



Advanced Emissions Solutions, Inc.

Advancing Cleaner Energy

**Third Quarter 2022
Earnings Results Call**

November 9, 2022



Safe Harbor

This presentation includes forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, which provides a “safe harbor” for such statements in certain circumstances. When used in this presentation, the words “can,” “will,” “intends,” “expects,” “believes,” similar expressions and any other statements that are not historical facts are intended to identify those assertions as forward-looking statements. All statements that address activities, events or developments that Advanced Emissions Solutions, Inc. (“ADES” or the “Company”) and/or Arq Limited (“Arq”) intend, expect or believe may occur in the future are forward-looking statements. These forward-looking statements may relate to such matters as business strategy, goals and expectations concerning the combination of ADES and Arq (the “Transaction”) (including the anticipated timing of consummation of the Transaction, future operations, future performance or results). The forward-looking statements may further include expectations about net, after-tax cash flows from refined coal, future demand for our APT products, pressure on APT margins and acceptance of price increases as well as results from the Company’s review of strategic alternatives and other matters. These forward-looking statements involve risks and uncertainties. Actual events or results could differ materially from those discussed in the forward-looking statements as a result of various factors including, but not limited to: uncertainties as to the timing of the consummation of the Transaction; the risk that the Transaction may not be completed in a timely manner or at all; the possibility that any or all of the various conditions to the consummation of the Transaction may not be satisfied or waived; the occurrence of any event, change or other circumstance that could give rise to the termination of the transaction agreement; the effect of the announcement of the transactions contemplated by the transaction agreement on the Company’s ability to hire key personnel, its ability to maintain relationships with customers, suppliers and others with whom it does business, or its results of operations and business generally; risks related to diverting management’s attention from the Company’s ongoing business operations; the ability to meet Nasdaq’s listing standards following the consummation of the Transaction; costs related to the proposed Transaction; opportunities for additional sales of our lignite activated carbon products and end-market diversification; the outcome of the review of strategic alternatives; the Company’s ability to meet customer supply requirements; the rate of coal-fired power generation in the United States; timing of new and pending regulations and any legal challenges to or extensions of compliance dates of them, the U.S. government’s failure to promulgate regulations that benefit our business; changes in laws and regulations; Internal Revenue Service interpretations or guidance, accounting rules, any pending court decisions, prices, economic conditions and market demand; impact of competition; availability, cost of and demand for alternative energy sources and other technologies; technical, start up and operational difficulties; competition within the industries in which the Company operates; loss of key personnel; ongoing effects of the COVID-19 pandemic and associated economic downturn on operations and prospects; as well as other factors relating to our business, as described in the Company’s filings with the SEC, with particular emphasis on the risk factor disclosures contained in those filings. You are cautioned not to place undue reliance on the forward-looking statements and to consult filings ADES has made and will make with the SEC for additional discussion concerning risks and uncertainties that may apply to the business and the ownership of ADES securities. The forward-looking statements speak only as to the date of this presentation, and the Company does not undertake any obligation to update its forward-looking statements to reflect events or circumstances that may arise after the date of this presentation.

This presentation does not contain all the information that should be considered concerning the proposed transaction to be voted upon at the special meeting of shareholders and is not intended to provide the basis for any investment decision or any other decision in respect of the transaction. Shareholders are advised to read any proxy statement/prospectus prepared in connection with the Transaction.

Non-GAAP Financial Measures

Included in this presentation are certain financial measures that are not calculated in accordance with U.S. generally accepted accounting principles (“GAAP”) designed to supplement, and not substitute, the Company’s financial information presented in accordance with GAAP. The non-GAAP measures as defined by the Company may not be comparable to similar non-GAAP measures presented by other companies. The presentation of such measures, which may include adjustments to exclude unusual or non-recurring items, should not be construed as an inference that the Company’s future results or leverage will be unaffected by other unusual or non-recurring items. Please see the Company’s filings with the SEC for how we define these non-GAAP measures, a discussion of why we believe they are useful to investors, and certain limitations and reconciliations thereof to the most directly comparable GAAP measures.

