KOPPERS

# INVESTING IN OUR PEOPLE-BASED CULTURE

*Seaport Global Securities*
*Chemicals & Basic Materials Conference*
*Boston, MA*
*September 11, 2018*

# Michael J. Zugay

Chief Financial Officer

# Forward Looking Statement

Certain statements in this presentation are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995 and may include, but are not limited to, statements about sales levels, acquisitions, restructuring, profitability and anticipated synergies, expenses and cash outflows. All forward-looking statements involve risks and uncertainties. All statements contained herein that are not clearly historical in nature are forward-looking, and words such as "believe," "anticipate," "expect," "estimate," "may," "will," "should," "continue," "plans,“ “potential,” "intends," "likely," or other similar words or phrases are generally intended to identify forward-looking statements. Any forward-looking statement contained herein, in press releases, written statements or documents filed with the Securities and Exchange Commission, or in Koppers communications with and discussions with investors and analysts in the normal course of business through meetings, phone calls and conference calls, regarding expectations with respect to sales, earnings, cash flows, operating efficiencies, restructurings, the benefits of acquisitions and divestitures or other matters as well as financings and debt reduction, are subject to known and unknown risks, uncertainties and contingencies. Many of these risks, uncertainties and contingencies are beyond our control, and may cause actual results, performance or achievements to differ materially from anticipated results, performance or achievements. Factors that might affect such forward-looking statements, include, among other things, the impact of changes in commodity prices, such as oil and copper, on product margins; general economic and business conditions; potential difficulties in protecting our intellectual property; the ratings on our debt and our ability to repay or refinance outstanding indebtedness; our ability to operate within the limitations of our debt covenants; potential impairment of our goodwill and/or long-lived assets; demand for Koppers goods and services; competitive conditions; interest rate and foreign currency rate fluctuations; availability of key raw materials and unfavorable resolution of claims against us, as well as those discussed more fully elsewhere in this release and in documents filed with the Securities and Exchange Commission by Koppers, particularly our latest annual report on Form 10-K and subsequent filings. Any forward-looking statements in this presentation speak only as of the date of this presentation, and we undertake no obligation to update any forward-looking statement to reflect events or circumstances after that date or to reflect the occurrence of unanticipated events.

*Note: There are non-GAAP amounts in this presentation for which reconciliations to GAAP are provided in the company’s quarterly financial news releases, which are posted to our website at www.koppers.com. To access the reconciliations, go to the company’s homepage, select “Investor Relations” and then “News Releases”.*

# Strategic Overview

# Investment Thesis

**Global leader in oil and water-borne preservatives** serving many market applications for treated wood

Successfully transitioning from a business built on producing carbon pitch to serve global aluminum industry into **an enterprise centered on the preservation and enhancement of wood**

**Knowledge of wood preservation is a core competency**

- Largest integrated producer of wood treatment preservatives for North American railroad crosstie industry
- Performance Chemicals wood treatment preservatives serve various residential, industrial and agricultural markets

**Strategy continues to build momentum**; continue to evaluate opportunities to optimize product portfolio and capital structure

- Systematic approach of reducing dependence on highly cyclical industries tied to oil and aluminum
- Improved CMC profitability by streamlining footprint/cost structure

**Wood Treatment Technologies Are At The Heart Of Our Value Creation Model**

# Business Strategy

## Strengthen Balance Sheet and Improve Financial Flexibility

- Following acquisitions made in early 2018, pro-forma net debt to adjusted EBITDA anticipated to be ≤ 3.5 by 12/31/18; net leverage was 3.1 at 12/31/17 compared with 5.1 at 12/31/14
- Refinanced debt in February 2017:
  - ✓ Extended senior notes from 2019 to 2025; moved to unsecured status
  - ✓ Increased senior notes from $300M to $500M
  - ✓ Reduced coupon rate from 7.875% to 6.0%
  - ✓ Eliminated term loan and mandatory annual amortization of $30M
  - ✓ Extended revolving credit facility from 2019 to 2022

## Improve Profitability and Expand Margin

- Restructured CMC operating footprint and improved segment Adj. EBITDA margins from low of 1.5% in 2015 to 18.5% in LTM 6/30/18
- Divested small, non-core, margin-dilutive businesses
- Reduced exposure to low-margin Chinese business by exiting two joint-ventures
- Increased presence in higher-margin Performance Chemicals business from 21% in 2014 pro-forma sales compared with 26% in LTM 6/30/18
- Improved consolidated Adj. EBITDA margins from 7.5% in 2014 to 14.1% in LTM 6/30/18

## Repositioned as a Leader in Wood Treatment Technologies

- Niche markets with small number of sizable competitors
- Tighter focus around core competency of wood allows for better stability and visibility of earnings stream
- Investing to serve increased demand of copper-based wood preservative products; improve distribution of oil-borne wood preservative products
- Focusing on wood treatment and protection technology
- Pursue growth opportunities through selective tuck-in acquisitions primarily in wood related markets

# At-A-Glance

- Leading integrated global provider of oil and water-borne preservatives serving various market applications of treated wood
- De-emphasizing CMC business
- Global geographic footprint: 46 locations across North America, South America, Asia, Europe and Australia

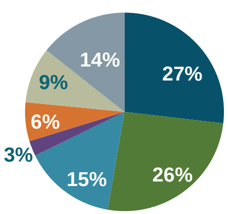
## Selected Product and Brand Overview


ADVANCE GUARD
Borate Pressure Treated Wood

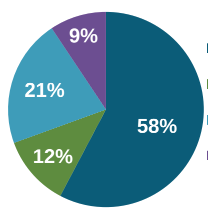
Pre-Treated Crossties

Treated Crossties with End Plates

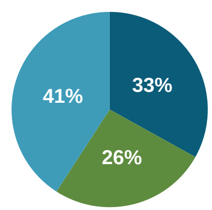

### Sales by End Market



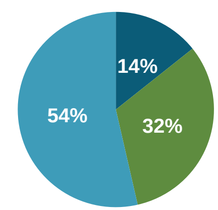

### Sales by Geography




### Sales by Segment




### Adj. EBITDA by Segment[1]




| 2017 Sales: $1,476M | 6/30/18 LTM Sales: $1,593M | 6/30/18 LTM Adj EBITDA: $224M |
|---|---|---|

1) Excludes corporate unallocated amounts

# Segment Overview

## Unique Product & Service Portfolio; Niche End Market Focus

| | Railroad and Utility Products and Services (RUPS) | Performance Chemicals (PC) | Carbon Materials and Chemicals (CMC) |
|---|---|---|---|
| **LTM 6/30/18 Key Financials[1,2]** | • Net Sales: $527 Million<br>• Adj. EBITDA: $32 Million<br>• Adj. EBITDA Margin: 6.2% | • Net Sales: $415 Million<br>• Adj. EBITDA: $72 Million<br>• Adj. EBITDA Margin: 17.4% | • Net Sales: $651 Million<br>• Adj. EBITDA: $120 Million<br>• Adj. EBITDA Margin: 18.5% |
| **Highlights** | • Largest Supplier Of Railroad Crossties To North American Railroads | • Global Leader In Developing, Manufacturing & Marketing Wood Preservation Chemicals/ Technologies | • Largest Supplier Of Creosote To North American Railroad Industry<br>• Vertically Integrated With RUPS |
| **Products & Services** | • Railroad Crossties<br>• Railroad Bridge Services<br>• Rail Joint Bars<br>• Utility Poles | • Wood Preservation Chemicals<br>• Coatings<br>• Water Repellants<br>• Pigmented Stains<br>• Fire Retardants | • Carbon Pitch<br>• Creosote<br>• Carbon Black Feedstock<br>• Naphthalene<br>• Phthalic Anhydride |
| **Market Position<br>Market Growth<br>Key Market Drivers** | • #1<br>• 1-3%<br>• Crosstie Replacement Cycle | • #1<br>• 2-4%<br>• Repair & Remodel; Existing Home Sales | • #1 or #2<br>• 1-3%<br>• Global Industrial Growth<br>• Crosstie Replacement Cycle |

[1] Excludes corporate unallocated amounts
[2] Adjusted EBITDA margin defined as Adjusted EBITDA as a percentage of GAAP sales

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# ZERO harm

# Zero Harm Culture

- **Committed to creating a Zero Harm culture that strives to place the well-being of our employees, the protection of the environment and the strength of our communities first at all times.**
  - Requires a heightened awareness of process safety, product safety, environmental stewardship and security.
  - Empowers each Koppers employee to ensure safe operations and to act to identify and correct unsafe situations in real time.
- **Achieved certification in American Chemistry Council's Responsible Care® initiative across 18 global facilities and corporate headquarters to date.**

# Zero Harm – YTD (at 6/30/2018)

## 26 of 47 Operating Locations*





| PC | CMC | RUPS | UIP | MAER |
|---|---|---|---|---|
| Auckland | Clairton | Denver | Blackstone | Queen City |
| Christchurch | KCCC | Florence | Bowman | Railroad Services |
| Darlington | KJCC | Grafton | Eutawville | |
| Marlow | Nyborg | Madison | Fulton | |
| Mt. Gambier | | Somerville | Jasper | |
| Rock Hill | | Takura | Newsoms | |
| | | | Sweetwater | |
| | | | Vance | |

