# NGTL System and Foothills Pipelines Ltd.

CUSTOMER OPERATIONS MEETING

## Welcome and Thank You for Joining Us

## Participating via WebEx:

- Please sign-in through WebEx application including your full name and company
- To reduce background noise and improve audio quality, all WebEx participants will be placed on mute when entering the meeting
- Please submit your questions via using the raise hand function and coming off mute or the chat function and we will answer at the best possible opportunity



## Look out for your neighbour

If you see your neighbour installing a deck or fence, digging a trench, gardening, or doing utility work, do they know to click or call before they dig?



#### Zero depth

It does not matter how deep you are digging, always have lines located before you dig



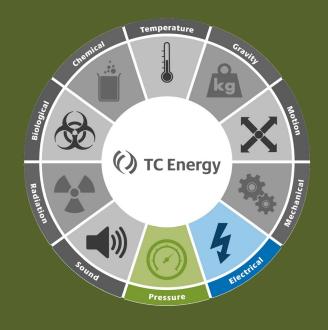
#### **Stop work**

Speak up, educate them about 811/ One-Call, plus the risks and costs to damaging underground utilities



### Do the right thing

- See something, say something
- Share ClickBeforeYouDig.com/ or Call811.com/
- Mexico call 01.1.800.111.3333



#### **Life Saving Rule #9**

Control excavation and ground disturbances



## Forward Looking Information

This presentation includes certain forward-looking information. Statements that are forward-looking are based on certain assumptions and on what we know and expect today and generally include words like anticipate, expect, believe, may, will, should, estimate or other similar words.

The information provided is for informational purposes only and is not to be relied upon for any other purpose whatsoever. The information is based upon certain assumptions that may or may not be accurate, and therefore is subject to various risks and uncertainties. TC Energy shall not be liable for damages sustained as a result of any use or reliance on such information.

The outages listed in this presentation are not an exhaustive list. Outage date, duration, and impact may be subject to change. Refer to the Daily Operating Plan (DOP) for all planned outages with potential service impact.

No impact to FT

Refers to outage periods where FT impact is not expected

Potential impact to FT

Refers to outage periods where there is potential of FT impact

Partial impact to FT

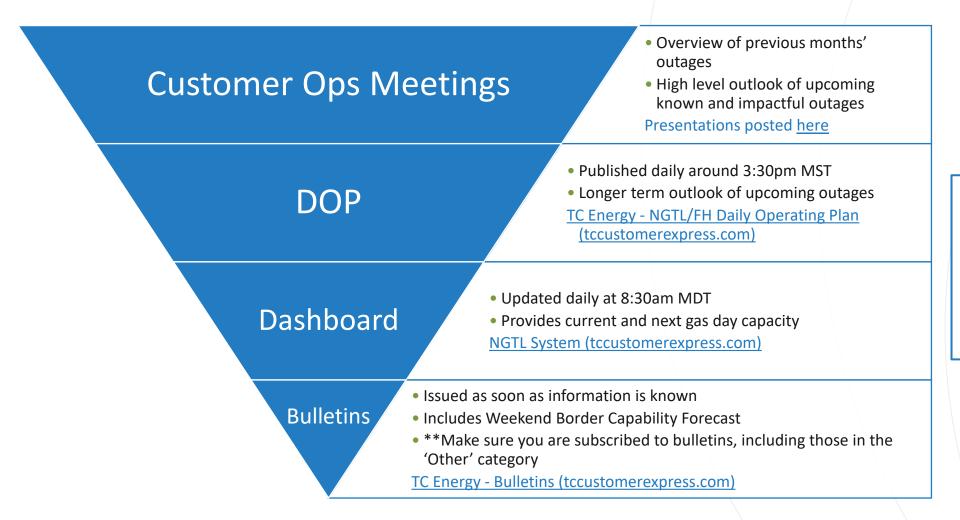
Refers to outage periods where FT impact is expected



Outage information in this presentation may not be accurate beyond the April 4, 2023 NGTL/Foothills Customer Operations (WebEx only) meeting For current outage and capability information, please refer to the most recent Daily Operating Plan (DOP), the <u>Dashboard</u> and bulletins

This meeting covers operational and project-related topics that impact operations on the NGTL and Foothills systems. For information on focused Commercial and Regulatory topics, please contact your Marketing Representative

## Outage Communication Tools – Order



Each level of communication supersedes all information provided in communications above it.



## Agenda

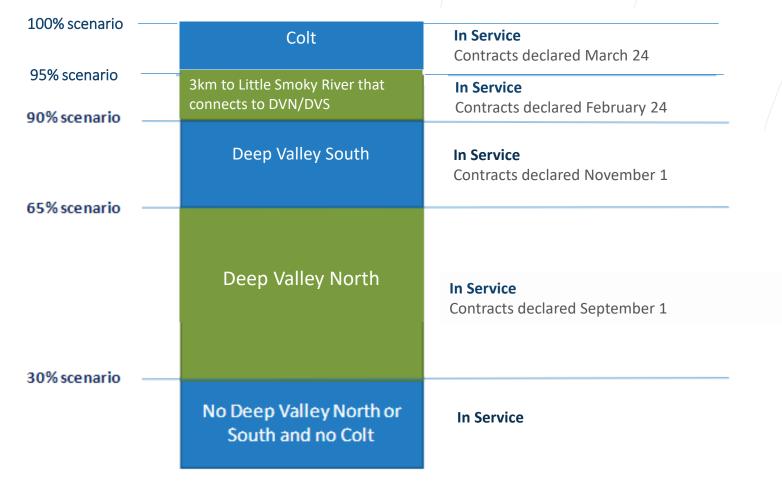


- 1. Project Updates
- 2. Review of March Operations
- 3. Review of Upcoming DOP Outages
- 4. Upcoming Outage Spotlight
  - NPS 42 North Central Corridor Pipeline Maintenance

