

EPNG / Mojave 2019-20 Winter Preparedness

Kinder Morgan Western Region Pipelines
October 31, 2019

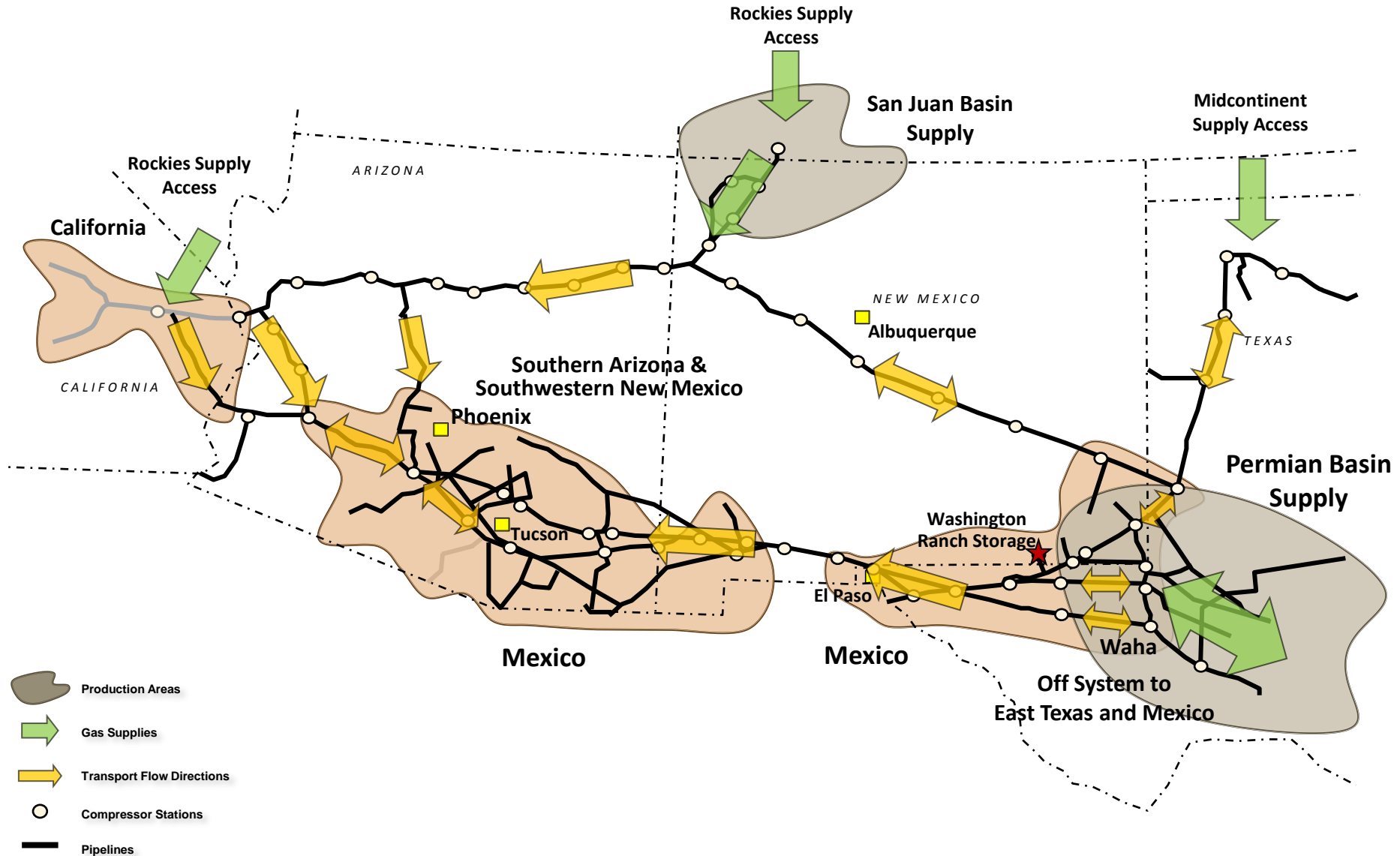
Agenda

- Operations Overview
- Emergency Communication
- Winter Preparedness Planning
- Maintenance Planning Process
- Remaining 2019 Planning Maintenance
- Gas Control Contacts