** Operating locations that do not have any OSHA recordables*

# Investment Highlights

# Leading Global Producer of Wood Preservation and Enhancement Products

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**Products Play Critical Role In End Application; Often Have No Substitutes**

| | Product | Market Position |
|---|---|---|
| Wood-Related | North American Crosstie | #1 |
| | North American Wood Treating Chemicals | #1 |
| | North American Creosote | #1 |
| | Australian Creosote | #1 |
| | Australian Utility Poles | #1 |
| | Australian / New Zealand Wood Treating Chemicals | #1 |
| | South / Central American Wood Treating Chemicals | #1 |
| Other | Australian Carbon Pitch[1] | #1 |
| | North American Merchant Phthalic Anhydride[2] | #1 |

[1] Australian carbon pitch includes New Zealand market
[2] Reflects merchant market sales

# Vertically Integrated; Strategically Located Footprint

- Well positioned to capitalize on strong market presence
- Significantly improved efficiency; consolidated coal tar distillation facilities from 11 to 4 (2014-2016)
- CMC processes coal tar into creosote consumed by RUPS for treatment of railroad crossties

**Vertically Integrated Operations**

Coal Tar Distillate (CMC)

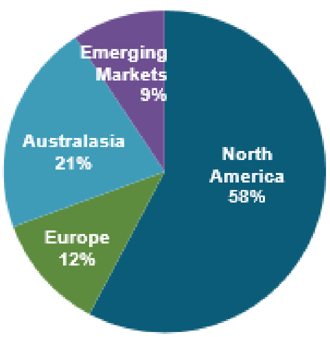
↓

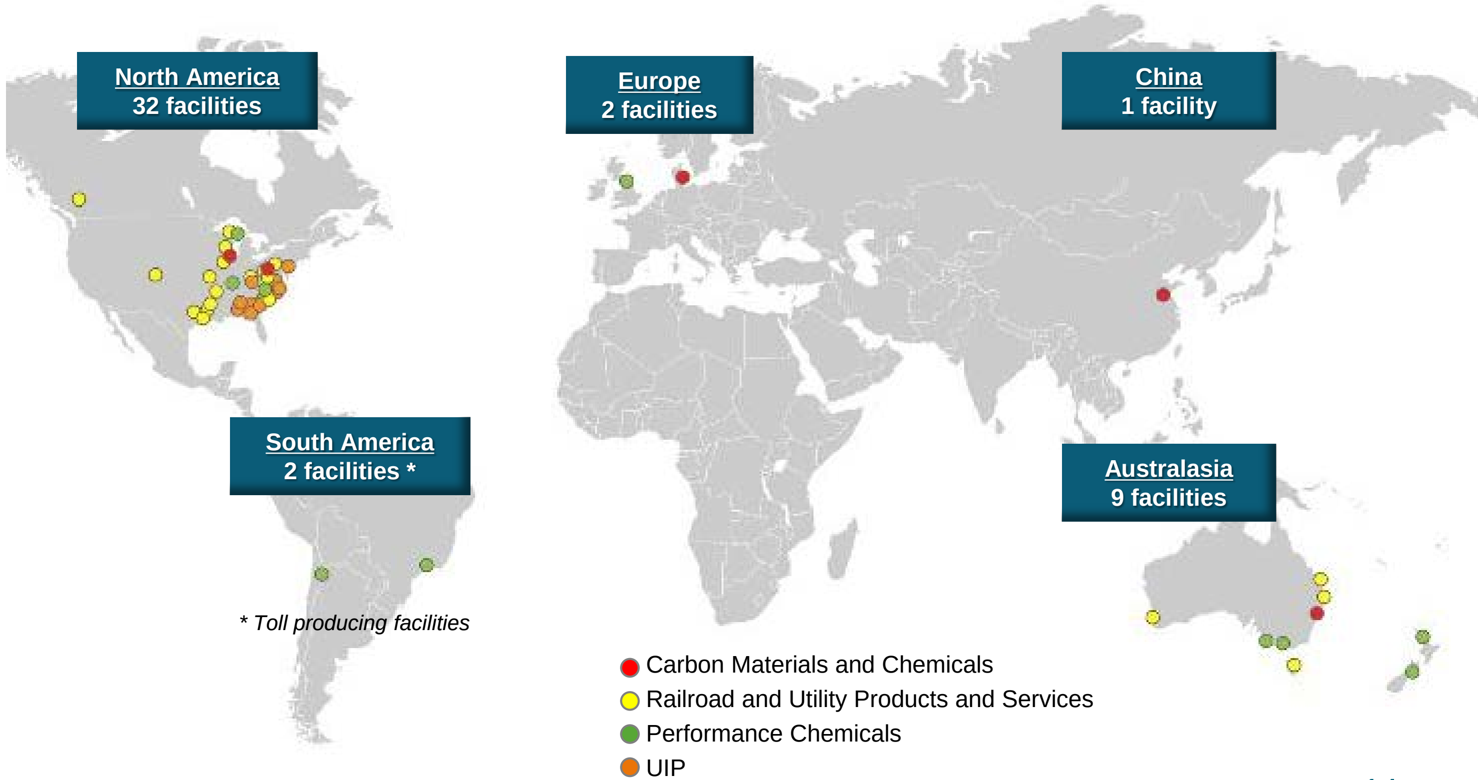
Creosote (CMC)

↓

Railroad Crossties (RUPS)

**2017 Sales by Geography**



# Railroad & Utility Products and Services: Near-Term Challenges; Improving in 2H 2018

- Longer-term outlook remains solid for railroads and overall economy; continue to monitor potential threats including potential trade disputes (*Source: Association of American Railroads*)
  - ✓ 14 of 20 primary commodity categories achieved carload gains in June; 3rd consecutive month with ≥ 14 categories were up; longest streak since late 2014
  - ✓ Year-to-date 6/30/18 compared to prior year period: total U.S. carload traffic higher by 1.3%; intermodal units increased 6.0%; total combined U.S. traffic up 3.7%
- Managing near-term challenges; expecting Q3 2018 to show profitability improvement for first time in 8 quarters; forecasting higher profitability year-over-year in 2018
  - ✓ Demand from Class I railroads remains at relatively low levels
  - ✓ Rising raw material costs; demand for crossties at much higher level than current supply *(Source: Hardwood Market Report*)
  - ✓ Crosstie inventories declined for 13 consecutive months; tie purchases expected to weaken further in 2018 (*Source: Railway Tie Association*)
  - ✓ MAER and UIP integration teams evaluating opportunities to leverage our combined treating and distribution network
- Providing end-to-end sustainable supply solution to customer base; helping railroad customers improve sustainability profile by responsibly disposing treated tie waste

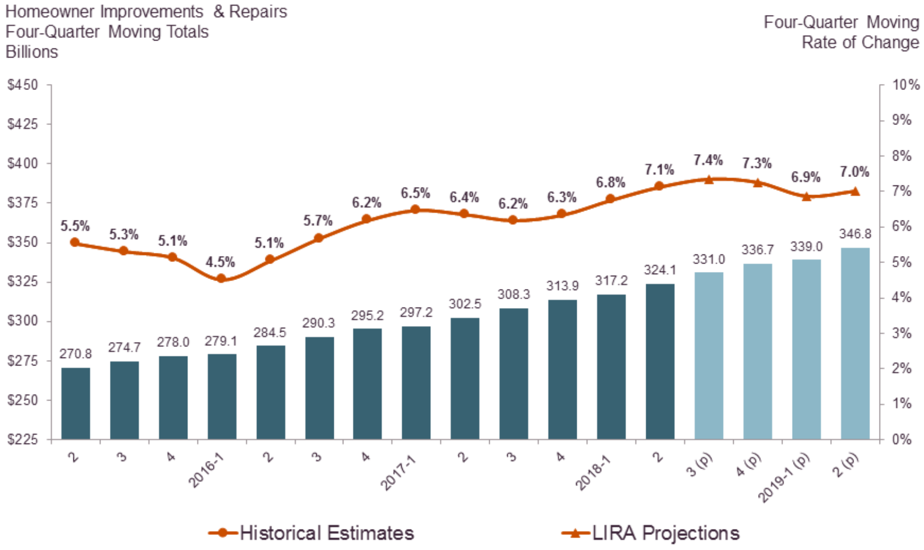
# Performance Chemicals: Steady Gains in Attractive End Markets

## Growth Drivers: Existing Home Sales; Repair & Remodel Activity

- Market for existing homes continues to show mixed signals
  - ✓ Severe shortage in existing homes inventory and fewer homes being sold but homeowners continue to spend on remodeling and improvement projects
  - ✓ June existing-home sales decreased for 3rd straight month; total existing home sales decreased 0.6%; YTD sales 2.2% below prior year (*Source: National Association of Realtors*)
  - ✓ Projected annual growth in homeowner remodeling expenditure will remain strong through first half of 2019; expected to remain at 7% and reach nearly $350 billion (*Source: Leading Indicator of Remodeling Activity*)
  - ✓ Conference Board Consumer Confidence Index decreased in June to 126.4, down from 128.8 in May
- Raw material costs continue to increase; copper pricing trending higher beginning in 2017 and continuing into 2018
  - ✓ Hedging majority of requirements for 1-3 years; lessen impact from rapidly fluctuating commodity markets
  - ✓ Higher year-over-year average cost for both hedged and unhedged copper requirements

## U.S. Homeowner Improvements & Repairs

### Leading Indicator of Remodeling Activity *2nd Quarter 2018*




Notes: Historical estimates since 2015 are produced using the LIRA model until American Housing Survey data become available

