

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

Form 10-Q

(Mark One)

☒ QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended June 30, 2020

OR

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from to

Commission file number: 001-33492

CVR ENERGY, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)



61-1512186
(I.R.S. Employer
Identification No.)

2277 Plaza Drive, Suite 500, Sugar Land, Texas 77479
(Address of principal executive offices) (Zip Code)
(281) 207-3200
(Registrant's telephone number, including area code)

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

<u>Title of each class</u>	<u>Trading Symbol(s)</u>	<u>Name of each exchange on which registered</u>
Common Stock, \$0.01 par value per share	CVI	The New York Stock Exchange

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 every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

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.

Large accelerated filer	☒	Accelerated filer	☐	Non-accelerated filer	☐
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 by Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

There were 100,530,599 shares of the registrant's common stock outstanding at July 31, 2020.

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June 30, 2020

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This Quarterly Report on Form 10-Q (including documents incorporated by reference herein) contains statements with respect to our expectations or beliefs as to future events. These types of statements are “forward-looking” and subject to uncertainties. See “Important Information Regarding Forward-Looking Statements” section of this filing.

Important Information Regarding Forward-Looking Statements

This Quarterly Report on Form 10-Q (this “Report”) contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), including, but not limited to, those under Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations. These forward-looking statements are subject to a number of risks and uncertainties, many of which are beyond our control. All statements other than statements of historical fact, including without limitation, statements regarding future operations, financial position, estimated revenues and losses, growth, capital projects, stock or unit repurchases, impacts of legal proceedings, projected costs, prospects, plans and objectives are forward-looking statements. The words “could,” “believe,” “anticipate,” “intend,” “estimate,” “expect,” “may,” “continue,” “predict,” “potential,” “project,” and similar terms and phrases are intended to identify forward-looking statements.

Although we believe our assumptions concerning future events are reasonable, a number of risks, uncertainties, and other factors could cause actual results and trends to differ materially from those projected or forward looking. Forward looking statements, as well as certain risks, contingencies or uncertainties that may impact our forward looking statements, include but are not limited to the following:

- volatile margins in the refining industry and exposure to the risks associated with volatile crude oil, refined product and feedstock prices;
- the availability of adequate cash and other sources of liquidity for the capital needs of our businesses;
- the severity, magnitude, duration, and impact of the novel coronavirus 2019 (“COVID-19”) pandemic and of businesses’ and governments’ responses to such pandemic on our operations, personnel, commercial activity, and supply and demand across our and our customers’ and suppliers’ business;
- changes in market conditions and market volatility arising from the COVID-19 pandemic, including crude oil and other commodity prices, demand for those commodities, storage and transportation capacities, and the impact of such changes on our operating results and financial position;
- the ability to forecast our future financial condition, results of operations, revenues and expenses;
- the effects of transactions involving forward and derivative instruments;
- changes in laws, regulations and policies with respect to the export of crude oil, refined products or other hydrocarbons;
- interruption in pipelines supplying feedstocks or distributing the petroleum business’ products;
- competition in the petroleum and nitrogen fertilizer businesses including potential impacts of domestic and global supply and demand and/or domestic or international duties, tariffs, or similar costs;
- capital expenditures;
- changes in our or our segments’ credit profiles;
- the cyclical and seasonal nature of the petroleum and nitrogen fertilizer businesses;
- the supply, availability, and price levels of essential raw materials and feedstocks;
- our production levels, including the risk of a material decline in those levels;
- accidents or other unscheduled shutdowns or interruptions affecting our facilities, machinery, or equipment, or those of our suppliers or customers;
- existing and future laws, rulings, and regulations, including but not limited to those relating to the environment, climate change and/or the transportation of production of hazardous chemicals like ammonia, including potential liabilities or capital requirements arising from such laws, rulings or regulations;
- potential operating hazards from accidents, fire, severe weather, tornadoes, floods, or other natural disasters;
- the impact of weather on the nitrogen fertilizer business including our ability to produce, market or sell fertilizer products profitability or at all;
- rulings, judgements or settlements in litigation, tax or other legal or regulatory matters;
- the dependence of the nitrogen fertilizer business on customers and distributors including to transport goods and equipment;
- the reliance on, or the ability to procure economically or at all, pet coke our nitrogen fertilizer business purchases from CVR Refining, LP and third-party suppliers or the natural gas, electricity, oxygen, nitrogen, sulfur processing and compressed dry air and other products purchased from third parties by the nitrogen fertilizer and petroleum businesses;
- risks associated with third party operation of or control over important facilities necessary for operation of our refineries and nitrogen fertilizer facilities;
- risks of terrorism, cybersecurity attacks, and the security of chemical manufacturing facilities and other matters beyond our control;
- our lack of diversification of assets or operating and supply areas;

- the petroleum business' and the nitrogen fertilizer business' dependence on significant customers and the creditworthiness and performance by counterparties;
- the potential loss of the nitrogen fertilizer business' transportation cost advantage over its competitors;
- the potential inability to successfully implement our business strategies, including the completion of significant capital programs or projects;
- our ability to continue to license the technology used for our operations;
- our petroleum business' ability to purchase renewable identification numbers ("RINs") on a timely and cost effective basis;
- our businesses' ability to obtain, retain or renew environmental and other governmental permits, licenses or authorizations necessary for the operation of its business;
- existing and proposed laws, rulings, and regulations, including but not limited to those relating to climate change, alternative energy or fuel sources, and existing and future regulations related to the end-use of our products or the application of fertilizers;
- refinery and nitrogen fertilizer facilities' operating hazards and interruptions, including unscheduled maintenance or downtime and the availability of adequate insurance coverage;
- risks related to services provided by or competition among our subsidiaries, including conflicts of interests and control of CVR Partners' general partner;
- instability and volatility in the capital and credit markets;
- restrictions in our debt agreements;
- asset impairments and impacts thereof;
- the variable nature of CVR Partners' distributions, including the ability of its general partner to modify or revoke its distribution policy, or to cease making cash distributions on its common units;
- risks associated with noncompliance by CVR Partners with continued listing standards of the New York Stock Exchange (the "NYSE") including potential suspension or delisting and the impacts thereof on CVR Partners' common unit price, valuation, access to capital, liquidity, the number of investors willing to hold or acquire CVR Partners' common units, and its ability to issue securities or obtain financing;
- changes in CVR Partners' treatment as a partnership for U.S. federal income or state tax purposes;
- our ability to recover under our insurance policies for damages or losses in full or at all; and
- the factors described in greater detail under "Risk Factors" in Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2019 and this Report and our other filings with the Securities and Exchange Commission (the "SEC").

All forward looking statements contained in this Report only speak as of the date of this Report. We undertake no obligation to publicly update or revise any forward-looking statements to reflect events or circumstances that occur after the date of this Report, or to reflect the occurrence of unanticipated events, except to the extent required by law.

PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

CVR ENERGY, INC. AND SUBSIDIARIES CONDENSED CONSOLIDATED BALANCE SHEETS (unaudited)

(in millions)	June 30, 2020	December 31, 2019
ASSETS		
Current assets:		
Cash and cash equivalents (including \$33 and \$37, respectively, of consolidated variable interest entities ("VIEs"))	\$ 606	\$ 652
Accounts receivable (including \$15 and \$34, respectively, of VIEs)	148	182
Inventories (including \$47 and \$48, respectively, of VIEs)	252	373
Prepaid expenses and other current assets (including \$5 and \$5, respectively, of VIEs)	253	67
Total current assets	1,259	1,274
Property, plant and equipment, net (including \$925 and \$952, respectively, of VIEs)	2,294	2,336
Other long-term assets (including \$19 and \$61, respectively, of VIEs)	375	295
Total assets	\$ 3,928	\$ 3,905
LIABILITIES AND EQUITY		
Current liabilities:		
Accounts payable (including \$24 and \$24, respectively, of VIEs)	\$ 236	\$ 412
Other current liabilities (including \$21 and \$52, respectively, of VIEs)	133	184
Total current liabilities	369	596
Long-term debt and finance lease obligations (including \$632 and \$632, respectively, of VIEs)	1,683	1,190
Deferred income taxes	408	396
Other long-term liabilities (including \$9 and \$10, respectively, of VIEs)	55	55
Total long-term liabilities	2,146	1,641
Commitments and contingencies (See Note 13)		
Equity:		
CVR stockholders' equity:		
Common stock \$0.01 par value per share, 350,000,000 shares authorized, 100,629,209 and 100,629,209 shares issued as of June 30, 2020 and December 31, 2019, respectively.	1	1
Additional paid-in-capital	1,508	1,507
Accumulated deficit	(327)	(113)
Treasury stock, 98,610 shares at cost	(2)	(2)
Total CVR stockholders' equity	1,180	1,393
Noncontrolling interest	233	275
Total equity	1,413	1,668
Total liabilities and equity	\$ 3,928	\$ 3,905

The accompanying notes are an integral part of these condensed consolidated financial statements.

CVR ENERGY, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
(in millions, except share data)				
Net sales	\$ 675	\$ 1,687	\$ 1,806	\$ 3,173
Operating costs and expenses:				
Cost of materials and other	444	1,267	1,501	2,368
Direct operating expenses (exclusive of depreciation and amortization)	119	132	237	258
Depreciation and amortization	71	76	134	141
Cost of sales	634	1,475	1,872	2,767
Selling, general and administrative expenses (exclusive of depreciation and amortization)	22	27	47	57
Depreciation and amortization	3	2	4	4
Loss (gain) on asset disposals	1	(9)	2	(7)
Goodwill impairment	41	—	41	—
Operating (loss) income	(26)	192	(160)	352
Other (expense) income:				
Interest expense, net	(31)	(26)	(67)	(52)
Investment income from marketable securities	21	—	52	—
Other (expense) income, net	(1)	3	—	6
(Loss) income before income tax expense	(37)	169	(175)	306
Income tax (benefit) expense	(5)	41	(42)	76
Net (loss) income	(32)	128	(133)	230
Less: Net (loss) income attributable to noncontrolling interest	(27)	12	(41)	13
Net (loss) income attributable to CVR Energy stockholders	\$ (5)	\$ 116	\$ (92)	\$ 217
Basic and diluted (loss) earnings per share	\$ (0.05)	\$ 1.16	\$ (0.92)	\$ 2.16
Dividends declared per share	\$ 0.40	\$ 0.75	\$ 1.20	\$ 1.50
Weighted-average common shares outstanding:				
Basic and diluted	100.5	100.5	100.5	100.5

The accompanying notes are an integral part of these condensed consolidated financial statements.

CVR ENERGY, INC AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY
(unaudited)

Common Stockholders								
(in millions, except share data)	Shares Issued	\$0.01 Par Value Common Stock	Additional Paid-In Capital	Accumulated Deficit	Treasury Stock	Total CVR Stockholders' Equity	Noncontrolling Interest	Total Equity
Balance at December 31, 2019	100,629,209	\$ 1	\$ 1,507	\$ (113)	\$ (2)	\$ 1,393	\$ 275	\$ 1,668
Dividends paid to CVR Energy stockholders	—	—	—	(80)	—	(80)	—	(80)
Other	—	—	—	(1)	—	(1)	—	(1)
Net loss	—	—	—	(87)	—	(87)	(14)	(101)
Balance at March 31, 2020	100,629,209	\$ 1	\$ 1,507	\$ (281)	\$ (2)	\$ 1,225	\$ 261	\$ 1,486
Dividends paid to CVR Energy stockholders	—	—	—	(41)	—	(41)	—	(41)
Changes in equity due to CVR Partners' common unit repurchases	—	—	1	—	—	1	(1)	—
Net loss	—	—	—	(5)	—	(5)	(27)	(32)
Balance at June 30, 2020	100,629,209	1	\$ 1,508	\$ (327)	\$ (2)	\$ 1,180	\$ 233	\$ 1,413

Common Stockholders								
(in millions, except share data)	Shares Issued	\$0.01 Par Value Common Stock	Additional Paid-In Capital	Accumulated Deficit	Treasury Stock	Total CVR Stockholders' Equity	Noncontrolling Interest	Total Equity
Balance at December 31, 2018	100,629,209	\$ 1	\$ 1,474	\$ (187)	\$ (2)	\$ 1,286	\$ 657	\$ 1,943
Dividends paid to CVR Energy stockholders	—	—	—	(75)	—	(75)	—	(75)
Distributions from CVR Partners to its public unitholders	—	—	—	—	—	—	(9)	(9)
Acquisition of CVR Refining noncontrolling interest	—	—	(1)	—	—	(1)	(334)	(335)
Effect of turnaround accounting change	—	—	34	—	—	34	—	34
Other	—	—	(1)	(1)	—	(2)	—	(2)
Net income	—	—	—	101	—	101	1	102
Balance at March 31, 2019	100,629,209	\$ 1	\$ 1,506	\$ (162)	\$ (2)	\$ 1,343	\$ 315	\$ 1,658
Dividends paid to CVR Energy stockholders	—	—	—	(75)	—	(75)	—	(75)
Distributions from CVR Partners to its public unitholders	—	—	—	—	—	—	(5)	(5)
Net income	—	—	—	116	—	116	12	128
Balance at June 30, 2019	100,629,209	\$ 1	\$ 1,506	\$ (121)	\$ (2)	\$ 1,384	\$ 322	\$ 1,706

The accompanying notes are an integral part of these condensed consolidated financial statements.

CVR ENERGY, INC AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(unaudited)

(in millions)	Six Months Ended June 30,	
	2020	2019
Cash flows from operating activities:		
Net (loss) income	\$ (133)	\$ 230
Adjustments to reconcile net (loss) income to net cash (used in) provided by operating activities:		
Depreciation and amortization	138	145
Loss on lower of cost or net realizable value adjustment	58	—
Goodwill impairment	41	—
Unrealized gain on marketable securities	(48)	—
Deferred income tax expense	11	21
Loss (gain) on disposition of assets	2	(7)
Share-based compensation	1	11
Other items	8	4
Changes in assets and liabilities:		
Current assets and liabilities	(130)	(22)
Non-current assets and liabilities	3	2
Net cash (used in) provided by operating activities	(49)	384
Cash flows from investing activities:		
Capital expenditures	(77)	(55)
Turnaround expenditures	(147)	(24)
Proceeds from sale of assets	1	36
Investment in marketable securities	(140)	—
Other investing activities	2	—
Net cash used in investing activities	(361)	(43)
Cash flows from financing activities:		
Proceeds from issuance of senior secured notes	1,000	—
Principal payments on senior secured notes	(500)	—
Call premium on extinguishment of debt	(5)	—
Repurchase of CVR Partners common units	(1)	—
Acquisition of CVR Refining common units	—	(301)
Dividends to CVR Energy's stockholders	(121)	(150)
Distributions to CVR Refining or CVR Partners' noncontrolling interest holders	—	(14)
Other financing activities	(9)	(4)
Net cash provided by (used in) financing activities	364	(469)
Net decrease in cash and cash equivalents	(46)	(128)
Cash and cash equivalents, beginning of period	652	668
Cash and cash equivalents, end of period	\$ 606	\$ 540

The accompanying notes are an integral part of these condensed consolidated financial statements.

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

(unaudited)

(1) Organization and Nature of Business

Organization

CVR Energy, Inc. (“CVR Energy,” “CVR,” “we,” “us,” “our,” or the “Company”) is a diversified holding company primarily engaged in the petroleum refining and nitrogen fertilizer manufacturing industries through its holdings in CVR Refining, LP (the “Petroleum Segment” or “CVR Refining”) and CVR Partners, LP (the “Nitrogen Fertilizer Segment” or “CVR Partners”). CVR Refining is an independent petroleum refiner and marketer of high value transportation fuels. CVR Partners produces and markets nitrogen fertilizers in the form of urea ammonium nitrate (“UAN”) and ammonia. CVR’s common stock is listed on the New York Stock Exchange (the “NYSE”) under the symbol “CVI.” Icahn Enterprises L.P. and its affiliates (“IEP”) owned approximately 71% of the Company’s outstanding common shares as of June 30, 2020.

CVR Partners, LP

As of June 30, 2020, public security holders held approximately 65% of CVR Partners’ outstanding common units and CVR Services, LLC (“CVR Services”) (formerly Coffeyville Resources, LLC), a wholly-owned subsidiary of CVR Energy, held approximately 35% of CVR Partners’ outstanding common units. In addition, CVR Services held 100% of CVR Partners’ general partner, CVR GP, LLC, which held a non-economic general partner interest in CVR Partners as of June 30, 2020. Following the acquisition of the noncontrolling interest in CVR Refining in January 2019, the noncontrolling interest reflected on the condensed consolidated balance sheets of CVR is only impacted by the net income of, and distributions from, CVR Partners.

On April 20, 2020, the average closing price of CVR Partners’ common units over a 30 consecutive trading-day period fell below \$1.00 per common unit, resulting in noncompliance with the continued listing compliance standards in Section 802.01C of the NYSE Listing Company Manual. CVR Partners received written notification of this noncompliance from the NYSE on April 22, 2020, and currently has until January 1, 2021 to regain compliance or be subject to the NYSE’s suspension and delisting procedures. See the Form 8-K filed by CVR Partners with the SEC on April 24, 2020 for further discussion. As of June 30, 2020, the average closing price of CVR Partners’ common units over a consecutive 30 trading-day period has remained below \$1.00 per common unit. CVR Partners currently intends to monitor the closing price of its common units and consider available options if its common units do not trade at a level likely to result in CVR Partners regaining compliance with Section 802.01C by January 1, 2021. These options could include, but are not limited to, additional repurchases of common units, reverse unit splits, or other actions.

On May 6, 2020, the board of directors of CVR Partners’ general partner (the “UAN GP Board”), on behalf of CVR Partners, authorized a unit repurchase program (the “Unit Repurchase Program”). The Unit Repurchase Program enables CVR Partners to repurchase up to \$10 million of its common units. Repurchases under the Unit Repurchase Program may be made from time-to-time through open market transactions, block trades, privately negotiated transactions, or otherwise in accordance with applicable securities laws. The timing, price, and amount of repurchases (if any) will be made at the discretion of management of CVR Partners’ general partner and are subject to market conditions, as well as corporate, regulatory, and other considerations. This Unit Repurchase Program does not obligate CVR Partners to acquire any common units and may be cancelled or terminated by the UAN GP Board at any time. On May 20, 2020, CVR Partners entered into a common unit repurchase agreement, pursuant to Rules 10b5-1 and 10b-18 of the Exchange Act, to facilitate the repurchase of its common units and which CVR Partners may terminate at any time by providing written notice. During the three and six months ended June 30, 2020, CVR Partners repurchased 890,218 common units on the open market at a cost of \$1.0 million, inclusive of transaction costs, or an average price of \$1.07 per common unit. At June 30, 2020, CVR Partners had \$9.0 million in authority remaining under the Unit Repurchase Program.

As a result of these repurchases, and the resulting change in CVR Energy’s ownership of CVR Partners while maintaining control, CVR Energy recognized an increase of \$1.2 million to additional paid-in capital from the reduction of non-controlling interests totaling \$1.6 million and the recognition of a deferred tax liability totaling \$0.4 million from changes in its book versus tax basis in CVR Partners.

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(unaudited)

(2) Basis of Presentation

The accompanying condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (“GAAP”) and in accordance with the rules and regulations of the Securities and Exchange Commission (the “SEC”). These condensed consolidated financial statements should be read in conjunction with the December 31, 2019 audited consolidated financial statements and notes thereto included in CVR Energy’s Annual Report on Form 10-K for the year ended December 31, 2019 (the “2019 Form 10-K”).

Our condensed consolidated financial statements include the consolidated results of CVR Partners, which is defined as a variable interest entity.

In the opinion of the Company’s management, the accompanying condensed consolidated financial statements reflect all adjustments that are necessary for fair presentation of the financial position and results of operations of the Company for the periods presented. Such adjustments are of a normal recurring nature, unless otherwise disclosed.

Certain reclassifications have been made within the condensed consolidated balance sheets as of December 31, 2019 and the condensed consolidated statements of operations for the three and six months ended June 30, 2019. Catalyst inventory with a value of \$17 million as of December 31, 2019 was reclassified during the first quarter of 2020 to Other long-term assets to conform to current presentation.

The preparation of the condensed consolidated financial statements in conformity with GAAP requires management to make certain estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses, and the disclosure of contingent assets and liabilities. Actual results could differ from those estimates. Results of operations and cash flows for the interim periods presented are not necessarily indicative of the results that will be realized for the year ending December 31, 2020 or any other interim or annual period.

(3) Recent Accounting Pronouncements and Accounting Changes

Recent Accounting Pronouncements - Adoption of Credit Losses Standard

In June 2016, the Financial Accounting Standards Board (“FASB”) issued Accounting Standard Update (“ASU”) 2016-13, Financial Instruments - Credit Losses (Topic 326). The ASU replaces the incurred loss model with a current expected credit loss model for more timely recognition of expected impairment losses for most financial assets and certain other instruments that are not measured at fair value through net income. Effective January 1, 2020, we adopted this ASU with no material impact on the Company’s consolidated financial position or results of operations.

Recent Accounting Pronouncements - Adoption of Fair Value Measurement Standard

In August 2018, the FASB issued ASU 2018-13, Fair Value Measurement (Topic 820). The ASU eliminates such disclosures as the amount of, and reasons for, transfers between Level 1 and Level 2 of the fair value hierarchy. Certain disclosures are required to be applied on a retrospective basis and others on a prospective basis. Effective January 1, 2020, we adopted this ASU with no material impact on the Company’s disclosures.

New Accounting Standards Issued But Not Yet Implemented

In December 2019, the FASB issued ASU 2019-12, Income Taxes (Topic 740). The ASU simplifies the accounting for income taxes by removing certain exceptions to the general principles in Topic 740 and modifies other areas of the topic to clarify the application of GAAP. Certain amendments within the standard are required to be applied on a retrospective basis and others on a prospective basis. This standard is effective for the Company beginning January 1, 2021, with early adoption permitted. The Company is evaluating the effect of adopting this new accounting guidance on its consolidated financial statements, but does not currently expect adoption will have a material impact on the Company’s consolidated financial position or results of operations. The Company does not intend to early adopt this ASU.

In March 2020, the FASB issued ASU 2020-04, Reference Rate Reform (Topic 848). This ASU was issued because, by the end of 2021, banks will no longer be required to report information that is used to determine London Interbank Offered Rate (“LIBOR”), which is used globally by all types of entities. As a result, LIBOR could be discontinued, as well as other interest

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(unaudited)

rates used globally. ASU 2020-04 provides companies with optional expedients for contract modifications under Topics 310, 470, 842, and 815-15, excluded components of certain hedging relationships, fair value hedges, and cash flow hedges, as well as certain exceptions, which are intended to help ease the potential accounting burden associated with transitioning away from these reference rates. Companies can apply the ASU immediately. However, the guidance will only be available for a limited time (generally through December 31, 2022). The Company is currently evaluating the impact that adopting this new accounting standard will have on its consolidated financial statements and related disclosures.

(4) Inventories

Inventories consisted of the following:

(in millions)	June 30, 2020	December 31, 2019
Finished goods	\$ 100	\$ 177
Raw materials	73	112
In-process inventories	15	18
Parts, supplies and other	64	66
Total inventories	<u>\$ 252</u>	<u>\$ 373</u>

The carrying amounts of the Petroleum Segment's inventories exceeded their net realizable value (market value) by \$58 million resulting in the recognition of a lower of cost or net realizable value adjustment as of March 31, 2020. The \$58 million loss represents the difference between the carrying value of the Petroleum Segment's inventories accounted for using the first-in-first-out method and selling prices for refined products subsequent to March 31, 2020. No adjustment was necessary as of June 30, 2020 or December 31, 2019.

(5) Property, Plant and Equipment

Property, plant and equipment consisted of the following:

(in millions)	June 30, 2020	December 31, 2019
Machinery and equipment	\$ 3,877	\$ 3,829
Buildings and improvements	88	87
ROU finance leases	55	57
Land and improvements	47	46
Furniture and fixtures	37	35
Construction in progress	92	95
Other	14	14
	<u>4,210</u>	<u>4,163</u>
Less: Accumulated depreciation	1,916	1,827
Total property, plant and equipment, net	<u>\$ 2,294</u>	<u>\$ 2,336</u>

As of June 30, 2020, the Company had not identified the existence of an impairment indicator for our long-lived asset groups as outlined under ASC 360.

(6) Goodwill

One of the reporting units associated with our Nitrogen Fertilizer Segment's Coffeyville, Kansas facility (the "Coffeyville Facility") had a goodwill balance of \$41 million at December 31, 2019. During the second quarter of 2020, following the completion of the spring planting season, the market pricing for ammonia and UAN, the Nitrogen Fertilizer Segment's two primary products, experienced significant pricing declines driven by updated market expectations around supply and demand fundamentals which are currently expected to continue into the second half of 2020. Additionally, significant uncertainty remains as to the nature and extent of impacts to be seen on the overall demand for corn and soybean given reduced ethanol production and broader economic conditions which may negatively impact demand. Therefore in connection with the preparation of the financial statements for the three months ended June 30, 2020, given the pricing declines experienced in the second quarter of 2020, further muting of our near-term economic recovery assumptions, and market price performance of CVR

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Partners' common units, the Company concluded an impairment indicator was present and a triggering event under ASC 350 had occurred as of June 30, 2020. Significant assumptions inherent in the valuation methodologies for goodwill are employed and include, but are not limited to, prospective financial information, growth rates, discount rates, inflationary factors, and cost of capital. Based on the interim quantitative analysis, it was determined that the estimated fair value of the Coffeyville Facility reporting unit did not exceed its carrying value. As a result, the Company recorded a non-cash impairment charge of \$41 million during the three months ended June 30, 2020.

(7) Leases

Lease Overview

We lease certain pipelines, storage tanks, railcars, office space, land, and equipment across our refining, fertilizer and corporate operations. Most leases include one or more options to renew, with renewal terms that can extend the lease term from one to 20 years or more. The exercise of lease renewal options is at our sole discretion. Certain leases also include options to purchase the leased property. The depreciable life of assets and leasehold improvements is limited by the expected lease term, unless there is a transfer of title or purchase option reasonably certain of exercise. Certain of our lease agreements include rental payments which are adjusted periodically for factors such as inflation. Our lease agreements do not contain any material residual value guarantees or material restrictive covenants. Additionally, we do not have any material lessor or sub-leasing arrangements.

Balance Sheet Summary as of June 30, 2020 and December 31, 2019

The following tables summarize the right of use asset and lease liability balances for the Company's operating and finance leases at June 30, 2020 and December 31, 2019:

(in millions)	<u>June 30, 2020</u>	<u>December 31, 2019</u>
Operating Leases:		
ROU assets, net		
Pipeline and storage	\$ 17	\$ 20
Railcars	10	12
Real estate and other	15	16
Lease liability		
Pipelines and storage	\$ 19	\$ 22
Railcars	10	12
Real estate and other	13	14
 (in millions)		
	<u>June 30, 2020</u>	<u>December 31, 2019</u>
Finance Leases:		
ROU assets, net		
Pipeline and storage	\$ 28	\$ 29
Real estate and other	23	24
Lease liability		
Pipelines and storage	\$ 39	\$ 40
Real estate and other	24	25

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Lease Expense Summary for the Three and Six Months Ended June 30, 2020 and 2019

We recognize lease expense on a straight-line basis over the lease term. For the three and six months ended June 30, 2020 and 2019, we recognized lease expense comprised of the following components:

(in millions)	Three Months Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
Operating lease expense	\$ 5	\$ 4	\$ 9	\$ 8
Finance lease expense:				
Amortization of ROU	\$ 1	\$ 1	\$ 3	\$ 3
Interest expense on lease liability	2	1	3	3

Short-term lease expense, recognized within Direct operating expenses (exclusive of depreciation and amortization), was \$2 million and \$4 million for the three and six months ended June 30, 2020, respectively, and \$2 million and \$4 million for the three and six months ended June 30, 2019, respectively.

Lease Terms and Discount Rates

The following outlines the remaining lease terms and discount rates used in the measurement of the Company's ROU assets and liabilities:

	June 30, 2020	December 31, 2019
Weighted-average remaining lease term (years)		
Operating Leases	3.3	3.7
Finance Leases	8.5	9.0
Weighted-average discount rate		
Operating Leases	5.6 %	5.6 %
Finance Leases	8.9 %	8.9 %

Maturities of Lease Liabilities

The following summarizes the remaining minimum lease payments through maturity of the Company's right-of-use assets and liabilities at June 30, 2020:

(in millions)	Operating Leases	Financing Leases
Remainder of 2020	\$ 8	\$ 5
2021	15	11
2022	11	11
2023	7	10
2024	4	10
Thereafter	—	43
Total lease payments	45	90
Less: imputed interest	(3)	(27)
Total lease liability	\$ 42	\$ 63

On July 31, 2020, Coffeyville Resources Nitrogen Fertilizers, LLC ("CRNF"), a subsidiary of CVR Partners, and Messer LLC ("Messer") entered into an On-Site Product Supply Agreement (the "Agreement"). Under the Agreement, among other obligations, Messer is obligated to supply and make certain capital improvements during the term of the Agreement, and CRNF is obligated to take as available and pay for, oxygen, nitrogen, and compressed dry air from Messer's facility. This arrangement for CRNF's purchase of oxygen, nitrogen, and dry air from Messer does not meet the definition of a lease under ASC 842, as CRNF does not expect to receive substantially all of the output of Messer's on-site production from its air separation unit over

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the life of the Agreement. The Agreement also obligates Messer to install a new oxygen storage vessel and related equipment to be used solely by the Coffeyville Facility. This arrangement for the use of the oxygen storage vessel and related equipment meets the definition of a lease under ASC 842, as CRNF will receive all output associated with the vessel. Based on terms outlined in the Agreement, the Company expects the lease of the oxygen storage vessel to be classified as a financing lease with an amount between \$20 and \$25 million being capitalized upon lease commencement when the oxygen storage vessel is placed in service.

