptions</b>			
<b>Weighted-average assumptions used to determine net periodic benefit cost for years ended December 31</b>			
Discount rate — PBO	3.59%	3.69%	3.50%
Discount rate — service cost	3.96%	3.77%	3.50%
Discount rate — interest cost	2.89%	2.81%	3.50%
<b>Weighted-average assumptions used to determine benefit obligation at December 31</b>			
Discount rate	3.33%	3.58%	3.69%

The estimated net actuarial gain and prior service credit that will be amortized from accumulated other comprehensive income into net periodic postretirement benefit cost (credit) during 2018 are \$ (1,525,000) and \$ (3,962,000), respectively.

Total employer contributions to the postretirement plans are presented below:

<i>in thousands</i>	<i>Postretirement</i>
<b>Employer Contributions</b>	
2015	\$ 5,915
2016	5,280
2017	4,871
2018 (estimated)	5,624

The employer contributions shown above are equal to the cost of benefits during the year. The plans are not funded and are not subject to any regulatory funding requirements.

The following benefit payments, which reflect expected future service, as appropriate, are expected to be paid:

<i>in thousands</i>	<i>Postretirement</i>
<b>Estimated Future Benefit Payments</b>	
2018	\$ 5,624
2019	5,431
2020	5,201
2021	4,859
2022	4,523
2023–2027	17,359

Contributions by participants to the postretirement benefit plans for the years ended December 31 are as follows:

<i>in thousands</i>	<i>Postretirement</i>
<b>Participants Contributions</b>	
2015	\$ 2,031
2016	2,085
2017	2,025

#### **PENSION AND OTHER POSTRETIREMENT BENEFITS ASSUMPTIONS**

Each year we review our assumptions about the discount rate, the expected return on plan assets, and the rate of increase in the per capita cost of covered healthcare benefits. Annual pay increases after 2015 do not increase our pension plan obligations as a result of a 2013 plan amendment.

We develop our effective discount rate from discounted plan cash flows using the full series of spot rates developed from the yields on high-quality bonds as of the measurement date. At December 31, 2017, the discount rates used to measure the benefit obligation for our various plans ranged from 3.24% to 3.79% (December 31, 2016 ranged from 3.43% to 4.41%).

We use a full yield curve approach to estimate the service and interest cost, applying the specific spot rates along the yield curve to the relevant projected cash flows. The weighted-average discount rates used to measure service and interest costs for 2017 were 4.63% and 3.63%, respectively, for our pension plans and 3.96% and 2.89%, respectively, for our other postretirement plans. The weighted-average discount rates used to measure service and interest costs for 2016 were 4.68% and 3.79%, respectively, for our pension plans and 3.77% and 2.81%, respectively, for our other postretirement plans.

Our expected return on plan assets is: (1) a long-term view based on our current asset allocation, and (2) a judgment informed by consultation with our retirement plans' consultant and our pension plans' actuary. In estimating the expected return on plan assets, we consider past performance and long-term future expectations for the types of investments held by the plan as well as the expected long-term allocation of plan assets to these investments. At December 31, 2017, the expected return on plan assets remained at 7.00%.

Future increases in the per capital cost of healthcare benefits will not increase our postretirement medical benefits obligation as a result of a 2012 plan amendment to cap medical coverage cost at the 2015 level.

#### **DEFINED CONTRIBUTION PLANS**

We sponsor two defined contribution plans. Substantially all salaried and nonunion hourly employees are eligible to be covered by one of these plans. Under these plans, we match employees' eligible contributions at established rates. Expense recognized in connection with these matching obligations totaled \$ 44,562,000 in 2017, \$ 45,295,000 in 2016 and \$ 36,085,000 in 2015.

## NOTE 11: INCENTIVE PLANS

### SHARE-BASED COMPENSATION PLANS

Our 2016 Omnibus Long-term Incentive Plan (Plan) authorizes the granting of performance shares, restricted shares, Stock-Only Stock Appreciation Rights (SOSARs) and other types of share-based awards to key salaried employees and nonemployee directors. The maximum number of shares that may be issued under the Plan is 8,000,000.

PERFORMANCE SHARES — Each performance share unit is equal to and paid in one share of our common stock, but carries no voting or dividend rights. The number of units ultimately paid for performance share awards may range from 0% to 200% of the number of units awarded on the date of grant. Payment is based upon our Total Shareholder Return (TSR) performance relative to the TSR performance of the S&P 500<sup>®</sup>. Awards vest on December 31 of the third (2017 award) or fourth (all other outstanding awards) year after date of grant. Vesting is accelerated upon reaching retirement age, death, disability, or change of control, all as defined in the award agreement. Nonvested units are forfeited upon termination for any other reason. Expense provisions referable to performance share awards amounted to \$16,272,000 in 2017, \$12,074,000 in 2016 and \$13,159,000 in 2015.

The fair value of performance shares is estimated as of the date of grant using a Monte Carlo simulation model. The following table summarizes the activity for nonvested performance share units during the year ended December 31, 2017:

	<i>Target Number of Shares</i>	<i>Weighted-average Grant Date Fair Value</i>
<b>Performance Shares</b>		
Nonvested at January 1, 2017	667,096	\$ 73.20
Granted	121,310	117.49
Vested	(275,899)	63.42
Canceled/forfeited	(13,528)	80.97
<b>Nonvested at December 31, 2017</b>	<b>498,979</b>	<b>\$ 89.16</b>

During 2016 and 2015, the weighted-average grant date fair value of performance shares granted was \$87.73 and \$74.85, respectively.

The aggregate values for distributed performance share awards are based on the closing price of our common stock as of the distribution date. The aggregate values of distributed performance shares for the years ended December 31 are as follows:

<i>in thousands</i>	<b>2017</b>	<b>2016</b>	<b>2015</b>
Aggregate value of distributed performance shares	<b>\$ 52,368</b>	\$ 60,443	\$ 26,258

RESTRICTED SHARES — Each restricted share unit is equal to and paid in one share of our common stock, but carries no voting or dividend rights. Awards vest on the third (2017 award) or fourth (all other outstanding awards) anniversary of the grant date. Vesting is accelerated upon reaching retirement age, death, disability, or change of control, all as defined in the award agreement. Nonvested units are forfeited upon termination for any other reason. Expense provisions referable to restricted share awards amounted to \$4,371,000 in 2017, \$3,004,000 in 2016 and \$982,000 in 2015.

The fair value of restricted shares is estimated as of the date of grant based on the stock price adjusted for dividends foregone. The following table summarizes the activity for nonvested restricted share units during the year ended December 31, 2017:

	<i>Number of Shares</i>	<i>Weighted-average Grant Date Fair Value</i>
<b>Restricted Stock Units</b>		
Nonvested at January 1, 2017	135,430	\$ 71.63
Granted	43,710	117.49
Vested	(64,544)	56.74
Canceled/forfeited	(5,294)	99.00
<b>Nonvested at December 31, 2017</b>	<b>109,302</b>	<b>\$ 97.43</b>

During 2016 and 2015, the weighted-average grant date fair value of restricted shares granted was \$87.77 and \$74.85, respectively.

The aggregate values for distributed restricted share awards are based on the closing price of our common stock as of the distribution date. The aggregate values of distributed performance shares for the years ended December 31 are as follows:

<i>in thousands</i>	<b>2017</b>	<b>2016</b>	<b>2015</b>
Aggregate value of distributed restricted shares	<b>\$ 7,685</b>	\$ 0	\$ 0

STOCK ONLY STOCK APPRECIATION RIGHTS (SOSARs) — SOSARs granted have an exercise price equal to the market value of our underlying common stock on the date of grant. The SOSARs vest ratably over 3 years (2017 award) or 4 years (all other awards) and expire 10 years subsequent to the grant. Vesting is accelerated upon reaching retirement age, death, disability, or change of control, all as defined in the award agreement. Nonvested awards are forfeited upon termination for any other reason.

The fair value of SOSARs is estimated as of the date of grant using the Black-Scholes option pricing model. Compensation cost for SOSARs is based on this grant date fair value and is recognized for awards that ultimately vest. The following table presents the weighted-average fair value and the weighted-average assumptions used in estimating the fair value of grants during the years ended December 31:

	<b>2017</b>	<b>2016</b>	<b>2015</b>
<b>SOSARs</b>			
Fair value	<b>\$ 43.01</b>	\$ 29.20	\$ 25.17
Risk-free interest rate	<b>2.36%</b>	1.66%	1.85%
Dividend yield	<b>1.27%</b>	1.39%	1.70%
Volatility	<b>31.35%</b>	30.42%	33.00%
Expected term	<b>9.00 years</b>	9.00 years	8.00 years

The risk-free interest rate is based on the yield at the date of grant of a U.S. Treasury security with a maturity period approximating the SOSARs expected term. The dividend yield assumption is based on our historical dividend payouts adjusted for current expectations of future payouts. The volatility assumption is based on the historical volatility and expectations about future volatility of our common stock over a period equal to the SOSARs expected term. The expected term is based on historical experience and expectations about future exercises and represents the period of time that SOSARs granted are expected to be outstanding.

A summary of our SOSAR activity as of December 31, 2017 and changes during the year are presented below:

	Number of Shares	Weighted-average Exercise Price	Weighted-average Remaining Contractual Life (Years)	Aggregate Intrinsic Value (in thousands)
<b>SOSARs</b>				
Outstanding at January 1, 2017	2,392,431	\$ 51.80		
Granted	79,200	122.60		
Exercised	(226,280)	64.75		
Forfeited or expired	(2,864)	74.62		
<b>Outstanding at December 31, 2017</b>	<b>2,242,487</b>	<b>\$ 52.95</b>	<b>3.73</b>	<b>\$ 169,034</b>
<b>Vested and expected to vest</b>	<b>2,233,801</b>	<b>\$ 52.89</b>	<b>3.72</b>	<b>\$ 168,513</b>
<b>Exercisable at December 31, 2017</b>	<b>1,957,871</b>	<b>\$ 47.27</b>	<b>3.14</b>	<b>\$ 158,700</b>

The aggregate intrinsic values in the table above represent the total pretax intrinsic value (the difference between our stock price on the last trading day of 2017 and the exercise price, multiplied by the number of in-the-money SOSARs) that would have been received by the option holders had all SOSARs been exercised on December 31, 2017. These values change based on the fair market value of our common stock. The aggregate intrinsic values of SOSARs/ stock options exercised for the years ended December 31 are as follows:

<i>in thousands</i>	2017	2016	2015
Aggregate intrinsic value of SOSARs/ stock options exercised	\$ 13,758	\$ 27,705	\$ 43,620

The following table presents cash and stock consideration received and tax benefit realized from stock option/SOSAR exercises and compensation cost recorded referable to SOSARs/stock options for the years ended December 31:

<i>in thousands</i>	2017	2016	2015
<b>SOSARs/Stock Options</b>			
Cash and stock consideration received from exercises	\$ 0	\$ 0	\$ 72,884
Tax benefit from exercises	5,331	10,767	16,920
Compensation cost	3,723	2,744	2,221

DEFERRED STOCK UNITS — In addition to the share-based compensation plans for employees discussed above, we issue a limited number of deferred stock units to our nonemployee directors annually. These deferred stock units vest ed immediately upon issuance (except for the 2015 grant which vest ed over three years ) and accumulate dividends over the vesting period. Expense provisions referable to nonemployee director deferred stock units amounted to \$2,260,000 in 2017, \$2,848,000 in 2016 and \$1,886,000 in 2015.

