2020 Barclays

Midstream & Infrastructure Corporate Access Days

March 3-4, 2020

NuStar

Forward-Looking Statements

Statements contained in this presentation other than statements of historical fact are forward-looking statements. While these forward-looking statements, and any assumptions upon which they are based, are made in good faith and reflect our current judgment regarding the direction of our business, actual results will likely vary, sometimes materially, from any estimates, predictions, projections, assumptions or other future performance presented or suggested in this presentation. These forward-looking statements can generally be identified by the words "anticipates," "believes," "expects," "plans," "intends," "estimates," "forecasts," "budgets," "projects," "could," "should," "may" and similar expressions. These statements reflect our current views with regard to future events and are subject to various risks, uncertainties and assumptions.

We undertake no duty to update any forward-looking statement to conform the statement to actual results or changes in the company's expectations. For more information concerning factors that could cause actual results to differ from those expressed or forecasted, see NuStar Energy L.P.'s annual report on Form 10-K and quarterly reports on Form 10-Q, filed with the SEC and available on NuStar's website at www.nustarenergy.com. We use financial measures in this presentation that are not calculated in accordance with generally accepted accounting principles ("non-GAAP") and our reconciliations of non-GAAP financial measures to GAAP financial measures are located in the appendix to this presentation. These non-GAAP financial measures should not be considered an alternative to GAAP financial measures.

Introduction

We Have Completed Our Stepped Plan to Achieve MLP Investor Priorities

Strong Coverage

+

Lower Leverage

+

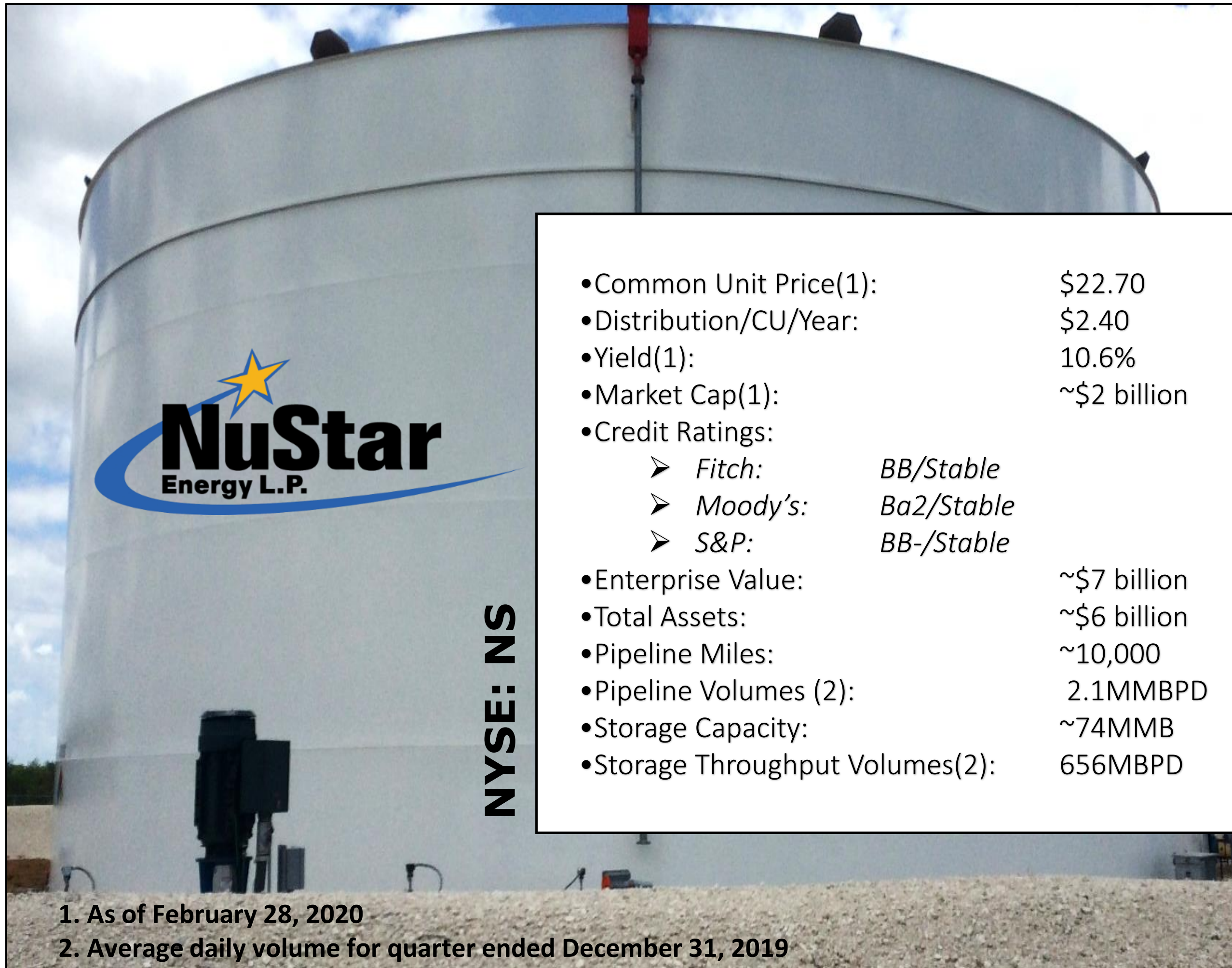
Simplified Structure/ Governance

+

No IDR Burden

+

Maximized Self-Funding



- Common Unit Price(1): $22.70
- Distribution/CU/Year: $2.40
- Yield(1): 10.6%
- Market Cap(1): ~$2 billion
- Credit Ratings:
  - *Fitch:* *BB/Stable*
  - *Moody's:* *Ba2/Stable*
  - *S&P:* *BB-/Stable*
- Enterprise Value: ~$7 billion
- Total Assets: ~$6 billion
- Pipeline Miles: ~10,000
- Pipeline Volumes (2): 2.1MMBPD
- Storage Capacity: ~74MMB
- Storage Throughput Volumes(2): 656MBPD

1. As of February 28, 2020
2. Average daily volume for quarter ended December 31, 2019

In 2019, Thanks to Our Employees' Hard Work and Focus, We Met or Surpassed Each of Our Core Operational Goals

#1- Effective project execution

#2- Strict financial discipline

#3- Continued HSE excellence

2019 Projects Completed

- ☑ Selby Renewable Diesel
- ☑ Stockton Biodiesel
- ☑ Permian Sunrise Connection
- ☑ Midland Connection Projects
- ☑ Wichita Falls/Hewitt/Sunrise Project
- ☑ St. James/Bayou Bridge Connection
- ☑ Corpus Early Service Export on 16"
- ☑ Corpus Full-service Export on 30"
- ☑ Valley System Project
- ☑ Nuevo Laredo Early Service Project*
- ☑ Gray Oak/Hwy 97 Connection
- ☑ Portland Biodiesel/Renewable Diesel

** Nuevo Laredo Full-Service Project (<u>on schedule 1Q20</u>)*

2019 Strategic Spending

Initial: $500-550MM → Revised: $485-515MM → *Actual: $467MM*

2019 Health & Safety

Even through an ambitious capital program in 2019, we had fewer recordables than in 2018 (and our 2018 safety statistics were significantly better than industry averages)

… And We Also Achieved or Beat Our Financial Targets in 2019

	Previous Guidance	Revised Guidance	Actual
2019 DCF COVERAGE	1.2-1.3X	1.3-1.4X	1.33X
2019 Debt-to-EBITDA	~4.3X	~4.0X	3.88X

1 - Please see Appendix for reconciliations of non-GAAP financial measures to their most directly comparable GAAP measures

…And We Generated Healthy Growth Across Our Footprint in 2019

2018

YE 2018 Debt-to-EBITDA ***4.05X***[2]

Pipeline Throughputs

Up 23%

EBITDA **(Continuing Operations)**

Up 12%

DCF **(Continuing Operations)**

Up 13%

2019

YE 2019 Debt-to-EBITDA ***3.88X***[2]

1 - Please see Appendix for reconciliations of non-GAAP financial measures to their most directly comparable GAAP measures

2 - Based on a rolling four quarters

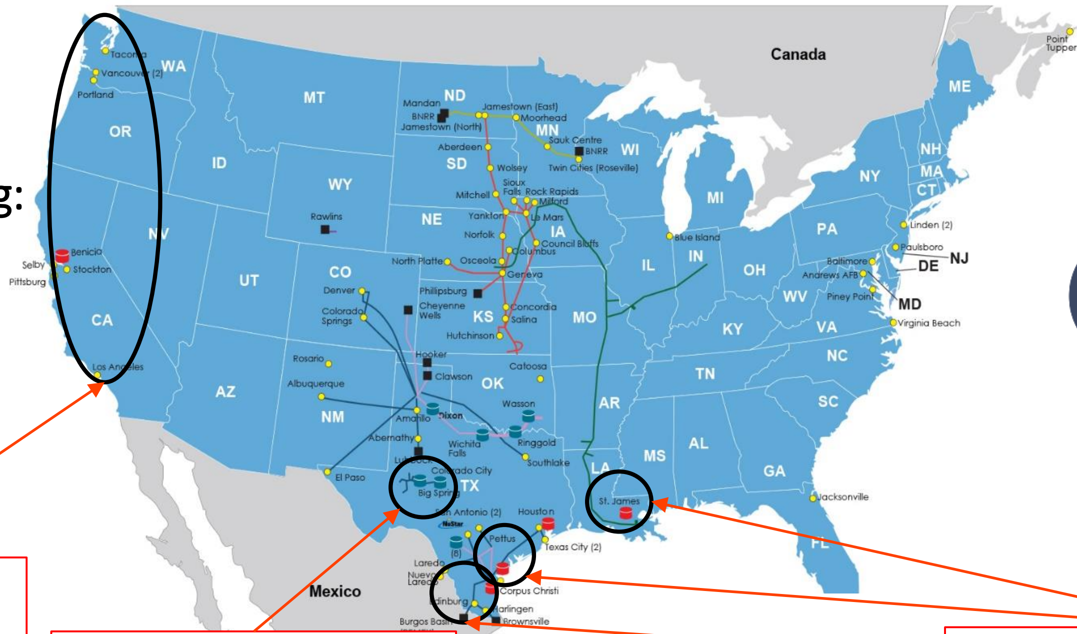
We are Proud of the Strong Results That We Delivered in 2019, and We Have Forecasted an Even Stronger 2020

	2019 Results	2020 Guidance
EBITDA from Continuing Operations	$668MM	$715-765MM ~11%
DCF Coverage from Continuing Operations	1.33X	1.4-1.6X ~13%

1 - Please see Appendix for reconciliations of non-GAAP financial measures to their most directly comparable GAAP measures

Our 2020 Strategic Spending Program is Focused on Low-multiple Projects to Build Upon NuStar's "Sweet Spots"

Total
2019
Strategic Spending:
$ 467MM



Total Estimated
2020
Strategic Spending:
$ 300-350MM

~30%
lower than 2019

West Coast Bio-Fuels
~$11MM in 2019

Permian Crude System
~$151MM in 2019

N. Mexico Products Supply
~$138MM in 2019

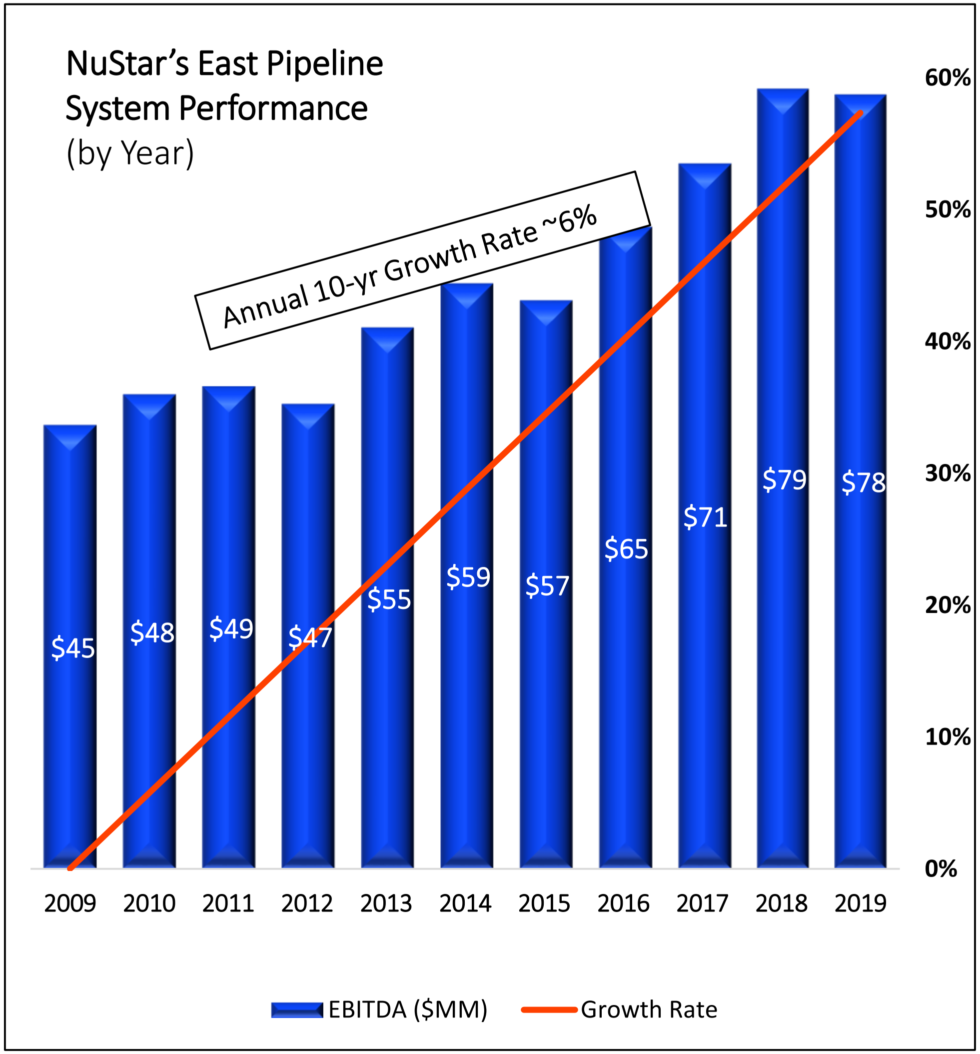
Gulf Coast Exports:
- Corpus Christi (*~$101MM in 2019)*
- St. James (*~$3MM in 2019)*

★ We plan to spend at least **30% less in 2020** on capital projects than we did in 2019, the majority of which will be focused on the same key areas of opportunity we invested in during 2019

★ We will only execute on low-multiple projects that enhance our existing footprint and improve our metrics

