GEOGRAPHICAL RESPONSE PLAN

KEYSTONE PIPELINE SYSTEM

FOR TRANSCANADA PIPELINE USE ONLY Not controlled when printed.

Updated December 2020

MINIOTA (MB) AREA

RESPONSE SUMMARY

This Geographic Emergency Response Plan (GRP) is a component of the Keystone Emergency Response Plan (ERP). Information herein does not supersede any component of the ERP.

The purpose of this plan is to facilitate expedited and efficient emergency response operations to protect people and the environment near the Assiniboine River crossing in Miniota.

This plan should be referenced as a guide only during emergency response. All actions should be modified to meet the demands of a specific incident. This plan does not direct actions, but merely serves as a resource to responders.

All responders using this plan should ensure the TransCanada First Responder Checklist is completed before implementing this plan.

Recommendations in this GRP may be applied to releases from TransCanada's Keystone Pipeline in the Moosomin Section from valve MOSMI+30_0 to MOSMI+31_8.this GRP affects the municipality of Miniota MB and services from the municipality of Wallace.

The surrounding area is part of the western uplands and Great Plains region which lies within the in the Assiniboine river watershed. Undulating till plains with depressions creating lakes and marshes, the area has the majority of well-drained soil in the south restricted drainage elsewhere. This area has a generally high water table.

Culturally and environmentally sensitive receptors need to be protected and preserved in the unlikely event of a release. These receptors have been identified through publically available data from both federal and provincial agencies within a 1km buffer of each source and tactical control points. The Assiniboine River at Miniota Tactical Plans includes a list of all environmental and cultural receptors for each control point. The identified receptors include aquifers, water wells, historic sites, environmentally sensitive areas, aboriginal reserves, soil type, drainage pathway and species of concern.

Below is a table showing all species of concern for both federal and provincial status. Each species are ranked as endangered, extirpated, threatened, of special concern or not listed. The definitions of these classifications are as follows:

Endangered: A wildlife species facing imminent extirpation or extinction

Extirpated: A wildlife species that no longer exists in the wild in Canada, but exists elsewhere **Threatened:** A wildlife species that is likely to become endangered if nothing is done to reverse the factors leading to its extirpation or extinction

Special concern: A species is of special concern because of characteristics that make it particularly sensitive to human activities or natural events.

Not listed: A species for which there is insufficient scientific information to support status designation.