(8) Other Current Liabilities

Other current liabilities were as follows:

(in millions)	June 30, 2020	December 31, 2019
Accrued taxes other than income taxes	\$ 29	\$ 28
Accrued interest	27	9
Personnel accruals	22	47
Operating lease liabilities	13	14
Accrued Renewable Fuel Standards (“RFS”) obligation	12	7
Current portion of long-term debt and finance lease obligations	7	5
Share-based compensation	6	6
Deferred revenue	3	28
Accrued income taxes	1	24
Accrued derivatives	—	7
Other accrued expenses and liabilities	13	9
Total other current liabilities	<u>\$ 133</u>	<u>\$ 184</u>

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(9) Long-Term Debt and Finance Lease Obligations

Long-term debt and finance lease obligations consist of the following:

(in millions)	June 30, 2020	December 31, 2019
CVR Partners:		
9.25% Senior Secured Notes due June 2023	\$ 645	\$ 645
6.50% Senior Notes due April 2021, net of current portion (1)	—	2
Unamortized discount and debt issuance costs	(13)	(15)
Total CVR Partners debt	\$ 632	\$ 632
CVR Refining:		
6.50% Senior Notes due November 2022 (2)	\$ —	\$ 500
Finance lease obligations, net of current portion (3)	57	61
Unamortized debt issuance cost	—	(3)
Total CVR Refining debt	\$ 57	\$ 558
CVR Energy:		
5.25% Senior Notes due February 2025	\$ 600	\$ —
5.75% Senior Notes due February 2028	400	—
Unamortized debt issuance costs	(6)	—
Total CVR Energy debt	994	—
Total long-term debt and finance lease obligations, net of current portion	\$ 1,683	\$ 1,190
Current portion of long-term debt and finance lease obligations (4)	7	5
Total long-term debt and finance lease obligations, including current portion	\$ 1,690	\$ 1,195

- (1) The 6.50% Notes, due April 2021, mature within 12 months, and, therefore, the outstanding balance of \$2 million has been classified as short-term as of June 30, 2020.
- (2) On January 27, 2020, the Company redeemed all of the 6.50% Senior Notes due November 2022 (the “2022 Notes”) for a redemption price equal to 101.083%, plus accrued and unpaid interest on the redeemed notes.
- (3) Current portion of finance lease obligations recognized was approximately \$5 million and \$5 million as of June 30, 2020 and December 31, 2019, respectively.
- (4) Amounts reported in Other current liabilities.

CVR Refining

On January 27, 2020, the Company redeemed all of the outstanding 2022 Notes and settled accrued interest of approximately \$8 million through the date of redemption. The redeemed notes were repurchased for approximately \$505 million, or 101.083% of par value. As a result of this transaction, the Company recognized an \$8 million loss on extinguishment of debt in the first quarter of 2020, which includes the call premium paid of \$5 million and the write-off of unamortized deferred financing costs of \$3 million.

CVR Energy

2025 Notes and 2028 Notes - On January 27, 2020, CVR Energy completed a private offering of \$600 million aggregate principal amount of 5.25% Senior Unsecured Notes due 2025 (the “2025 Notes”) and \$400 million aggregate principal amount of 5.75% Senior Unsecured Notes due 2028 (the “2028 Notes”) and, collectively with the 2025 Notes, the “Notes”). Interest on the Notes is payable semi-annually in arrears on February 15 and August 15 each year, commencing on August 15, 2020. The 2025 Notes mature on February 15, 2025, unless earlier redeemed or repurchased by the issuers. The 2028 Notes mature on February 15, 2028, unless earlier redeemed or repurchased by the issuers. The Notes are jointly and severally guaranteed on a senior unsecured basis by the wholly-owned subsidiaries of CVR Energy with the exception of CVR Partners and its

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subsidiaries and certain immaterial wholly-owned subsidiaries of CVR Energy. See Part II, Item 8 of the 2019 Form 10-K for further details of the Notes.

Credit Facilities

(in millions)	Total Capacity	Amount Borrowed as of June 30, 2020	Outstanding Letters of Credit	Available Capacity as of June 30, 2020	Maturity Date
CVR Partners:					
Asset Based (“AB”) Credit Facility (1)	\$ 46	\$ —	\$ —	\$ 46	September 30, 2021
CVR Refining:					
Amended and Restated Asset Based (“Amended and Restated ABL”) Credit Facility (2)	\$ 400	\$ —	\$ 7	\$ 393	November 14, 2022

- (1) Loans under the AB Credit Facility initially bear interest at an annual rate equal to (i) 2.00% plus LIBOR or (ii) 1.00% plus a base rate, subject to a 0.50% step-down based on the previous quarter’s excess availability.
- (2) Loans under the Amended and Restated ABL Credit Facility initially bear interest at an annual rate equal to (i) 1.50% plus LIBOR or (ii) 0.50% plus a base rate, subject to quarterly excess availability.

Covenant Compliance

The Company and its subsidiaries were in compliance with all covenants under their respective debt instruments as of June 30, 2020.

(10) Revenue

The following tables present the Company’s revenue, disaggregated by major product. The following tables include a reconciliation of the disaggregated revenue with the Company’s reportable segments.

(in millions)	Three Months Ended June 30, 2020			
	Petroleum	Nitrogen Fertilizer	Other / Eliminations	Consolidated
Major Product				
Gasoline	\$ 300	\$ —	\$ —	\$ 300
Distillates (1)	246	—	—	246
Ammonia	—	37	—	37
UAN	—	55	—	55
Other urea products	—	4	—	4
Freight revenue	4	7	—	11
Other (2)	12	2	(2)	12
Revenue from product sales	562	105	(2)	665
Crude oil sales	10	—	—	10
Net sales	\$ 572	\$ 105	\$ (2)	\$ 675

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		Six Months Ended June 30, 2020				
		Petroleum	Nitrogen Fertilizer	Other / Eliminations	Consolidated	
(in millions)						
<u>Major Product</u>						
Gasoline	\$	816	\$	—	\$	816
Distillates (1)		720		—		720
Ammonia		—	51	—		51
UAN		—	102	—		102
Other urea products		—	7	—		7
Freight revenue		9	15	—		24
Other (2)		35	5	(3)		37
Revenue from product sales		1,580	180	(3)		1,757
Crude oil sales		48	—	—		48
Other revenue (2)		1	—	—		1
Net sales	\$	1,629	\$	180	\$	1,806

		Three Months Ended June 30, 2019				
		Petroleum	Nitrogen Fertilizer	Other / Eliminations	Consolidated	
(in millions)						
<u>Major Product</u>						
Gasoline	\$	816	\$	—	\$	816
Distillates (1)		689		—		689
Ammonia		—	50	—		50
UAN		—	74	—		74
Other urea products		—	5	—		5
Freight revenue		6	7	—		13
Other (2)		34	—	(3)		31
Revenue from product sales		1,545	136	(3)		1,678
Crude oil sales		6	—	—		6
Other revenue (2)		1	2	—		3
Net sales	\$	1,552	\$	138	\$	1,687

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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(in millions)	Six Months Ended June 30, 2019			
	Petroleum	Nitrogen Fertilizer	Other / Eliminations	Consolidated
Major Product				
Gasoline	\$ 1,490	\$ —	\$ —	\$ 1,490
Distillates (1)	1,344	—	—	1,344
Ammonia	—	63	—	63
UAN	—	138	—	138
Other urea products	—	10	—	10
Freight revenue	11	15	—	26
Other (2)	73	—	(6)	67
Revenue from product sales	2,918	226	(6)	3,138
Crude oil sales	29	—	—	29
Other revenue (2)	2	4	—	6
Net sales	<u>\$ 2,949</u>	<u>\$ 230</u>	<u>\$ (6)</u>	<u>\$ 3,173</u>

(1) Distillates consist primarily of diesel fuel, kerosene, and jet fuel.

(2) Other revenue consists primarily of feedstock and asphalt sales.

Petroleum Segment

The Petroleum Segment's revenue from product sales is recorded upon delivery to customers, which is the point at which title is transferred and the customer has assumed the risk of loss. This generally takes place as product passes into the pipeline, as a product transfer order occurs within a pipeline system, or as product enters equipment or locations supplied or designated by the customer. Qualifying excise and other taxes collected from the Petroleum Segment's customers and remitted to governmental authorities are not included in reported revenues.

Many of the Petroleum Segment's contracts have index-based pricing which is considered variable consideration that should be estimated in determining the transaction price. The Petroleum Segment determined that it does not need to estimate the variable consideration because the uncertainty related to the consideration is resolved on the pricing date or the date when the product is delivered.

The Petroleum Segment may incur broker commissions or transportation costs prior to product transfer on some of its sales. The Petroleum Segment expenses these broker costs, since the contract durations are less than a year. Transportation costs are accounted for as fulfillment costs and are expensed as incurred since they do not meet the requirement for capitalization.

The Petroleum Segment's contracts with its customers state the terms of the sale, including the description, quantity, and price of each product sold. Depending on the product sold, payment from customers is generally due in full within 2 to 32 days of product delivery or invoice date. The Petroleum Segment generally provides no warranty other than the implicit promise that goods delivered are free of liens and encumbrances and meet the agreed upon specification. The Petroleum Segment has determined that product returns or refunds are very rare and will account for them as they occur.

Freight revenue recognized by the Petroleum Segment is primarily tariff and line loss charges rebilled to customers to reimburse the Petroleum Segment for expenses incurred from a pipeline operator. An offsetting expense is included in Cost of materials and other.

Nitrogen Fertilizer Segment

The Nitrogen Fertilizer Segment sells its products on a wholesale basis under a contract or by purchase order. The Nitrogen Fertilizer Segment's contracts with customers generally contain fixed pricing and most have terms of less than one year. The Nitrogen Fertilizer Segment recognizes revenue at the point in time at which the customer obtains control of the product, which is generally upon delivery and acceptance by the customer. The customer acceptance point is stated in the contract and may be

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at one of the Nitrogen Fertilizer Segment's manufacturing facilities, at one of the Nitrogen Fertilizer Segment's off-site loading facilities, or at the customer's designated facility. Freight revenue recognized by the Nitrogen Fertilizer Segment represents the pass-through finished goods delivery costs incurred prior to customer acceptance and is reimbursed by customers. An offsetting expense for freight is included in Cost of materials and other. Qualifying excise and other taxes collected from the Nitrogen Fertilizer Segment's customers and remitted to governmental authorities are not included in reported revenues.

Depending on the product sold and the type of contract, payments from customers are generally either due prior to delivery or within 15 to 30 days of product delivery.

The Nitrogen Fertilizer Segment generally provides no warranty other than the implicit promise that goods delivered are free of liens and encumbrances and meet the agreed upon specifications. Product returns are rare, and as such, the Nitrogen Fertilizer Segment does not record a specific warranty reserve or consider activities related to such warranty, if any, to be a separate performance obligation.

The Nitrogen Fertilizer Segment has an immaterial amount of variable consideration for contracts with an original duration of less than a year. A small portion of the Nitrogen Fertilizer Segment's revenue includes contracts extending beyond one year, some of which contain variable pricing in which the majority of the variability is attributed to the market-based pricing. The Nitrogen Fertilizer Segment's contracts do not contain a significant financing component.

The Nitrogen Fertilizer Segment has an immaterial amount of fee-based revenue, included in other revenue in the table above, that is recognized based on the net amount of the proceeds received, consistent with prior accounting practice.

Transaction price allocated to remaining performance obligations

As of June 30, 2020, the Nitrogen Fertilizer Segment had approximately \$8 million of remaining performance obligations for contracts with an original expected duration of more than one year. The Nitrogen Fertilizer Segment expects to recognize approximately \$1 million of these performance obligations as revenue by the end of 2020, an additional \$3 million in 2021, and the remaining balance thereafter. The Nitrogen Fertilizer Segment has elected to not disclose the amount of transaction price allocated to remaining performance obligations for contracts with an original expected duration of less than one year. The Nitrogen Fertilizer Segment has elected to not disclose variable consideration allocated to wholly unsatisfied performance obligations that are based on market prices that have not yet been determined.

Contract balances

The Nitrogen Fertilizer Segment's deferred revenue is a contract liability that primarily relates to nitrogen fertilizer sales contracts requiring customer prepayment prior to product delivery to guarantee a price and supply of nitrogen fertilizer. Deferred revenue is recorded at the point in time in which a prepaid contract is legally enforceable and the associated right to consideration is unconditional prior to transferring product to the customer. An associated receivable is recorded for uncollected prepaid contract amounts. Contracts requiring prepayment are generally short-term in nature and, as discussed above, revenue is recognized at the point in time in which the customer obtains control of the product.

A summary of the Nitrogen Fertilizer Segment's deferred revenue activity during the six months ended June 30, 2020 is presented below:

(in millions)	
Balance at December 31, 2019	\$ 28
Add:	
New prepay contracts entered into during the period (1)	18
Less:	
Revenue recognized that was included in the contract liability balance at the beginning of the period	27
Revenue recognized related to contracts entered into during the period	16
Balance at June 30, 2020	<u>\$ 3</u>

(1) Includes \$17 million where payment associated with prepaid contracts was collected as of June 30, 2020.

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(11) Derivative Financial Instruments, Investments and Fair Value Measurements

Derivative Financial Instruments

Our segments are subject to price fluctuations caused by supply conditions, weather, economic conditions, interest rate fluctuations, and other factors. To manage price risk on crude oil and other inventories and to fix margins on certain future production, the Petroleum Segment from time to time enters into various commodity derivative transactions. On a regular basis, the Company enters into commodity contracts with counterparties for the purchases or sale of crude oil, blendstocks, various finished products, and RINs. The contracts usually qualify for the normal purchase normal sale exception and follow the accrual method of accounting. All other derivative instruments are recorded at fair value using mark-to-market accounting on a periodic basis utilizing third-party pricing.

The Petroleum Segment holds derivative instruments, such as exchange-traded crude oil futures and over-the-counter forward swap agreements, which it believes provide an economic hedge on future transactions, but such instruments are not designated as hedges under GAAP. There are no premiums paid or received at inception of the derivative contracts or upon settlement. The Petroleum Segment may enter into forward purchase or sale contracts associated with RINs. As of June 30, 2020, the Petroleum Segment had open fixed-price commitments to purchase a net 5 million RINs.

Commodity derivatives include commodity swaps and forward purchase and sale commitments. There were no outstanding commodity swap positions as of June 30, 2020. There were approximately 2 million forward purchase commitments and 1 million forward sale commitments as of June 30, 2020.

The following outlines the gains recognized on the Company's derivative activities, all of which are recorded in Cost of materials and other on the condensed consolidated statements of operations:

Gain on Derivatives

(in millions)	Three Months Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
Forward purchases and sales contracts, net	\$ 15	\$ 3	\$ 51	\$ 20
Commodity swap instruments	4	—	4	—
Futures contracts	1	1	10	—
Total gain on derivatives, net	<u>\$ 20</u>	<u>\$ 4</u>	<u>\$ 65</u>	<u>\$ 20</u>

The following outlines our open commodity derivative instruments, which are classified as Prepaid expenses and other current assets or Other current liabilities on the condensed consolidated balance sheets:

Open Commodity Derivative Instruments

(in millions of barrels)	June 30, 2020	December 31, 2019
Forward purchases and sales contracts, net:		
Canadian crude oil	3	5

Offsetting Assets and Liabilities

The Company elected to offset the fair value amounts recognized for multiple derivative contracts executed with the same counterparty. These amounts are recognized as current assets and current liabilities within the Prepaid expenses and other current assets and Other current liabilities financial statement line items, respectively, in the condensed consolidated balance sheets as follows:

(in millions)	Derivative Assets		Derivative Liabilities	
	June 30, 2020	December 31, 2019	June 30, 2020	December 31, 2019
Commodity derivatives	\$ 6	\$ 3	\$ (1)	\$ (11)
Less: Counterparty netting	(1)	(3)	1	3
Total net fair value of derivatives	<u>\$ 5</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ (8)</u>

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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Investments

Investments consist of equity securities, which are reported at fair value in our condensed consolidated balance sheets. These investments are considered trading securities. Investment income from marketable securities consists of the following:

(in millions)	Three Months Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
Dividend income	\$ 3	\$ —	\$ 4	\$ —
Unrealized gain	18	—	48	—
Investment income from marketable securities	<u>\$ 21</u>	<u>\$ —</u>	<u>\$ 52</u>	<u>\$ —</u>

Fair Value Measurements

In accordance with FASB ASC Topic 820 — *Fair Value Measurements and Disclosures* (“ASC 820”), the Company utilizes the market approach to measure fair value for its financial assets and liabilities. The market approach uses prices and other relevant information generated by market transactions involving identical or comparable assets, liabilities or a group of assets or liabilities, such as a business.

ASC 820 utilizes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value into three broad levels. The following is a brief description of those three levels:

- Level 1 — Quoted prices in active markets for identical assets or liabilities
- Level 2 — Other significant observable inputs (including quoted prices in active markets for similar assets or liabilities)
- Level 3 — Significant unobservable inputs (including the Company’s own assumptions in determining the fair value)

The following tables set forth the assets and liabilities measured or disclosed at fair value on a recurring basis, by input level, as of June 30, 2020 and December 31, 2019:

(in millions)	June 30, 2020			
	Level 1	Level 2	Level 3	Total
<u>Location and Description</u>				
Prepaid expenses and other current assets (investments)	\$ 188	\$ —	\$ —	\$ 188
Prepaid expenses and other current assets (commodity derivatives)	—	6	—	6
Total Assets	<u>188</u>	<u>6</u>	<u>—</u>	<u>194</u>
Other current liabilities (RFS obligation)	—	(12)	—	(12)
Long-term debt and finance lease obligations (senior notes)	—	(1,534)	—	(1,534)
Total Liabilities	<u>\$ —</u>	<u>\$ (1,546)</u>	<u>\$ —</u>	<u>\$ (1,546)</u>

(in millions)	December 31, 2019			
	Level 1	Level 2	Level 3	Total
<u>Location and Description</u>				
Other current liabilities (commodity derivatives)	\$ —	\$ (8)	\$ —	\$ (8)
Other current liabilities (RFS obligation)	—	(7)	—	(7)
Long-term debt and finance lease obligations (senior notes)	—	(1,180)	—	(1,180)
Total Liabilities	<u>\$ —</u>	<u>\$ (1,195)</u>	<u>\$ —</u>	<u>\$ (1,195)</u>

As of June 30, 2020 and December 31, 2019, the only financial assets and liabilities that are measured at fair value on a recurring basis are the Company’s cash equivalents, investments, derivative instruments, long-term debt, and the RFS

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obligation. The Petroleum Segment's commodity derivative contracts and RFS obligation, which use fair value measurements and are valued using broker quoted market prices of similar instruments, are considered Level 2 inputs. The Company had no transfers of assets or liabilities between any of the above levels during the six months ended June 30, 2020.

(12) Share-Based Compensation

A summary of compensation expense during the three and six months ended June 30, 2020 and 2019 is presented below:

(in millions)	Three Months Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
CVR Refining - Phantom Unit Awards	—	1	\$ —	\$ 2
CVR Partners LTIP - Phantom Unit Awards	—	1	—	2
Incentive Unit Awards	2	4	1	7
Total Share-Based Compensation Expense	<u>\$ 2</u>	<u>\$ 6</u>	<u>\$ 1</u>	<u>\$ 11</u>

(13) Commitments and Contingencies

Except as described below, there have been no material changes in the Company's commitments and contingencies disclosed in the 2019 Form 10-K. In the ordinary course of business, the Company may become party to lawsuits, administrative proceedings, and governmental investigations, including environmental, regulatory, and other matters. The outcome of these matters cannot always be predicted accurately, but the Company accrues liabilities for these matters if the Company has determined that it is probable a loss has been incurred and the loss can be reasonably estimated. While it is not possible to predict the outcome of such proceedings, if one or more of them were decided against us, the Company believes there would be no material impact on its consolidated financial statements.

The Company is continuing to evaluate its contractual arrangements and customer, vendor, and supplier relationships to determine whether and to what extent, if any, the impacts of the COVID-19 pandemic or recent crude oil or refined product price volatility will impair or excuse the performance of the Company or its subsidiaries or their customers, vendors, or suppliers under existing agreements. As of June 30, 2020, the Company had not experienced a material financial impact from any actual or threatened impairment of or excuse in its or others' performance under such agreements.

Crude Oil Supply Agreement

On August 31, 2012, an indirect, wholly-owned subsidiary of the Petroleum Segment and Vitol Inc. ("Vitol") entered into an Amended and Restated Crude Oil Supply Agreement (as amended, the "Crude Oil Supply Agreement"). Under the Crude Oil Supply Agreement, Vitol supplies the Petroleum Segment with crude oil and intermediation logistics helping to reduce the amount of inventory held at certain locations and mitigate crude oil pricing risk. Volumes contracted under the Crude Oil Supply Agreement, as a percentage of the total crude oil purchases (in barrels), was approximately 38% and 40% for the three months ended June 30, 2020 and 2019, respectively, and 28% and 40% for the six months ended June 30, 2020 and 2019, respectively. The Crude Oil Supply Agreement, which currently extends through December 31, 2021, automatically renews for successive one-year terms (each such term, a "Renewal Term") unless either party provides the other with notice of nonrenewal at least 180 days prior to expiration of any Renewal Term.

RFS

The Petroleum Segment is subject to the RFS of the Environmental Protection Agency ("EPA") that require refiners to either blend renewable fuels in with their transportation fuels or purchase renewable fuel credits, known as RINs, in lieu of blending. The Petroleum Segment is not able to blend the substantial majority of its transportation fuels and has to purchase RINs on the open market, and may have to obtain waiver credits for cellulosic biofuels from the EPA, in order to comply with the RFS.

For the three months ended June 30, 2020 and 2019, the Company recognized expense of approximately \$16 million and \$21 million, respectively, and for the six months ended June 30, 2020 and 2019, the Company recognized expense of approximately \$35 million and \$33 million, respectively, for the Petroleum Segment's compliance with the RFS. The recognized amounts are included within Cost of materials and other in the condensed consolidated statements of operations.

The Company's costs to comply with the RFS include the recognition of the Petroleum Segment's biofuel blending obligation based on the purchased cost of RINs or the fair value of the obligation for which RINs have not been purchased, based on market prices at each reporting date, and the valuation change of RINs acquired in excess of its RFS obligation as of the reporting date.

Tax Matters

On March 27, 2020, the President signed into law the Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act"), an economic stimulus package in response to the COVID-19 pandemic. The CARES Act contains several corporate income tax provisions, including a five-year carry back of net operating losses generated in tax years 2018, 2019, and 2020, an increase in the amount of deductible interest and deferral of certain employer payroll taxes otherwise required to be paid in 2020. The Company will continue to monitor the impact the CARES Act and any related legislation will have on its current and certain prior period tax returns.

Litigation

The U.S. Attorney's office for the Southern District of New York contacted CVR Energy in September 2017 seeking production of information pertaining to

CVR Refining's, CVR Energy's and Mr. Carl C. Icahn's activities relating to the RFS and Mr. Icahn's former role as an advisor to the President of the United States. CVR Energy cooperated with the request and provided information in response to the subpoena. The U.S. Attorney's office has not made any claims or allegations against CVR Energy or Mr. Icahn. CVR Energy believes it maintains a strong compliance program and, while no assurances can be made, CVR Energy does not believe this inquiry will have a material impact on its business, financial condition, results of operations or cash flows.

In June 2020, in advance of the June 30, 2020 expiration of the tolling agreement previously entered into by Coffeyville Resources Refining & Marketing, LLC ("CRRM") with the United States Department of Justice ("DOJ") (on behalf of the EPA) and the Kansas Department of Health and Environment ("KDHE"), CRRM received a demand letter from the EPA and KDHE alleging violations of the Clean Air Act ("CAA") and CRRM's 2012 Consent Decree ("CD") relating to CRRM's Coffeyville refinery (the "Coffeyville Refinery"), and seeking certain penalties in connection therewith. CRRM is evaluating this matter, including the dispute resolution and related provisions of the CD regarding such allegations. At this time, this matter has not had a material impact on the Company's financial position, results of operations, or cash flows, and the Company cannot yet reasonably estimate the full impact that may result from this matter or any subsequent enforcement or litigation relating thereto.

In April 2020, the U.S. Court of Appeals for the 10th Circuit (the "10th Circuit") denied the petitions of Wynnewood Refining Company, LLC ("WRC") and others seeking rehearing en banc of the January 2020 decision of a three-judge panel of the 10th Circuit vacating three small refinery exemptions ("SREs") under the RFS program under the CAA, including one issued to WRC's Wynnewood refinery (the "Wynnewood Refinery") for 2017, and remanding the matter back to the EPA for further proceedings. WRC currently intends to file a writ of certiorari with the Supreme Court of the United States (the "Supreme Court") on or before September 4, 2020. As it is not yet clear whether this matter will be heard by the Supreme Court, or what steps the EPA will take with respect to SREs, we cannot currently estimate the outcome, impact, or timing of resolution of this matter.

On April 6, 2020, a lawsuit was filed in the United States District Court for the Southern District of New York against the Company, CVR Refining and its general partner, CVR Refining Holdings, IEP, and the Company's Chief Executive Officer by purported former unitholders of CVR Refining on behalf of themselves and an alleged class of similarly situated unitholders relating to the Company's exercise of the call option under the CVR Refining Amended and Restated Agreement of Limited Partnership assigned to it by CVR Refining's general partner. This lawsuit, which primarily alleges violations of Sections 10(b) and 20(a) of the Exchange Act and Rule 10b-5 thereunder and seeks monetary damages and attorney's fees, among other remedies, is in addition to the nine lawsuits consolidated in the Court of Chancery of the State of Delaware related to the Company's exercise of the call option. The Company believes all of these lawsuits are without merit and intends to vigorously defend against them. As these lawsuits are in the early stages of litigation, the Company cannot determine at this time the outcome of the lawsuits, including whether the outcome would have a material impact on the Company's financial position, results of operations, or cash flows.

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(unaudited)

(14) Business Segments

CVR Energy's revenues are derived from two operating segments: the Petroleum Segment and the Nitrogen Fertilizer Segment. The Company evaluates the performance of its segments based primarily on segment operating income and Earnings Before Interest, Taxes, Depreciation, and Amortization ("EBITDA"). For the purposes of the operating segment disclosure, the Company presents operating income as it is the most comparable measure to the amounts presented on the condensed consolidated statements of operations. The other amounts reflect intercompany eliminations, corporate cash and cash equivalents, income tax activities, and other corporate activities that are not allocated to the operating segments.

The following table summarizes certain operating results and capital expenditures information by segment:

(in millions)	Three Months Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
Net sales				
Petroleum	\$ 572	\$ 1,552	\$ 1,629	\$ 2,949
Nitrogen Fertilizer	105	138	180	230
Other	(2)	(3)	(3)	(6)
Total	<u>\$ 675</u>	<u>\$ 1,687</u>	<u>\$ 1,806</u>	<u>\$ 3,173</u>
Operating income (loss)				
Petroleum	\$ 5	\$ 163	\$ (122)	\$ 319
Nitrogen Fertilizer	(26)	35	(31)	44
Other	(5)	(6)	(7)	(11)
Total	<u>(26)</u>	<u>192</u>	<u>(160)</u>	<u>352</u>
Interest expense, net	(31)	(26)	(67)	(52)
Investment income from marketable securities	21	—	52	—
Other (loss) income, net	(1)	3	—	6
(Loss) income before income taxes	<u>\$ (37)</u>	<u>\$ 169</u>	<u>\$ (175)</u>	<u>\$ 306</u>
Depreciation and amortization				
Petroleum	\$ 50	\$ 52	\$ 99	\$ 101
Nitrogen Fertilizer	24	25	39	42
Other	—	1	—	2
Total	<u>\$ 74</u>	<u>\$ 78</u>	<u>\$ 138</u>	<u>\$ 145</u>
Capital expenditures (1)				
Petroleum	\$ 22	\$ 17	\$ 63	\$ 38
Nitrogen Fertilizer	3	2	8	5
Other	1	3	2	3
Total	<u>\$ 26</u>	<u>\$ 22</u>	<u>\$ 73</u>	<u>\$ 46</u>

The following table summarizes total assets by segment:

(in millions)	June 30, 2020	December 31, 2019
Petroleum	\$ 2,872	\$ 3,187
Nitrogen Fertilizer	1,043	1,138
Other (2)	13	(420)
Total Assets	<u>\$ 3,928</u>	<u>\$ 3,905</u>

(1) Capital expenditures are shown exclusive of capitalized turnaround expenditures.

(2) Includes elimination of intercompany assets and net cash proceeds from the Notes issued during the six months ended June 30, 2020.

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(unaudited)

(15) Supplemental Cash Flow Information

Cash flows related to interest, leases, and capital expenditures included in accounts payable were as follows:

(in millions)	Six Months Ended June 30,	
	2020	2019
Supplemental disclosures:		
Cash (received for income taxes, net of payments) paid for income taxes, net of refunds	\$ (4)	\$ 32
Cash paid for interest	49	52
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows from operating leases	8	8
Operating cash flows from finance leases	3	3
Financing cash flows from finance leases	3	3
Non-cash investing activities:		
Change in capital expenditures included in accounts payable (1)	(4)	(9)

(1) Capital expenditures are shown exclusive of capitalized turnaround expenditures.

(16) Related Party Transactions

Activity associated with the Company's related party arrangements for the three and six months ended June 30, 2020 and 2019 is summarized below:

Expenses from related parties

(in millions)	Three Months Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
<u>Cost of materials and other</u>				
Joint Venture Transportation Agreement:				
Enable	\$ 3	\$ 3	\$ 6	\$ 5
<u>Payments made</u>				
Dividends (1)	\$ 28	\$ 53	85	106

(1) See below for a summary of the dividends paid to IEP for the six months ended June 30, 2020 and year ended December 31, 2019.

Agency Arrangement with IEP

On February 4, 2020, CVR Energy and Icahn Enterprises Holdings LP ("IEH"), a subsidiary of IEP, entered into an agency arrangement wherein IEH would act as the agent for CVR Energy. Under this arrangement, the Company invested approximately \$140 million in certain marketable securities of Delek US Holdings, Inc. ("Delek") (NYSE ticker symbol: DK) and could make additional investments in Delek or invest in other public companies in the future under this arrangement. The Company reimbursed IEH for all costs associated with the initial purchase and did not incur any additional fees as part of this transaction.

Property Exchange

On October 22, 2019, the Audit Committee of CVR Energy's board of directors (the "Board") and the Conflicts Committee of the UAN GP Board each agreed to authorize the exchange of certain parcels of property owned by CRRM with an equal number of parcels owned by CRNF, all located in Coffeyville, Kansas (the "Property Exchange"). On February 19, 2020, CRRM and CRNF executed the Property Exchange agreement. This Property Exchange will enable each such subsidiary to create a more usable, contiguous parcel of land near its own operating footprint. This transaction resulted in no net impact on the Company's condensed consolidated financial statements.

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(unaudited)

Dividends to CVR Energy Stockholders

Dividends, if any, including the payment, amount and timing thereof, are subject to change at the discretion of the Board. No dividends were declared for the second quarter of 2020.

The following tables present dividends paid to the Company's stockholders, including IEP, during 2020 and 2019 (amounts presented in tables below may not add to totals presented due to rounding).

