

NGPL Pipeline Operations Review

November 2024

Brian Merchant – Vice President, Gas Control

Ganesh Venkateshan – Director, Gas Control

Kenny Robbins – Manager, Gas Control

Agenda

- Introduction
- NGPL Gas Control Team
- System Overview
- Winter 2023/2024 Lookback
- Summer 2024 Review
- Storage Update
- Winter Readiness

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NGPL Gas Control Team

NGPL Gas Control Team

- NGPL Gas Control Director
 - Ganesh Venkateshan

- NGPL Gas Control Manager
 - Kenny Robbins

- Lead Controllers
 - Mark Krowski
 - Kyle Lumpkin

- Controllers
 - Juan Flores
 - Alex Rademacher
 - Chuck Ifezue
 - Kyle McDonald
 - Sean Pendleton
 - Colton Rustin
 - Paul Schroeder
 - Joshua Hanson
 - Edward Diggs

- Outage Coordinator
 - Michael Hilsher

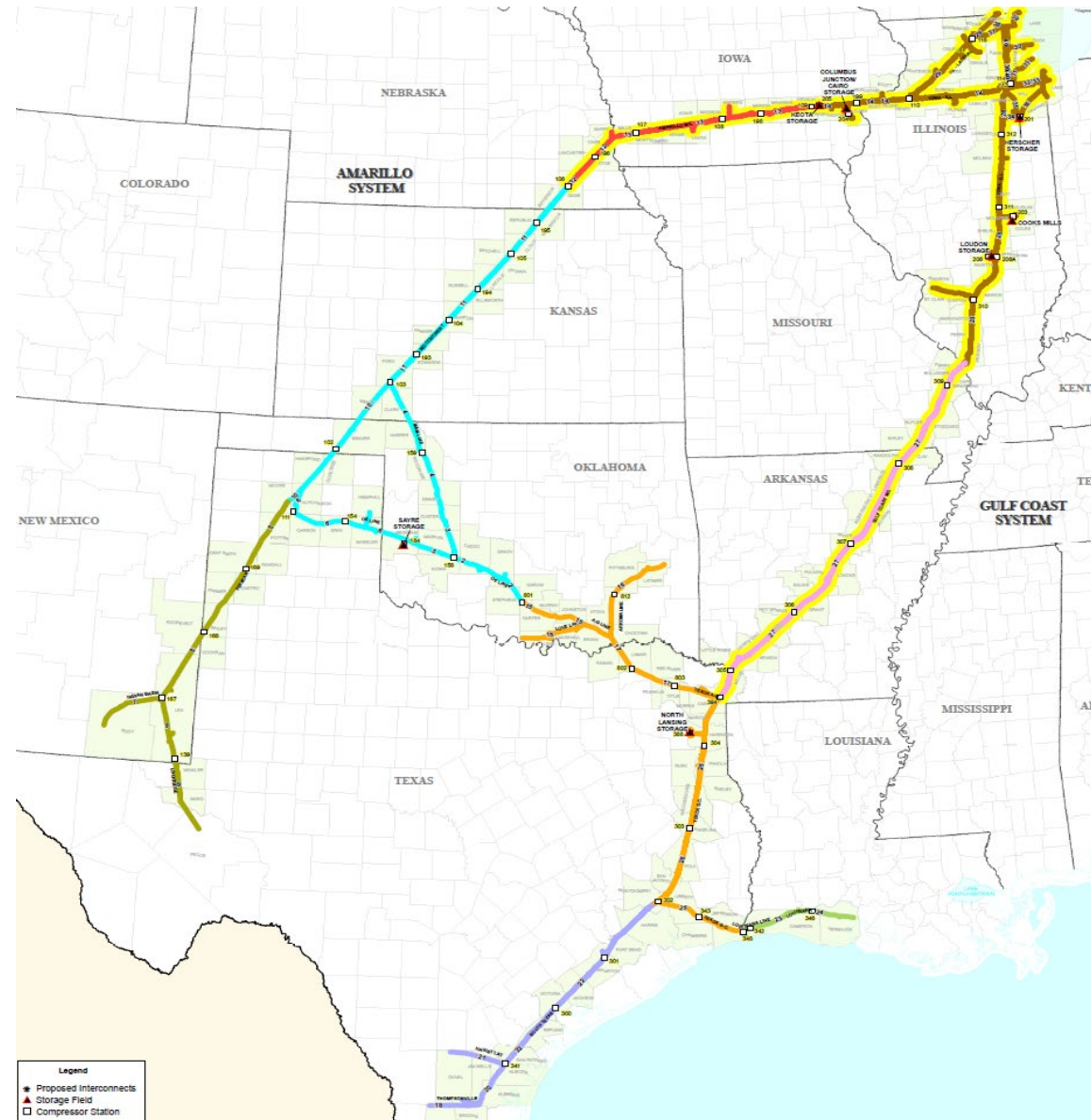
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System Overview