Operations Overview

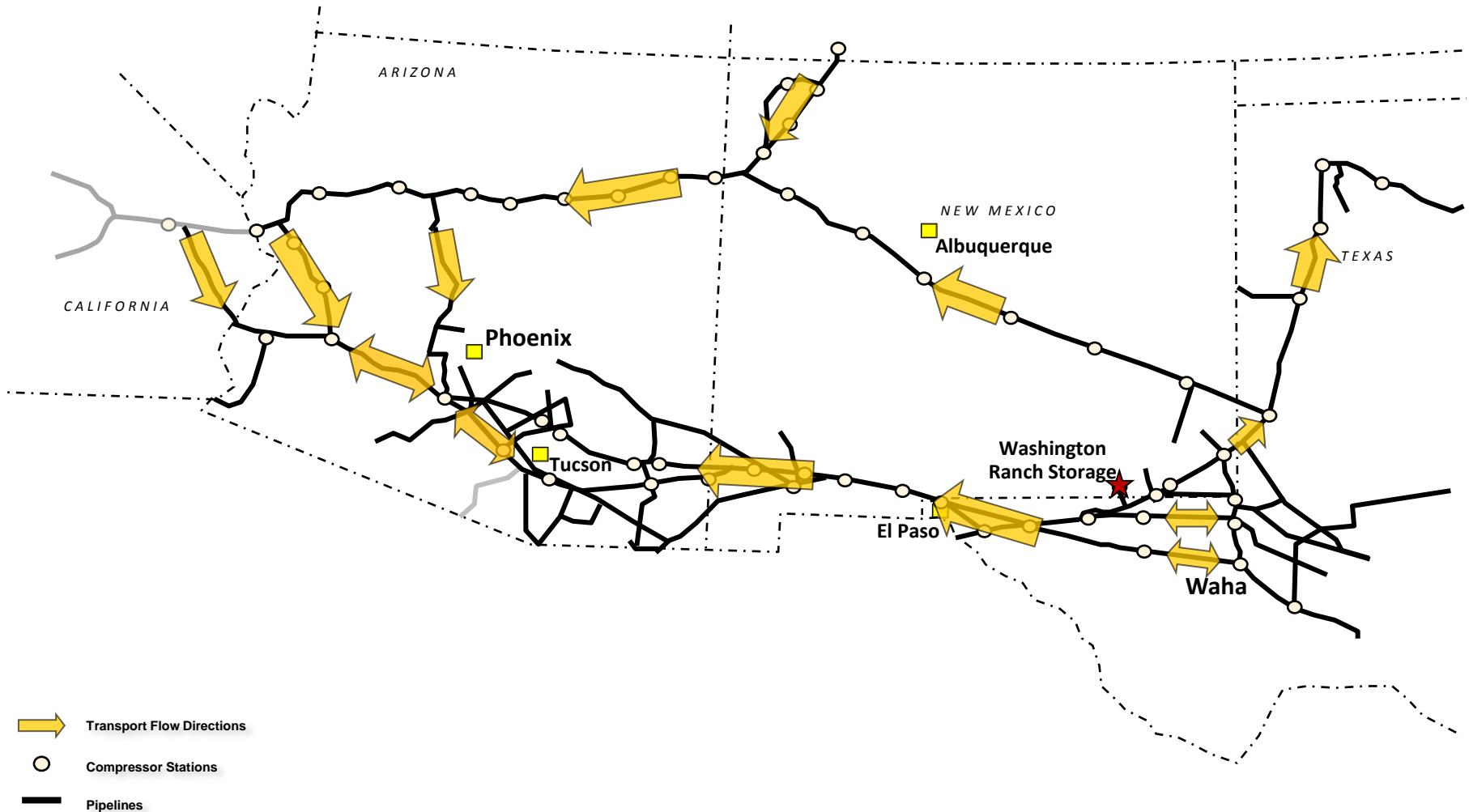
EPNG System Overview

Supply Locations and Flow Direction



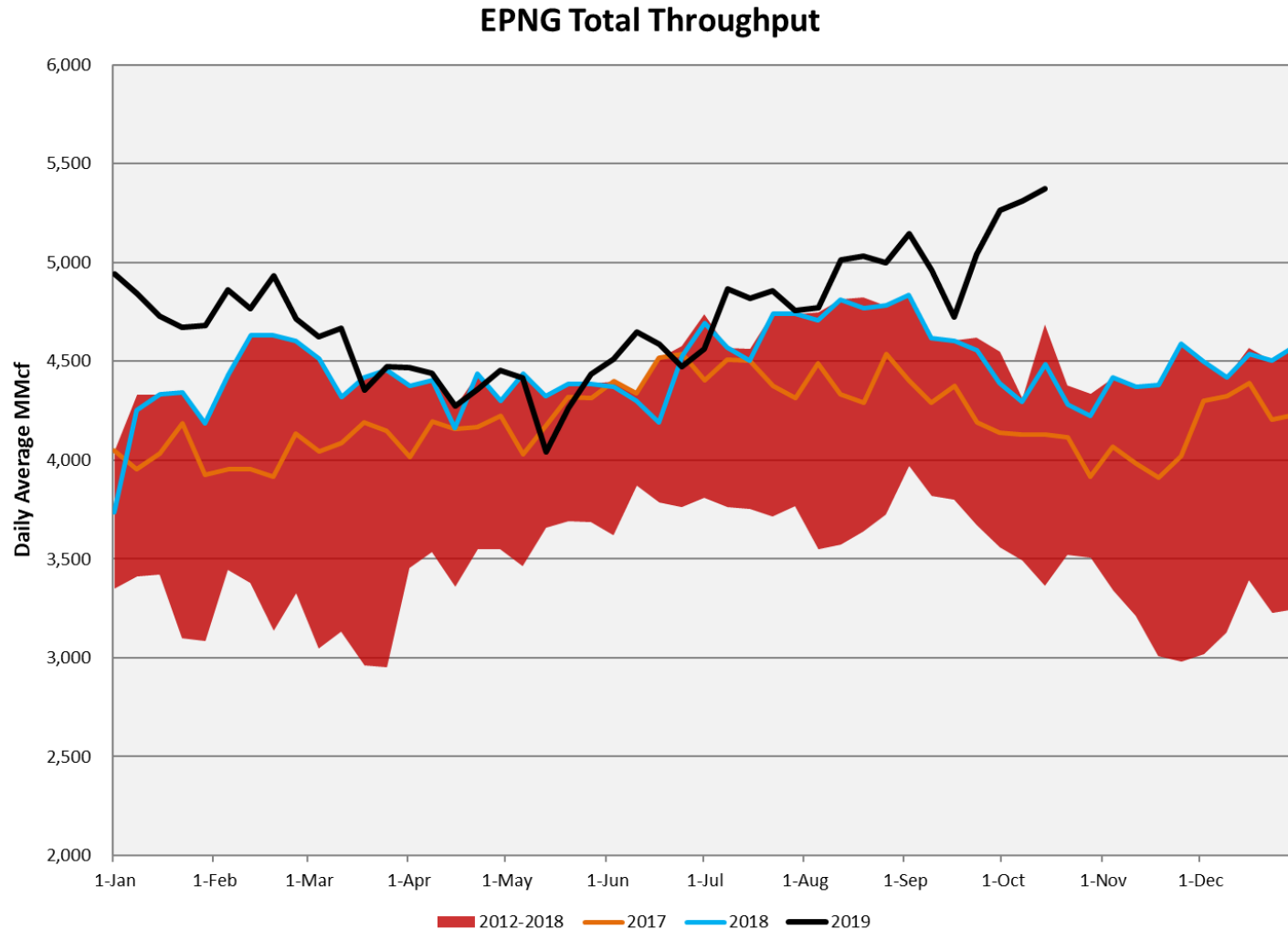