A P R J L 2 0 2 3

## Project Updates

## 2021 Expansion Project Update – ISD Summary (since Mar. 3, 2023 update)



*Note:* EDML/Clearwater/West Path 2022 capacity requires 100% of NGTL 2021 Expansions to be in service

## 2021 Expansion Project Update (since Mar. 3, 2023 update)

Facilities already in-service: (Map I.D. # 1, 2, 3, 4, 5, 8, 9)

| 3 km of Pipe Adjacent to Little Smoky<br>River that connects DVN/DVS<br>(Map I.D. # 4)<br>ISD Feb. 24, 2023 |  |
|---|--|
| Colt (Map I.D. # 6) ISD Mar. 24, 2023   | <ul> <li>Hydrotest activities for second test section is complete and investigative digs are complete</li> <li>Final tie-ins complete</li> <li>Leave to Open (LTO) submitted to Canada Energy Regulatory (CER) on Mar. 9 and approval received Mar. 23.</li> </ul> |

#### **Project Highlights**

- Actively managed risks (i.e. 24/7 frostpacking, installation of sheet piling)
- Proactively worked with contractor to look for opportunities to accelerate schedule (i.e. construction methodology, additional resources)
- Completed the 3km section adjacent to the Little Smoky River prior to the start of the caribou restricted activity period
- Minimal investigative digs





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## Other Project Updates – ISD Summary (since Mar. 3, 2023 update)

| NGTL Projects:           |   |
|--------------------------|---|
| Edson Mainline Expansion | In Service  |
| North Corridor Expansion | North Star, Bear Canyon, Red Earth (In Service) *change since last update Hidden Lake North U/A (ISD mid to late Apr 2023) *change since last update    |
| Intra-Basin Expansion    | Sunrise (ISD mid to late Apr 2023) *change since last update Saturn (ISD Nov 2023) Saddle Hills U/A (ISD April 2024) Emerson Creek C/S (ISD April 2024) |
| WestPath 2022/2023       | Raven (In Service) ABC (In Service) Turner Valley, Lundbreck and Longview (ISD Nov 2023)  |
| FH Projects:             |   |
| Yahk Section Loop        | In Service *change since last update  |
| Elko Section Loop        | ISD Nov 2023 *risk of 50% capacity achieved by Nov 2023 (slide 14 for further details)  |

<u>Availability of capacity remains subject to</u>: Ground conditions, weather & road access/conditions, heated labour market, environmental and regulatory requirements and LTO approval by the CER



Other Project Updates - NGTL (since Mar. 3, 2023 update)

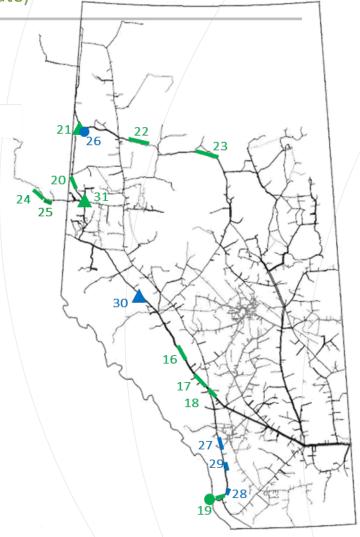
#### **Edson Mainline Expansion**

Facilities in-service (Map I.D. # 16, 17, 18)

#### North Corridor Expansion

- ISD mid to late April 2023
  - All sections are required to be in service for full NCE capacity

| North Star (Map I.D. # 22)<br>In-service January 19, 2023             |   |
|---|---|
| Bear Canyon (Map I.D. #<br>20)<br>In-service March 22, 2023           | <ul> <li>LTO approval received March 10</li> <li>Outage completed between March 13 to 19</li> </ul>   |
| Red Earth (Map I.D. # 23)<br>In-service March 29, 2023                | <ul> <li>LTO approval received on March 8</li> <li>Outage completed between March 20 to 29 to complete final tie-ins into compressor station</li> </ul> |
| Hidden Lake North U/A<br>(Map I.D. #21)<br>ISD mid to late April 2023 | <ul> <li>Backfilling activities ongoing</li> <li>Dry commissioning complete</li> <li>Wet commissioning has commenced</li> </ul>                         |
|   |   |



## Other Project Updates — NGTL (since Mar. 3, 2023 update)

#### **Intra-Basin Expansion**

| Sunrise (Map I.D. #<br>24)<br>ISD mid to late<br>April 2023 | Hydrotesting complete. No investigative digs. LTO submitted on March 22. Finalizing fabrication work at valve sites. |
|---|--|
| Saturn (Map I.D. #<br>25)<br>ISD November<br>2023           | Clearing activities are complete. Mainline construction to start in summer 2023                                      |
| Emerson Creek<br>C/S (Map I.D. #30)<br>ISD April 2024       | 34% construction complete, on track.   |
| Saddle Hills U/A<br>(Map I.D. #31)<br>ISD April 2024        | Field construction has commenced, on track.  |

#### West Path 2023

#### **Turner Valley**

(Map I.D. # 27)

Lundbreck (Map I.D. # 28)

Longview (Map I.D. # 29)

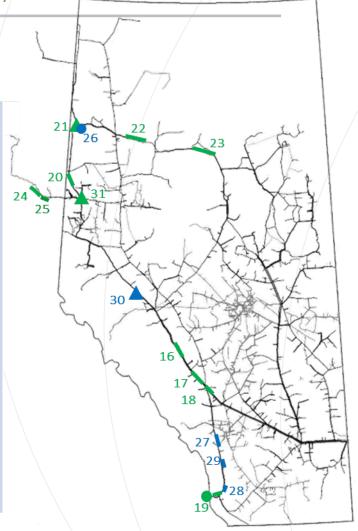
**ISD November** 2023

Clearing activities completed for Turner Valley and Longview sections. Working to obtain outstanding land rights.