Source: Joint Center for Housing Studies of Harvard University

# Long-Term Contracts with Key Customers

**Key Customers Include Railroad, Wood Preservation & Other Blue-Chip Industrial Companies**

- Approximately 70% of North American RUPS sales are served under long-term contracts
- Currently supply and have contracts with all 7 North American Class I railroads
- Supplies 9 of 10 largest lumber treating companies in U.S., in addition to top 3 lumber treating companies in Canada
- Deploys a key risk mitigation strategy to hedge underlying copper prices, a key raw material, associated with processing PC products
- 100% of creosote supply for RUPS comes from CMC

# Successfully Repositioned Business

## Strengthening Our Market Position; Optimizing Our Portfolio

| Strategic Initiatives | Actions Taken |
|---|---|
| **Reduce China Risk Profile** | • Exited 2 of 3 joint ventures in China<br>• Restructured loan agreements in China; renegotiated soft pitch agreement with Nippon Steel and received $30M (July 2015) |
| **Streamline CMC Business** | • Ceased distillation or sold 7 of 11 facilities by year-end 2016<br>• CMC revenues decreased from two-thirds to approx. one-third of consolidated sales<br>• Expect to improve CMC profitability to 9-15% adjusted EBITDA through economic cycle by year-end 2018; 2017 EBITDA at 13.7% |
| **Aggressively Reduce Debt**<br>*Long-term Goal:*<br>*2.0x – 3.0x Net Leverage Ratio* | • Strong operating cash flow of $100M-$120M+ annually<br>• Reduced debt to $677M at 12/31/17 vs. $851M at 12/31/14<br>• Lowered net leverage ratio to 3.1x at 12/31/17 vs. 4.7x at 12/31/14 (per bank agreements)<br>• Pro-forma net debt to adjusted EBITDA projected to be at or below 3.5x by 12/31/18 |
| **Secure Long-term Business of Key Customer Base** | • Extended contracts with the BNSF, CSX, NS & UP into 2020-2026<br>• Signed long-term rail joint agreements with NS (2019) & UP (2021)<br>• Extended supply agreements with 2 largest PC customers<br>• Signed 2 long-term contracts expected to increase phthalic sales volume ≥ 20% YOY |
| **Continue to Enhance Business Profile** | • Acquired Cox Industrial utility pole business (April 2018); M.A. Energy Resources (Feb 2018)<br>• Divested non-core businesses<br>o CMC – Port Clarence & Scunthorpe distillation facilities; TKK minority-held JV<br>o RUPS – KSA concrete tie joint venture; Wood Protection lumber-treating business |

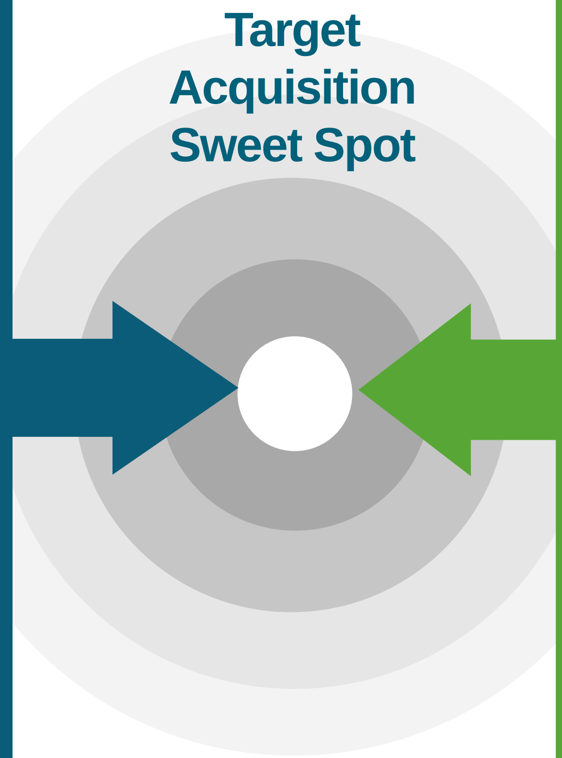
# Utility and Industrial Products

*(Cox Industries Acquisition)*

# Growth-Focused, Strategic Investment

## Strategic Criteria

- Directly in or adjacent to core wood protection
- Growth at/above total company or catalyst to achieve
- Strong management; track record of performance
- Good fit for implementing Zero Harm practices
- Complementary to existing businesses
- Leverage existing core competencies




## Financial Criteria

- Adjusted EBITDA multiple, net of synergies and tax benefits, < trading multiple for KOP shares
- IRR and ROI > WACC
- Accretive to existing KOP margin; clear path to margin expansion
- Reasonable investment level in R&D and capex
- Strong free cash flows

# Compelling Valuation & Terms

| | |
|---|---|
| **Consideration** | • Acquired Cox Industrial for ~$200M in cash; funded with debt financing; credit amendment in place; increased revolver to $600M from $400M; $100M secured term loan |
| **Tax Benefits & Synergies** | • Structured as acquisition of stock with mutual 338(h)(10) election, resulting in ~$24M of Net Present Value tax benefits<br>• Estimated total synergies of at least $5M annually from overhead cost savings, along with incremental sales opportunities for PC & CMC businesses through vertically integrated supply relationships |
| **Attractive Valuation** | • ~8x TEV based on Cox Industrial standalone 2018E Adjusted EBITDA of ~$25M, excluding synergies and discounted future tax benefits<br>• ~6x TEV, net of synergies and discounted future tax benefits<br>• Accretive to earnings in 2018; expect acquisition to contribute adjusted EPS of $0.15-$0.20 in 2018 and $0.40-$0.50 in 2019 |
| **Timing** | • Signed and closed acquisition on April 10, 2018 |

# Combining Industry Leaders in Wood Treatment Market

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Cox

- Global leader in oil and water-borne preservatives serving many market applications for treated wood
- Largest integrated producer of wood treatment preservatives for N.A. railroad crosstie industry
- Global geographic footprint across North America, South America, Asia, Europe and Australia

- Largest supplier of utility poles in eastern U.S. and major supplier in entire U.S.
- Supplies power distribution and transmission poles and pilings to investor-owned utilities, electric cooperatives and municipalities.
- 8 manufacturing locations, 3 peeling facilities and 19 reload yards in U.S.; market leadership position with further opportunities for growth

**Global Leader in High Value, Vertically Integrated, Wood-Based Solutions Market**

# Strengthens Market Position as Vertically Integrated Wood Treatment Leader

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| | |
|---|---|
| **Advances Strategic Transformation** | • Creates leading utility pole and wood treatment producer; re-entering market as second-largest supplier to U.S. utility pole industry; better scale to compete<br>• Represents strategic milestone; advances strategy of being a vertically integrated, high-value global supplier of wood-based technologies to infrastructure markets<br>• Aligned with long-term goal of developing unique end-to-end solutions from wood preservation chemicals, to finished products, to end-of-life disposal |
| **Maintains Attractive Financial Profile** | • Vertically integrated model provides cost savings synergies and incremental sales opportunities; transaction structure provides tax benefits<br>• Pro-forma net debt to adjusted EBITDA ratio of < 4x; projected at ≤ 3.5x by 12/31/18; goal of 2x-3x net leverage ratio over long-term; not to exceed 4x on pro-forma basis with acquisitions<br>• Accretive to earnings in 2018; expect additional $0.15-$0.20 in adjusted EPS in 2018; annualized run rate of $0.40-$0.50 in adjusted EPS in 2019 |
| **Provides Growth Opportunities** | • Provides scale in large and attractive U.S. utility pole market; ~$850M estimated opportunity<br>• Potential for growth in range of geographies, end-markets and product categories<br>• Strategically located facilities to enable shipments throughout U.S. and other key markets |
| **Brings Additional Leadership Capabilities** | • Established leaders; culture of growth and innovation<br>• Strong operational expertise; consistent with Zero Harm focus<br>• Track record of disciplined execution and value creation |

# Strong Presence in Utility Pole Treatment

## Key Products

Poles

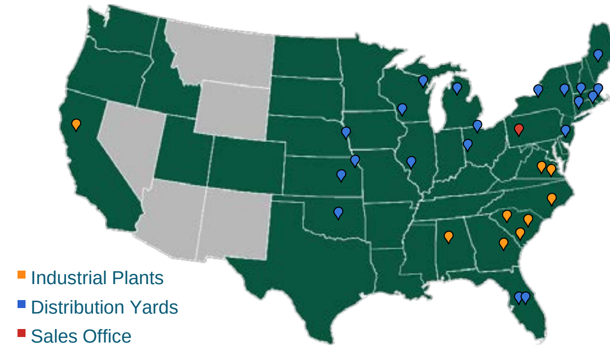
Pilings

Specialty Lumber

## Value Added Services

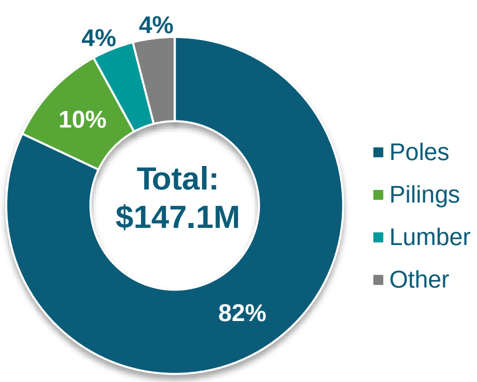
- National Wood Sourcing
- Sustainable Management Systems
- Storm Response
- Recovery Services