#### CASH-BASED COMPENSATION PLANS

We have incentive plans under which cash awards may be made annually. Expense provisions under these plans referable to awards to officers and key employees amounted to \$24,403,000 in 2017, \$32,169,000 in 2016 and \$26,325,000 in 2015. Expense provisions under these plans referable to awards to other division key employees amounted to \$10,877,000 in 2017, \$14,589,000 in 2016 and \$11,687,000 in 2015. Additionally, expense provision referable to a 2017 one-time bonus for non-incentive eligible employees amounted to \$6,716,000.



## NOTE 12: COMMITMENTS AND CONTINGENCIES

We have commitments in the form of unconditional purchase obligations as of December 31, 2017. These include commitments for the purchase of property, plant & equipment of \$ 134,458,000 and commitments for noncapital purchases of \$ 32,145,000. These commitments are due as follows:

<i>in thousands</i>	<i>Unconditional Purchase Obligations</i>
<b>Property, Plant &amp; Equipment</b>	
2018	\$ 134,458
Thereafter	0
<b>Total</b>	<b>\$ 134,458</b>
<b>Noncapital (primarily transportation and electricity contracts)</b>	
2018	\$ 10,449
2019–2020	15,109
2021–2022	3,587
Thereafter	3,000
<b>Total</b>	<b>\$ 32,145</b>

Commitments for the purchase of property, plant & equipment for 2018 include \$ 68,951,000 for the remaining construction of two new Panamax-class, self-unloading ships. Expenditures under noncapital purchase commitments totaled \$ 40,526,000 in 2017, \$ 60,591,000 in 2016 and \$ 76,178,000 in 2015.

We have commitments in the form of minimum royalties under mineral leases as of December 31, 2017 in the amount of \$ 211,432,000, due as follows:

<i>in thousands</i>	<i>Mineral Leases</i>
<b>Minimum Royalties</b>	
2018	\$ 22,531
2019–2020	34,022
2021–2022	22,703
Thereafter	132,176
<b>Total</b>	<b>\$ 211,432</b>

Expenditures for royalties under mineral leases totaled \$ 67,933,000 in 2017, \$ 62,978,000 in 2016 and \$ 58,048,000 in 2015. Refer to Note 7 for future minimum nonmineral operating lease payments.

Certain of our aggregate reserves are burdened by volumetric production payments (nonoperating interest) as described in Note 1 under the caption Deferred Revenue. As the holder of the working interest, we have responsibility to bear the cost of mining and producing the reserves attributable to this nonoperating interest.

As summarized by purpose in Note 6, our standby letters of credit totaled \$ 43,239,000 as of December 31, 2017.

As described in Note 9, our liability for unrecognized tax benefits is \$ 11,643,000 as of December 31, 2017.

As described in Note 17, our asset retirement obligations totaled \$ 218,117,000 as of December 31, 2017.

### LITIGATION AND ENVIRONMENTAL MATTERS

We are subject to occasional governmental proceedings and orders pertaining to occupational safety and health or to protection of the environment, such as proceedings or orders relating to noise abatement, air emissions or water discharges. As part of our continuing program of stewardship in safety, health and environmental matters, we have been able to resolve such proceedings and to comply with such orders without any material adverse effects on our business.

We have received notices from the United States Environmental Protection Agency (EPA) or similar state or local agencies that we are considered a potentially responsible party (PRP) at a limited number of sites under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or Superfund) or similar state and local environmental laws. Generally we share the cost of remediation at these sites with other PRPs or alleged PRPs in accordance with negotiated or prescribed allocations. There is inherent uncertainty in determining the potential cost of remediating a given site and in determining any individual party's share in that cost. As a result, estimates can change substantially as additional information becomes available regarding the nature or extent of site contamination, remediation methods, other PRPs and their probable level of involvement, and actions by or against governmental agencies or private parties.

We have reviewed the nature and extent of our involvement at each Superfund site, as well as potential obligations arising under other federal, state and local environmental laws. While ultimate resolution and financial liability is uncertain at a number of the sites, in our opinion based on information currently available, the ultimate resolution of claims and assessments related to these sites will not have a material effect on our consolidated results of operations, financial position or cash flows, although amounts recorded in a given period could be material to our results of operations or cash flows for that period. Amounts accrued for environmental matters are presented in Note 8.

We are a defendant in various lawsuits in the ordinary course of business. It is not possible to determine with precision the outcome, or the amount of liability, if any, under these lawsuits, especially where the cases involve possible jury trials with as yet undetermined jury panels.

In addition to these lawsuits in which we are involved in the ordinary course of business, certain other material legal proceedings are specifically described below.

- Lower Passaic River Study Area (Superfund Site) — The Lower Passaic River Study Area is part of the Diamond Shamrock Superfund Site in New Jersey. Vulcan and approximately 70 other companies are parties (collectively the Cooperating Parties Group) to a May 2007 Administrative Order on Consent (AOC) with the EPA to perform a Remedial Investigation/Feasibility Study (draft RI/FS) of the lower 17 miles of the Passaic River (River). However, before the draft RI/FS was issued in final form, the EPA issued a record of decision (ROD) in March 2016 that calls for a bank-to-bank dredging remedy for the lower 8 miles of the River. The EPA estimates that the cost of implementing this proposal is \$1.38 billion. In September 2016, the EPA entered into an Administrative Settlement Agreement and Order on Consent with Occidental Chemical Corporation (Occidental) in which Occidental agreed to undertake the remedial design for this bank-to-bank dredging remedy, and to reimburse the United States for certain response costs. In August 2017, the EPA informed certain members of the Cooperating Parties Group, including Vulcan, that it planned to use the services of a third-party allocator with the expectation of offering cash-out settlements to some parties in connection with the bank-to-bank remedy. This voluntary allocation process is intended to establish an impartial third-party expert recommendation that may be considered by the government and the participants as the basis of possible settlements. We have begun participating in this voluntary allocation process, which is likely to take several years.

Efforts to remediate the River have been underway for many years and have involved hundreds of entities that have had operations on or near the River at some point during the past several decades. We formerly owned a chemicals operation near the mouth of the River, which was sold in 1974. The major risk drivers in the River have been identified as dioxins, PCBs, DDX and mercury. We did not manufacture any of these risk drivers and have no evidence that any of these were discharged into the River by Vulcan.

The AOC does not obligate us to fund or perform the remedial action contemplated by either the draft RI/FS or the ROD. Furthermore, the parties who will participate in funding the remediation and their respective allocations have not been determined. We do not agree that a bank-to-bank remedy is warranted, and we are not obligated to fund any of the remedial action at this time; nevertheless, we previously estimated the cost to be incurred by us as a potential participant in a bank-to-bank dredging remedy and recorded an immaterial loss for this matter in 2015.

- **TEXAS BRINE MATTER** — During the operation of its former Chemicals Division, Vulcan leased the right to mine salt out of an underground salt dome formation in Assumption Parish, Louisiana from 1976 - 2005 . Throughout that period and for all times thereafter, the Texas Brine Company (Texas Brine) was the operator contracted by Vulcan (and later Occidental) to mine and deliver the salt. We sold our Chemicals Division in 2005 and transferred our rights and interest related to the salt and mining operations to the purchaser , a subsidiary of Occidental, and we have had no association with the leased premises or Texas Brine since that time. In August 2012, a sinkhole developed in the vicinity of the Texas Brine mining operations, and numerous lawsuits were filed in state court in Assumption Parish, Louisiana. Other lawsuits, including class action litigation, were also filed in federal court before the Eastern District of Louisiana in New Orleans.

There are numerous defendants , including Texas Brine and Occidental, to the litigation in state and federal court. Vulcan was first brought into the litigation as a third-party defendant in August 2013 by Texas Brine. We have since been added as a direct and third-party defendant by other parties, including a direct claim by the state of Louisiana. Damage categories encompassed within the litigation include individual plaintiffs' claims for property damage, a claim by the state of Louisiana for response costs and civil penalties, claims by Texas Brine for response costs and lost profits , claims for physical damages to nearby oil and gas pipelines and storage facilities (pipelines) , and business interruption claims.

In addition to the plaintiffs' claims, we were also sued for contractual indemnity and comparative fault by both Texas Brine and Occidental. It is alleged that the sinkhole was caused, in whole or in part, by our negligent actions or failure to act. It is also alleged that we breached the salt lease with Occidental , as well as an operating agreement and related contracts with Texas Brine; that we are strictly liable for certain property damages in our capacity as a former lessee of the salt lease; and that we violated certain covenants and conditions in the agreement under which we sold our Chemicals Division to Occidental . We have likewise made claims for contractual indemnity and on a basis of comparative fault against Texas Brine and Occidental .

Vulcan and Occidental have since dismissed all of their claims against one another. Texas Brine has claims that remain pending against Vulcan and against Occidental. Discovery remains ongoing in various cases .

In December 2016, we settled with plaintiffs in one of the cases involving individual property damages . During the first nine months of 2017, we settled with the plaintiffs in the cases involving physical damages to pipelines. Our insurers have funded the settlements in excess of our self-insured retention amount. Each of the pipeline plaintiffs signed a release in favor of Vulcan and agreed that we would not be responsible to the pipelines for any amount beyond the settlement amount.

A bench trial (judge only) began in September 2017 and ended in October in the pipeline cases. The trial was limited in scope to the allocation of comparative fault or liability for causing the sinkhole, with a damages phase of the trial to be held at a later date. Vulcan participated in the trial, as the liability finding could impact cross-party and third-party claims against us . In December 2017, the judge issued a ruling on the allocation of fault among the three defendants , as follows: Occidental 50% , Texas Brine 35% and Vulcan 15% . Motions for a new trial have been filed, and it is likely that one or more parties will appeal the judge's ruling.

