

Situation Manual

BNSF 2022 B.C. Worst-Case Discharge

Discussion-Based Test

Exercise: 9/21/22

This Situation Manual (SitMan) provides exercise participants with basic information to guide the assembled Incident Management Team's participation during the exercise. This material is intended for the use of exercise planners, facilitators, evaluators, and players. Players should also utilize other materials (BNSF Oil Spill Contingency Plans, Emergency Response Action Plans, as well as the BNSF Incident Management Handbook, Meeting and ICS Command and General Staff Position Guides, TRG IAP Software, etc.), necessary to perform their assigned ICS role.

The SitMan and other resources referenced above can be downloaded at the BNSF 'IMT & Exercise Resource Center' ([link](#)) and should be reviewed by exercise players before the exercise.

Please forward any recommended edits and changes to:

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Exercise Location:

Executive Plaza Coquitlam
405 North Road
Coquitlam, British Columbia V3K 4V9
Meeting Room: Aspen/Spruce/Pine

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Driving Directions to Exercise from Vancouver International Airport



EXERCISE OVERVIEW

Exercise Name	BNSF 2022 Discussion-Based Test
Exercise Date	9/21/22
Scope	This exercise is designed to be a continuation of the BNSF 'initial incident' discussion-based test performed in 2021 and implements the same scenario as 2021. The exercise will begin with an ICS-201 briefing and will conclude with a Tactics Meeting.
Mission Area(s)	Formation of unified command, development of priorities, procedures, objectives, and tasks for Notifications, Mobilization/Resource Procurement, Assessment, Source Control, Recovery, Waste Management, Protection-Shoreline and Wildlife, Communication-Public Information, and Liaison through completion of a Tactics Meeting.
Core Capabilities	Parts of the system to test: <ol style="list-style-type: none">1. Functionally exercise the Incident Management Team's roles and responsibilities, capabilities (e.g., what you can do), and capacities (e.g., how well or how much you can do).2. Ability to form Unified Command, transition from the reactive to proactive response phase, and complete initial operational planning cycle tasks using the Incident Command System.3. Ability to complete the exercise objectives identified.
Objectives	Test BNSF's Oil Spill Contingency Plan for British Columbia (B.C.) and exercise objectives identified in the Situation Manual.
Threat or Hazard	Unit Train crude oil derailment and ensuing release to water.
Scenario	A BNSF Crude Oil Unit Train (UN 1267) derailment at BNSF Mile Post 144.5 in B.C. near the BNSF New Westminster Yard in New Westminster, BC. 24 tank cars carrying Crude Oil are reported to have derailed.
Sponsor	BNSF
Point of Contact	Nic Winslow: BNSF Hazmat Department

PURPOSE

As part of its ongoing commitment to transportation safety, the BNSF Railway Company (BNSF) is conducting a worst-case discharge discussion-based test (i.e., table-top exercise) on 21 September 2022 at the Executive Plaza Coquitlam, 405 North Road, Coquitlam, B.C.

The discussion-based test is meant to exercise and validate BNSF's Oil Spill Contingency Plan for B.C., as well as the BNSF Incident Management Team's (IMT) capabilities to respond to a simulated oil spill.

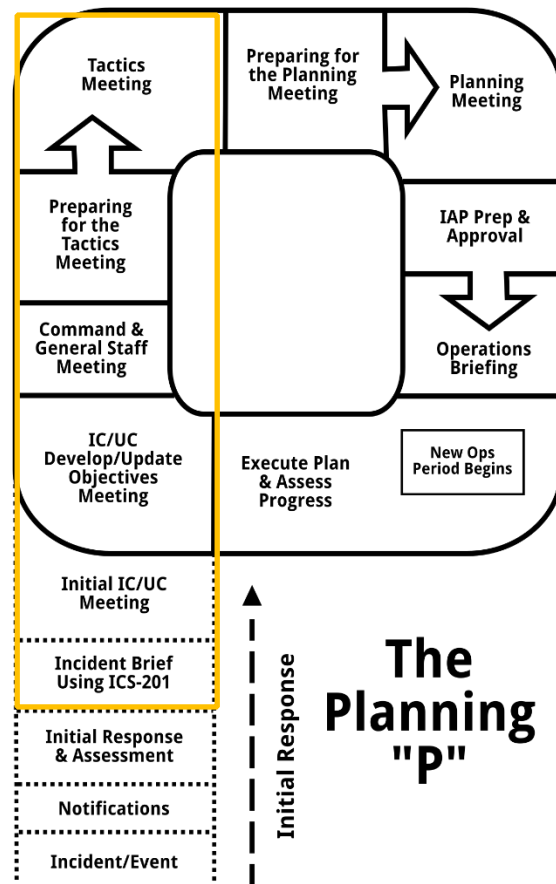
This Situation Manual (SitMan) has been developed for use by all participants to understand the details, scope, and objectives of the exercise and allow them to fulfill their assigned roles. Additional supporting materials such as the drill scenario map (etc.) are attached as appendices to this manual.