NGPL System Map

- Winter peak day market delivery 5.2 BCF
 - Storage working cap 288 BCF
 - Mainline line pack 12.3 BCF
- Approximate values*

- Flow meters 840
 - Miles of pipe 9,100
 - Total HP 1,053,000
 - Total compressor stations 53
 - Total storage fields 12
- Approximate values*



Annual Average Daily Deliveries – System-Wide

	<u>*2024</u>	<u>*2023</u>	<u>*2022</u>	<u>Change '24 vs '23</u>
LDC	1,914	2,100	1,977	-9%
LNG	1,555	1,410	1,483	10%
Interconnects	1,033	1,067	836	-3%
Power	475	410	302	16%
Industrial	65	65	57	-1%
TOTAL	5,042	5,053	4,655	0%

Volumes are MDth/d

*Jan 1 Through October 15th

Annual Average Daily Deliveries – Market Area

	<u>*2024</u>	<u>*2023</u>	<u>*2022</u>	<u>Change '24 vs '23</u>
LDC	1,896	2,076	1,972	-9%
Power	348	275	188	27%
Interconnects	98	77	70	27%
Industrial	51	51	43	0%
TOTAL	2,394	2,479	2,273	-3%

Volumes are MDth/d

*Jan 1 Through October 15th

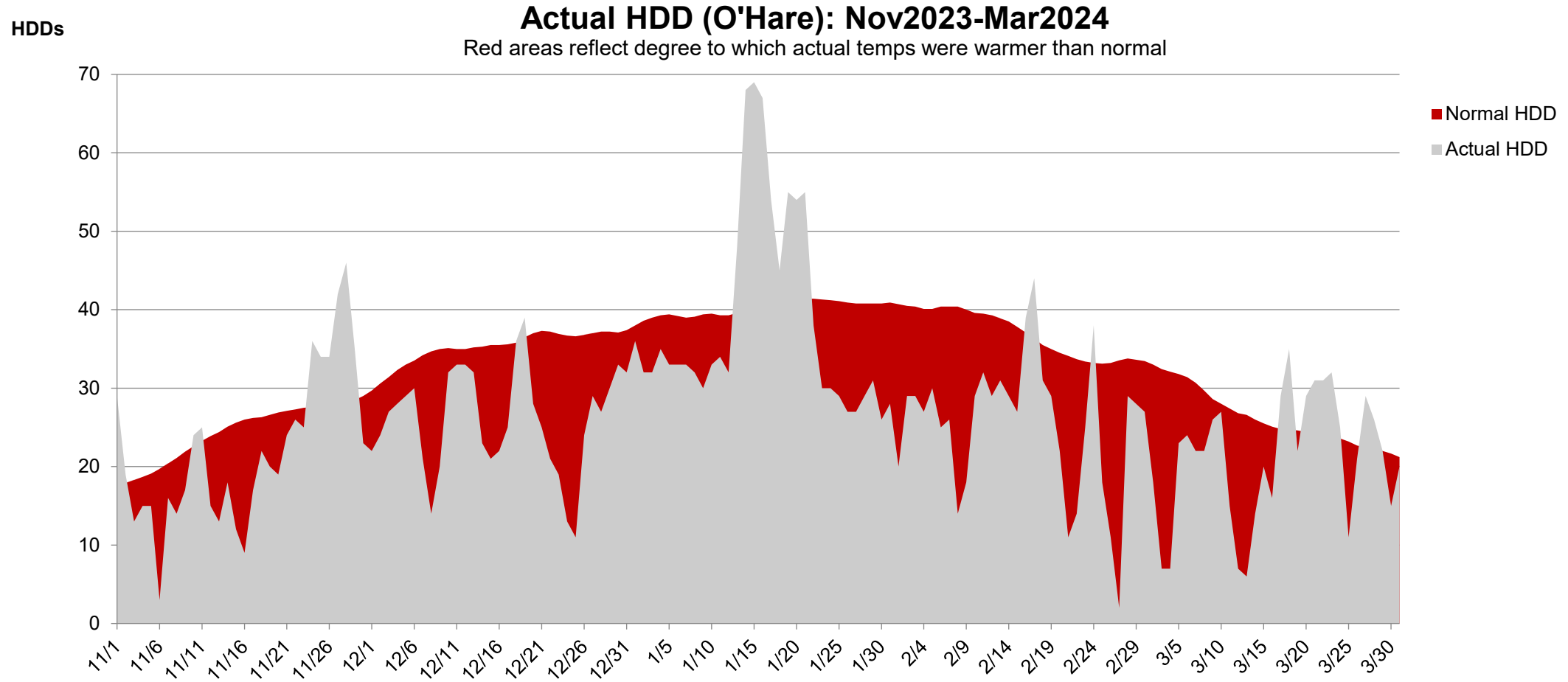
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Winter 2023/2024 Lookback