Related Period	Date Paid	Dividend Per Share	Dividends Paid (in millions)		
			Stockholders	IEP	Total
2019 - 4th Quarter	March 9, 2020	\$ 0.80	\$ 23	\$ 57	\$ 80
2020 - 1st Quarter	May 26, 2020	0.40	12	28	40
Total		\$ 1.20	\$ 35	\$ 85	\$ 121

Related Period	Date Paid	Dividend Per Share	Dividends Paid (in millions)		
			Stockholders	IEP	Total
2018 - 4th Quarter	March 11, 2019	\$ 0.75	\$ 22	\$ 53	\$ 75
2019 - 1st Quarter	May 13, 2019	0.75	22	53	75
2019 - 2nd Quarter	August 12, 2019	0.75	22	53	75
2019 - 3rd Quarter	November 11, 2019	0.80	23	57	80
Total		\$ 3.05	\$ 90	\$ 217	\$ 307

Distributions to CVR Partners' Unitholders

Distributions, if any, including the payment, amount and timing thereof, are subject to change at the discretion of the UAN GP Board. There were no distributions paid by CVR Partners during the six months ended June 30, 2020 related to the fourth quarter of 2019 or first quarter of 2020, and no distributions were declared for the second quarter of 2020.

The following table presents distributions paid by CVR Partners to its unitholders, including amounts paid to CVR Energy, during 2019.

Related Period	Date Paid	Distribution Per Common Unit	Distributions Paid (in thousands)		
			Public Unitholders	CVR Energy	Total
2018 - 4th Quarter	March 11, 2019	\$ 0.12	\$ 8,924	\$ 4,670	\$ 13,594
2019 - 1st Quarter	May 13, 2019	0.07	5,205	2,724	7,929
2019 - 2nd Quarter	August 12, 2019	0.14	10,411	5,449	15,860
2019 - 3rd Quarter	November 11, 2019	0.07	5,205	2,724	7,930
Total		\$ 0.40	\$ 29,745	\$ 15,567	\$ 45,313

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our Annual Report on Form 10-K for the year ended December 31, 2019 filed with the SEC on February 20, 2020 (the "2019 Form 10-K"), and the unaudited condensed consolidated financial statements and related notes and with the statistical information and financial data appearing in this Report. Results of operations for the three and six months ended June 30, 2020 and cash flows for the six months ended June 30, 2020 are not necessarily indicative of results to be attained for any other period. See "Important Information Regarding Forward-Looking Statements".

Company Overview

CVR Energy, Inc. ("CVR Energy," "CVR," "we," "us," "our," or the "Company") is a diversified holding company primarily engaged in the petroleum refining and nitrogen fertilizer manufacturing industries through our holdings in CVR Refining and CVR Partners, respectively. CVR Refining is a refiner that does not have crude oil exploration or production operations (an "independent petroleum refiner") and is a marketer of high value transportation fuels. CVR Partners produces nitrogen fertilizers in the form of ammonia and urea ammonium nitrate ("UAN"). Ammonia is a direct application fertilizer and is primarily used as a building block for other nitrogen products for industrial applications and finished fertilizer products. UAN is an aqueous solution of urea and ammonium nitrate. At June 30, 2020, we owned the general partner and approximately 35% of the outstanding common units representing limited partner interests in CVR Partners. As of June 30, 2020, Icahn Enterprises L.P. and its affiliates ("IEP") owned approximately 71% of our outstanding common stock.

We operate under two business segments: petroleum and nitrogen fertilizer, which are referred to in this document as our "Petroleum Segment" and our "Nitrogen Fertilizer Segment," respectively.

Strategy and Goals

Mission and Core Values

Our mission is to be a top tier North American petroleum refining and nitrogen-based fertilizer company as measured by safe and reliable operations, superior performance and profitable growth. The foundation of how we operate is built on five core Values:

- *Safety* - We always put safety first. The protection of our employees, contractors and communities is paramount. We have an unwavering commitment to safety above all else. If it's not safe, then we don't do it.
- *Environment* - We care for our environment. Complying with all regulations and minimizing any environmental impact from our operations is essential. We understand our obligation to the environment and that it's our duty to protect it.
- *Integrity* - We require high business ethics. We comply with the law and practice sound corporate governance. We only conduct business one way—the right way with integrity.
- *Corporate Citizenship* - We are proud members of the communities where we operate. We are good neighbors and know that it's a privilege we can't take for granted. We seek to make a positive economic and social impact through our financial donations and the contributions of time, knowledge and talent of our employees to the places where we live and work.
- *Continuous Improvement* - We believe in both individual and team success. We foster accountability under a performance-driven culture that supports creative thinking, teamwork and personal development so that employees can realize their maximum potential. We use defined work practices for consistency, efficiency and to create value across the organization.

Our core Values are driven by our people, inform the way we do business each and every day and enhance our ability to accomplish our mission and related strategic objectives.

Strategic Objectives

We have outlined the following strategic objectives to drive the accomplishment of our mission:

Safety - We aim to achieve continuous improvement in all environmental, health and safety areas through ensuring our people's commitment to environmental, health and safety comes first, the refinement of existing policies, continuous training, and enhanced monitoring procedures.

Reliability - Our goal is to achieve industry-leading utilization factors at our facilities through safe and reliable operations. We are focusing on improvements in day-to-day plant operations, identifying alternative sources for plant inputs to reduce lost time due to third-party operational constraints, and optimizing our commercial and marketing functions to maintain plant operations at their highest level.

Market Capture - We continuously evaluate opportunities to improve the facilities' netbacks and reduce variable costs incurred in production to maximize our capture of market opportunities.

Financial Discipline - We strive to be as efficient as possible by maintaining low operating costs and a disciplined deployment of capital.

Achievements

During the first half of 2020, we successfully executed a number of achievements in support of our strategic objectives shown below through the date of this filing:

	Safety	Reliability	Market Capture	Financial Discipline
Corporate:				
Increased liquidity and extended debt maturity with the January issuance of \$1.0 billion of Senior Unsecured Notes due in 2025 and 2028, and the redemption of \$0.5 billion CVR Refining Senior Notes due in 2022.				✓
Operated our Petroleum Segment and Nitrogen Fertilizer Segment facilities safely and reliably and maintained financial discipline amid COVID-19 pandemic.	✓	✓		✓
Achieved environmental, health, and safety improvements through the second quarter 2020 compared to the same period of 2019 related to total recordable incident rate and environmental events of 33% and 17%, respectively.	✓			
Petroleum Segment:				
Safely completed the planned turnaround of the Coffeyville Refinery in April 2020, limiting exposure to the volatile margin environment.	✓	✓		
Received Board approval to further refine estimates and scope for the Renewable Diesel Unit ("RDU") and Diesel Hydrotreater ("DHT") Projects at the Wynnewood Refinery.			✓	✓
Achieved environmental, health, and safety improvements through the second quarter 2020 compared to the same period of 2019 related to total recordable incident rate, process safety management, and environmental events of 25%, 50%, and 44%, respectively.	✓			
Nitrogen Fertilizer Segment:				
Maintained high asset reliability and utilization at both facilities during the second quarter of 2020.	✓	✓	✓	
Achieved record shipments of ammonia from the East Dubuque Facility in April 2020.		✓	✓	
Achieved 8% improvement in total recordable incident rate through the second quarter 2020 compared to the same period of 2019.	✓			

Industry Factors

General Business Environment

In March 2020, the World Health Organization categorized COVID-19 as a pandemic, and the President of the United States declared the COVID-19 outbreak a national emergency. The COVID-19 pandemic and actions taken by governments and others in response thereto has and continues to negatively impact the worldwide economy, financial markets, and the energy industry. The COVID-19 pandemic has also resulted in significant business and operational disruptions, including business closures, liquidity strains, destruction of non-essential demand, as well as supply chain challenges, travel restrictions, stay-at-home orders, and limitations on the availability of the workforce. As a result of these factors, the regional demand for gasoline and diesel for the second quarter of 2020 declined 17% versus the second quarter of 2019. Demand has since recovered 6% since the end of the second quarter 2020. Concerns surrounding the negative effects of the COVID-19 pandemic on economic and business prospects across the world have contributed to increased market and price volatility and have diminished expectations for the global economy, and may precipitate a prolonged economic slowdown and recession.

These declines were amplified late in the first quarter by market plays between the world's largest oil producers. The simultaneous shocks to oil supply and demand has resulted in a decline in the price of crude oil and led to a significant decrease in the price of the refined petroleum products we produce and sell. The Company believes it is experiencing the most challenging energy environment since its formation. The general business environment in which the Company operates and the uncertainty around the availability and prices of the Company's feedstocks, primarily crude oil, and the demand for its products will likely continue to remain volatile through the remainder of the year and beyond. The decrease in the demand for refined petroleum products caused by the artificial pausing of the U.S. economy has resulted in a significant decrease in the price of the products we produce and sell, although demand and prices have since slightly recovered as states begin reopening. The price of refined products we sell and the feedstocks we purchase significantly impact our revenues, income from operations, net income and cash flows. As a result, the Company anticipates its future operating results and current and long-term financial condition could be further negatively impacted.

Petroleum Segment

The earnings and cash flows of the Petroleum Segment are primarily affected by the relationship between refined product prices and the prices for crude oil and other feedstocks that are processed and blended into refined products. The cost to acquire crude oil and other feedstocks and the price for which refined products are ultimately sold depends on factors beyond the Petroleum Segment's control, including the supply of, and demand for crude oil, as well as gasoline and other refined products which, in turn, depend on, among other factors, changes in domestic and foreign economies, driving habits, weather conditions, domestic and foreign political affairs, production levels, the availability of imports, the marketing of competitive fuels, and the extent of government regulation. Because the Petroleum Segment applies first-in first-out accounting to value its inventory, crude oil price movements may impact net income in the short-term because of changes in the value of its unhedged inventory. The effect of changes in crude oil prices on the Petroleum Segment results of operations is partially influenced by the rate at which the process of refined products adjust to reflect these changes.

The prices of crude oil and other feedstocks and refined products are also affected by other factors, such as product pipeline capacity, system inventory, local market conditions, and the operating levels of competing refineries. Crude oil costs and the prices of refined products have historically been subject to wide fluctuations. Widespread expansion or upgrades of competitors' facilities, price volatility, international political and economic developments, and other factors are likely to continue to play an important role in refining industry economics. These factors can impact, among other things, the level of inventories in the market, resulting in price volatility and a reduction in product margins. Moreover, the refining industry typically experiences seasonal fluctuations in demand for refined products, such as increases in the demand for gasoline during the summer driving season and for volatile seasonal exports of diesel from the United States Gulf Coast markets.

In addition to current market conditions, there are long-term factors that may impact the demand for refined products. These factors include mandated renewable fuels standards, proposed climate change laws and regulations, and increased mileage standards for vehicles. The petroleum business is also subject to the renewable fuel standard ("RFS") of the Environmental Protection Agency (the "EPA"), which, each year, requires blending "renewable fuels" with transportation fuels or purchasing renewable identification numbers ("RINs"), in lieu of blending, or otherwise be subject to penalties. Our cost to comply with the RFS is dependent upon a variety of factors, which include the availability of ethanol for blending at our refineries and downstream terminals or RINs for purchase, the price at which RINs can be purchased, transportation fuel

production levels, and the mix of our products, all of which can vary significantly from period to period. Based upon recent market prices of RINs and current estimates related to the other variable factors, our estimated cost to comply with the RFS is \$95 to \$105 million for 2020.

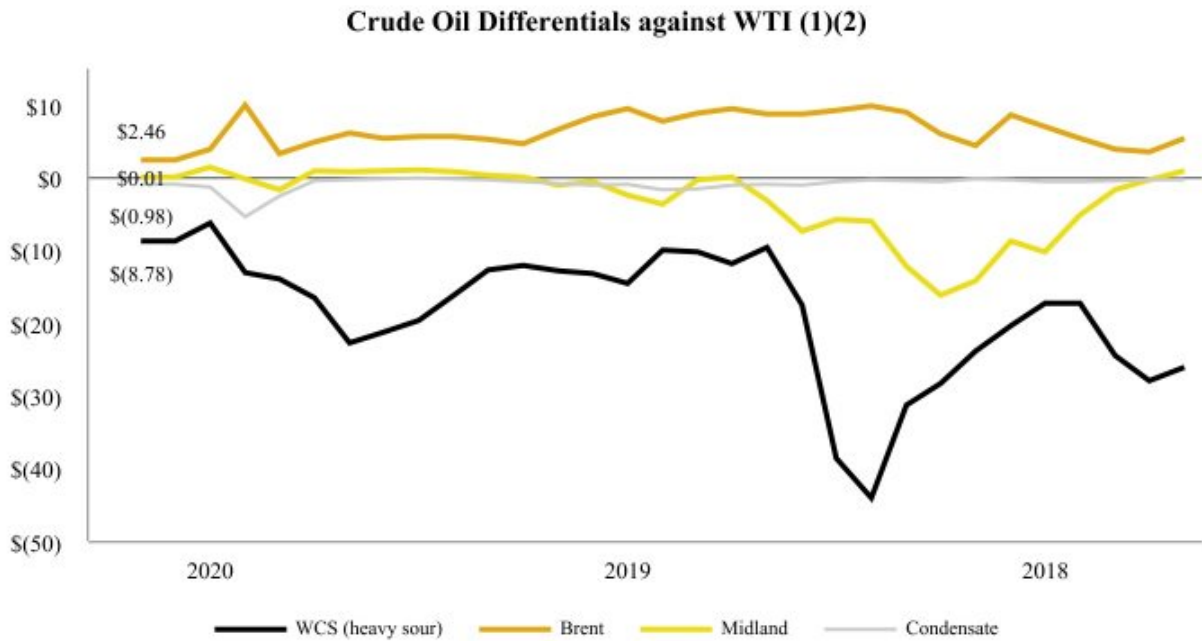
Market Conditions

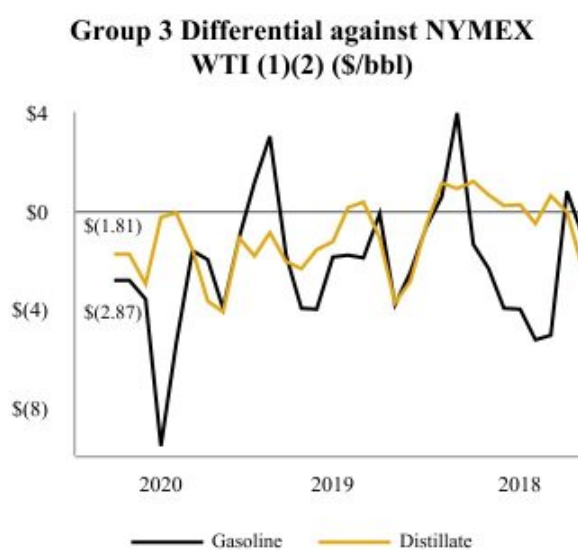
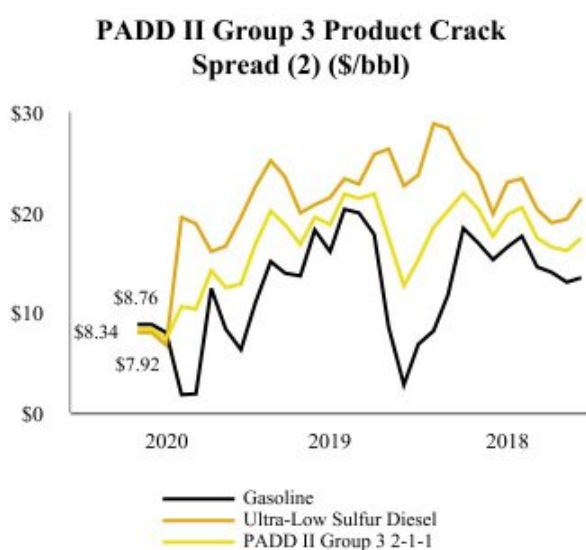
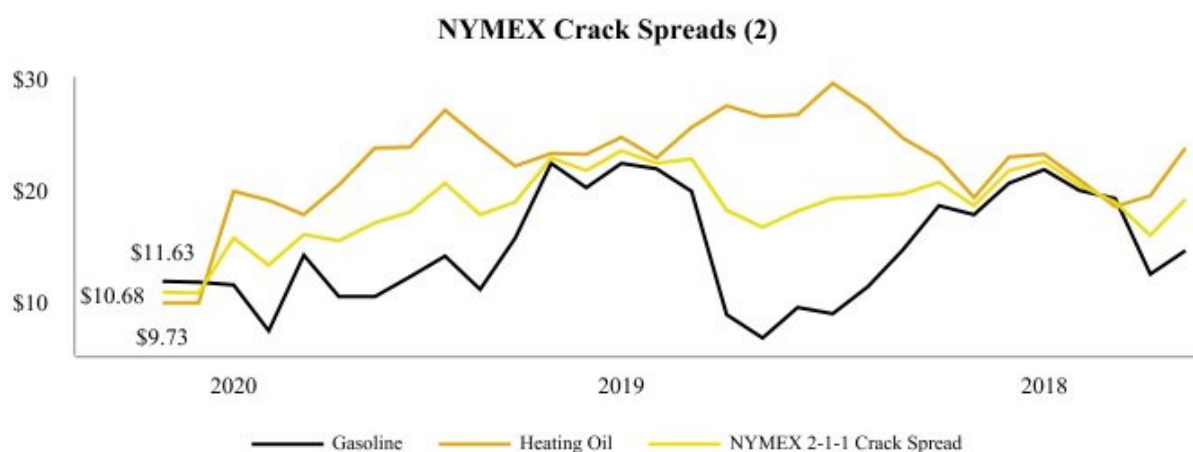
NYMEX WTI crude oil is an industry wide benchmark that is utilized in the market pricing of a barrel of crude oil. The pricing differences between other crudes and WTI, known as differentials, show how the market for other crude oils such as WCS, White Cliffs (“Condensate”), Brent Crude (“Brent”), and Midland WTI (“Midland”) are trending. During the second quarter of 2020, the global crude oil market was impacted by a crude oil production curtailment agreement among OPEC member countries and other producer nations. Additionally, due to the COVID-19 pandemic, actions taken by governments and others in response thereto, and the decreased demand described above, refined product prices have experienced extreme volatility. As a result of the current environment, refining margins have been and could continue to be significantly reduced.

As a performance benchmark and a comparison with other industry participants, we utilize NYMEX and Group 3 crack spreads. These crack spreads are a measure of the difference between market prices for crude oil and refined products and are a commonly used proxy within the industry to estimate or identify trends in refining margins. Crack spreads can fluctuate significantly over time as a result of market conditions and supply and demand balances. The NYMEX 2-1-1 crack spread is calculated using two barrels of WTI producing one barrel of NYMEX RBOB Gasoline (“RBOB”) and one barrel of NYMEX NY Harbor ULSD (“HO”). The Group 3 2-1-1 crack spread is calculated using two barrels of WTI crude oil producing one barrel of Group 3 sub-octane gasoline and one barrel of Group 3 ultra-low sulfur diesel.

Both NYMEX 2-1-1 and Group 3 2-2-1 crack spreads decreased during the six months ended June 30, 2020 compared to the six months ended June 30, 2019. The NYMEX 2-1-1 crack spread averaged \$13.47 per barrel during the six months ended June 30, 2020 compared to \$20.77 per barrel in the six months ended June 30, 2019. The Group 3 2-1-1 crack spread averaged \$10.47 per barrel during the six months ended June 30, 2020 compared to \$18.99 per barrel during the six months ended June 30, 2019.

The tables below are presented, on a per barrel basis, by month through June 30, 2020:





(1) The table below shows the change over time in NYMEX - WTI, as reflected in the graph above.

(in \$/bbl)	Average 2018	Average December 2018	Average 2019	Average December 2019	Average 2020	Average June 2020
WTI	\$ 64.77	\$ 48.98	\$ 57.03	\$ 61.06	\$ 37.01	\$ 38.31

(2) Information used within these charts was obtained from MarketView.

Nitrogen Fertilizer Segment

Within the Nitrogen Fertilizer Segment, earnings and cash flows from operations are primarily affected by the relationship between nitrogen fertilizer product prices, utilization, and operating costs and expenses, including petroleum coke and natural gas feedstock costs.

The price at which nitrogen fertilizer products are ultimately sold depends on numerous factors, including the global supply and demand for nitrogen fertilizer products which, in turn, depends on, among other factors, world grain demand and production levels, changes in world population, the cost and availability of fertilizer transportation infrastructure, weather conditions, the availability of imports, and the extent of government intervention in agriculture markets.

Nitrogen fertilizer prices are also affected by local factors, including local market conditions and the operating levels of competing facilities. An expansion or upgrade of competitors' facilities, new facility development, political and economic developments, and other factors are likely to continue to play an important role in nitrogen fertilizer industry economics. These factors can impact, among other things, the level of inventories in the market, resulting in price volatility and a reduction in product margins. Moreover, the industry typically experiences seasonal fluctuations in demand for nitrogen fertilizer products.

With the adverse economic impacts discussed above and the uncertainty surrounding the COVID-19 pandemic, there is a heightened risk that amounts recognized, including goodwill and other long-lived assets, may not be recoverable. As of December 31, 2019, the Nitrogen Fertilizer Segment's Coffeyville, Kansas facility (the "Coffeyville Facility") reporting unit had a goodwill balance of \$41 million for which the estimated fair value had been in excess of carrying value based on our 2018 and 2019 assessments. As a result of lower expectations for market conditions in the fertilizer industry, the market performance of CVR Partners' common units, a qualitative analysis, and additional risks associated with the business, the Company concluded a triggering event had occurred that required an interim quantitative impairment assessment of goodwill for this reporting unit as of June 30, 2020. The results of the impairment test indicated that the carrying amount of the Coffeyville Facility reporting unit exceeded the estimated fair value of the reporting unit, and a full impairment of the asset was required. Significant assumptions inherent in the valuation methodologies for goodwill include, but are not limited to, prospective financial information, growth rates, discount rates, inflationary factors, and cost of capital. To evaluate the sensitivity of the fair value calculations for the reporting unit, the Company applied a hypothetical 1% favorable change in the weighted average cost of capital, and separately, increased the revenue projections by 10%, holding gross margins steady. The results of these sensitivity analyses confirmed the need to record a non-cash impairment charge of \$41 million during the three months ended June 30, 2020.

While our assessment in 2020 has not identified the existence of an impairment indicator for the Nitrogen Fertilizer Segment's long-lived asset groups, we continue to monitor the current environment, including the duration and breadth of the impacts that the pandemic will have on demand for our fertilizer products, to assess whether qualitative factors indicate a quantitative assessment is required. If a quantitative test is performed, the extent to which the recoverability of our long-lived assets could be impaired is unknown. Such impairment could have a significant adverse impact on our results of operations; however, an impairment would have no impact on our financial condition or liquidity.

Market Conditions

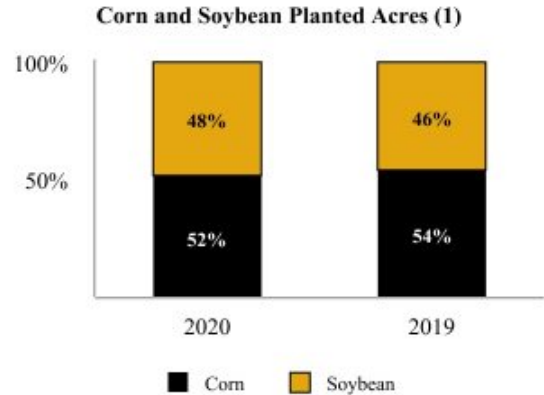
While there is risk of short-term volatility given the inherent nature of the commodity cycle and the impacts of the global COVID-19 pandemic, the Company believes the long-term fundamentals for the U.S. nitrogen fertilizer industry remain intact. The Nitrogen Fertilizer Segment views the anticipated combination of (i) increasing global population, (ii) decreasing arable land per capita, (iii) continued evolution to more protein-based diets in developing countries, (iv) sustained use of corn as feedstock for the domestic production of ethanol, and (v) positioning at the lower end of the global cost curve should provide a solid foundation for nitrogen fertilizer producers in the U.S. over the longer term.

Weather significantly impacted the timing of the planting season for corn and soybeans in 2019. Due to excessive wet conditions, crops were planted later than normal in the spring which led to a late harvest of these crops in the fall of 2019. As a result, the ammonia application season in the fall of 2019 was shortened. This created a surplus of ammonia inventory in the market during the winter of 2019 leading into 2020. UAN continues to be impacted by the imposition of import duties on UAN product by the European Union (the "EU"). This has resulted in shifts in UAN trade flows for product that had previously been shipped to the EU. In 2020, natural gas prices across the world declined significantly as compared to 2019. Natural gas is the primary feedstock for production of nitrogen fertilizers. As a result of these factors, the Partnership has seen a softening of prices related to these products.

Corn and soybean are two major crops planted by farmers in North America. Corn crops result in the depletion of the amount of nitrogen and ammonia within the soil it is grown in, which in turn, results in a need for these nutrients to be replenished after each growing cycle. Unlike corn, soybeans are able to obtain their own nitrogen through a process known as "N fixation". As such, upon harvesting of soybeans, the soil retains a certain amount of nitrogen which results in lower demand for nitrogen fertilizer for the following corn planting cycle. Due to these factors, nitrogen fertilizer consumers generally operate a balanced corn-soybean rotational planting cycle as evident through the chart presented below for 2020 and 2019.

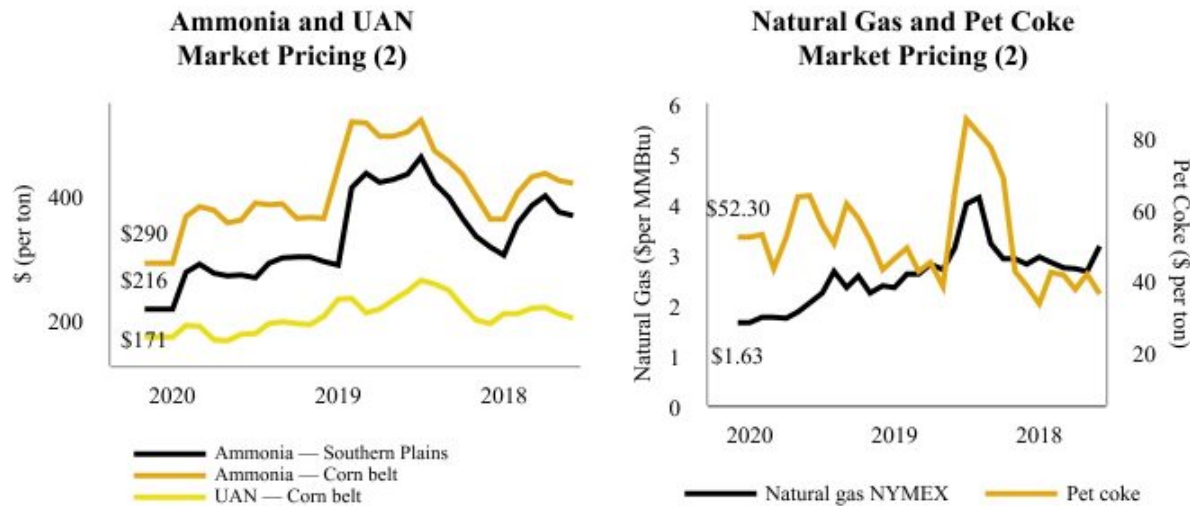
The relationship between the total acres planted for both corn and soybean has a direct impact on the overall demand for nitrogen products. As the number of corn acres increases, the market and demand for nitrogen also increases. Correspondingly, as the number of soybean acres increases, the market and demand for nitrogen decreases.

Ethanol is blended with gasoline to meet renewable fuel standard requirements and for its octane value. Ethanol production has historically consumed approximately 35% of the U.S. corn crop, so demand for corn generally rises and falls with ethanol demand. There has been a decline in the ethanol market due to decreased demand for transportation fuels as a result of the COVID-19 pandemic. While there is uncertainty surrounding if and when gasoline demand will return to normal levels, the drop in ethanol demand has not significantly impacted spring planting decisions, as evidenced through the chart below.



The preliminary 2020 United States Department of Agriculture (“USDA”) reports on corn and soybean acres planted indicated farmers’ intention to plant 92.0 million acres of corn, representing an increase of 2.6% in corn acres planted as compared to 89.7 million corn acres in 2019. Planted soybean acres are estimated to be 83.8 million acres, representing a 10.2% increase in soybean acres planted as compared to 76.1 million soybean acres in 2019. Despite these anticipated increases in corn acres planted in 2020, if the current gasoline demand and ethanol blending continues to be weak, there is an expectation that corn planted acres could be lower than estimated while remaining above 2019 levels, and corn inventories could be elevated after the harvest in fall 2020 leading to lower planted corn acres in future years. Despite the above potential risks for 2021 or later, the Nitrogen Fertilizer Segment currently expects solid demand for crop inputs for the remainder of the year.

The table below shows relevant market indicators for the Nitrogen Fertilizer Segment by month through June 30, 2020:



(1) Information used within this chart was obtained from the USDA, National Agricultural Statistics Services. Planted acres for 2020 are preliminary USDA estimated amounts and will be updated for actual amounts as the information becomes available, which is expected to be during the third quarter.

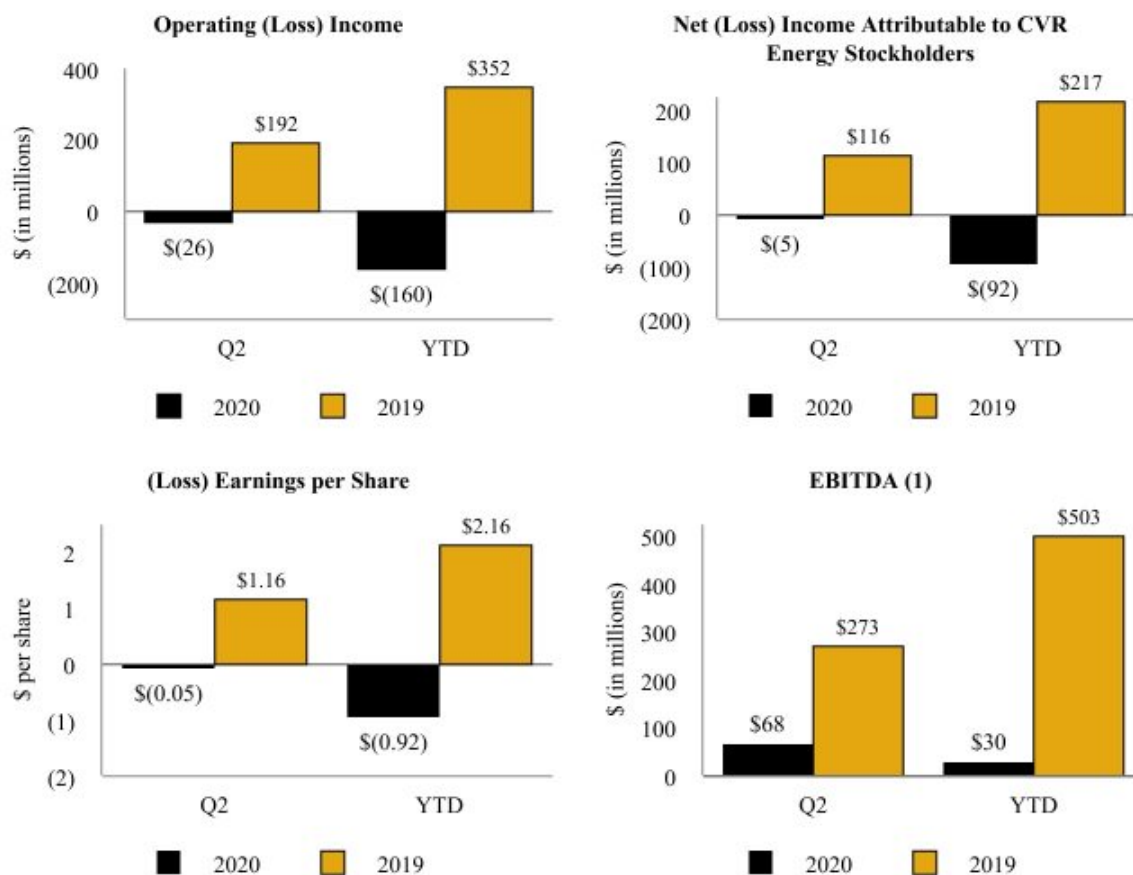
(2) Information used within these charts was obtained from various third-party sources including Green Markets (a Bloomberg Company), Pace Petroleum Coke Quarterly, and the U.S. Energy Information Administration (“EIA”), amongst others.