Also in December 2017, we agreed to a settlement in a federal putative class action. It will take time to finalize this settlement due to required court proceedings relating to class action notice and approval. Our insurers participated in the settlement discussions and have agreed to fund the settlement.

We cannot reasonably estimate a range of liability pertaining to the open cases at this time .

- **HEWITT LANDFILL MATTER (SUPERFUND SITE)** — In September 2015, the Los Angeles Regional Water Quality Control Board (RWQCB) issued a Cleanup and Abatement Order (CAO) directing Vulcan to assess, monitor, cleanup and abate wastes that have been discharged to soil, soil vapor, and/or groundwater at the former Hewitt Landfill in Los Angeles. The CAO follows a 2014 Investigative Order from the RWQCB that sought data and a technical evaluation regarding the Hewitt Landfill, and a subsequent amendment to the Investigative Order requiring us to provide groundwater monitoring results to the RWQCB and to create and implement a work plan for further investigation of the Hewitt Landfill. In April 2016, we submitted an interim remedial action plan (IRAP) to the RWQCB, proposing a on-site pilot test of a pump and treat system; testing and implementation of a leachate recovery system; and storm water capture and conveyance improvements.

Operation of the on-site pilot-scale treatment system began in January 2017, and was completed in April 2017. With completion of the pilot testing and other investigative work to date, we submitted an amendment to the IRAP (AIRAP) to RWQCB in August 2017 proposing the use of a pump, treat and reinjection system. In December 2017, we submitted an addendum to the AIRAP, incorporating new data acquired since the prior submission. In February 2018, the AIRAP was approved by RWQCB. As a result of this approval, we will begin to implement the on-site source control activities described in the AIRAP. Based on the preliminary design of this system, we accrued \$15,239,000 in 2017 (reflected in other operating expense).

We are also engaged in an ongoing dialogue with the EPA, the Los Angeles Department of Water and Power, and other stakeholders regarding the potential contribution of the Hewitt Landfill to groundwater contamination in the North Hollywood Operable Unit (NHOU) of the San Fernando Valley Superfund Site. We are gathering and analyzing data and developing technical information to determine the extent of possible contribution by the Hewitt Landfill to the groundwater contamination in the area. This work is also intended to assist in identification of other PRPs that may have contributed to groundwater contamination in the area.

In July 2016, the EPA sent us a letter requesting that we enter into an AOC for remedial design work in the NHOU. We entered into an AOC and Statement of Work effective September 2017, for the design of two extraction wells south of the Hewitt Site to protect the North Hollywood West well field. In November 2017, we submitted a Pre-Design Investigation Work Plan to the EPA, which sets forth the activities and schedule for our evaluation of the need for a two-well remedy. Estimated cost to comply with this AOC are immaterial and have been accrued. Until the remedial design work and evaluation of the two-well remedy is complete, we cannot identify an appropriate remedial action or reasonably estimate a loss pertaining to this matter.

It is not possible to predict with certainty the ultimate outcome of these and other legal proceedings in which we are involved and a number of factors, including developments in ongoing discovery or adverse rulings, or the verdict of a particular jury, could cause actual losses to differ materially from accrued costs. No liability was recorded for claims and litigation for which a loss was determined to be only reasonably possible or for which a loss could not be reasonably estimated. Legal costs incurred in defense of lawsuits are expensed as incurred. In addition, losses on certain claims and litigation described above may be subject to limitations on a per occurrence basis by excess insurance, as described in Note 1 under the caption Claims and Litigation Including Self-insurance.

## NOTE 13: EQUITY

Our capital stock consists solely of common stock, par value \$1.00 per share. Holders of our common stock are entitled to one vote per share. Our Certificate of Incorporation also authorizes 5,000,000 shares of preferred stock, of which no shares have been issued. The terms and provisions of such shares will be determined by our Board of Directors upon any issuance of preferred shares in accordance with our Certificate of Incorporation.

There were no shares held in treasury as of December 31, 2017, 2016 and 2015.

Our common stock purchases (all of which were open market purchases) and subsequent retirements for the years ended December 31 are summarized below:

<i>in thousands, except average cost</i>	<b>2017</b>	<b>2016</b>	<b>2015</b>
<b>Shares Purchased and Retired</b>			
Number	<b>510</b>	1,427	228
Total cost <sup>1</sup>	<b>\$ 60,303</b>	\$ 161,463	\$ 21,475
Average cost <sup>1</sup>	<b>\$ 118.18</b>	\$ 113.18	\$ 94.19

<sup>1</sup> Excludes commissions of \$0.02 per share.

As of December 31, 2017, 9,489,717 shares may be purchased under the current purchase authorization of our Board of Directors.

## NOTE 14: OTHER COMPREHENSIVE INCOME

Comprehensive income comprises two subsets: net earnings and other comprehensive income (OCI). The components of other comprehensive income are presented in the accompanying Consolidated Statements of Comprehensive Income and Consolidated Statements of Equity, net of applicable taxes.

Amounts in accumulated other comprehensive income (AOCI), net of tax, at December 31, are as follows:

<i>in thousands</i>	2017	2016	2015
<b>AOCI</b>			
Cash flow hedges	\$ (11,438)	\$ (13,300)	\$ (14,494)
Pension and postretirement plans	(138,028)	(126,076)	(105,575)
<b>Total</b>	<b>\$ (149,466)</b>	<b>\$ (139,376)</b>	<b>\$ (120,069)</b>

Changes in AOCI, net of tax, for the three years ended December 31, 2017 are as follows:

<i>in thousands</i>	Cash Flow Hedges	Pension and Postretirement Benefit Plans	Total
<b>AOCI</b>			
Balance as of December 31, 2014	\$ (20,322)	\$ (141,392)	\$ (161,714)
Other comprehensive income (loss) before reclassifications	0	23,832	23,832
Amounts reclassified from AOCI	5,828	11,985	17,813
Net OCI changes	5,828	35,817	41,645
Balance as of December 31, 2015	\$ (14,494)	\$ (105,575)	\$ (120,069)
Other comprehensive income (loss) before reclassifications	0	(20,583)	(20,583)
Amounts reclassified from AOCI	1,194	82	1,276
Net OCI changes	1,194	(20,501)	(19,307)
Balance as of December 31, 2016	\$ (13,300)	\$ (126,076)	\$ (139,376)
Other comprehensive income (loss) before reclassifications	0	(14,106)	(14,106)
Amounts reclassified from AOCI	1,862	2,154	4,016
Net OCI changes	1,862	(11,952)	(10,090)
<b>Balance as of December 31, 2017</b>	<b>\$ (11,438)</b>	<b>\$ (138,028)</b>	<b>\$ (149,466)</b>

Amounts reclassified from AOCI to earnings, are as follows:

<i>in thousands</i>	2017	2016	2015
<b>Reclassification Adjustment for Cash Flow</b>			
<b>Hedge Losses</b>			
Interest expense	\$ 3,070	\$ 2,008	\$ 9,759
Benefit from income taxes	(1,208)	(814)	(3,931)
Total <sup>1</sup>	\$ 1,862	\$ 1,194	\$ 5,828
<b>Amortization of Pension and Postretirement Plan</b>			
<b>Actuarial Loss and Prior Service Cost</b>			
Cost of revenues	\$ 2,376	\$ 109	\$ 15,916
Selling, administrative and general expenses	539	25	3,608
Benefit from income taxes	(761)	(52)	(7,539)
Total <sup>2</sup>	\$ 2,154	\$ 82	\$ 11,985
Total reclassifications from AOCI to earnings	\$ 4,016	\$ 1,276	\$ 17,813

<sup>1</sup> Total s for 2017 and 2015 include the acceleration of deferred losses on interest rate derivatives (see Note 5) referable to debt purchases (see Note 6).

<sup>2</sup> Total for 2015 includes a one-time settlement loss resulting from a lump sum payment to a former employee (see Note 10).

## NOTE 15: SEGMENT REPORTING

We have four operating (and reportable ) segments organized around our principal product lines: Aggregates, Asphalt, Concrete and Calcium. Management reviews earnings from the product line reporting segments principally at the gross profit level.

The Aggregates segment produces and sells aggregates (crushed stone, sand and gravel, sand, and other aggregates) and related products and services (transportation and other). During 2017, the Aggregates segment principally served markets in twenty states, Washington D.C. and Mexico with a full line of aggregates, and fourteen additional states with railroad ballast. Customers use aggregates primarily in the construction and maintenance of highways, streets and other public works and in the construction of housing and commercial, industrial and other nonresidential facilities. Customers are served by truck, rail and water distribution networks from our production facilities and sales yards. Due to the high weight-to-value ratio of aggregates, markets generally are local in nature. Quarries located on waterways and rail lines allow us to serve remote markets where local aggregates reserves may not be available.

The Asphalt segment produces and sells asphalt mix in five states: Arizona, California, New Mexico, Tennessee and Texas. We entered the Tennessee market in January 2017 through an acquisition (see Note 19).

The Concrete segment produces and sells ready-mixed concrete in six states, Washington D.C. and an immaterial amount in the Bahamas. In March 2017, we reentered the California ready-mixed concrete market through an acquisition and exited the Arizona market through a swap (see Note 19). In January 2015, we swapped our ready-mixed concrete operations in California (see Note 19) for asphalt mix operations, primarily in Arizona.

The Calcium segment consists of a Florida facility that mines, produces and sells calcium products.

Aggregates comprise approximately 95% of asphalt mix by weight and 80% of ready-mixed concrete by weight. Our Asphalt and Concrete segments are primarily supplied with their aggregates requirements from our Aggregates segment. These intersegment sales are made at local market prices for the particular grade and quality of product used in the production of asphalt mix and ready-mixed concrete. Customers for our Asphalt and Concrete segments are generally served locally at our production facilities or by truck. Because asphalt mix and ready-mixed concrete harden rapidly, delivery is time constrained and generally confined to a radius of approximately 20 to 25 miles from the producing facility.

The vast majority of our activities are domestic. We sell a relatively small amount of construction aggregates outside the United States. Total domestic revenues were \$ 3,872,494,000 in 2017, \$3,579,427,000 in 2016 and \$ 3,410,773,000 in 2015. Nondomestic Aggregates segment revenues were \$ 17,802,000 in 2017, \$13,240,000 in 2016 and \$11,408,000 in 2015; there were no significant nondomestic revenues in our Asphalt, Concrete or Calcium segments. Long-lived assets outside the United States, which consist primarily of property, plant & equipment, were \$ 211,282,000 in 2017, \$188,652,000 in 2016 and \$160,125,000 in 2015. Equity method investments of \$ 22,967,000 in 2017, \$22,965,000 in 2016 and \$22,967,000 in 2015 are included below in the identifiable assets for the Aggregates segment.