Clearing activities on Lundbreck ceased due to spring breakup conditions and will recommence prior to mainline construction.

Mainline construction to commence for all sections in June 2023.

Waiting for approval on one compliance condition from the CER. All other permits have been acquired.

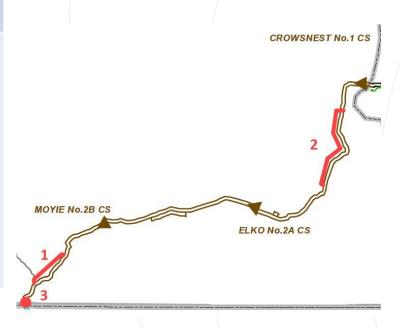


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## Other Project Updates – FH (since Mar. 3, 2023 update)

#### West Path 2022/2023

| Yahk (Map I.D. # 1)<br>In-Service Mar. 17, 2023 |   |
|---|---|
| Elko (Map I.D. # 2)<br>ISD November 2023        | <ul> <li>Remobilization has commenced</li> <li>Execution risks associated with outstanding temporary workspace permits. Require these to be in place by May 1. The terrain involved also increases the risk of a Nov. 1, 2023 ISD.</li> <li>As a result of these risks, a valve is planned to be installed to achieve 50% of the incremental FH capacity by Nov. 1, 2023 if 100% cannot be achieved safely by that date due to permit delays or construction challenges.</li> <li>Application submitted to the CER for the additional valve on Mar. 17. Request for approval for June 1.</li> </ul> |



## Review of March Operations

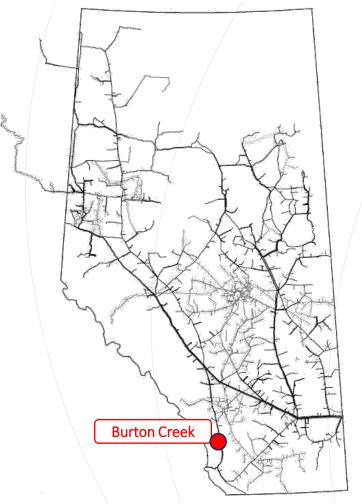
#### Burton Creek – Compressor Maintenance

#### Background:

- Planned:
  - Burton Creek Compressor Station Maintenance: Mar 27 29
  - Burton Creek A3 Compressor Unit Maintenance: Mar 27 31
- Capability communicated in DOP:
  - Mar 27 29: 69 10<sup>6</sup>m<sup>3</sup>/d (WGAT)
  - Mar 30 31:  $74 \cdot 10^6 \text{ m}^3/\text{d}$  (WGAT)
- Service Allowable: 0% IT-D, Partial FT-D (Alberta BC + Alberta Montana)

| Bulletin<br>Date | Effective<br>Date       | Service Allowable                             | Comments  |
|------------------|-------------------------|---|---|
| Mar 22           | March 27<br>(08:00 MST) | 0% IT-D, Partial FT-D (69)<br>(AB-BC + AB-MN) | Bulletin Issued   |
|                  | March 30<br>(08:00 MST) | 0% IT-D, Partial FT-D (74)<br>(AB-BC + AB-MN) | Burton Creek Station outage completed as scheduled. Burton Creek A3 outage ongoing. |
| Mar 30           | April 1<br>(08:00 MST)  | 100% IT-D, 100% FT-D<br>(AB-BC + AB-MN)       | Burton Creek A3 outage completed as scheduled.                                      |



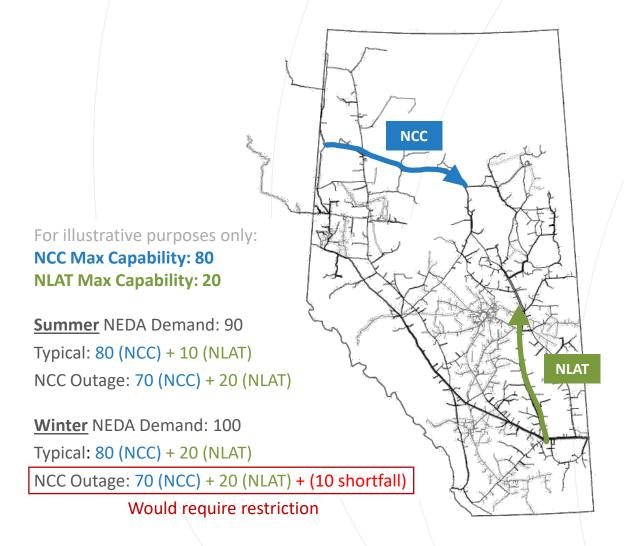




## Outages affecting NEDA in March

#### Why are these outages significant?

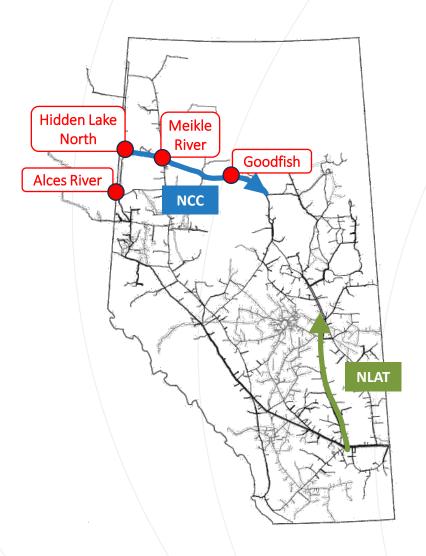
- Always maximizing NCC flow most efficient path for supply into NEDA
- In the summer, when NEDA demand is low, there is typically capability available on the NLAT to supplement reduced flow on the NCC
- In the winter, when NEDA demand is high, the NLAT is typically already flowing at max capability resulting in the inability to supplement a reduction of NCC flow
  - If NEDA demand is higher than the combined flow on the NCC and NLAT, service allowable would be reduced in NEDA to ensure equitability and safe operation