Results of Operations

Consolidated

Our consolidated results of operations include certain other unallocated corporate activities and the elimination of intercompany transactions and therefore do not equal the sum of the operating results of the Petroleum Segment and Nitrogen Fertilizer Segment.

Consolidated Financial Highlights (Three and Six Months Ended June 30, 2020 versus June 30, 2019)



(1) See “Non-GAAP Reconciliations” section below for reconciliations of the non-GAAP measures shown above.

Three and Six Months Ended June 30, 2020 versus June 30, 2019 (Consolidated)

Overview - For the three and six months ended June 30, 2020, the Company’s operating income decreased by \$218 million and \$512 million, respectively, resulting in an operating loss of \$26 million and \$160 million, respectively, as compared with the three and six months ended June 30, 2019. These decreases were driven primarily by declines in operating results of \$158 million and \$61 million for the three months ended June 30, 2020 and \$441 million and \$75 million for the six months ended June 30, 2020 within the Petroleum and Nitrogen Fertilizer Segments, respectively. Refer to our discussion of each segment’s results of operations below for further information.

Investment Income from Marketable Securities - During the first quarter of 2020, we acquired a 14.9% ownership interest in Delek US Holdings, Inc. (“Delek”) (NYSE ticker symbol: DK). During the three and six months ended June 30, 2020, we

received \$3 million and \$4 million, respectively, in dividend income related to the associated common shares owned. The Company recognized an unrealized gain based on market pricing on June 30, 2020 of \$18 million and \$48 million for the three and six months of 2020, respectively.

Income Tax Expense - Income tax benefit for the three and six months ended June 30, 2020 was \$5 million and \$42 million, or 13.9% and 23.9% of loss before income taxes, respectively, as compared to income tax expense for the three and six months ended June 30, 2019 of \$41 million and \$76 million, or 24.3% and 24.8% of income before income taxes, respectively. The fluctuation in income tax (benefit) expense was due primarily to changes in pretax income between all periods presented. In addition, the change in the effective tax rate was due primarily to the effects of the Nitrogen Fertilizer Segment's goodwill impairment recorded during the three months ended June 30, 2020 and changes in pretax earnings attributable to noncontrolling interests between all periods presented.

Petroleum Segment

The Petroleum Segment utilizes certain inputs within its refining operations. These inputs include crude oil, butanes, natural gasoline, ethanol, and bio-diesel (these are also known as “throughputs”).

Refining Throughput and Production Data by Refinery

Throughput Data (in bpd)	Three Months Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
Coffeyville				
Regional crude	34,193	49,979	36,534	45,808
WTI	40,002	75,090	34,731	71,075
Midland WTI	—	863	—	6,750
Condensate	6,873	3,125	5,780	4,203
Heavy Canadian	1,531	3,511	2,040	5,526
Other feedstocks and blendstocks	5,085	8,083	6,393	8,685
Wynnewood				
Regional crude	49,377	52,359	50,600	48,383
WTL	6,335	—	6,153	—
Midland WTI	2,719	13,410	2,369	12,961
Condensate	6,784	7,038	8,107	7,394
Other feedstocks and blendstocks	3,469	2,825	3,737	3,770
Total throughput	156,369	216,283	156,443	214,555

Production Data

(in bpd)

Coffeyville

	Three Months Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
Gasoline	46,464	70,506	45,492	72,170
Distillate	34,144	59,049	33,703	59,288
Other liquid products	4,011	6,786	3,864	6,631
Solids	2,401	5,113	2,560	5,042

Wynnewood

Gasoline	35,381	39,153	37,442	36,746
Distillate	28,293	31,997	28,524	29,689
Other liquid products	2,428	1,360	2,441	3,728
Solids	26	33	26	31

Total production

	153,148	213,997	154,052	213,325
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Light product yield (as % of crude throughput) (1)	97.6 %	97.7 %	99.2 %	97.9 %
Liquid volume yield (as % of total throughput) (2)	96.4 %	96.6 %	96.8 %	97.1 %
Distillate yield (as % of crude throughput) (3)	42.2 %	44.3 %	42.5 %	44.0 %

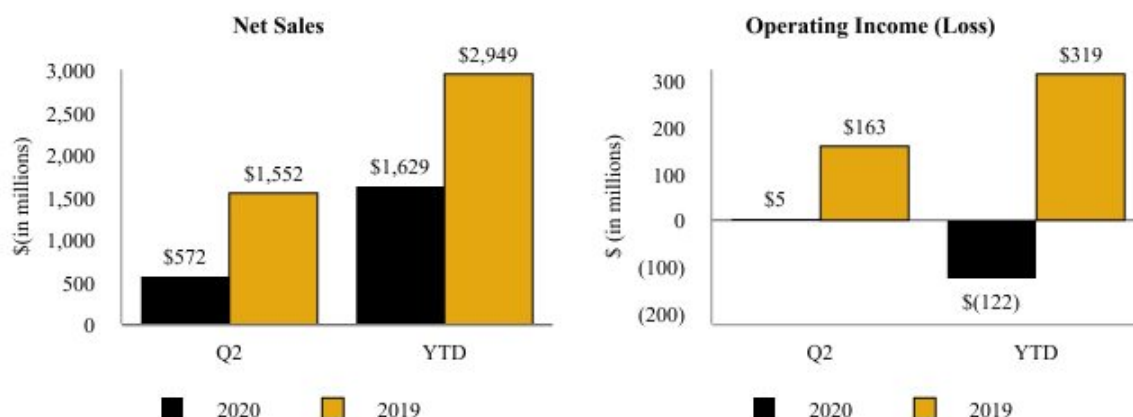
(1) Total Gasoline and Distillate divided by total Regional crude, WTI, WTL, Midland WTI, Condensate, and Heavy Canadian throughput.

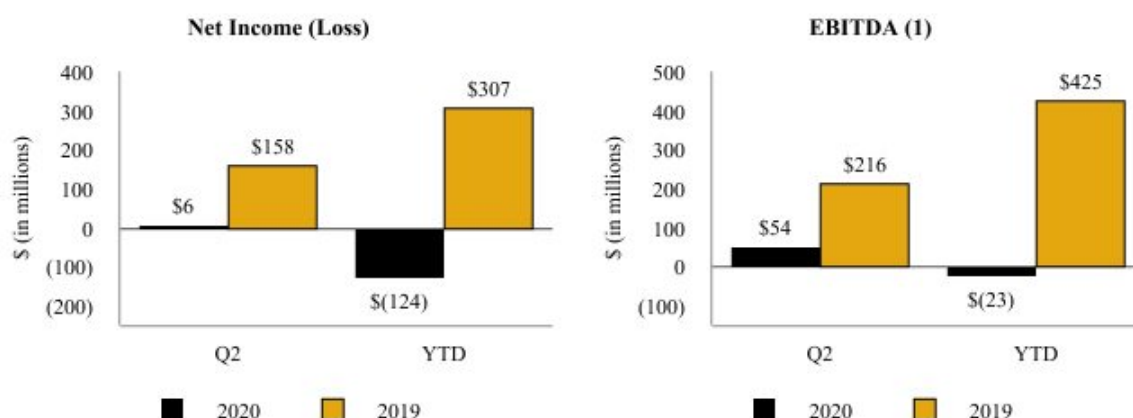
(2) Total Gasoline, Distillate, and Other liquid products divided by total throughput.

(3) Total Distillate divided by total Regional crude, WTI, WTL, Midland WTI, Condensate, and Heavy Canadian throughput.

Petroleum Segment Financial Highlights (Three and Six Months Ended June 30, 2020 versus June 30, 2019)

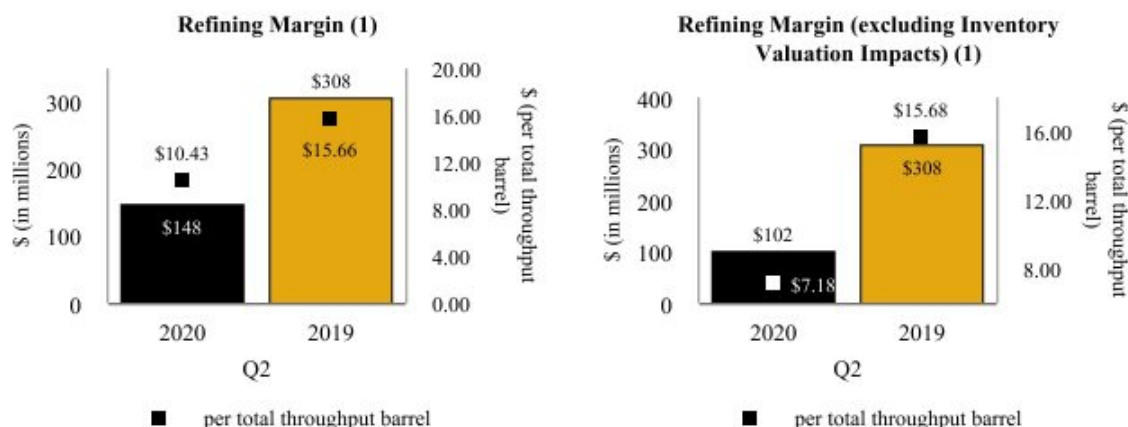
Overview - For the three months ended June 30, 2020, the Petroleum Segment's operating income and net income were \$5 million and \$6 million, respectively, compared to operating income and net income of \$163 million and \$158 million, respectively, for the three months ended June 30, 2019. For the six months ended June 30, 2020, the Petroleum Segment's operating loss and net loss were \$122 million and \$124 million, respectively, compared to operating income and net income of \$319 million and \$307 million, respectively, for the six months ended June 30, 2019. The declines during both periods were primarily driven by lower sales volumes and unfavorable refining margins when compared to the prior periods.

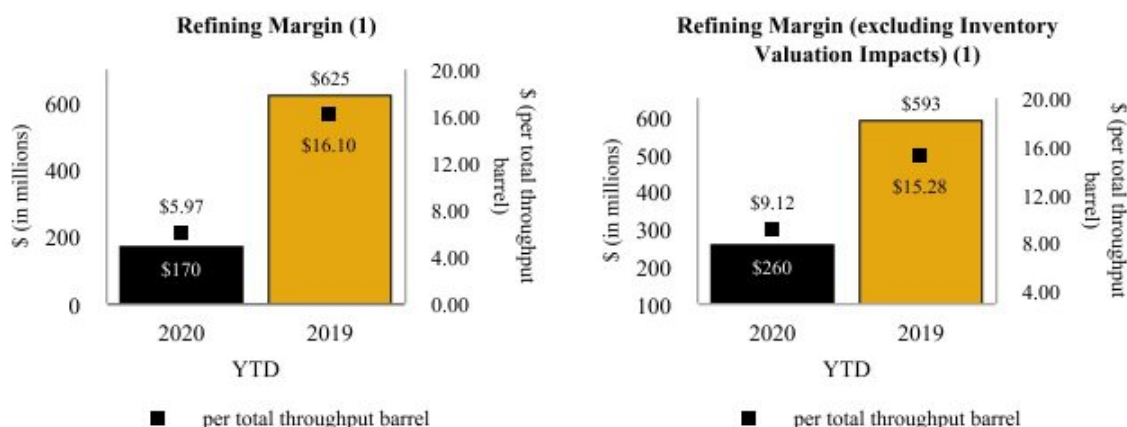




(1) See “Non-GAAP Reconciliations” section below for reconciliations of the non-GAAP measures shown above.

Net Sales - For the three months ended June 30, 2020, net sales for the Petroleum Segment decreased by \$980 million when compared to the three months ended June 30, 2019. For the six months ended June 30, 2020, net sales for the Petroleum Segment decreased by \$1,320 million when compared to the six months ended June 30, 2019. These declines were primarily driven by lower sales volumes and prices as a result of reduced demand and excess supply caused by government actions to address the COVID-19 pandemic. During the second quarter of 2020, the refinery in Coffeyville, Kansas (the “Coffeyville Refinery”) came online after a full, planned turnaround, which began in the first quarter of 2020. Utilization rates were reduced at both refineries throughout the majority of the second quarter of 2020 given market dynamics.



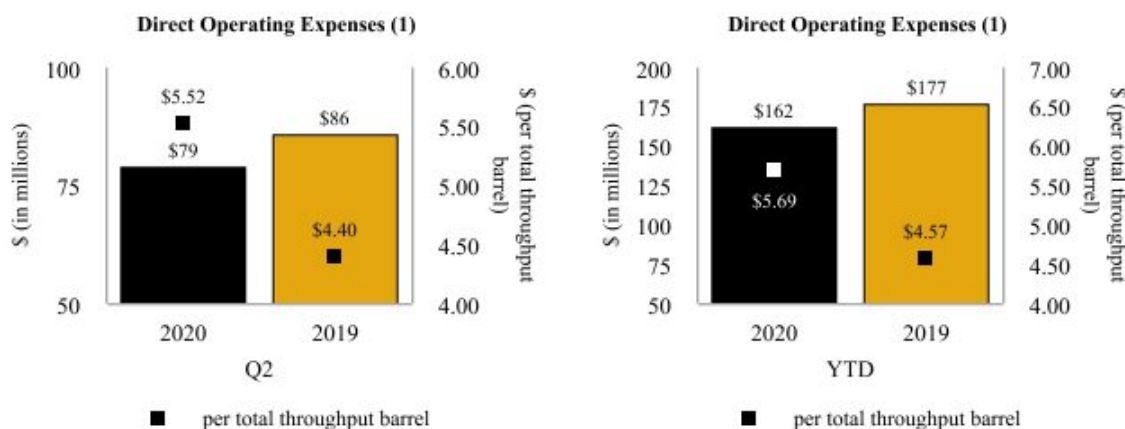


(1) See “Non-GAAP Reconciliations” section below for reconciliations of the non-GAAP measures shown below.

Refining Margin - For the three months ended June 30, 2020, refining margin was \$148 million, or \$10.43 per throughput barrel, as compared to \$308 million, or \$15.66 per throughput barrel, for the three months ended June 30, 2019. The decrease in refining margin of \$160 million was in part due to a reduction in throughput volumes of 59,914 bpd primarily driven by continued demand pressure in 2020 compared to 2019. On a per barrel basis, refining margin was negatively impacted by lower crack spreads that were negatively influenced by state enacted shutdown measures during the quarter. Market prices partially recovered over the course of the quarter resulting in a \$46 million favorable inventory valuation impact during the three months ended June 30, 2020 with an unfavorable inventory valuation impact of less than \$1 million during the same period of 2019.

For the six months ended June 30, 2020, refining margin was \$170 million, or \$5.97 per throughput barrel, as compared to \$625 million, or \$16.10 per throughput barrel, for the six months ended June 30, 2019. The decrease in refining margin of \$455 million was in part due to a reduction in throughput volumes of 58,112 bpd given the full, planned turnaround at the Coffeyville Refinery from late February 2020 to the middle of April 2020 and reduced rates post startup, as well as reduced rates at the refinery in Wynnewood, Oklahoma (the “Wynnewood Refinery”) driven by demand destruction caused by the COVID-19 pandemic and its impact on market prices. On a per barrel basis, refining margin was negatively impacted by lower crack spreads that were negatively influenced by significant market volatility beginning in March 2020. The decline in market pricing for crude oil, and the associated reduction in selling prices we experienced at the end of the first quarter of 2020 for refined products, coupled with the demand destruction caused by the COVID-19 pandemic, and partially offset by a recovery in market prices during the second quarter of 2020, resulted in \$90 million of unfavorable inventory impacts, or \$3.15 per total throughput barrel. This amount includes an unfavorable lower of cost or net realizable value adjustment of \$58 million, based on the difference between the carrying value of inventories accounted for using the first-in-first-out method and selling prices for our refined products experienced subsequent to March 2020. No such loss was recognized in 2019. Additionally, the 2020 inventory impact includes a \$32 million unfavorable impact from the crude oil price change during the six months ended June 30, 2020, which was similar to the same period in 2019.

Offsetting the negative impacts discussed above were derivative gains of \$20 million and \$65 million recognized during the three and six months ended June 30, 2020, respectively, compared to derivative gains of \$4 million and \$20 million for the same periods of 2019, respectively. Our derivative gains primarily reflect gains from the sale of WCS barrels at Cushing, hedges of excess inventories, crack spreads swaps and hedges entered into during 2019 that fixed WCS to WTI differentials for a portion of the WCS barrels we expect in 2020.



(1) Exclusive of depreciation and amortization expense.

Direct Operating Expenses (Exclusive of Depreciation and Amortization) - For the three months ended June 30, 2020, direct operating expenses on a total throughput barrel basis increased to \$5.52 per barrel from \$4.40 per barrel and increased to \$5.69 per barrel from \$4.57 per barrel for the six months ended June 30, 2020. This was largely due to decreased throughput volumes with the Coffeyville Refinery being in a full, planned turnaround beginning the last week of February 2020 extending into mid-April 2020 and both refineries running at reduced rates from mid-April to mid-June. Direct operating expenses (exclusive of depreciation and amortization) were \$79 million and \$86 million for the three months ended June 30, 2020 and 2019, respectively, and \$162 million and \$177 million for the six months ended June 30, 2020 and 2019, respectively. The decreases were primarily due to lower natural gas and electricity usage due to the refineries running at reduced rates coupled with a reduction in repairs and maintenance costs.



Selling, General, and Administrative Expenses, and Other - For the three and six months ended June 30, 2020, selling, general and administrative expenses and other were \$14 million and \$31 million, respectively, compared to \$7 million and \$28 million for the three and six months ended June 30, 2019. The increase for both periods was primarily a result of a \$10 million gain on the sale of Cushing tank assets in the prior periods of 2019, offset by decreased corporate allocations and personnel costs in the 2020 periods as compared to the 2019 periods.

Nitrogen Fertilizer Segment

Utilization and Production Volumes - The following tables summarize the ammonia utilization at the Coffeyville Facility and East Dubuque, Illinois facility (the "East Dubuque Facility"). Utilization is an important measure used by management to assess operational output at each of the Nitrogen Fertilizer Segment's facilities. Utilization is calculated as actual tons of ammonia produced divided by capacity adjusted for planned maintenance and turnarounds.

The presentation of our utilization is on a two-year rolling average which takes into account the impact of our planned and unplanned outages on any specific period. We believe the two-year rolling average is a more useful presentation of the long-term utilization performance of the Nitrogen Fertilizer Segment's facilities.

Utilization is presented solely on ammonia production, rather than each nitrogen product, as it provides a comparative baseline against industry peers and eliminates the disparity of facility configurations for upgrade of ammonia into other nitrogen products. With efforts primarily focused on ammonia upgrade capabilities, we believe this measure provides a meaningful view of how well we operate.

Gross tons produced for ammonia represent the total ammonia produced, including ammonia produced that was upgraded into other fertilizer products. Net tons available for sale represent the ammonia available for sale that was not upgraded into other fertilizer products. The tables below presents all of these Nitrogen Fertilizer Segment metrics for the three and six months ended June 30, 2020 and 2019:

Ammonia Utilization

	Two Years Ended June 30,	
	2020	2019
Consolidated	94 %	92 %
Coffeyville Facility	95 %	94 %
East Dubuque Facility	94 %	90 %

Production Volumes

	Three Months Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
(in thousands of tons)				
Ammonia (gross produced)	216	211	417	390
Ammonia (net available for sale)	79	71	157	112
UAN	321	316	638	651

On a consolidated basis, the Nitrogen Fertilizer Segment's utilization increased 2% to 94% for the two years ended June 30, 2020 compared to the two years ended June 30, 2019. The first quarter of 2019 ammonia storage capacity was constrained at the East Dubuque Facility impacting comparability to 2020.

Sales and Pricing per Ton - Two of the Nitrogen Fertilizer Segment's key operating metrics are total sales for ammonia and UAN along with the product pricing per ton realized at the gate. Product pricing at the gate represents net sales less freight revenue divided by product sales volume in tons and is shown in order to provide a pricing measure comparable across the fertilizer industry.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
Consolidated sales (thousand tons)				
Ammonia	111	110	164	146
UAN	337	340	621	628
Consolidated product pricing at gate (dollars per ton)				
Ammonia	\$ 332	\$ 456	\$ 310	\$ 434
UAN	165	217	166	219

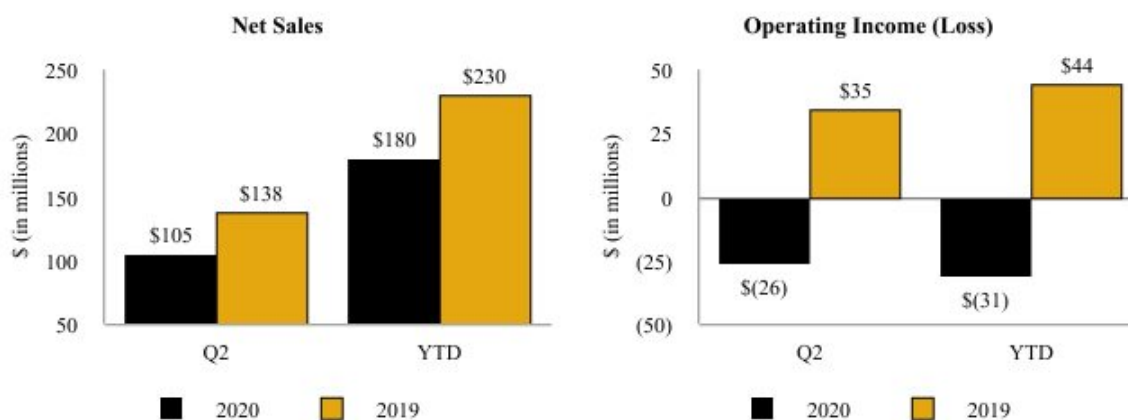
Feedstock - The Nitrogen Fertilizer Segment's Coffeyville Facility utilizes a pet coke gasification process to produce nitrogen fertilizer, while the East Dubuque Facility uses natural gas in its production of ammonia. The table below presents these feedstocks for both facilities within the Nitrogen Fertilizer Segment for the three months ended June 30, 2020 and 2019:

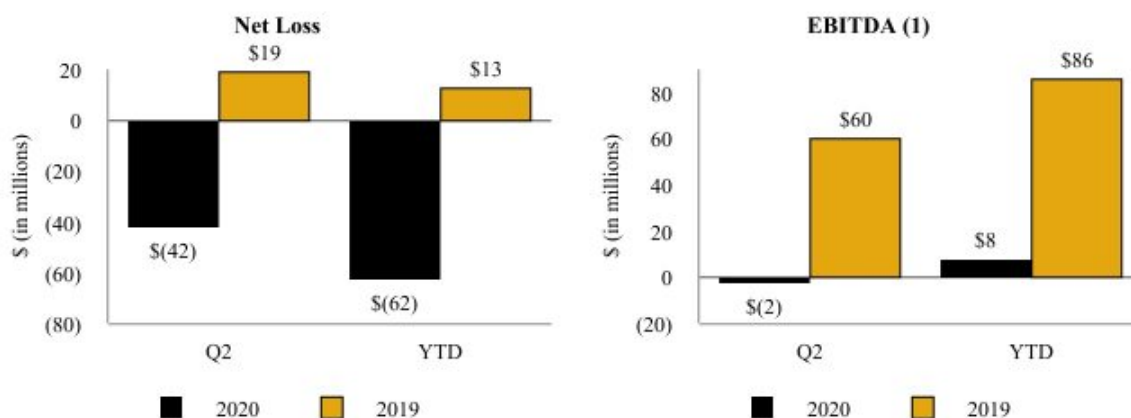
	Three Months Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
Feedstock:				
Petroleum coke used in production (thousand tons)	138	134	263	266
Petroleum coke (dollars per ton)	\$ 31.13	\$ 34.60	\$ 37.59	\$ 36.14
Natural gas used in production (thousands of MMBtu) (1)	2,131	2,070	4,272	3,510
Natural gas used in production (dollars per MMBtu) (1)	\$ 1.94	\$ 2.61	\$ 2.18	\$ 3.11
Natural gas cost of materials and other (thousands of MMBtu) (1)	3,216	3,185	4,633	4,193
Natural gas cost of materials and other (dollars per MMBtu) (1)	\$ 2.17	\$ 3.32	\$ 2.36	\$ 3.45

(1) The feedstock natural gas shown above does not include natural gas used for fuel. The cost of fuel natural gas is included in Direct operating expenses (exclusive of depreciation and amortization)

Nitrogen Fertilizer Segment Financial Highlights (Three and Six Months Ended June 30, 2020 versus June 30, 2019)

Overview - For the three months ended June 30, 2020, the Nitrogen Fertilizer Segment's operating loss and net loss were \$26 million and \$42 million, a \$61 million and \$61 million decrease in operating and net income, respectively, compared to the three months ended June 30, 2019. For the six months ended June 30, 2020, the Nitrogen Fertilizer Segment's operating loss and net loss were \$31 million and \$62 million, a \$75 million and \$75 million decrease in operating and net income, respectively, over the six months ended June 30, 2019. The declines in income during both periods were driven primarily by a goodwill impairment of \$41 million resulting from the expectation of continued weakening of sales pricing due to lower corn prices, a softening natural gas market, and increased imports of UAN, as was seen during the second quarter of 2020, as well as unfavorable ammonia and UAN pricing seen during the second quarter of 2020.





(1) See “Non-GAAP Reconciliations” section below for reconciliations of the non-GAAP measures shown above.

Net Sales - For the three months ended June 30, 2020, the Nitrogen Fertilizer Segment’s net sales decreased by \$33 million to \$105 million compared to the three months ended June 30, 2019. This decrease was primarily due to unfavorable pricing conditions which contributed \$32 million in lower revenues, partially offset by increased sales volumes contributing \$1 million, as compared to the three months ended June 30, 2019.

The following table demonstrates the impact of changes in sales volumes and pricing for the primary components of net sales, excluding urea products, freight, and other revenue, for the three months ended June 30, 2020 as compared to the three months ended June 30, 2019:

(in millions)	Price Variance	Volume Variance
UAN	\$ (18)	\$ —
Ammonia	(14)	1

The decrease in UAN and ammonia sales pricing for the three months ended June 30, 2020 as compared to the three months ended June 30, 2019 was primarily attributable to competitive pricing pressures seen throughout the domestic and international markets. For UAN, the softening natural gas markets, which is the typical feedstock for nitrogen plants, shifting trade flows in UAN due to the imposition of import duties on UAN in the EU, and lower corn prices due to decreased demand for corn for ethanol blending contributed to lower UAN prices. For ammonia, lower natural gas and corn prices and reduced demand for industrial uses of ammonia contributed to lower prices.

For the six months ended June 30, 2020, the Nitrogen Fertilizer Segment’s net sales decreased by \$49 million to \$180 million compared to the six months ended June 30, 2019. This decrease was primarily due to unfavorable pricing conditions which contributed \$54 million in lower revenues, partially offset by increased sales volumes contributing \$7 million, as compared to the six months ended June 30, 2019.

The following table demonstrates the impact of changes in sales volumes and pricing for the primary components of net sales, excluding urea products, freight, and other revenue, for the six months ended June 30, 2020 as compared to the six months ended June 30, 2019:

(in millions)	Price Variance	Volume Variance
UAN	\$ (34)	\$ (1)
Ammonia	(20)	8

The decrease in UAN and ammonia sales pricing for the six months ended June 30, 2020 as compared to the six months ended June 30, 2019 was primarily attributable to the competitive pricing pressures discussed above. For UAN, the softening natural gas markets, shifting trade flows, and lower corn prices seen during the second quarter of 2020 contributed to lower prices. For ammonia, lower natural gas and corn prices and reduced demand for industrial uses of ammonia contributed to lower prices.

Cost of Materials and Other - For the three months ended June 30, 2020, cost of materials and other was \$22 million compared to \$26 million for the three months ended June 30, 2019 as a result of lower natural gas costs and a lesser draw of ammonia at the East Dubuque Facility.

For the six months ended June 30, 2020, cost of materials and other was \$46 million compared to \$50 million for the six months ended June 30, 2019 as a result of a decrease in freight and distribution costs at the Coffeyville Facility and lower natural gas prices and a lesser draw of ammonia than the prior period at the East Dubuque Facility, partially offset by increased pet coke costs at the Coffeyville Facility.

Non-GAAP Measures

Our management uses certain non-GAAP performance measures to evaluate current and past performance and prospects for the future to supplement our GAAP financial information presented in accordance with U.S. GAAP. These non-GAAP financial measures are important factors in assessing our operating results and profitability and include the performance and liquidity measures defined below.

The following are non-GAAP measures presented for the period ended June 30, 2020:

EBITDA - Consolidated net income (loss) before (i) interest expense, net, (ii) income tax expense (benefit) and (iii) depreciation and amortization expense.

Petroleum EBITDA and Nitrogen Fertilizer EBITDA - Segment net income (loss) before segment (i) interest expense, net, (ii) income tax expense (benefit), and (iii) depreciation and amortization.

Refining Margin - The difference between our Petroleum Segment net sales and cost of materials and other.

Refining Margin adjusted for Inventory Valuation Impacts - Refining Margin adjusted to exclude the impact of current period market price and volume fluctuations on crude oil and refined product inventories recognized in prior periods and lower of cost or market reserves, if applicable. We record our commodity inventories on the first-in-first-out basis. As a result, significant current period fluctuations in market prices and the volumes we hold in inventory can have favorable or unfavorable impacts on our refining margins as compared to similar metrics used by other publicly-traded companies in the refining industry.