Burrowing Owl endangered endangered lake Manitoba plain/ Aspen Parkland Canada Warbler threatened endangered lake Manitoba plain/ Aspen Parkland Chimney Swift threatened threatened lake Manitoba plain/ Aspen Parkland Piping Plover endangered endangered lake Manitoba plain/ Aspen Parkland Common Nighthawk threatened threatened lake Manitoba plain/ Aspen Parkland Yellow Rail special concern not listed lake Manitoba plain/ Aspen Parkland Golden-winged Warbler threatened threatened lake Manitoba plain/ Aspen Parkland	Wildlife Species	SARA Status	Provincial Status	Ecoregion
Burrowing Owl endangered endangered lake Manitoba plain/ Aspen Parkland Canada Warbler threatened endangered lake Manitoba plain/ Aspen Parkland Chimney Swift threatened threatened lake Manitoba plain/ Aspen Parkland Piping Plover endangered endangered lake Manitoba plain/ Aspen Parkland Common Nighthawk threatened threatened lake Manitoba plain/ Aspen Parkland Yellow Rail special concern not listed lake Manitoba plain/ Aspen Parkland Golden-winged Warbler threatened threatened lake Manitoba plain/ Aspen Parkland	mmals			
Burrowing Owl endangered endangered lake Manitoba plain/ Aspen Parkland Canada Warbler threatened endangered lake Manitoba plain/ Aspen Parkland Chimney Swift threatened threatened lake Manitoba plain/ Aspen Parkland Piping Plover endangered endangered lake Manitoba plain/ Aspen Parkland Common Nighthawk threatened threatened lake Manitoba plain/ Aspen Parkland Yellow Rail special concern not listed lake Manitoba plain/ Aspen Parkland Golden-winged Warbler threatened threatened lake Manitoba plain/ Aspen Parkland	Mule or Black-tailed Deer	notlisted	threatened	lake Manitoba plain/ Aspen Parkland
Canada Warbler threatened endangered lake Manitoba plain/ Aspen Parkland Chimney Swift threatened threatened lake Manitoba plain/ Aspen Parkland Piping Plover endangered endangered lake Manitoba plain/ Aspen Parkland Common Nighthawk threatened threatened lake Manitoba plain/ Aspen Parkland Yellow Rail special concern not listed lake Manitoba plain/ Aspen Parkland Golden-winged Warbler threatened threatened lake Manitoba plain/ Aspen Parkland	ds			
Canada Warbler threatened endangered lake Manitoba plain/ Aspen Parkland Chimney Swift threatened threatened lake Manitoba plain/ Aspen Parkland Piping Plover endangered endangered lake Manitoba plain/ Aspen Parkland Common Nighthawk threatened threatened lake Manitoba plain/ Aspen Parkland Yellow Rail special concern not listed lake Manitoba plain/ Aspen Parkland Golden-winged Warbler threatened threatened lake Manitoba plain/ Aspen Parkland	Down with a Out		Id	Late Maritala relain (Assaul Barkland
Chimney Swift threatened threatened lake Manitoba plain/ Aspen Parkland Piping Plover endangered endangered lake Manitoba plain/ Aspen Parkland Common Nighthawk threatened threatened lake Manitoba plain/ Aspen Parkland Yellow Rail special concern not listed lake Manitoba plain/ Aspen Parkland Golden-winged Warbler threatened threatened lake Manitoba plain/ Aspen Parkland				·
Piping Plover endangered endangered lake Manitoba plain/ Aspen Parkland Common Nighthawk threatened threatened lake Manitoba plain/ Aspen Parkland Yellow Rail special concern not listed lake Manitoba plain/ Aspen Parkland Golden-winged Warbler threatened threatened lake Manitoba plain/ Aspen Parkland				·
Common Nighthawk threatened threatened lake Manitoba plain/Aspen Parkland Yellow Rail special concern not listed lake Manitoba plain/Aspen Parkland Golden-winged Warbler threatened threatened lake Manitoba plain/Aspen Parkland	<u> </u>			· ·
Yellow Rail special concern not listed lake Manitoba plain/ Aspen Parkland Golden-winged Warbler threatened threatened lake Manitoba plain/ Aspen Parkland	Piping Plover	endangered	endangered	·
Golden-winged Warbler threatened threatened lake Manitoba plain/ Aspen Parkland	Common Nighthawk	threatened	threatened	lake Manitoba plain/ Aspen Parkland
	Yellow Rail	special concern	notlisted	lake Manitoba plain/ Aspen Parkland
Loggerhead Shrike endangered not listed lake Manitoba plain/ Aspen Parkland	Golden-winged Warbler	threatened	threatened	lake Manitoba plain/Aspen Parkland
	Loggerhead Shrike	endangered	notlisted	lake Manitoba plain/ Aspen Parkland
Red-headed Woodpecker threatened threatened lake Manitoba plain/ Aspen Parkland	Red-headed Woodpecker	threatened	threatened	lake Manitoba plain/ Aspen Parkland
Short-eared Owl special concern threatened lake Manitoba plain/ Aspen Parkland	Short-eared Owl	special concern	threatened	lake Manitoba plain/ Aspen Parkland
Sprague's Pipit threatened threatened lake Manitoba plain/ Aspen Parkland	Sprague's Pipit	threatened	threatened	lake Manitoba plain/ Aspen Parkland
Whip-poor-will not listed threatened lake Manitoba plain/ Aspen Parkland	Whip-poor-will	notlisted	threatened	lake Manitoba plain/ Aspen Parkland
Bobolink not listed not listed lake Manitoba plain/ Aspen Parkland	Bobolink	notlisted	notlisted	lake Manitoba plain/ Aspen Parkland
Horned Grebe not listed not listed lake Manitoba plain/ Aspen Parkland	Horned Grebe	notlisted	notlisted	lake Manitoba plain/ Aspen Parkland
Least Bittern threatened endangered lake Manitoba plain/ Aspen Parkland	Least Bittern	threatened	endangered	lake Manitoba plain/ Aspen Parkland
Olive Sided Fly Catcher threatened not listed lake Manitoba plain/ Aspen Parkland	Olive Sided Fly Catcher	threatened	notlisted	lake Manitoba plain/ Aspen Parkland
Rusty Blackbird special concern not listed lake Manitoba plain/ Aspen Parkland	Rusty Blackbird	special concern	notlisted	lake Manitoba plain/ Aspen Parkland
Whooping Crane endangered endangered lake Manitoba plain/ Aspen Parkland	Whooping Crane	endangered	endangered	lake Manitoba plain/ Aspen Parkland
Barn Swallow not listed not listed lake Manitoba plain/ Aspen Parkland	Barn Swallow	notlisted	notlisted	lake Manitoba plain/ Aspen Parkland
Baird's sparrow not listed endangered lake Manitoba plain/ Aspen Parkland	Baird's sparrow	notlisted	endangered	lake Manitoba plain/ Aspen Parkland
Ferruginous Hawk threatened endangered lake Manitoba plain/ Aspen Parkland	Ferruginous Hawk	threatened	endangered	lake Manitoba plain/ Aspen Parkland
Amphibians	nphibians			
Northern Leopard Frog special concern not listed lake Manitoba plain/ Aspen Parkland	Northern Leonard Frog	special concern	notlisted	lake Manitoba plain/ Aspen Parkland
Fish		Special content	nothisted	lake Wallioba Plaili/ Aspell Lakianu
	!!			
Silver Chub special concern not listed lake Manitoba plain/ Aspen Parkland	Silver Chub	special concern	notlisted	lake Manitoba plain/ Aspen Parkland
Arthropods	hropods			
Dakota Skipper threatened threatened lake Manitoba plain/ Aspen Parkland	Dakota Skipper	threatened	threatened	lake Manitoba plain/ Aspen Parkland
Monarch Butterfly special concern not listed lake Manitoba plain/ Aspen Parkland	Monarch Butterfly	special concern	notlisted	lake Manitoba plain/ Aspen Parkland
Uncas Skipper not listed endangered lake Manitoba plain/ Aspen Parkland	Uncas Skipper	notlisted	endangered	lake Manitoba plain/ Aspen Parkland
Reptiles				
Common Snapping Turtle not listed not listed lake Manitoba plain/ Aspen Parkland	ptiles			