## Outages affecting NEDA in March

#### Why didn't these outages result in a decrease in service authorization level?

- Prepositioned the system entered these planned outages with good linepack levels and distribution
  - Low in USJR
  - High in NEDA
- No delays All outages were started, executed, and completed as scheduled
- No major unplanned outages or breakdowns in addition to the planned outages
- Warm Weather
- There was adequate capability available on the NLAT to supplement reduced flow on the NCC

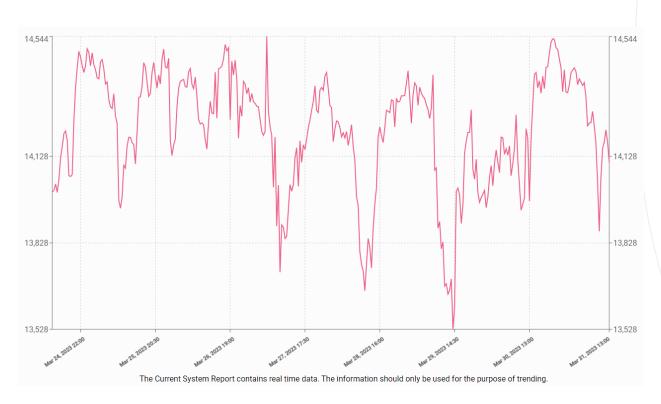




#### **USJR Authorization Level**



Why hasn't the USJR allowable increased when USJR flows appear to be lower than capability?



NGTL Field Receipts (Current System Report)

#### **Unsteady Flows**

- Cycle of daytime lows and overnight peaks
- Overnight peaks at or near capacity
- DOP chart only shows a daily average flow



# Review of DOP Outages From DOP as of Monday April 3

## 2023 Outages

- All known planned outages at this time have been added to the DOP
- Start and End Dates, Durations, Capability, Area of impact may be revised as new information becomes available or further optimization opportunities are identified

Outages and/or maintenance work is posted to the DOP if there is reasonable expectation that the event could or will result in a change to service authorization levels.

Optimization efforts are on going and we will continue to focus on safety, optimizing system capacity, and minimizing outage impacts.

## Daily Operating Plan (DOP) – Facility Assumptions

| Date                | Expansion Facilities  |
|---------------------|---|
| In-service in March | Foothills BC Expansion:  BC Mainline Loop 2 (Yahk)  2021 Expansion:  GPML Loop 2 (Colt section)  North Corridor Expansion:  NWML Loop 2 (Bear Canyon), NCC Loop (Red Earth 3) |
| April 1, 2023       | North Corridor Expansion:  • Hidden Lake North Unit Addition Intra-basin Expansion: • Groundbirch Mainline Loop (Sunrise)   |
| November 1, 2023    | Intra-basin Expansion:  |



## Primary Drivers of Outages for Summer 2023

#### What are all the outages for?

#### Safety:

- Inspections to confirm the integrity conditions of existing assets
- Inspections to establish baseline integrity conditions of new assets

#### What are the consequences if the work is not completed?

#### Impactful de-rates

- Limitations on system operation
- No baseline data (regulatory compliance)
- Inability to lift or remove

#### Reliability

- Annual preventative maintenance (regulatory driven)
- Hourly based maintenance (Inspections or Engine/Power Turbine replacements)

#### More unplanned breakdowns

 Breakdowns resulting in greater damage to the facilities resulting in more frequent unplanned maintenance and requiring longer duration outages to repair

#### Capacity

- Expansion Facility Tie-ins
- Compressor re-aeros

#### System capacity

• Delayed increase to overall system capacity

#### Upstream James River





## Upstream James River Receipt Area (USJR)

No impact to FT

Potential impact to FT

Partial impact to FT

| Outage Description   | Start     | End       | USJR Outage Capability<br>(10 <sup>6</sup> m³/d) | USJR Impact<br>(10 <sup>6</sup> m³/d) | Area Outage<br>Capability<br>(10 <sup>6</sup> m³/d) | Outage Area<br>Typical Flows<br>(10 <sup>6</sup> m³/d) | Service Allowable<br>Location/Area             |
|--|-----------|-----------|--|---------------------------------------|---|--|--|
| NPS 48 Edson Mainline Loop 4 – Pipeline Maintenance          | 11-Apr-23 | 15-Apr-23 | <mark>352</mark>                                 | <mark>19</mark>                       | N/A   | <b>470 - 450</b>                                       | Potential impact to FT-R<br>USJR               |
| NPS 42 North Central Corridor – Pipeline Maintenance         | 25-Apr-23 | 3-May-23  | 336  | 35                                    | 208   | 1811-7711  | Potential impact to FT-R<br>USJR U/S Latornell |
| NPS 48 Grande Prairie Mainline Loop 2 – Pipeline Maintenance | 5-May-23  | 12-May-23 | 362  | 9                                     | N/A   | <b>470 - 450</b>                                       | Potential impact to FT-R<br>USJR               |
| Gold Creek – Compressor Station Maintenance                  | 8-May-23  | 12-May-23 | 360  | 11                                    | 248   | 700 - 730  | Potential impact to FT-R<br>USJR U/S Berland*  |
| Swartz Creek – Compressor Station Maintenance                | 15-May-23 | 20-May-23 | 359  | 12                                    | N/A   | <b>470 - 450</b>                                       | Potential impact to FT-R<br>USJR               |
| Saddle Hills B3 – Compressor Station Maintenance             | 19-Jun-23 | 24-Jun-23 | 357  | 14                                    | 229   | 120 - 770  | Potential impact to FT-R<br>USJR U/S Latornell |
| Latornell – Compressor Station Maintenance                   | 25-Jun-23 | 30-Jun-23 | 359  | 12                                    | N/A   | ろノロー ろうし   | Potential impact to FT-R<br>USJR               |
| NPS 36 Grande Prairie Mainline – Pipeline Maintenance        | 4-Jul-23  | 14-Jul-23 | 355  | 15                                    | N/A   | 3701 <b>-</b> 350                                      | Potential impact to FT-R<br>USJR               |
| Meikle River C – Compressor Station Maintenance              | 24-Jul-21 | 28-Jul-23 | 353  | 17                                    | 226   | XII = //II   | Potential impact to FT-R<br>USJR U/S Latornell |
| NPS 36 Northwest Mainline Loop – Pipeline Maintenance        | 25-Jul-23 | 29-Jul-23 | 353  | 17                                    | 226   | 120 - 770  | Potential impact to FT-R<br>USJR U/S Latornell |