## Geographic Footprint

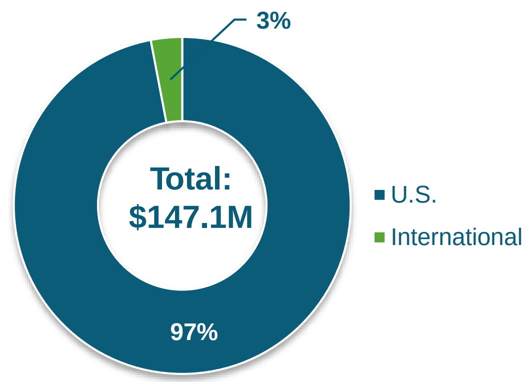



## 2017 Revenues *

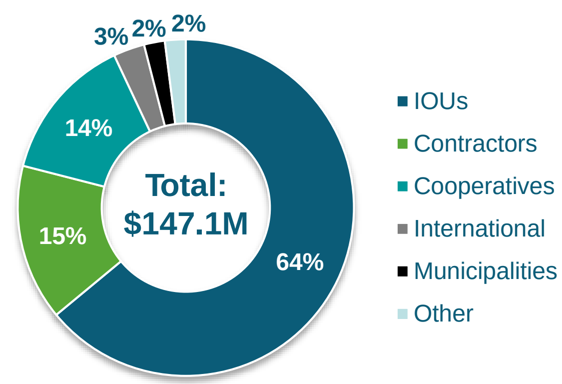
### By Product Type




### By Geography




### By Customer Type




* 2017 revenues do not include acquisitions made by Cox Industries of TEC and Langdale

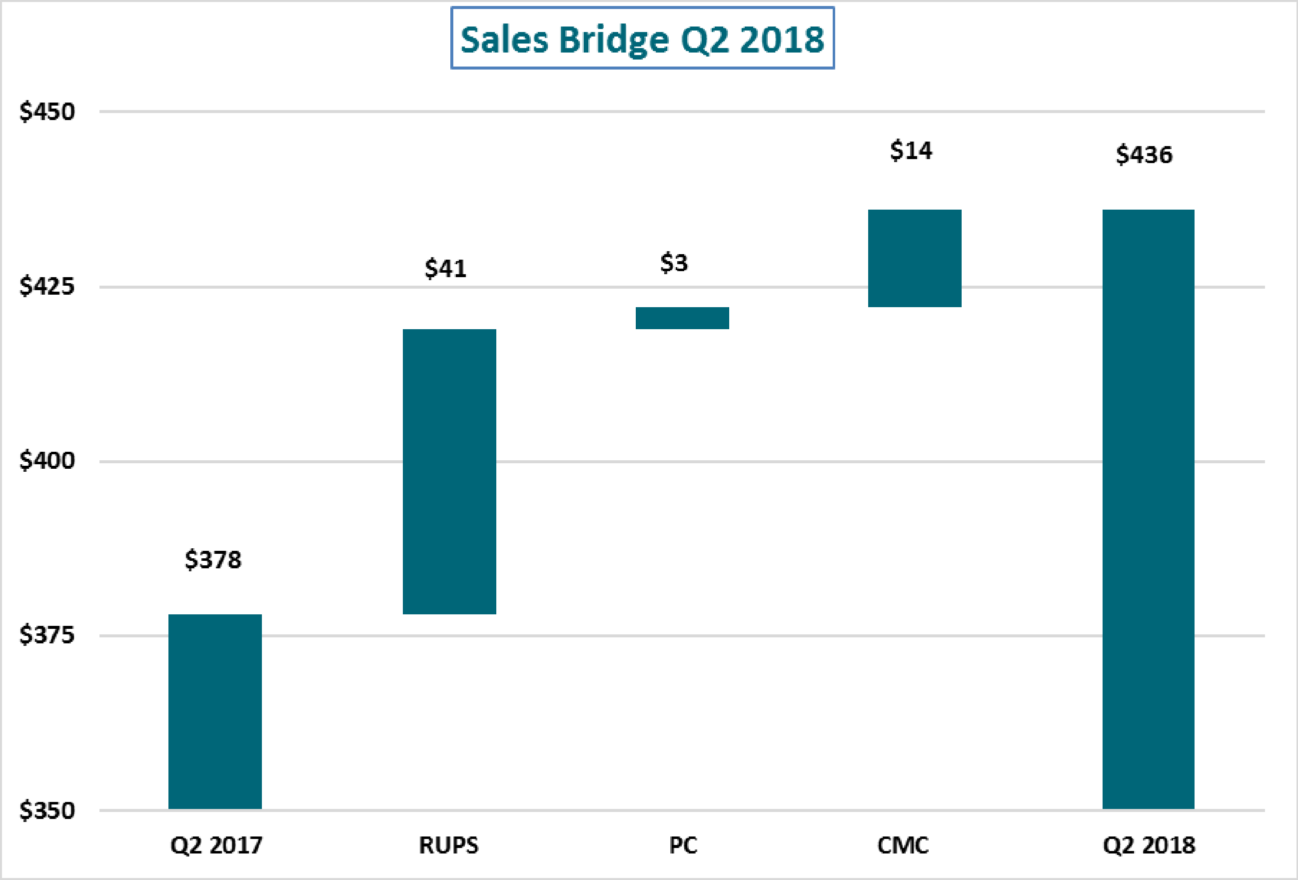
# Utility Poles: Treatment & Delivery

# Appendix

# Q2 2018 Results

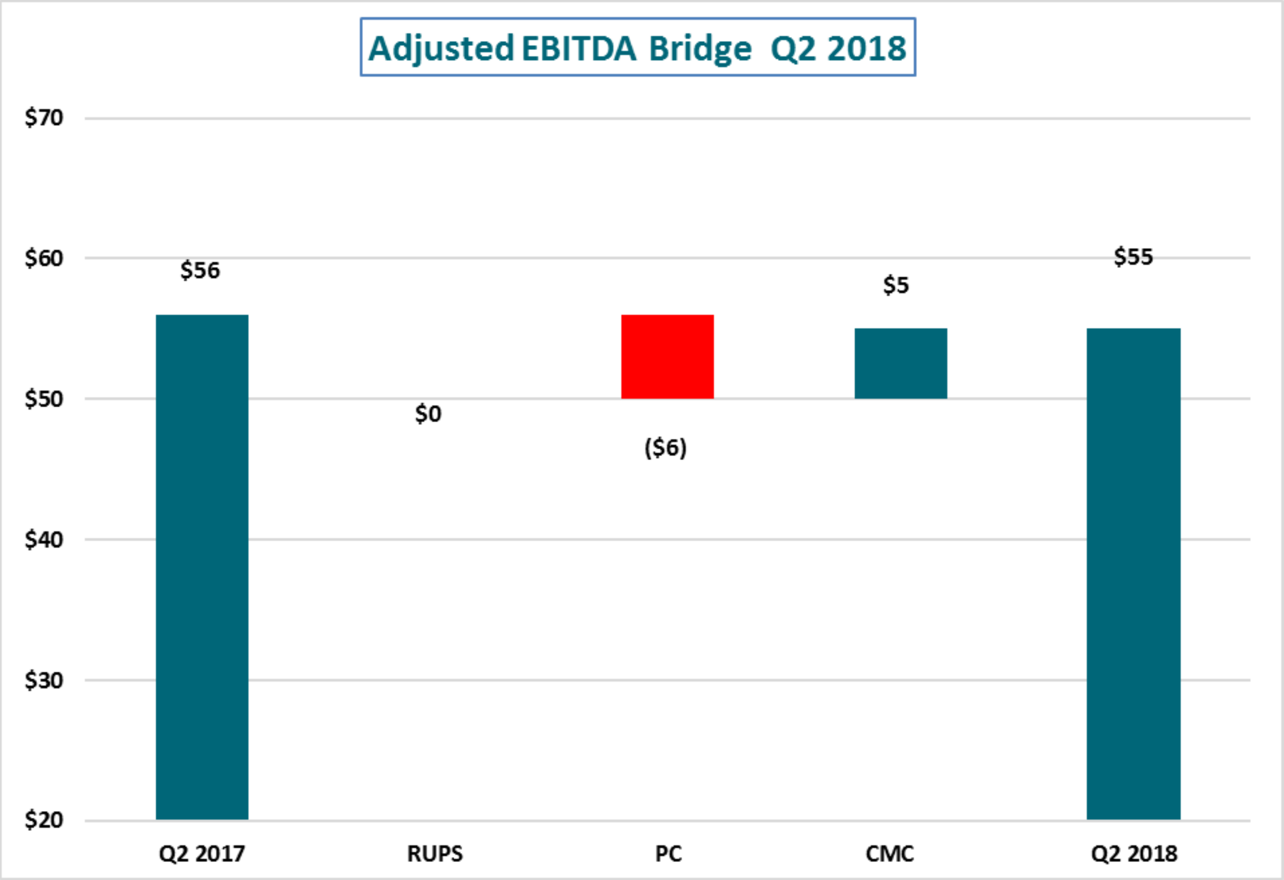
# Q2 Sales of $436M: Acquisitions in RUPS & Ongoing CMC Strength

($ in millions)