Beyond Our Sweet Spots, Our Optimization Program has Made Small but Meaningful Improvements Across Our Assets to Assure Steady Returns

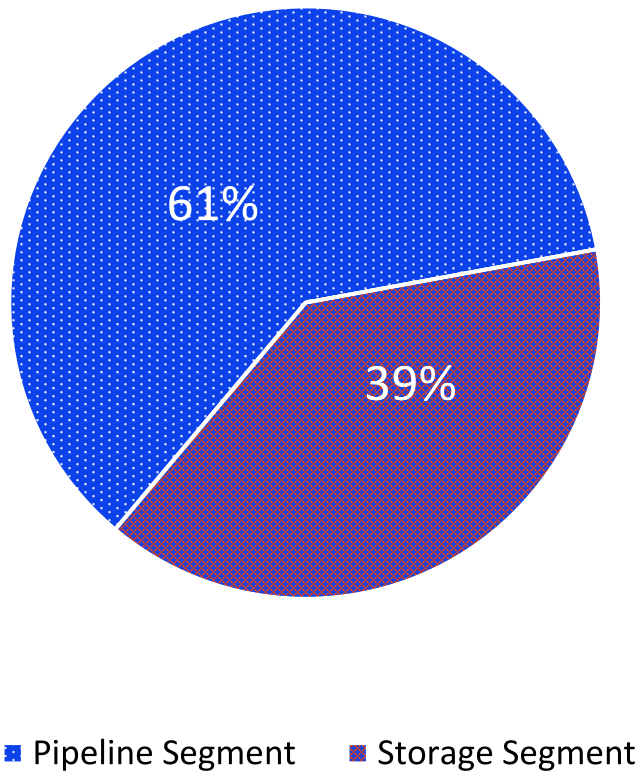
- As a result of our five-year plan for optimization of our assets across our footprint, we have been able to capitalize on identified synergies and increase the positive contribution of our legacy assets through low-capital, small projects and bolt-on acquisitions
  - With our Council Bluffs acquisition in 2018, we increased our capacity and enhanced our market reach, which in turn has expanded our East System, both in terms of pipeline and butane blending operations
    - Butane blending operations generated a record $14 million of EBITDA in 2019 for our Fuels Marketing Segment



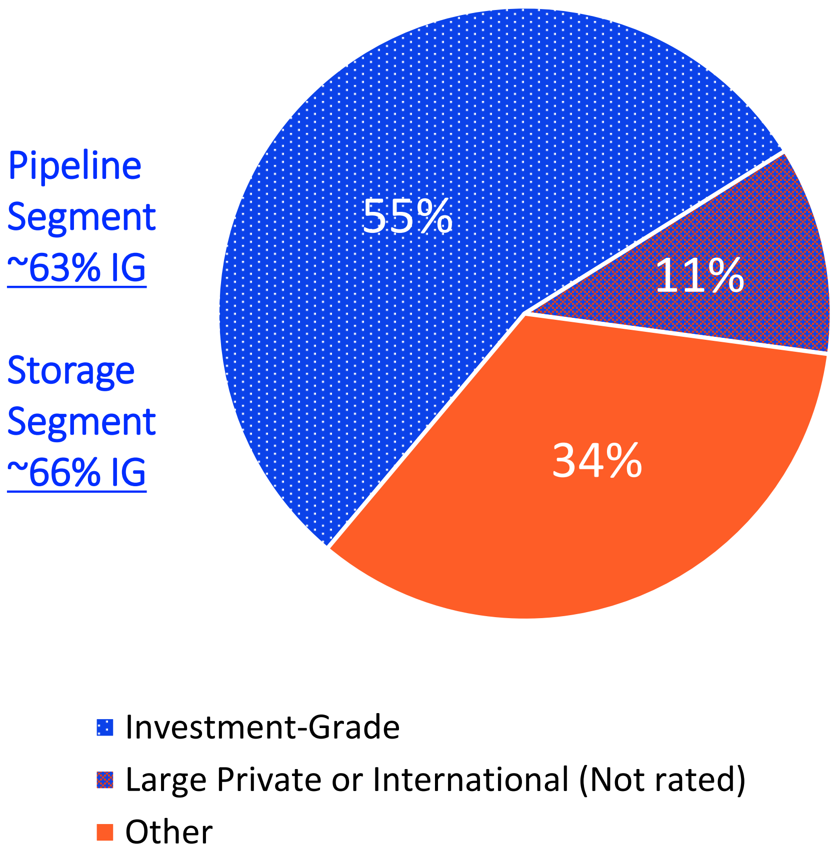
1 - Please see Appendix for reconciliations of non-GAAP financial measures to their most directly comparable GAAP measures

… And Our Diverse Asset Base, Creditworthy Customers and Long-Term Contracts Provide Cross-Cyclical Balance

NuStar Pipeline and Storage Segment Revenues
(% 2019 Revenues)



NuStar Investment-Grade (IG) Customers
(% 2019 Revenues)

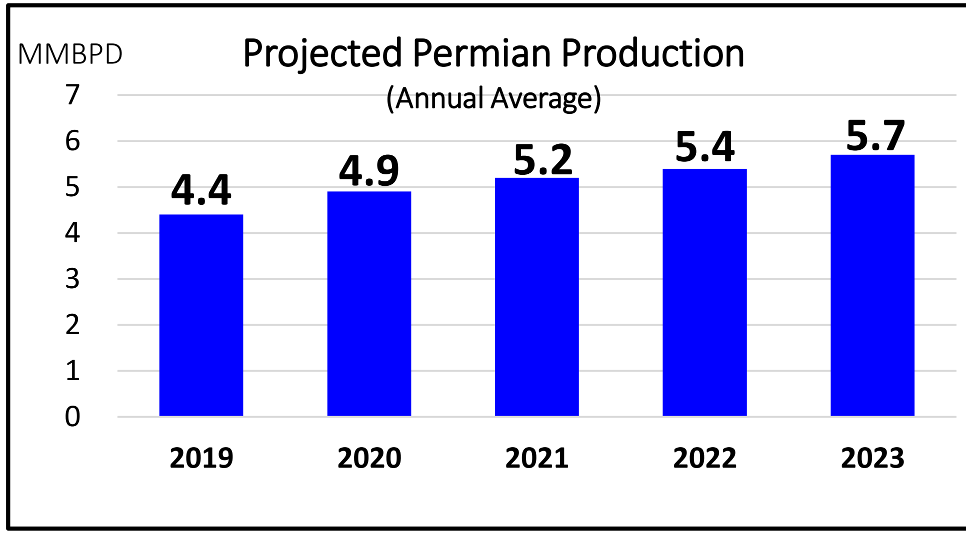


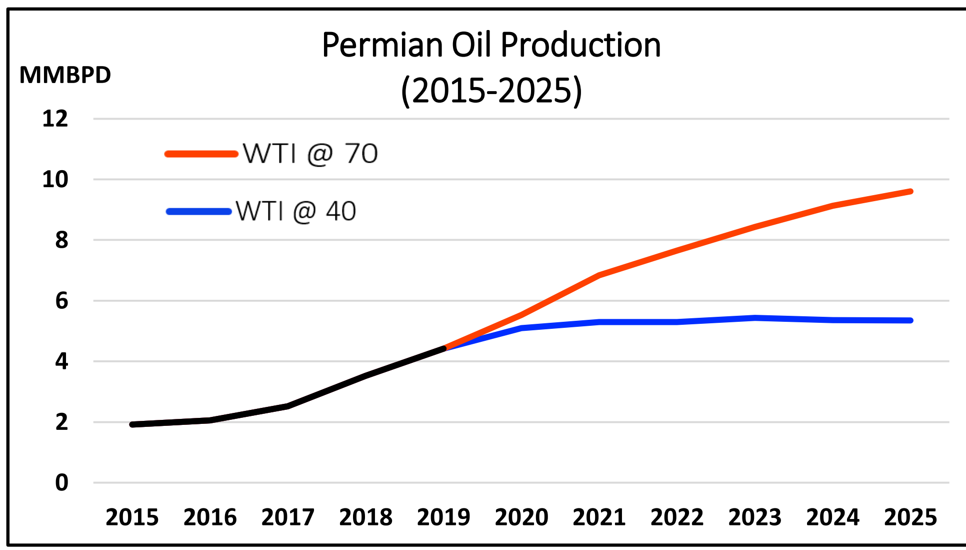
This Year and in Future Years, We Intend to Stay Focused on Meeting Our Objectives for Building Unitholder Value, Across Cycles

Permian Crude System

The Permian Basin Has Been, and Is Expected to Continue to be, the Largest and Most Resilient U.S. Shale Play…

- Even with widely publicized concerns regarding public E&P capital spending cuts, the Permian Basin's production growth is still expected:
  - To exit 2020 at 4.9MMbpd, over 50% of the nation's total shale output
  - To exit 2023 at 5.7MMbpd
- Midland producers are generating the lowest breakeven costs of any basin: $35- $45/bbl WTI



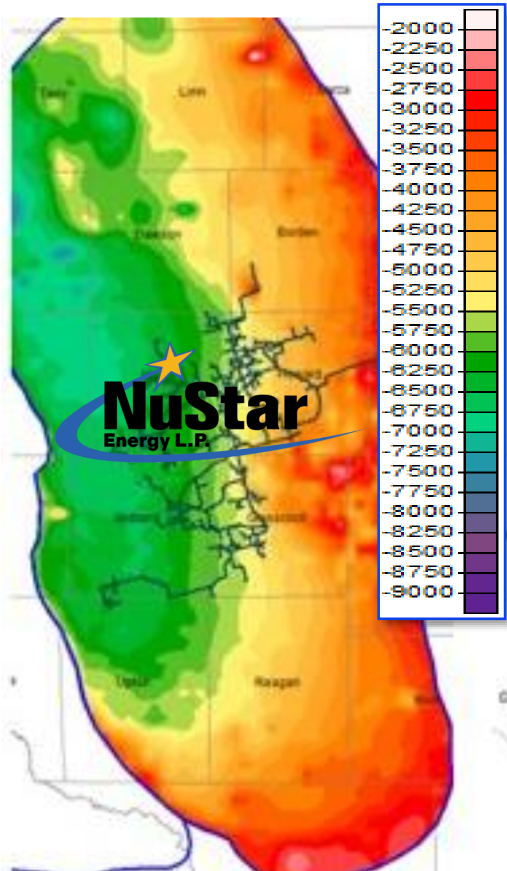


Sources: Bloomberg (2/25/2020), EIA (2/11/2020), ESAI (1/31/2020), JP Morgan (2/6/2020), Wells Fargo (2/21/2020); Rystad Energy (February 2020)

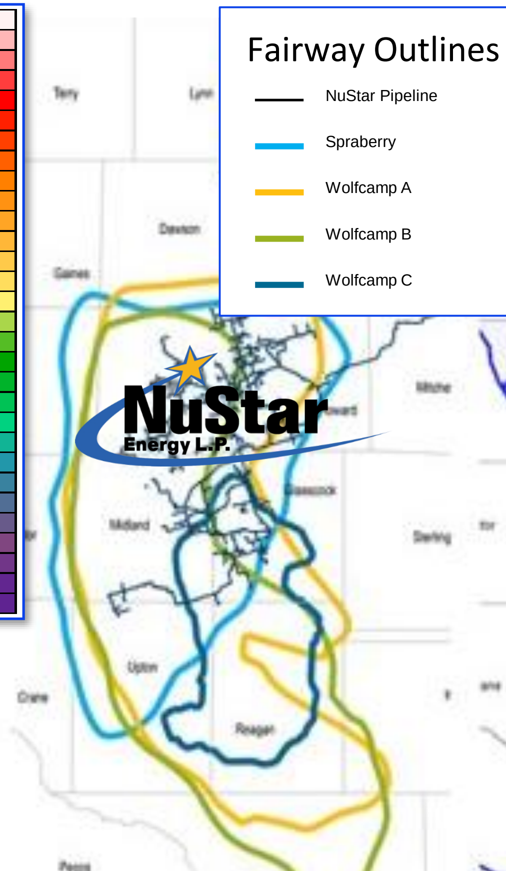
We Acquired Our System Because It Sits Squarely Over the Midland Basin's "Hot" Spot…

MOST ACCESSIBLE, STACKED FORMATIONS…

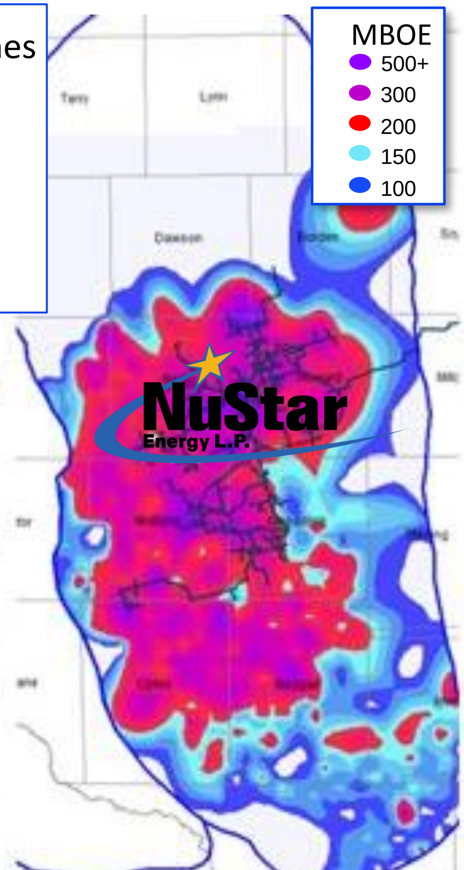
BEST RECOVERIES AND SUPERIOR GORs…



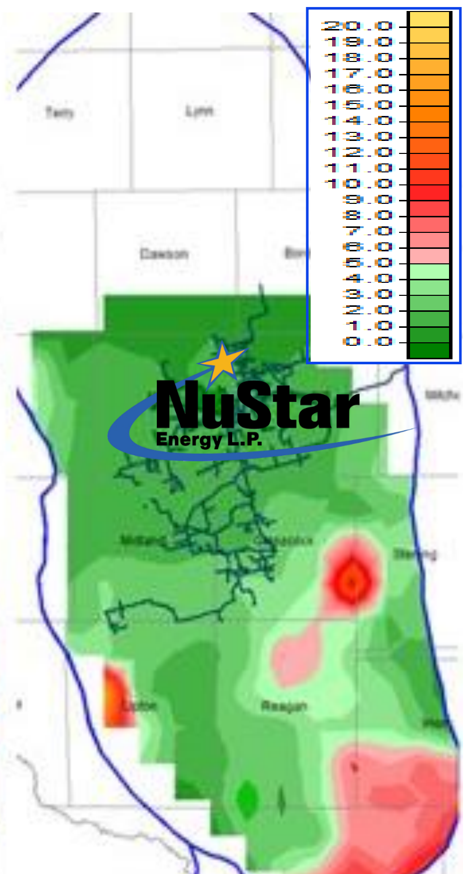
Wolfcamp Structure (TVDSS ft)



