Vaquero Midstream

Kirk Blackim, Vice President of Business Development November 28, 2018



PERMIAN MIDSTREAM 2018

Takeaway Capacity & Infrastructure Congress

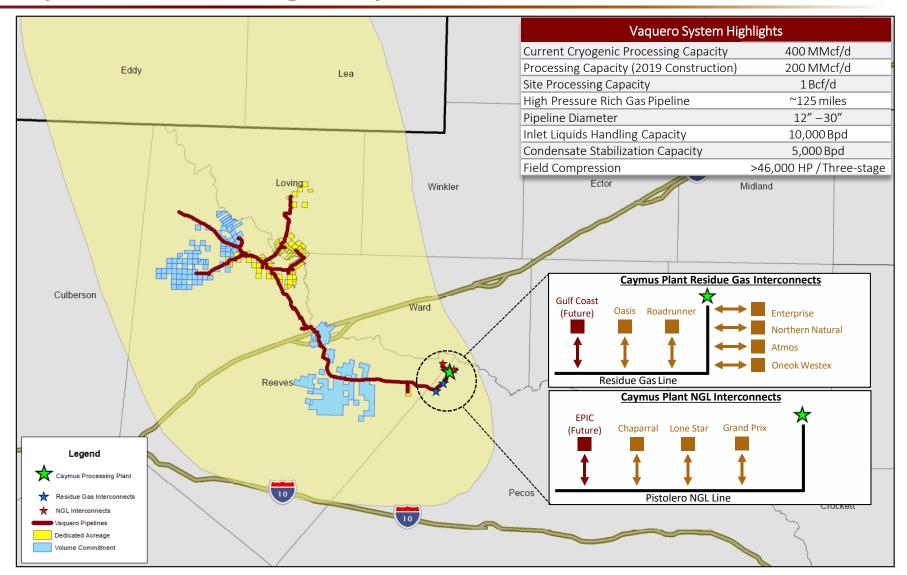


Disclaimer

Vaquero Midstream is a private company that provides independent midstream services for producers exclusively in the Delaware Basin. Many of the facts and figures in this presentation have been derived from numerous presentations, internal company information and other sources. As such, there may be discrepancies, mis-information and, in some cases, wishful thinking. Vaquero makes no representation as to the quality or validity of the information contained herein and as with all things in the Permian Basin, most information is obsolete by the time it is printed. Bottom line..... Use at your own risk.



Vaquero Is Strategically Located





Caymus Plants and Expansion Plans

Caymus I

- Construction completed August 2016
- Over 110 miles of 30", 24", 16" and 12" gathering lines
- Inlet liquids handling with 5,000 bpd (expanding to 15,000 in Q2 2019) condensate stabilization

Caymus II

Construction completed May 2018 and operational June 2018

Caymus III, IV and V

- 10,000 Bbl Inlet Stabilization Expansion under construction and scheduled for 2019 in-service
- 200 MMSCFD UOP Russell plant in inventory
- Orders placed for plant compression and stabilization
- 24" pipe on order for Lariat Loop
- Construction of Caymus III can begin in 2019



Expansion Capability

Expandable to 1 BCFD processing capacity at current 309-acre site



Vaquero Today

Financially Strong, Industry Leading Customers











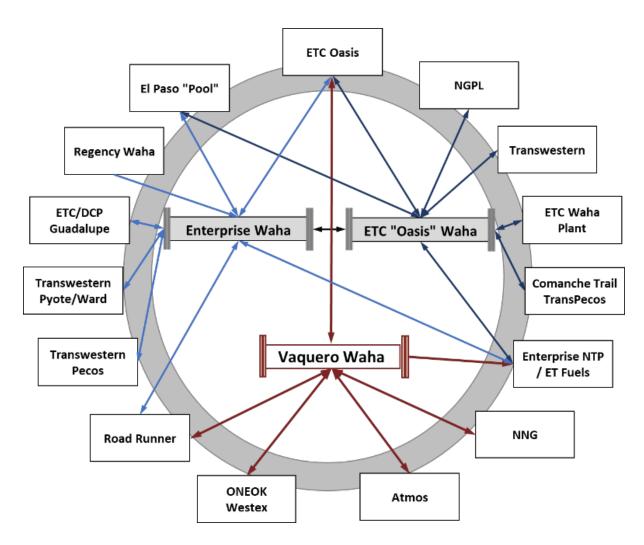




- * Current capacity of 400 MMcfd.
- * Volumes growing as customers continue to drill and complete wells.
- * 200 MMcfd Caymus III slated for startup in early 1Q20.