<sup>\*</sup>Risk to FT-R expected to be within a subset of USJR only. If adequate downstream IT-D/IT-S exists to offset an FT-R curtailment, area of IT-D/IT-S curtailment could include portions of segments 7, 8, and 9 based on hydraulic equivalency analysis and location of the bottleneck



## Upstream James River Receipt Area (USJR)

No impact to FT

Potential impact to FT

Partial impact to FT

| Outage Description                                   | Start     | End       | USJR Outage<br>Capability<br>(10 <sup>6</sup> m³/d) | USJR Impact<br>(10 <sup>6</sup> m³/d) | Area Outage<br>Capability<br>(10 <sup>6</sup> m³/d) | Outage Area<br>Typical Flows<br>(10 <sup>6</sup> m³/d) | Service Allowable<br>Location/Area             |
|--|-----------|-----------|---|---------------------------------------|---|--|--|
| Nordegg B3 & B5 – Compressor Station Maintenance     | 8-Aug-23  | 12-Aug-23 | 346   | 21                                    | N/A   | 1 370 - 350  | Potential impact to FT-R<br>USJR               |
| NPS 36 WAS Mainline Extension – Pipeline Maintenance | 8-Aug-23  | 13-Aug-23 | 340   | 27                                    | N/A   | 1 3711-3511  | Potential impact to FT-R<br>USJR               |
| Alces River – Compressor Station Maintenance         | 21-Aug-23 | 26-Aug-23 | 357   | 10                                    | 230   | 1 X(1 - 77()   | Potential impact to FT-R<br>USJR U/S Latornell |
| Otter Lake – Compressor Station Maintenance          | 7-Sep-23  | 13-Sep-23 | 357   | 13                                    | 230   | 1 X(1 = 77()   | Potential impact to FT-R<br>USJR U/S Latornell |
| NPS 24 North Central Corridor – Pipeline Maintenance | 7-Sep-23  | 15-Sep-23 | 360   | 10                                    | 233   | 120-770  | Potential impact to FT-R<br>USJR U/S Latornell |
| Saddle Hills B3 – Compressor Station Maintenance     | 18-Sep-23 | 27-Sep-23 | 357   | 13                                    | 230   |  | Potential impact to FT-R<br>USJR U/S Latornell |
| Meikle River D5 – Compressor Station Maintenance     | 30-Sep-23 | 6-Oct-23  | 353 (Sep)<br>357 (Oct)                              | 17                                    | 226   | 1 X(1 = 77()   | Potential impact to FT-R<br>USJR U/S Latornell |
| Clearwater – Compressor Station Maintenance          | 10-Oct-23 | 14-Oct-23 | 364   | 10                                    | N/A   | 1 370 - 350  | Potential impact to FT-R<br>USJR               |
| Latornell A1 – Compressor Station Maintenance        | 10-Oct-23 | 23-Oct-23 | 368   | 6                                     | N/A   | 1 4701 - 4501  | Potential impact to FT-R<br>USJR               |



#### Alberta-B.C. Border

(includes both NGTL and Foothills BC outages)



## West Gate Delivery Area (WGAT)

No impact to FT

Potential impact to FT

Partial impact to FT

| Outage Description   | Start                  | End       | Capability<br>(10 <sup>6</sup> m³/d) | Impact<br>(10 <sup>6</sup> m³/d) | Service Allowable Location/Area   |
|--|------------------------|-----------|--------------------------------------|----------------------------------|---|
| NPS 42 Western Alberta System Mainline Loop – Pipeline Maintenance | 5-May-23               | 12-May-23 | 76                                   | 7                                | Potential Impact to FT-D<br>Alberta/BC and Alberta/Montana Borders<br>Segment 22 and Partial 21 |
| Crowsnest K – Compressor Station Maintenance                       | 24-May-23              | 30-May-23 | 75                                   | 8                                | Potential Impact to FT<br>Foothills BC  |
| NPS 36 FPL Zone 8 Segment 2 – Pipeline Maintenance                 | 12-Jun-23              | 16-Jun-23 | 80                                   | 3                                | Potential Impact to FT<br>Foothills BC  |
| Crowsnest A – Compressor Station Maintenance                       | 3-Jul-23               | 5-Jul-23  | 62                                   | 21                               | Potential Impact to FT<br>Foothills BC  |
| NPS 36 Western Alberta System Mainline – Pipeline Modifications    | 5-Jul-23               | 16-Jul-23 | 81                                   | 2                                | Potential Impact to FT-D<br>Alberta/BC and Alberta/Montana Borders                              |
| NPS 42 Western Alberta System Mainline Loop – Pipeline Maintenance | <mark>28-Jul-23</mark> | 30-Jul-23 | <mark>73</mark>                      | <mark>10</mark>                  | Potential Impact to FT-D<br>Alberta/BC and Alberta/Montana Borders                              |
| Winchell Lake – Compressor Station Maintenance                     | 8-Aug-23               | 10-Aug-23 | 73                                   | 10                               | Potential Impact to FT-D<br>Alberta/BC and Alberta/Montana Borders<br>Segment 22 and Partial 21 |
| Moyie – Compressor Station Maintenance                             | 21-Aug-23              | 25-Aug-23 | 69                                   | 14                               | Potential Impact to FT<br>Foothills BC  |