Safe Harbor

Additional Information

In connection with the proposed business combination with Arq (the “Transaction”), Elbert Holdings, Inc. (“New ADES”), a wholly owned subsidiary of ADES, filed a registration statement on Form S-4 with the SEC (the “Registration Statement”), which includes a preliminary proxy statement/prospectus, that will be both the proxy statement to be distributed to ADES’ shareholders in connection with its solicitation of proxies for the vote by ADES’ shareholders with respect to the business combination and other matters as may be described in the Registration Statement, as well as the preliminary prospectus relating to the offer and sale of the securities by New ADES to be issued to the shareholders of ADES in the Transaction. After the Registration Statement is declared effective, ADES will mail a definitive proxy statement/prospectus and other relevant documents to its shareholders. This press release does not contain all the information that should be considered concerning the proposed Transaction and is not intended to form the basis of any investment decision or any other decision in respect of the Transaction. ADES’ shareholders and other interested persons are advised to read the preliminary proxy statement/prospectus included in the Registration Statement and the amendments thereto and the definitive proxy statement/prospectus and other documents that will be filed in connection with the proposed Transactions, as these materials contain and will contain important information about ADES, New ADES, Arq and the proposed Transactions.

When available, the definitive proxy statement/prospectus and other relevant materials for the proposed Transactions will be mailed to shareholders of ADES as of a record date to be established for voting on the proposed Transactions. The documents relating to the proposed Transactions (when they are available) can be obtained free of charge from the SEC’s website at www.sec.gov. These documents (when they are available) can also be obtained free of charge by contacting us at 8051 E Maplewood Ave, Ste 210, Greenwood Village, CO 80111, Attn: General Counsel.

No Offer or Solicitation

This presentation does not constitute an offer to sell or the solicitation of an offer to buy any securities, or a solicitation of any vote or approval, nor shall there be any sale of securities in any jurisdiction in which such offer, solicitation, or sale would be unlawful prior to registration or qualification under the securities laws of any such jurisdiction. No offer of securities shall be made except by means of a prospectus meeting the requirements of Section 10 of the Securities Act of 1933, as amended.

Participants in the Solicitation

This presentation is not a solicitation of a proxy from any security holder. ADES and its directors, executive officers, other members of management and employees may be deemed to be participants in the solicitation of proxies from ADES’ stockholders in connection with the Transaction. Information regarding the names and interests in the proposed transaction of ADES’ directors and officers is contained ADES’ filings with the SEC. Additional information regarding the interests of potential participants in the solicitation process will also be included in the proxy statement/prospectus relating to the Transaction and other relevant documents when they are filed with the SEC. These documents can be obtained free of charge from the sources indicated above.

Third Quarter Highlights



Consolidated Results

- Consumables revenue was \$28.4M compared to \$26.7M in 2021
- Consumables gross margin was 24.1% compared to 25.2% in 2021
- Net loss was (\$2.4M) compared to net income of \$24.3M due to the effect of Tinum investments in the prior year
- Adjusted EBITDA⁽¹⁾ of (\$0.5M) compared to \$28.5M in 2021
- Production volume strong at Red River; inventory position modestly improved



Capital Allocation & Balance Sheet

- Capital allocation priority remains with organic investment in our manufacturing capabilities
- Cash, including restricted cash, of \$85.8M at quarter-end compared to \$88.8M as of December 31, 2021
- Portion of restricted cash expected to be released upon closing of Marshall Mine sale in 2023
- Only debt outstanding are finance liabilities totaling \$4.9M