Prairie Skink	endangered	notlisted	lake Manitoba plain/ Aspen Parkland
Western Hognose Snake	notlisted	threatened	lake Manitoba plain/ Aspen Parkland
Vascular Plants			
Small White Lady's-slipper	endangered	endangered	lake Manitoba plain/ Aspen Parkland
Western Silvery Aster	notlisted	threatened	lake Manitoba plain/ Aspen Parkland
Western Ironweed	notlisted	endangered	lake Manitoba plain/ Aspen Parkland
Smooth Goosefoot	threatened	endangered	lake Manitoba plain/ Aspen Parkland
Rough Agalinis	endangered	endangered	lake Manitoba plain/ Aspen Parkland

*Disclaimer: if a species is not listed in on either provincial status or on SARA, it is listed on COSEWIC as a species at risk

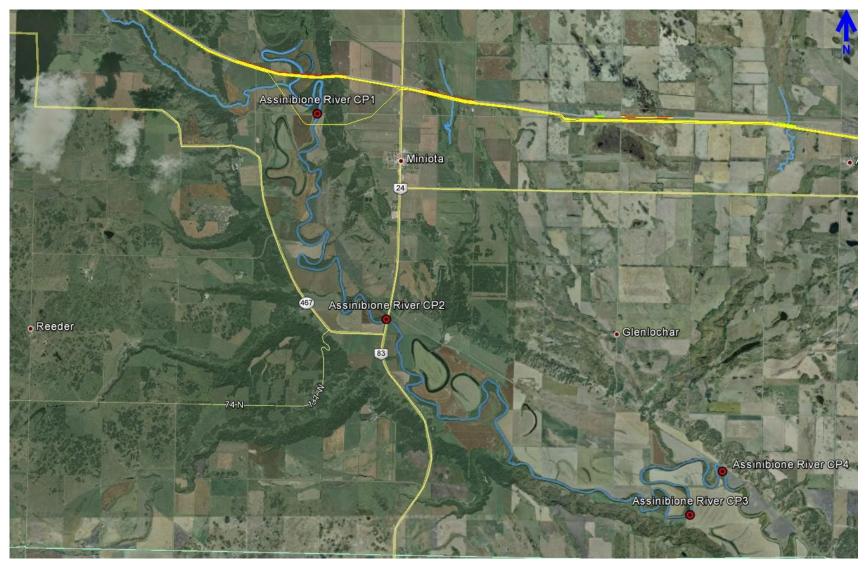
A TransCanada Environmental Specialist will be responsible for managing environmental matters associated with incident response operations, including: environmental assessment; permitting; environmental monitoring and damage assessment; and sensitive habitat and wildlife protection and rehabilitation.