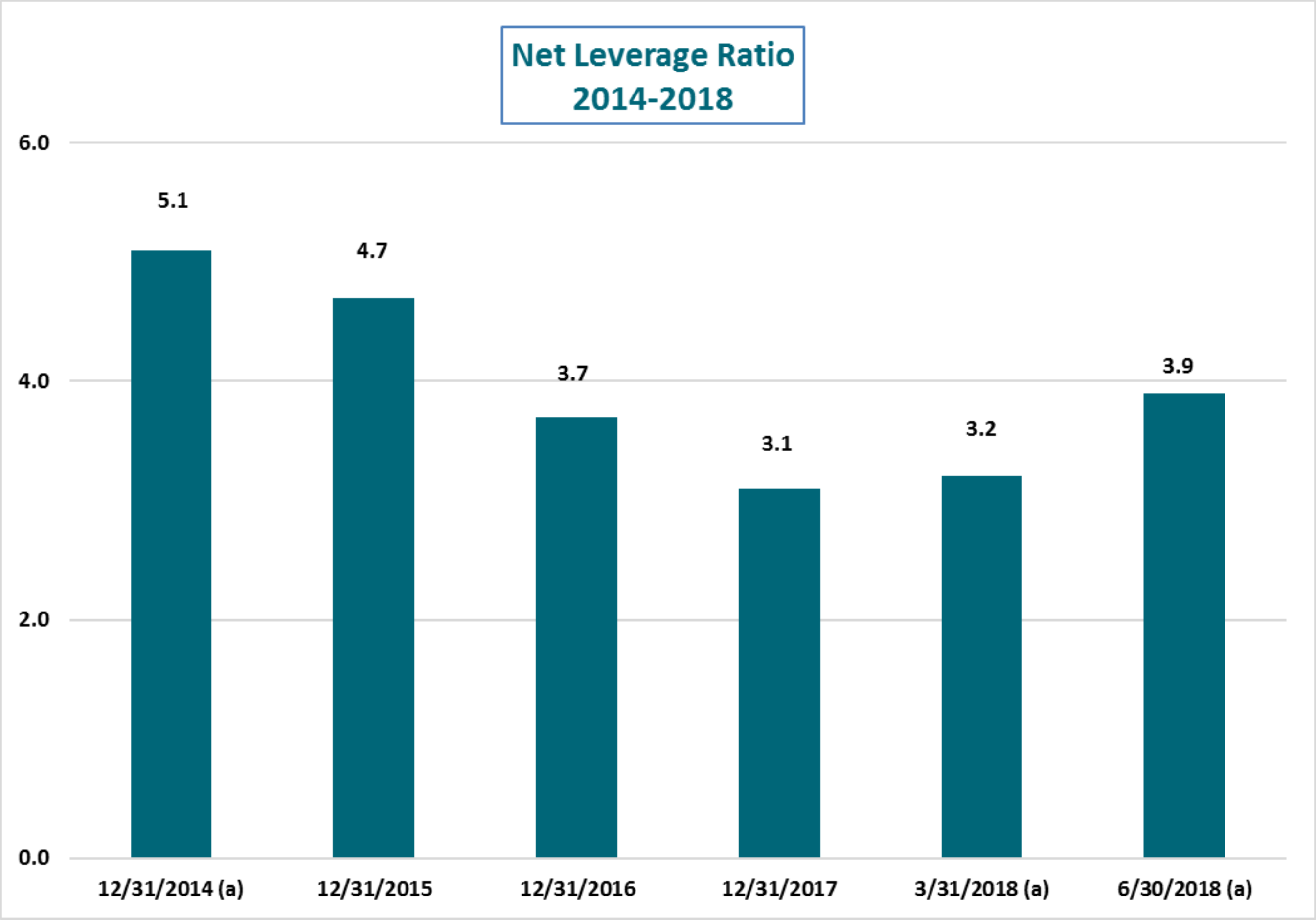
# Q2 Adjusted EBITDA of $55M: Higher CMC Profitability; PC Strong Prior Year

($ in millions)



# Net Leverage Ratio:
# Improved Balance Sheet; Debt Reduction Focus

($ in millions)