Refining Margin and Refining Margin adjusted for Inventory Valuation Impacts, per Throughput Barrel - Refining Margin divided by the total throughput barrels during the period, which is calculated as total throughput barrels per day times the number of days in the period.

Direct Operating Expenses per Throughput Barrel - Direct operating expenses for our Petroleum Segment divided by the total throughput barrels during the period, which is calculated as total throughput barrels per day times the number of days in the period.

Free Cash Flow - Net cash provided by (used in) operating activities less capital expenditures and capitalized turnaround expenditures.

We present these measures because we believe they may help investors, analysts, lenders and ratings agencies analyze our results of operations and liquidity in conjunction with our U.S. GAAP results, including but not limited to our operating performance as compared to other publicly-traded companies in the refining industry, without regard to historical cost basis or financing methods and our ability to incur and service debt and fund capital expenditures. Non-GAAP measures have important limitations as analytical tools, because they exclude some, but not all, items that affect net earnings and operating income. These measures should not be considered substitutes for their most directly comparable U.S. GAAP financial measures. See “*Non-GAAP Reconciliations*” included herein for reconciliation of these amounts. Due to rounding, numbers presented within this section may not add or equal to numbers or totals presented elsewhere within this document.

Factors Affecting Comparability of Our Financial Results

Our historical results of operations for the periods presented may not be comparable with prior periods or to our results of operations in the future for the reasons discussed below.

Petroleum Segment

Coffeyville Refinery - During the three and six months ended June 30, 2020, we capitalized costs of \$27 million and \$149 million, respectively, related to the planned turnaround which began in March 2020 and was completed in April 2020.

Nitrogen Fertilizer Segment

Goodwill Impairment

As of December 31, 2019, the Company had a goodwill balance of \$41 million associated with our Coffeyville Facility reporting unit for which the estimated fair value had been in excess of carrying value based on our 2018 and 2019 assessments. As a result of lower expectations for market conditions in the fertilizer industry, the market performance of CVR Partners' common units, a qualitative analysis, and additional risks associated with the business, the Company concluded a triggering event had occurred that required an interim quantitative impairment assessment of goodwill for this reporting unit as of June 30, 2020. Significant assumptions inherent in the valuation methodologies for goodwill include, but are not limited to, prospective financial information, growth rates, discount rates, inflationary factors, and cost of capital. The results of the impairment test indicated that the carrying amount of the Coffeyville Facility reporting unit exceeded the estimated fair value of the reporting unit, and a full impairment of the asset was required. No such charge was recognized during 2019.

Non-GAAP Reconciliations

Reconciliation of Net (Loss) Income to EBITDA

(in millions)	Three Months Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
Net (loss) income	\$ (32)	\$ 128	\$ (133)	\$ 230
Add:				
Interest expense, net	31	26	67	52
Income tax (benefit) expense	(5)	41	(42)	76
Depreciation and amortization	74	78	138	145
EBITDA	<u>\$ 68</u>	<u>\$ 273</u>	<u>\$ 30</u>	<u>\$ 503</u>

Reconciliation of Net Cash (Used In) Provided By Operating Activities to Free Cash Flow

	Three Months Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
Net cash (used in) provided by operating activities	\$ 9	\$ 156	\$ (49)	\$ 384
Less:				
Capital expenditures	(42)	(26)	(77)	(55)
Capitalized turnaround expenditures	(125)	(11)	(147)	(24)
Free cash flow	<u>\$ (158)</u>	<u>\$ 119</u>	<u>\$ (273)</u>	<u>\$ 305</u>

Reconciliation of Petroleum Segment Net (Loss) Income to EBITDA

(in millions)	Three Months Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
Petroleum net income (loss)	\$ 6	\$ 158	\$ (124)	\$ 307
Add:				
Interest (income) expense, net	(2)	6	2	17
Depreciation and amortization	50	52	99	101
Petroleum EBITDA	\$ 54	\$ 216	\$ (23)	\$ 425

Reconciliation of Petroleum Segment Gross Profit to Refining Margin and Refining Margin Adjusted for Inventory Valuation Impact

(in millions)	Three Months Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
Net sales	\$ 572	\$ 1,552	\$ 1,629	\$ 2,949
Cost of materials and other	424	1,244	1,459	2,324
Direct operating expenses (exclusive of depreciation and amortization as reflected below)	79	86	162	177
Depreciation and amortization	50	52	99	101
Gross profit (loss)	19	170	(91)	347
Add:				
Direct operating expenses (exclusive of depreciation and amortization as reflected below)	79	86	162	177
Depreciation and amortization	50	52	99	101
Refining margin	148	308	170	625
Inventory valuation impact, (favorable) unfavorable (1) (2)	(46)	—	90	(32)
Refining margin adjusted for inventory valuation impact	\$ 102	\$ 308	\$ 260	\$ 593

- (1) The Petroleum Segment's basis for determining inventory value under GAAP is First-In, First-Out ("FIFO"). Changes in crude oil prices can cause fluctuations in the inventory valuation of crude oil, work in process and finished goods, thereby resulting in a favorable inventory valuation impact when crude oil prices increase and an unfavorable inventory valuation impact when crude oil prices decrease. The inventory valuation impact is calculated based upon inventory values at the beginning of the accounting period and at the end of the accounting period. In order to derive the inventory valuation impact per total throughput barrel, we utilize the total dollar figures for the inventory valuation impact and divide by the number of total throughput barrels for the period.
- (2) Includes an inventory valuation charge of \$58 million recorded in the first quarter of 2020, as inventories were reflected at the lower of cost or net realizable value. No such charge was recognized in the second quarter of 2020 or the 2019 periods.

Reconciliation of Petroleum Segment Total Throughput Barrels

	Three Months Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
Total throughput barrels per day	156,369	216,283	156,443	214,555
Days in the period	91	91	182	181
Total throughput barrels	14,229,541	19,681,753	28,472,702	38,834,455

Reconciliation of Petroleum Segment Refining Margin per Total Throughput Barrel

	Three Months Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
(in millions, except per total throughput barrel)				
Refining margin	\$ 148	\$ 308	\$ 170	\$ 625
Divided by: total throughput barrels	14	20	28	39
Refining margin per total throughput barrel	\$ 10.43	\$ 15.66	\$ 5.97	\$ 16.10

Reconciliation of Petroleum Segment Refining Margin Adjusted for Inventory Valuation Impact per Total Throughput Barrel

	Three Months Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
(in millions, except per total throughput barrel)				
Refining margin adjusted for inventory valuation impact	\$ 102	\$ 308	\$ 260	\$ 593
Divided by: total throughput barrels	14	20	28	39
Refining margin adjusted for inventory valuation impact per total throughput barrel	\$ 7.18	\$ 15.68	\$ 9.12	\$ 15.28

Reconciliation of Petroleum Segment Direct Operating Expenses per Total Throughput Barrel

	Three Months Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
(in millions, except per total throughput barrel)				
Direct operating expenses (exclusive of depreciation and amortization)	\$ 79	\$ 86	\$ 162	\$ 177
Divided by: total throughput barrels	14	20	28	39
Direct operating expenses per total throughput barrel	\$ 5.52	\$ 4.40	\$ 5.69	\$ 4.57

Reconciliation of Nitrogen Fertilizer Segment Net Loss to EBITDA

	Three Months Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
(in millions)				
Nitrogen fertilizer net (loss) income	\$ (42)	\$ 19	\$ (62)	\$ 13
Add:				
Interest expense, net	16	16	31	31
Depreciation and amortization	24	25	39	42
Nitrogen Fertilizer EBITDA	\$ (2)	\$ 60	\$ 8	\$ 86

Liquidity and Capital Resources

Our principal source of liquidity has historically been cash from operations. Our principal uses of cash are for working capital, capital expenditures, funding our debt service obligations, and paying dividends to our stockholders, as further discussed below.

The effects of the COVID-19 pandemic have resulted in a significant and swift reduction in U.S. economic activity. For our industry, these effects have predominately resulted in significant changes in crude oil supply, decreases in crude oil and refined product pricing due to dramatic reductions in demand for crude oil and our refined products, primarily gasoline and jet fuel, all of which have caused significant volatility and disruption of the commodity and financial markets. This period of extreme economic disruption, low crude oil and refined product prices, and reduced demand has and is likely to continue to have an impact on our business, results of operations, and access to sources of liquidity.

In view of the uncertainty of the depth and extent of the contraction in demand due to the COVID-19 pandemic, combined with the weaker commodity price environment, we remain focused on safe and reliable operations, cash conservation, and protecting the balance sheet. As a result of these factors, and in light of the uncertainty of the current environment as well as potential future cash requirements of the Company, CVR Energy's board of directors (the "Board") reduced the cash dividend declared for the first quarter of 2020 to \$0.40 per share and elected not to declare a cash dividend for the second quarter of 2020. These decisions support the Company's continued focus on financial discipline through a balanced approach of stockholder distributions and strategic investments while providing additional flexibility to weather the uncertain environment. The Board will continue to evaluate the economic environment, the Company's cash needs, optimal uses of cash, and other applicable factors, and may elect to make additional changes to the Company's dividend in future periods. Additionally, in executing financial discipline, we have announced the following proactive measures:

- The deferment of the majority of our growth capital spending, with the exception of the RDU and DHT Projects at the Wynnewood Refinery;
- A reduction in the amount of expected maintenance capital expenditures for the remainder of 2020 to only include those projects which are critical to continuing safe and reliable operations, or are required to support future activities;
- A targeted reduction of \$50 million in operational and general and administrative costs;
- For the Petroleum Segment, the deferment of the Wynnewood Refinery turnaround from the spring of 2021 to the fall of 2021, resulting in the delay of long-lead expenditures into 2021;
- For the Nitrogen Fertilizer Segment, the deferment of the Coffeyville Facility turnaround from the fall of 2020 to the summer of 2021 and the East Dubuque Facility turnaround from 2021 to 2022; and
- Seeking available tax benefits under the Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act") by deferring certain payroll taxes otherwise required to be paid in 2020, increasing our business interest deduction, and carrying back our net operating loss generated in 2020.

When paired with the actions outlined above, we believe that our cash from operations and existing cash and cash equivalents, along with borrowings, as necessary, under CVR Refining's Amended and Restated ABL Credit Facility and CVR Partners' AB Credit Facility, will be sufficient to satisfy anticipated cash requirements associated with our existing operations for at least the next 12 months. However, our future capital expenditures and other cash requirements could be higher than we currently expect as a result of various factors. Additionally, our ability to generate sufficient cash from our operating activities and secure additional financing depends on our future operational performance, which is subject to general economic, political, financial, competitive, and other factors, some of which may be beyond our control.

Depending on the needs of our business, contractual limitations and market conditions, we may from time to time seek to issue equity securities, incur additional debt, issue debt securities, or otherwise refinance our existing debt. There can be no assurance that we will seek to do any of the foregoing or that we will be able to do any of the foregoing on terms acceptable to us or at all.

The Company's debt offering which included \$600 million in aggregate principal amount of 5.25% Senior Unsecured Notes due 2025 (the "2025 Notes"), which mature on February 15, 2025, and \$400 million in aggregate principal amount of 5.75% Senior Unsecured Notes due 2028 (the "2028 Notes"), which mature on February 15, 2028, along with the associated repayment of the CVR Refining Senior Notes due 2022 (the "2022 Notes"), collectively represent a material change in the Company's liquidity position as compared to our 2019 Form 10-K. See Note 9 ("Long-Term Debt and Finance Lease Obligations") for further discussion. The Company, and its subsidiaries, were in compliance with all covenants under their respective debt instruments as of June 30, 2020.

Cash Balances and Other Liquidity

As of June 30, 2020, we had consolidated cash and cash equivalents of \$606 million, \$393 million available under CVR Refining's Amended and Restated ABL Credit Facility, and \$46 million available under CVR Partners' AB Credit Facility.

(in millions)	June 30, 2020	December 31, 2019
CVR Partners:		
9.25% Senior Secured Notes due June 2023	\$ 645	\$ 645
6.50% Senior Notes due April 2021, net of current portion (1)	—	2
Unamortized discount and debt issuance costs	(13)	(15)
Total CVR Partners debt	\$ 632	\$ 632
CVR Refining:		
6.50% Senior Notes due November 2022 (2)	\$ —	\$ 500
Unamortized debt issuance cost	—	(3)
Total CVR Refining debt	\$ —	\$ 497
CVR Energy:		
5.25% Senior Notes due February 2025	\$ 600	\$ —
5.75% Senior Notes due February 2028	400	—
Unamortized debt issuance costs	(6)	—
Total CVR Energy debt	\$ 994	\$ —
Total long-term debt	\$ 1,626	\$ 1,129
Current portion of long-term debt (1)	2	—
Total long-term debt, including current portion	\$ 1,628	\$ 1,129

- (1) The 6.50% Notes, due April 2021, mature within 12 months, and, therefore, the outstanding balance of \$2 million has been classified as short-term as of June 30, 2020. Amounts reported in Other current liabilities.
- (2) On January 27, 2020, the Company redeemed all of the 2022 Notes for a redemption price equal to 101.083%, plus accrued and unpaid interest, on the redeemed notes.

CVR Partners

The Nitrogen Fertilizer Segment has a 9.25% Senior Secured Notes due 2023, 6.50% Senior Notes due 2021, and an AB Credit Facility, the proceeds of which may be used to fund working capital, capital expenditures, and for other general corporate purposes. Refer to Part II, Item 8 of our 2019 Form 10-K for further discussion.

CVR Refining

The Petroleum Segment has an Amended and Restated ABL Credit Facility, the proceeds of which may be used to fund working capital, capital expenditures, and for other general corporate purposes. The Company redeemed all of the 2022 Notes in January 2020. Refer to Part II, Item 8 of our 2019 Form 10-K and Note 9 (“Long-Term Debt and Finance Lease Obligations”) of this Report for further discussion.

CVR Energy

On January 27, 2020, CVR Energy issued the 2025 Notes and 2028 Notes. A portion of the net proceeds from the 2025 Notes and 2028 Notes were used to fund the redemption of the 2022 Notes. The remaining net proceeds will be used for general corporate purposes, which may include funding (i) acquisitions, (ii) capital projects, and/or (iii) share repurchases or other distributions to our stockholders. Refer to Part II, Item 8 of our 2019 Form 10-K and Note 9 (“Long-Term Debt and Finance Lease Obligations”) of this Report for further discussion of the issuance of these new notes and the redemption of the 2022 Notes.

Capital Spending

We divide capital spending needs into two categories: maintenance and growth. Maintenance capital spending includes non-discretionary maintenance projects and projects required to comply with environmental, health, and safety regulations.

Growth capital projects generally involve an expansion of existing capacity and/or a reduction in direct operating expenses. We undertake growth capital spending based on the expected return on incremental capital employed.

Our total capital expenditures for the six months ended June 30, 2020, along with our estimated expenditures for 2020, by segment, are as follows:

(in millions)	Six Months Ended June 30, 2020 Actual			2020 Estimate (1)					
	Maintenance	Growth	Total	Maintenance		Growth		Total	
				Low	High	Low	High	Low	High
Petroleum Segment	\$ 54	\$ 9	\$ 63	\$ 65	\$ 68	\$ 9	\$ 10	\$ 74	\$ 78
Nitrogen Fertilizer Segment	6	2	8	14	16	5	7	19	23
Other	2	—	2	2	4	—	—	2	4
Total	\$ 62	\$ 11	\$ 73	\$ 81	\$ 88	\$ 14	\$ 17	\$ 95	\$ 105

(1) Total 2020 estimated capital expenditures includes approximately \$1 to 2 million of growth-related projects that will require additional approvals before commencement.

We have reduced our 2020 estimated capital expenditures from the guidance provided in the 2019 Form 10-K, as outlined in our discussion above. Our estimated capital expenditures are subject to further change due to unanticipated changes in the cost, scope, and completion time for capital projects. For example, we may experience unexpected changes in labor or equipment costs necessary to comply with government regulations or to complete projects that sustain or improve the profitability of the refineries or nitrogen fertilizer facilities. We may also accelerate or defer some capital expenditures from time to time. Capital spending for CVR Partners is determined by the board of directors of its general partner (the “UAN GP Board”).

The Petroleum Segment began a major scheduled turnaround at the Coffeyville Refinery in March 2020, which was completed in April 2020. Total capitalized expenditures in 2020, primarily relating to the Coffeyville Refinery turnaround, were \$153 million, of which \$127 million was capitalized in the first quarter of 2020 and \$26 million was capitalized in the second quarter of 2020. During the six months ended June 30, 2019, total amounts capitalized relating to turnaround expenditures were \$24 million, primarily relating to the Wynnewood Refinery.

Dividends to CVR Energy Stockholders

Dividends, if any, including the payment, amount and timing thereof, are subject to change at the discretion of the Board. No dividends were declared for the second quarter of 2020.

The following tables present dividends paid to the Company’s stockholders, including IEP, during 2020 and 2019 (amounts presented in tables below may not add to totals presented due to rounding).

Related Period	Date Paid	Dividend Per Share	Dividends Paid (in millions)		
			Stockholders	IEP	Total
2019 - 4th Quarter	March 9, 2020	\$ 0.80	\$ 23	\$ 57	\$ 80
2020 - 1st Quarter	May 26, 2020	0.40	12	28	40
Total		\$ 1.20	\$ 35	\$ 85	\$ 121

Related Period	Date Paid	Dividend Per Share	Dividends Paid (in millions)		
			Stockholders	IEP	Total
2018 - 4th Quarter	March 11, 2019	\$ 0.75	\$ 22	\$ 53	\$ 75
2019 - 1st Quarter	May 13, 2019	0.75	22	53	75
2019 - 2nd Quarter	August 12, 2019	0.75	22	53	75
2019 - 3rd Quarter	November 11, 2019	0.80	23	57	80
Total		\$ 3.05	\$ 90	\$ 217	\$ 307

Distributions to CVR Partners' Unitholders

Distributions, if any, including the payment, amount and timing thereof, are subject to change at the discretion of the UAN GP Board. There have been no distributions paid by CVR Partners relating to the fourth quarter of 2019 or the first quarter of 2020, and there have also been no distributions declared for the second quarter of 2020, as the UAN GP Board determined there was no available cash for each quarter.

The following table presents distributions paid by CVR Partners to its common unitholders, including amounts paid to CVR Energy, during 2019.

Related Period	Date Paid	Distribution Per Common Unit	Distributions Paid (in thousands)		
			Public Unitholders	CVR Energy	Total
2018 - 4th Quarter	March 11, 2019	\$ 0.12	\$ 8,924	\$ 4,670	\$ 13,594
2019 - 1st Quarter	May 13, 2019	0.07	5,205	2,724	7,929
2019 - 2nd Quarter	August 12, 2019	0.14	10,411	5,449	15,860
2019 - 3rd Quarter	November 11, 2019	0.07	5,205	2,724	7,930
Total		\$ 0.40	\$ 29,745	\$ 15,567	\$ 45,313

Capital Structure

On October 23, 2019, the Board authorized a stock repurchase program (the "Stock Repurchase Program"). The Stock Repurchase Program would enable the Company to repurchase up to \$300 million of the Company's common stock. Repurchases under the Stock Repurchase Program may be made from time-to-time through open market transactions, block trades, privately negotiated transactions or otherwise in accordance with applicable securities laws. The timing, price and amount of repurchases (if any) will be made at the discretion of management and are subject to market conditions as well as corporate, regulatory and other considerations. While the Stock Repurchase Program currently has a duration of four years, it does not obligate the Company to acquire any stock and may be terminated by the Board at any time. As of June 30, 2020, the Company has not repurchased any of the Company's common stock under the Stock Repurchase Program.

On May 6, 2020, the UAN GP Board, on behalf of CVR Partners, authorized a unit repurchase program (the "Unit Repurchase Program"). The Unit Repurchase Program enables CVR Partners to repurchase up to \$10 million of its common units. Repurchases under the Unit Repurchase Program may be made from time-to-time through open market transactions, block trades, privately negotiated transactions, or otherwise in accordance with applicable securities laws. The timing, price, and amount of repurchases (if any) will be made at the discretion of management of CVR Partners' general partner and are subject to market conditions, as well as corporate, regulatory, and other considerations. This Unit Repurchase Program does not obligate CVR Partners to acquire any common units and may be cancelled or terminated by the UAN GP Board at any time. On May 20, 2020, CVR Partners entered into a common unit repurchase agreement, pursuant to Rules 10b5-1 and 10b-18 of the Exchange Act, to facilitate the repurchase of its common units and which CVR Partners may terminate at any time by providing written notice. During the three and six months ended June 30, 2020, CVR Partners repurchased 890,218 common units on the open market at a cost of \$1.0 million, inclusive of transaction costs, or an average price of \$1.07 per common unit. At June 30, 2020, CVR Partners had \$9.0 million in authority remaining under the Unit Repurchase Program.

Recent Developments

As disclosed in CVR Partners' Form 8-K filed with the SEC on April 24, 2020, on April 20, 2020, the average closing price of CVR Partners' common units had fallen below \$1.00 per unit over a 30 consecutive trading-day period, which is the minimum average unit price for continued listing on the New York Stock Exchange (the "NYSE") under Section 802.01C of the NYSE Listing Company Manual. Under the NYSE's rules, CVR Partners has six months following receipt of this notification to regain compliance with the minimum unit price requirement. However, due to the unprecedented market-wide declines as a result of the ongoing spread of COVID-19, the SEC approved the NYSE's request to toll the six month compliance period through and including June 30, 2020. As a result CVR Partners has until January 1, 2021 to regain compliance with this continued listing standard. As of June 30, 2020, the average closing price of CVR Partners' common units over a consecutive 30 trading-day period has remained below \$1.00 per common unit. Although CVR Partners intends to pursue measures to cure the unit price non-compliance and return to compliance with the NYSE continued listing requirements

in Section 802.01C of the NYSE Listed Company Manual, no assurance can be given that it will be able to regain compliance with the aforementioned listing requirement.

Cash Flows

Free cash flow for the six months ended June 30, 2020 was a use of cash of \$273 million as compared to a source of cash of \$305 million for the six months ended June 30, 2019. The significant decline in free cash flow is primarily due to a decline in net income in addition to an increase in turnaround expenditures primarily associated with the Coffeyville Refinery turnaround in the first half of 2020. The following table sets forth our consolidated cash flows for the periods indicated below:

(in millions)	Six Months Ended June 30,		
	2020	2019	Change
Net cash provided by (used in):			
Operating activities	\$ (49)	\$ 384	\$ (433)
Investing activities	(361)	(43)	(318)
Financing activities	364	(469)	833
Net decrease in cash and cash equivalents	<u>\$ (46)</u>	<u>\$ (128)</u>	<u>\$ 82</u>

Operating Activities

The change in operating activities for the six months ended June 30, 2020, as compared to the six months ended June 30, 2019, was primarily due to a decline in net income, excluding non-cash items, of \$326 million paired with unfavorable changes in working capital of \$108 million associated with the decline in crude oil prices during 2020.

Investing Activities

The change in net cash used in investing activities for the six months ended June 30, 2020, as compared to the six months ended June 30, 2019 was primarily due to the purchase of Delek common stock for \$140 million, an increase in turnaround expenditures of \$123 million relating to the Coffeyville Refinery turnaround in the first half of 2020, a decrease in proceeds from the sale of assets of \$35 million, and an increase in capital expenditures of \$22 million.

Financing Activities

The change in net cash provided by financing activities for the six months ended June 30, 2020, as compared to the net cash used in financing activities for six months ended June 30, 2019 was primarily due to increased cash inflows from the private offering of the 2025 Notes and 2028 Notes totaling \$1.0 billion, a decrease in CVR Energy's dividends and CVR Partners' distributions of \$29 million and \$14 million, respectively, along with a decrease in cash outflows from the purchase of remaining CVR Refining's units outstanding of \$301 million during the six months ended June 30, 2019 with no corresponding amounts paid in 2020. Cash provided by financing activities is partially offset by payments of \$500 million for the redemption of the outstanding 2022 Notes, \$5 million in a call premium on the extinguishment of the senior notes, and an increase in other financing activities of \$6 million.

Off-Balance Sheet Arrangements

We do not have any "off-balance sheet arrangements" as such term is defined within the rules and regulations of the SEC.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

There have been no material changes to our market risks as of and for the three and six months ended June 30, 2020 as compared to the risks discussed in Part II, Item 7A of our 2019 Form 10-K.

Item 4. Controls and Procedures***Evaluation of Disclosure Controls and Procedures***

As of June 30, 2020, we have evaluated, under the direction of our Chief Executive Officer, Chief Financial Officer and Chief Accounting Officer, the effectiveness of our disclosure controls and procedures, as defined in Exchange Act Rule 13a-15(e). Based upon and as of the date of that evaluation, our Chief Executive Officer, Chief Financial Officer and Chief Accounting Officer, concluded that our disclosure controls and procedures were effective to provide reasonable assurance that information required to be disclosed in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Security and Exchange Commission's rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer, our Chief Financial Officer and our Chief Accounting Officer, as appropriate, to allow timely decisions regarding required disclosure.

Changes in Internal Control Over Financial Reporting

There have been no changes in our internal controls over financial reporting required by Rule 13a-15 of the Exchange Act that occurred during the fiscal quarter ended June 30, 2020 that materially affected, or is reasonably likely to materially affect, our internal control over financial reporting. Despite many of our employees working in a remote environment due to the COVID-19 pandemic, we have not experienced any material impact to our internal controls over financial reporting. We are continually monitoring and assessing the COVID-19 pandemic to determine any potential impact on the design and operating effectiveness of our internal controls over financial reporting.

PART II. OTHER INFORMATION**Item 1. Legal Proceedings**

See Note 13 ("Commitments and Contingencies") to Part I, Item 1 of this Report, which is incorporated by reference into this Part II, Item 1, for a description of certain litigation, legal, and administrative proceedings and environmental matters.

Item 1A. Risk Factors

The risk factors below should be read in conjunction with the risk factors previously discussed in Part I, Item 1A of our 2019 Form 10-K, which risk factors could also be affected by the potential effects of the outbreak of COVID-19 discussed below. Additional risks and uncertainties, including risks and uncertainties not presently known to us, or that we currently deem immaterial, could also have an adverse effect on our business, financial condition, and/or results of operations.

The COVID-19 pandemic, and actions taken in response thereto, as well as certain developments in the global oil markets have had, and may continue to have, material adverse impacts on the operations, business, financial condition, liquidity, and results of operations of the Company or its customers, suppliers, and other counterparties.

The COVID-19 pandemic and actions of governments and others in response thereto has resulted in significant business and operational disruptions, including business closures, supply chain disruptions, travel restrictions, stay-at-home orders, and limitations on the availability and effectiveness of the workforce. These impacts have negatively impacted and may continue to negatively impact worldwide economic and commercial activity, financial markets, and demand for and prices of crude oil and other petroleum products. These impacts may also potentially precipitate a prolonged economic slowdown and recession. These declines have been further exacerbated by the production dispute between members of OPEC and Russia and the subsequent actions taken by such countries and other countries and crude oil producers as a result thereof.

Declines in the market prices of crude oil and certain other petroleum products below the carrying cost of such commodities in the Company's inventory have required, and may continue to require, the Company to adjust the value of, and record a loss on, certain inventories, which has had, and may continue to have a negative impact on our operating income. This decline may also adversely impact other areas of our business, our ability to profitably operate our facilities, and our results of operations, such as revenues and cost of sales, and could also result in significant financial constraints on certain producers from which we acquire our crude oil. Such conditions could also result in an increased risk that customers, lenders, and other counterparties may be unable to fulfill their obligations in a timely manner, or at all. Further, if general economic conditions

continue to remain uncertain for an extended period of time, our liquidity and ability to repay our outstanding debt may be harmed and the trading price of our common stock, which has seen recent volatility, may decline.

The ultimate impact of the COVID-19 pandemic is unknown and continues to rapidly evolve. The extent to which the COVID-19 pandemic may negatively impact our business and operations will depend on the severity, location, and duration of the effects and spread of COVID-19, the actions undertaken by national, regional, and local governments and health officials to contain such virus or remedy its effects, and if, how quickly and to what extent economic conditions recover and normal business and operating conditions resume.

CVR Partners may fail to regain or maintain compliance with the continued listing standards of the NYSE, which may result in the suspension or delisting of its common units from the NYSE, which suspension or delisting may have, among other negative impacts, a material adverse effect on the value of the CVR Partners assets held by the Company.

As disclosed in CVR Partners' Form 8-K filed with the SEC on April 24, 2020, the average closing price of its common units had fallen below \$1.00 per unit over a 30 consecutive trading-day period, which is the minimum average unit price for continued listing on the NYSE under Section 802.01C of the NYSE Listing Company Manual. CVR Services currently owns the general partner and 35% of the outstanding common units of CVR Partners and the suspension or delisting of CVR partners' common units may have, among other negative conditions, a material adverse effect on the value of the assets held by or distributions paid to CVR Services or the liquidity or financial condition of CVR Partners.

Item 5. Other Information

On July 31, 2020, Coffeyville Resources Nitrogen Fertilizers, LLC ("CRNF") and Messer LLC ("Messer") entered into an On-Site Product Supply Agreement (the "Agreement") which replaced the Amended and Restated On-Site Product Supply Agreement between CRNF and The BOC Group, Inc. (as predecessor in interest to Messer) on substantially similar terms. The Agreement term is fifteen years, and renews for successive 12 month terms unless terminated by either party upon 12 months written notice given on the last day of the initial term or any renewal term, or unless earlier terminated in the event of default. Under the Agreement, among other obligations, Messer is obligated to supply, and CRNF is obligated to take as available and pay for, oxygen, nitrogen, and compressed dry air, subject to certain technical specifications and other customary requirements contained therein. The Agreement also obligates Messer to install an oxygen storage vessel and other equipment and make additional capital investments in Messer's facility intended to improve the reliability of such facility. This description of the Agreement is qualified in its entirety by reference to the copy thereof filed as Exhibit 10.1 to this Quarterly Report on Form 10-Q, which is incorporated herein by reference.

Item 6. Exhibits

Exhibit Number	Exhibit Description
4.1**	Indenture, dated as of January 27, 2020, among CVR Energy, Inc., the guarantors named therein and Wells Fargo Bank, National Association, as Trustee (incorporated by reference to Exhibit 4.1 to the Form 8-K filed on January 27, 2020).
10.1*+	On-Site Product Supply Agreement among Coffeyville Resources Nitrogen Fertilizers, LLC and Messer LLC dated as of July 31, 2020.
31.1*	Rule 13a-14(a)/15(d)-14(a) Certification of President and Chief Executive Officer.
31.2*	Rule 13a-14(a)/15(d)-14(a) Certification of Executive Vice President and Chief Financial Officer.
31.3*	Rule 13a-14(a)/15(d)-14(a) Certification of Chief Accounting Officer and Corporate Controller.
32.1†	Section 1350 Certification of President and Chief Executive Officer, Executive Vice President and Chief Financial Officer and Chief Accounting Officer and Corporate Controller.
101*	The following financial information for CVR Energy, Inc.'s Quarterly Report on Form 10-Q for the quarter ended June 30, 2020 formatted in XBRL ("Extensible Business Reporting Language") includes: (i) Condensed Consolidated Balance Sheets (unaudited), (ii) Condensed Consolidated Statements of Operations (unaudited), (iii) Condensed Consolidated Statements of Comprehensive Income (unaudited), (iv) Condensed Consolidated Statement of Changes in Equity (unaudited), (v) Condensed Consolidated Statements of Cash Flows (unaudited) and (vi) the Notes to Condensed Consolidated Financial Statements (unaudited), tagged in detail.
104*	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101).