EPNG Operations

Current Flow Direction



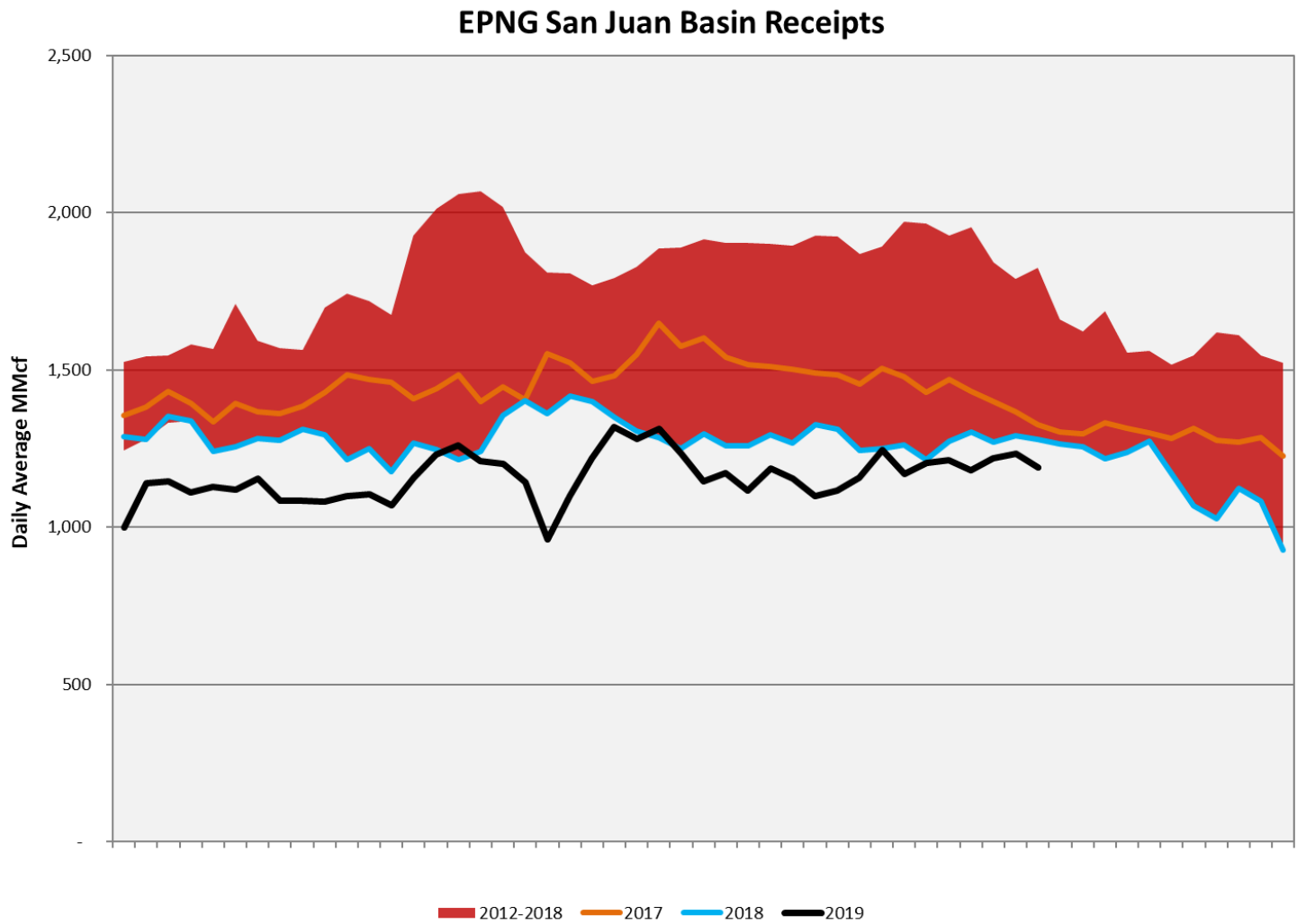
EPNG Total System

2012-2019 Throughput Trends (MMcf/d)