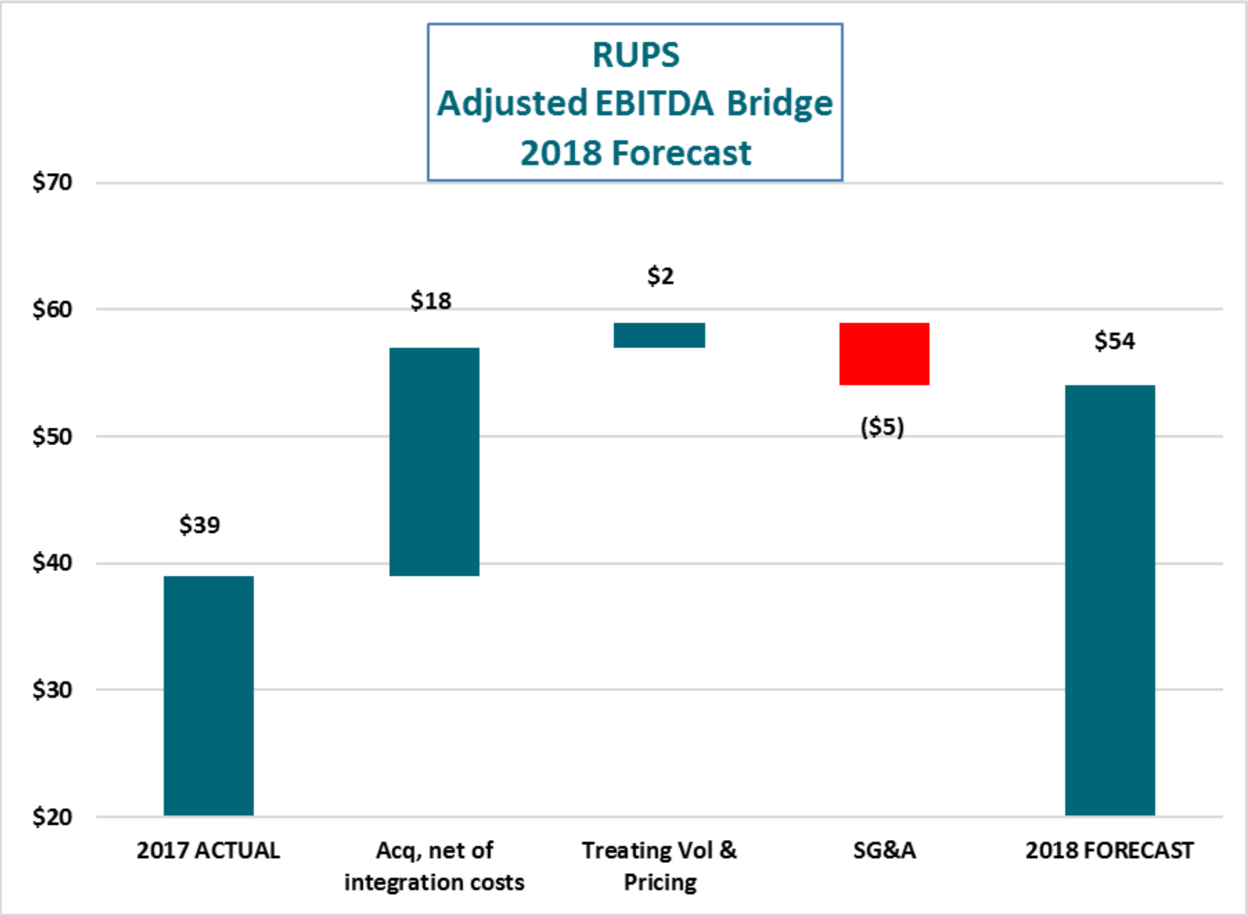



***(a) Pro-forma***

# 2018 Guidance

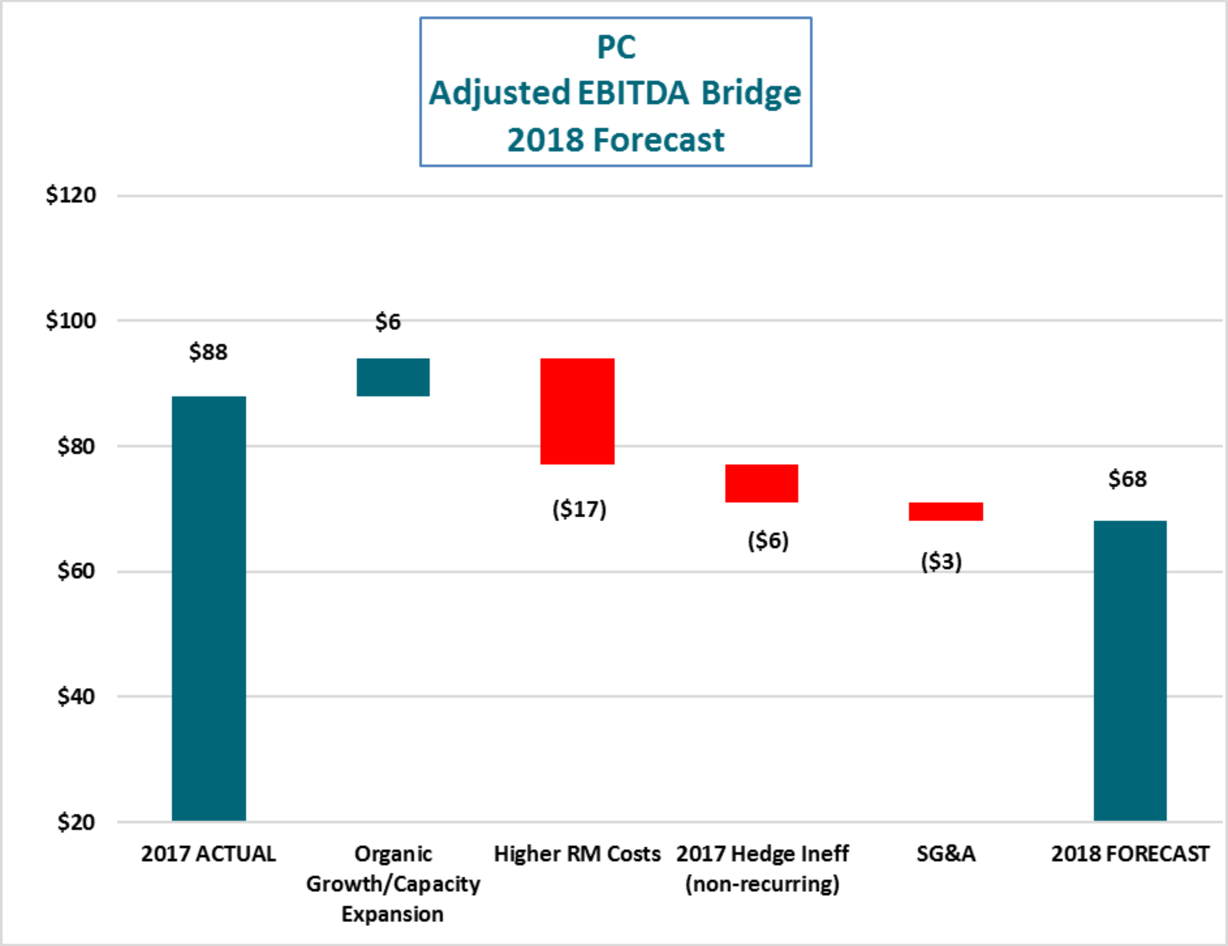
# 2018 Adjusted EBITDA Forecast: RUPS M&A Driven Improvement

($ in millions)



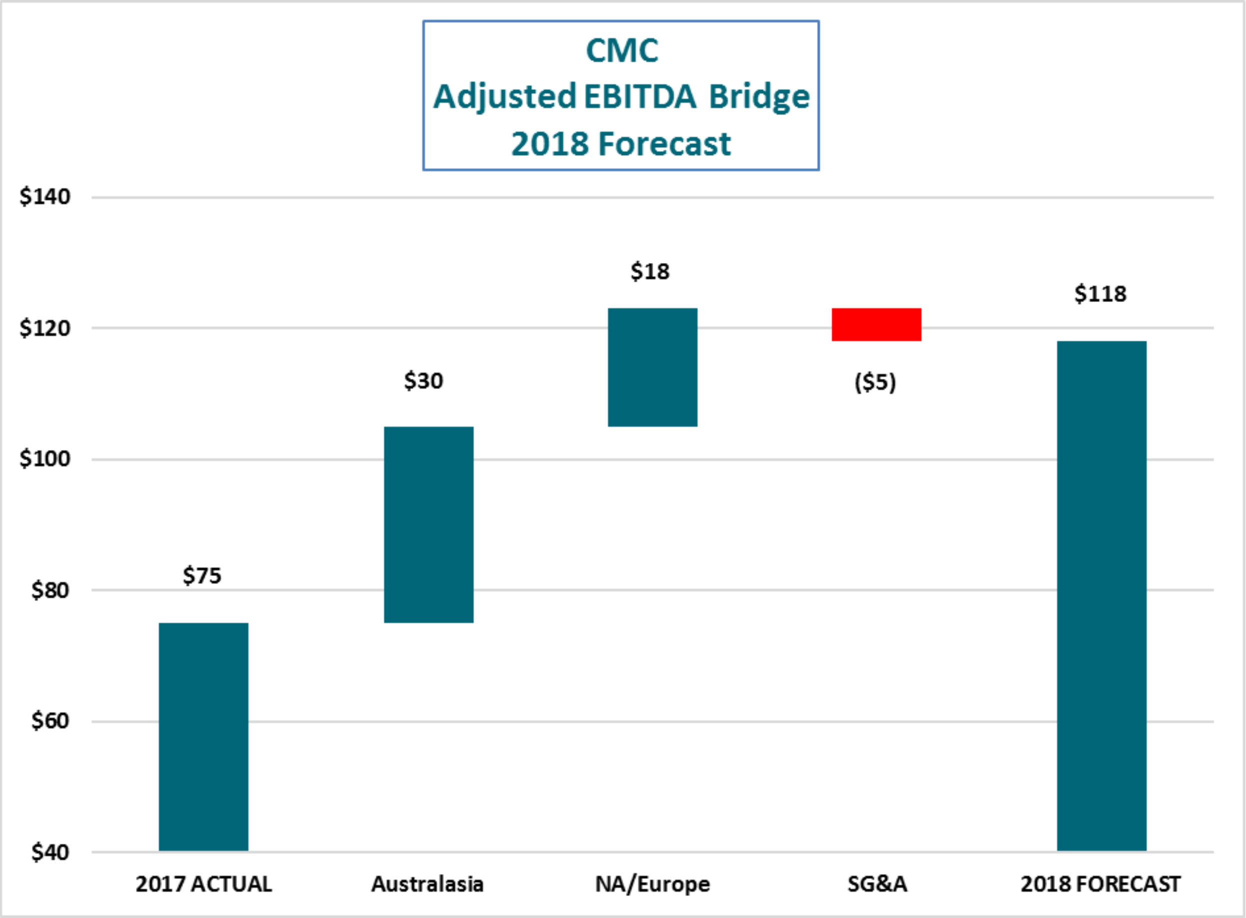
# 2018 Adjusted EBITDA Forecast: PC Growth Offset by Raw Material Headwind

($ in millions)



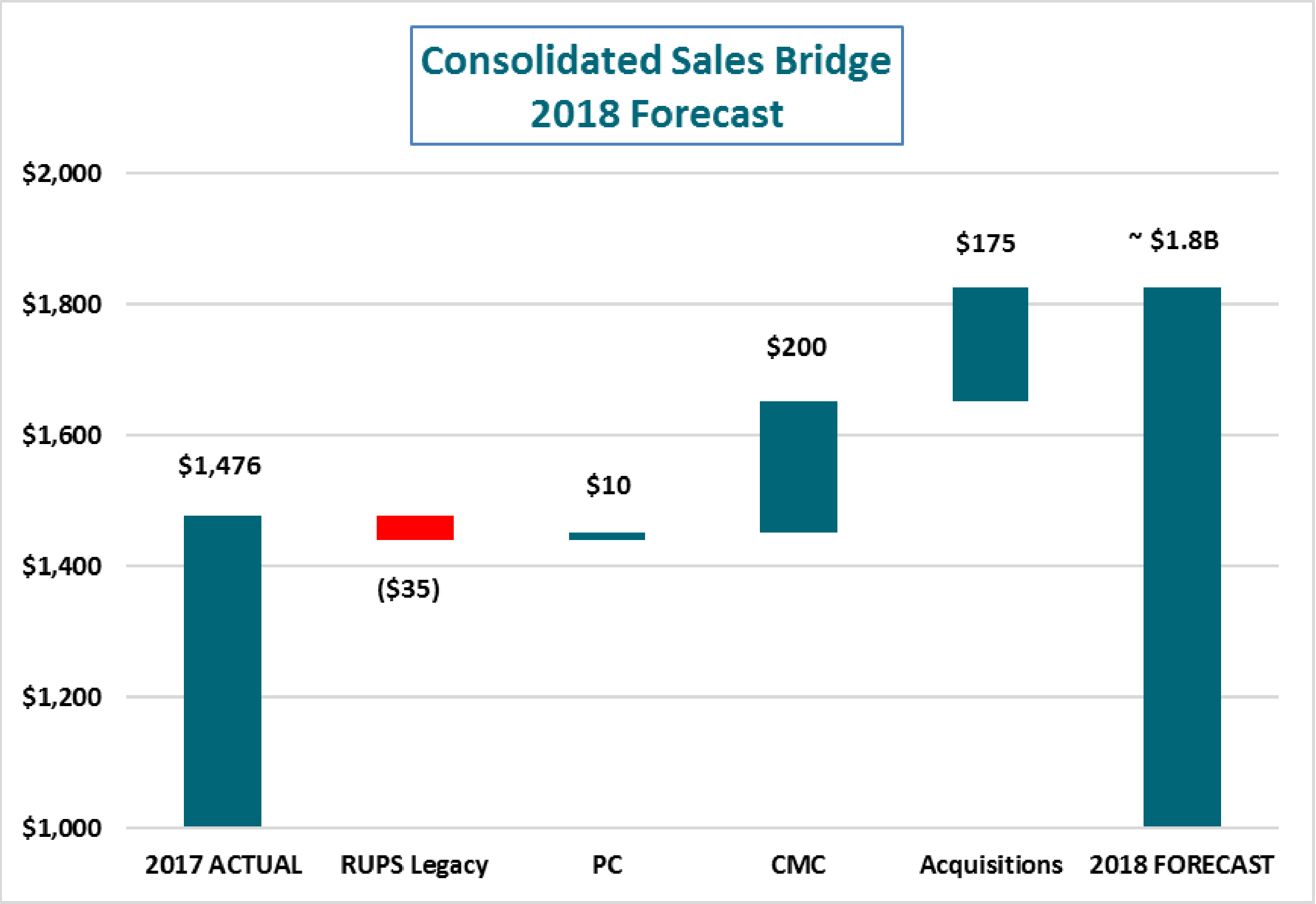
# 2018 Adjusted EBITDA Forecast: CMC Improved Profitability Globally