Due to COVID-19, this exercise will be conducted in accordance with applicable restrictions and reflecting BNSF and B.C. Provincial COVID-19 policies and procedures. Be advised that event details and logistics may need to be adjusted in accordance with evolving requirements.

As information, BNSF is additionally facilitating an operations-based test (i.e., equipment deployment exercise) on 22 September 2022. This exercise is covered by a SitMan under separate cover.

SCOPE

- This exercise is designed to be a continuation of the BNSF 'initial incident' WCD discussion-based test performed in 2021 which resulted in the creation of an Incident Command System (ICS) 201 and delivery of a 201 briefing to the incoming Unified Command.
- As shown at right, this 2022 exercise is intended to begin with an ICS-201 briefing and will conclude with a Tactics Meeting.
- The exercise will validate plans and procedures and provide experience for participants by using a scenario to drive exercise play.



AGENDA

The agenda below has been developed to support exercise activities on 21 September 2022:

Time (Pacific)	Activity Item	Participants	Location
7:30 a.m. – 8:00 a.m.	Badging & Sign-In	All	ICP
8:00 a.m. – 8:30 a.m.	Exercise Kickoff / Safety Briefing	All	ICP
8:30 a.m. – 4:00 p.m.	Conduct Discussion-Based Test	Players	ICP
12:00 p.m.	Working Lunch	All	ICP
4:00 p.m. – 4:30 p.m.	Hot Wash / Exercise Close	All	ICP

All activities above will be undertaken at the Incident Command Post at the Executive Plaza Coquitlam. Driving directions to the Executive Plaza are provided on page 2 of the SitMan.

PARTICIPANTS

Exercise Participants include Players, Observers, and Evaluators (outlined below) and include personnel from BNSF's IMT, Response Organizations (ROs), response contractors, as well as agencies and other participants (etc.).

- **Players:** Exercise players are personnel who have an active role in performing their regular response roles and responsibilities during the exercise.
- **Observers:** Exercise observers visit or view selected segments of the exercise. Observers do not play in the exercise or perform any control or evaluation functions.
- **Evaluators:** Evaluators evaluate and/or document the exercise.

Exercise Participants:

- **Players:** Exercise players are anticipated to include the BNSF IMT. Agency participants are anticipated to play additional roles as federal, provincial, and/or local on-scene coordinators (etc.) as driven by exercise play.
- **Observers:** Exercise observers are anticipated to include additional exercise participants without ICS or IMT roles driven by exercise play.
- **Evaluators:** BNSF and B.C. Ministry of Environment (BC ENVL).

After completion of the exercise, BNSF will close with a facilitated group discussion (exercise "Hot Wash") covering response actions, responsibilities, and/or response expectations. **During the facilitated discussion, all parties are involved in the discussion, irrespective of their prior role(s).**

OBJECTIVES

The overall objectives of the exercise include:

1. Using BNSF's IMT, and given the ICS-201 developed in 2021, establish a functional Unified Command and response structure with local, first nation, provincial, and federal response agencies prior to the end of the exercise (ENDEX).
2. Using BNSF IMT and partnering organizations, develop resource task assignments for source control, protection, recovery, security, and air monitoring with agreed upon tactics by the end of the Tactics Meeting.
3. Using BNSF IMT and partnering organizations, develop safety, community air monitoring, and staffing plans prior to ENDEX.
4. Using BNSF IMT and partnering organizations, develop an Environmental Unit resource-at-risk inventory and a review a wildlife rehabilitation plan and procedures prior to ENDEX.
5. Using BNSF Public Information Staff, set-up and establish a Joint Information Center, develop a press release, and prepare Unified Command for press briefing with participating agencies prior to the Tactics Meeting.
6. Using BNSF Liaison Staff, demonstrate the ability to engage with potentially affected stakeholders and develop a stakeholder engagement plan prior to the Tactics Meeting.
7. Using BNSF IMT and partnering organizations, complete applicable BC ENVL/ Preparedness for Response Exercise Program (PREP) objectives per response standards outlined in exercise evaluation guides prior to ENDEX.
8. BNSF IMT and partnering organizations will demonstrate knowledge and effective use of applicable response plans throughout the exercise.