Residue Gas Takeaway "Hub" Comparison





Residue Gas and NGL Takeaway Capability

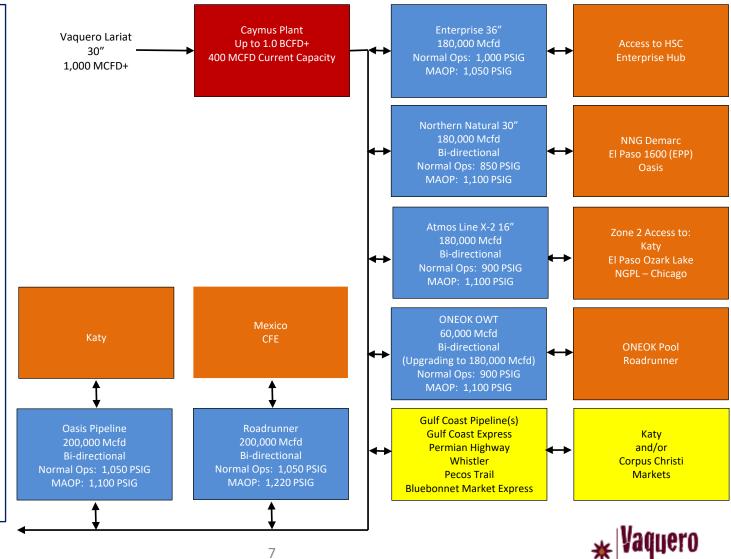
Vaquero Tailgate Connections

Residue Gas:

- 6 Physical interconnects for redundancy and reliability
 - * Enterprise
 - Northern Natural
 - * Atmos
 - * Oneok
 - * Roadrunner
 - * Oasis
 - Additional interconnections in negotiation
- * Access to Waha Hub, Gulf Coast, North Texas, California, Midwest and Mexico

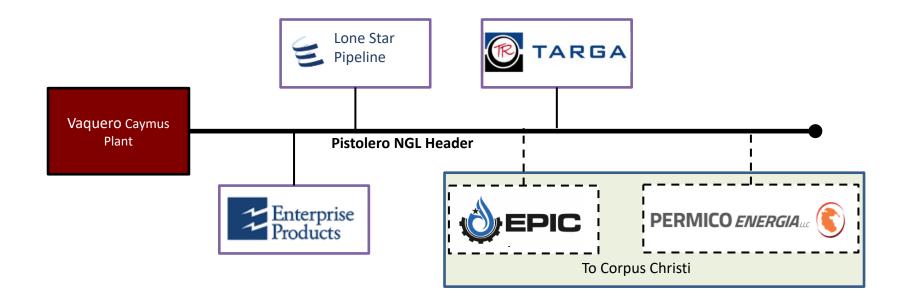
NGL Products:

- 3 Physical Interconnects delivering to Mont Belvieu
 - * Chaparral
 - * Lone Star
 - Grand Prix
- 2 Additional interconnections in negotiation with delivery to Corpus Christi



NGL Markets Beyond the Connecting Pipelines

- Diversified access to Mont Belvieu markets
- Expansion capacity to the emerging Corpus Christi markets





Updates on Pipeline & Infrastructure Projects

- Waha Residue Gas Take-away
- Natural Gas Liquids (NGLs) Takeaway & Fractionation



Waha – Residue Gas Take-away

- What is Waha
- Why Waha
- Waha Current and Future



What is Waha?

- Waha is A Highly Liquid Gas Marketing Hub
- Waha is 12 pipelines with over 10 Bcfd of physical capacity... to go somewhere
- Waha is an index price that is traded on the Intercontinental Exchange and published in Platts
- Waha is a description of the "marketing pools" on several pipelines to represent a geographic locale



Why Waha?

- Liquidity
- Reliability
- Flexibility
- Existing Capacity and Infrastructure
- Still Scalable