($ in millions)



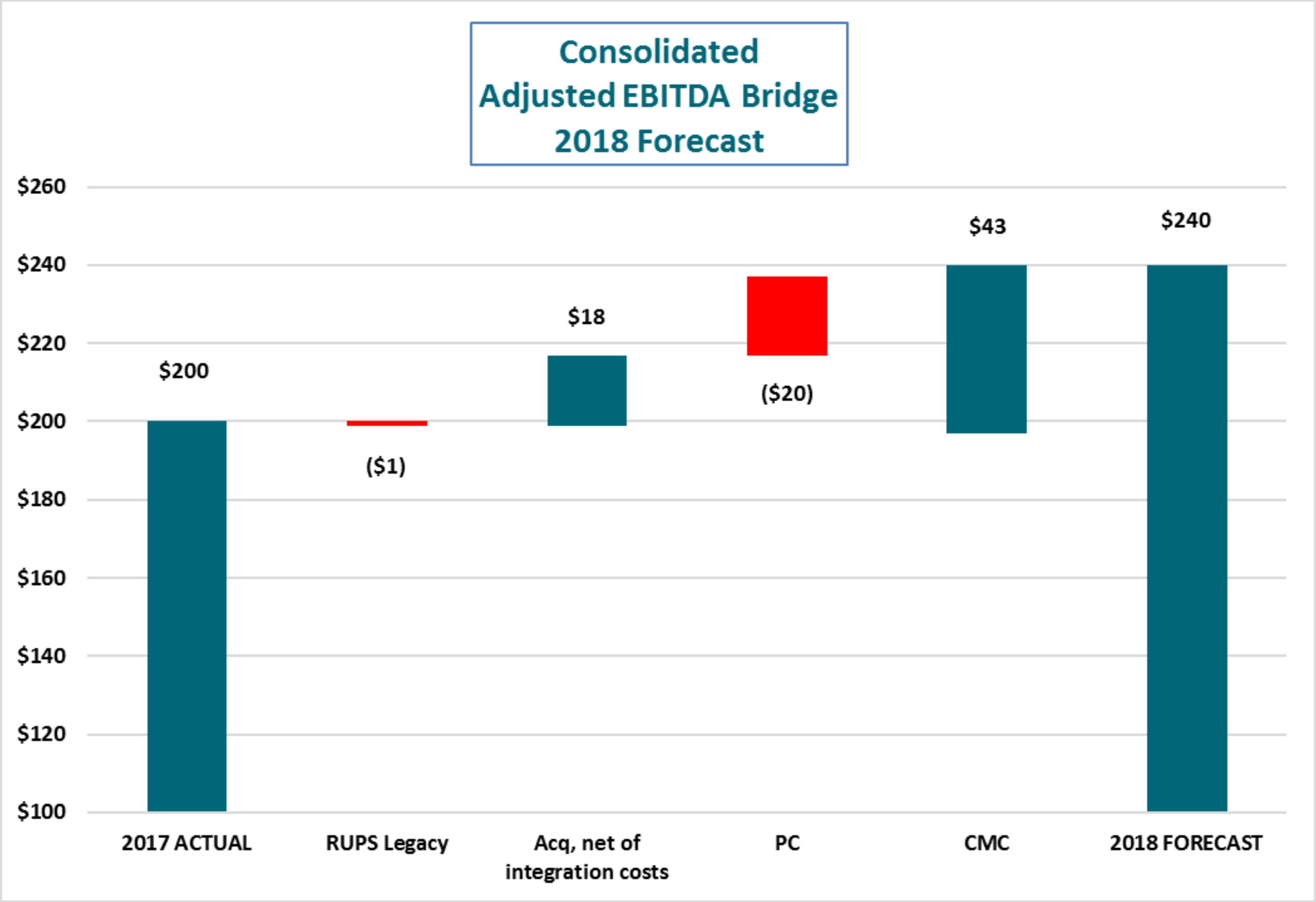
# 2018 Sales Forecast of ~$1.8B; CMC Sales Growth & RUPS Acquisitions

($ in millions)



# 2018 Adjusted EBITDA Forecast:
# CMC & Acquisitions Drive Higher Profitability

($ in millions)



# Non-GAAP Measures and Guidance

*This presentation includes unaudited "non-GAAP financial measures" as defined in Regulation G under the Securities Exchange Act of 1934, including adjusted EBITDA. Koppers believes that the presentation of non-GAAP financial measures such as adjusted EBITDA provide information useful to investors in understanding the underlying operational performance of the company, its business and performance trends and facilitates comparisons between periods and with other corporations in similar industries. The exclusion of certain items permits evaluation and a comparison of results for ongoing business operations, and it is on this basis that Koppers management internally assesses the company's performance. In addition, the Board of Directors and executive management team use adjusted EBITDA as performance measures under the company's annual incentive plans.*

*Although Koppers believes that these non-GAAP financial measures enhance investors' understanding of its business and performance, these non-GAAP financial measures should not be considered an alternative to GAAP basis financial measures and should be read in conjunction with the relevant GAAP financial measure. Other companies in a similar industry may define or calculate these measures differently than the company, limiting their usefulness as comparative measures. Because of these limitations, these non-GAAP financial measures should not be considered in isolation from, or as substitutes for performance measures calculated in accordance with GAAP.*

*For the company's guidance, adjusted EBITDA, adjusted EBITDA margin and adjusted EPS excludes restructuring, impairment, non-cash LIFO charges, acquisition-related costs, and non-cash mark-to-market commodity hedging. The forecasted amounts for these items cannot be reasonably estimated due to their nature, but may be significant. For that reason, the company is unable to provide GAAP earnings estimates at this time. Final results could also be affected by various other factors that management is unaware of at this time.*

*References to historical EBITDA herein means adjusted EBITDA, for which the company has provided calculations and reconciliations in the Appendix.*

# Unaudited Segment Information

| (Dollars in millions) | Three Months Ended June 30, 2018 | Three Months Ended June 30, 2017 | Six Months Ended June 30, 2018 | Six Months Ended June 30, 2017 |
|---|---|---|---|---|
| Net sales: | | | | |
| Railroad and Utility Products and Services | $ 177.2 | $ 135.9 | $ 285.6 | $ 271.4 |
| Performance Chemicals | 115.1 | 111.8 | 212.5 | 208.5 |
| Carbon Materials and Chemicals | 143.7 | 130.3 | 344.0 | 244.7 |
| Total | $ 436.0 | $ 378.0 | $ 842.1 | $ 724.6 |
| Operating profit (loss): | | | | |
| Railroad and Utility Products and Services | $ (1.0) | $ 11.3 | $ 0.1 | $ 20.6 |
| Performance Chemicals | 11.6 | 19.6 | 17.2 | 38.2 |
| Carbon Materials and Chemicals | 12.5 | 8.0 | 49.7 | 8.6 |
| Corporate Unallocated | (0.8) | (0.8) | (1.4) | (1.2) |
| Total | $ 22.3 | $ 38.1 | $ 65.6 | $ 66.2 |
| Operating profit (loss) margin: | | | | |
| Railroad and Utility Products and Services | -0.6% | 8.3% | 0.0% | 7.4% |
| Performance Chemicals | 10.1% | 17.5% | 8.1% | 18.3% |
| Carbon Materials and Chemicals | 8.7% | 6.1% | 14.4% | 3.4% |
| Total | 5.1% | 10.1% | 7.8% | 9.0% |
| Depreciation and amortization: | | | | |
| Railroad and Utility Products and Services | $ 4.9 | $ 2.9 | $ 7.9 | $ 5.9 |
| Performance Chemicals | 4.5 | 4.5 | 8.9 | 8.9 |
| Carbon Materials and Chemicals | 4.3 | 4.3 | 8.7 | 8.1 |
| Total | $ 13.7 | $ 11.7 | $ 25.5 | $ 22.9 |
| Adjusted EBITDA(1): | | | | |
| Railroad and Utility Products and Services | $ 13.9 | $ 13.5 | $ 19.3 | $ 25.4 |
| Performance Chemicals | 17.9 | 24.3 | 31.7 | 47.2 |
| Carbon Materials and Chemicals | 23.1 | 18.1 | 70.3 | 25.4 |
| Corporate Unallocated | 0.4 | (0.2) | 0.2 | (0.5) |
| Total | $ 55.3 | $ 55.7 | $ 121.5 | $ 97.5 |
| Adjusted EBITDA margin(2): | | | | |
| Railroad and Utility Products and Services | 7.8% | 9.9% | 6.8% | 9.4% |
| Performance Chemicals | 15.6% | 21.7% | 14.9% | 22.6% |
| Carbon Materials and Chemicals | 16.1% | 13.9% | 20.4% | 10.4% |
| Total | 12.7% | 14.7% | 14.4% | 13.5% |

(1) The tables below describe the adjustments to EBITDA for the three and six months ended June 30, 2018 and 2017, respectively.
(2) Adjusted EBITDA as a percentage of GAAP sales.