Midland Fairways



24M CUM (MBOE 20:1) (1)



Wolfcamp 24M GOR

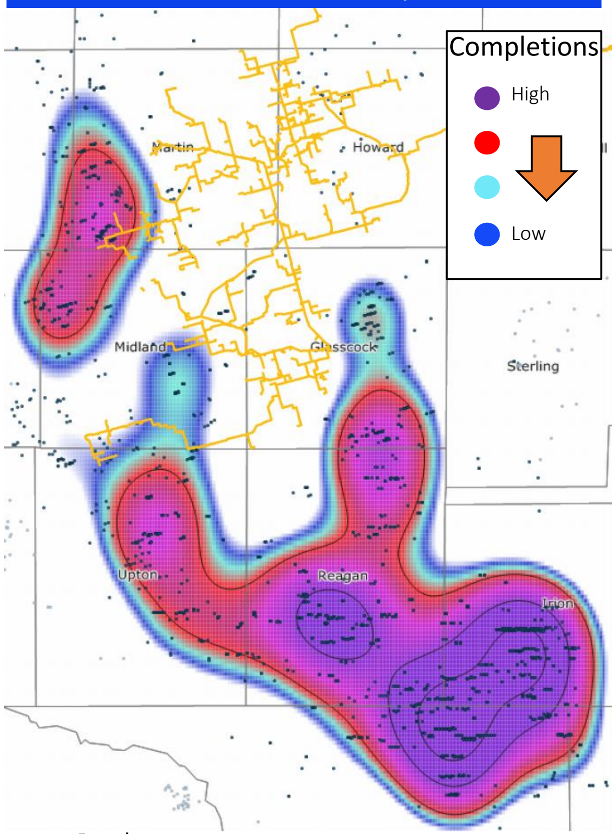
1. *Normalized to 10,000 ft Lateral Lengths.*

Source: Barclays

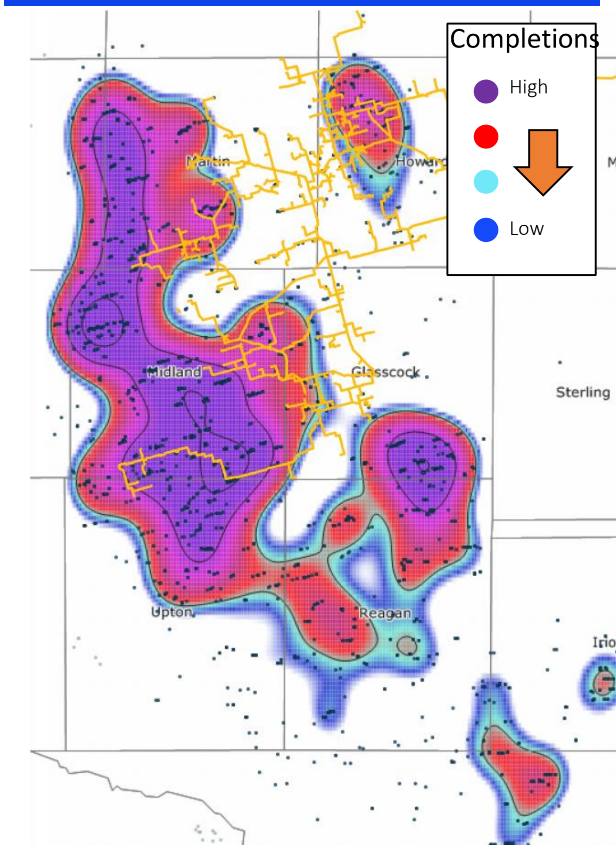
… And the Epicenter of Midland Basin Drilling Activity Now Sits Squarely Over Our System

★ The geological superiority of our system's location, as well as our producers' improvements in technique, has proven out as drilling activity has increasingly shifted toward and over our assets over time

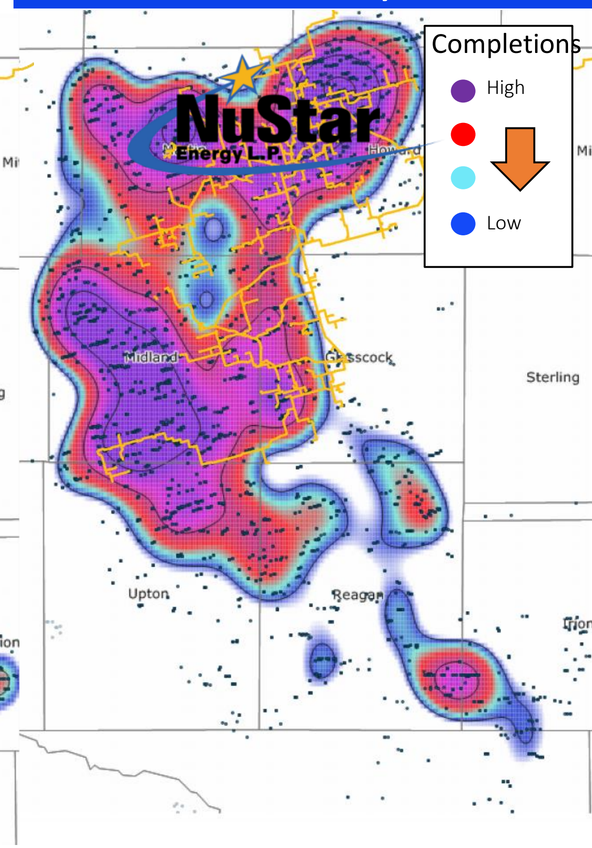
2013-2014 Activity[1]



2015-2016 Activity[1]



2017+ Activity[1]

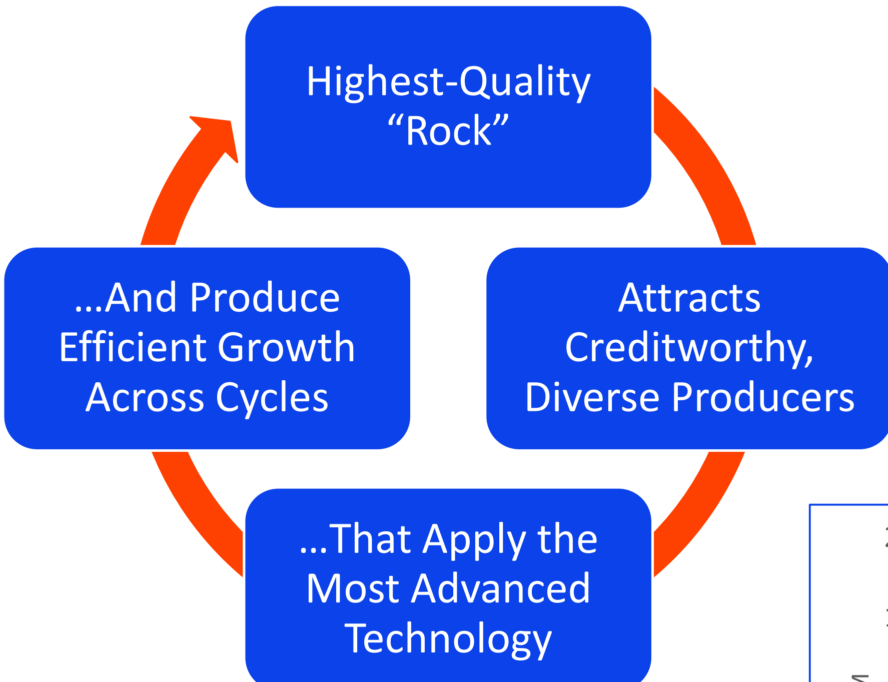


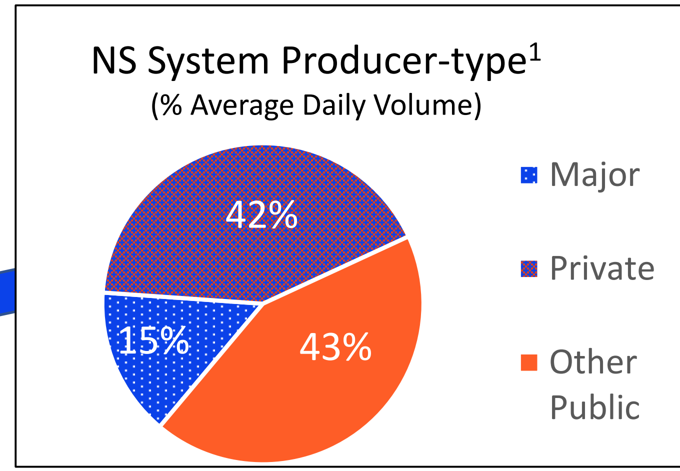
Source: Barclays

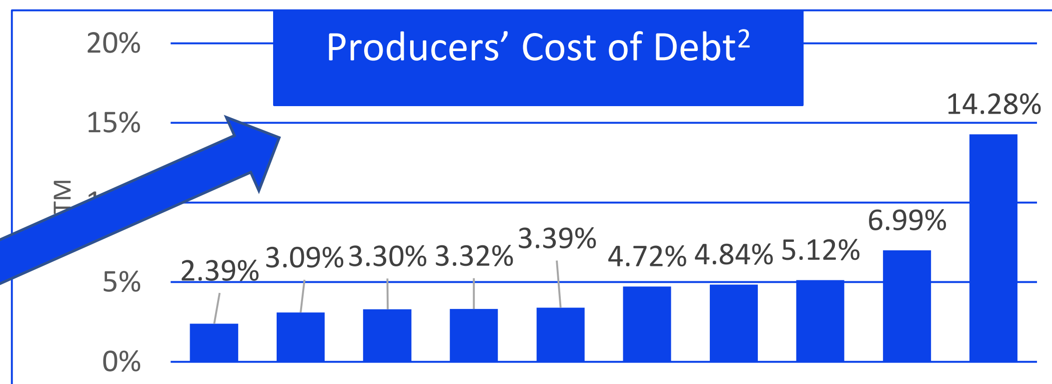
1. *Normalized to 10,000 ft Lateral Lengths.*

Our "Core of the Core" Location has Attracted Our Top-Tier Customers

- The quality of geological formations underlying our system attracts the strongest customers
  - Our creditworthy customers include majors and the most prolific E&Ps, both private and public, in the basin, as well as large independent refiners and marketers
  - Over 45% of our system's revenue is generated from investment-grade rated entities[1]





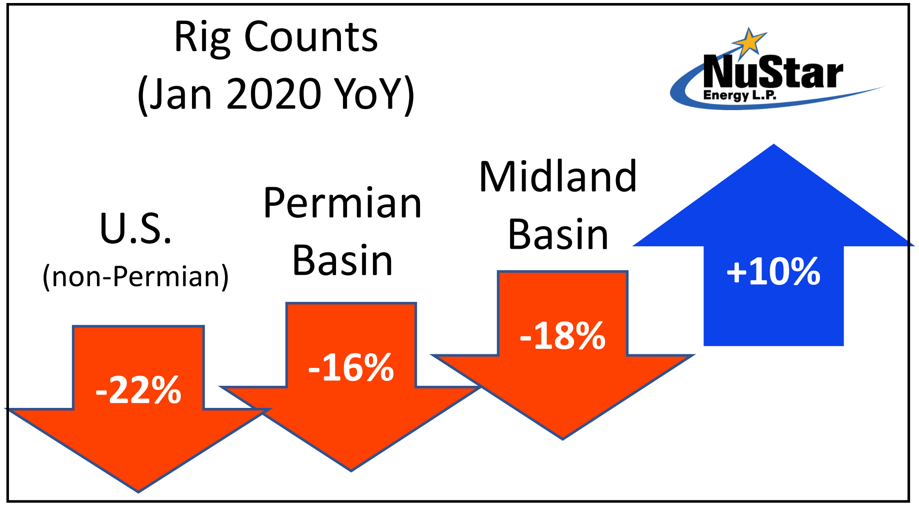


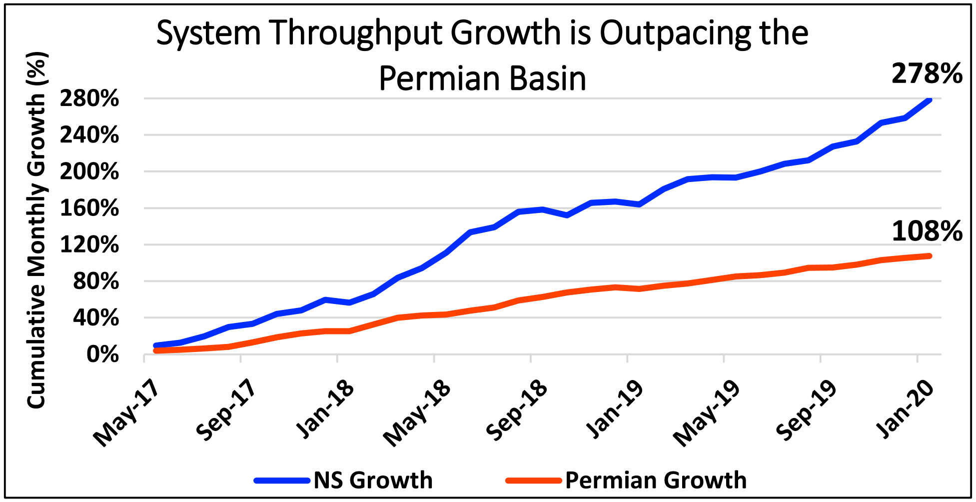
Producer Average, Weighted by Acreage:
4.5%