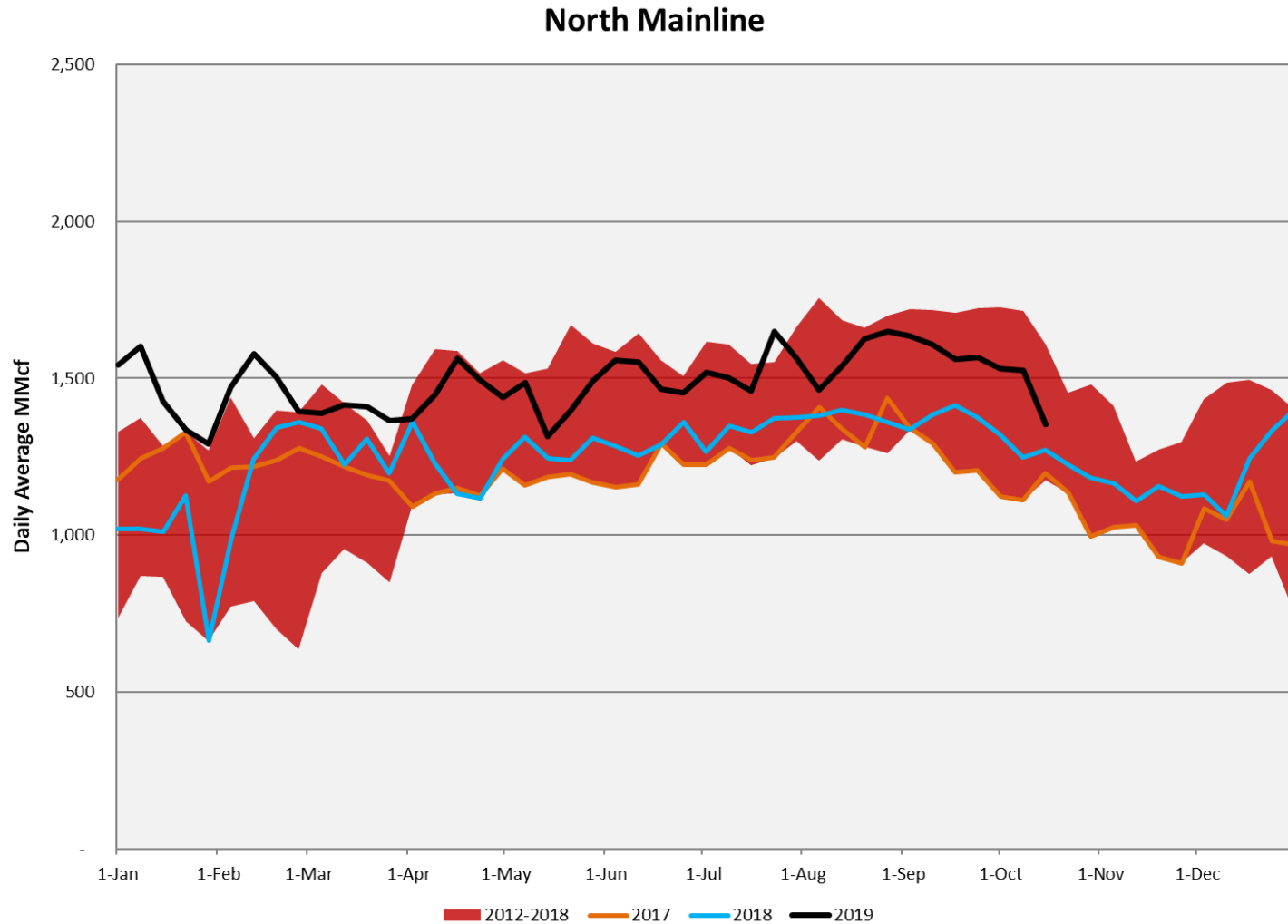
San Juan Basin

2012-2019 Throughput Trends (MMcf/d)