# Unaudited Reconciliation of Operating Profit To EBITDA and Adjusted EBITDA

*(In millions)*

| | Three months ended June 30,2018 | | | | |
|---|---|---|---|---|---|
| | *RUPS* | *PC* | *CMC* | *Corporate Unallocated* | *Consolidated* |
| Operating profit (loss) | $ (1.0) | $ 11.6 | $ 12.5 | $ (0.8) | $ 22.3 |
| Other income (loss) | 0.5 | 1.9 | 0.9 | (4.0) | (0.7) |
| Depreciation and amortization | 4.9 | 4.5 | 4.3 | 0.0 | 13.7 |
| Depreciation in impairment and restructuring charges | 0.0 | 0.0 | 1.3 | 0.0 | 1.3 |
| EBITDA with noncontrolling interest | $ 4.4 | $ 18.0 | $ 19.0 | $ (4.8) | $ 36.6 |
| Unusual items impacting EBITDA: | | | | | |
| CMC restructuring | 0.0 | 0.0 | 3.6 | 0.0 | 3.6 |
| Non-cash LIFO expense | 2.5 | 0.0 | 0.5 | 0.0 | 3.0 |
| Mark-to-market commodity hedging | 0.0 | 1.0 | 0.0 | 0.0 | 1.0 |
| Acquisition closing costs | 0.0 | 0.0 | 0.0 | 3.0 | 3.0 |
| Sale of land | 0.0 | (1.1) | 0.0 | 2.2 | 1.1 |
| Contract buyout | 1.5 | 0.0 | 0.0 | 0.0 | 1.5 |
| UIP inventory purchase accounting adjustment | 5.5 | 0.0 | 0.0 | 0.0 | 5.5 |
| Adjusted EBITDA | $ 13.9 | $ 17.9 | $ 23.1 | $ 0.4 | $ 55.3 |
| *Adj. EBITDA % of Consolidated Adj. EBITDA (excluding corporate unallocated)* | *25.3%* | *32.6%* | *42.1%* | | |

# Unaudited Reconciliation of Operating Profit To EBITDA and Adjusted EBITDA

*(In millions)*

| | Three months ended June 30,2017 | | | | |
|---|---|---|---|---|---|
| | RUPS | PC | CMC | Corporate Unallocated | Consolidated |
| Operating profit (loss) | $ 11.3 | $ 19.6 | $ 8.0 | $ (0.8) | $ 38.1 |
| Other income (loss) | (0.4) | 0.5 | (0.5) | 0.6 | 0.2 |
| Depreciation and amortization | 2.9 | 4.5 | 4.3 | 0.0 | 11.7 |
| Depreciation in impairment and restructuring charges | 0.0 | 0.0 | 2.0 | 0.0 | 2.0 |
| EBITDA with noncontrolling interest | $ 13.8 | $ 24.6 | $ 13.8 | $ (0.2) | $ 52.0 |
| Unusual items impacting EBITDA: | | | | | |
| CMC restructuring | 0.0 | 0.0 | 4.7 | 0.0 | 4.7 |
| Non-cash LIFO benefit | (0.3) | 0.0 | (0.4) | 0.0 | (0.7) |
| Mark-to-market commodity hedging | 0.0 | (0.3) | 0.0 | 0.0 | (0.3) |
| Adjusted EBITDA | $ 13.5 | $ 24.3 | $ 18.1 | $ (0.2) | $ 55.7 |
| *Adj. EBITDA % of Consolidated Adj. EBITDA (excluding corporate unallocated)* | *24.2%* | *43.5%* | *32.4%* | | |

# Unaudited Reconciliation of Total Debt To Net Debt and Net Leverage Ratio

*(In millions)*

| | | | Twelve months ended |
|---|---|---|---|
| | June 30, 2018 | Proforma June 30, 2018 | December 31, 2017 |
| Total Debt | $ 1,000.1 | $ 1,000.1 | $ 677.0 |
| Less: Cash | 62.5 | 62.5 | 60.3 |
| Net Debt | $ 937.6 | $ 937.6 | $ 616.7 |
| Adjusted EBITDA | $ 224.4 | $ 242.9 | $ 200.4 |
| Net Leverage Ratio | 4.2 | 3.9 | 3.1 |

# Unaudited Reconciliation of Net Income To EBITDA and Adjusted EBITDA (LTM)

*(In millions)*

| | Twelve months ended June 30, 2018 | | Twelve months ended December 31, 2017 | |
|---|---|---|---|---|
| Net income | $ | 30.8 | $ | 30.5 |
| Interest expense including refinancing | | 46.0 | | 55.8 |
| Depreciation and amortization | | 65.0 | | 62.8 |
| Income tax provision | | 37.2 | | 29.0 |
| (Income) loss from discontinued operations | | (0.8) | | 0.8 |
| EBITDA | | 178.2 | | 178.9 |
| Unusual items impacting net income: | | | | |
| Impairment, restructuring and plant closure | | 18.1 | | 15.9 |
| Non-cash LIFO expense (benefit) | | 5.3 | | (0.5) |
| Mark-to-market commodity hedging | | 2.0 | | (3.5) |
| Reimbursement of environmental costs | | (0.3) | | (0.4) |
| Acquisition closing costs | | 3.0 | | 0.0 |
| Sale of land | | 1.1 | | 0.0 |
| Contract buyout | | 1.5 | | 0.0 |
| UIP inventory purchase accounting adjustment | | 5.5 | | 0.0 |
| Pension settlement charge | | 10.0 | | 10.0 |
| Adjusted EBITDA with noncontrolling interests | $ | 224.4 | $ | 200.4 |
| Proforma adjusted EBITDA from acquisitions | | 18.5 | | 0.0 |
| Proforma adjusted EBITDA with noncontrolling interests | $ | 242.9 | $ | 200.4 |

# Unaudited Reconciliation of Net Income To EBITDA and Adjusted EBITDA (LTM)

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*(In millions)*

| | RUPS | PC | CMC | Corporate Unallocated | Consolidated |
|---|---|---|---|---|---|
| Sales | $ 526.8 | $ 415.2 | $ 651.0 | | $ 1,593.0 |
| | | | | | |
| Net income | $ 6.4 | $ 46.3 | $ 54.9 | $ (76.8) | $ 30.8 |
| Interest expense including refinancing | - | - | 3.3 | 42.7 | 46.0 |
| Depreciation and amortization | 13.2 | 17.9 | 32.8 | 1.1 | 65.0 |
| Income tax provision | (0.3) | 7.5 | 12.9 | 17.1 | 37.2 |
| (Income) loss from discontinued operations | - | - | (0.8) | - | (0.8) |
| EBITDA | 19.3 | 71.7 | 103.1 | (15.9) | 178.2 |
| Unusual items impacting net income: | | | | | |
| Impairment, restructuring and plant closure | 1.8 | - | 16.3 | - | 18.1 |
| Non-cash LIFO expense (benefit) | 4.4 | - | 0.9 | - | 5.3 |
| Mark-to-market commodity hedging | - | 2.0 | - | - | 2.0 |
| Reimbursement of environmental costs | - | (0.3) | - | - | (0.3) |
| Acquisition closing costs | - | - | - | 3.0 | 3.0 |
| Sale of land | - | (1.1) | - | 2.2 | 1.1 |
| Contract buyout | 1.5 | - | - | - | 1.5 |
| UIP inventory purchase accounting adjustment | 5.5 | - | - | - | 5.5 |
| Pension settlement charge | - | - | - | 10.0 | 10.0 |
| Adjusted EBITDA with noncontrolling interests | $ 32.5 | $ 72.3 | $ 120.3 | $ (0.7) | $ 224.4 |
| | | | | | |
| Adjusted EBITDA Margin | 6.2% | 17.4% | 18.5% | | 14.1% |

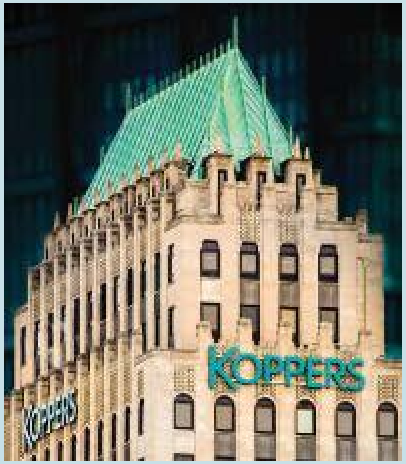
KOPPERS

**Koppers Holdings Inc.**
436 Seventh Avenue
Pittsburgh, PA 15219-1800

Koppers is an integrated global provider of treated wood products, wood treatment chemicals and carbon compounds for the railroad, specialty chemical, utility, residential lumber, agriculture, aluminum, steel, rubber, and construction industries. Headquartered in Pittsburgh, Pennsylvania, we serve our customers through a comprehensive global manufacturing and distribution network, with facilities located in North America, South America, Australasia, China and Europe.

**Stock Exchange Listing**
NYSE: KOP

**Investor Relations and Media Information**
Ms. Quynh McGuire
Director, Investor Relations and
Corporate Communications
412 227 2049
McGuireQT@koppers.com




KOPPERS World Headquarters
Pittsburgh, Pennsylvania, USA

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