1 – December 31, 2019 YTD

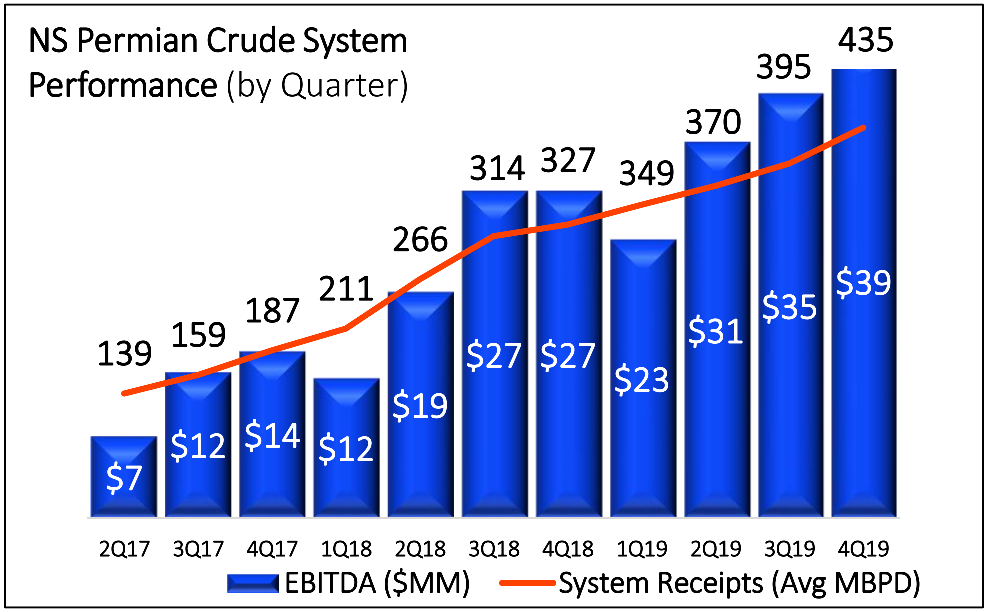
2 – As of December 19, 2019

Our Top-Tier Customers Continue to Drive Our System's Strong Performance





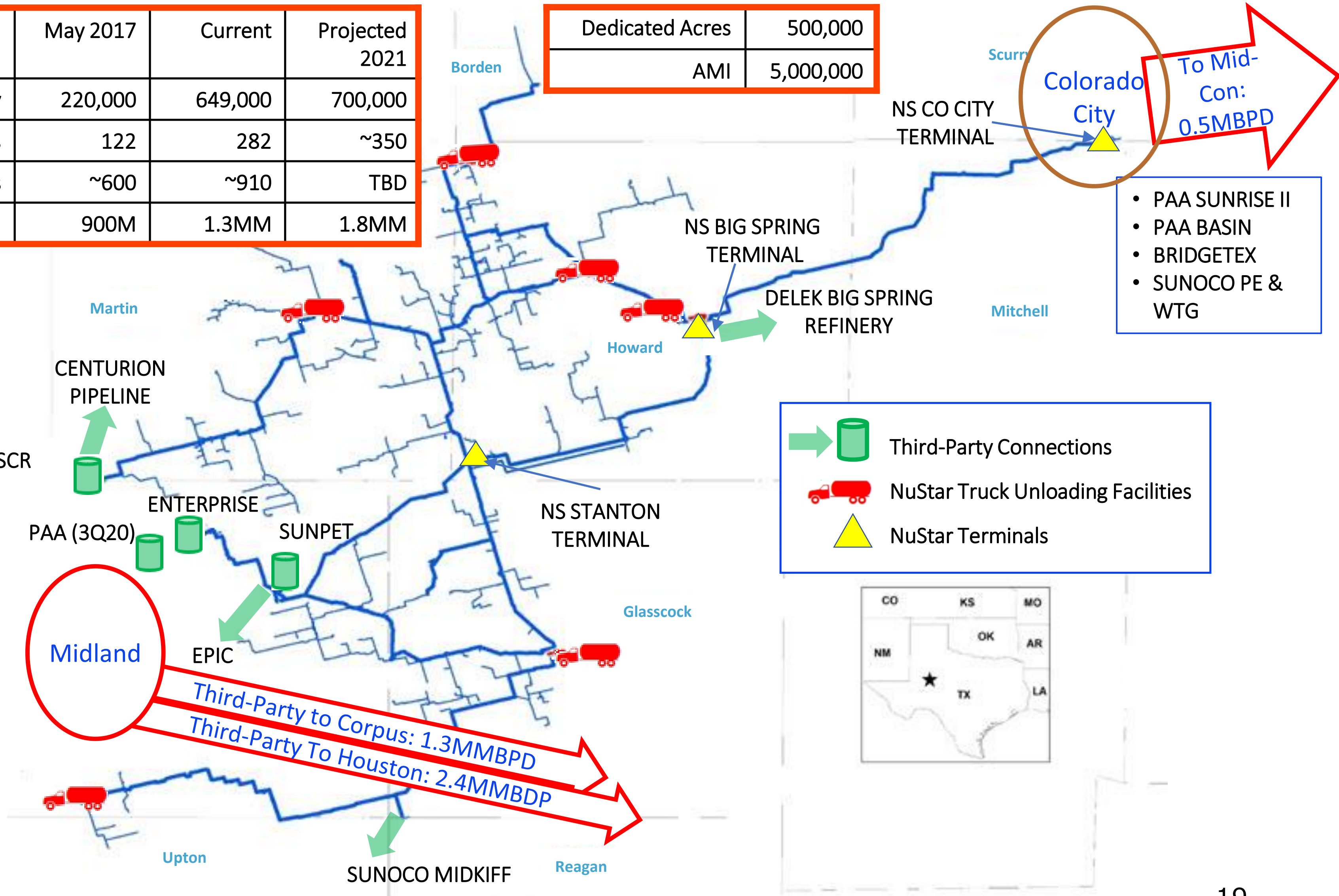
- ★ Our system's throughput volumes are up 278% since we acquired it, compared to 108%, the Permian Basin's growth over that period
- ★ We averaged 448MBPD in December 2019, and we exited the year at over 460MBPD
- ★ March nominations continue to increase and have come in well ahead of our forecast
  - ☆ We expect to achieve throughput of over 550MBPD by year-end 2020



With the "Backbone" of Our System Complete, We Plan to Continue to Grow in Step With Our Customers' Needs

	May 2017	Current	Projected 2021
System Capacity	220,000	649,000	700,000
Receipt Points	122	282	~350
Pipeline Miles	~600	~910	TBD
Storage (bbls)	900M	1.3MM	1.8MM

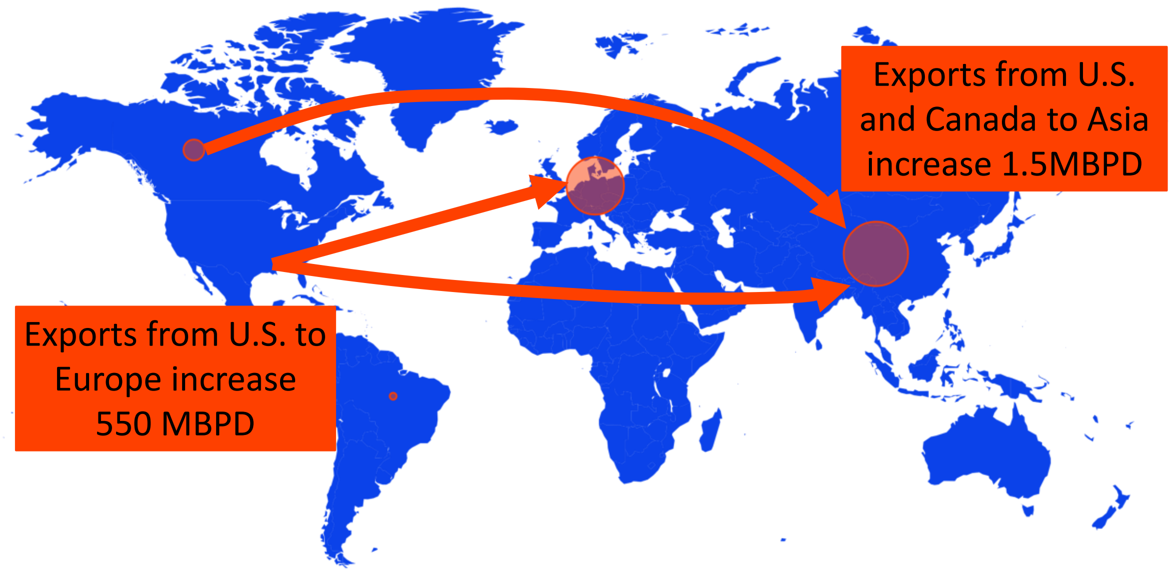
Dedicated Acres	500,000
AMI	5,000,000

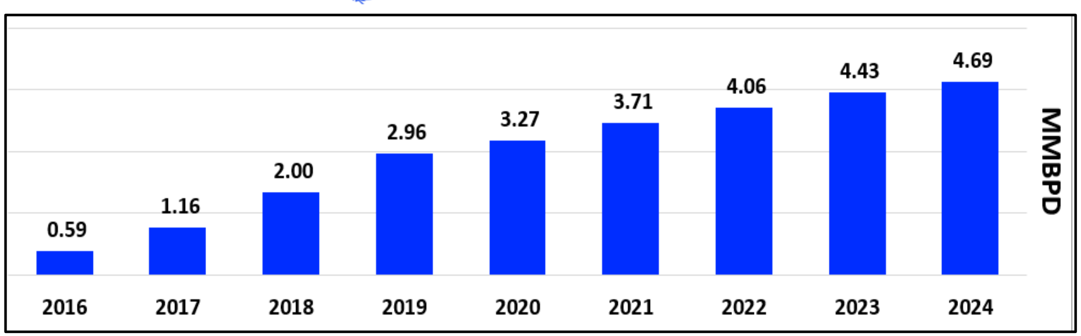


Gulf Coast Exports: Corpus Christi & St. James

U.S. Crude Exports are Expected to Continue to Grow as North American Production Exceeds Refiner Demand

U.S. Export Growth
Mid 2019 - 2024





Sources: ESAI, RBN Energy

2.2MMbpd
New capacity from Permian long-haul projects in-service 2H 2019 and early 2020

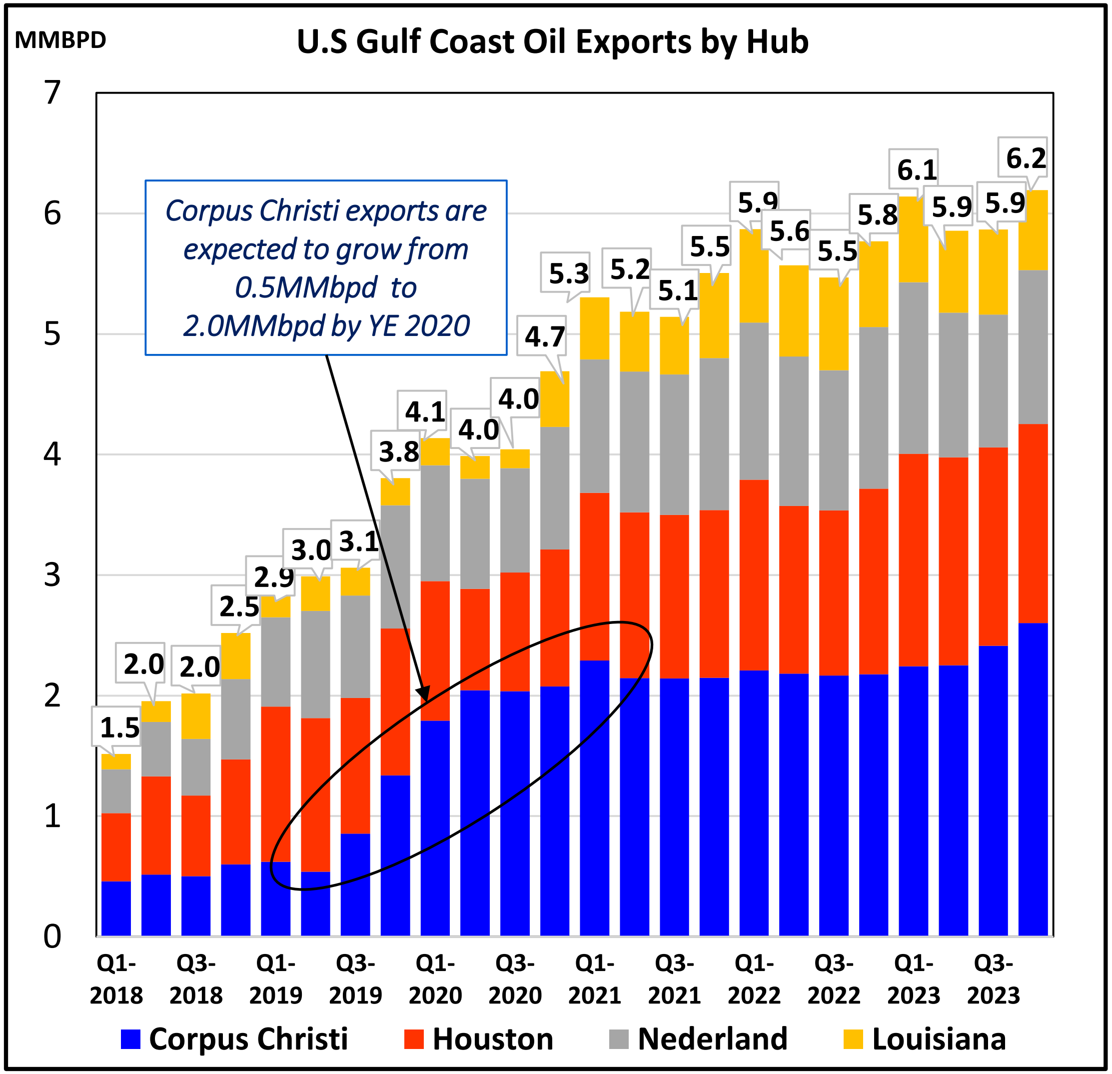
2.0MMbpd or 74%
Growth in U.S. exports through 2024 after long-haul projects commence service

4Q 2020
United States expected to become a sustainable net exporter

Midstream Solutions
Ensuring that exports and related infrastructure keeps pace with that expected growth represents the next large-scale logistics dislocation requiring midstream solutions