## SEGMENT FINANCIAL DISCLOSURE

<i>in thousands</i>	2017	2016	2015
<b>Total Revenues</b>			
Aggregates <sup>1</sup>	\$ 3,096,094	\$ 2,961,835	\$ 2,777,758
Asphalt	622,074	512,310	530,692
Concrete	417,745	330,125	299,252
Calcium	7,740	8,860	8,596
Segment sales	\$ 4,143,653	\$ 3,813,130	\$ 3,616,298
Aggregates intersegment sales	(253,357)	(220,463)	(194,117)
<b>Total revenues</b>	<b>\$ 3,890,296</b>	<b>\$ 3,592,667</b>	<b>\$ 3,422,181</b>
<b>Gross Profit</b>			
Aggregates	\$ 860,021	\$ 873,118	\$ 755,666
Asphalt	91,948	97,682	78,225
Concrete	46,117	26,543	20,152
Calcium	2,475	3,474	3,490
<b>Total</b>	<b>\$ 1,000,561</b>	<b>\$ 1,000,817</b>	<b>\$ 857,533</b>
<b>Depreciation, Depletion, Accretion and Amortization (DDA&amp;A)</b>			
Aggregates	\$ 245,151	\$ 236,472	\$ 228,466
Asphalt	25,400	16,797	16,378
Concrete	13,822	12,129	11,374
Calcium	677	774	679
Other	20,915	18,768	17,926
<b>Total</b>	<b>\$ 305,965</b>	<b>\$ 284,940</b>	<b>\$ 274,823</b>
<b>Capital Expenditures <sup>2</sup></b>			
Aggregates	\$ 421,989	\$ 297,737	\$ 269,014
Asphalt	12,970	29,002	8,111
Concrete	25,176	10,047	19,053
Calcium	78	534	0
Corporate	4,020	7,621	7,846
<b>Total</b>	<b>\$ 464,233</b>	<b>\$ 344,941</b>	<b>\$ 304,024</b>
<b>Identifiable Assets <sup>3</sup></b>			
Aggregates	\$ 8,409,505	\$ 7,589,225	\$ 7,540,273
Asphalt	426,575	259,514	251,716
Concrete	271,818	192,673	198,193
Calcium	4,428	4,959	5,509
Total identifiable assets	\$ 9,112,326	\$ 8,046,371	\$ 7,995,691
General corporate assets	245,919	157,085	20,731
Cash and cash equivalents and restricted cash	146,646	268,019	285,210
<b>Total assets</b>	<b>\$ 9,504,891</b>	<b>\$ 8,471,475</b>	<b>\$ 8,301,632</b>

<sup>1</sup> Includes product sales, as well as freight, delivery and transportation revenues, and other revenues related to aggregates .

<sup>2</sup> Capital expenditures include capitalized replacements of and additions to property, plant & equipment, including capitalized leases, renewals and betterments. Capital expenditures exclude property, plant & equipment obtained by business acquisitions.

<sup>3</sup> Certain temporarily idled assets are included within a segment's Identifiable Assets but the associated DDA&A is shown within Other in the DDA&A section above as the related DDA&A is excluded from segment gross profit.



## NOTE 16: SUPPLEMENTAL CASH FLOW INFORMATION

Supplemental information referable to the Consolidated Statements of Cash Flows is summarized below:

<i>in thousands</i>	2017	2016	2015
<b>Cash Payments</b>			
Interest (exclusive of amount capitalized)	\$ 285,801	\$ 135,039	\$ 208,288
Income taxes	125,135	102,849	53,623
<b>Noncash Investing and Financing Activities</b>			
Accrued liabilities for purchases of property, plant & equipment	\$ 31,267	\$ 26,676	\$ 31,883
Amounts referable to business acquisitions			
Liabilities assumed	3,876	798	2,645
Consideration payable to seller	9,681	0	0
Fair value of noncash assets and liabilities exchanged	9,900	0	20,000

## NOTE 17: ASSET RETIREMENT OBLIGATIONS

Asset retirement obligations (AROs) are legal obligations associated with the retirement of long-lived assets resulting from the acquisition, construction, development and/or normal use of the underlying assets. Recognition of a liability for an ARO is required in the period in which it is incurred at its estimated fair value. The associated asset retirement costs are capitalized as part of the carrying amount of the underlying asset and depreciated over the estimated useful life of the asset. The liability is accreted through charges to operating expenses. If the ARO is settled for other than the carrying amount of the liability, we recognize a gain or loss on settlement.

We record all AROs for which we have legal obligations for land reclamation at estimated fair value. Essentially all these AROs relate to our underlying land parcels, including both owned properties and mineral leases. For the years ended December 31, we recognized ARO operating costs related to accretion of the liabilities and depreciation of the assets as follows:

<i>in thousands</i>	2017	2016	2015
<b>ARO Operating Costs</b>			
Accretion	\$ 11,415	\$ 11,059	\$ 11,474
Depreciation	6,302	6,353	6,515
Total	\$ 17,717	\$ 17,412	\$ 17,989

ARO operating costs are reported in cost of revenues. AROs are reported within other noncurrent liabilities in our accompanying Consolidated Balance Sheets.

Reconciliations of the carrying amounts of our AROs for the years ended December 31 are as follows:

<i>in thousands</i>	2017	2016
<b>Asset Retirement Obligations</b>		
Balance at beginning of year	\$ 223,872	\$ 226,594
Liabilities incurred	1,920	505
Liabilities settled	(21,477)	(17,114)
Accretion expense	11,415	11,059
Revisions, net	2,387	2,828
Balance at end of year	\$ 218,117	\$ 223,872

ARO liabilities settled during 2017 and 2016 include \$ 11,578,000 and \$ 12,602,000, respectively, of reclamation activities required under a development agreement and conditional use permits at two adjacent aggregates sites on owned property in Southern California. The reclamation required under the development agreement will result in the restoration of 90 acres of previously mined property to conditions suitable for commercial and retail development.

## NOTE 18: GOODWILL AND INTANGIBLE ASSETS

Acquired identifiable intangible assets are classified into three categories: (1) goodwill, (2) intangible assets with finite lives subject to amortization and (3) intangible assets with indefinite lives. Goodwill and intangible assets with indefinite lives are not amortized; rather, they are reviewed for impairment at least annually. For additional information about our policies on impairment reviews, see Note 1 under the captions Goodwill Impairment, and Impairment of Long-lived Assets excluding Goodwill.

### GOODWILL

Goodwill is recognized when the consideration paid for a business exceeds the fair value of the tangible and identifiable intangible assets acquired. Goodwill is allocated to reporting units for purposes of testing goodwill for impairment. There were no charges for goodwill impairment in the years ended December 31, 2017, 2016 and 2015. Accumulated goodwill impairment losses amount to \$252,664,000 in the Calcium segment.

We have four reportable segments organized around our principal product lines: Aggregates, Asphalt, Concrete and Calcium. Changes in the carrying amount of goodwill by reportable segment for the years ended December 31, 2017, 2016 and 2015 are summarized below:

<i>in thousands</i>	<i>Aggregates</i>	<i>Asphalt</i>	<i>Concrete</i>	<i>Calcium</i>	<i>Total</i>
<b>Goodwill</b>					
Total as of December 31, 2015	\$ 3,003,191	\$ 91,633	\$ 0	\$ 0	\$ 3,094,824
Total as of December 31, 2016	\$ 3,003,191	\$ 91,633	\$ 0	\$ 0	\$ 3,094,824
Goodwill of acquired businesses <sup>1</sup>	27,497	0	0	0	27,497
<b>Total as of December 31, 2017</b>	<b>\$ 3,030,688</b>	<b>\$ 91,633</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 3,122,321</b>

<sup>1</sup> See Note 19 for a summary of the current year acquisitions.

We test goodwill for impairment on an annual basis or more frequently if events or circumstances change in a manner that would more likely than not reduce the fair value of a reporting unit below its carrying value. A decrease in the estimated fair value of one or more of our reporting units could result in the recognition of a material, noncash write-down of goodwill.

### INTANGIBLE ASSETS

Intangible assets acquired in business combinations are stated at their fair value determined as of the date of acquisition. Costs incurred to renew or extend the life of existing intangible assets are capitalized. These capitalized renewal/extension costs were immaterial for the years presented. Intangible assets consist of contractual rights in place (primarily permitting and zoning rights), noncompetition agreements, favorable lease agreements, customer relationships and trade names and trademarks. Intangible assets acquired individually or otherwise obtained outside a business combination consist primarily of permitting, permitting compliance and zoning rights and are stated at their historical cost less accumulated amortization.

See Note 19 for the details of the intangible assets acquired in business acquisitions during 2017, 2016 and 2015. Amortization of finite-lived intangible assets is computed based on the estimated life of the intangible assets. Contractual rights in place associated with aggregates reserves are amortized using the unit-of-sales method based on estimated recoverable units. Other intangible assets are amortized principally by the straight-line method. Intangible assets are reviewed for impairment when events or circumstances indicate that the carrying amount may not be recoverable. As shown in Note 1 under the caption Fair Value Measurements, we incurred \$8,180,000 of impairment charges related to intangible assets in 2016. There were no charges for impairment of intangible assets in 2017.

The gross carrying amount and accumulated amortization by major intangible asset class for the years ended December 31 are summarized below:

<i>in thousands</i>	2017	2016
<b>Gross Carrying Amount</b>		
Contractual rights in place	\$ 1,050,816	\$ 742,085
Noncompetition agreements	7,067	6,757
Favorable lease agreements	9,479	9,479
Permitting, permitting compliance and zoning rights	119,002	112,058
Other <sup>1</sup>	4,616	4,171
<b>Total gross carrying amount</b>	<b>\$ 1,190,980</b>	<b>\$ 874,550</b>
<b>Accumulated Amortization</b>		
Contractual rights in place	\$ (94,534)	\$ (77,515)
Noncompetition agreements	(2,440)	(1,118)
Favorable lease agreements	(3,179)	(2,822)
Permitting, permitting compliance and zoning rights	(24,352)	(21,701)
Other <sup>1</sup>	(2,845)	(2,342)
<b>Total accumulated amortization</b>	<b>\$ (127,350)</b>	<b>\$ (105,498)</b>
<b>Total Intangible Assets Subject to Amortization, net</b>	<b>\$ 1,063,630</b>	<b>\$ 769,052</b>
<b>Intangible Assets with Indefinite Lives</b>	<b>0</b>	<b>0</b>
<b>Total Intangible Assets, net</b>	<b>\$ 1,063,630</b>	<b>\$ 769,052</b>
<b>Amortization Expense for the Year</b>	<b>\$ 23,765</b>	<b>\$ 17,565</b>

<sup>1</sup> Includes customer relationships and tradenames and trademarks.