Winter 2023-24 Recap

- 2023/2024 winter operations were very steady, with the brief but intense weather in January
 - No significant operational issues
- During periods of extended colder than normal weather, the system functioned as designed
 - No pressure issues in the Market Delivery Zone
 - Compressor stations staffed 24x7, as needed
- Winter 23/24 total throughput was flat compared to Winter 22/23 driven by generally milder weather
- Storage assets were heavily utilized during peak demand periods
 - New single day system-wide peak sendout (8.5 Bcf/day) Jan 14, 2024
 - NGPL set 4 out of top 5 daily system-wide delivery records (Jan 14, 15, 16 and 19)
 - NGPL set 2 out of top 10 daily storage withdrawal records (Jan 16, 17)
- NGPL issued OFOs during January 24 Winter event
- Very involved level of communications between gas controls continued and more so during cold weather events.

Winter Weather 2023-24



HDD - 23/24	Nov	Dec	Jan	Feb	Mar	Total
Actual	660	803	1,205	708	659	4,035
Normal	725	1,089	1,248	1,045	824	4,931
(warmer)/colder	(65)	(286)	(43)	(337)	(165)	(896)
% of normal	91%	74%	97%	68%	80%	82%

a) Normals are sourced from NOAA

Winter System-Wide Deliveries

	<u>*2023/24</u>	<u>*2022/23</u>	<u>Change</u>
LDC	2,503	2,845	-12%
LNG	1,670	1,417	18%
Interconnects	1,080	986	9%
Power	365	200	82%
Industrial	68	65	4%
TOTAL	5,686	5,513	3%

Volumes are MDth/d

*November through March

Winter Market Area Deliveries

	<u>*2023/24</u>	<u>*2022/23</u>	<u>Change</u>
LDC	2,463	2,826	-13%
Power	292	141	108%
Interconnects	108	125	-14%
Industrial	53	51	4%
TOTAL	2,917	3,143	-7%

Volumes are MDth/d

*November through March

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Summer 2024 Review

Summer 2024 Review

- 2024 Summer operations saw continued strong demand system wide
- Focus on storage injections and reservoir maintenance
 - Meet October 31st Storage Inventory Targets
 - Higher inventory to start injection season
- Summer season demand picked up substantially
 - Summer 2024 total throughput continued to stay strong relative to Summer 2023
 - Summer 2024 Power demand up 3% system wide and up 13% in market area compared to 2023
 - NGPL set 2 out of top 10 daily delivery records for power generation this summer
 - Deliveries to LNG up significantly
- Active maintenance season
 - Outages posted on EBB (updated weekly)
 - New Outage Impact Report introduced summer 2023
 - 2024 Maintenance projects should be completed in early November
 - 2024 saw greater than normal restrictions due to maintenance