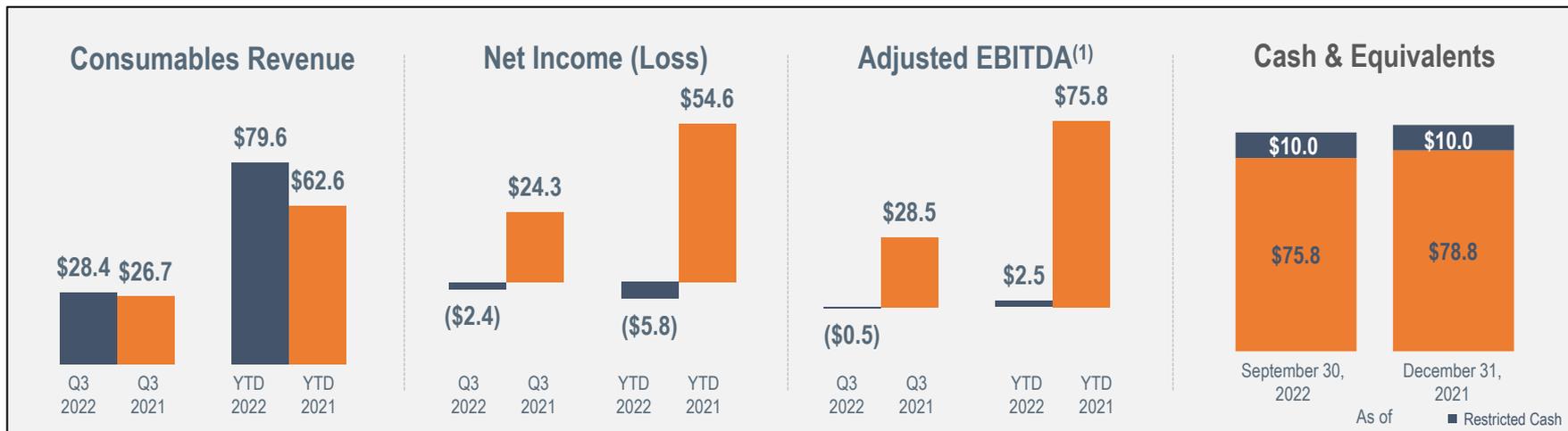


Outlook

- Expect continued top-line strength supported by robust demand and pricing initiatives
- Margin pressures expected to persist through 2022, though they will be partially offset via price initiatives and product mix
- Managing inventory closely; average selling price expected to trend higher
- Announced merger with Arq Limited

(1) Consolidated Adjusted EBITDA is a non-GAAP measure. See Appendix for definitions and reconciliations.

Financial Highlights



- Consumables revenue grew 7% and 27% compared to prior year periods, supported by volume and price uplift
- Year-over-year variance in Net Income and Adjusted EBITDA⁽¹⁾ driven by the winddown of operations in our Tinnu investments at the end of 2021
- Strong cash position and minimal liabilities offer us flexibility to invest organically in our manufacturing capabilities

(1) Consolidated Adjusted EBITDA is a non-GAAP measure. See Appendix for definitions and reconciliations.

Merger with Arq Creates a Vertically Integrated Environmental Technology Company

1 Expand Growth Opportunities

- **GAC Market Development:** provides opportunity to address more than 80% of the North American AC Market (up from 35% currently addressed through existing lignite products)
- **Adjacent Market Growth:** diversification opportunities into numerous markets including additives for Carbon Black, Asphalt and Marine Fuel
- **Strong Partnerships:** opportunity to leverage combined existing strategic partnerships with leading companies for growth and market access

2 Sustainable Competitive Advantage

- **Secured Feedstock Source:** unique, waste-derived feedstock produces high performance and environmentally beneficial products
- **Vertical Integration:** significant control of supply chain, enabling reliable and efficient production and distribution of expanded portfolio of GAC / PAC and environmentally beneficial carbon-sourced products
- **Attractive Environmental Profile:** waste feedstock results in lower manufacturing emissions and promotes reclamation of property for future use and increased biodiversity

3 Enhance Long-term Profitability

- **Attractive Financial Profile:** promotes market diversification, shifting exposure away from power generation and towards higher margin, growing markets
- **AC Market Access:** strong synergies between Arq's feedstock and ADES' operations, technology and commercial infrastructure
- **Strategic Growth:** promotes pursuit of additional opportunities such as higher margin GAC and additive markets for Carbon Black, Asphalt and Marine Fuel