These objectives are supported by completion of the following provincial 'Components to be Tested' and their equivalent PREP Core Components:

PREP (U.S.) & EMA Div 2.1 Component (B.C.)		PREP Description	To-Be-Exercised
1.	PREP: Notifications B.C.: Notification [Section 12(3)]	Validate the notifications procedures identified in the response plan being exercised.	
2.	PREP: Staff Mobilization B.C.: Mobilization [Section 12(4)(c)] / ICP [Section 12(4)(d)]	Demonstrate the ability to assemble the response organization identified in the response plan being exercised.	X
3.	PREP: Ability to operate within the RMS described in the plan B.C.: Incident Command System (ICS) [Section 7]	Demonstrate the ability of the IMT organization to operate within the framework of the incident management system identified in their respective plan(s).	X
4.	PREP: Source Control B.C.: Source Control [Sect. 12(4)(e)] / Deployment [Sect. 12(4)(c)]	Demonstrate the ability of the response organization to control and stop the discharge at the source, and to effectively coordinate source control activities within the response management system used for the overall incident. Source control actions may involve specialized operations.	
5.	PREP: Assessment B.C.: Initial/ongoing Assessments [Section 12(2) & (4)(b)]	Demonstrate the ability of the IMT organization to provide an initial assessment of the discharge or potential discharge and provide continuing assessments of the effectiveness of the tactical planning.	X

PREP (U.S.) & EMA Div 2.1 Component (B.C.)		PREP Description	To-Be-Exercised
6.	PREP: Containment B.C.: Stabil. & Contain [Sect. 12 (4)(f)] / Deployment [Sect. 12 (4)(c)]	Demonstrate the ability of the IMT organization to contain the discharge at the source or in various locations for recovery operations.	X
7.	PREP: Mitigation/Recovery B.C.: Removal & Clean Up [Sect. 12 (4)(f)] / Deployment [Sect. 12(4)(c)]	Demonstrate the ability to mitigate the discharged product through the use of spill countermeasures, including, but not limited to, dispersants, in-situ burning, and bioremediation, in addition to mechanical recovery.	X
8.	PREP: Protection B.C.: Protection [Section 12(4)(g)] / Deployment [Section 12(4)(c)]	Demonstrate the ability to protect the environmentally and economically sensitive areas identified in the ACP and the respective industry response plan, including: 1. Protective Booming: Demonstrate the ability to assemble and deploy sufficient resources to implement the protection strategies contained in the ACP and the respective industry response plan. 2. Water Intake Protection: Demonstrate the ability to quickly identify water intakes and implement the proper protection procedures from the ACP or develop a plan for use. 3. Wildlife Recovery and Rehabilitation: Demonstrate the ability to quickly identify these resources at risk and implement the proper protection procedures from the ACP to develop a plan for use. 4. Population Protection (Protect Public Health and Safety): Demonstrate the ability to quickly identify health hazards associated with the discharged product and the population at risk from these hazards, and to implement the proper protection procedures from the ACP to develop a plan for use.	X
9.	PREP: Disposal B.C.: Waste Mgmt. [Section 10]	Demonstrate the ability to dispose of the recovered material and contaminated debris.	
10.	PREP: Communications B.C.: Communication [Section 9]	Demonstrate the ability to establish an effective communications system for the response organization.	X
11.	PREP: Transportation B.C.: NA - 'Transportation' not a B.C. Component	Demonstrate the ability to provide effective multimode transportation, both for execution of the discharge and support functions.	
12.	PREP: Personnel Support B.C.: Ongoing Sufficiency [Section 12(4)(c)]	Demonstrate the ability to provide the necessary support of all personnel associated with the response.	
13.	PREP: Equipment Maintenance and Support B.C.: NA - 'Equip. Maint.' not a B.C. Component	Demonstrate the ability to maintain and support all equipment associated with the response.	
14.	PREP: Procurement B.C.: NA - 'Procurement' not a B.C. Component	Demonstrate the ability to establish an effective procurement system.	
15.	PREP: Documentation B.C.: Monitoring & Documentation [Section 12(1)(d)]	Demonstrate the ability of the IMT organization to document all operational and support aspects of the response and provide detailed records of decisions and actions taken.	X