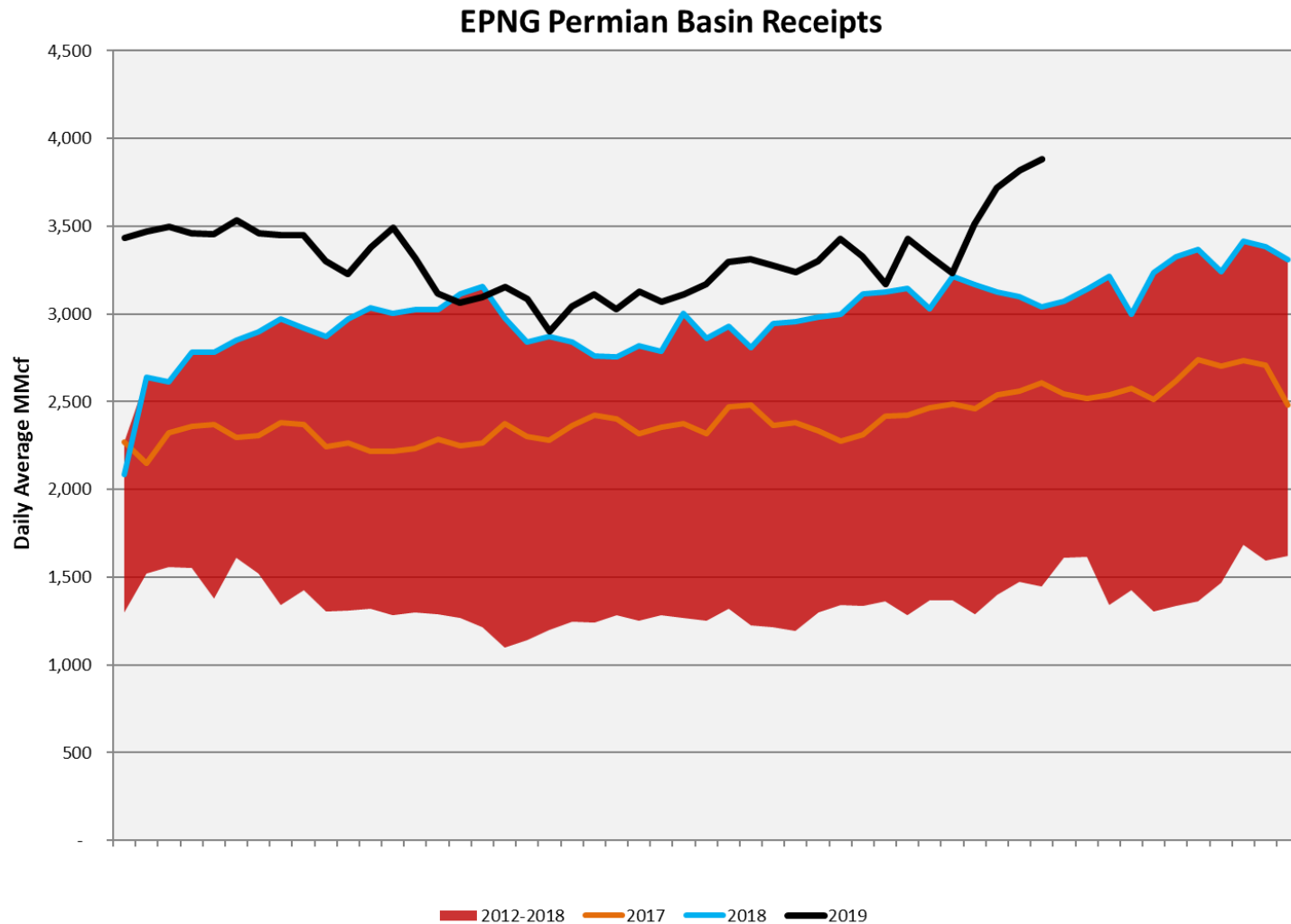
North Mainline

2012-2019 Throughput Trends (MMcf/d)