Summer System-Wide Deliveries

	<u>*2024</u>	<u>*2023</u>	<u>Change</u> <u>'24 vs '23</u>
LDC	1,654	1,768	-6%
LNG	1,508	1,351	12%
Interconnects	1,003	1,126	-11%
Power	522	505	3%
Industrial	63	64	-1%
TOTAL	4,751	4,814	-1%

Volumes are MDth/d

*April through September

Summer Market Area Deliveries

	<u>*2024</u>	<u>*2023</u>	<u>Change</u> <u>'24 vs '23</u>
LDC	1,646	1,746	-6%
Power	373	331	13%
Industrial	89	49	90%
Interconnects	50	47	1%
TOTAL	2,158	2,173	-1%

Volumes are MDth/d

*April through September

2024 Outage Summary

<u>Type</u>	<u>2024</u>	<u>2023</u>	<u>2022</u>
Integrity	158	150	177
O&M	<u>288</u>	<u>253</u>	<u>195</u>
System Total	446	403	372
Market Area and Storage	109	98	126
Amarillo projects	209	174	136
GC projects	128	131	110
Posted	116	119	119
Posted with Impact	57	45	50

Managing Outages

- While some outages are immediate and/or unavoidable, where possible NGPL makes every attempt to minimize the duration of outages and consolidate work to limit the number of outages and minimize the impact to shippers.

- Kinder Morgan, as Operator of NGPL, has dedicated mechanical and project teams available, in addition to outside contract support.

- Integrity/Reliability projects completed this year
 - New compression at stations 111 and 169
 - Water wells at Herscher Galesville Storage
 - Automation upgrades at stations 103 and 310
 - Backup generation to be placed at Herscher... with longer term project of more complete electrical project
 - Upgrades to compressions at stations 110 and 114
 - Integrity related project completions

Integrity-related Testing/Assessment

- The following table shows the typical timeline to receive results after a pig run is completed:

Type of In-Line Inspection Tool	# of weeks to determine a successful run	# of weeks to Preliminary Report	# of weeks to Final Aligned Report
MFL	1 - 2	3 - 4	8 - 13
AFD	2 - 3	3 - 4	12 - 16
EMAT	2 - 3	N/A	17 - 30

Outage Impact Report

Planned Service Outage

Sep 14 Seg 15 - Cs 801 - Pipeline Maintenance
Sep 14 Seg 33- Cs 113 - Install Launch/Rec-Upd4

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Capacity Constraints/FMJ

Sep 13 Force Majeure- Seg 8- Pipe Remed -Lifted
Sep 12 Force Majeure- Seg 8- Pipe Remed - Upd 2

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Other Critical

Sep 13 Current Pipeline Conditions
Sep 12 Current Pipeline Conditions

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Non-Critical Notices

Sep 13 Os2309-2 Iail To La And Stx To Stx
Sep 08 Os2309-1 Texok To Stx

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Open Seasons (See Info Postings for all notices)

Sep 08 Rofrn0923-1
[Open Season Documents](#)