The Port of Corpus Christi has Become the Largest U.S. Crude Export Hub

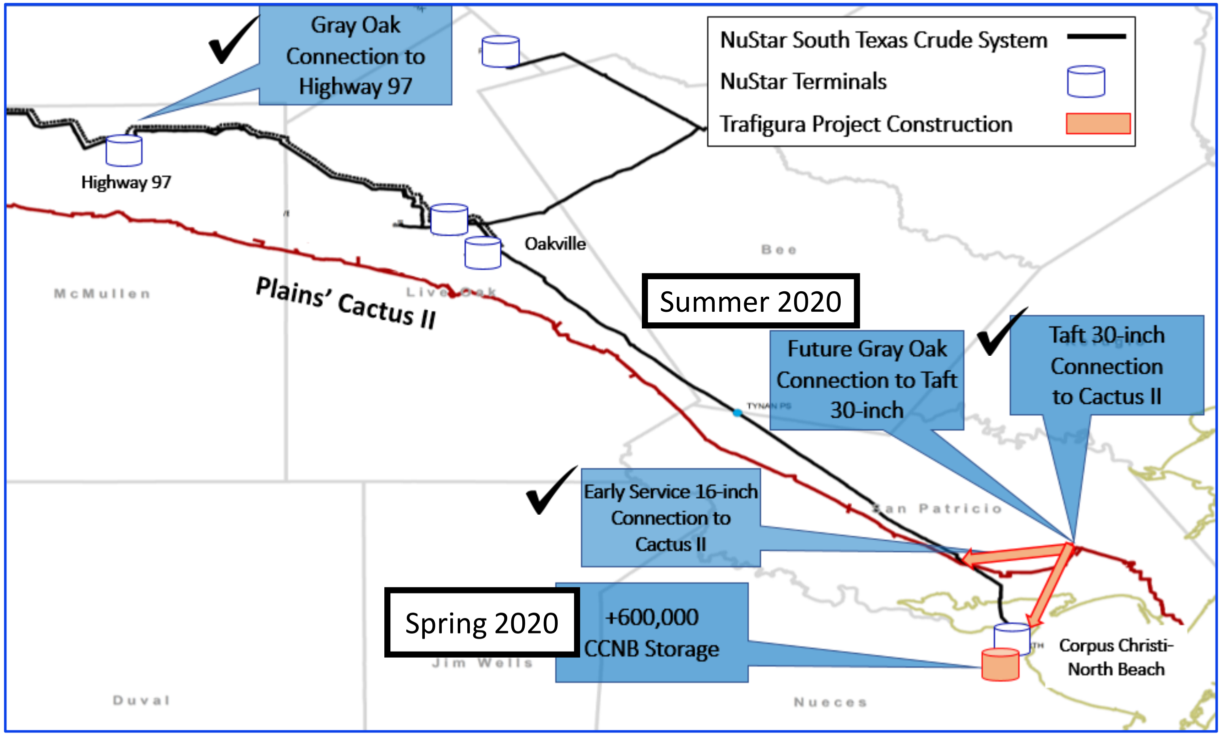
- Regional refiners' consumption has topped out, which means that a significant proportion of the volumes transported on the additional 2.1MMbpd of new long-haul pipeline capacity from the Permian to the Corpus area will be moved out over Corpus dock facilities
- Corpus Christi, historically a regional refinery and domestic marine delivery hub, has evolved into a major crude oil export hub
  - At the end of 2019, Corpus Christi exceeded one third of the total 3.8 MMbpd of Gulf Coast exports
  - By year-end 2023, exports from Corpus are projected to grow to 2.6MMbpd of the Gulf Coast's total 6.2MMbpd



Source: EIA, Rystad Energy (October 2019), RBN Energy, IEA

We Have Expanded on Our Existing Assets in South Texas to Export Permian Barrels for Trafigura From Our Corpus Christi Facility

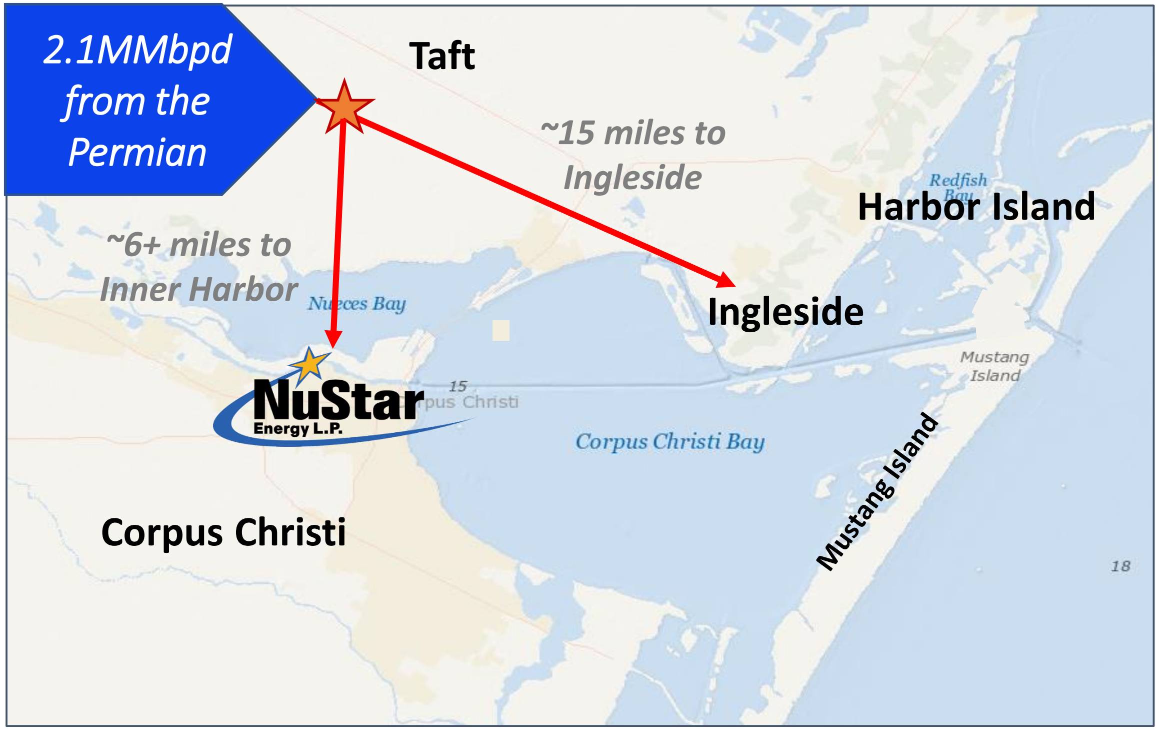
- We have completed our project for Trafigura to connect our existing South Texas Crude System with PAA's Cactus II to transport Permian barrels to our Corpus Christi North Beach facility for export:
  - In August, we began transporting WTI via our South Texas system 16" existing pipeline from a connection to PAA's Cactus II pipeline to our Corpus Christi North Beach Terminal
  - In early September, we completed construction on a new 30" pipeline from a connection in Taft, TX to our Corpus Christi North Beach Terminal and continue to build 600Mbbls of storage at Corpus Christi, which will bring our capacity at the facility to 3.9MMbbls



- Taft, TX will be the point of convergence for all three new pipelines and offers shipper optionality to deliver to either side of the ship channel (Ingleside or Corpus Christi)
  - We are in discussions to connect to other long-haul pipeline projects and with parties for additional commitments

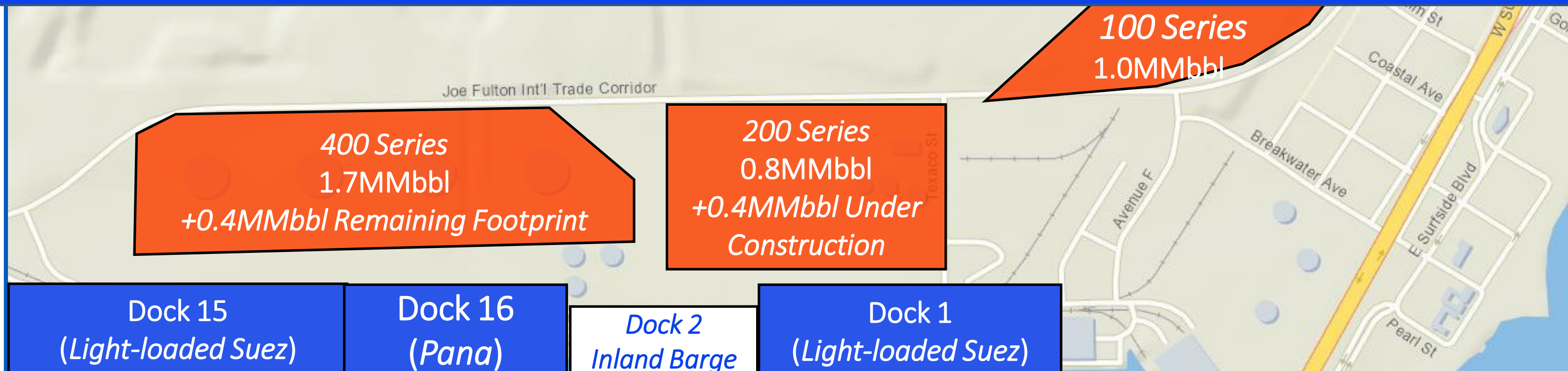
Our Connection Facility in Taft, Texas Establishes Our Footprint in this Emerging South Texas Crude Oil Hub

- The Permian long-haul pipeline projects were developed to maximize shippers' destination optionality, and Taft, Texas offers both geographic flexibility and less expensive real estate
  - Taft's location offers a jumping off point for connections on either side of the Corpus Christi Ship Channel (Ingleside or the Inner Harbor)



- As the point of convergence for all three of the Permian-to-Corpus Christi long-haul pipelines and with developing access to multiple marine and refinery outlets, Taft is poised to become the major crude oil market hub in South Texas
- Our connection to Cactus II in Taft not only enables our services for Trafigura; it also positions NuStar to build on our early entry into this developing hub
- We believe there will be ample volumes to support an expansion of our initial Taft position

We are Exporting Permian Long-haul Barrels at Our Corpus Christi North Beach Terminal



In-bound Capacity

Current total: 1.2MMbpd
- South Texas Crude System 16" Pipeline- 240Mbpd
- Taft 30"- 720Mbpd and expandable
- Harvest 16" Pipeline - 240Mbpd

Storage Capacity

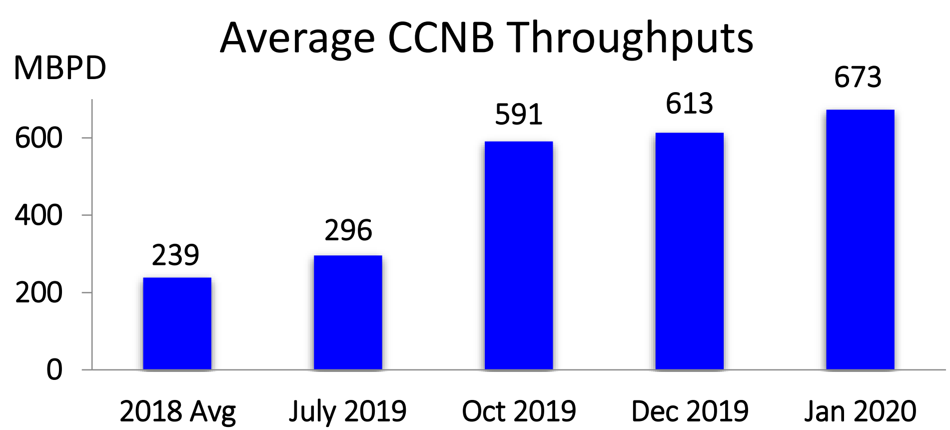
Current total: 3.5MMbbl
- *Plus* (under construction)- 0.4MMbbl
- *Potential* 0.4MMbbl

Out-bound Capacity

Current total: 1.1MMbpd
- Ship docks- 750Mbpd to 1.0MMbpd
- Refinery pipeline- 100Mbpd
- Anticipated throughputs after project completion- 600Mbpd to 700Mbpd

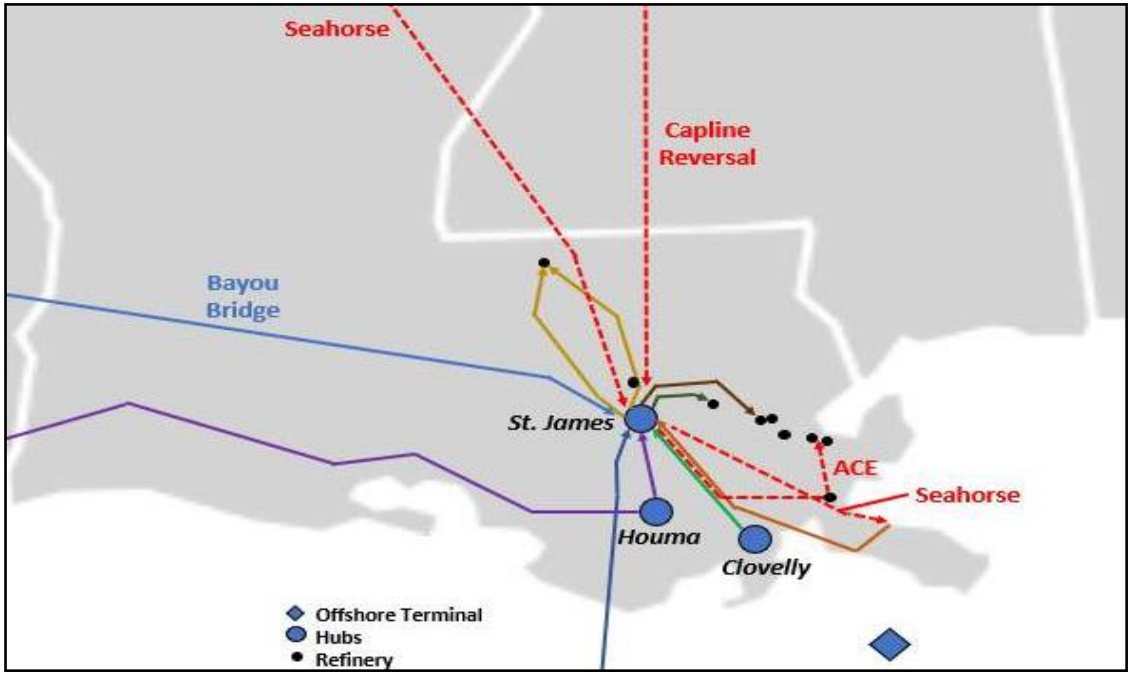
★ Our Corpus Christi North Beach Terminal is now receiving barrels from our South Texas Crude Oil Pipeline System, our 12" Three Rivers Supply Pipeline and our new 30" pipeline from Taft, as well as from third-party pipeline connections

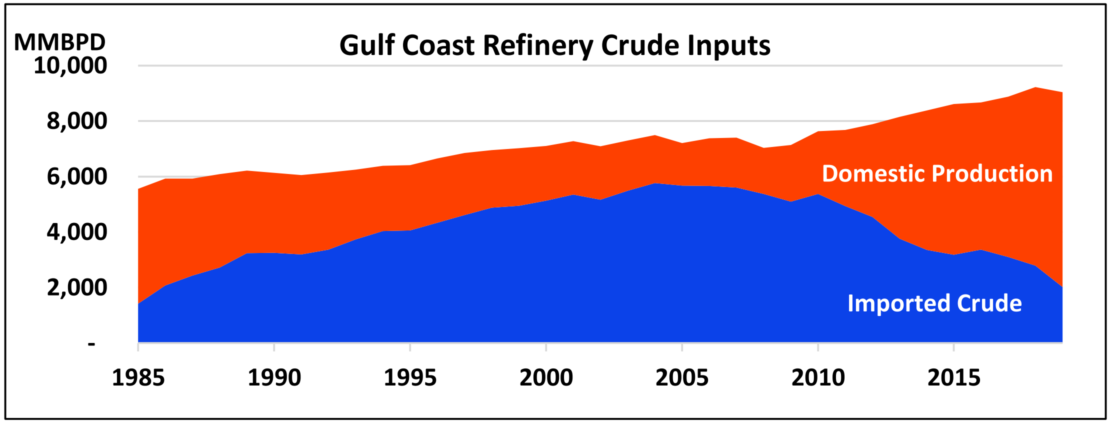
☆ Average throughputs in January continued to more than double our 2018 average at the facility