<u>Note</u>: Outages located in the USJR area show up in the WGAT table in DOP to indicate a broad area restriction could be applied to reduce flows through the bottleneck but have been excluded from this slide to avoid duplication



## West Gate Delivery Area (WGAT)

No impact to FT

Potential impact to FT

Partial impact to FT

| Outage Description  | Start     | End       | Capability<br>(10 <sup>6</sup> m³/d) | Impact<br>(10 <sup>6</sup> m³/d) | Service Allowable Location/Area   |
|---|-----------|-----------|--------------------------------------|----------------------------------|---|
| Winchell Lake A2 – Compressor Station Maintenance                       | 21-Aug-23 | 25-Aug-23 | 81                                   | 2                                | Potential Impact to FT-D<br>Alberta/BC and Alberta/Montana Borders<br>Segment 22 and Partial 21 |
| NPS 36 FPL Zone 8 Segment 2A – Pipeline Maintenance                     | 26-Aug-23 | 31-Aug-23 | 78                                   | 5                                | Potential Impact to FT<br>Foothills BC  |
| NPS 36 Western Alberta System Mainline – Pipeline Maintenance           | 6-Sep-23  | 16-Sep-23 | 75                                   | 8                                | Potential Impact to FT-D<br>Alberta/BC and Alberta/Montana Borders                              |
| Crowsnest B – Compressor Station Maintenance                            | 11-Sep-23 | 13-Sep-23 | 75                                   | 8                                | Potential Impact to FT<br>Foothills BC  |
| Elko – Compressor Station Maintenance                                   | 18-Sep-23 | 22-Sep-23 | 68                                   | 15                               | Potential Impact to FT<br>Foothills BC  |
| Turner Valley A3 – Compressor Station Maintenance                       | 18-Sep-23 | 20-Sep-23 | 79                                   | 4                                | Potential Impact to FT-D<br>Alberta/BC and Alberta/Montana Borders                              |
| NPS 48 Western Alberta System Mainline Loop 2 – Pipeline Modifications  | 20-Sep-23 | 28-Sep-23 | 79                                   | 4                                | Potential Impact to FT-D<br>Alberta/BC and Alberta/Montana Borders                              |
| NPS 36 Western Alberta System Mainline (Seg 1) – Pipeline Modifications | 1-Oct-23  | 11-Oct-23 | 64                                   | 19                               | Potential Impact to FT-D<br>Alberta/BC and Alberta/Montana Borders<br>Segment 22 and Partial 21 |

<u>Note</u>: Outages located in the USJR area show up in the WGAT table in DOP to indicate a broad area restriction could be applied to reduce flows through the bottleneck but have been excluded from this slide to avoid duplication