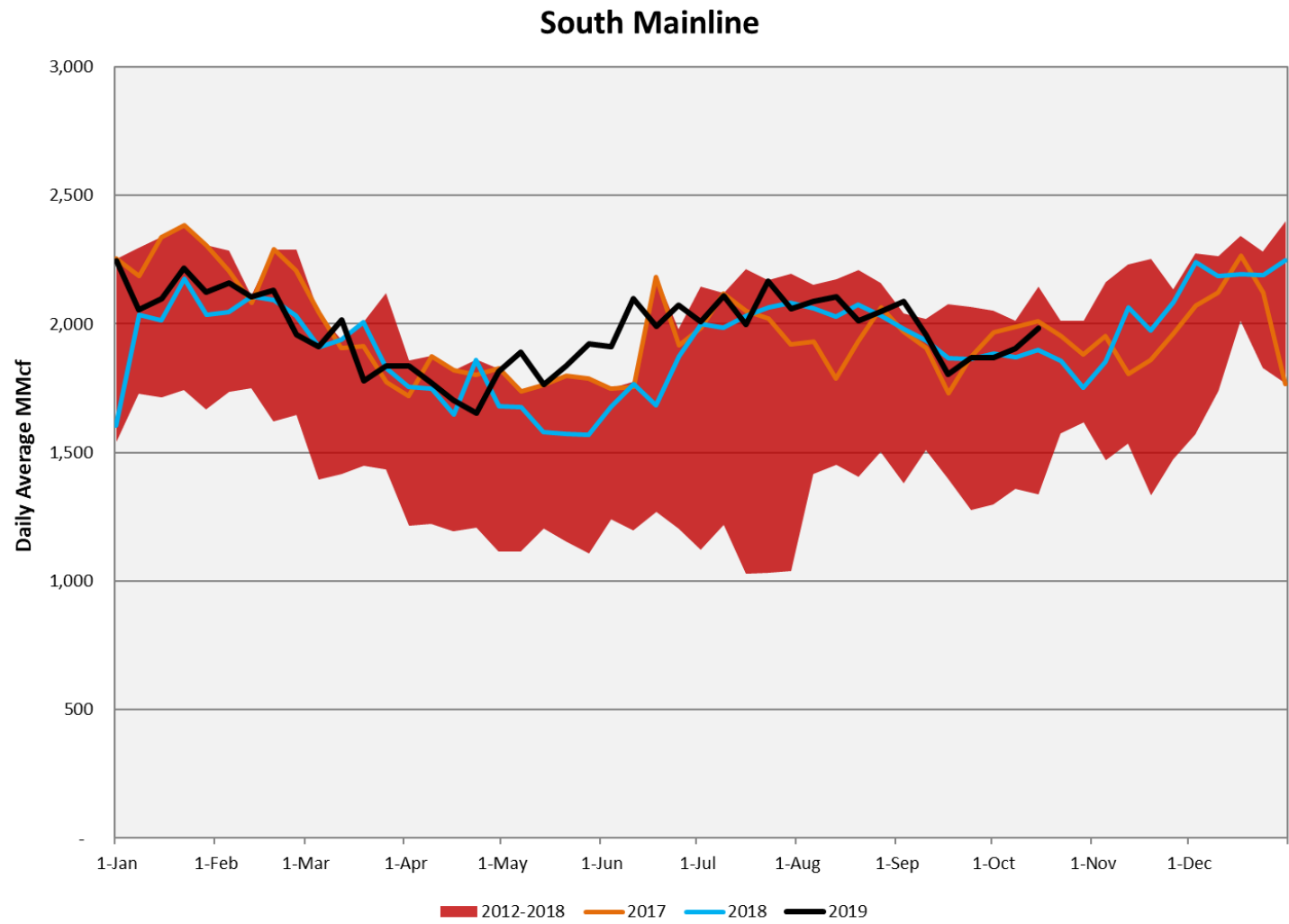
Permian Basin

2012-2019 Throughput Trends (MMcf/d)