Current Waha Residue Gas Take-away

<u>Interstate</u>

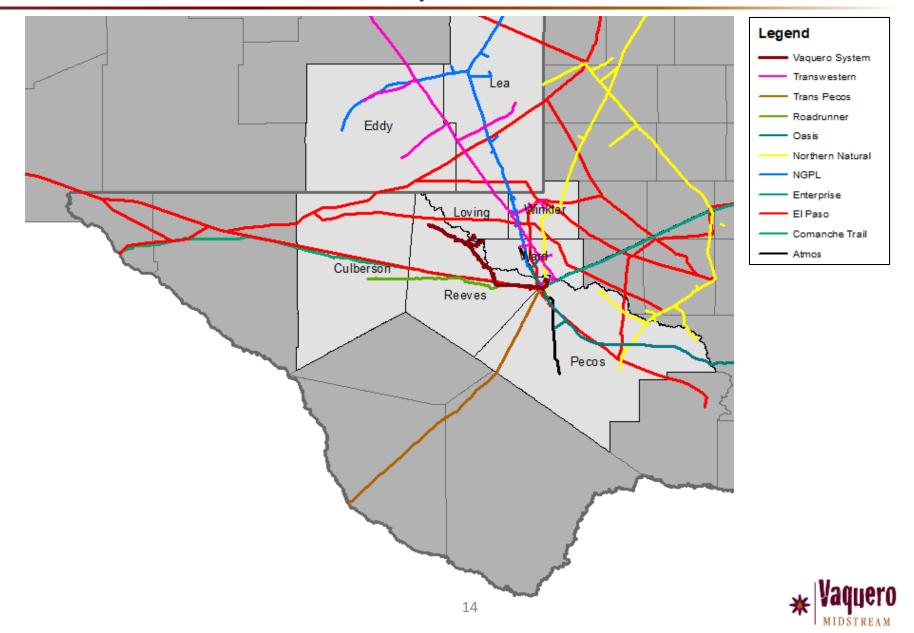
- El Paso
- Transwestern
- NGPL
- Northern Natural

Intrastate

- Oasis
- Enterprise
- Atmos
- ONEOK OWT
- Kinder Morgan Texas
- Road Runner
- Comanche Trail
- Trans Pecos



Current Waha Take-away



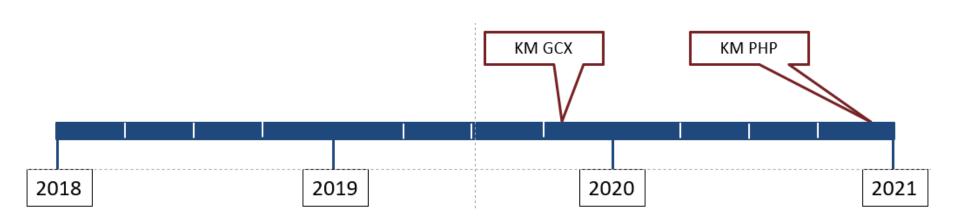
Future Residue Gas Take Away (Under Construction)

Kinder Morgan/DCP/Targa:

- Gulf Coast Express Pipeline:
 - Pipeline from Waha to Agua Dulce
 - 2 BCF/d capacity
 - In Service Q4 2019

Kinder Morgan/Eagle Claw:

- Permian Highway Pipeline:
 - Pipeline from Waha to Katy
 - 2 BCF/d capacity
 - In Service Q4 2020





Proposed Waha Take-away

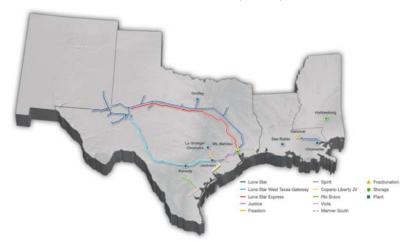
Intrastate

- Whistler Pipeline Targa/NextEra/WhiteWater (4Q2020)
- Pecos Trail NAmerico (2020?)
- Bluebonnet Market Express Williams (Late 2020)
- Permian Global Access Tellurian (2022)

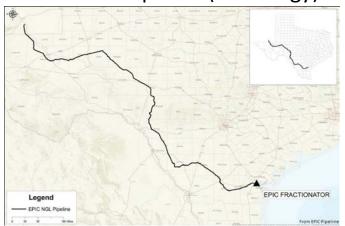


Permian Basin NGL Overview

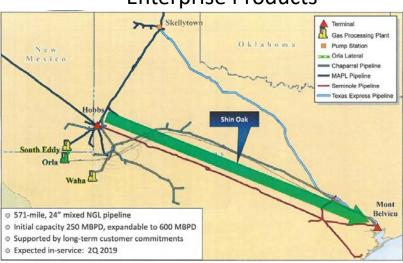
Lone Star (ETC)



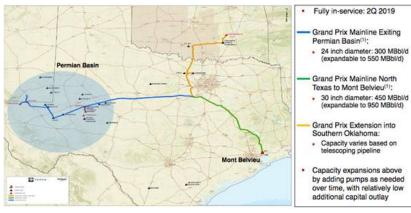
EPIC NGL Pipeline (BP Energy)