* Filed herewith.

** Previously filed.

+ Certain portions of this Exhibit have been redacted pursuant to Item 601(b)(10) of Regulation S-K. The Company agrees to furnish an unredacted copy of this Exhibit to the SEC on a confidential basis upon request.

† Furnished herewith.

PLEASE NOTE: Pursuant to the rules and regulations of the SEC, we may file or incorporate by reference agreements as exhibits to the reports that we file with or furnish to the SEC. The agreements are filed to provide investors with information regarding their respective terms. The agreements are not intended to provide any other factual information about the Company, its business or operations. In particular, the assertions embodied in any representations, warranties and covenants contained in the agreements may be subject to qualifications with respect to knowledge and materiality different from those applicable to investors and may be qualified by information in confidential disclosure schedules not included with the exhibits. These disclosure schedules may contain information that modifies, qualifies and creates exceptions to the representations, warranties and covenants set forth in the agreements. Moreover, certain representations, warranties and covenants in the agreements may have been used for the purpose of allocating risk between the parties, rather than establishing matters as facts. In addition, information concerning the subject matter of the representations, warranties and covenants may have changed after the date of the respective agreement, which subsequent information may or may not be fully reflected in the Company's public disclosures. Accordingly, investors should not rely on the representations, warranties and covenants in the agreements as characterizations of the actual state of facts about the Company, its business or operations on the date hereof.

SIGNATURES

Pursuant to the requirements 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.

CVR Energy, Inc.

August 4, 2020

By: /s/ Tracy D. Jackson
Executive Vice President and Chief Financial Officer
(Principal Financial Officer)

August 4, 2020

By: /s/ Matthew W. Bley
Chief Accounting Officer and Corporate Controller
(Principal Accounting Officer)

PORTIONS OF THIS EXHIBIT DENOTED WITH THREE ASTERISKS [*] HAVE BEEN EXCLUDED FROM THIS EXHIBIT BECAUSE THEY (I) ARE NOT MATERIAL, AND (II) WOULD BE COMPETITIVELY HARMFUL IF PUBLICLY DISCLOSED**

ON-SITE PRODUCT SUPPLY AGREEMENT

THIS ON-SITE PRODUCT SUPPLY AGREEMENT ("**Agreement**") is dated as of the Effective Date, between Messer LLC, a Delaware limited liability company ("**Messer**"), and Coffeyville Resources Nitrogen Fertilizers, LLC, a Delaware limited liability company ("**Coffeyville Resources**"). Capitalized terms are defined in this Agreement or the Appendices and Exhibits to this Agreement. Messer and Coffeyville Resources are each referred to as a "Party" and collectively as the "Parties."

1. PURCHASE AND SALE OF PRODUCT

1.1 Subject to Section 1.2, during the Supply Period, Messer shall provide and commit the Messer Equipment and sell and deliver Product that meets the specifications set forth in Exhibit A(II)(A) (collectively, "**Product Specifications**") to Coffeyville Resources, and Coffeyville Resources shall purchase Product from Messer.

1.2 During the Supply Period, Messer shall supply: (a) Product to the extent required by Coffeyville Resources, up to the Delivery Requirements and the requirements under Exhibit A(IV); and (b) Product in excess of the Delivery Requirements and the requirements under Exhibit A(IV) ("Excess Product"), at the prices set forth in Exhibit A(V), to the extent that Coffeyville Resources requires Excess Product and Messer determines that it has Excess Product available from the Messer Equipment (other than the Additional Oxygen Equipment) or another Messer liquid production facility.

1.3 Coffeyville Resources may provide Product for use by Coffeyville Resources Refining & Marketing, LLC ("**Coffeyville Refining**") and any successors or assigns of Coffeyville Refining at the facility owned by Coffeyville Refining adjacent to the Coffeyville Resources' Plant Site. Coffeyville Resources may assign this right to any permitted successors or assigns of Coffeyville Resources (each, a "**Successor**") provided such Successor assumes Coffeyville Resources' obligations under this Agreement. Except as provided for in the previous sentence, Coffeyville Resources shall not resell, distribute, or otherwise transfer any Product purchased by Coffeyville Resources from Messer.

1.4 Liquid Product Delivery.

1.4.1 Messer may deliver Liquid Product any time, 24 hours per day, seven days per week.

1.4.2 In the event Messer's delivery vehicle is denied access to the Existing Messer Liquid Facility or Additional Oxygen Equipment as a result of the acts or omissions of Coffeyville Resources or its employees, agents, contractors or subcontractors, Coffeyville Resources shall be responsible for all reasonable and actual costs incurred by Messer arising out of, or associated with, any such denial of access, unless such denial is caused by the acts or omissions of Messer, its employees, agents, contractors or subcontractors, or due to Coffeyville Resources ensuring compliance with any Laws.

1.4.3 Messer may refuse to make deliveries of Liquid Product during a strike or other labor disturbances affecting Coffeyville Resources at Coffeyville Resources' Plant Site,

where such labor disturbances create a reasonable concern for the safety of the driver or any other persons.

2. TERM

2.1 This Agreement starts on the Effective Date and ends at the end of the Supply Period, unless terminated earlier as provided for in this Agreement. After the end of the Initial Term, the term of this Agreement will automatically renew for successive terms of 12 months each (each a "**Renewal Term**"). However, a party may terminate this Agreement on the last day of the Initial Term or any Renewal Term (each, an "**Expiration Date**") by giving the other party a notice of termination at least 12 months before the Expiration Date. The Parties shall meet at least three years before the end of the Initial Term to discuss a potential extension of this Agreement.

2.2 A Party will be in default under this Agreement ("**Default**") if that Party materially breaches the terms of this Agreement and does not, within the [***]-day period starting on the date of its receipt of a written notice of the breach provided by the other Party as required under this Agreement ("**Cure Period**"), either: (A) cure the breach; or (B) if the breach cannot reasonably be cured within the Cure Period, commence the cure within the Cure Period and pursue it diligently to completion. A Party may terminate this Agreement for the other Party's Default by giving the other Party a written notice, within the [***]-day period starting on the last day of the Cure Period, that specifies an effective date of termination that is no more than [***] after the date of the termination notice. Provided, however, that nothing in this Section 2.2 shall in any way be construed to limit or expand the Parties' rights and obligations under Section 11 or Section 14.

3. THE MESSER SITE AND THE MESSER EQUIPMENT

3.1 License to Use and Occupy. Coffeyville Resources grants to Messer an exclusive license to use and occupy the Messer Site until the removal of the Messer Equipment as contemplated in Section 3.4.4. The Messer Site shall be occupied exclusively by Messer, without cost for such occupancy. The license contemplated in this Section 3.1 shall not amend or diminish any of Messer's other rights under this Agreement.

3.2 Access Rights.

3.2.1 Coffeyville Resources grants to Messer a non-exclusive easement for ingress and egress, to, through and over, and parking spaces reasonably necessary to conduct operations at, Coffeyville Resources' Plant Site (the "**Messer Access Right**") as reasonably necessary for Messer's employees, agents, contractors and subcontractors, with or without vehicles, equipment, materials and machinery, to: (A) install, maintain, repair, modify, operate or remove all or any portion of the Messer Equipment located on the Messer Site; or (B) perform any of Messer's obligations or exercise any of Messer's rights contemplated in this Agreement. The locations for the Messer Access Right shall be mutually satisfactory to the Parties, and Coffeyville Resources reserves the right to deny access at any specific point in its sole discretion; however, Messer will not be responsible for any delays or costs in connection with Coffeyville Resources' denial of access without a safety, security, or other reasonable basis. Messer shall not be permitted access to Coffeyville Refining's facility without prior written permission.

3.2.2 Messer grants to Coffeyville Resources a non-exclusive easement for ingress and egress to, and access into, through and over the Messer Site (the "**Coffeyville Resources Access Right**") as reasonably necessary for Coffeyville Resources' employees, agents,

contractors and subcontractors, with or without vehicles, equipment, materials and machinery, to use: (A) as may be reasonably necessary in connection with Coffeyville Resources' ownership, use, enjoyment, repair, maintenance and expansion of Coffeyville Resources Plant Site; (B) a 12-foot-wide portion of the Messer east-west pipe rack within the Messer Site with a loading capacity up to 30 pounds per square foot for the installation, operation and maintenance by Coffeyville Resources of its cable tray and cables; provided, however, that Coffeyville Resources shall not exercise this right in a manner that unreasonably interferes with Messer's use of the Messer Site in accordance with the terms of this Agreement, or as needed to comply with any Laws. Notwithstanding the foregoing, Coffeyville Resources and/or Coffeyville Refining may have access to and interfere with Messer's use of the Messer Site to the extent necessary to comply with any Laws or Environmental Laws. Coffeyville Resources and Coffeyville Refining shall follow Messer safety policies and notify Messer control room upon entering the Messer Site.

- 3.2.3 The Messer Access Right and Coffeyville Resources Access Right shall remain in full force and effect until the Messer Equipment is removed from the Messer Site.
- 3.2.4 Each Party's performance under this Agreement will be in such a manner as to protect all persons and property thereon from damage or injury. In addition, Messer will perform its obligations under this Agreement and utilize the Messer Access Right in accordance with the safety standards specified in this Agreement and in such manner as to prevent any unreasonable interference with Coffeyville Resources' and any of its contractors' or invitees and their respective operations.
- 3.2.5 Messer is solely responsible for the safe transportation and packing in proper containers and storage of any tools or materials required by Messer in connection with its operations, whether owned, leased or rented by Messer. Coffeyville Resources will not be responsible for any such tools and materials that are lost, stolen, or damaged unless caused by Coffeyville Resources or its employees, agents, contractors, or subcontractors. Any transportation of such tools and materials furnished by Coffeyville Resources pursuant to Messer's request is solely as an accommodation and Coffeyville Resources will have no liability therefor.
- 3.3 Coffeyville Resources shall:
 - 3.3.1 Be responsible to provide Messer, at Coffeyville Resources' cost and expense, consistent with **Exhibit B**, the Messer Site. Each Party will be responsible for any modifications to the Messer Site in connection with a change in the electrical classification (currently nonclassified) to the extent required due to that Party's acts or omissions. Changes to such classification due to a change in Laws shall be addressed under Section 3.4.3.
 - 3.3.2 Be responsible to install and maintain Coffeyville Resources' Pipelines and any other facilities, as specified in **Exhibit B**, necessary to transport Product from the Point of Delivery to Coffeyville Resources' Plant. Coffeyville Resources understands that Coffeyville Resources' Pipelines must be capable of safely transporting the Product.
- 3.4 Messer shall:
 - 3.4.1 Install the Additional Oxygen Equipment, and perform work and commit the capital included in the Relife Capital Investment in accordance with Exhibit C. Subject to the terms of this Agreement, including, but not limited to those set forth in Section 16 below, Messer may contract or subcontract any or all of the work required in connection

with the installation of the Additional Oxygen Equipment and the Relife Capital Investment as it deems appropriate and Messer shall be responsible for such contractors or subcontractors and the contracted or subcontracted work as if Messer itself had performed such work. Messer shall complete such work consistent with Messer's practices and shall give Coffeyville Resources a written notice when the Additional Oxygen Equipment is ready for initial fill ("Additional Oxygen Equipment Completion Notice") and as items included in the Relife Capital Investment are complete.

3.4.2 Be responsible for the operations and maintenance of the Messer Equipment.

3.4.3 Subject to Section 3.3.1 above and Section 9.4 below, Messer agrees to make such modifications to the Messer Equipment and/or Messer Site as are required by governmental agencies or authorities, by the modification or change in interpretation of any applicable Laws or permits, or by the enactment or adoption of any new Laws, so as to ensure proper maintenance and operation of the Messer Equipment and/or the Messer Site in compliance with those Laws and permits, in which case the Parties shall share the associated costs equally. Provided, however, any timelines and costs associated with any modifications under this Section 3.4.3 are subject to the review and approval of Coffeyville Resources, which Coffeyville Resources shall not unreasonably withhold or delay.

3.4.4 Use commercially reasonable efforts to remove the Messer Equipment and all other items on the Messer Site other than any foundations or other underground equipment from the Messer Site commencing from the termination or expiration of this Agreement, but no later than [***] thereafter or after Coffeyville Resources' written request to Messer. Upon such removal, the foundation and underground installations shall become the property of Coffeyville Resources.

3.5 Contaminants. If the contaminant levels in the atmosphere at the Messer Site or, if applicable, in the Water at the Messer Site, exceed the parameters set forth in **Appendix 3** or the electrical utilities provided by Coffeyville Resources do not meet the parameters set forth in **Exhibit B** and such condition may make the operation of the Messer Equipment hazardous or threaten to damage the Messer Equipment, or impair the ability of the ASU to produce Product that meets the Product Specifications or the Delivery Requirements (hereinafter a "**Off-Spec Condition**"), then Messer shall promptly notify Coffeyville Resources of such Off-Spec Condition, specifying the particular contaminate levels and effect thereof.

3.5.1 Upon receipt of such notice, Coffeyville Resources shall, at its election within [***]thereafter proceed to do one of the following: [***]. The cost of any action under this section shall be (x) borne by Coffeyville Resources if Coffeyville Resources was the cause of the Off-Spec Condition, (y) borne by Messer if Messer was the cause of such Off-Spec Condition, and (z) in all other cases, borne equally by Coffeyville Resources and Messer.

3.5.2 In addition, upon notice as set forth below, Messer shall have the right to suspend its performance, including, the delivery of Product from the ASU due to an Off-Spec Condition:

- (A) In emergencies, where Messer reasonably determines there to be risks to health and safety or risks of significant property damage, Messer may suspend Product supply upon reasonable notice under the circumstances.

- (B) In all other circumstances, Messer shall give Coffeyville Resources fifteen (15) days advance written notice of Messer's intention to exercise its right to suspend the delivery of Product.
- (C) Messer will continue to deliver liquid oxygen as available unless the Off-Spec Condition impacts the Existing Messer Liquid Facility or the Additional Oxygen Equipment.
- (D) Coffeyville Resources' obligation to pay the Minimum Monthly Charge shall continue during any such suspension, unless the Off-Spec Condition was caused by Messer.

3.5.3. If it is determined in a final, non-appealable or un-appealable decision by a court of competent jurisdiction that any suspension or cessation under this Section by Messer was improper or wrongful, Messer shall be responsible for any loss or damages incurred by Coffeyville Resources (including reasonable attorney fees), to the extent resulting from such improper or wrongful suspension or cessation.

3.6 Title to Messer Equipment. Title to and ownership of the Messer Equipment shall remain, at all times, with Messer. However, Coffeyville Resources may purchase the Additional Oxygen Equipment, AS IS, WHERE IS, effective on the date of termination of the Supply Period, by paying Messer [***] on or before that date. Coffeyville Resources shall hold Messer harmless from and against all Claims and liens on or affecting the Messer Equipment, or any part thereof, except to the extent that such Claims or liens were due to or created by the acts of Messer, its agents, contractors or subcontractors, or Messer's failure to pay any third party. Coffeyville Resources shall execute such documents as may be reasonably requested by Messer to put third-parties on notice of Messer's ownership interest in the Messer Equipment. Coffeyville Resources shall not alter, repair, operate, maintain, adjust or tamper with the Messer Equipment.

3.7 If the Messer Site shall become unsuitable because of any change of site conditions (for reasons not due to Messer or its agents, contractors or subcontractors) or due to an act or omission of Coffeyville Resources, Messer shall, at Coffeyville Resources' expense, move the Messer Equipment to a substitute site to be furnished by Coffeyville Resources that meets the requirements in Sections 3.3.1. The provisions of this Agreement shall apply to any such substitute site.

3.8 Notwithstanding anything in this Agreement to the contrary, Messer reserves the right to [***] to perform any of its obligations.

3.9 Messer may retain, market, and sell to third parties: [***] Each month, Messer shall credit Coffeyville Resources in an amount equal to [***].

4. POINT OF DELIVERY; RISK OF LOSS

Risk of loss and title with respect to all Product meeting the Product Specifications shall pass from [***] at the Point of Delivery. [***] assumes all risk and shall be solely liable and responsible for Product meeting the Product Specifications at and from the Point of Delivery.

5. PRICE AND PAYMENT

5.1 Messer shall invoice Coffeyville Resources, in accordance with the pricing set forth in **Exhibit A**, for the Minimum Monthly Charge each month, for the Reliability Bonus (if applicable) after the related Contract Year, and for any other applicable charges and sums, set forth in this

Agreement, after delivery. Except as set forth elsewhere in this Agreement, the Minimum Monthly Charge applies [***].

5.2 Except as provided for in Section 5.3, Coffeyville Resources shall pay Messer as set forth in the invoices. Payment for the Minimum Monthly Charge shall be made no later than the last day of the corresponding month. For any other charges, payment shall be due and payable within 30 days from the date of the invoice. In the case of any payment not made when due (other than for amounts disputed as provided for in Section 5.3), interest shall be applied at a rate per annum equal to [***], as published in *The Wall Street Journal*, from the due date until payment is made. Coffeyville Resources shall not be responsible for any invoices for charges submitted more than [***] from the date such charges were incurred.

5.3 If any invoice is disputed as erroneous by Coffeyville Resources and Coffeyville Resources wishes to withhold the disputed amount, Coffeyville Resources:

5.3.1 must timely pay the undisputed amount, and;

5.3.2 must, , give Messer written notification setting forth the disputed amount and the basis for the dispute.

So long as Coffeyville Resources disputes the disputed amount consistent with the process set forth in this Section 5.3, the withholding of the disputed amount prior to the resolution of such dispute will not constitute a Default by Coffeyville Resources. Messer and Coffeyville Resources shall use good faith efforts to resolve the disputed amounts in accordance with the dispute resolution procedures set forth in Section 24 below. Upon resolution of any such dispute between the Parties, the amount mutually agreed as due and owing, including any accrued interest, will be promptly paid by Coffeyville Resources. The amount agreed as not being due will be credited to Coffeyville Resources.

6. PRICE ADJUSTMENTS

The prices and Export Credit will be adjusted in accordance with **Appendix 2**.

7. TAXES AND OTHER CHARGES AND REVISIONS

7.1 Coffeyville Resources shall pay [***].

7.2 [***].

7.3 In the event that any taxes or charges owed by Coffeyville Resources pursuant to Sections 7.1 and 7.2 should be assessed against and paid by Messer, Coffeyville Resources shall promptly reimburse Messer for such payment.

8. WARRANTY AND WARRANTY DISCLAIMER.

8.1 Messer warrants to Coffeyville Resources that Products delivered to Coffeyville Resources will conform to the Product Specifications; however, if Coffeyville Resources requests non-conforming Product after Messer advises Coffeyville Resources that the Product will not conform to the Product Specifications, then this warranty will not apply to any such non-conforming Product delivered in the first three consecutive days after Coffeyville Resources' request, and such non-conforming Product delivered in that consecutive three-day period will apply toward the Delivery Requirements and the requirements under Exhibit A(IV); provided however, that any such non-conforming Product delivered after that consecutive three day period shall not count as part of the Delivery Requirements or the requirements under Exhibit A(IV), or

limit Coffeyville Resource's remedies or Messer's obligations under this Agreement associated with the non-conforming Product or Messer's failure to deliver the volume of Product taken as non-conforming Product, if applicable. Messer does not make any other express warranty, and SPECIFICALLY DISCLAIMS ALL IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

8.2 Coffeyville Resources waives any Claim for a breach of Messer's warranty under Section 8.1, or breach of Messer's obligation to deliver Product as required under this Agreement that Coffeyville Resources does not give Messer in writing within [***] after the date of the breach; and

8.3 Each Party waives any Claim regarding any error on an invoice or request for credit that it does not give to the other Party in writing within [***] after the date of the relevant invoice.

9. INDEMNITY

9.1 Except as provided for in Section 9.2, each Party (an "Indemnifying Party") agrees to defend, indemnify and hold harmless the other Party, its parents, subsidiaries, affiliates, successors and assigns, and each of their respective present and future officers, directors, and employees (each an "Indemnified Party" and collectively the "Indemnified Parties"), from and against any and all claims, demands, causes of action, lawsuits, liabilities, losses, damages, and expenses incidental thereto (including cost of defense, settlement, reasonable attorney's fees, fines or penalties) (each, a "Claim" and collectively, "Claims") of any nature whatsoever:

(a) whether brought by a third party against or otherwise incurred by an Indemnified Party:

(i) that the Indemnifying Party is responsible for under Section 9.4; or

(ii) arising as a result of loss or damage to any property, including, but not limited to property or facilities of an Indemnified Party, or loss or damage to an Indemnified Party's materials, in each case, to the extent caused by the negligent operations, or the negligent acts or omissions of the Indemnifying Party or its contractors, subcontractors, agents, employees or representatives; or

(b) brought by any third party against an Indemnified Party:

(i) arising as a result of bodily injuries (including death) to any person, including but not limited to Claims arising from or relating to exposure to asbestos or asbestos containing materials of any kind, to the extent caused by the negligent operations, or the negligent acts or omissions of the Indemnifying Party or its contractors, subcontractors, agents, employees or representatives;

(ii) alleging that the design, engineering, construction, installation, operation or maintenance of, or the use of, any equipment, process or technology, or any part thereof (each, an "Item"), furnished or manufactured by the Indemnifying Party or any of its agents, contractors or subcontractors under this Agreement constitutes any infringement of United States patents, copyrights or other intellectual property or constitutes an improper use of any other proprietary rights, unless: (A) the infringement would not have occurred but for the conformity of the Item to the Indemnified Party's specifications; (B) the infringement resulted from the Indemnified Party's combination of the Items with equipment or a process or technology not provided by the Indemnifying Party and the Claim would have been avoided in the absence of that combination; (C) the infringement resulted from a modification to the Item made by the Indemnified Party; or (D) the Claim is for the infringement of intellectual property or other proprietary rights that the

Indemnified Party owns, or that are subject to a third party license agreement that the Indemnified Party breached; or

(iii) for any violation or alleged violation of Law, to the extent that the violation of Law resulted from the Indemnifying Party's acts or omissions in performing under this Agreement, including, but not limited to, the delivery of any material or product that does not conform to applicable Laws at the time of delivery.

9.2 THE INDEMNIFYING PARTY ASSUMES FULL RESPONSIBILITY FOR ANY AND ALL INJURIES OCCURRING TO ANY OF ITS EMPLOYEES (EACH AN "EMPLOYEE") ARISING FROM OR IN CONNECTION WITH THEIR EMPLOYMENT AND/OR PERFORMANCE OF WORK UNDER THIS AGREEMENT. NOTWITHSTANDING ANY PROVISION HEREIN TO THE CONTRARY, THE INDEMNIFYING PARTY SPECIFICALLY AGREES TO FULLY DEFEND, INDEMNIFY AND HOLD HARMLESS THE INDEMNIFIED PARTIES FROM AND AGAINST ANY CLAIMS BROUGHT BY OR ON BEHALF OF ANY EMPLOYEES OF AN INDEMNIFYING PARTY AGAINST AN INDEMNIFIED PARTY FOR BODILY INJURY OR DEATH, REGARDLESS OF ANY DEGREE OF FAULT, OMISSION OR NEGLIGENCE, STRICT LIABILITY, STRICT PRODUCTS LIABILITY, OR NEGLIGENCE PER SE, OF AN INDEMNIFIED PARTY AND REGARDLESS OF WHETHER THE CLAIMS ARE ALLEGED OR FOUND TO BE CAUSED BY THE NEGLIGENCE OF AN INDEMNIFIED PARTY; BUT NOT TO THE EXTENT SUCH CLAIMS ARE FOUND BY A FINAL NON-APPEALABLE OR UN-APPEALED DECISION OF A COURT OF COMPETENT JURISDICTION TO BE CAUSED BY THE GROSS NEGLIGENCE OR WILLFUL MISCONDUCT OF AN INDEMNIFIED PARTY. THIS PROVISION CONTROLS OVER ANY CONFLICTING PROVISION OF THIS AGREEMENT.

9.3 With respect to Claims by Employees of an Indemnifying Party, the defense, indemnity and hold harmless obligations created under Section 9.2 are not limited by the fact of, amount, or type of benefits or compensation payable by or for any Indemnifying Party under any workers' compensation, disability benefits, or other employee benefits acts or regulations, and each Indemnifying Party waives any limitation of liability or immunity arising from workers' compensation or such other acts or regulations, but only to the extent of the indemnity obligations set forth in Section 9.2.

9.4 Messer will be responsible for [***]. Except as provided for in the previous sentence, [***].

9.5 If an Indemnified Party seeks indemnification for any Claim under Section 9 (each, an "Indemnified Claim"), then the Indemnified Party shall: (a) promptly notify the Indemnifying Party of the Indemnified Claim; (b) if the indemnity is accepted without reservation, give the Indemnifying Party sole control over, and the right to settle the Indemnified Claim without the Indemnified Party's consent so long as the settlement does not impose any liability or obligation on the Indemnified Party; and (c) provide the Indemnifying Party with information and assistance as the Indemnifying Party reasonably requests to defend the Indemnified Claim, at the Indemnifying Party's cost. The Indemnifying Party will be relieved of its obligations under this Section, only to the extent that the Indemnified Party breaches its obligations in the previous sentence, and the breach materially prejudices the Indemnifying Party's defense of the Indemnified Claim. The Indemnified Party may employ counsel to assist it with respect to the Indemnified Claim, at the Indemnified Party's cost.

9.6 The Indemnifying Party may, in its sole discretion, mitigate Claims under Section 9.1(b)(ii) by taking any of the following actions: (a) securing the right for the Indemnified Party to continue using Items; (b) replacing the Items with non-infringing Items; (c) modifying the Items so they become non-infringing; or (d) refunding to the Indemnified Party the amount paid for the Items.

9.7 In the event that any indemnity provisions of this Agreement are contrary to the law governing this Agreement, then the indemnity obligations applicable hereunder will be construed to be to the fullest extent allowed by applicable law.

10. INSURANCE

10.1 During the Supply Period, Messer shall, at Messer's sole cost and expense, procure and maintain in full force and effect, sufficient insurance (i) as may be required by law, and (ii) of the types, in the minimum amounts and meeting the requirements set forth below. The General Liability and Automobile Liability coverages listed and maintained by Messer are primary and non-contributing insurance, to the extent of the insurance limits agreed to in this Agreement, and shall be of an "occurrence" type policy and not a "claims made" type. All insurance policies shall be issued by insurers that possess a financial strength rating of "A-, VII" or higher from AM Best or Standard & Poor's, or equivalent rating from another nationally recognized rating agency. If, Messer employs contractors or subcontractors, Messer shall require such contractors or subcontractors to obtain, maintain, and document to Messer the existence of adequate insurance coverage.

10.2 The insurance requirements shall not restrict, expand, limit or modify the defense, indemnification and hold harmless obligations and/or other provisions of this Agreement. Except with respect to Claims that Messer is responsible for under Section 9.2, Messer is not responsible to provide primary and non-contributory coverage under Section 10.1 or additional insured coverage under Section 10.3 to the extent of Coffeyville Resources' negligence. The requirements herein as to the types and limits of insurance coverage to be maintained by Messer and any approval of said insurance by Coffeyville Resources or its insurance consultant(s) are not intended to and shall not in any manner limit, expand or qualify the liabilities and obligations otherwise assumed by Messer pursuant to this Agreement.

10.3 Messer's General Liability and Automobile Liability policies each will be endorsed utilizing [***] or such other form as may be reasonably acceptable to Coffeyville Resources. Such endorsement will name the Coffeyville Resources, its officers, owners, successors and assigns as additional insureds with respect to Messer's obligations under this Agreement, or any person or entity for which Messer employs, contracts, or is otherwise responsible, with respect to this Agreement.

10.4 Each Party (the "Waiving Party") agrees that either its respective workers' compensation policy will contain a waiver of subrogation in favor of the other Party, or that it will cause its insurer to waive the insurer's right to recover from the other Party any payments made under the Waiving Party's workers' compensation policy in connection with any Indemnified Claims subject to the Waiving Party's indemnity obligations under Section 9.2.

10.5 Prior to Messer commencing performance, Messer will provide documentation to Coffeyville Resources or Coffeyville Resources' designee evidencing that the insurance coverage required in this Section is in full force and effect. Documentation of insurance will be provided using an industry acceptable certificate of insurance form, such as an ACCORD form or equivalent.

10.6 By requiring the insurance herein, Coffeyville Resources does not represent that the required coverage and limits will necessarily be adequate to protect Messer or its subcontractors. The insurance requirements herein merely prescribe the minimum amounts and forms of insurance coverage that Messer and/or its subcontractors are required to maintain. Messer will maintain in full force and effect during the Supply Period, at its sole cost and expense, the insurance policy coverages listed and described below.

10.6.1 Workers' Compensation and Employer's Liability. Workers' Compensation insurance in the form and with limits prescribed by statutory law, and Employers' Liability insurance with limits of at least \$[***]. The policy(ies) shall include "other states" coverage and voluntary compensation coverage as permitted by law. An Alternate Employer endorsement shall be included on the Workers' Compensation policy. If Messer's employees are permanent residents of and/or perform operations in any monopolistic state including ND, OH, WA and WY, Stop Gap Employer's Liability coverage of \$[***] shall be maintained.

10.6.2 Auto Liability. Messer will maintain auto liability insurance covering all owned, non-owned and hired autos in the standard ISO policy form or its equivalent. This policy will contain a \$[***] combined single limit, each and every occurrence (bodily injury, death or property damage). If Messer transports by vehicle any hazardous waste, products, fluids, or materials that could damage the environment if released, this insurance shall also be endorsed to include coverage for claims under the Motor Carrier Act of 1980 (e.g., MCS-90 endorsement) and broadened pollution coverage (endorsement CA9948 or equivalent) resulting from the transportation of materials identified as hazardous during Messer's performance. Coverage will include contractual liability. Messer will be responsible for physical damage to any vehicles and related equipment. Coverage shall include Messer's employees as insureds and fellow employee coverage.