## West Gate Delivery Area (WGAT)

No impact to FT

Potential impact to FT

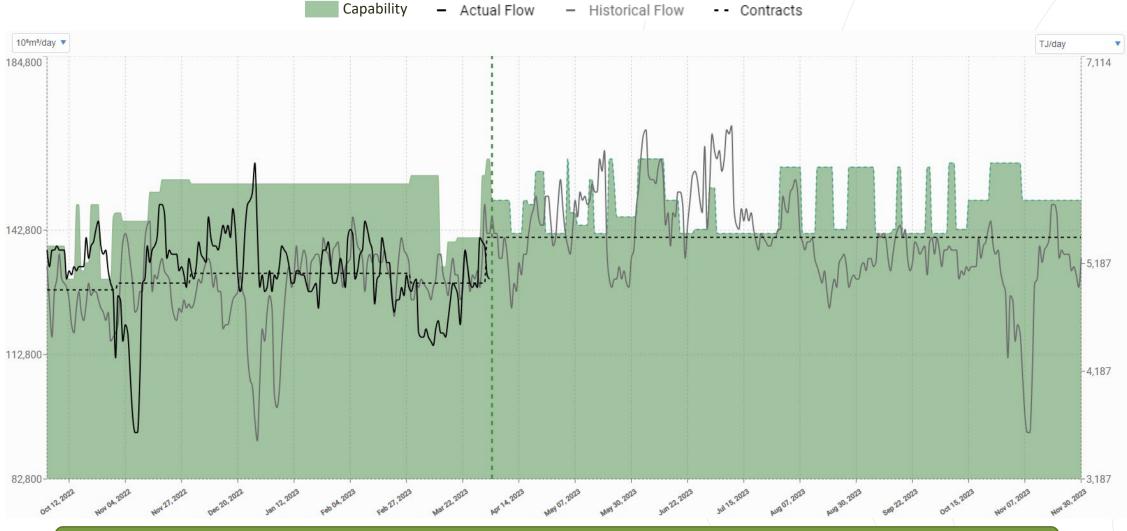
Partial impact to FT

| Outage Description  | Start     | End       | Capability<br>(10 <sup>6</sup> m³/d) | Impact<br>(10 <sup>6</sup> m³/d) | Service Allowable Location/Area   |
|---|-----------|-----------|--------------------------------------|----------------------------------|---|
| NPS 36 Western Alberta System Mainline (Seg 2) – Pipeline Modifications | 1-Oct-23  | 11-Oct-23 | 64                                   | 19                               | Potential Impact to FT-D<br>Alberta/BC and Alberta/Montana Borders                              |
| NPS 48 BC Mainline Loop – Pipeline Modifications                        | 1-Oct-23  | 11-Oct-23 | 64                                   | 19                               | Potential Impact to FT<br>Foothills BC  |
| Turner Valley A1 & A2 – Compressor Station Maintenance                  | 20-Oct-23 | 31-Oct-23 | 76                                   | 7                                | Potential Impact to FT-D<br>Alberta/BC and Alberta/Montana Borders                              |
| Turner Valley – Compressor Station Maintenance                          | 22-Oct-23 | 31-Oct-23 | 70                                   | 1 14                             | Potential Impact to FT-D<br>Alberta/BC and Alberta/Montana Borders                              |
| NPS 42 Western Alberta System Mainline Loop – Pipeline Modifications    | 1-Nov-23  | 9-Nov-23  | 87                                   | 1                                | Potential Impact to FT-D<br>Alberta/BC and Alberta/Montana Borders                              |
| NPS 36 Western Alberta System Mainline – Pipeline Maintenance           | 16-Nov-23 | 22-Nov-23 | 75                                   |                                  | Potential Impact to FT-D<br>Alberta/BC and Alberta/Montana Borders<br>Segment 22 and Partial 21 |

<u>Note</u>: Outages located in the USJR area show up in the WGAT table in DOP to indicate a broad area restriction could be applied to reduce flows through the bottleneck but have been excluded from this slide to avoid duplication



#### **East Gate**





## East Gate Delivery Area (EGAT)

No impact to FT

Potential impact to FT

Partial impact to FT

| Outage Description   | Start                | End                  | Capability<br>(10 <sup>6</sup> m <sup>3</sup> /d) | Impact<br>(10 <sup>6</sup> m <sup>3</sup> /d) | Service Allowable Location/Area   |
|--|----------------------|----------------------|---|---|---|
| NPS 34 Eastern Alberta System Mainline — Pipeline Maintenance              | <del>21-Mar-23</del> | <del>27-Mar-23</del> | <del>153</del>                                    | 3   | No impact to FT-D anticipated<br>Empress/McNeill Borders<br>Segments 15, 16, 17, 18, 19, 20, 23, partial 21, and partial 28 |
| Jenner – Compressor Station Maintenance                                    | 3-Apr-23             | 20-Apr-23            | 150/149   | 10  | No impact to FT-D anticipated<br>Empress/McNeill Borders<br>Segments 15, 16, 17, 18, 19, 20, 23, partial 21, and partial 28 |
| NPS 42 Central Alberta System Mainline Loop – Pipeline Modifications       | 18-Apr-23            | 25-Apr-23            | 157   | 3   | No impact to FT-D anticipated<br>Empress/McNeill Borders<br>Segments 15, 16, 17, 18, 19, 20, 23, partial 21, and partial 28 |
| NPS 36 EAS Mainline Loop 2 – Pipeline Maintenance                          | 8-May-23             | 17-May-23            | 155   | 5   | No impact to FT-D anticipated<br>Empress/McNeill Borders<br>Segments 15, 16, 17, 18, 19, 20, 23, partial 21, and partial 28 |
| Beiseker A – Compressor Station Maintenance                                | 23-May-23            | 27-May-23            | 154   | 6   | No impact to FT-D anticipated<br>Empress/McNeill Borders<br>Segments 15, 16, 17, 18, 19, 20, 23, partial 21, and partial 28 |
| NPS 42 Edson & Central Alberta System Mainline Loop – Pipeline Maintenance | 24-May-23            | 1-Jun-23             | 146   | 14  | No impact to FT-D anticipated<br>Empress/McNeill Borders<br>Segments 15, 16, 17, 18, 19, 20, 23, partial 21, and partial 28 |
| Crawling Valley – Compressor Station Maintenance                           | 17-Jun-23            | 14-Jul-23            | 155 (Jun)<br>153 (Jul)                            | 5   | No impact to FT-D anticipated<br>Empress/McNeill Borders<br>Segments 15, 16, 17, 18, 19, 20, 23, partial 21, and partial 28 |

Note: Outages located in the USJR area show up in the EGAT table in DOP to indicate a broad area restriction could be applied to reduce flows through the bottleneck but have been excluded from this slide to avoid duplication



## East Gate Delivery Area (EGAT)

No impact to FT

Potential impact to FT

Partial impact to FT

| Outage Description  | Start     | End                   | Capability<br>(10 <sup>6</sup> m <sup>3</sup> /d) | Impact<br>(10 <sup>6</sup> m <sup>3</sup> /d) | Service Allowable Location/Area   |
|---|-----------|-----------------------|---|---|---|
| NPS 42 Foothills Zone 6 – Pipeline Maintenance  | 6-Jul-23  | <mark>8-Jul-23</mark> | 147   | <mark>11</mark>                               | No impact to FT-D anticipated<br>Empress/McNeill Borders<br>Segments 15, 16, 17, 18, 19, 20, 23, partial 21, and partial 28 |
| NPS 48 Edson, Central Alberta System, and Eastern Alberta System Mainline<br>Loop 3 and 4 – Pipeline Maintenance <sup>1</sup> | 15-Jul-23 | 23-Jul-23             | 142   | 16  | No impact to FT-D anticipated<br>Empress/McNeill Borders<br>Segments 15, 16, 17, 18, 19, 20, 23, partial 21, and partial 28 |
| Beiseker B3 – Compressor Station Maintenance  | 15-Jul-23 | 23-Jul-23             | 153   | 5   | No impact to FT-D anticipated<br>Empress/McNeill Borders<br>Segments 15, 16, 17, 18, 19, 20, 23, partial 21, and partial 28 |
| Clearwater – Compressor Station Maintenance   | 10-Oct-23 | 14-Oct-23             | 143   | 16  | No impact to FT-D anticipated<br>Empress/McNeill Borders<br>Segments 15, 16, 17, 18, 19, 20, 23, partial 21, and partial 28 |
| Clearwater A1 & A5 – Compressor Station Maintenance   | 16-Oct-23 | 20-Oct-23             | 155   | 4   | No impact to FT-D anticipated<br>Empress/McNeill Borders<br>Segments 15, 16, 17, 18, 19, 20, 23, partial 21, and partial 28 |
| Clearwater A6 – Compressor Station Maintenance  | 6-Nov-23  | 19-Nov-23             | 150   | 9   | No impact to FT-D anticipated<br>Empress/McNeill Borders<br>Segments 15, 16, 17, 18, 19, 20, 23, partial 21, and partial 28 |
| Jenner – Compressor Station Maintenance   | 13-Nov-23 | 30-Nov-23             | 150   | 9   | No impact to FT-D anticipated<br>Empress/McNeill Borders<br>Segments 15, 16, 17, 18, 19, 20, 23, partial 21, and partial 28 |