TABLE OF CONTENTS

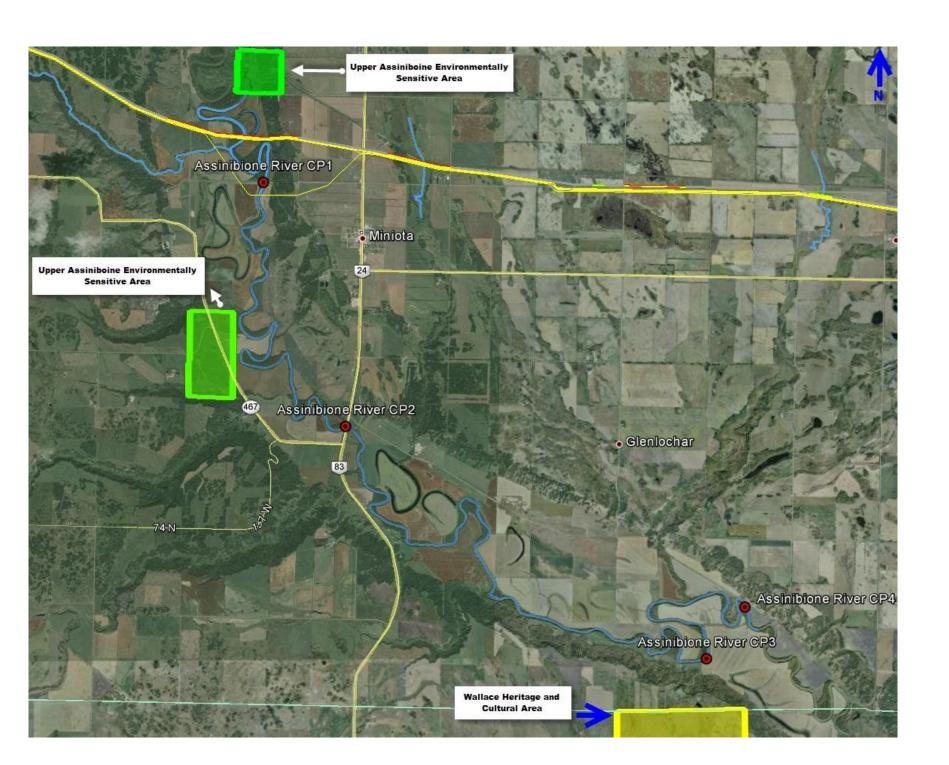
Table of Contents

MAPS	5
MEDICAL PLAN (ICS FORM 206)	9
RESOURCE REQUIRMENT MATRIX	10
POTENTIAL INCIDENT COMMAND POST FACILITIES	11
POTENTIAL STAGING AREAS	12
LOCAL LODGING	13
LOCAL CATERING SERVICES	14
LOCAL RESPONSE CONTRACTORS	15
LOCAL CONTACTS	16
CONTROL POINTS ASSOCIATED WITH THIS PLAN	17