Estimated amortization expense for the five years subsequent to December 31, 2017 is as follows:

<i>in thousands</i>	
<b>Estimated Amortization Expense for Five Subsequent Years</b>	
2018	\$ 26,447
2019	25,585
2020	25,375
2021	24,257
2022	23,016

## NOTE 19: ACQUISITIONS AND DIVESTITURES

### BUSINESS ACQUISITIONS

During 2017 (excluding the assets immediately divested in the Aggregates USA acquisition for \$287,292,000), the following assets related to material business acquisitions were acquired for total consideration of \$ 793,523,000:

- California — ready-mixed concrete facilities, an aggregates marine distribution yard and building materials yards
- Florida — an aggregates rail distribution yard
- Georgia — three aggregates facilities and fourteen aggregates rail distribution yards
- South Carolina — an aggregates rail distribution yard
- Tennessee — asphalt mix operations and a construction paving business

The amounts of total revenues and net earnings for the material business acquisitions noted above are included in our Consolidated Statement of Comprehensive Income for the year ended December 31, 2017, as follows:

<i>in thousands</i>	<b>2017</b>
<b>Actual Results</b>	
Total revenues	\$ 162,462
Net earnings	11,830

The unaudited pro forma financial information in the table below summarizes the results of operations for Vulcan and these material business acquisitions as if they were combined as of January 1, 2016. The 2016 financial information does not reflect any cost savings, operating efficiencies or synergies as a result of these combinations. Transactions between Vulcan and these businesses during the periods presented in the pro forma financial information were immaterial and have been eliminated as if the companies were consolidated affiliates during the following periods:

<i>in thousands</i>	<b>2017</b>	<b>2016</b>
<b>Supplemental Pro Forma Results</b>		
Total revenues	\$ 4,015,891	\$ 3,882,257
Net earnings	\$ 610,494	\$ 433,431

The unaudited pro forma results above may not be indicative of the results that would have been obtained had these acquisitions occurred at the beginning of 2016, nor does it intend to be a projection of future results.

The fair value of consideration transferred for these material business acquisitions and the preliminary amounts (pending appraisals of contractual rights in place and property, plant & equipment) of assets acquired and liabilities assumed, are summarized below:

<i>in thousands</i>	<b>2017</b>
<b>Fair Value of Purchase Consideration</b>	
Cash	\$ 1,072,978
Payable to seller	7,837
Total fair value of purchase consideration	\$ 1,080,815
<b>Identifiable Assets Acquired and Liabilities Assumed</b>	
Accounts and notes receivable, net	\$ 14,955
Inventories	21,679
Other current assets	608
Investments	3,590
Property, plant & equipment	433,606
Other intangible assets	
Contractual rights in place	295,482
Liabilities assumed	(3,894)
Net identifiable assets acquired and retained	\$ 766,026
<b>Goodwill</b>	<b>\$ 27,497</b>
<b>Net Assets Divested Immediately Upon Acquisition</b>	<b>\$ 287,292</b>

Additionally, during 2017 we acquired the following assets related to immaterial business acquisitions for \$48,490,000 of consideration ( \$36,746,000 cash, \$1,844,000 payable and \$9,900,000 of fair value of assets swapped ) :

- Arizona — an asphalt mix operation
- Illinois — two aggregates facilities
- New Mexico — an aggregates facility
- Tennessee — an aggregates facility
- Virginia — an aggregates facility and a ready-mixed concrete facility

As a collective result of the 2017 acquisitions, we recognized \$ 309,112,000 of amortizable intangible assets ( primarily contractual rights in place).The contractual rights in place will be amortized against earnings ( \$ 73,879,000 - straight-line over a weighted-average 19.3 years and \$ 235,133,000 - units of sales over an estimated 54.7 years) and deductible for income tax purposes over 15 years. Of the \$ 27,497,000 of goodwill recognized, all will be deductible for income tax purposes over 15 years.

During 2016, the following assets were acquired for \$ 33,287,000 of consideration ( \$32,537,000 cash and \$750,000 payable):

- Georgia — a distribution business to complement our aggregates logistics and distribution activities
- New Mexico — an asphalt mix operation
- Texas — an aggregates facility

None of the 2016 acquisitions listed above are material to our results of operations or financial position either individually or collectively. As a result of these 2016 acquisitions, we recognized \$ 16,670,000 of amortizable intangible assets ( \$15,213,000 contractual rights in place and \$1,457,000 of noncompetition agreement ).The contractual rights in place will be amortized against earnings ( \$ 6,798,000 - straight-line over 20 years and \$8,415,000 - units of sales over an estimated 20 years) and deductible for income tax purposes over 15 years.

During 2015, the following assets were acquired for \$ 47,198,000 of consideration ( \$27,198,000 cash and \$20,000,000 exchanges of real property and businesses ( twelve California ready-mixed concrete operations)):

- one aggregates facility in Tennessee
- three aggregates facilities and seven ready-mixed concrete operations in Arizona and New Mexico
- thirteen asphalt mix operations, primarily in Arizona

None of the 2015 acquisitions listed above were material to our results of operations or financial position either individually or collectively. As a result of these 2015 acquisitions, we recognized \$17,734,000 of amortizable intangible assets ( \$17,484,000 - contractual rights in place and \$250,000 - noncompetition agreement). The contractual rights in place will be amortized against earnings ( \$ 7,168,000 - straight-line over 20 years and \$10,317,000 - units of sales over an estimated 34 years) and deductible for income tax purposes over 15 years.

## DIVESTITURES

In 2017, we sold:

- Fourth quarter — swapped ready-mixed concrete operations in Arizona (fair value of \$9,900,000 and book value of \$1,879,000) for an asphalt mix operation in Arizona resulting in a pretax gain of \$8,021,000
- Fourth quarter — as required by the Department of Justice, we immediately divested certain assets obtained in the Aggregates USA acquisition resulting in no gain

In 2016, we sold:

- Fourth quarter — surplus land in California and Virginia for net pretax cash proceeds of \$19,185,000 resulting in pretax gains of \$11,871,000
- Fourth quarter — plant relocation reimbursement in Virginia for net pretax cash proceeds of \$6,000,000 resulting in a pretax gain of \$4,335,000 (this item is presented within other operating expense in the accompanying Consolidated Statement of Comprehensive Income)

As noted above, in 2015 (first quarter), we exchanged twelve ready-mixed concrete operations in California (representing all of our California concrete operations) for thirteen asphalt mix plants (primarily in Arizona) resulting in a pretax gain of \$5,886,000.

## NOTE 20: UNAUDITED SUPPLEMENTARY DATA

The following is a summary of selected quarterly financial information (unaudited) for each of the years ended December 31, 2017 and 2016:

<i>in thousands, except per share data</i>	2017			
	Three Months Ended			
	March 31	June 30	Sept 30	Dec 31
Total revenues	\$ 787,328	\$ 1,030,763	\$ 1,094,715	\$ 977,490
Gross profit	159,979	291,775	305,516	243,291
Operating earnings	72,400	193,987	229,487	151,234
Earnings from continuing operations	43,523	111,749	110,150	327,969
Net earnings	44,921	120,139	108,579	327,546
Basic earnings per share from continuing operations	\$ 0.33	\$ 0.84	\$ 0.83	\$ 2.47
Diluted earnings per share from continuing operations	\$ 0.32	\$ 0.83	\$ 0.82	\$ 2.43
Basic net earnings per share	\$ 0.34	\$ 0.91	\$ 0.82	\$ 2.47
Diluted net earnings per share	\$ 0.33	\$ 0.89	\$ 0.81	\$ 2.43

<i>in thousands, except per share data</i>	2016			
	Three Months Ended			
	March 31	June 30	Sept 30	Dec 31
Total revenues	\$ 754,728	\$ 956,825	\$ 1,008,140	\$ 872,974
Gross profit	164,718	292,184	304,209	239,706
Operating earnings	64,921	213,786	227,076	173,799
Earnings from continuing operations	41,965	127,241	145,137	108,063
Net earnings	40,158	124,709	142,024	112,600
Basic earnings per share from continuing operations	\$ 0.31	\$ 0.95	\$ 1.09	\$ 0.82
Diluted earnings per share from continuing operations	\$ 0.31	\$ 0.93	\$ 1.07	\$ 0.80
Basic net earnings per share	\$ 0.30	\$ 0.93	\$ 1.07	\$ 0.85
Diluted net earnings per share	\$ 0.30	\$ 0.92	\$ 1.05	\$ 0.83

None.

## DISCLOSURE CONTROLS AND PROCEDURES

We maintain a system of controls and procedures designed to ensure that information required to be disclosed in reports we file with the SEC is recorded, processed, summarized and reported within the time periods specified by the SEC's rules and forms. These disclosure controls and procedures (as defined in the Securities Exchange Act of 1934 Rules 13a - 15(e) or 15d - 15(e)), include, without limitation, controls and procedures designed to ensure that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, to allow timely decisions regarding required disclosure. Our Chief Executive Officer and Chief Financial Officer, with the participation of other management officials, evaluated the effectiveness of the design and operation of the disclosure controls and procedures as of December 31, 2017. Based upon that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of December 31, 2017.

No material changes were made during the fourth quarter of 2017 to our internal control over financial reporting, nor have there been other factors that materially affect these controls.

## MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Our management is responsible for establishing and maintaining an adequate system of internal control over financial reporting as required by the Sarbanes-Oxley Act of 2002 and as defined in Exchange Act Rule 13a-15(f).

Under management's supervision, an evaluation of the design and effectiveness of our internal control over financial reporting was conducted based on the framework in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation, management concluded that our internal control over financial reporting was effective as of December 31, 2017.

Deloitte & Touche LLP, an independent registered public accounting firm, as auditors of our consolidated financial statements, has issued an attestation report on the effectiveness of our internal control over financial reporting as of December 31, 2017. Deloitte & Touche LLP's report, which expresses an unqualified opinion on the effectiveness of our internal control over financial reporting, follows this report.

## LIMITATIONS OF EFFECTIVENESS OF CONTROLS AND PROCEDURES

In designing and evaluating our disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints and that management is required to apply its judgment in evaluating the benefits of possible controls and procedures relative to their costs.

**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM – INTERNAL CONTROL OVER FINANCIAL REPORTING**

To the shareholders and Board of Directors of Vulcan Materials Company:

**Opinion on Internal Control over Financial Reporting**

We have audited the internal control over financial reporting of Vulcan Materials Company and subsidiaries (the "Company") as of December 31, 2017, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2017, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2017, of the Company and our report dated February 27, 2018, expressed an unqualified opinion on those financial statements.