10.6.3 General Liability. Commercial General Liability insurance ("CGL") written on an occurrence-based form including broad form contractual liability, against claims for bodily injury, including without limitation sickness, disease or death, broad form property damage, including loss of use resulting therefrom, personal and advertising injury, products, independent contractor's or completed operations. The CGL shall not exclude, by endorsement or otherwise, coverage for bodily injury or property damage claims arising out of the rendering of or failure to render professional services.

The CGL coverage minimum limits required shall be \$[***] each occurrence (bodily injury/property damage); \$[***] products/ completed operations aggregate; \$[***] personal and advertising injury (any one person); \$[***] general aggregate (other than products/completed operations).

If the Work is performed near a railroad property, there shall be no exclusions for operations within 50 feet of a railroad (CG 24 17 or equivalent).

The products and completed operations coverage under the CGL shall be maintained for two years following termination of this Agreement.

10.6.4 Umbrella and Excess Insurance. Messer will maintain either umbrella and/or excess insurance coverage containing a limit of \$[***], each and every occurrence and aggregate. The policies listed and required in Sections 10.6.1 (Employer's Liability), 10.6.2, and 10.6.3 shall be underlying insurance on the umbrella and excess insurance policy coverage. Umbrella or excess insurance will be on a follow form basis to the underlying insurance or provide coverage at least as broad as the underlying insurance policies. Such coverage will drop down to be primary in the event underlying limits or aggregates are depleted.

10.6.5 Physical Damage/Equipment Coverage Insurance. Messer will maintain Physical Damage/Equipment Coverage Insurance for loss or damage to Messer's equipment and machinery that is borrowed, rented, or leased and/or valued over \$[***], including loss or damage during loading, unloading, and while in transit. Such coverage shall be on an all-

risk basis or its equivalent subject to a limit of 100% of the replacement cost at the time of the loss with any and all deductibles to be assumed by, for the account of and at the sole risk of Messer.

10.7 Messer shall be responsible to pay any deductibles or self-insured retentions and for all losses, damages or liabilities resulting from Messer's failure to provide or maintain the insurance required by this Agreement.

10.8 Messer shall provide Coffeyville Resources at least thirty (30) days written notice by certified mail return receipt requested of any cancellation or non-renewal when not replaced with equivalent coverage as required above, or if there is a material change resulting in the decrease of the required insurance. If Messer fails or neglects to obtain or renew the required insurance, Coffeyville Resources shall have the right (but not the obligation), (a) to procure such insurance and reduce any amount payable to Messer by the cost thereof, or alternatively, collect such amount from Messer; or (b) to deem such failure or neglect on the part of Messer as a material breach of the Agreement. Messer shall not intentionally do, allow or permit anything to be done that will affect, impair or contravene any policies of insurance that may be in force hereunder. Messer shall be solely responsible for and promptly pay when due, any and all premiums for all such insurance. Notwithstanding Messer's obligation to provide, and Coffeyville Resources' right to receive proof of insurance in compliance with this Section, any failure of Coffeyville Resources to require, or to insist that Messer comply with its obligations to provide, proof of insurance, shall not operate as a waiver of Messer's obligations to provide insurance. Coffeyville Resources' acceptance of a certificate evidencing coverage and limits not in compliance with the required coverage and limits set forth in this Section shall not be deemed a waiver of the foregoing requirements.

10.9 Coffeyville Resources may at any time upon prior written notice request Messer to increase the limits set forth to such amounts as inflation, industry practice or other factors indicate are reasonable or if required by applicable law. The foregoing insurance requirements will apply whether or not required by any other provision of the Agreement and the limits of coverage do not alter the indemnities and allocation of responsibilities in the Agreement.

11. LIMITATION OF LIABILITY

11.1 Except as provided for in Section 11.2, in all events, regardless of the legal theory (e.g., breach of contract or warranty, negligence, strict liability, etc.): (i) NEITHER PARTY IS LIABLE TO THE OTHER PARTY FOR [***]; and (ii) the total amount of damages that a Party may recover from the other Party resulting from any occurrences arising in connection with their relationship contemplated by this Agreement is limited to \$[***] for all occurrences during any Contract Year and \$[***] for all occurrences during any [***].

11.2 The limitations specified in Section 11.1 will not apply with respect to a Party's liability for third party Indemnified Claims, or to the extent of an Indemnifying Party's gross negligence or willful misconduct. In addition: (i) the limitations specified in Section 11.1(i) will not apply with respect to a Party's liability for attorney fees as provided for in this Agreement; (ii) regardless of Section 11.1, Messer has the right to seek the full amount of any payments due from Coffeyville Resources under this Agreement, and Coffeyville Resources has the right to seek the full amount of the Export Credit and any credits due from Messer under Section 14; and (iii) regardless of Section 11.1(ii), a Party is entitled to the insurance proceeds available, under the policy types and up to the limits specified in Sections 10.6.3 and 10.6.4, to cover damage to its property that the other Party is responsible for under this Agreement.

12. METERS

12.1. Messer shall be responsible, to install and maintain meters as are necessary.

12.2 Any billing meters shall be inspected and tested for accuracy as either Party may reasonably elect or request. Messer shall bear the cost of all such test(s), except Coffeyville Resources shall be responsible for the cost of those test requested by Coffeyville Resources that show that the meter tested was accurate within [***] of full scale. Coffeyville Resources shall be notified of meter calibration not less than [***] business days in advance of such calibration for the purposes of witnessing same.

12.3 Coffeyville Resources' sole remedy, and the sole obligation of Messer, if any meter is found to be inaccurate by more than [***] of full scale, is that Messer shall adjust any billings with applicable interest as set forth in Section 5.2 based on such billing meter to offset such inaccuracy with respect to those deliveries made during the period since the last accurate meter test or the [***] period prior to the date of discovery of the inaccuracy, whichever is shorter.

13. MESSER EQUIPMENT SUPPLY IMPACT

13.1 Upon reasonable notice under the circumstances, Messer may shut down any part of the Messer Equipment in an emergency, where Messer reasonably determines there to be risks to health and safety or risk of significant property damage.

13.2 Messer shall coordinate and cooperate with Coffeyville Resources to schedule planned activities that require an interruption in the operations of the Messer Equipment, including planned maintenance and repairs to the Messer Equipment during periods that Coffeyville Resources' Plant is scheduled for shut down or at intervals of [***] if the intervals between scheduled Coffeyville Resources shut downs are more than [***] (each, a **"Planned Turnaround"**), provided that the first Planned Turnaround will occur during the second half of 2021. Messer shall provide Coffeyville Resources an ongoing one-year maintenance horizon plan that will include the anticipated dates for and lengths of Messer Equipment maintenance and repairs during Planned Turnarounds. Such maintenance horizon plan shall be provided to Coffeyville Resources on a monthly basis for review and approval, which Coffeyville Resources shall not unreasonably withhold. Messer expects to spend at least \$[***] for Relife Capital Investment during the first two Planned Turnarounds, and at least \$[***] for Relife Capital Investment during the first three Planned Turnarounds, subject to the following:

13.2.1 [***]

13.2.2 [***]

13.3 The following will not constitute a breach of Messer's obligation to deliver Product as required under this Agreement:

13.3.1 Any reduction in or cessation of the supply of Product to Coffeyville Resources from the Messer Equipment (other than the Additional Oxygen Equipment) due to the following:

- (i) [***];
- (ii) The acts or omissions of Coffeyville Resources or its employees or contractors, including any planned or unplanned shut down of Coffeyville Resources Plant or Coffeyville Resources' failure to

provide any items specified in Exhibit B if such failure was the cause of the reduction or cessation;

- (iii) A Force Majeure Event;
- (iv) A reduction or cessation pursuant to [***]; or
- (v) The failure of the items provided by Coffeyville Resources to meet the specifications set forth in **Exhibit B** and **Appendix 3**, as applicable, including power failures, if such failure was the cause of such reduction or cessation and did not result from the acts or omissions of Messer or its employees, agents, contractors, or subcontractors.

13.3.2 ASU downtime during the Allowable Planned Turnaround Hours.

13.3.3 If Coffeyville Resources reduces or eliminates its requirements due to reasons not caused by the acts or omissions of Messer or its employees, agents, contractors, or subcontractors, and Messer reduces or ceases its supply accordingly, then such reduction will not constitute a breach of Messer's obligation to deliver Product as required under this Agreement. Provided, however, Messer shall provide Coffeyville Resources thirty (30) days notice in advance of ceasing supply as permitted in the prior sentence.

13.4 If it is determined [***] that any suspension or cessation under Section 13.1, or 13.3.1(i) - 13.3.1(v) by Messer was improper or wrongful, Messer shall be responsible for any loss or damages incurred by Coffeyville Resources (including reasonable attorney fees), to the extent resulting from such improper or wrongful suspension or cessation.

14. NON-CONFORMING PRODUCT, FAILURE TO DELIVER, PERFORMANCE AND RELIABILITY

14.1 Regardless of any provision of this Agreement other than Section 8.2, Coffeyville Resources' sole remedies, and the sole obligations of Messer for a breach of Messer's obligation to deliver Product meeting the Product Specifications as required under this Agreement are provided for in this Section 14.

[***]

14.2 The following terms will apply if, at any time, Messer's liability under this Agreement exceeds the \$[***], or Messer is in breach of this Agreement as specified in Section 14.1.7 or if Messer's liability under this Agreement for third party Indemnified Claims or Messer's gross negligence or willful misconduct exceeds \$[***] (each, a "Trigger Event"):

14.2.1 Subject to Section 14.2.2, Coffeyville Resources shall be entitled to terminate this Agreement and purchase the ASU, the Existing Messer Liquid Facility and Additional Oxygen Equipment from Messer on an "AS IS" and "WHERE IS" basis at the purchase price in the table below that corresponds to the Contract Year of the termination (which shall be reduced by [***]) by giving Messer a written notice that describes the Trigger Event ("Election Notice") within [***] after the Trigger Event, in which case Messer will be required to complete construction of the Additional Oxygen Equipment. For example, if termination occurs in Contract Year 7, after the third Planned Turnaround, and there is a Relife Capital Shortfall of \$[***] at the time of termination, then the Equipment Price of \$[***] will be reduced by \$[***].

Termination During Contract Year	Equipment Price
1	\$[***]
2	\$[***]
3	\$[***]
4	\$[***]
5	\$[***]
6	\$[***]
7	\$[***]
8	\$[***]
9	\$[***]
10	\$[***]
11	\$[***]
12	\$[***]
13	\$[***]
14	\$[***]
15 or later	\$[***]

14.2.2 If Coffeyville Resources gives Messer an Election Notice as provided for in Section 14.2.1, then each Party shall nominate a senior representative of its management team within two (2) days after the date that Messer receives the Election Notice, and the senior representatives shall meet at a mutually agreed location within ten (10) days after the date that Messer receives the Election Notice to discuss Coffeyville Resources' basis for termination and any possible mutually agreeable alternatives to termination. If the Parties are not able to agree upon an alternative to termination during the meeting, and either Coffeyville Resources is the prevailing party in an arbitration under Section 14.2.3, or Messer does not elect to arbitrate as provided for in that Section, then: (a) Messer shall sell and convey to Coffeyville Resources, and Coffeyville Resources shall purchase from Messer, the ASU, the Existing Messer Liquid Facility and Additional Oxygen Equipment; and (b) the termination of this Agreement and closing of the purchase of the ASU, the Existing Messer Liquid Facility and Additional Oxygen Equipment shall take place on a mutually agreeable business day within [***]days following the date that Messer receives the Election Notice or within [***]days following the entry of the arbitration award, as applicable. At closing, Coffeyville Resources shall pay Messer the applicable purchase price specified in Section 14.2.1 (which shall be reduced by [***]) and any amounts owed under this Agreement, less any credits due to under Section 14.1, and Messer shall sell the ASU the Existing Messer Liquid Facility and Additional Oxygen Equipment to Coffeyville Resources, "AS IS, WHERE IS" and shall deliver to Coffeyville Resources a bill of sale and such other applicable instruments of transfer and physical possession as shall, in the reasonable opinion of counsel for Coffeyville Resources, be necessary to vest in Coffeyville Resources good and marketable title to the ASU, the Existing Messer Liquid Facility and Additional Oxygen Equipment.

14.2.3 Notwithstanding any other provisions of this Agreement: (a) if Messer elects to challenge Coffeyville Resources' Election Notice following the meeting of senior representatives under Section 14.2.2, Messer must file a notice of arbitration within

fifteen (15) days following such meeting of senior representatives; and (b) any such challenge pursuant to this Section shall be adjudicated through binding arbitration before a single arbitrator in Houston, Texas. The arbitration shall be conducted in accordance with the then-existing Expedited Commercial Arbitration Procedures of the American Arbitration Association ("AAA"), except as modified herein. The arbitrator will be selected from the AAA Roster of Commercial Arbitrators in accordance with the then-existing Expedited Commercial Arbitration Procedures. To ensure the rapid and economical resolution of any arbitration of a dispute regarding an election by Coffeyville Resources under Section 14.2.1, the Parties agree that the scope of the arbitration proceedings shall be limited to a determination by the arbitrator of whether the related Trigger Event occurred. The decision and award of the arbitrator shall be final, binding and conclusive on the Parties for all purposes, and judgment may be entered thereon in any court having jurisdiction. In addition to the foregoing, the prevailing Party in the arbitration shall be entitled to an award of its reasonable attorneys' fees and costs, and all fees related to the arbitration, including but not limited to any filing fees, administrative fees and arbitrator fees shall be paid entirely by the non-prevailing party within fifteen (15) days from the date of entry of the arbitrator's award. Any dispute regarding the amount of fees and costs under this Section shall not delay the effect of the arbitrator's decision or the time period for closing as described in Section 14.2.2.

14.3 If Coffeyville Resources terminates this Agreement as provided for in Section 14.2, then, for a period equal to the Initial Term: (a) Messer will be entitled [***].

14.4 In the event that the Messer Site, or any material part thereof, shall be destroyed or damaged by fire or casualty, and such destruction or damage is so severe that, based on any reasonable estimates (which Messer shall deliver to Coffeyville Resources within [***]of such destruction or damage), the Messer Site cannot be placed in proper condition for use within [***]of the date of the fire or casualty, then this Agreement may be terminated at the election of Messer or Coffeyville Resources, and Coffeyville Resources shall have no obligation to purchase the ASU, the Existing Messer Liquid Facility and Additional Oxygen Equipment from Messer. Such election shall be made by the giving of notice by one party to the other within [***]after the right of election accrues. For purposes of this Section, what constitutes a "material part" of the Messer Site shall be reasonably determined by Messer. Provided, however, Coffeyville Resources shall not be entitled to terminate this Agreement pursuant to this Section 14.4 to the extent the fire or casualty was caused by the acts or omissions of Coffeyville Resources or its employees, agents, contractors or subcontractors.

In the event of termination pursuant to this Section 14.4, Messer shall be entitled to the entire sum of insurance proceeds attributable to the buildings, fixtures and other property which is not owned by Coffeyville Resources, which proceeds are received by either Messer or Coffeyville Resources in connection with the fire or other casualty. Messer shall be entitled to receive the proceeds of any insurance purchased by Messer to cover its personal property, equipment and business operations. Messer shall further be required to comply with its obligations under Section 3.4.4.

If neither Messer nor Coffeyville Resources exercises any right of election provided in this Section 14.4, this Agreement shall continue in full force and effect and Messer shall proceed to diligently and expeditiously repair or rebuild the Messer Site to as nearly as possible the same condition as prior to the damage or destruction, provided, however that, except to the extent that the fire or casualty was caused by the acts or omissions of Coffeyville Resources or its employees, agents, contractors or subcontractors: (a) the Minimum Monthly Charge (together with any then applicable price adjustment) which Coffeyville Resources would otherwise have been obligated to pay to Messer pursuant to this Agreement shall be abated from the date of the fire or casualty until such time as the Messer Site is so repaired or rebuilt; and (b) to the extent

that the proceeds of insurance are insufficient to repair or rebuild the Messer Site, Messer shall bear all excess costs of repairing and rebuilding the Messer Site.

14.5 Coffeyville Resources shall pay Messer a reliability bonus \$[***] for any Contract Year in which there are no more than [***] of ASU Downtime ("Reliability Bonus").

15. FORCE MAJEURE.

15.1 Any failure, in whole or in part, by either Party to timely perform any obligation under this Agreement (except for the payment of monies due), shall be excused to the extent that such failure is caused by a Force Majeure Event.

15.2 "**Force Majeure Event**" means any foreseeable or unforeseeable event or cause beyond a Party's reasonable control, and shall include natural disasters (e.g., earthquake, hurricanes, floods, fire); major upheavals (e.g., war, riots, act of terrorism, sabotage, labor strikes, embargoes); government intervention (e.g., government orders, court orders, confiscation, condemnation, future Laws), and the curtailment of energy sources or other raw materials or feedstock.

15.3 Upon the occurrence of a Force Majeure Event, the affected Party shall give reasonably prompt written notice to the other, stating that there will be a delay or nonperformance.

16. CONTRACTING AND SUBCONTRACTING

Messer may engage one or more qualified contractors or subcontractors. Messer will supervise all work contracted or subcontracted by Messer and will be responsible for all work performed by contractors or subcontractors as if Messer itself had performed such work. The contracting or subcontracting of any work to contractors or subcontractors does not relieve Messer of any of its obligations under this Agreement, including but not limited to Messer's indemnity obligations under Section 9. Any acts and omissions of a Messer contractor or subcontractor in performing or failing to perform work under this Agreement that Messer contracts or subcontracts to that contractor or subcontractor will be considered as Messer's acts and omissions under this Agreement. Contracts or subcontracts with affiliates of Messer will be on a competitive and arms-length basis. Coffeyville Resources has the right to disapprove of or remove any contractors or subcontractors in its sole discretion however, Messer will not be responsible for any delays or costs in connection with Coffeyville Resources' removal of a contractor or subcontractor unless such removal is based upon Messer or its contractors' and/or subcontractors' failure to act in compliance with this Agreement. Messer is responsible for paying all costs and charges of all Messer contractors or subcontractors.

17. LIENS

Messer will promptly pay for all labor, services, equipment and materials used or furnished in connection with its performance under this Agreement and will at its expense keep Coffeyville Resources' premises and all property belonging to Coffeyville Resources, free and clear of any and all liens and rights of lien arising out of labor, services, material and equipment furnished by Messer or its employees, materialmen, contractors or subcontractors in connection with this Agreement. If Messer fails to release and discharge any claim of lien of others that Messer is responsible for against Coffeyville Resources' property within fifteen (15) business days after receipt of notice from Coffeyville Resources to remove such claim of lien, or to actively defend the lien claim at Messer's expense, then Coffeyville Resources may, at its option, discharge or release the claim of lien, or otherwise deal with the lien claimant, and Messer will pay Coffeyville Resources any and all reasonable costs and expenses of Coffeyville Resources, including

reasonable attorneys' fees incurred by Coffeyville Resources in connection with the discharge or release.

18. ASSIGNMENT

18.1 This Agreement is not assignable by either Messer or Coffeyville Resources except upon the written consent of the other Party, which consent shall not be unreasonably withheld.

18.2 Notwithstanding Section 18.1, either Party may assign this Agreement, without the consent of the other Party to an affiliate [***]. Moreover, any assignment by Messer must be to an experienced, reputable and prudent operator of facilities such as that at issue in this Agreement. If requested by the non-assigning Party, the assigning Party shall require the assignee to assume its obligations under this Agreement in writing.

19. NOTICES

Any notice or other communication required pursuant to this Agreement shall be deemed to have been duly given if delivered personally or sent by facsimile transmission (confirmed by certified mail) or by certified mail (postage prepaid, return receipt requested), addressed as provided below. Until another address or addresses shall be furnished in writing by either Party, notices shall be addressed as follows:

If to Messer

Messer LLC
200 Somerset Corporate Blvd, Suite 7000
Bridgewater, NJ 08807
Facsimile Number [***]
Attention: Onsite Contract Administration

and a copy also sent to:

Messer LLC
200 Somerset Corporate Blvd., Suite 7000
Bridgewater, NJ 08807
Facsimile Number [***]
Attention: General Counsel – Messer

If to Coffeyville Resources:

Coffeyville Resources Nitrogen Fertilizers, LLC
2277 Plaza Drive, Suite 500
Sugar Land, Texas 77479
Attention: General Counsel

and a copy also sent to:

Coffeyville Resources Nitrogen Fertilizers, LLC
701 E. Martin St.
P.O. Box 5000
Coffeyville, KS 67337
Attention: Facility Manager

20. CONFIDENTIALITY

20.1 Messer and Coffeyville Resources may provide each other with access to Confidential Information. “**Confidential Information**” means confidential information of a Party, including the whole and any part of this Agreement. Confidential Information shall include, but not be limited to information relating to a Party's business, assets or operations including, but not limited to, inventions, concepts, designs, processes, specifications, schematics, equipment, technical information, procedures or standards, know-how, current and prospective customers, suppliers,

consultants, financial and sales information, commercial activities, the existence or subject matter of this Agreement, business strategies, records or other information relating to its business activities or operations and those of its affiliates, customers, suppliers, consultants, licensors, contractors, subcontractors, agents or any others to whom the disclosing Party owes a duty of confidentiality. Each Party agrees to hold such Confidential Information in trust and confidence, to take all reasonable precautions to prevent unauthorized disclosure, and to only use such Confidential Information as necessary to perform its obligations and enforce its rights under this Agreement. Each Party may disclose Confidential Information if required by any law, rule or regulation, or by court order or the rules of any securities exchange, and to those officers, directors, agents, attorneys, accountants, experts and employees (or employees of Affiliates) with a need to know, shall inform such individuals of its confidential nature and shall cause such individuals to comply with this Section 20. This Section 20 shall survive any termination of this Agreement for a period of five years.

20.2 "Confidential Information" does not include, and the provisions of this Section 20 shall not apply to information which:

20.2.1 is now in or hereafter comes into the public domain without breach of this Agreement and through no fault of the receiving Party, or

20.2.2 is properly and lawfully known to the receiving Party prior to disclosure as evidenced by written records, or

20.2.3 subsequent to disclosure is lawfully received by the receiving Party from a third party without any restriction to disseminate the Confidential Information, or

20.2.4 is developed by employees, agents, or consultants of the receiving Party independently of and without reference to any Confidential Information of the disclosing Party as shown by tangible evidence,

21. ENVIRONMENTAL, HEALTH, SAFETY AND SECURITY

21.1 Messer agrees to comply with the Coffeyville Resources rules and requirements pertaining to environmental, health, safety and security, attached as Exhibit D (collectively, "Procedures"), which Procedures may be updated from time to time, in which case the updated Procedures shall be provided to Messer in advance of implementation. However: (a) the Parties do not intend for the Procedures to increase Messer's warranty, indemnity, or insurance obligations under this Agreement or expand the limitations on damages under this Agreement; (b) the Parties shall share equally in any costs incurred by Messer to comply with updates to the Procedures required due to changes in applicable Laws; and (c) Coffeyville Resources will reimburse Messer for any costs incurred by Messer, in excess of \$[***] to comply with updates to the Procedures that are not required due to changes in applicable Laws. Messer will establish, maintain, and enforce safe practices and implement any safety and health practices and programs required under Federal, State, and local regulations.

21.2 Messer will be responsible for the following: (a) providing its employees with applicable health and safety training in accordance with Messer's policies, (b) proper maintenance or disposal of their personal protective equipment and material handling equipment in accordance with Messer's policies, (c) ensuring that each employee entering Coffeyville Resources' Site has completed Coffeyville Resources' site specific safety and security training prior to entry, and (d) ensuring that its subcontractors are aware of and in compliance with the requirements set forth in this Section.

21.3 Messer will take all reasonable steps and precautions to protect the health of its employees and other personnel.

21.4 Messer will handle and dispose of all industrial and hazardous waste generated in connection with its performance under this Agreement in accordance with all applicable laws, rules and regulations and Messer's policies and procedures.

21.5 Messer's employees must satisfactorily complete the Site-Specific Safety and Security Training and pass the related testing administered by Coffeyville Resources prior to entering Coffeyville Resources' site. Satisfactory completion of the Site-Specific Safety and Security Training and related testing shall be valid for 12 months, after which time they must be completed again.

22. DRUGS, ALCOHOL AND WEAPONS

Messer agrees to advise its employees, agents, subcontractors and their respective employees that it is the policy of Coffeyville Resources that: (a) the use, possession or distribution of illegal or unauthorized drugs, drug-related paraphernalia, or weapons on Coffeyville Resources' and/or the Messer Site is strictly prohibited and the use or possession of alcohol beverages, except where authorized by Coffeyville Resources' management, is also strictly prohibited on such premises; and (b) any person who is found in violation of the policy may be removed and/or barred from Coffeyville Resources' and/or Messer's premises.

23. LAWS, REGULATIONS AND COMPANY RULES

Messer shall obtain, make and file the following in connection with this Agreement, and Coffeyville Resources shall assist Messer in the completion of any related applications:

- Land use / zoning permits
- Construction permits
- Stormwater Pollution Prevention Plan
- Spill Prevention, Control, and Countermeasure Plan
- Air Pollution Control Permits
- Operating Permits

Coffeyville Resources shall obtain, make and file for all new permitting required in connection with the Additional Oxygen Equipment except to the extent related to the existing Messer Site (which exclusion includes modifications to permitting or similar authorizations or filings that exist or should exist with respect to the existing Messer Site, which shall remain Messer's responsibility). Messer shall assist Coffeyville Resources in the completion of any related applications.

Messer will comply with all applicable federal, state and local laws, regulations, rules and ordinances relating to Messer's performance under this Agreement, including, but not limited to the following, as applicable, (a) employment and wage and hour laws; (b) child labor laws; (c) health and safety and environmental laws; (d) immigration laws; (e) discrimination and harassment prevention; (f) laws relating to the payment of employment-related taxes, such as Social Security, FICA and FUTA; (g) workers' compensation, (h) Laws related to security and homeland security matters, (i) the Chemical Facility anti-Terrorism Standards; and (j) OFCCP. Messer is strictly prohibited from utilizing any undocumented workers to perform any of its duties hereunder and will comply with and retain all employment eligibility verification (I-9) forms for its entire workforce. as required by law. Messer agrees, in connection with its performance under this Agreement, not to discriminate against any employee or applicant for employment because of race, gender, religion, color, national origin, age, disability, or veteran status. Messer shall comply with all applicable Laws relating to the production, presence, handling and distribution of the

Product before and up to the Point of Delivery. Coffeyville Resources shall comply with all applicable Laws regarding the presence, handling or use of Product from the Point of Delivery, including the reporting obligations under the Emergency Planning and Community Right to Know Act of 1986, 42 USC Sections 11001-11049.

24. DISPUTES

Messer and Coffeyville Resources shall use reasonable efforts to resolve all disputes arising out of or relating to this Agreement through good faith negotiations within their respective on-site teams within fifteen (15) days from the date notice of such dispute is provided by one Party to the other. If negotiations within the on-site teams fail to resolve the dispute within such fifteen (15) days, then Messer and Coffeyville Resources shall, within ten (10) days, each nominate a senior representative of its management team at the level immediately subordinate to the respective chief executive officers to meet at a mutually agreed location to resolve the dispute. Such meeting shall take place within thirty (30) days from the date of designation of such senior representatives. The good faith efforts to resolve disputes set forth in this Section shall be concluded within sixty (60) days of written notice of the dispute, unless this period is extended by written agreement signed by Messer and Coffeyville Resources. Nothing in this Section precludes Messer and Coffeyville Resources from using a third-party neutral to assist them to resolve a dispute. Any dispute that cannot be resolved by the parties will be resolved in a court of competent jurisdiction. Neither Party shall discontinue or delay its performance under this Agreement during the pendency of any dispute, without the written permission of the other Party. Any fines, penalties, damages, liquidated damages or otherwise that are provided for under this Agreement shall not be abated during the time the Parties engage in these dispute resolution procedures.

25. AUDITS

25.1 Messer agrees to maintain all its records and documents relating to this Agreement, including, but not limited to those records and documents which substantiate any charges, statements, invoices, calculations, price adjustments, and measurements under this Agreement (collectively, "Records") in accordance with Messer's record retention policies, but in no event for less than three years with respect to the Records. Messer agrees to maintain all its records and documents relating to the Relife Investment, (collectively, "Relife Records") for no less than seven (7) years. All other documents or record relating to Messer's performance under this Agreement will be maintained in accordance with Messer's record retention policies, but in no event for a period of time less than that required by applicable Laws.

25.2 Upon reasonable prior notice, Messer shall allow a mutually agreed upon qualified independent third party ("Auditor") engaged by Coffeyville Resources to: (a) inspect and audit those records related to Messer's compliance with Sections 21 and 23 at an agreed upon date during normal business hours; and (b) provide documentation to the Parties of any breach of those Sections identified by the Auditor during the inspection and Audit. However, Messer is not required to permit any inspection and audit under this Section 25.2 more than once each calendar year absent evidence that Messer is or may be in breach of its obligations under Sections 21 or 23.

25.3 Within one (1) month following the first Planned Turnaround, Messer shall complete a [***] utilizing an individual or company mutually agreed upon by the Parties, the results of which shall be provided to and reviewed with Coffeyville Resources. The Parties shall agree upon the scope of the [***], and Coffeyville Resources shall pay the [***] costs above \$[***] for the firm selected to complete the [***]. Each Party will be responsible for its own internal costs related to the [***] and monitoring of the third party firm conducting the [***]. The purpose of the [***] will be

to provide decision support to help identify and prioritize vulnerabilities for elimination and identify key vulnerabilities that may hinder the availability of the ASU. [***]

25.4 Subject to Sections 8.2 and 8.3, upon reasonable prior notice, Coffeyville Resources may engage an Auditor to: (a) audit Messer's calculation of any and all charges, statements, invoices, calculations, price adjustments, or measurements under this Agreement; and (b) if the Auditor identifies errors in the items set forth in Section 25.4(a), provide documentation to the Parties of the error and the corrected item. If the Auditor identifies an error or errors, then Messer shall issue credits or additional billings, as applicable, until the amount of the error is credited or billed in full, as applicable, and reimburse Coffeyville Resources for the cost of the Auditor.

25.5 Upon reasonable prior notice no later than [***]after the end of the second, and third Planned Turnarounds, Coffeyville Resources may engage an Auditor to determine the amounts spent by Messer during such Planned Turnarounds and advise the Parties if the Auditor determines that Messer did not spend at least the amounts specified in Section 13.2, in which case Messer shall adjust the Minimum Monthly Charge as specified in Section 13.2.

25.6 An Auditor must execute a confidentiality agreement in a form acceptable to Messer that requires the Auditor to retain in confidence all information disclosed by Messer during an inspection or audit under this Section. Messer's obligation to provide access to Auditors under this Section is subject to the Auditors' compliance with the site rules in effect at the place of the audit.

26. GENERAL PROVISIONS

26.1 Section Heading. The Section headings are for reference purposes only and shall not affect in any way the meaning or interpretation of this Agreement or of any provision.