Service Programs

- Hub America
- LPS/SRO Program
- FastFirm

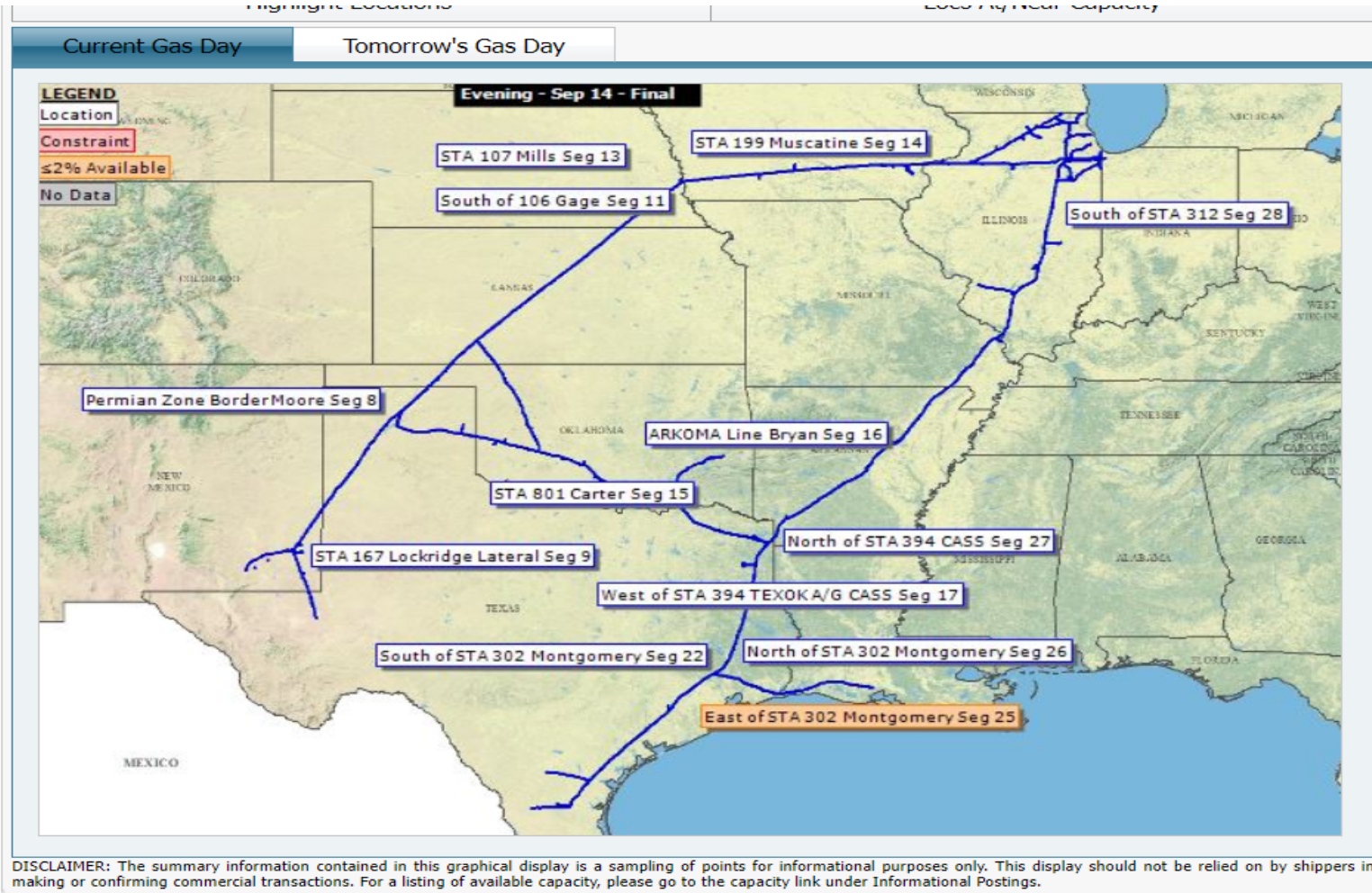
Other Postings

All Notices

[Critical Notices](#)
[Non-Critical Notices](#)

Operating Information

[Outage Impact Report](#)
[Maintenance Outages \(Excel\)](#)



Weather Forecast data from weather.gov

[Chicago](#)
[Omaha](#)
.....