2022 Priorities



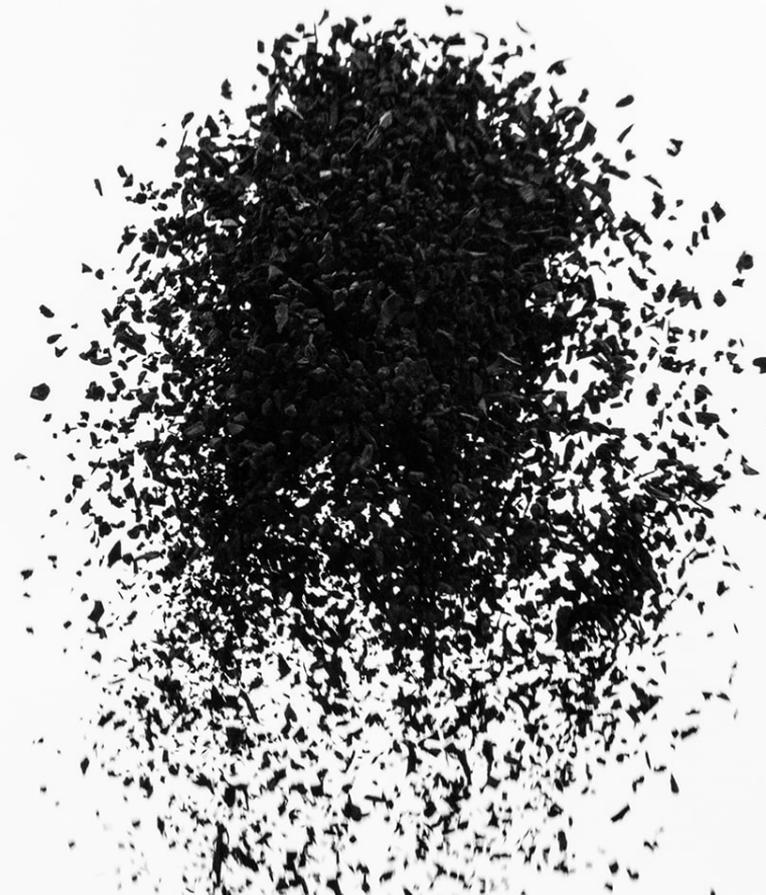
ENHANCE LONG-TERM PROFITABILITY AT RED RIVER PLANT:

- Capitalize on highly efficient and low-cost, world class manufacturing facilities
- Pursue optimal customer mix to leverage enhanced value creation through new customer contracts
- Structurally upgrade customer contracting terms to minimize headwinds from increased cost pressures stemming from inventory build and supply chain challenges
- Accelerate diversification among product and customer mix through investment in new product development
- Remain vigilant for additional rationalization opportunities and supply agreements



ALLOCATE CASH FLOWS & ASSETS TO DRIVE SHAREHOLDER VALUE:

- Invest in Red River plant's strategic initiatives to solidify position as provider-of-choice for activated carbon
- Conclude strategic alternatives review and ensure maximization of shareholder value





APPENDIX

Appendix A: 10-Q Balance Sheet⁽¹⁾

<i>(in thousands, except share data)</i>	As of	
	September 30, 2022	December 31, 2021
ASSETS		
Current assets:		
Cash	\$ 75,823	\$ 78,753
Receivables, net	13,903	12,622
Receivables, related parties	—	2,481
Inventories, net	15,261	7,850
Prepaid expenses and other current assets	7,653	6,661
Total current assets	112,640	108,367
Restricted cash, long-term	10,000	10,027
Property, plant and equipment, net of accumulated depreciation of \$10,704 and \$7,684, respectively	33,286	30,171
Other long-term assets, net	29,529	36,871
Total Assets	\$ 185,455	\$ 185,436
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable and accrued expenses	\$ 18,652	\$ 16,486
Current portion of finance lease obligations	1,182	1,011
Other current liabilities	5,361	5,124
Total current liabilities	25,195	22,621
Long-term finance lease obligations, net of current portion	3,731	3,152
Other long-term liabilities	13,906	12,362
Total Liabilities	42,832	38,135
Commitments and contingencies (Note 8)		
Stockholders' equity:		
Preferred stock: par value of \$.001 per share, 50,000,000 shares authorized, none outstanding	—	—
Common stock: par value of \$.001 per share, 100,000,000 shares authorized, 23,730,499 and 23,460,212 shares issued, and 19,112,353 and 18,842,066 shares outstanding at September 30, 2022 and December 31, 2021, respectively	24	23
Treasury stock, at cost: 4,618,146 and 4,618,146 shares as of September 30, 2022 and December 31, 2021, respectively	(47,692)	(47,692)
Additional paid-in capital	103,175	102,106
Retained earnings	87,116	92,864
Total Stockholders' Equity	142,623	147,301
Total Liabilities and Stockholders' Equity	\$ 185,455	\$ 185,436

(1) See complete, unaudited Condensed Consolidated Financial Statements and Notes related thereto within the Quarterly Report on Form 10-Q for the period ended September 30, 2022.