Enterprise Products



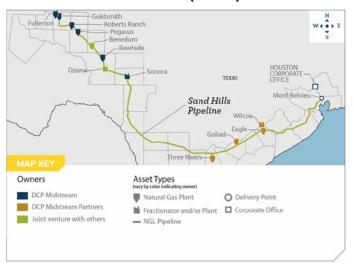
Grand Prix (Targa)





Permian Basin NGL Overview

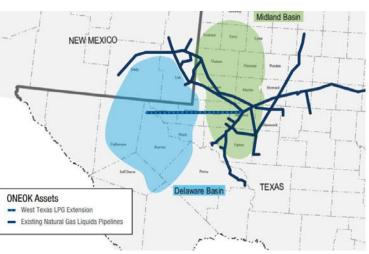
Sandhills (DCP)



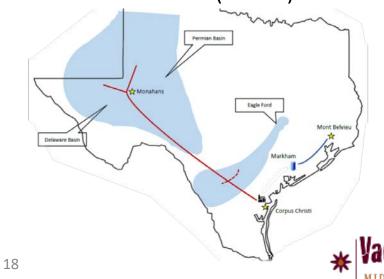
Phillips EZ Pipeline (Midland Basin)



ONEOK



Permico (Future)



NGL Take Away – Legacy and Under Construction

Energy Transfer (Lone Star):

- Mont Belvieu:
 - Fracs I through V in service
 - Frac VI expected in-service Q2 2019
 - Expected to build Frac VII for 800,000 bbl/d total capacity
- Orbit Ethane Export Terminal:
 - 800,000 bbl ethane storage
 - 175,000 bbl/d ethane export facility
 - YE 2020

Enterprise:

- Shin Oak Pipeline:
 - 24" from Permian to Mont Belvieu
 - 550,000 bbl/d capacity
 - Q2 2019
- Mont Belvieu:
 - Frac IX online Q2 2018
 - 770,000 bbl/d total Belvieu frac capacity
 - Frac X announced Q1 2020
 - 150,000 bbl/d capacity

Targa:

- Grand Prix Pipeline:
 - 30" from North Texas to Mont Belvieu:
 450,000 bbl/d expandable to 950,000 bbl/d
 - 24" from Permian to North Texas: 300,000 bbl/d expandable to 550,000 bbl/d
 - Q2 2019
- Mont Belvieu:
 - 100,000 bbl/d Train 6
 - Q1 2019
 - Permitting underway for expansion

EPIC:

- NGL Pipeline:
 - 24" from Permian to Corpus Christi
 - 450,000 bbl/d capacity
 - Q3 2019 however may be delayed until YE
 2019 to match frac in-service date
- Corpus Christi:
 - 100,000 bbl/d frac I online YE 2019
 - Second 100,000 bbl/d frac online mid 2020



NGL Take Away – Legacy and Under Construction

OneOk:

- West Texas LPG Pipeline:
 - 120 mile pipeline from Delaware Basin to Midland Basin
 - 110,000 bbl/d capacity
 - Q3 2018
- Mont Belvieu:
 - MB-4 frac online Q1 2020
 - 125,000 bbl/d capacity

CP Chem:

- Sweeny Hub:
 - Two 150,000 bbl/d fracs under construction



NGL Take Away – Proposed Market Hub

Permico Energia:

- Compañero Pipeline:
 - 510 mile pipeline from Delaware Basin to Corpus Christi
 - 300,000 bbl/d initial capacity, expandable to 450,000 bbl/d
 - Q4 2020
- El Centro Fractionator:
 - Two- 150,000 bbl/d fractionation trains
 - Expandable to third 150,000 bbl/d train
- Simpatico Product Distribution and Storage System:
 - Mont Belvieu Pipeline
 - Connects El Centro Fractionator to Mont Belvieu and accesses Markham Storage
 - Bi-directional 230 mile pipeline with 250,000 bbl/d capacity (Ethane & Propane)
 - Markham Pipeline
 - Connects El Centro Fractionator to Markham Storage
 - Bi-directional 116 mile pipeline with 175,000 bbl/d capacity (Ethane, Propane and Y-Grade NGL)
 - Markham Storage
 - Four (4) separate caverns
 - o 8 Million barrels storage



Final Thoughts

- Material improvement in gas take-away is coming in 2019 and 2020.
- Mexico market improvement would leverage existing residue capacity and provide needed near-term relief.
- Meaningful natural gas take-away is poised to come in late 2020, 2021 and/or 2022, IF the market supports it.
- NGL markets are responding but it is in smaller increments and spread across more service providers.
- The Permian Basin is the gift that keeps on giving and will likely support the further development of the projects not yet to FID.
- 2019 is still going to be a challenging year for both residue take-away and NGL transportation and fractionation.