**Basis for Opinion**

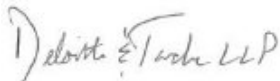
The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

**Definition and Limitations of Internal Control over Financial Reporting**

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of the inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of the effectiveness to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.



Birmingham, Alabama

February 27, 2018



None.

## DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

On or about March 26, 2018, we expect to file a definitive proxy statement with the Securities and Exchange Commission pursuant to Regulation 14A (our "2018 Proxy Statement"). The information under the headings "Proposal 1 - Election of Directors," "Corporate Governance of our Company and Practices of our Board of Directors," and "General Information - Section 16(a) Beneficial Ownership Reporting Compliance" included in our 2018 Proxy Statement is incorporated herein by reference. See also the information about our executive officers and governance policies set forth above in Part I, Item I "Business" of this report.

## EXECUTIVE COMPENSATION

The information under the headings "Compensation Discussion and Analysis," "Director Compensation," "Executive Compensation," "Corporate Governance of our Company and Practices of our Board of Directors," and "Compensation Committee Report" included in our 2018 Proxy Statement is incorporated herein by reference.

## SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information under the headings "Security Ownership of Certain Beneficial Owners and Management," "Equity Compensation Plans" and "Executive Compensation — Payments Upon Termination or Change in Control" included in our 2018 Proxy Statement is incorporated herein by reference.

## CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information under the heading "Corporate Governance of our Company and Practices of our Board of Directors" included in our 2018 Proxy Statement is incorporated herein by reference.

## PRINCIPAL ACCOUNTING FEES AND SERVICES

The information under the heading entitled "Independent Registered Public Accounting Firm" included in our 2018 Proxy Statement is incorporated herein by reference.

## (a) (1) Financial statements

The following financial statements are included herein on the pages shown below:

	<i>Page in Report</i>
Report of Independent Registered Public Accounting Firm	61
Consolidated Statements of Comprehensive Income	62
Consolidated Balance Sheets	63
Consolidated Statements of Cash Flows	64
Consolidated Statements of Equity	65
Notes to Consolidated Financial Statements	66-115

## (a) (2) Financial statement schedules

Financial statement schedules are omitted because of the absence of conditions under which they are required or because the required information is provided in the financial statements or notes thereto.

Financial statements (and summarized financial information) of 50% or less owned entities accounted for by the equity method have been omitted because they do not, considered individually or in the aggregate, constitute a significant subsidiary.

## (a) (3) Exhibits

The exhibits required by Item 601 of Regulation S-K are either incorporated by reference herein or accompany this report. See the Index to Exhibits set forth below.

None.


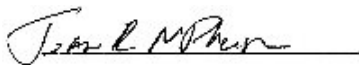
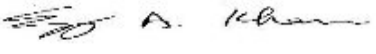
Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized on February 27, 2018.

**VULCAN MATERIALS COMPANY**



J. Thomas Hill  
Chairman, President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
 J. Thomas Hill	Chairman, President and Chief Executive Officer (Principal Executive Officer)	February 27, 2018
 John R. McPherson	Executive Vice President and Chief Financial and Strategy Officer (Principal Financial Officer)	February 27, 2018
 Ejaz A. Khan	Vice President, Controller and Chief Information Officer (Principal Accounting Officer)	February 27, 2018

The following directors:

Thomas A. Fanning	Director
O. B. Grayson Hall, Jr.	Director
Cynthia L. Hostetler	Director
Richard T. O'Brien	Director
James T. Prokopanko	Director
Kathleen L. Quirk	Director
David P. Steiner	Director
Lee J. Styslinger, III	Director
Kathleen Wilson-Thompson	Director

By   
 Michael R. Mills  
 Attorney-in-Fact

February 27, 2018

- Exhibit 2 Membership Interest Purchase Agreement, dated as of May 24, 2017, by and among Vulcan Construction Materials, LLC, Aggregates USA Holdings Sub, LLC, Aggregates USA, LLC, solely for limited purposes, SPO Partners II, L.P., and, solely for limited purposes, Vulcan Materials Company, filed as Exhibit 2.1 to the Company's Current Report on Form 8-K filed on May 25, 2017.<sup>1,3</sup>
- Exhibit 3(a) Certificate of Incorporation (Restated 2007) of the Company (formerly known as Virginia Holdco, Inc.), filed as Exhibit 3.1 to the Company's Current Report on Form 8-K on November 16, 2007.<sup>1</sup>
- Exhibit 3(b) Amended and Restated By-Laws of the Company (as amended through February 13, 2015) filed as Exhibit 3(b) to the Company's Annual Report on Form 10-K filed on February 27, 2015.<sup>1</sup>
- Exhibit 4(a) Senior Debt Indenture, dated as of December 11, 2007, between the Company and Wilmington Trust Company, as Trustee, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K on December 11, 2007.<sup>1</sup>
- Exhibit 4(b) First Supplemental Indenture, dated as of December 11, 2007, between Vulcan Materials Company and Wilmington Trust Company, as Trustee, to that certain Senior Debt Indenture, dated as of December 11, 2007, between the Company and Wilmington Trust Company, as Trustee, filed as Exhibit 4.2 to the Company's Current Report on Form 8-K on December 11, 2007.<sup>1</sup>
- Exhibit 4(c) Second Supplemental Indenture, dated June 20, 2008 between the Company and Wilmington Trust Company, as Trustee, to that certain Senior Debt Indenture dated as of December 11, 2007, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on June 20, 2008.<sup>1</sup>
- Exhibit 4(d) Third Supplemental Indenture, dated February 3, 2009, between the Company and Wilmington Trust Company, as Trustee, to that certain Senior Debt Indenture dated as of December 11, 2007 filed as Exhibit 10(f) to the Company's Annual Report on Form 10-K filed on March 2, 2009.<sup>1</sup>
- Exhibit 4(e) Fourth Supplemental Indenture, dated June 14, 2011, between the Company and Wilmington Trust Company, as Trustee, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on June 15, 2011.<sup>1</sup>
- Exhibit 4(f) Fifth Supplemental Indenture, dated March 30, 2015, between the Company and Regions Bank, as Trustee, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on March 30, 2015.<sup>1</sup>
- Exhibit 4(g) Sixth Supplemental Indenture, dated March 14, 2017, between the Company and Regions Bank, as Trustee, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on March 14, 2017.<sup>1</sup>
- Exhibit 4(h) Seventh Supplemental Indenture, dated as of June 15, 2017, between Vulcan Materials Company and Regions Bank, as Trustee, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on June 15, 2017.<sup>1</sup>
- Exhibit 4(i) Indenture, dated as of May 1, 1991, by and between Legacy Vulcan Corp. (formerly Vulcan Materials Company) and First Trust of New York (as successor trustee to Morgan Guaranty Trust Company of New York) filed as Exhibit 4 to the Form S-3 on May 2, 1991 (Registration No. 33-40284).<sup>1</sup>
- Exhibit 4(j) Supplemental Indenture No. 1, dated as of November 16, 2007, among the Company, Legacy Vulcan Corp. and The Bank of New York, as Trustee, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on November 21, 2007.<sup>1</sup>

- Exhibit 4( k ) Supplemental Indenture No. 2, dated as of June 30, 2015, between Legacy Vulcan, LLC and The Bank of New York Mellon Trust Company, N.A., as Trustee, filed as Exhibit 4(a) to the Company's Quarterly Report on Form 10-Q filed on August 5, 2015<sup>1</sup>
- Exhibit 4(l) Term Loan Note, dated December 17, 2017, between Vulcan Materials Company and Bank of America, N.A., filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on December 21, 2017<sup>1</sup>
- Exhibit 4(m) Guaranty Agreement, dated December 21, 2017, by each of the parties identified therein as Guarantors, each other subsidiary of Vulcan Materials Company that becomes a party thereto, and Bank of America, N.A., filed as Exhibit 10.2 to the Company's Current Report on Form 8-K filed on December 21, 2017<sup>1</sup>
- Exhibit 10(a) Credit Agreement dated as of June 19, 2015 among the Company and SunTrust Bank as Administrative Agent, and other parties named therein filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on June 25, 2015<sup>1</sup>
- Exhibit 10(b) Credit Agreement dated as of December 21, 2016 among the Company and SunTrust Bank, as Administrative Agent, and the Lenders and other parties named therein filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on December 22, 2016<sup>1</sup>
- Exhibit 10(c) Unfunded Supplemental Benefit Plan for Salaried Employees, as amended, filed as Exhibit 10.4 to the Company's Current Report on Form 8-K filed on December 17, 2008<sup>1,2</sup>
- Exhibit 10(d) Amendment No. 1 to the Unfunded Supplemental Benefit Plan for Salaried Employees filed as Exhibit 10.1 to the Company's Current Report on Form 8-K on January 7, 2014<sup>1,2</sup>
- Exhibit 10(e) Deferred Compensation Plan for Directors Who Are Not Employees of the Company, as amended, filed as Exhibit 10.5 to the Company's Current Report on Form 8-K filed on December 17, 2008<sup>1,2</sup>
- Exhibit 10(f) The 2006 Omnibus Long-Term Incentive Plan of the Company filed as Appendix C to Legacy Vulcan Corp.'s 2006 Proxy Statement on Schedule 14A filed on April 13, 2006<sup>1,2</sup>
- Exhibit 10(g) Amendment to the 2006 Omnibus Long-Term Incentive Plan of the Company filed as Appendix A to the Company's 2011 Proxy Statement on Schedule 14A filed March 31, 2011<sup>1,2</sup>
- Exhibit 10(h) Amendment to the 2006 Omnibus Long-Term Incentive Plan of the Company dated February 9, 2012, filed as Exhibit 10(l) to the Company's Annual Report on Form 10-K for the year ended December 31, 2011 filed on February 29, 2012<sup>1,2</sup>
- Exhibit 10(i) Deferred Stock Plan for Nonemployee Directors of the Company filed as Exhibit 10(f) to Legacy Vulcan Corp.'s Annual Report on Form 10-K for the year ended December 31, 2001 filed on March 27, 2002<sup>1,2</sup>
- Exhibit 10(j) Restricted Stock Plan for Nonemployee Directors of the Company, as amended, filed as Exhibit 10.6 to the Company's Current Report on Form 8-K filed on December 17, 2008<sup>1,2</sup>
- Exhibit 10(k) Executive Deferred Compensation Plan, as amended, filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on December 17, 2008<sup>1,2</sup>
- Exhibit 10( l ) Form of Change of Control Employment Agreement dated January 1, 2016, filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on January 7, 2016<sup>1,2</sup>
- Exhibit 10( m ) Vulcan Materials Company Change of Control Severance Plan for Senior Officers, effective January 1, 2016, filed as Exhibit 10(m) to the Company's Annual Report on Form 10-K filed on February 25, 2016<sup>1,2</sup>
- Exhibit 10( n ) Executive Incentive Plan of the Company, as amended, filed as Exhibit 10.2 to the Company's Current Report on Form 8-K filed on December 17, 2008<sup>1,2</sup>
- Exhibit 10( o ) Supplemental Executive Retirement Agreement filed as Exhibit 10 to Legacy Vulcan Corp.'s Quarterly Report on Form 10-Q for the quarter ended September 30, 2001 filed on November 2, 2001<sup>1,2</sup>