St. James, Formerly the Heart of U.S. Crude Import Infrastructure, is Evolving With Changing Crude Flows to Facilitate Regional Refinery Supply, Domestic Marine Deliveries and International Export

- Pre-shale play revolution, St. James, LA developed into the heart of a vast web of pipelines dedicated to supplying imported crude oil to refineries in the region and inland, across the mid-continent
- As rapid growth in North American production has allowed refiners to replace much of crude imports with domestic crude, imports to mid-continent refiners through St. James have decreased dramatically
- St. James remains the center of crude distribution and storage for the Louisiana region, which constitutes about 13% of the U.S. refining complex and export demand is expected to grow as North American supply overflows U.S. refiner demand

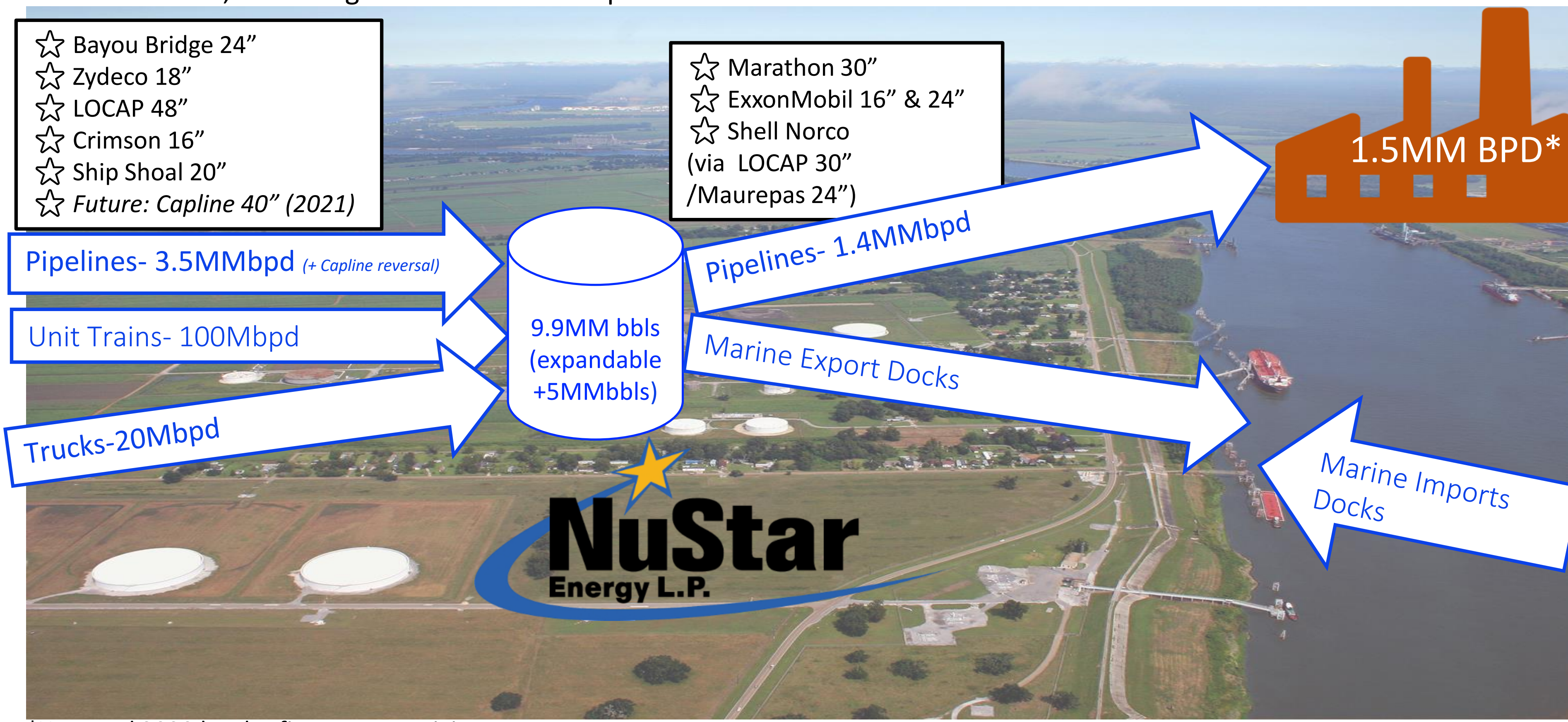




Source: RBN, EIA

Our St. James Terminal is a World-class Facility That We Continue to Connect and Equip for the Next Opportunities as the Hub Evolves

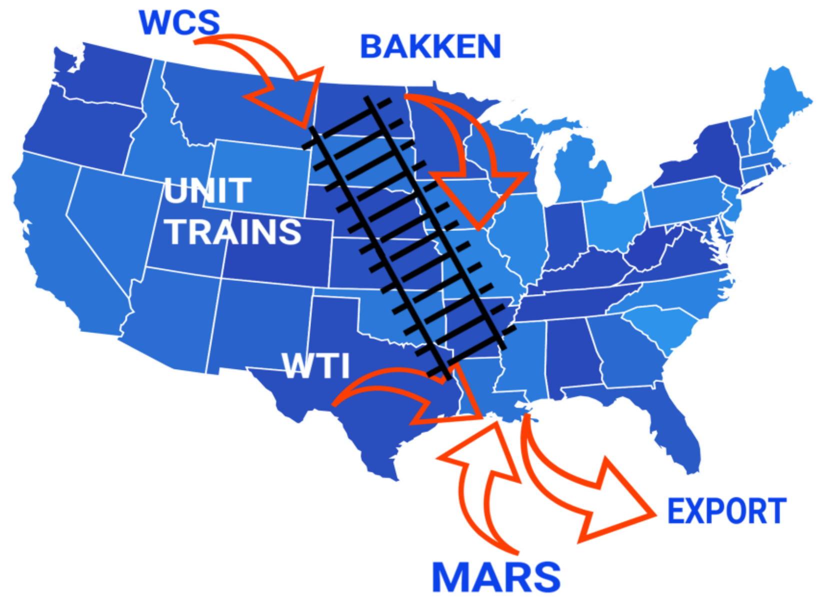
- We are developing projects to ensure that, as in-bound pipeline volumes grow, we have the connectivity and capability those barrels require for handling, storage, blending, batching and export
- Our facility is evolving into an "outward-facing" platform that provides targeted service: receiving a diverse crude slate and storing, blending and delivering a customized "cocktail" to local, as well as other U.S. and international, destinations, according to our customers' specific needs



*Year-end 2020 local refinery connectivity

Our St. James Facility Continues to Benefit From Price Dislocations That Incentivize Rail and is Positioned to Participate in Export Growth in the Future When Pipeline Constraints Resolve

- A major dislocation between WCS production and the Gulf Coast from a lack of long-haul capacity from the North has continued to drive wide differentials that support unit train economics
  - We now have a contracted commitments for 30MBPD through April 2022 (increased from 20MBPD)
  - Dislocations are expected to continue, at least until the Enbridge Line 3 project is in service, now estimated in service in 2021

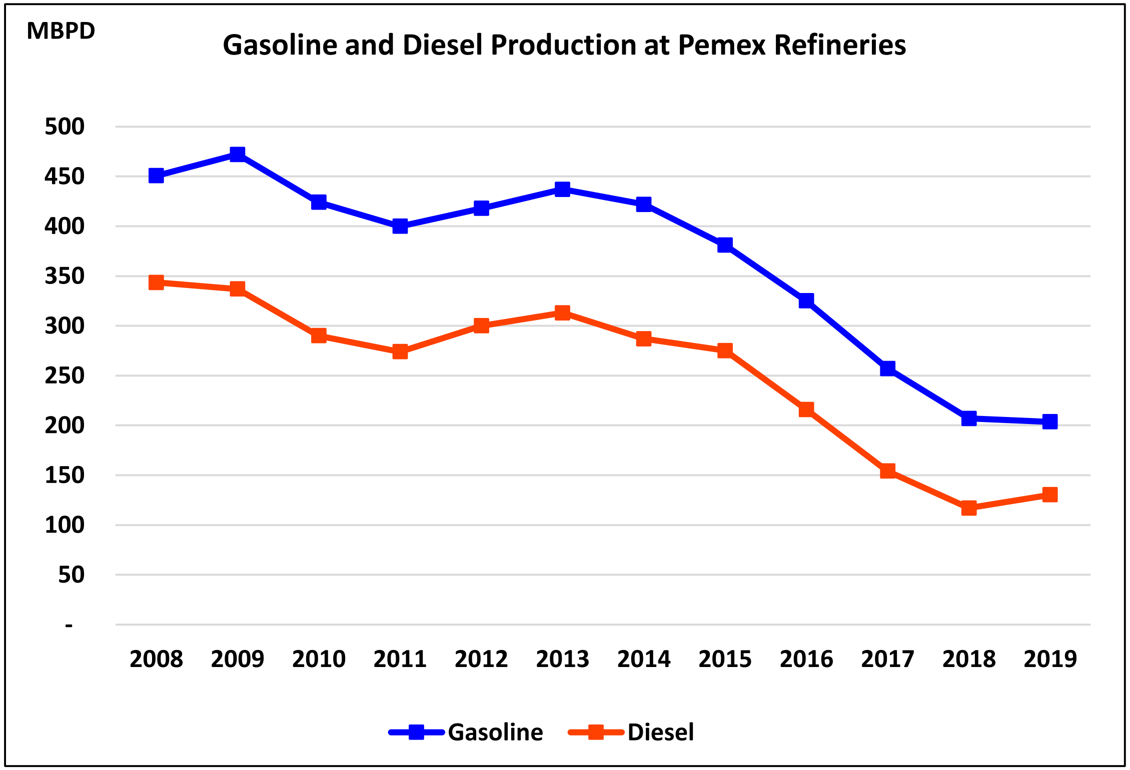


- We continue to work to assure our facility is connected to the pipeline projects in progress to debottleneck shale plays, the region, as well as the Midwest and beyond
  - As soon as mid-2021, Capline's reversal is likely to bring large volumes of WTI, heavy Canadian and Bakken crude for use in regional refineries and export to other locations
  - In March 2019, Bayou Bridge began bringing WTI light, Bakken and Canadian barrels either for export or local use

Northern Mexico Refined Products Supply

Mexico's Refined Product Demand is Expected to Continue to Exceed Its Infrastructure's Capacity

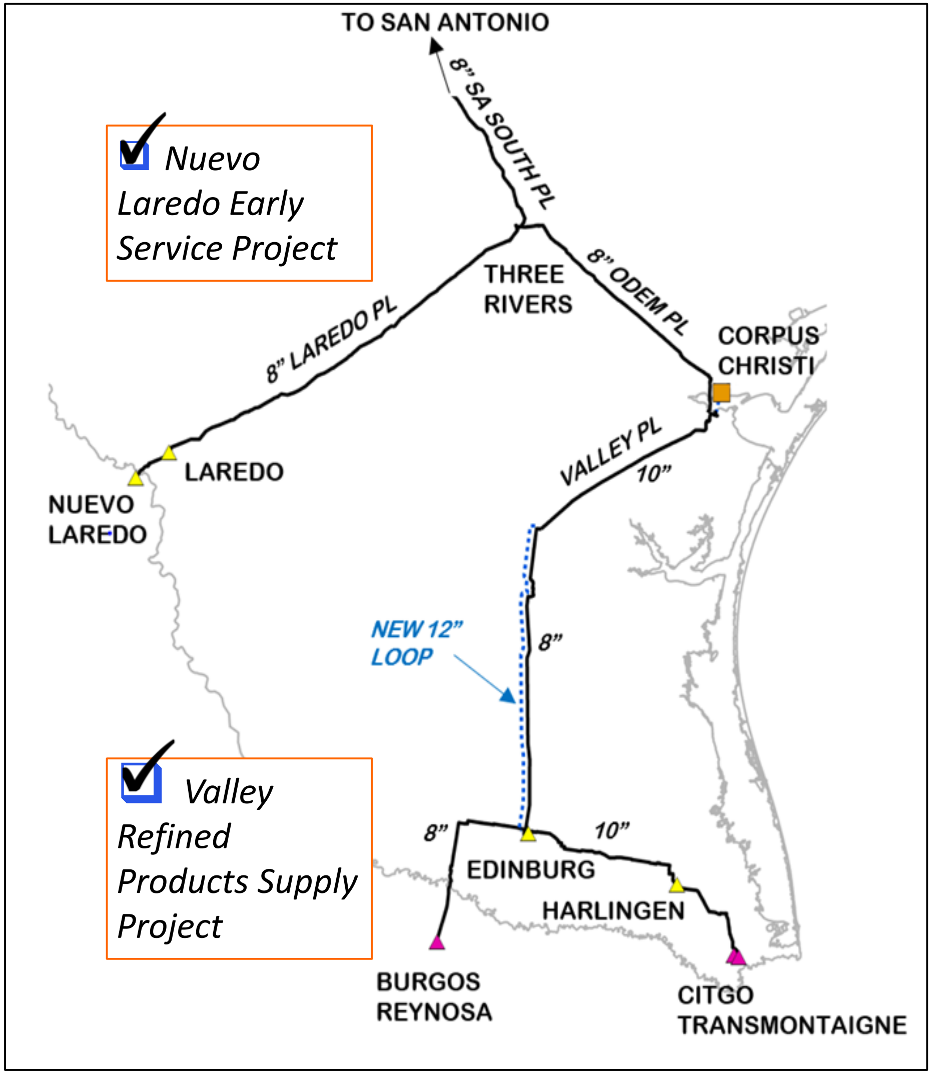
- Mexico refineries currently operate around 35% of nameplate capacity due to weak returns and historical under-investment
  - In 2019, utilization has fluctuated between 30% and 55% of capacity and is projected to stabilize at 40% of capacity in 2020



Source: Petroleos Mexicanos (PEMEX)