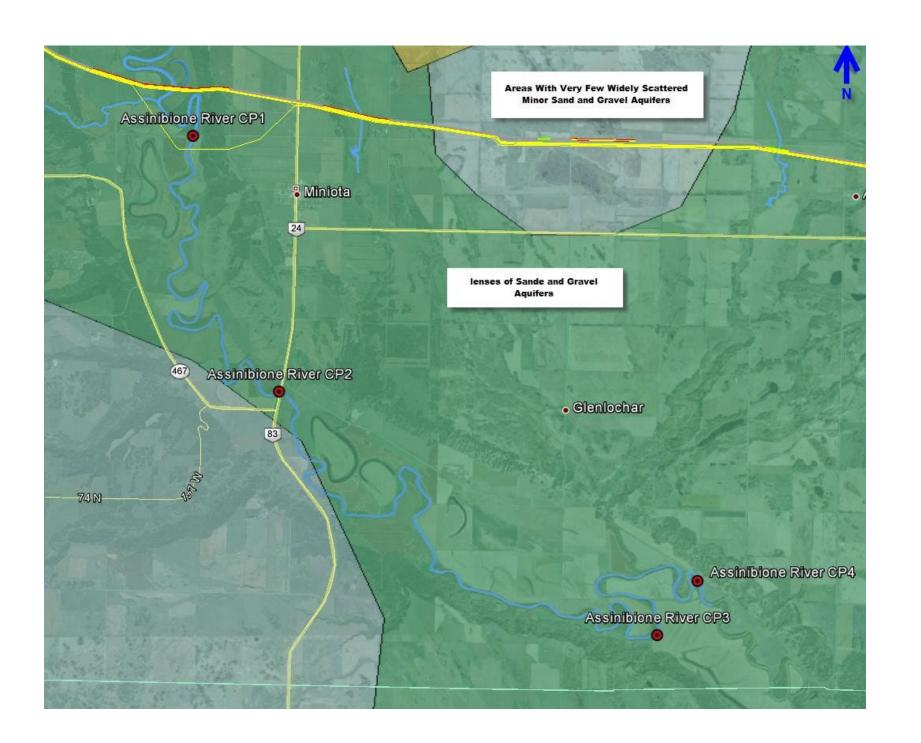
MAPS



Map 1: Overview Map of entire Miniota GRP Area

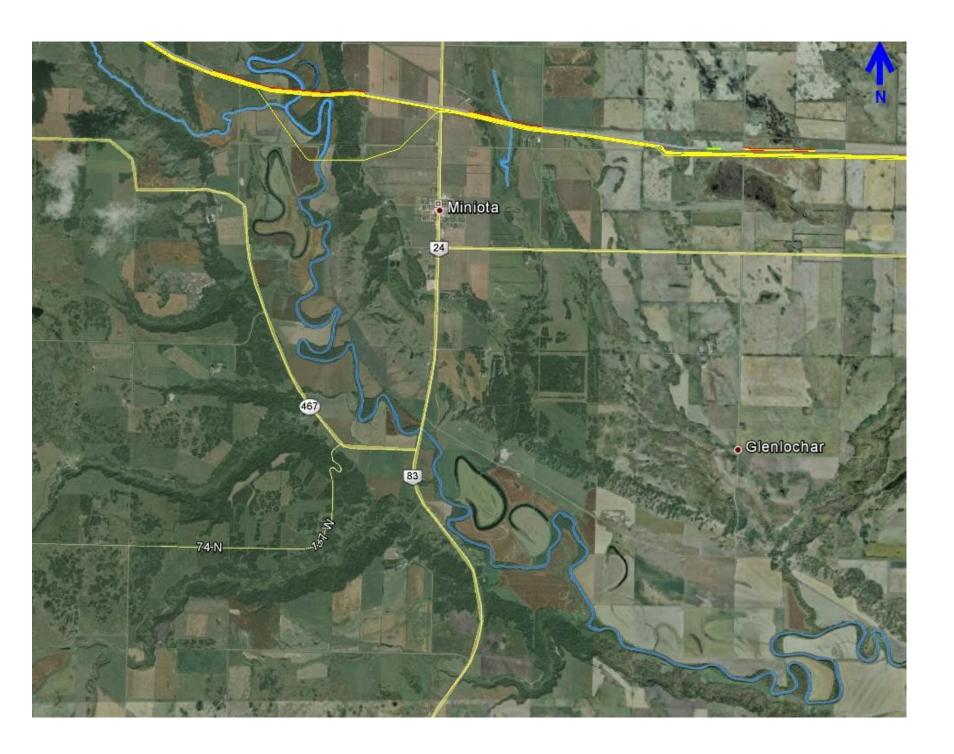


Map 2: identifies protected areas within the GRP



Map 3:

displays the four sand and gravel aquifers within the GRP



Map 4: displaying the water channels within the GRP

MEDICAL PLAN (ICS FORM 206)