GROUND RULES

1. SAFETY is our number one priority. In the event any unsafe condition is identified and/or incident occurs, exercise activities must be halted until the situation is adequately addressed and all required mitigation activities are performed. Any unsafe act observed during the exercise must be immediately addressed and reported to the Safety Officer and your direct supervisor. All attending Players must complete a Health and Safety Plan (HASP) for their organization, appropriate to their assignment(s).
2. EXERCISE SAFETY BRIEFING: The exercise will begin with a Safety Briefing.
3. COMMUNICATIONS: All exercise communications and written materials must be started and ended with the phrase "This is an Exercise."
4. PERSONAL EXERCISE EQUIPMENT: All exercise participants should plan on bringing a laptop with charger. It is recommended to have two screens available for working in the Teams environment and utilizing the IAP Software, as well as a noise canceling headset. Bluetooth headsets or headphones are not recommended as this is an all-day exercise. Also, for those that have a hard copy of BNSF's IMH, please bring it with you. A limited number will be available at the exercise.
5. PERSONAL PROTECTIVE EQUIPMENT (PPE): There are no specific PPE requirements for the exercise.
6. SIGN-IN/OUT: All Participants must sign in at the exercise location by 8:00 a.m. and sign out of the exercise when their responsibilities have been completed or are leaving the exercise location for any reason to maintain personnel accountability. Failure to perform the sign-out activity may result in unnecessary actions being taken to locate missing person(s)

ASSUMPTIONS, ARTIFICIALITIES, AND OUT-OF-PLAY

It will be assumed, for the purpose of meeting the exercise objectives, that the following circumstances exist:

- The exercise will begin with a scenario review for all participants and will proceed through the safe and effective execution of activities meant to address the simulated release.
- The release volume and liquid petroleum oil type defined in the scenario is the total volume for the exercise. This will include the amount simulated to have been released and the remaining potential.
- Actual mobilization of equipment is out-of-play other than designated deployment sites by the Exercise Director.
- There is no "hidden agenda," nor any trick questions.
- Weather will be defined by day-of-exercise conditions.
- Spill trajectory and "overflight" information will be provided at the start of the exercise.
- The following is out-of-play: Circumstances leading up to the release. Track closure,

service interruption, and service re-establishment. Security / evacuations / road closures. Community air monitoring field operations. Wildlife; volunteers; alternative response technologies; VIP visits; Natural Resource Damage Assessment; sinking oil; security in terms of terrorism.