On Call Assistance

Scheduling Hotline	(713) 369-9683
Gas Control Hotline	(800) 733-2490

Outage Impact Report

NGPL - Outage Impact Report Seven Day Forecast (updated 09/12/23)								-Significant restrictions to subscribed capacity may be necessary. -Major restrictions to subscribed capacity may be necessary. -Minor restrictions to subscribed capacity may be necessary. -No anticipated impact to subscribed capacity.
Station / Seg	Monday (9/18)	Tuesday (9/19)	Wednesday (9/20)	Thursday (9/21)	Friday (9/22)	Saturday (9/23)	Sunday (9/24)	Primary Outage(s) that may Impact Throughput
Est. Minimum Percentage of Available Contracted MDQ								
Station 167 (segment 8 FH)	100%	100%	100%	100%	100%	100%	100%	
Station 104 (segment 11 FH)	100%	100%	100%	100%	100%	100%	100%	
Station 107 Mills (segment 13 FH)	100%	100%	100%	100%	100%	100%	100%	
Station 801 (segment 15 FH)	100%	100%	100%	100%	100%	100%	100%	
West of Sta 394 (segment 17 BH)	100%	100%	100%	100%	100%	100%	100%	
South of Sta 341 (segment 20 FH)	100%	100%	100%	100%	100%	100%	100%	
South of Sta 302 (segment 22 FH)	100%	100%	100%	100%	100%	100%	100%	
East of Sta 302 (segment 25 FH)	56%	100%	100%	100%	100%	100%	100%	X23-271131: 302: Station Maintenance (9/12/2023 - 9/18/2023)
North of Sta 302 (segment 26 BH)	100%	100%	100%	100%	100%	100%	100%	
North of Sta 394 (segment 27 FH)	100%	100%	100%	100%	100%	100%	100%	

This document is updated on a weekly basis and outage schedules/impacts are subject to change as the week progresses.
 Dates posted on DART should be deemed correct in the event of conflicts between DART posted dates and dates on this report.
 The impacts sheet are based on steady-state hydraulic models assuming recent operating flows, conditions, and various unit outages.

Outage Impact Report

NGPL - Outage Impact Report September 2023 (updated 09/12/23)					-Significant restrictions to subscribed capacity may be necessary.
					-Major restrictions to subscribed capacity may be necessary.
					-Minor restrictions to subscribed capacity may be necessary.
					-No anticipated impact to subscribed capacity.
Station / Seg	Week 1 (9/4 - 9/10)	Week 2 (9/11 - 9/17)	Week 3 (9/18 - 9/24)	Week 4 (9/25 - 10/1)	Primary Outage(s) that may Impact Throughput
	Est. Minimum Percentage of Available Contracted MDQ				
Station 167 (segment 8 FH)				100%	
Station 104 (segment 11 FH)				100%	
Station 107 Mills (segment 13 FH)				100%	
Station 801 (segment 15 FH)				100%	
West of Sta 394 (segment 17 BH)				100%	
South of Sta 341 (segment 20 FH)				100%	
South of Sta 302 (segment 22 FH)				100%	
North of Sta 302 (segment 26 BH)				100%	
North of Sta 394 (segment 27 FH)				100%	