Transportation							
Name		Location	Contact#		Paramedics On-Site (Y/N)		
all	Со	rner of Rowan ave and HWY 8 Miniota	33 in	204-567-372	1	N	
nent	33	0 11 Ave S, Virden, MB R0M	2C0	(204) 748-130	1	Υ	
Hall	110	Railway St, Elkhorn, MB R0M	1 0N0	(204) 845-204	5	Υ	
	22 Willow Ave, Hamiota, MB R0M 0T0			(204) 764-305)	N	
Address	S	Contact#	Trav Air	vel Time Ground	Burn Center	Heli- Pad	
Centre Box 400, Viro MB.	den	(204) 748-1230					
Box 490		(204) 759-2336					
150 McTavish Ave. East Brandon, MB R7A 2B3		(204) 578-4000					
177 Birch Avenue E Hamiota, MB R0M 0T0		(204) 764-2412					
	Addres Virden Hea Centre Box 400, Vir MB. R0M 2C0 526 Mary S Box 490 Shoal Lake, R0J 1Z0 150 McTavi Ave. Eas Brandon MB R7A 2 177 Birch Avenue E Hamiota, M	all Conent 33 Hall 110 Address Virden Health Centre Box 400, Virden MB. R0M 2C0 526 Mary St. Box 490 Shoal Lake, MB R0J 1Z0 150 McTavish Ave. East Brandon, MB R7A 2B3 177 Birch Avenue E Hamiota, MB	Location Corner of Rowan ave and HWY 8 Miniota all Corner of Rowan ave and HWY 8 Miniota and and Corner of Rowan ave and HWY 8 Miniota 330 11 Ave S, Virden, MB ROM 22 Willow Ave, Hamiota, MB ROM 22 Willow Ave, Hamiota, MB ROM Countre Box 400, Virden MB. ROM 2C0 526 Mary St. Box 490 Shoal Lake, MB ROJ 1Z0 Countre Count	Location All Corner of Rowan ave and HWY 83 in Miniota Tent 330 11 Ave S, Virden, MB ROM 2C0 Hall 110 Railway St, Elkhorn, MB ROM 0N0 22 Willow Ave, Hamiota, MB ROM 0T0 Address Contact # Trav Air Virden Health Centre Box 400, Virden MB. ROM 2C0 526 Mary St. Box 490 Shoal Lake, MB ROJ 1Z0 150 McTavish Ave. East Brandon, MB R7A 2B3 177 Birch Avenue E Hamiota, MB (204) 764-2412 Corner of Rowan ave and HWY 83 in Miniota in Mini	Location Contact #	Location Contact # Para On-Stall	

RESOURCE REQUIRMENT MATRIX

	Calculation	Substantive Spills Avg. Probable (1% WCD) Redacted 2d	Large Spills Max. Most Probable (10% WCD) Redacted 2d	Worst Case Discharge (WCD) Redacted 2d
Skimmer (TDS 118)	=Volume of oil released/2,400 bbls x 2 to compensate for less 100% efficiency 1 skimmer = 2,400 bbls/day	1	4	40
Powerplant (Generator)	=1 per skimmer	1	4	40
Pump	=1 per skimmer	1	4	40
Boom (ft)	=1000 feet per recovery site	1000	4000	40,000
Vac Truck	=Volume of oil released/Vac Truck capacity/4 trips per day Vac Truck Capacity=70bbls	2	18	171
Storage (Frac Tank)	=Volume of oil released/Frac Tank capacity x 2 Frac Tanks = 500 bbls	2	20	192

*this GRP is located in Response Zone 2 of the Keystone ERP. The WCD was determined by the Pipeline and Hazardous Materials Safety Administration Discharge Volume Association. Within the specific area of this GRP the WCD is Redacted 2d

Name/Address	Phone Number	Distan ce From – Center (km)	Confe rence Room Size	Food Service On Site (Y/N)	Internet Access (Y/N)	Notes
Miniota Community Hall, 568 Miniota Rd, Miniota, MB R0M 1M0	(204) 5673596			N	Ν	
Tundra Oil and Gas Place-Virden Community Recreation 170 Lyons St E, Virden, MB R0M 2C0	(204) 7482440		500ppl	Υ	Υ	
Comfort Inn & Suites, 380 Frontage Road West, Virden, MB, Canada, R0M 2C0	(204) 7076020			N	Y	
Virden Central Hotel	(204) 7482444			Υ	Y	
Elkhorn District Community Centre #302 Foxford Avenue East.	Arena (204) 845-2551 or President Keith Orr (204) 845- 2382			N	N	