South Mainline

2012-2019 Throughput Trends (MMcf/d)



Emergency Communications (COC Conditions)

- Shipper and Stakeholder Mass Communication
 - EBB Notices
 - Emails to shipper-maintained group email addresses
 - Telephone message sent by EPNG to emergency contacts
 - System Status Hotline (1-855-762-0100) parties can call for a recorded status of the system (updated as needed throughout an event)
- Standard critical notice to promote quicker action
- Banner on internet homepage to alert users to an emergency

Winter Preparedness Plans

● Staffing

- Gas Control is 24 x 7 x 365.
- Field technicians are on-site or on-call.

● Local Facility preparation (Begin about November 1st)

- Vehicle inspections – prepare vehicles for cold weather.
- Two-Way Radio functional tests
- Facility inspections with focus on weatherproofing.
 - Heat tracing, heat lamps, thermal blankets, etc.
- Snow Removal Equipment Inspection (Where applicable)
- Assessment of back-up power needs (existing stand-by generation and rental generators as deemed necessary).

Winter Preparedness Plans (Cont.)

● Communication and Coordination

- Customer-specific winter preparedness meetings or communications.
- Monitor Weather Forecast.
- Conference Calls between Gas Control and Operations to discuss preparations.
- Shipper and Stakeholder Mass Communication via EBB notices and text messages.
- Shipper-Specific Communications.

● Operational Response

- Multiple flow paths for supply to reach the market.
- Access to supply area storage: Washington Ranch, Keystone Gas Storage and Merchant Ranch Storage.
- EPNG has developed excellent working relationships with both affiliated and non-affiliated interconnecting pipelines which provide additional layers of contingency management in responding to emergency situations.

Maintenance Planning Process and Communication

Maintenance Planning Process

Annual Maintenance Planning Process

- July/August – Process Begins
 - Review of annually recurring maintenance
 - Development of Pipeline Integrity project list for the next year.
 - Development of additional O&M and project related maintenance outages for the next year.
- October
 - Gas Control preliminary review.
 - Project Planning Meeting with Project Engineering , Pipeline Engineering and Operations to review global schedule.
- November
 - Gas Control Review of Global Schedule .
 - Operations meetings/concalls to resolve scheduling conflicts.
 - Preliminary capacity impact analysis by System Design for larger outages.
 - Approval of Annual Plan.
- Communication to Customers
 - December 15 - Annual Plan for 1st Quarter posted to EBB.
 - Mid-March - Annual Plan updated for the remainder of the year posted to the EBB.

Maintenance Planning Process

Communication to Customers (continued)

● Monthly Maintenance

- Monthly schedule posted 9 business days before the following month.
- Updated as required prior to and during the month.