Exhibit 10( p )	<u>Form of Stock Option Agreement filed as Exhibit 10(o) to Legacy Vulcan Corp.'s Report on Form 8-K filed on December 20, 2005.</u> <sup>1,2</sup>
Exhibit 10( q )	<u>Form of Director Deferred Stock Unit Agreement filed as Exhibit 10.9 to the Company's Current Report on Form 8-K filed on December 17, 2008.</u> <sup>1,2</sup>
Exhibit 10( r )	<u>Form of Performance Share Unit Agreement filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on March 11, 2010.</u> <sup>1,2</sup>
Exhibit 10( s )	<u>Form of Performance Share Unit Agreement (2012) filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on February 14, 2012.</u> <sup>1,2</sup>
Exhibit 10( t )	<u>Form of Stock-Only Stock Appreciation Rights Agreement filed as Exhibit 10(q) to Legacy Vulcan Corp.'s Report on Form 10-K filed on February 26, 2007.</u> <sup>1,2</sup>
Exhibit 10( u )	<u>Stock-Only Stock Appreciation Rights Agreement between the Company and John R. McPherson dated November 9, 2011, filed as Exhibit 10(a) to the Company's Current Report on Form 8-K filed on November 15, 2011.</u> <sup>1,2</sup>
Exhibit 10( v )	<u>Form of Employee Deferred Stock Unit Amended Agreement filed as Exhibit 10.7 to the Company's Current Report on Form 8-K filed on December 17, 2008.</u> <sup>1,2</sup>
Exhibit 10( w )	<u>Vulcan Materials Company 2016 Omnibus Long-Term Incentive Plan, filed as Exhibit 99 to the Company's Registration Statement on Form S-8 (File No. 333-211349) filed on May 13, 2016.</u> <sup>1,2</sup>
Exhibit 10( x )	<u>Form of Non-Employee Director Deferred Stock Unit Agreement under the Vulcan Materials Company 2016 Omnibus Long-Term Incentive Plan, filed as Exhibit 10(y) to the Company's Quarterly Report on Form 10-Q filed on August 3, 2016.</u> <sup>1,2</sup>
Exhibit 10( y )	<u>Form of Stock-Only Stock Appreciation Rights Award Agreement under the Vulcan Materials Company 2016 Omnibus Long-Term Incentive Plan, filed as Exhibit 10(z) to the Company's Quarterly Report on Form 10-Q filed on August 3, 2016.</u> <sup>1,2</sup>
Exhibit 10( z )	<u>Form of Restricted Stock Unit Award Agreement under the Vulcan Materials Company 2016 Omnibus Long-Term Incentive Plan, filed as Exhibit 10(aa) to the Company's Quarterly Report on Form 10-Q filed on August 3, 2016.</u> <sup>1,2</sup>
Exhibit 10( aa )	<u>Form of Performance Share Unit Award Agreement under the Vulcan Materials Company 2016 Omnibus Long-Term Incentive Plan, filed as Exhibit 10(bb) to the Company's Quarterly Report on Form 10-Q filed on August 3, 2016.</u> <sup>1,2</sup>
Exhibit 21	<u>List of the Company's material subsidiaries as of January 31, 2018</u>
Exhibit 23	<u>Consent of Deloitte &amp; Touche LLP, Independent Registered Public Accounting Firm</u>
Exhibit 24	<u>Powers of Attorney</u>
Exhibit 31(a)	<u>Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002</u>
Exhibit 31(b)	<u>Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002</u>
Exhibit 32(a)	<u>Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002</u>
Exhibit 32(b)	<u>Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002</u>
Exhibit 95	<u>MSHA Citations and Litigation</u>

Exhibit 101.INS	XBRL Instance Document
Exhibit 101.SCH	XBRL Taxonomy Extension Schema Document
Exhibit 101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
Exhibit 101.LAB	XBRL Taxonomy Extension Label Linkbase Document
Exhibit 101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document
Exhibit 101.DEF	XBRL Taxonomy Extension Definition Linkbase Document

<sup>1</sup> *Incorporated by reference.*

<sup>2</sup> *Management contract or compensatory plan.*

<sup>3</sup> *The schedules and exhibits to the Purchase Agreement have been omitted pursuant to Item 601(b)(2) of Regulation S-K. Vulcan agrees to furnish supplementally a copy of such schedules and exhibits, or any section thereof, to the SEC upon request.*

Our SEC file number for documents filed with the SEC pursuant to the Securities Exchange Act of 1934, as amended, is 001-33841.



	State or Other Jurisdiction of Incorporation or Organization	% Owned Directly or Indirectly by Vulcan
Aggregates USA, LLC	Delaware	100
Aggregates USA (Augusta), LLC	Delaware	100
Aggregates USA (Macon), LLC	Delaware	100
Aggregates USA (Savannah), LLC	Delaware	100
Aggregates USA (Sparta), LLC	Delaware	100
Arundel Company, LLC	Delaware	100
Azusa Rock, LLC	Delaware	100
Black Point Aggregates , Inc .	Nova Scotia	100
Calizas Industriales del Carmen, S.A. de C.V.	Mexico	100
CalMat Co.	Delaware	100
Calmat Leasing Company, LLC	Delaware	100
Central Division Logistics, LLC	Delaware	100
Chesapeake Marine Partnership	Maryland	100
D C Materials, Inc.	District of Columbia	100
Florida Cement, LLC	Delaware	100
Florida Rock Industries, Inc.	Florida	100
Freeport Aggregates Limited	Bahamas	100
FRI Bahamas Ltd.	Bahamas	100
Fulton Concrete Company, LLC	Delaware	100
Harper Brothers, LLC	Delaware	100
Heritage Logistics, LLC	Delaware	100
Legacy Vulcan , LLC	Delaware	100
Maryland Rock Industries, LLC	Delaware	100
Maryland Stone, LLC	Delaware	100
Mideast Division Logistics, LLC	Delaware	100
Mountain West Logistics, LLC	Delaware	100
Rancho Piedra Caliza, S.A. de C.V.	Mexico	100
Rapica Servicios Tecnicos Y Administrativos, S.A. de C.V.	Mexico	100
RECO Transportation, LLC	Delaware	100
S & G Concrete Company, LLC	Delaware	100
Salisbury Towing, LLC	Delaware	100
Servicios Integrales, Gestoria Y Administracion, S.A. de C. V.	Mexico	100
Soportes Tecnicos Y Administrativos, S.A. de C.V.	Mexico	100
Southeast Division Logistics, LLC	Delaware	100
Southern Gulf Coast Division Logistics, LLC	Delaware	100
Statewide Transport, LLC	Delaware	100
TCS Materials, LLC	Delaware	100
Triangle Rock Products, LLC	Delaware	100
VCA Shipping Services, LLC	Delaware	100
VGCM, LLC	Delaware	100
Virginia Concrete Company, LLC	Delaware	100
Vulcan Aggregates Company, LLC	Delaware	100
Vulcan Asphalt, LLC	Delaware	100
Vulcan Concrete, LLC	Delaware	100
Vulcan Construction Materials, LLC	Delaware	100
Vulcan Gulf Coast Materials, LLC	North Carolina	100
Vulcan Lands, Inc.	New Jersey	100
Vulcan Shipping Company, Limited	Bahamas	100

We consent to the incorporation by reference in Registration Statements No. 333-202769, 333-197519 and 333-196819 on Form S-3 and Registration Statements No. 333-211349, 333-182498, 333-160302, 333-148993, 333-148238, 333-147450, and 333-147449 on Form S-8 of our reports dated February 27, 2018, relating to the consolidated financial statements of Vulcan Materials Company and subsidiaries (the "Company"), and the effectiveness of the Company's internal control over financial reporting appearing in this Annual Report on Form 10-K of Vulcan Materials Company for the year ended December 31, 2017.

/s/ DELOITTE & TOUCHE LLP

Birmingham, Alabama

February 27, 2018

The undersigned director of Vulcan Materials Company, a New Jersey corporation, hereby nominates, constitutes and appoints Michael R. Mills, Jerry F. Perkins Jr. and C. Samuel Todd and each of them, the true and lawful attorneys of the undersigned to sign the name of the undersigned as director to the Annual Report on Form 10-K for the year ended December 31, 2017 of said corporation to be filed with the Securities and Exchange Commission under the Securities Exchange Act of 1934, as amended, and to any and all amendments to said report.

The undersigned hereby grants to said attorneys full power of substitution, resubstitution and revocation, all as fully as the undersigned could do if personally present, hereby ratifying all that said attorneys or their substitutes may lawfully do by virtue hereof.

IN WITNESS WHEREOF, the undersigned director of Vulcan Materials Company has executed this Power of Attorney this 12th day of February, 2018.

/s/ Thomas A. Fanning  
Thomas A. Fanning

/s/ O.B. Grayson Hall, Jr.  
O.B. Grayson Hall, Jr.

/s/ Cynthia L. Hostetler  
Cynthia L. Hostetler

/s/ Richard T. O'Brien  
Richard T. O'Brien

/s/ James T. Prokopanko  
James T. Prokopanko

/s/ Kathleen L. Quirk  
Kathleen L. Quirk

/s/ David P. Steiner  
David P. Steiner

/s/ Lee J. Styslinger, III  
Lee J. Styslinger, III

/s/ Kathleen Wilson-Thompson  
Kathleen Wilson-Thompson

I, J. Thomas Hill, certify that:

1. I have reviewed this annual report on Form 10-K of Vulcan Materials Company;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) Designed such disclosure controls and procedures or caused such disclosure controls and procedures to be designed under our supervision to ensure that material information relating to the registrant including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date February 27, 2018

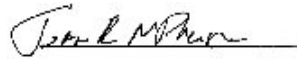


J. Thomas Hill  
Chairman, President and Chief Executive Officer

I, John R. McPherson , certify that:

1. I have reviewed this annual report on Form 10- K of Vulcan Materials Company;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) Designed such disclosure controls and procedures or caused such disclosure controls and procedures to be designed under our supervision to ensure that material information relating to the registrant including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date February 27, 2018



John R. McPherson , Executive Vice President  
and Chief Financial and Strategy Officer

OF  
VULCAN MATERIALS COMPANY  
PURSUANT TO 18 U.S.C. SECTION 1350  
AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES OXLEY ACT OF 2002

I, J. Thomas Hill, Chairman, President and Chief Executive Officer of Vulcan Materials Company, certify that the Annual Report on Form 10-K (the "report") for the year ended December 31, 2017, filed with the Securities and Exchange Commission on the date hereof:

- (i) fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, and
- (ii) the information contained in the report fairly presents, in all material respects, the financial condition and results of operations of Vulcan Materials Company.