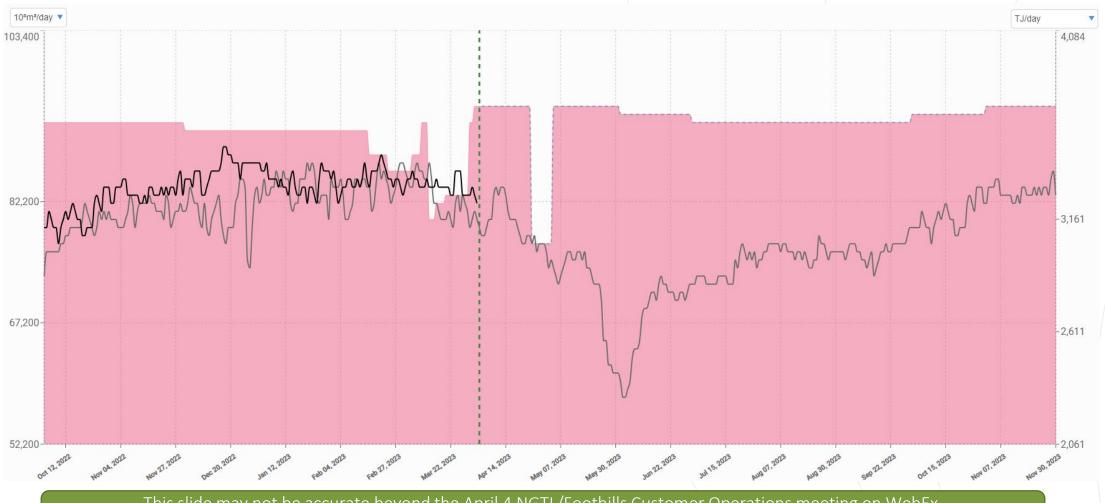
<sup>&</sup>lt;sup>1</sup>Expected to be managed by reducing all EGAT IT-D but has potential to impact EGAT FT-D service

Note: Outages located in the USJR area show up in the EGAT table in DOP to indicate a broad area restriction could be applied to reduce flows through the bottleneck but have been excluded from this slide to avoid duplication



#### Oil Sands Delivery Area





## Northeast Delivery Area (NEDA) Oilsands Delivery Area (OSDA)

No impact to FT

Potential impact to FT

Partial impact to FT

| Outage Description                                   | Start     | End      | OSDA<br>Capability<br>(10 <sup>6</sup> m <sup>3</sup> /d) | NEDA<br>Capability<br>(10 <sup>6</sup> m <sup>3</sup> /d) | Impact<br>(10 <sup>6</sup> m³/d) | Service Allowable Location/Area  |
|--|-----------|----------|---|---|----------------------------------|----------------------------------|
| NPS 42 North Central Corridor – Pipeline Maintenance | 25-Apr-23 | 3-May-23 | 77  | 120   | 1/                               | Potential impact to FT-D<br>NEDA |

## NPS 42 North Central Corridor Pipeline Maintenance

#### NPS 42 North Central Corridor – Pipeline Maintenance



Location: Meikle River to Woodenhouse

**Duration:** April 25 to May 3<sup>rd</sup>

#### Capability communicated in DOP:

• 336 10<sup>6</sup>m<sup>3</sup>/d (USJR)

• 120 10<sup>6</sup>m<sup>3</sup>/d (NEDA)

#### Why is this outage significant?

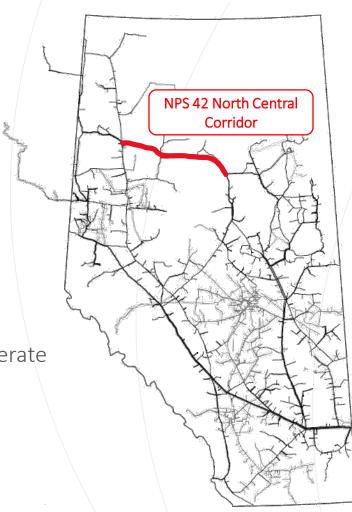
• Distance: ~300 km of one continuous inline inspection

• Complexity:

Multiple Compressor Stations bypassed during the run and unable to operate

Runs will last over a day

Key egress path for USJR supply and key supply source for NEDA demand



#### NPS 42 North Central Corridor – Pipeline Maintenance



#### What are we doing to reduce risk?

- Tool Selection: Working closely with the ILI vendor to ensure maximum tool speeds
- Resourcing: Ensuring regional resources are prepared and strategically placed to minimize response times and manage any unplanned events during this window
- Outage Bundling: maximizing opportunity to do maintenance on facilities that cannot be utilized during execution of this ILI
- Monitoring Supply and Demand distribution: closely evaluating supply and demand distribution in USJR and NEDA
- Aligning Plant Turnarounds: will consider all reported PTAs when determining authorization levels

NPS 42 North Central Corridor

Has potential to impact USJR FT-R service and/or NEDA FT-D service



#### MARKETING REPS

<u>Customer Express Contacts</u> (tccustomerexpress.com)

## **CONTACTS**

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