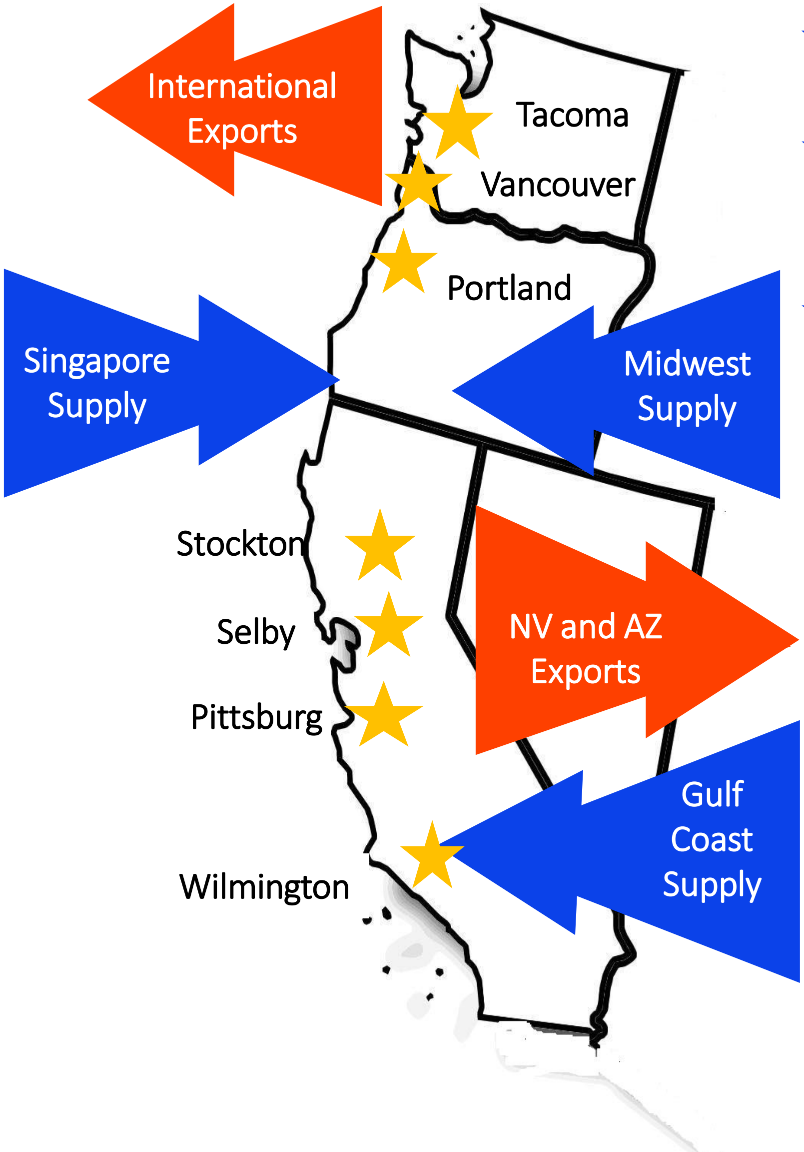
We Completed Two Projects in 2019, and Will Bring Another Into Service in Early 2020, to Help Remedy Mexico's Supply Shortfall

- In 3Q 2019, we completed service on two projects we developed to address the supply imbalance in Northern Mexico:
  - Nuevo Laredo project for Valero
    - Early ULSD service completed in September 2019
    - Odem pipeline, Dos Laredos pipeline and Nuevo Laredo terminal expansion on track to be completed in 1Q 2020
    - ~28Mbpd new capacity with take-or-pay volumes on seven-year contract term
  - Valley Pipeline expansion for major customers
    - NuStar's project completed in September 2019
    - 45Mbpd new capacity with seven-year contract term
    - Open season was fully subscribed

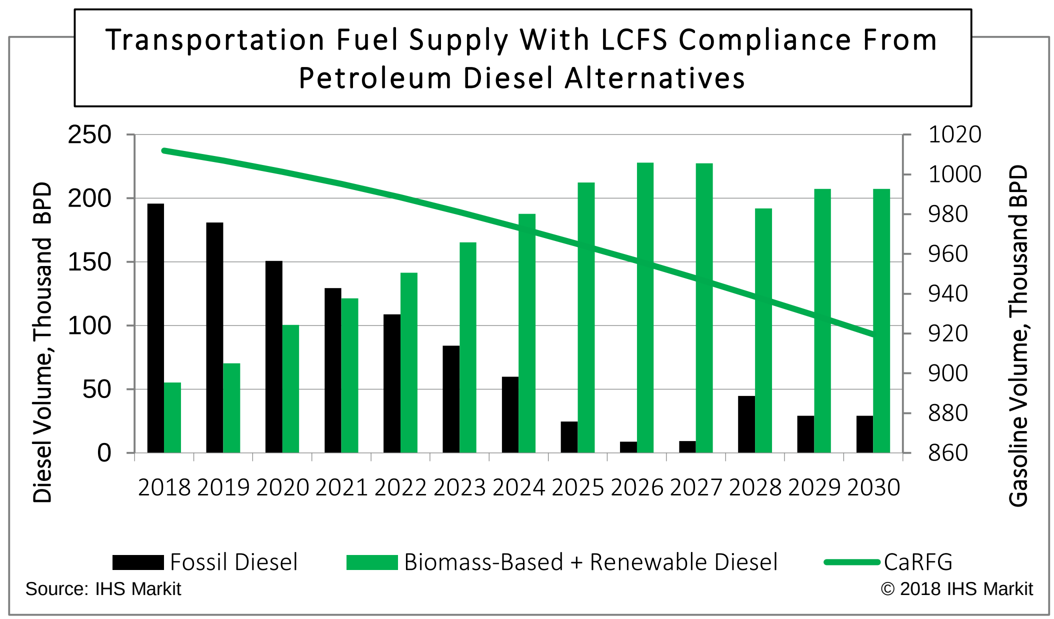


West Coast Bio-Fuels

Aggressive West Coast Carbon Emissions Reduction Goals Continue to Generate Growing Demand and Market Dislocations That Require Midstream Solutions



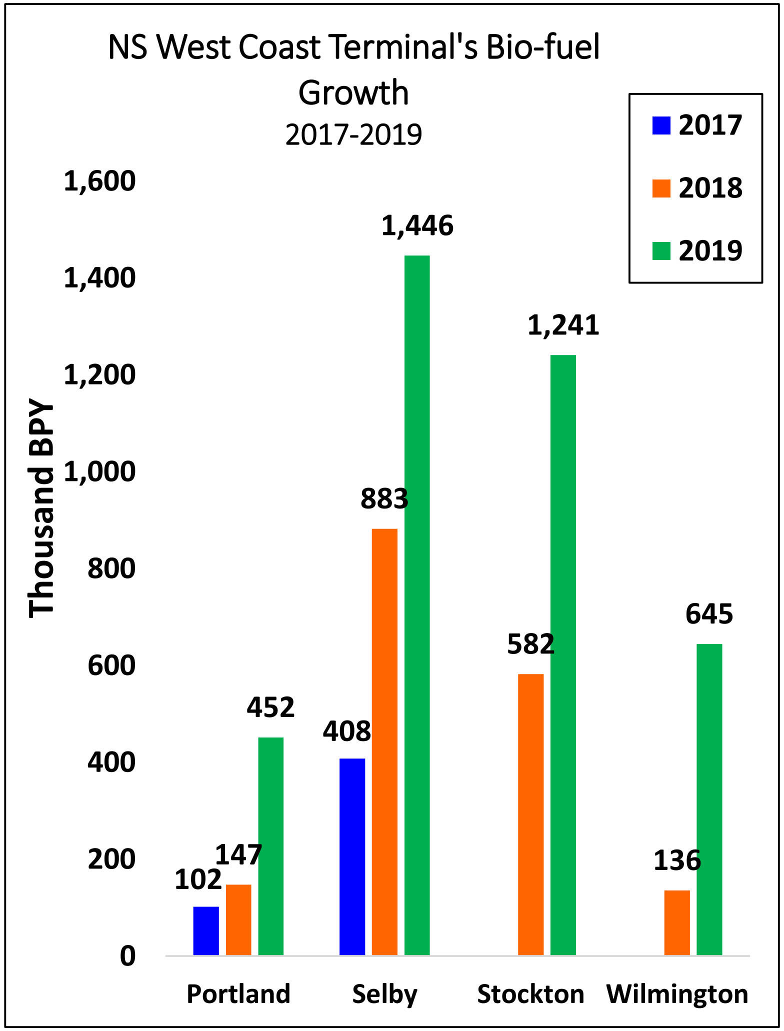
- ★ Regulatory priorities on the West Coast are dramatically increasing demand for bio-fuels in the region
- ★ At the same time, obtaining permits for greenfield projects in the region is difficult, which increases the value of existing assets
- ★ Our terminal facilities have the access to facilities necessary to receive bio-fuels from outside the region and to provide a base for distribution of bio-fuel products across the West Coast



NuStar is Partnering With Key Customers to Develop Necessary Bio-Fuels Storage at Several of Our West Coast Facilities

★ We have developed and completed a number of bio-fuels projects with our customers on the West Coast that have allowed NuStar to capture market share and build important customer relationships with key global producers

		Complete
Portland	Convert 36,000 Bbls to **biodiesel**	✓
	Convert 57,000 Bbls to **renewable diesel**	✓
Selby	Construct truck-loading for **renewable diesel**	✓
Stockton	Convert 30,000 Bbls to **biodiesel**	✓
	Convert 73,000 Bbls to **renewable diesel** and expand **renewable diesel** handling to all 15 rail spots	4Q '20
	Convert 151,000 Bbls to **renewable diesel**	1Q '21
	Connect to railcar **ethanol** offload facility	1Q '21
Wilmington	Convert 160,000 Bbls to **renewable diesel**	✓
	Reconfigure dock for enhanced marine capability	2Q '23



NuStar’s Corporate Citizenship

At NuStar, We Have Always Believed That Nurturing Our Caring & Sharing Culture is Integral to Building Unitholder Value

- We recognize that building long-term, steady, solid growth for our unitholders takes <u>more</u> than great capital assets in advantaged locations, financial discipline and strategic planning
- Our culture also strongly values the other key elements necessary for long-term growth:

Alignment

- Aligning our policies and practices with our unitholders' interests through transparent, responsive governance

Partnership

- Partnering with our communities to assure we take an active role in improving and contributing to the towns, counties and states where we live and work

Protection

- Protecting our employees through our top-tier safety practices and competitive compensation and benefits and protecting the environment with responsible, conscientious operations and training

Our Governance is Aligned With Our Unitholders' Interest

No IDRs

Annual Unitholder Meetings

NS Board of Directors

98% Attendance for 2019 Board & Committee Meetings

78% Independent Directors

11% Women

Audit Committee

Nominating, Governance & Conflicts Committee

Compensation Committee

NS Management

Majority of Officers' Compensation Tied to Performance and Unit Returns

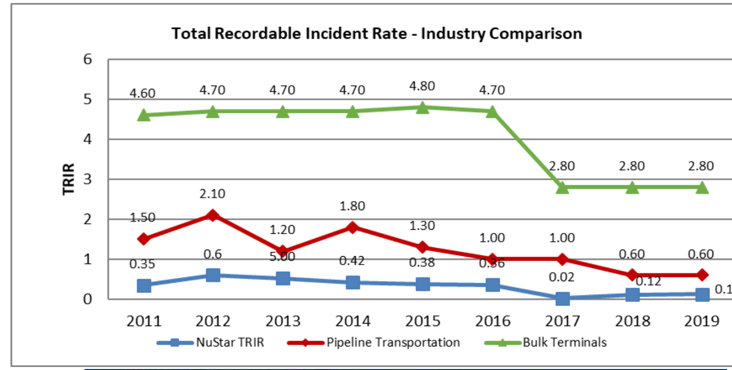
Sustainability Committee

Governance, Ethics & Compliance Committee

Cyber Risk Governance Committee

Protecting Our People and Our Environment Through Safe, Responsible Operations is NuStar's #1 Priority…

- Our safety statistics reflect our commitment to safe, responsible operations
  - In 2019, as in years past, we performed substantially better than our peers
    - ✓ 21.5 times better than the Bureau of Labor Statistics (BLS) comparison data for the Bulk Terminals Industry
    - ✓ 4.6 times better than the BLS data for the Pipeline Transportation Industry
- NuStar has received the International Liquids Terminals Association's (ILTA) Safety Excellence Award 10 times
  - ILTA reviews its members' safety reports filed with OSHA, and recognizes member companies that achieve exemplary safety statistics with an award
- We participate in the OSHA Voluntary Protection Program (VPP), which promotes effective worksite safety and health
  - Achieving VPP *Star Status r*equires rigorous OSHA review and audit, and *Star Status* requires renewal every three years
  - 85% of our U.S. terminals are VPP-certified



1 – Industry averages derived from 2011-2018 Bureau of Labor Statistics (BLS) Data. 2018 averages carried forward to 2019 for illustration purposes.

… And We Continue to Prioritize Taking Care of Our Employees and Contributing to Our Communities

FORTUNE 100 BEST COMPANIES TO WORK FOR 2020

2019 People COMPANIES THAT CARE

Ranked #13!

Best Workplaces for Millennials — Great Place To Work. USA 2019

Ranked #60!