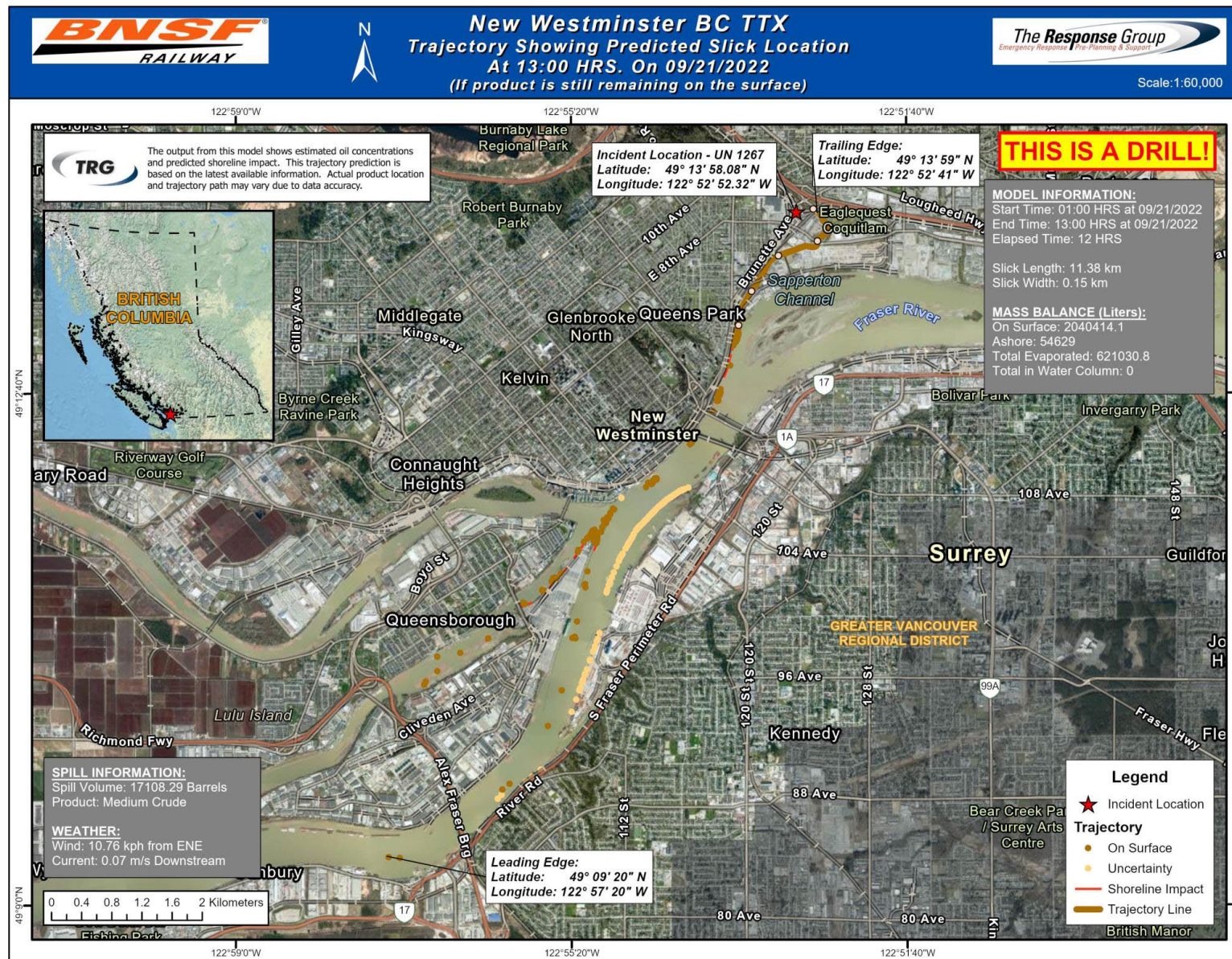
EXERCISE SCENARIO:

- A BNSF manifest train derailment occurred at 0100 on 21 September 2022 at BNSF Mile Post 144.5 in B.C. near the Brunette River railroad bridge on the southern side of New Westminster, B.C.
- Twenty-four cars were reported to have derailed: all derailed tank cars were placarded UN 1267 – Crude Oil. The release potential from these tank cars is 2,680,072 Liters (708,000 gallons / 16,857 barrels).
- After the derailment, the engineer and conductor contacted the Dispatcher who notified the BNSF Service Interruption Desk (SID) at 0120 after inspection of the train. The Dispatcher reported that in the initial damage assessment, an unknown quantity of crude oil was released from the derailed tank cars and is flowing into the Brunette River. The Brunette River discharges to the Fraser River 1.6 kilometers downstream from the derailment location.
- It was later confirmed that crude oil is being released from the 24 derailed tank cars and is flowing across the ground surface into the Brunette River.
- The oil release volumes have been confirmed by BNSF Hazmat Responders and the response organizations. A BNSF-developed Geographic Response Strategy is available on the Brunette River. No fires, injuries, or fatalities have been reported.
- BNSF SID and the BNSF Resource Operations Control Center started emergency notifications at 0120 to the British Columbia Emergency Coordination Center. At 0130, New Westminster Fire Department arrived and started a scene assessment and road closures using a conservative 800-meter (½-mile) evacuation distance based on the Transport Canada/U.S. Department of Transportation Emergency Response Guidebook recommendations for rail car fires.
- At 0145, New Westminster Fire Department reported visible sheen flowing on the Brunette River in the direction of the Fraser River. According to Avadepth models for the Fraser River in New Westminster area, from 00:00 to 1330 the flow direction is southwest, with a reversal in flow to the northeast from ~13:30 to 17:00, before returning to a southwestern flow at ~17:30 for the rest of the day.
- The Qualified Individual reports to the Emergency Coordinator that their arrival time onsite will be 0600.
- ICS 201 Initial Incident Action Plan (IAP) has been created and IAP 201 briefing will be at the Executive Plaza Hotel Coquitlam located at 405 North Road, Coquitlam, B.C. V3K 3V9, Canada

Appendix A-1: Drill Scenario Spill Location Map



Appendix A-2: Initial Spill Trajectory Map



Appendix B: ICP Meeting Room Layout



Appendix C: Exercise Participants

Participants – Please Print Clearly
Name, department & email
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Participants – Please Print Clearly	
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