26.2 Entire Agreement. This Agreement, including the attached Appendices and Exhibits, sets forth the entire agreement between Messer and Coffeyville Resources and supersedes and cancels all prior and contemporaneous on-site product supply agreements, amendments, restatements, and other agreements and understandings between the Parties or any of their respective predecessors, oral or written, relating to the subject matter herein, including the Amended and Restated On-Site Product Supply Agreement between the Parties dated June 1, 2005, as amended.

26.3 No Waiver. No amendment, modification, waiver or discharge of any provision of this Agreement shall be effective unless specifically set forth in writing stating that it is an amendment, modification, waiver or discharge of, one or more specified provisions of this Agreement and signed by an authorized individual on behalf of each Party.

26.4 Forms and Acknowledgement. Any terms contained in a delivery document used by Messer or a purchase order, acknowledgments or confirmation used by Coffeyville Resources, that conflict with, is different from, or is additional to, the terms in this Agreement is deemed deleted and shall not be made part of this Agreement.

26.5 Severability. Even if any judicial or administrative authority holds any part of this Agreement to be invalid, this Agreement shall remain in force with such invalid part deleted.

26.6 Independent Contractors. The Parties are independent contractors, and no agency, partnership, joint venture, employee-employer or franchisor-franchisee relationship is intended or created by this Agreement.

- 26.7 No Third-Party Rights. Other than as set forth in Section 1.3, the Parties do not intend to confer any contractual rights or benefits upon any third party, either directly or incidentally.
- 26.8 Pre-Existing Agreements. Each Party represents and warrants to the other Party that neither the execution and the delivery of nor the consummation of the transactions contemplated in this Agreement, shall conflict with, result in a breach of, constitute a default under, any other agreements to which the Party making such representation is a party.
- 26.9 Interpretation. In this Agreement, unless the context indicates otherwise: (A) the singular includes the plural and the plural the singular; (B) the words "including", "includes" and "include" shall be deemed to be followed by the words "without limitation" or "but not limited to" or words of similar import; (C) references to Sections, Appendices and Exhibits are to those of this Agreement; (D) references to this Agreement shall be deemed to include all Appendices, Exhibits and all subsequent amendments and other modifications; and (E) references to a Party include its successors and permitted assigns.
- 26.10 Survivability. Those provisions in this Agreement which by their terms should survive the termination or expiration of this Agreement, including Sections 1.3, 2.2, 3.1, 3.2, 3.4.4, 3.5.3, 3.6, 4, 7.1, 8, 9, 10, 11, 12, 13.4, 14, 16, 17, 19, 20, 24, 25 and 26 shall survive the termination or expiration of this Agreement.
- 26.11 Governing Law. This Agreement will be governed by and be construed in accordance with the laws of the state of Texas without reference to its laws governing conflicts of law. Each Party hereby irrevocably agrees that any legal action or proceeding with respect to this Agreement will be brought in the courts of the state of Texas or in any United States District Court located within Texas, and by execution and delivery of this Agreement, each party irrevocably submits to each such jurisdiction and hereby irrevocably waives any and all objections which it may have as to venue in any of the above courts. **THE PARTIES HEREBY UNCONDITIONALLY WAIVE THEIR RIGHT TO A JURY TRIAL OF ANY AND ALL CLAIMS OR CAUSES OF ACTION ARISING FROM OR RELATING TO THIS AGREEMENT. THE PARTIES ACKNOWLEDGE THAT A RIGHT TO A JURY IS A RIGHT, THAT THEY HAVE HAD AN OPPORTUNITY TO CONSULT WITH INDEPENDENT COUNSEL, AND THAT THIS JURY WAIVER HAS BEEN ENTERED INTO KNOWINGLY AND VOLUNTARILY BY ALL PARTIES TO THIS AGREEMENT.**
- 26.12 Attorney's Fees. In the event of litigation concerning the interpretation or enforcement of this Agreement, the prevailing party in such litigation, as determined by the court, will be entitled to recover from the other party, such prevailing party's reasonable attorneys' fees as well as its reasonable costs and expenses.
- 26.13 Judicial Construction. The Parties agree that judicial construction and interpretation of this Agreement shall be made as though this Agreement were mutually drafted by both Parties; and shall not – on the basis of drafting – be construed in favor of or against a particular Party hereto.
- 26.14 Counterparts. This Agreement may be executed in multiple counterparts, each of which will be deemed an original but all of which together will constitute but one and the same instrument.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement as of the Effective Date.

Coffeyville Resources Nitrogen Fertilizers, LLC

Messer LLC

By: /s/Neal Barkley

By: /s/ Robert J. Capellman

Print Name: Neal Barkley

Print Name: Robert J. Capellman

Title: Vice President and General Manager

Title: Executive Vice President

Date: July 31, 2020

Date: July 30, 2020

APPENDIX 1

DEFINITIONS

The definitions of the following terms are as follows:

Additional Oxygen Equipment	means a 3,000 standard short tons ("ST") oxygen storage vessel and related vaporization equipment and ancillary equipment that Messer will install at the Messer Site, which is additional to the Messer Equipment currently installed at the Messer Site and in which the evaporation rate of the liquid oxygen is below [***].
Allowable Planned Turnaround Hours	means 504 hours per two-year period during Planned Turnarounds when Messer shall be permitted to shutdown the Messer Equipment.
ASU	the Air Separation Unit consisting of a gaseous Product and argon producing plant and related facilities and includes the main air compressor, cold box, liquid pumps and the Major Equipment.
ASU Downtime	means a period of cessation of the supply of Nitrogen Product or Oxygen Product to Coffeyville Resources from the ASU for reasons other than those specified in Section 13.3 or a Major Equipment Failure.
ASU Trip	ASU Trip: means: (a) before the Supply Commencement Date, ASU Downtime for any period during which Coffeyville Resources' gasifier shuts down due to lack of Oxygen supply; and (b) after the Supply Commencement Date, ASU Downtime for a consecutive period of more than two hours during which Coffeyville Resources' gasifier shuts down due to lack of Oxygen supply.
CDA Downtime	means a period of cessation of the supply of CDA Product to Coffeyville Resources from the ASU for reasons other than those specified in Section 13.3 or a Major Equipment Failure, during which Coffeyville Resources' gasifier shuts down due to lack of CDA Product supply.
CDA Product	means clean, dry air that meets the Product Specifications.
Claims	means as defined in Section 9.1
Coffeyville Resources' Pipelines	means pipelines suitable for use in connection with the delivery of Product under this Agreement, owned or leased by Coffeyville Resources and operated and maintained for its benefit, which connect the Coffeyville Resources' Plant with the Messer Pipelines at points on the boundary of the Messer Site agreed upon by the Parties.
Coffeyville Resources' Plant	means the facilities and plants located at Coffeyville Resources' Plant Site, including the gasification plant, ammonia synthesis loop and UAN plant but excluding the Messer Equipment.

Coffeyville Resources' Plant Site	means the parcel of land near Coffeyville, Kansas on which Coffeyville Resources' fertilizer complex (including the Messer Site) is located and which is more particularly identified in Exhibit E.
Contract Year	means the 12-month period starting on the first day of the Supply Period, and each succeeding 12-month period.
Effective Date	means the date that the last Party signs this Agreement.
Environmental Law	means any Laws, relating to environmental compliance or liability, including: (A) the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (codified in scattered sections of 26 U.S.C.; 33 U.S.C.; 42 U.S.C. and 42 U.S.C. §9601 et seq.) (" CERCLA "); (B) the Resource Conservation and Recovery Act of 1976 (42 U.S.C. §6901 et seq.) (" RCRA "); (C) the Superfund Amendment and Reauthorization Act of 1986 (codified in scattered sections of 10 U.S.C., 29 U.S.C., 33 U.S.C. and 42 U.S.C.); (D) Title III of the Superfund Amendment and Reauthorization Act (40 U.S.C. §1101 et seq.); (E) the Hazardous Materials Transportation Act (49 U.S.C. §1801 et seq.); (F) the Toxic Substances Control Act (15 U.S.C. §2061 et seq.); (G) the Clean Water Act (33 U.S.C. §1251 et seq.); (H) the Clean Air Act (42 U.S.C. §7401 et seq.); (I) the Safe Drinking Water Act (21 U.S.C. §349; 42 U.S.C. §201 and §300 et seq.); and (J) the National Environmental Policy Act of 1969 (42 U.S.C. §4321).
Environmental Noncompliance	means any violation of any Environmental Law, including: (A) any Release or threatened Release of any Hazardous Substance; (B) any noncompliance regarding the construction, modification, operation and maintenance of physical structures, equipment, processes or facilities; (C) any noncompliance with occupational safety and health requirements related to Hazardous Substances; or (D) any failure to obtain or maintain permits required to operate legally.
Existing Messer Liquid Facility	means one or more storage vessels for Liquid Product and related vaporization equipment and ancillary equipment, having the Liquid Product capacity stated in Exhibit A(III) , that are owned, maintained and operated by Messer on the Messer Site.
Five Year Period	means the five-year period starting on the first day of the Supply Period, and each succeeding five-year period.

Hazardous Substances	means all materials or substances regulated as a toxic or hazardous under any Laws, because of its potential risk to human health or the environment, including, all materials or substances containing any of the hazardous characteristics or constituents set forth in 40 C.F.R. §261.20 et seq., listed as a hazardous waste pursuant to 40 C.F.R. §261.30, defined as a hazardous substance in the CERCLA, or defined as a toxic hazardous waste in the Solid Waste Disposal Act, 42 U.S.C. §6901 et seq. or of uncontained oil and petroleum and their byproducts. Notwithstanding the foregoing, Hazardous Substances, with respect to Messer, shall be limited only to those Hazardous Substances used by Messer on the Messer Site.
Instantaneous Flow Rate	means the average flow rate for a 1-minute interval, calculated from 6 sequential data points recorded by Messer's PLC, each equal to the instantaneous flow integrated over a 10 second interval.
Laws	means any local, state, or federal laws, statutes, regulations, rule or ordinance, as may be amended, enacted or promulgated from time to time.
Liquid Product	means Nitrogen Product or Oxygen Product provided by Messer in liquid form.
Major Equipment	***]
Major Equipment Failure	Means the catastrophic or extraordinary failure or breakdown of Major Equipment that disrupts the operation of the equipment, but does not include failures or breakdowns caused by: (a) normal wear and tear to the equipment that could have been reasonably anticipated by a reasonably prudent operator engineer or maintenance professional performing predictive analytics on equipment that could shut down the ASU (b) Messer or its contractors or subcontractors negligence or willful misconduct; (c) Messer's improper or delayed maintenance of the equipment; or (d) minor equipment failures such as sensors, gauges, wiring, controls and control boards. Messer shall provide Coffeyville Resources with notice of a claim of an event constituting a Major Equipment Failure within 10 days of its occurrence, which notice shall include details of the particular equipment involved and the basis for which it is claiming that the condition constitutes a Major Equipment Failure.
Messer Equipment	means the ASU, the Existing Messer Liquid Facility, the Additional Oxygen Equipment, and the Messer Pipelines, collectively.

Messer Pipelines	means pipelines suitable for use in connection with the delivery of Product under this Agreement, owned or leased and operated and maintained by Messer, which connect the Messer Equipment to Coffeyville Resources' Pipelines.
Messer Site	means two parcels of land located within Coffeyville Resources' Plant Site and which is more particularly identified in Exhibit E and includes (1) the ASU and the Existing Messer Liquid Facility; and (2) the Additional Oxygen Equipment.
Minimum Monthly Charge	means the monthly charge for the commitment of the Messer Equipment and Product availability, up to Delivery Requirements, payable by Coffeyville Resources to Messer as more specifically described in Exhibit A(V) , as adjusted under Appendix 2.
Nitrogen Product	means nitrogen gas (including vaporized liquid) and liquid that conforms to the Product Specifications.
Oxygen Product	means oxygen gas (including vaporized liquid) and liquid that conforms to the Product Specifications.
Point of Delivery	the point where each of Coffeyville Resources' Pipelines are connected to the corresponding Messer Pipelines.
Product	means the CDA Product, Nitrogen Product, and Oxygen Product, collectively.
Release	means as such term is used in CERLCA or any other similar Environmental Law, or any release, spill, emission, discharge, leaking, pumping, injection, deposit, disposal, dispersal, leaching, or migration of any Hazardous Substance into the environment (including ambient air, surface or ground water, and surface or subsurface strata), including the movement of any Hazardous Substance in or through the air, soil, surface or ground water, or property.
Relife Capital Investment	Means the amount of capital invested in replacing and improving the operating equipment of the ASU.
Relife Capital Shortfall	[***]
scf or standard cubic foot	means one cubic foot of gas measured at a temperature of 70F, at a pressure of 14.696 psia.
Supply Commencement Date	means the first day of the month after the month in which Messer gives Coffeyville Resources an Additional Oxygen Equipment Completion Notice.
Supply Period	means the period that starts on the Effective Date and ends on the applicable Expiration Date.
Water	means, as applicable, cooling water, make up water, feed water or utility water provided by Coffeyville Resources to Messer.

APPENDIX 2
PRICE ADJUSTMENT FORMULA

I. Minimum Monthly Charge

- A. The Minimum Monthly Charge for Messer Equipment other than Additional Oxygen Equipment will be adjusted annually, starting six months after the first day of the Supply Period, in accordance with the following formula:

$$CMPC = BMPC \times ([***]\% [***]\% \times (CAPI_n [***] CAPI_0))$$

Where:

CMPC = the adjusted Minimum Monthly Charge for Messer Equipment other than Additional Oxygen Equipment

BMPC = the base Minimum Monthly Charge for Messer Equipment other than Additional Oxygen Equipment set forth in Exhibit A(V)(A)

CAPI₀ = [***]

CAPI_n = [***]

- B. The Minimum Monthly Charge for the Additional Oxygen Equipment will be adjusted [***], starting [***] after the Supply Commencement Date, in accordance with the following formula:

$$CTC = BTC \times ([***]\% + [***]\%) \times (CAPI_n [***] CAPI_0)$$

Where:

CTC = the adjusted Minimum Monthly Charge for Additional Oxygen Equipment

BTC = the base Minimum Monthly Charge for Additional Oxygen Equipment set forth in Exhibit A(V)(A)

CAPI₀ = [***]

CAPI_n = [***]

II. Export Credit

The Export Credit will be adjusted annually, starting six months after the first day of the Supply Period, in accordance with the following formula, except that no annual increase or decrease to the Export Credit will exceed [***]%, regardless of the adjustment determined in accordance with the following formula:

$$CLIQ = BLIQ [***] (PWR_n [***] PWR_0)$$

Where:

CLIQ = the adjusted Export Credit

BLIQ = the base Export Credit set forth in Exhibit A(V)(B)

PWR₀ = [***]

PWR_n = [***]

III. Unit Price for Product

- A. The prices set forth in Exhibit A(V)(C), Exhibit A(V)(D), and Exhibit A(V)(E) will be adjusted [***], starting [***] after the Effective Date, in accordance with the following formula:

$$P_{new} = P_{base} [***] ([***]\% [***]\% [***] (CAPI_n [***] CAPI_o))$$

Where:

P_{new} = the adjusted price under Exhibit A(V)(C), Exhibit A(V)(D), or Exhibit A(V)(E), as applicable

P_{base} = the base prices set forth in Exhibit A(V)(C), Exhibit A(V)(D), or Exhibit A(V)(E), as applicable

CAP_{I_o} = [***]

CAP_{I_n} = [***]

- B. The prices set forth in Exhibit A(V)(F) and Exhibit A(V)(G) will be adjusted [***], starting [***] after the Effective Date, in accordance with the following formula:

$$P_{new} = P_{base} \times ([***] (PWR_n [***] PWR_o) [***] (CAPI_n [***] CAPI_o) [***] (PPI_n [***] PPI_o) [***] (Diesel_n [***] Diesel_o))$$

Where:

P_{new} = the adjusted price under Exhibit A(V)(F) or Exhibit A(V)(G)

P_{base} = the base price set forth in Exhibit A(V)(F) or Exhibit A(V)(G)

PWR_o = [***]

PWR_n = [***]

CAP_{I_o} = [***]

CAP_{I_n} = [***]

PPI_o = [***]

PPI_n = [***]

Diesel_o = [***]

Diesel_n = [***]

APPENDIX 3

AIR/ WATER AND HYDROGEN REQUIREMENTS

1. Acceptable Air Contaminant Levels*

<u>COMPONENT</u>	<u>MAXIMUM CONTINUOUS CONCENTRATION (VPM)</u>
Carbon Dioxide	[***]
Methane	[***]
Ethane	[***]
Acetylene	[***]
Ethylene	[***]
Propane	[***]
Propylene	[***]
Butane	[***]
>C4 (non-aromatic)	[***]
Sulfur Compounds	[***]
Chlorides	[***]
NO and NO2	[***]
N2O	[***]

* If Hydrogen exceeds a maximum continuous concentration of 1.0 VPM, then the Parties shall work together in good faith to reduce the concentration to no more than 1.0 VPM.

3. Minimum Acceptable Cooling Water Quality

- Pressure at battery limits [***] psig
- Allowable pressure drop at battery levels [***] psi
- Maximum temperature rise at battery levels [***]°F

CONTINUED ON NEXT PAGE

Specifications:

	<u>Circulating Water</u>
Total Alkalinity (methyl orange)	[**] ppm*
Total Suspended Solids	[**] ppm
Total Dissolved Solids	[**] ppm
Iron	[**] ppm
Calcium Hardness (as CaCO ₃)	[**] ppm
Silica (SiO ₂)	[**] ppm
Sulfates (SO ₄)	[**] ppm
Chlorides (Cl)	[**] ppm
Chlorine (free)	[**] to [**] ppm
Total Phosphates (as P)	[**] ppm
pH	[**]**
Corrosives (H ₂ S, organic acids, etc.)	[**]
Organic matter	[**]
Copper	[**] ppm
Zinc	[**] ppm
Microbiologic Activity	[**] cfu/ml

* “**ppm**” means parts per million by weight.
** Infrequent and short-interval, less than [**], excursions up to [**] are possible, and Coffeyville Resources will alarm at [**].
Generally, most cooling waters are acceptable with a comprehensive water treatment program. This is a necessary part of operating a cooling water system. Corrosion inhibitors and pH control is often required to protect copper alloys of the cooler material from severe corrosion rates and fouling. Messer would be pleased to review the site specific water analysis and advise on necessary treatment.

CONTINUED ON NEXT PAGE

2. The hydrogen provided by Coffeyville Resources under Exhibit B(l)(C) shall have a minimum purity of 99.3% hydrogen and shall conform to the following additional purity requirements:

Component Maximum Amount

- Oxygen [***]
- Nitrogen [***]
- Carbon Monoxide [***]
- Carbon Dioxide [***]
- Water [***]
- Methane [***]
- Total Hydrocarbons [***]
- Argon [***]

EXHIBIT A

I. Initial Term

The period starting on the Effective Date and ending 15 years after the Supply Commencement Date (the "Initial Term").

II. Product Specification and Capacities

A. Product Specifications

a. Purity:

Oxygen Product: [***]% (normal operating)

Nitrogen Product, with inerts: [***]% not more than [***] ppm of oxygen (normal operating, [***] ppm trip point)

CDA Product: Dew point [***]°F (normal operating)

b. Pressure at Point of Delivery:

To the Gasification Plant at Coffeyville Resources' Plant:

Oxygen Product: [***] psig ± [***] psi

To the Ammonia Synthesis Loop at Coffeyville Resources' Plant:

Nitrogen Product: [***] psig ± [***] psi

To Coffeyville Resources' Pipelines:

CDA Product: [***] psig ± [***] psi

B. Production and Delivery Capabilities ("Delivery Requirements"):

a. High Pressure ([***] +/- [***] psig) Oxygen Product:

[***] scf per hour (Maximum Instantaneous Flow Rate at [***] psia and [***]°F dry bulb and [***]°F wet bulb and cooling water at [***] °F).

b. Low Pressure ([***] +/- [***] psig) Oxygen Product:

[***] scf per hour (Maximum Instantaneous Flow Rate at [***] psia and [***]°F dry bulb and [***]°F wet bulb and cooling water at [***] °F).

c. Nitrogen Product ([***] +/- [***] psig):

[***] scf per hour (Maximum Instantaneous Flow Rate at [***] psia and [***]°F dry bulb and [***]°F wet bulb and cooling water at [***] °F).

d. CDA Product:

[***] scf per hour (Maximum Instantaneous Flow Rate at [***] psia and [***]°F dry bulb and [***]°F wet bulb and cooling water at [***] °F)

III. Liquid Product Capacity

A. Liquid Nitrogen

Storage: 11,000 gallons

Vaporization: [***] scf per hour at [***] psig

[***] scf per hour at [***] psig for up to [***] hours of continuous service

B. Liquid Oxygen

Storage (current): 11,000 gallons

Storage (additional): 3,000 ST

Vaporization (current): [***] scf per hour at [***] psig for up to [***] hours of continuous service

Vaporization (additional): [***] scf per hour at [***] psig

IV. **Liquid Refill Protocol**

- A. Oxygen evaporation from the Additional Oxygen Equipment storage vessel will be replenished from the excess liquid oxygen produced at the ASU. If the supply of Oxygen Product from the ASU ceases, then liquid Oxygen Product will be replenished from:
 - a. The excess liquid Oxygen Product produced at the ASU; and
 - b. Liquid Oxygen Product delivered to Coffeyville Resources from other Messer facilities or third-party gas suppliers.
- B. Until Coffeyville Refining converts from bulk nitrogen to on-site nitrogen, if, for any reason, and for so long as, the volume of liquid Oxygen Product in the Additional Oxygen Equipment storage vessel is: [***] then Messer shall refill the vessel at [***] tons per day until it reaches [***] %.
- C. Upon Coffeyville Refining's conversion from bulk nitrogen to on-site nitrogen, if, for any reason, and for so long as, the volume of liquid Oxygen Product in the Additional Oxygen Equipment storage vessel is: [***], then Messer shall refill the vessel at [***] tons per day until it reaches [***] %.
- D. Regardless of Section 3.9 of the Agreement, if, and for so long as, the volume liquid of Oxygen Product in the Additional Oxygen Equipment storage vessel is below [***] %, Messer shall sell no more than [***] of the liquid oxygen produced by the ASU to third parties and, if, and for so long as, the volume of liquid Oxygen Product in the Additional Oxygen Equipment storage vessel is between [***] % and [***] %, Messer shall sell no more than [***] of the liquid oxygen produced by the ASU to third parties.

V. **Pricing Schedule**

- A. The base Minimum Monthly Charges are as follows:

(i) Effective Until August 1, 2020:

Messer Equipment other than Additional Oxygen Equipment: \$[***] as the base monthly Minimum Monthly Charge for Messer Equipment other than Additional Oxygen Equipment

(ii) Effective as of August 1, 2020:

Messer Equipment other than Additional Oxygen Equipment: \$[***] as the base monthly Minimum Monthly Charge for Messer Equipment other than Additional Oxygen Equipment.

(iii) Effective on the Supply Commencement Date:

Additional Oxygen Equipment: \$[***] as the base monthly Minimum Monthly Charge for Additional Oxygen Equipment.

B. Effective as of August 1, 2020, the base Export Credit is \$[***]per month.

C. The base prices for any additional gaseous products from the ASU above the Maximum Instantaneous Flow are as follows:

Effective Until August 1, 2020:

Low-and High Pressure gaseous Oxygen Product	\$[***]/ccf
Low- and High-pressure gaseous Nitrogen Product	\$[***]/ccf
CDA Product	\$[***]/ccf

Effective as of August 1, 2020:

Low-and High Pressure gaseous Oxygen Product	\$[***]/ccf
Low- and High-pressure gaseous Nitrogen Product	\$[***]/ccf
CDA Product	\$[***]/ccf

D. The base price for liquid Oxygen Product delivered from the Existing Messer Liquid Facility storage vessels to the Additional Oxygen Equipment storage vessel is \$[***]/ccf.

E. The base price for vaporized liquid Nitrogen Product delivered from the current Existing Messer Liquid Facility storage vessels is \$[***]/ccf until August 1, 2020 and \$ [***]/ccf effective as of August 1, 2020

F. Except for any Shortfall Liquid Product, the base prices for Liquid Oxygen Product and Liquid Nitrogen Product delivered from a production facility other than the Messer Equipment are as follows:

Effective Until August 1, 2020: \$[***]/ccf FOB source

Effective as of August 1, 2020:

Liquid Oxygen Product: \$ [***]/ccf (F.O.B. the Coffeyville Resources' Plant Site):

Liquid Nitrogen Product: \$ [***]/ccf (F.O.B. the Coffeyville Resources' Plant Site)

G. The base price for Shortfall Liquid Product is \$ [***]/ccf (F.O.B. the Coffeyville Resources' Plant Site).

VI. Early Participation Agreement Termination Payment: Effective on the Effective Date of this Agreement, the Participation Agreement between the Parties dated April 22, 2013 will terminate. As consideration for Messer's Agreement to terminate the Participation Agreement early, Coffeyville Resources shall pay Messer \$[***]per month for the [***]of the Supply Period.

EXHIBIT B
ITEMS TO BE PROVIDED BY COFFEYVILLE RESOURCES

I. Items to be provided for the ASU

Except as otherwise provided in this Agreement, Coffeyville Resources shall provide the following:

- A. Power: [***]
Coffeyville Resources shall be responsible to provide power for the ASU. Maximum annual average power consumption for ASU is [***]. For any additional consumption, Messer shall pay Coffeyville Resources its actual cost for such power, except that, if the additional consumption is due to an Off-Spec Condition, then: (i) Coffeyville Resources will be responsible for the cost of the additional power if Coffeyville Resources caused the Off-Spec Condition; (ii) Messer shall pay Coffeyville Resources its actual cost for the additional power if Messer caused the Off-Spec Condition; and (iii) Messer shall pay Coffeyville Resources half of its actual cost for the additional power in all other cases.
- B. Steam
Flow (ASU Usage) : [***]LB/hr average, [***] LB/hr peak
Primary: [***] psig minimum, [***]°F
Secondary: [***] psig, minimum, [***]°F

Reactor: [***] LB/hr when Vaporizing
[***] psig minimum, [***]°F
- C. Hydrogen: [***] scfh average
(within specifications listed on [Appendix 3](#))
- D. Cooling water supply: [***] gpm (designed)
(within specifications listed on [Appendix 3](#))
- E. Steam and condensate drain
- F. Sewer services, oil/water, storm and sanitary
- G. Potable water
- H. Fire Water
- I. Instrument air
- J. Telephone Line
- K. Permanent Security and Site access

II. Items to be provided for the Additional Oxygen Equipment

Except as otherwise provided in this Agreement, Coffeyville Resources shall provide the following:

A. Power: [***]

Construction power: [***] vac for construction trailer.

Operating power (including commissioning): Coffeyville Resources shall be responsible to provide electric power for the Additional Oxygen Equipment. Power will be sufficient to start and operate: two (2) liquid oxygen pumps, each nominally up to 300 horsepower, a 15 horsepower load for the hot water bath vaporizer, and necessary controls and accessories required for the operation of the Additional Oxygen Equipment.

B. Steam.

Flow: up to [***] lbs/hr

Pressure: [***] psig (+/- [***] psi)

Quality: clean, dry and saturated

C. Steam condensate drain

D. Storm water drainage/sewers

E. Potable water

F. Fire water/fire protection

G. Telephone lines

H. Permanent security and site access

I. Security fence

J. Site area lighting

K. Permits required for construction and operation

L. All civil design and construction including but not limited to, equipment foundations, underground electrical conduits, underground mechanical items, grounding grid

M. Pipe racks and cable trays sufficient for piping, electrical and communications connection between the Additional Oxygen Equipment and the ASU.

N. Paved roadways as required by Messer to and within the Messer Site for truck access to and from the filling station.

O. Construction lay-down area of 100ft x 100 ft adjacent to Messer Site with minimum soil-bearing capacity of 2500 psf.

EXHIBIT C

MESSER RELIFE SCOPE

Messer shall perform the following relife work as Messer reasonably determines is required:

[***]

EXHIBIT D

Coffeyville Resources environmental, health, safety and security procedures provided to Messer on July 13, 2020, and subject to Section 21 of this Agreement, as may be updated from time to time.

EXHIBIT E

(Plot Plans)

[***]

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Proprietary and Confidential

Messer LLC and Coffeyville Resources Nitrogen Fertilizers, LLC

**Certification of President and Chief Executive Officer Pursuant to
Rule 13a-14(a) or 15d-14(a) under the Securities Exchange Act of 1934,
As Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002**

I, David L. Lamp, certify that:

1. I have reviewed this report on Form 10-Q of CVR Energy, Inc.;
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 officers 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 officers 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.

By: /s/ DAVID L. LAMP

David L. Lamp

*President and Chief Executive
Officer*

(Principal Executive Officer)

Date: August 4, 2020

**Certification of Executive Vice President and Chief Financial Officer Pursuant to
Rule 13a-14(a) or 15d-14(a) under the Securities Exchange Act of 1934,
As Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002**

I, Tracy D. Jackson, certify that:

1. I have reviewed this report on Form 10-Q of CVR Energy, Inc.;
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 officers 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 officers 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.

By: /s/ TRACY D. JACKSON

Tracy D. Jackson

*Executive Vice President and
Chief Financial Officer
(Principal Financial Officer)*

Date: August 4, 2020

**Certification of Chief Accounting Officer and Corporate Controller Pursuant to
Rule 13a-14(a) or 15d-14(a) under the Securities Exchange Act of 1934,
As Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002**

I, Matthew W. Bley, certify that:

1. I have reviewed this report on Form 10-Q of CVR Energy, Inc.;
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 officers 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 officers 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.

By: /s/ MATTHEW W. BLEY

Matthew W. Bley

Chief Accounting Officer and

Corporate Controller

(Principal Accounting Officer)

Date: August 4, 2020

**Certification Pursuant to 18 U.S.C. Section 1350,
As Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**

In connection with the filing of the Quarterly Report of CVR Energy, Inc., a Delaware corporation (the "Company"), on Form 10-Q for the fiscal quarter ended June 30, 2020, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), each of the undersigned officers of the Company certify, pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to the best of such officer's knowledge and belief:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company as of the dates and for the periods expressed in the Report.

By: /s/ DAVID L. LAMP

David L. Lamp
*President and Chief
Executive Officer
(Principal Executive
Officer)*

/s/ TRACY D.

By: JACKSON

Tracy D. Jackson
*Executive Vice
President and Chief
Financial Officer
(Principal Financial
Officer)*

/s/ MATTHEW W.

By: BLEY

Matthew W. Bley
*Chief Accounting
Officer and Corporate
Controller
(Principal Accounting
Officer)*

Dated: August 4, 2020