Appendix B: 10-Q Income Statement⁽¹⁾

<i>(in thousands, except per share data)</i>	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
Revenues:				
Consumables	\$ 28,437	\$ 26,693	\$ 79,578	\$ 62,642
License royalties, related party	—	4,165	—	11,888
Total revenues	28,437	30,858	79,578	74,530
Operating expenses:				
Consumables cost of revenue, exclusive of depreciation and amortization	21,575	19,956	62,992	48,672
Payroll and benefits	2,313	2,637	7,458	8,014
Legal and professional fees	3,668	1,106	7,395	4,340
General and administrative	1,833	1,715	5,628	5,223
Depreciation, amortization, depletion and accretion	1,671	2,145	4,765	6,155
Loss (gain) on change in estimate, asset retirement obligation	—	—	34	(1,942)
Total operating expenses	31,060	27,559	88,272	70,462
Operating (loss) income	(2,623)	3,299	(8,694)	4,068
Other income (expense):				
Earnings from equity method investments	—	22,195	3,222	61,944
Gain on extinguishment of debt	—	3,345	—	3,345
Interest expense	(83)	(86)	(259)	(1,416)
Other	315	81	(19)	652
Total other income	232	25,535	2,944	64,525
(Loss) income before income tax expense	(2,391)	28,834	(5,750)	68,593
Income tax (benefit) expense	—	4,581	—	14,013
Net (loss) income	\$ (2,391)	\$ 24,253	\$ (5,750)	\$ 54,580
(Loss) earnings per common share (Note 1):				
Basic	\$ (0.13)	\$ 1.33	\$ (0.31)	\$ 2.99
Diluted	\$ (0.13)	\$ 1.31	\$ (0.31)	\$ 2.96
Weighted-average number of common shares outstanding:				
Basic	18,487	18,292	18,435	18,243
Diluted	18,487	18,489	18,435	18,416

(1) See complete, unaudited Condensed Consolidated Financial Statements and Notes related thereto within the Quarterly Report on Form 10-Q for the period ended September 30, 2022.

Appendix C: 10-Q Cash Flow⁽¹⁾

<i>(in thousands)</i>	Nine Months Ended September 30,	
	2022	2021
Cash flows from operating activities		
Net (loss) income	\$ (5,750)	\$ 54,580
Adjustments to reconcile net (loss) income to net cash provided by operating activities:		
Depreciation, amortization, depletion and accretion	4,765	6,155
Earnings from equity method investments	(3,222)	(61,944)
Operating lease expense	1,953	1,481
Stock-based compensation expense	1,455	1,476
Deferred income tax expense	—	9,046
Amortization of debt discount and debt issuance costs	—	945
Loss (gain) on change in estimate, asset retirement obligation	34	(1,942)
Gain on extinguishment of debt	—	(3,345)
Other non-cash items, net	404	(352)
Changes in operating assets and liabilities:		
Receivables and related party receivables	1,199	(2,835)
Prepaid expenses and other assets	(991)	(16)
Inventories, net	(7,222)	3,658
Other long-term assets, net	2,136	(4,009)
Accounts payable and accrued expenses	1,827	2,388
Other current liabilities	(184)	(3,489)
Operating lease liabilities	1,445	3,878
Other long-term liabilities	206	(3,031)
Distributions from equity method investees, return on investment	2,297	22,044
Net cash provided by operating activities	\$ 352	\$ 24,688

(1) See complete, unaudited Condensed Consolidated Financial Statements and Notes related thereto within the Quarterly Report on Form 10-Q for the period ended September 30, 2022.