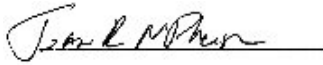
J. Thomas Hill  
Chairman, President and Chief Executive Officer  
February 27, 2018

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to Vulcan Materials Company and will be retained by Vulcan Materials Company and furnished to the Securities and Exchange Commission or its staff upon request.

VULCAN MATERIALS COMPANY  
PURSUANT TO 18 U.S.C. SECTION 1350  
AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES OXLEY ACT OF 2002

I, John R. McPherson , Executive Vice President and Chief Financial and Strategy Officer of Vulcan Materials Company, certify that the Annual Report on Form 10- K (the "report ") for the year ended December 31, 201 7 , filed with the Securities and Exchange Commission on the date hereof:

- (i) fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, and
- (ii) the information contained in the report fairly presents, in all material respects, the financial condition and results of operations of Vulcan Materials Company.



John R. McPherson , Executive Vice President  
and Chief Financial and Strategy Officer  
February 2 7 , 201 8

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to Vulcan Materials Company and will be retained by Vulcan Materials Company and furnished to the Securities and Exchange Commission or its staff upon request.

On July 21, 2010, the Dodd-Frank Wall Street Reform and Consumer Protection Act (the Dodd-Frank Act) was enacted. Section 1503 of the Dodd-Frank Act requires companies that are "operators" (as such term is defined in the Federal Mine Safety and Health Act of 1977 (the Mine Act)) to disclose certain mine safety information in each periodic report to the Securities and Exchange Commission. This information is related to the enforcement of the Mine Act by the Mine Safety and Health Administration (MSHA).

The Dodd-Frank Act and the subsequent implementing regulation issued by the SEC require disclosure of the following categories of violations, orders and citations: (1) Section 104 S&S Citations, which are citations issued for violations of mandatory health or safety standards that could significantly and substantially contribute to the cause and effect of a mine safety or health hazard; (2) Section 104(b) Orders, which are orders issued upon a follow up inspection where the inspector finds the violation previously cited has not been totally abated in the prescribed time period; (3) Section 104(d) Citations and Orders, which are issued upon violations of mandatory health or safety standards caused by an unwarrantable failure of the operator to comply with the standards; (4) Section 110(b)(2) Violations, which result from the reckless and repeated failure to eliminate a known violation; (5) Section 107(a) Orders, which are given when MSHA determines that an imminent danger exists and results in an order of immediate withdrawal from the area of the mine affected by the condition; and (6) written notices from MSHA of a pattern of violations of mandatory health or safety standards that are of such nature as could have significantly and substantially contributed to the cause and effect of mine health or safety hazards under Section 104(e). In addition, the Dodd-Frank Act requires the disclosure of the total dollar value of proposed assessments from MSHA under the Mine Act and the total number of mining related fatalities.

The following disclosures are made pursuant to Section 1503.

During the twelve months ended December 31, 2017, none of our operations: (i) received any orders under Section 104(b), which are issued upon a follow up inspection where the inspector finds the violation previously cited has not been totally abated in the prescribed time period; (ii) had any flagrant violations under Section 110(b)(2); (iii) received notice from MSHA of a pattern of violations of mandatory health or safety standards under Section 104(e); or (iv) had any mining-related fatalities.



**CALENDAR YEAR 2017**

The table below sets forth, by mine, the total number of citations and/or orders issued by MSHA during the period covered by this report under the indicated provisions of the Mine Act, together with the total dollar value of proposed assessments, if any, from MSHA, received during the twelve months ended December 31, 2017. Of our 257 active MSHA-regulated facilities during the year, we received 505 federal mine safety inspections at 227 facilities during the reporting period. Of our inspected facilities, 184 did not receive any reportable citations or orders.

Name of Operation	Number of Inspections	Total Number of S&S Citations	Mine Act § 104(b) Orders	Mine Act § 104(d) Citations and Orders	Mine Act § 110(b)(2) Violations	Mine Act § 107(a) Orders	Total Dollar Value of Proposed MSHA Assessments (dollars in thousands)	Total Number of Mining Related Fatalities	Received Written Notice under Mine Act § 104(e) (yes/no)
AL SVC BH DRILLING, AL	2	1	0	0	0	0	0.1	0	No
AUGUSTA, VA	2	1	0	0	0	0	0.1	0	No
BACA, NM	2	1	0	0	0	0	2	0	No
BARBER'S CORNERS, IL	1	1	0	0	0	0	0	0	No
BARTLETT UG, IL	4	1	0	0	0	0	0.2	0	No
BIG ROCK, CA	3	1	0	0	0	0	0	0	No
BLACK ANGUS, AZ	3	2	0	0	0	0	0.4	0	No
BLACK LEASE, TX	2	1	0	0	0	0	0	0	No
BOLINGBROOK, IL	4	1	0	0	0	0	0	0	No
BROWNWOOD, TX	6	1	0	0	0	0	0.1	0	No
CHATTANOOGA, TN	2	1	0	0	0	0	0	0	No
CHICO QUARRY, TX	4	2	0	0	0	0	0.9	0	No
DALE, VA	1	1	0	0	0	0	0.7	0	No
DANLEY, TN	3	1	0	0	0	1	0	0	No
DURBIN, CA	3	3	0	0	0	0	1.8	0	No
FRESNO, CA	2	1	0	0	0	0	1.4	0	No
FRIENDSHIP QUARRY, GA	2	2	0	0	0	0	0.5	0	No
FT MYERS, FL	2	1	0	0	0	0	1	0	No
FT PAYNE, AL	2	1	0	0	0	0	0	0	No
GRAHAM-VIRGINIA, VA	3	2	0	0	0	0	0.3	0	No
GRAYSON, GA	3	2	0	0	0	0	1	0	No
GRIFFIN, GA	3	1	0	0	0	0	0	0	No
KINGSPORT, TN	4	1	0	0	0	0	0.2	0	No
LEMONT, IL	4	1	0	0	0	0	0	0	No
LITHIA SPRINGS, GA	4	1	0	0	0	0	0.1	0	No
MARANA, AZ	4	2	0	0	0	0	0	0	No
MARYVILLE, TN	2	2	0	0	0	0	0	0	No
MCCOOK, IL	6	1	0	0	0	0	0	0	No
MECKLENBURG, VA	1	2	0	0	0	0	1	0	No
MIAMI, FL	3	3	0	0	0	0	2.4	0	No
MICO, TX	2	1	0	0	0	0	0	0	No
MIDSOUTH MACHINE SHOP, TN	1	1	0	0	0	0	0	0	No
NORTH QUARRY, NC	1	1	0	0	0	0	0.1	0	No
NORTH TROY, OK	2	1	0	0	0	0	0	0	No
PILARCITOS STONE, CA	2	1	0	0	0	0	0.3	0	No
PLACITAS, NM	3	1	0	2	0	0	0	0	No
PLEASANT VIEW, TN	1	1	0	0	0	0	2.5	0	No
PLEASANTON, CA	3	1	0	0	0	0	0.1	0	No
QUEEN CREEK, AZ	2	1	0	0	0	0	0.2	0	No
SAN EMIDIO, CA	2	1	0	0	0	0	0.9	0	No
UVALDE QUARRY, TX	3	1	0	0	0	0	0.3	0	No
VAL VISTA - CITRUS GROVE 150, AZ	3	1	0	0	0	0	0	0	No
WEATHERFORD, TX	2	1	0	0	0	0	0	0	No
OTHER OPERATIONS - 184	391	0	0	0	0	0	0	0	No
<b>Total</b>	<b>505</b>	<b>55</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>18.6</b>	<b>0</b>	<b>No</b>

The total dollar value of proposed assessments received during the twelve months ended December 31, 2017 for all other citations, as well as proposed assessments received during the reporting period for citations previously issued, is \$ 160,119 .

The table below sets forth, by mine, category of legal action and number of legal actions pending before the Federal Mine Safety and Health Review Commission as of December 31, 2017.

Name of Operation	Number of Legal Actions		
	Contest Penalty	Contest Citations	Complaint of Discharge, Discrimination
BOLINGBROOK UNDERGROUND, IL	10	0	0
DALE PLANT, VA	1	0	0
GRAHAM-VIRGINIA, VA	2	0	0
VAL VISTA – CITRUS GROVE 150, AZ	1	0	0

The table below sets forth, by mine, category of legal action and number of legal actions filed before the Federal Mine Safety and Health Review Commission during the twelve months ended December 31, 2017.

Name of Operation	Number of Legal Actions		
	Contest Penalty	Contest Citations	Complaint of Discharge, Discrimination
NONE	0	0	0

The table below sets forth, by mine, category of legal action and number of legal actions resolved by the Federal Mine Safety and Health Review Commission during the twelve months ended December 31, 2017.

Name of Operation	Number of Legal Actions		
	Contest Penalty	Contest Citations	Complaint of Discharge, Discrimination
BLACK ANGUS PLANT, AZ	1	0	0
BOONE QUARRY, NC	1	0	0
BRISTOL QUARRY, TN	0	0	2
COLUMBIA QUARRY, SC	1	0	0
GRAHAM-VIRGINIA, VA	1	0	0
HAVRE DE GRACE QUARRY, MD	1	0	0
HELOTES QUARRY, TX	1	0	0
LAKESHORE QUARRY, AL	2	0	0
LEMONT UNDERGROUND LIMESTONE, IL	1	0	0
LITHIA SPRINGS QUARRY, GA	1	0	0
PRIDE QUARRY, AL	1	0	0
QUEEN CREEK STONE, AZ	1	0	0
SAVANNAH QUARRY, TN	3	0	0
SHELBYVILLE QUARRY, TN	1	0	0
TAMPA SALES YARD, FL	1	0	0
WEST PLANT, AZ	2	0	0