Storage Update

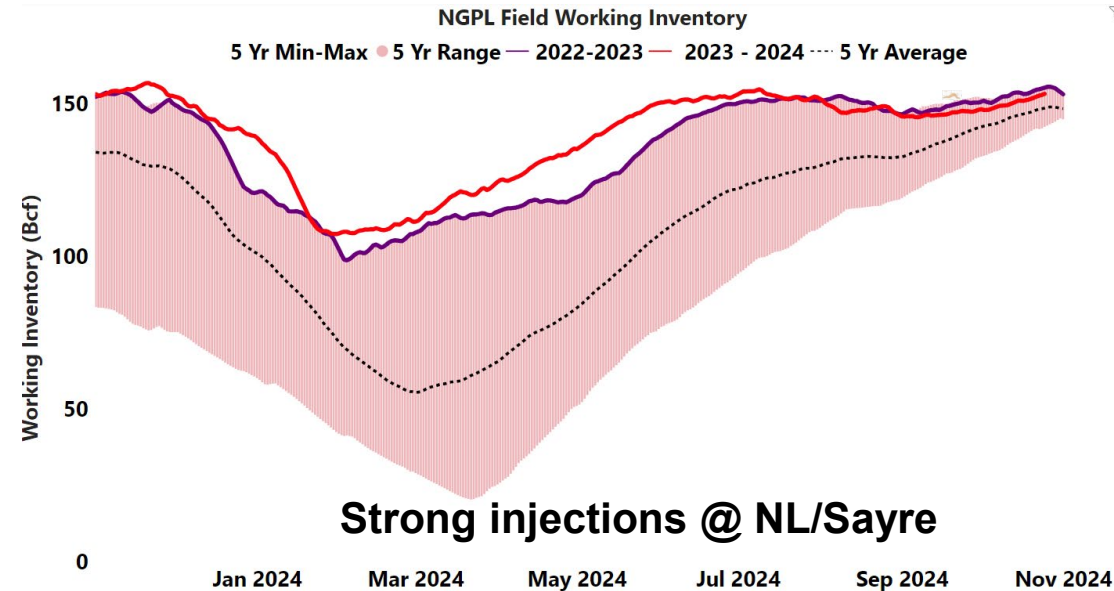
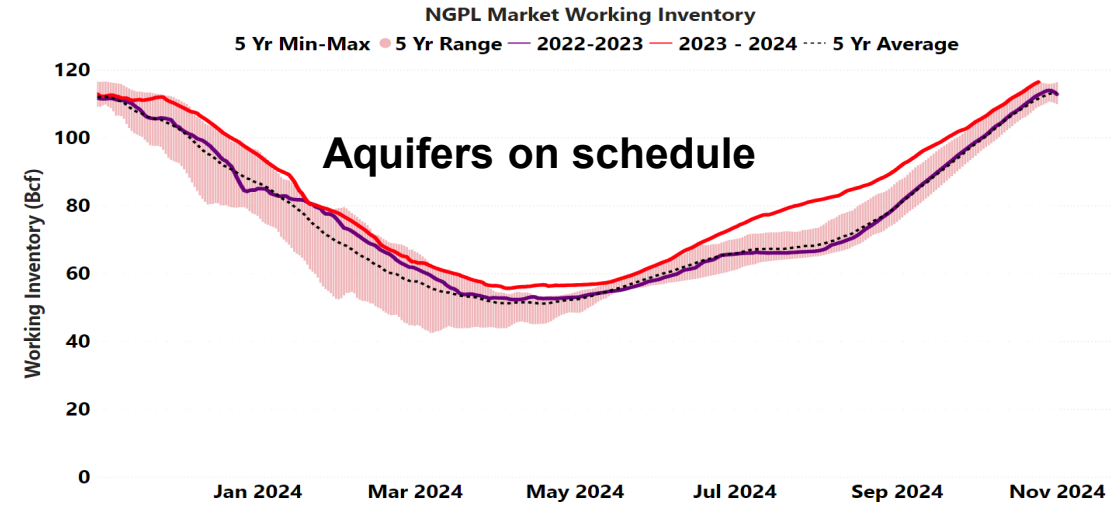
NGPL Gas Storage Inventory Update

2024 Update

- Firm storage services are fully subscribed and highly utilized
- Higher field inventory to start injection season
- Field Injections lower in July/August due to power demand
- All storage field maintenance projects on target to be completed prior to withdrawal season

2024/25 Winter Outlook

- Market fields on pace to achieve target inventory levels
- Market Injections expected to continue into some reservoirs into November
- Field Inventory on pace to be near full on October 31st



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Winter Readiness

Winter Readiness

- Market Area storage inventory projected at target inventory level
- Market Area maintenance projects to be completed by early November
 - No expected impact from remaining work
- Expected pipeline operations:
 - Market Area receipts remain consistent with previous winter periods
 - Traditional supply basins:
 - Texok to Market capacity is fully subscribed, but operational capacity may be available
 - Midcontinent to Market capacity is fully subscribed
- Expect scheduling restrictions to be implemented to protect storage fields, delivery pressures and line pack, as necessary
 - Possible limitations may include, but are not limited to:
 - Scheduling for unexpected outages
 - Hourly Rights restrictions
 - Point level or area OFOs
 - Withdrawals limited to WQ rights

Winter Checklist

- Compression
 - Test run all compressor units prior to increased demand due to colder weather
- Storage
 - All storage fields are ready for winter
 - Field Storage expected to be near full
- Pipeline
 - Maintain line pack targets by area
 - Maintain throughput targets
 - Maintain pressures for key areas
 - Field Ops to man key sites
- Scheduled Maintenance
 - Limit planned maintenance activities to those required by regulation or policy
- Customer Communication
 - Weekly Gas Control-to-Gas Control Conference Calls
 - NGPL posts system capacity and outage information
 - NGPL Scheduling Representatives and Account Directors are available for questions

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Thank You