Appendix C: 10-Q Cash Flow (continued)⁽¹⁾

<i>(in thousands)</i>	Nine Months Ended September 30,	
	2022	2021
Cash flows from investing activities		
Distributions from equity method investees in excess of cumulative earnings	\$ 3,316	\$ 44,707
Acquisition of property, plant, equipment, and intangible assets, net	(6,178)	(5,403)
Mine development costs	(345)	(1,262)
Proceeds from sale of property and equipment	1,241	895
Net cash (used in) provided by investing activities	(1,966)	38,937
Cash flows from financing activities		
Principal payments on finance lease obligations	(913)	(1,085)
Repurchase of common shares to satisfy tax withholdings	(385)	(241)
Dividends paid	(45)	(92)
Principal payments on term loan	—	(16,000)
Net cash used in financing activities	(1,343)	(17,418)
(Decrease) increase in Cash and Restricted Cash	(2,957)	46,207
Cash and Restricted Cash, beginning of period	88,780	35,932
Cash and Restricted Cash, end of period	\$ 85,823	\$ 82,139
Supplemental disclosure of non-cash investing and financing activities:		
Acquisition of property and equipment through finance lease	\$ 1,641	\$ —
Acquisition of property and equipment through accounts payable	\$ 339	\$ 128

(1) See complete, unaudited Condensed Consolidated Financial Statements and Notes related thereto within the Quarterly Report on Form 10-Q for the period ended September 30, 2022.

Appendix D: Non-GAAP Financial Measure & Consolidated Adjusted EBITDA Reconciliation to Net (Loss) Income

Note on Non-GAAP Financial Measures

To supplement the Company's financial information presented in accordance with U.S. generally accepted accounting principles, or GAAP, this investor presentation includes non-GAAP measures of certain financial performance. The non-GAAP measures include Consolidated EBITDA and Consolidated Adjusted EBITDA. The Company included non-GAAP measures because management believes that they help to facilitate comparison of operating results between periods. The Company believes the non-GAAP measures provide useful information to both management and users of the financial statements by excluding certain expenses that may not be indicative of core operating results and business outlook. These non-GAAP measures are not in accordance with, or an alternative to, measures prepared in accordance with GAAP and may be different from non-GAAP measures used by other companies. In addition, these non-GAAP measures are not based on any comprehensive set of accounting rules or principles. These measures should only be used to evaluate the Company's results of operations in conjunction with the corresponding GAAP measures.

The Company has defined Consolidated EBITDA as net (loss) income, adjusted for the impact of the following items that are either non-cash or that the Company does not consider representative of its ongoing operating performance: depreciation, amortization, depletion and accretion, amortization of upfront customer consideration, interest expense, net, and income tax expense. The Company has defined Consolidated Adjusted EBITDA as Consolidated EBITDA reduced by the non-cash impact of equity earnings from equity method investments and gain on extinguishment of debt, increased by cash distributions from equity method investments, loss (gain) on change in estimate, asset retirement obligation and loss on early settlement of Norit receivable. The Company believes that the Consolidated Adjusted EBITDA measure is less susceptible to variances that affect the Company's operating performance.

The Company presents the non-GAAP measures because the Company believes they are useful as supplemental measures in evaluating the performance of the Company's operating performance and provide greater transparency into the results of operations. The Company's management uses Consolidated Adjusted EBITDA as a factor in evaluating the performance of its business. The adjustments to Consolidated Adjusted EBITDA in future periods are generally expected to be similar. Consolidated Adjusted EBITDA has limitations as an analytical tool, and you should not consider these measures in isolation or as a substitute for analyzing the Company's results as reported under GAAP.

Appendix E: Consolidated Adjusted EBITDA Reconciliation to Net (Loss) Income

<i>(in thousands)</i>	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
Net (loss) income	\$ (2,391)	\$ 24,253	\$ (5,750)	\$ 54,580
Depreciation, amortization, depletion and accretion	1,671	2,145	4,765	6,155
Amortization of Upfront Customer Consideration	127	127	381	381
Interest expense, net	44	25	163	1,188
Income tax expense	—	4,581	—	14,013
Consolidated (EBITDA loss) EBITDA	(549)	31,131	(441)	76,317
Cash distributions from equity method investees	—	22,875	5,613	66,751
Equity earnings	—	(22,195)	(3,222)	(61,944)
Gain on extinguishment of debt	—	(3,345)	—	(3,345)
Loss (gain) on change in estimate, asset retirement obligation	—	—	34	(1,942)
Loss on early settlement of Norit Receivable	—	—	535	—
Consolidated (Adjusted EBITDA loss) Adjusted EBITDA	\$ (549)	\$ 28,466	\$ 2,519	\$ 75,837