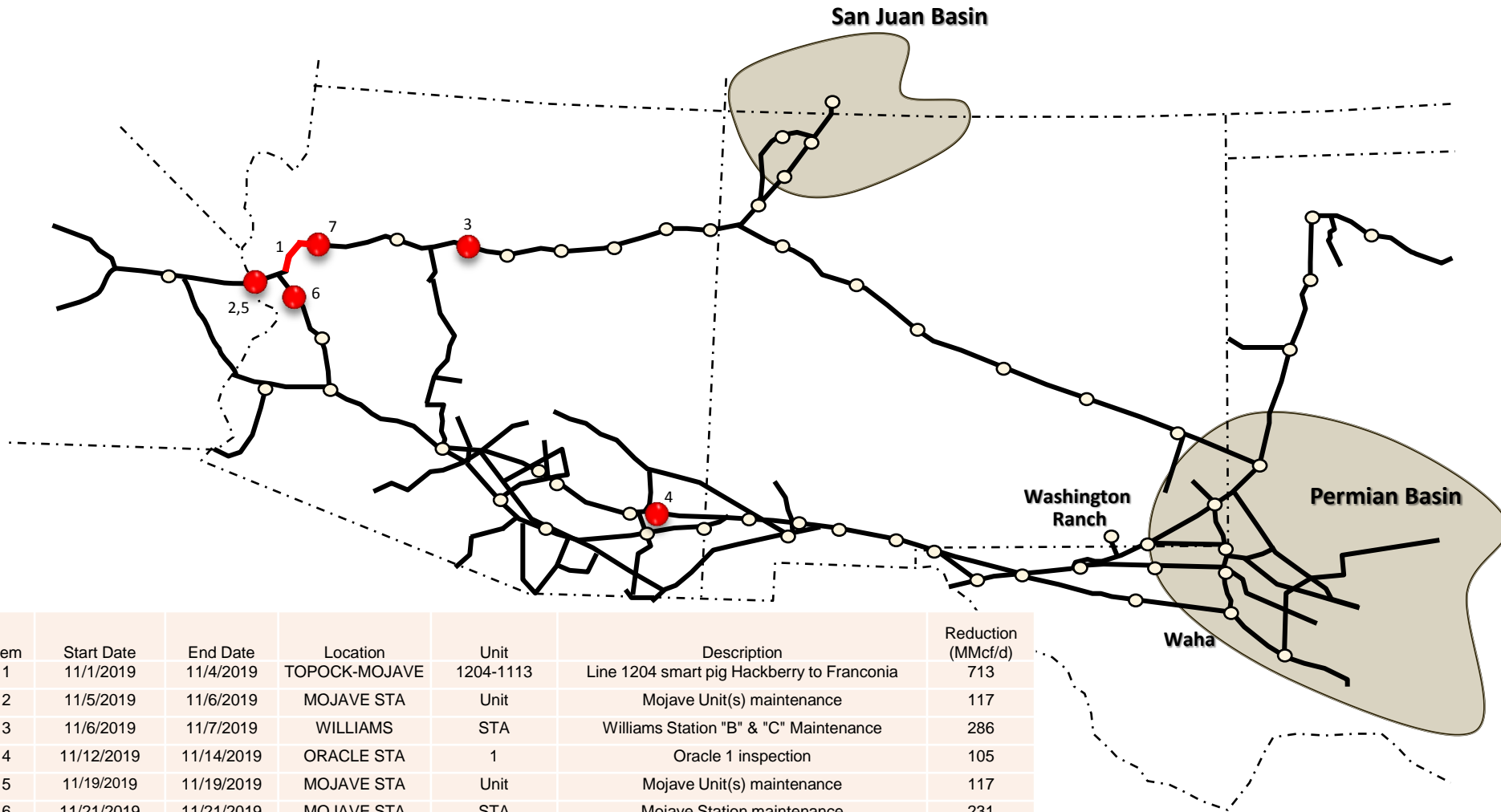
● EBB

- EPNG - <http://pipeportal.kindermorgan.com/PortalUI/DefaultB.aspx?TSP=EPNG>
- Mojave - <http://pipeportal.kindermorgan.com/PortalUI/DefaultB.aspx?TSP=MOPC>
- Sierrita - <http://pipeportal.kindermorgan.com/PortalUI/DefaultKM.aspx?TSP=SGP>

Planned Maintenance

Nov 2019 – Dec 2019

November - December Maintenance Highlights



Item	Start Date	End Date	Location	Unit	Description	Reduction (MMcf/d)
1	11/1/2019	11/4/2019	TOPOCK-MOJAVE	1204-1113	Line 1204 smart pig Hackberry to Franconia	713
2	11/5/2019	11/6/2019	MOJAVE STA	Unit	Mojave Unit(s) maintenance	117
3	11/6/2019	11/7/2019	WILLIAMS	STA	Williams Station "B" & "C" Maintenance	286
4	11/12/2019	11/14/2019	ORACLE STA	1	Oracle 1 inspection	105
5	11/19/2019	11/19/2019	MOJAVE STA	Unit	Mojave Unit(s) maintenance	117
6	11/21/2019	11/21/2019	MOJAVE STA	STA	Mojave Station maintenance	231
7	12/3/2019	12/4/2019	MOJAVE STA	Unit	Mojave Unit(s) maintenance	117
8	12/17/2019	12/18/2019	MOJAVE STA	Unit	Mojave Unit(s) maintenance	117
9	12/17/2019	12/17/2019	DUTCH FLATS STA	STA	Dutch Flats Station electrical inspection	142
10	12/18/2019	12/18/2019	HACKBERRY STA	STA	Hackberry Station electrical inspection	142

*Maintenance Reflects System Impacts >100 MMcf/d

Gas Control Contacts

Gas Control Contacts

- **Russ Pyeatt - Manager**
 - (719) 520-3729 (office)
 - (505) 320-4556 (cell)
 - russ_pyeatt@kindermorgan.com
- **Dan English - Lead Controller**
 - (719) 520-4722 (office)
 - (719) 659-3210 (cell)
 - dan_english@kindermorgan.com
- **Vic Villalva - Maintenance Planner**
 - (719) 520-4251 (office)
 - (719) 482-6914 (cell)
 - vic_villalva@kindermorgan.com