POTENTIAL STAGING AREAS

Name/Address	Landowner	Phone number	Size / Area	Description (Paved Gravel, Field, etc.)
Lat/Long				

** TO BE DETERMINED BY TACTICAL CONTROL POINT FORMS

Name/Address Lat/Long	Phone Number	Distance From – Center (Miles/Kilometers)	Units (Total)	Food Service On-Site (Y/N)	Internet Access (Y/N)	Notes
Miniota Motor Inn, 7 MINIOTA RD S, Miniota, MB	(204) 567-3776			N	N	
Comfort Inn & Suites, 380 Frontage Road West, Virden, MB, Canada, R0M 2C0	(204) 707-6020			N	Υ	
Virden Central Hotel	(204) 748-2444			Υ	Υ	
Canalta Hotel Moosomin 405 Mountain St, Moosomin, SK S0G 3N0	(306) 435-3034			N	Υ	
Motel 6 405 Ogilvie St, Moosomin, SK S0G 3N0	(306) 435-3666			N	Υ	

Name/Address Lat/Long	Phone Number	Distance From – Center (Miles/Kilometers)	Delivery (Y/N)	Notes	•
Chicken Chef, 175 Wellington St W, Virden, MB R0M 2C0	(204) 748- 3200				
A&W 360 West, Frontage Rd, Virden, MB R0M 2C0	(204) 748- 2008				
Subway 340 Frontage Rd West, Virden, MB R0M 2C0	(204) 748- 6698				
Grand Central Pizza 444 6 Ave S, Virden, MB R0M 2C0	(204) 748- 2444				
Hoysun Chinese Resturant 115 North Railway Ave E, Deloraine, MB R0M 0M0	(204) 747- 3673				

Name/Address Lat/Long	Phone Number	Distance From- Center (Miles/Kilometers)	Notes
Quantum Murray Emergency Response	(877) 378-7745		
Manitoba Producers Oil Spill Co-op	(204)748-4260		Redacted 1b
Tervita Corporation	1-800-32-SPILL (77455)		24hr North American Emergency Response Line
Euroway Industrial Services	(204) 661-0500		
Stantec Consulting			Environmental Sampling and consulting For Manitoba/Sask area contact Redacted 1b For work in Alberta contact Redacted 1b
Tetra Tech Consulting			Environmental Sampling and consulting Please contact Redacted 1b
Focus Wildlife	1-310-386-5965		
NewAlta	1-800-774-8466		24hr Emergency Response Line

LOCAL CONTACTS

Name	Location	Phone Numbers
Hamiota RCMP	Hamiota, MB	204) 764-2732
Virden Manitoba police department	Virden, MB	(204) 748-2046
Miniota Fire Department	Corner of Rowan ave and HWY 83 in Miniota	Redacted 1b
Rural Municipality of Miniota	111 Sarah Avenue Box 70 Miniota, MB R0M 1M0	(204) 567-3683 Email: info@rmofminiota.com
Virden Fire Department	330 11 Ave S, Virden, MB R0M 2C0	Redacted 1b
Town Of Virden	236 Wellington Street West Virden, Manitoba R0M 2C0	Town Office: (204) 748-2440 After Hours Emergency: (204) 851-5540
Municipality of Wallace-Woodworth	154023-PR 257, Box 2200 Virden Manitoba R0M 2C0	(204) 748-1239 info@wallacewoodworth.com

CONTROL POINTS ASSOCIATED WITH THIS PLAN

This Geographic Response Plan includes several Control Points which may be referenced for recommendation or considerations when containing or recovering released oil in the Miniota, MB area. When this plan is viewed in electronic format with access to the TransCanada intranet, the links below can be clicked to access each Control Point. When this plan is printed and viewed in paper format, the Control Points should also be printed and attached to the Plan.

ASSINIBOINE RIVER

- ASSINIBOINE RIVER SCP 1
- ASSINIBOINE RIVER TCP 1
- ASSINIBOINE RIVER TCP 2
- ASSINIBOINE RIVER TCP 3
- ASSINIBOINE RIVER TCP 4