Best Workplaces in Texas — Great Place To Work. USA 2019

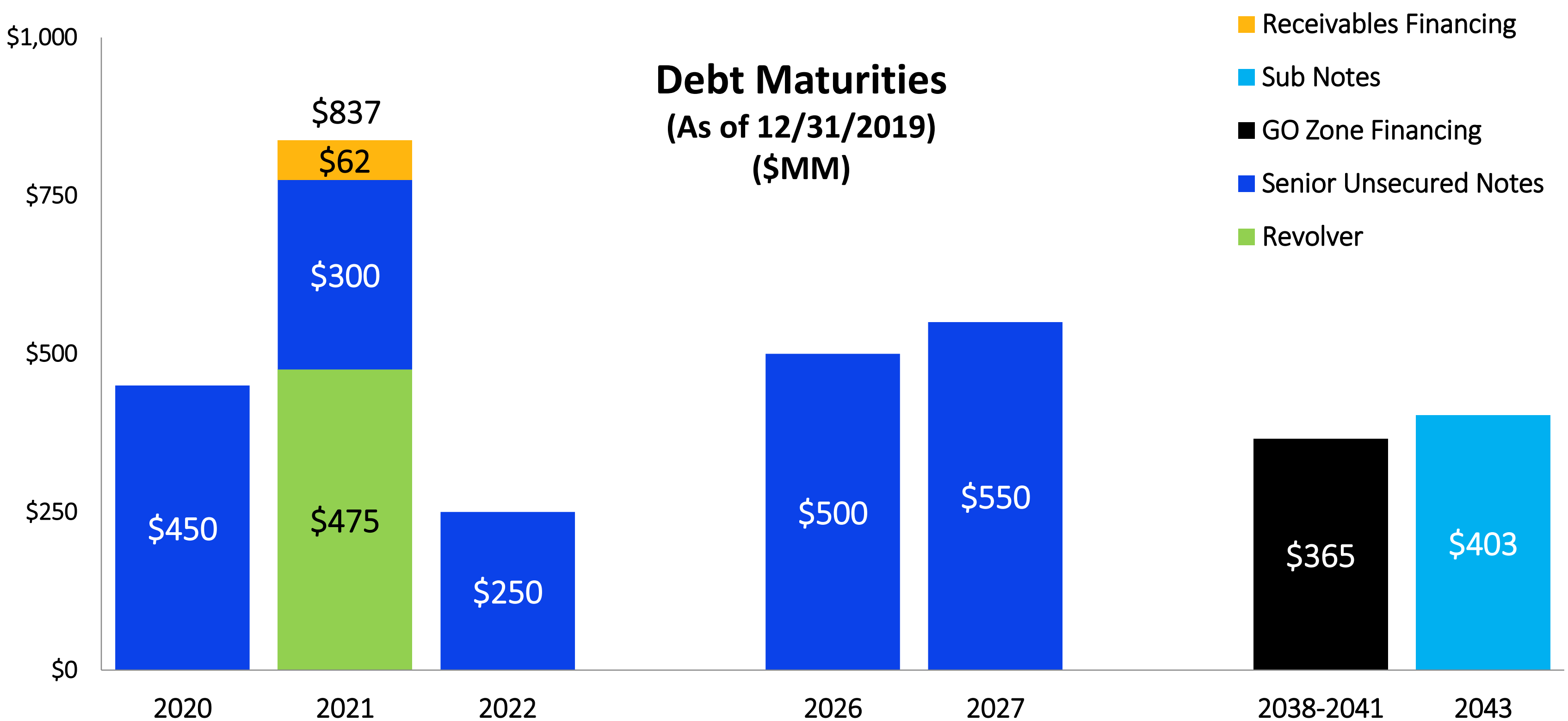
Ranked #34!

- **NuStar has been recognized for its strong corporate culture with numerous awards**
  - NuStar has been recognized 11 times in Fortune's Annual "100 Best Companies to Work For" list
- **NuStar employees contributed 83,000 volunteer hours in 2019 alone**
  - NuStar maintains local volunteer councils in each community in which we operate to contribute to the charitable and civic causes unique to that local community
- **100% of our U.S. employees contribute to our United Way campaign, and our average per capita contribution is the highest in the nation for a company our size**
  - NuStar's total 2019 contribution was $3.2 million
- **Each year since 2007, NuStar's employees have hosted a golf tournament to support Haven for Hope, a transformational campus in San Antonio that addresses homelessness**
  - The tournament has generated an aggregate of over $42 million for Haven for Hope

APPENDIX

Debt Maturity Schedule

★ We have applied ~$500MM proceeds from recent dispositions to our revolver balance, which has allowed us to reduce leverage and redeploy capital to invest in low-multiple projects



★ In May 2019, we issued $500MM 6.0% senior unsecured notes that mature in June 2026 – we used a portion of the proceeds to refinance $350MM 7.65% senior unsecured notes that matured in April 2018

★ In September 2019, we extended our revolver maturity date by one year to October 2021

Capital Structure as of December 31, 2019
($ in Millions)

$1.2B Credit Facility	$475
NuStar Logistics Notes (4.80%)	450
NuStar Logistics Notes (4.75%)	250
NuStar Logistics Notes (5.625%)	550
NuStar Logistics Notes (6.00%)	500
NuStar Logistics Notes (6.75%)	300
NuStar Logistics Sub Notes	403
GO Zone Bonds	365
Receivables Financing	62
Finance Lease Liability	60
Short-term Debt & Other	(18)
Total Debt	**$3,397**

Series D Preferred Units	$582
Series A, B and C Preferred Units	$756
Common Equity and AOCI	1,020
Total Equity[1]	**2,358**
Total Capitalization	**$5,755**

- **As of December 31, 2019:**
  - Credit facility availability ~$720MM
  - Debt-to-EBITDA ratio[2] 3.88x

1 - Total Equity includes Partners' Equity and Mezzanine Equity (Series D Preferred Units)

2 - Please see Appendix for reconciliations of non-GAAP financial measures to their most directly comparable GAAP measures

Reconciliation of Non-GAAP Financial Information

NuStar Energy L.P. utilizes financial measures, such as earnings before interest, taxes, depreciation and amortization (EBITDA), distributable cash flow (DCF) and distribution coverage ratio, which are not defined in U.S. generally accepted accounting principles (GAAP). Management believes these financial measures provide useful information to investors and other external users of our financial information because (i) they provide additional information about the operating performance of the partnership's assets and the cash the business is generating, (ii) investors and other external users of our financial statements benefit from having access to the same financial measures being utilized by management and our board of directors when making financial, operational, compensation and planning decisions and (iii) they highlight the impact of significant transactions. We may also adjust these measures or calculate them based on continuing operations, to enhance the comparability of our performance across periods.

Our board of directors and management use EBITDA and/or DCF when assessing the following: (i) the performance of our assets, (ii) the viability of potential projects, (iii) our ability to fund distributions, (iv) our ability to fund capital expenditures and (v) our ability to service debt. In addition, our board of directors uses EBITDA, DCF and a distribution coverage ratio, which is calculated based on DCF, as some of the factors in its compensation determinations. DCF is a widely accepted financial indicator used by the master limited partnership (MLP) investment community to compare partnership performance. DCF is used by the MLP investment community, in part, because the value of a partnership unit is partially based on its yield, and its yield is based on the cash distributions a partnership can pay its unitholders.

None of these financial measures are presented as an alternative to net income, or for any periods presented reflecting discontinued operations, income from continuing operations. They should not be considered in isolation or as substitutes for a measure of performance prepared in accordance with GAAP.

Reconciliation of Non-GAAP Financial Information (continued)

The following is the reconciliation for the calculation of our Consolidated Debt Coverage Ratio, as defined in our revolving credit agreement (the Revolving Credit Agreement) (in thousands of dollars, except ratio data):

	Year Ended December 31,		Previous Guidance (e)	Revised Guidance (e)
	2019	2018	Projected for the Year Ended December 31, 2019	
Net (loss) income	$ (105,693)	$ 205,794	$ 185,000 - 210,000	$ (137,000 - 107,000)
Interest expense, net	183,038	186,237	195,000 - 205,000	182,000 - 188,000
Income tax expense	4,855	11,408	5,000 - 10,000	2,000 - 6,000
Depreciation and amortization expense	281,460	297,874	280,000 - 290,000	278,000 - 283,000
EBITDA	363,660	701,313	665,000 - 715,000	325,000 - 370,000
Other income (a)	(3,742)	(39,876)	—	—
Equity awards (b)	13,753	10,646	5,000 - 10,000	10,000 - 15,000
Pro forma effect of dispositions (c)	303,922	(20,458)	—	300,000 - 305,000
Material project adjustments and other items (d)	74,681	14,258	50,000 - 70,000	60,000 - 75,000
Consolidated EBITDA, as defined in the Revolving Credit Agreement	$ 752,274	$ 665,883	$ 720,000 - 795,000	$ 695,000 - 765,000
Total consolidated debt	$ 3,360,640	$ 3,143,240	$ 3,550,000 - 3,850,000	$ 3,250,000 - 3,535,000
NuStar Logistics' floating rate subordinated notes	(402,500)	(402,500)	(402,500)	(402,500)
Proceeds held in escrow associated with the Gulf Opportunity Zone Revenue Bonds	(41,476)	(41,476)	(41,500)	(41,500)
Consolidated Debt, as defined in the Revolving Credit Agreement	$ 2,916,664	$ 2,699,264	$ 3,106,000 - 3,406,000	$ 2,806,000 - 3,091,000
Consolidated Debt Coverage Ratio (Consolidated Debt to Consolidated EBITDA)	3.88x	4.05x	4.3x	4.0x

(a) Other income is excluded for purposes of calculating Consolidated EBITDA, as defined in the Revolving Credit Agreement.

(b) This adjustment represents the non-cash expense related to the vestings of equity-based awards with the issuance of our common units.

(c) This adjustment represents the pro forma effects of dispositions, as if we had completed the sale of the St. Eustatius operations on January 1, 2019 and the sale of the European operations on January 1, 2018.

(d) This adjustment represents a percentage of the projected Consolidated EBITDA attributable to any Material Project and other noncash items, as defined in the Revolving Credit Agreement.

(e) Previous guidance was provided prior to impairment losses associated with long-lived assets and goodwill at the St. Eustatius terminal. Revised guidance was provided in November 2019.

Reconciliation of Non-GAAP Financial Information (continued)

The following is a reconciliation of income from continuing operations to EBITDA from continuing operations, DCF from continuing operations and distribution coverage ratio from continuing operations (in thousands of dollars, except ratio data):

	Year Ended December 31,	
	2019	2018
Income from continuing operations	$ 206,834	$ 146,375
Interest expense, net	183,070	184,398
Income tax expense	4,754	10,157
Depreciation and amortization expense	272,924	255,892
EBITDA from continuing operations	667,582	596,822
Interest expense, net	(183,070)	(184,398)
Reliability capital expenditures	(43,598)	(26,986)
Income tax expense	(4,754)	(10,157)
Long-term incentive equity awards (a)	11,389	8,650
Preferred unit distributions	(121,693)	(92,540)
Other items	19,422	13,425
DCF from continuing operations	$ 345,278	$ 304,816
Less DCF from continuing operations available to general partner	—	1,141
DCF from continuing operations available to common limited partners	$ 345,278	$ 303,675
Distributions applicable to common limited partners	$ 259,136	$ 248,705
Distribution coverage ratio from continuing operations (b)	1.33x	1.22x

(a) We intend to satisfy the vestings of these equity-based awards with the issuance of our common units. As such, the expenses related to these awards are considered non-cash and added back to DCF. Certain awards include distribution equivalent rights (DERs). Payments made in connection with DERs are deducted from DCF.

(b) Distribution coverage ratio is calculated by dividing DCF available to common limited partners by distributions applicable to common limited partners.

Reconciliation of Non-GAAP Financial Information (continued)

The following is a reconciliation of net (loss) income to EBITDA, DCF and distribution coverage ratio; therefore, the reconciling items include activity from continuing and discontinued operations on a combined basis (in thousands of dollars, except ratio data):

	Previous Guidance (e)		Revised Guidance (e)		Projected for the Year Ended December 31, 2020	
	Projected for the Year Ended December 31, 2019					
Net (loss) income	$	(143,000 - 118,000)	$	(137,000 - 107,000)	$	233,000 - 258,000
Interest expense, net		195,000 - 205,000		182,000 - 188,000		190,000 - 200,000
Income tax expense		5,000 - 10,000		2,000 - 6,000		2,000 - 7,000
Depreciation and amortization expense		280,000 - 290,000		278,000 - 283,000		290,000 - 300,000
EBITDA		337,000 - 387,000		325,000 - 370,000		715,000 - 765,000
Interest expense, net		(195,000) - (205,000)		(182,000 - 188,000)		(190,000 - 200,000)
Reliability capital expenditures		(70,000) - (90,000)		(65,000 - 75,000)		(40,000 - 50,000)
Income tax expense		(5,000) - (10,000)		(2,000 - 6,000)		(2,000 - 7,000)
Long-term incentive equity awards (a)		5,000 - 10,000		5,000 - 15,000		5,000 - 10,000
Preferred unit distributions		(120,000) - (125,000)		(120,000 - 125,000)		(120,000 - 125,000)
Insurance gain adjustment (b)		25,000 - 35,000		18,000		—
Impairment losses and loss on sale (c)		328,000		340,000 - 345,000		—
Other items		—		10,000 - 15,000		10,000 - 20,000
DCF available to common limited partners	$	305,000 - 330,000	$	329,000 - 369,000	$	378,000 - 413,000
Distributions applicable to common limited partners	$	255,000 - 260,000	$	255,000 - 260,000	$	260,000 - 265,000
Distribution coverage ratio (d)		1.2x - 1.3x		1.3x - 1.4x		1.4x - 1.6x

(a) We intend to satisfy the vestings of these equity-based awards with the issuance of our common units. As such, the expenses related to these awards are considered non-cash and added back to DCF. Certain awards include distribution equivalent rights (DERs). Payments made in connection with DERs are deducted from DCF.

(b) Each quarter we add an amount to DCF to offset the amount of reliability capital expenditures incurred related to hurricane damage at the St. Eustatius terminal.

(c) Represents non-cash impairment losses associated with long-lived assets and goodwill at the St. Eustatius terminal, as well as the loss on the sale of the St. Eustatius terminal in the third quarter of 2019.

(d) Distribution coverage ratio is calculated by dividing DCF available to common limited partners by distributions applicable to common limited partners.

(e) Previous guidance was provided in May 2019 and revised guidance was provided in November 2019.

Reconciliation of Non-GAAP Financial Information (continued)

The following is a reconciliation of operating income to EBITDA for the East Pipeline System (in thousands of dollars):

	Year Ended December 31,										
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Operating income	$ 28,367	$ 30,886	$ 31,399	$ 29,286	$ 36,684	$ 40,439	$ 38,418	$ 44,797	$ 50,323	$ 56,588	$ 54,988
Plus depreciation and amortization expense	16,491	17,085	17,368	17,701	18,030	18,765	19,047	20,135	21,008	22,308	23,349
EBITDA	$ 44,858	$ 47,971	$ 48,767	$ 46,987	$ 54,714	$ 59,204	$ 57,465	$ 64,932	$ 71,331	$ 78,896	$ 78,337

The following is a reconciliation of operating (loss) income to EBITDA for the Permian Crude System (in thousands of dollars):

	Three Months Ended										
	June 30, 2017	Sept. 30, 2017	Dec. 31, 2017	Mar. 31, 2018	June 30, 2018	Sept. 30, 2018	Dec. 31, 2018	Mar. 31, 2019	June 30, 2019	Sept. 30, 2019	Dec. 31, 2019
Operating (loss) income	$ (3,424)	$ 1,050	$ 650	$ (1,847)	$ 3,605	$ 11,546	$ 10,878	$ 5,358	$ 13,543	$ 17,280	$ 21,132
Plus depreciation and amortization expense	10,227	11,005	13,165	13,477	15,059	15,235	16,589	17,647	17,182	18,114	18,154
EBITDA	$ 6,803	$ 12,055	$ 13,815	$ 11,630	$ 18,664	$ 26,781	$ 27,467	$ 23,005	$ 30,725	$ 35,394	$ 39,286

The following is a reconciliation of operating income to EBITDA for our butane blending operations (in thousands of dollars):

	Year Ended December 31, 2019
Operating income	$ 13,658
Plus depreciation and amortization expense	—
EBITDA	$ 13,658