TUNDRA
OIL & GAS PARTNERSHIP

Application
to
Manitoba Innovation, Energy, and Mines
by
Tundra Oil & Gas Partnership
to
Construct
Crude Oil Pipelines
and
LACT Facilities

North Daly Sinclair Area
8-28-9-29W1M & 12-24-10-29W1M
to
12-16-9-28W1M

Prepared by Asher Engineering Ltd.
October 7, 2011

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1. Introduction

Tundra Oil & Gas Partnership (Tundra) proposes to build, own, and operate crude oil pipelines to deliver product from two existing batteries to Tundra's existing owned and operated terminal at Cromer, MB. In connection with the pipelines, it is also proposed to install pump and metering facilities (LACT units) at each of the batteries. In accordance with Section 149(2) of the Oil and Gas Act, Tundra Oil & Gas Partnership hereby makes application to Manitoba Innovation, Energy and Mines - Petroleum Branch, for approval for the pipelines and associated facilities.

The following is a summary of the proposed pipelines and facilities:

a) A LACT unit at the existing battery located at 12-24-10-29W1M

b) A 168 mm OD steel pipeline, approximately 17 km in length, from 12-24-10-29W1M to the Cromer Terminal at 12-16-9-28W1M

c) Header tie-ins at the Cromer Terminal

d) A LACT unit at the existing battery located at 8-28-9-29W1M

e) A 108 mm OD fiberglass pipeline (Centron SP-1000), approximately 4 km in length, from 8-28-9-29W1M to a tie-in point with the proposed 168 mm OD steel pipeline at 8-35-9-29W1M.

2. Applicant Information

The facilities and pipelines will be owned and operated by Tundra Oil & Gas Partnership. Tundra Oil & Gas Partnership is a wholly-owned subsidiary of Winnipeg-based James Richardson & Sons, Limited ("JRSL"), a private company established in 1857. JRSL is a multi-disciplined enterprise with operations in agriculture, food processing, financial services, property management and energy exploration.

Tundra Oil & Gas Partnership is experienced in the operation of similar oil pipelines and facilities. The proposed pipelines and facilities will be operated out of the Tundra Virden field office.

The facilities and pipelines will be designed by Asher Engineering Ltd. Asher, in the consulting engineering business since 1993, is licensed to practice engineering in Manitoba and has specific experience with the design of this type of pipeline and facility.

3. Overview of the Application

In accordance with Manitoba Petroleum Guideline 1, included in this application are attachments detailing the following:

a) The location of the pipeline right of way and the locations of the facilities at each endpoint and junction. Please refer to Appendix A.

b) The location of all tanks used in pipeline operations. Only existing tanks will be utilized; no new tanks are proposed. The LACT units at the batteries will be connected to existing sales oil tanks at the batteries, and the headers at the Cromer terminal will be connected to existing tanks there.

c) The location of any city, town, village, railway, highway and water covered area in the general area through which the pipeline will pass. Please refer to Appendix A and Appendix B.

d) A typical profile and cross section of the pipeline for road, highway and pipeline crossings. Please refer to Appendix C.

e) A surveyed profile and cross section of the railroad and Pipestone Creek crossing. Please refer to Appendix C.

f) A plot plan for each of the existing batteries (12-24-10-29W1M and 8-28-9-29W1M) showing the location of LACT unit and pipeline tie-in, and a plot plan of the Cromer Terminal showing the location of the pipeline tie-in. Please refer to Appendix D

g) A Process Flow Diagram (PFD) showing tie-ins at each battery and the Cromer terminal, the LACT units, pigging facilities, and the pipeline junction at 8-35-9-29W1M. Included in the PFD are the location and details of meters, major valves, pumps, main process piping, pressure relief valves, and emergency shutdown valves. Please refer to Appendix D.

h) A shape or DXF file of the proposed pipeline route is enclosed.

4. Intended Use and Need

The LACT facilities will increase fluid pressure to that pressure necessary to deliver the oil from the batteries to the Cromer terminal. The LACT facilities will also measure the flow and monitor the quality of the oil. The pipelines will deliver the oil from the batteries to the Cromer terminal.

Currently the oil is trucked from the batteries to the sales point. The economics are favourable to construct the pipeline as a replacement means of transportation. There are also added benefits of uninterrupted oil delivery during road bans and

poor road conditions, less wear and tear on local roads, and the elimination of safety hazards associated with trucking crude oil.

5. Pipeline Description

a) Legal description of the start and endpoint of the pipeline. Please refer to Appendix E.

b) The substance to be transported by the pipeline is crude oil. A representative analysis is attached in Appendix F.

c) The length of the pipeline. Please refer to Appendix E.

d) The size or sizes of the pipe to be used, the wall thickness of the pipe and the pipe grade. Please refer to Appendix E.

e) A description of the features included within the design of the pipeline to control corrosion and to minimize the risk of a spill, including any leak detection and emergency shutdown systems, the expected daily flow rate of the pipeline, and storage capacity of the terminal.

The steel pipeline will be externally coated with Shaw YJ coating with girth welds protected by shrink sleeves. The pipeline will be cathodically protected to control external corrosion. It will be routinely pigged to remove small quantities of water that may collect in low places. Inhibitor will be injected to prevent internal corrosion. The pipeline will be designed to accommodate a smart pig to monitor condition, should that be necessary at a future date. The corrosion control system will comply with Clause 9.0 of CSA Guideline Z662-11.

The fiberglass pipeline will not require corrosion protective measures as it is not subject to corrosion by the crude oil, nor by the surrounding soil environment.

The pipelines will be equipped with emergency shut down valves at the battery locations that will close in the event of high pressure to prevent the pipeline from being subjected to pressures in excess of design, and will close in the event of a low pressure setpoint, which could be an indication of a pipeline failure. There will be automatically actuated valves on the terminal headers which will close in the event of a high level on the receipt tank. There will be a process in place to reconcile shipped oil quantities as measured at the LACT facilities with Terminal volumes to monitor for pipeline leaks.

Please refer to Appendix G for a summary of projected flow rates. No additional tank capacity is anticipated at the Cromer Terminal in connection with this project.

f) The design pressure and the maximum operating pressure that the pipeline is expected to be qualified to by pressure testing. Please refer to Appendix E.

g) Material specifications and standards for the pipe, valves, flanges and other fittings for the pipeline. Please refer to Appendix E.

h) No process vessels are a part of this application.

i) Air dispersion modeling for the pipeline and terminal. A terminal is not a part of this application. Dispersion at the existing Cromer terminal will not be affected by this project. As this is a liquid pipeline, a pipeline rupture would not result in significant vapour dispersion in the area of the rupture.

6. Proof of Consultation and Access

The following information is contained in the Line List, included in this document as Appendix H:

a) The names and addresses of all landowners, occupants and residents, complete with land location, within the following areas: i) 1.5 km radius of each endpoint of the pipeline and ii) a radius of 0.5 km along the length of the proposed line.

b) A copy of the notice and proof of consultation with all parties listed in a) above.

c) A description of the applicant's consultations with all parties listed in a) including a summary of any concerns raised during the consultation process and all actions taken or proposed to be taken by the applicant to address concerns, and

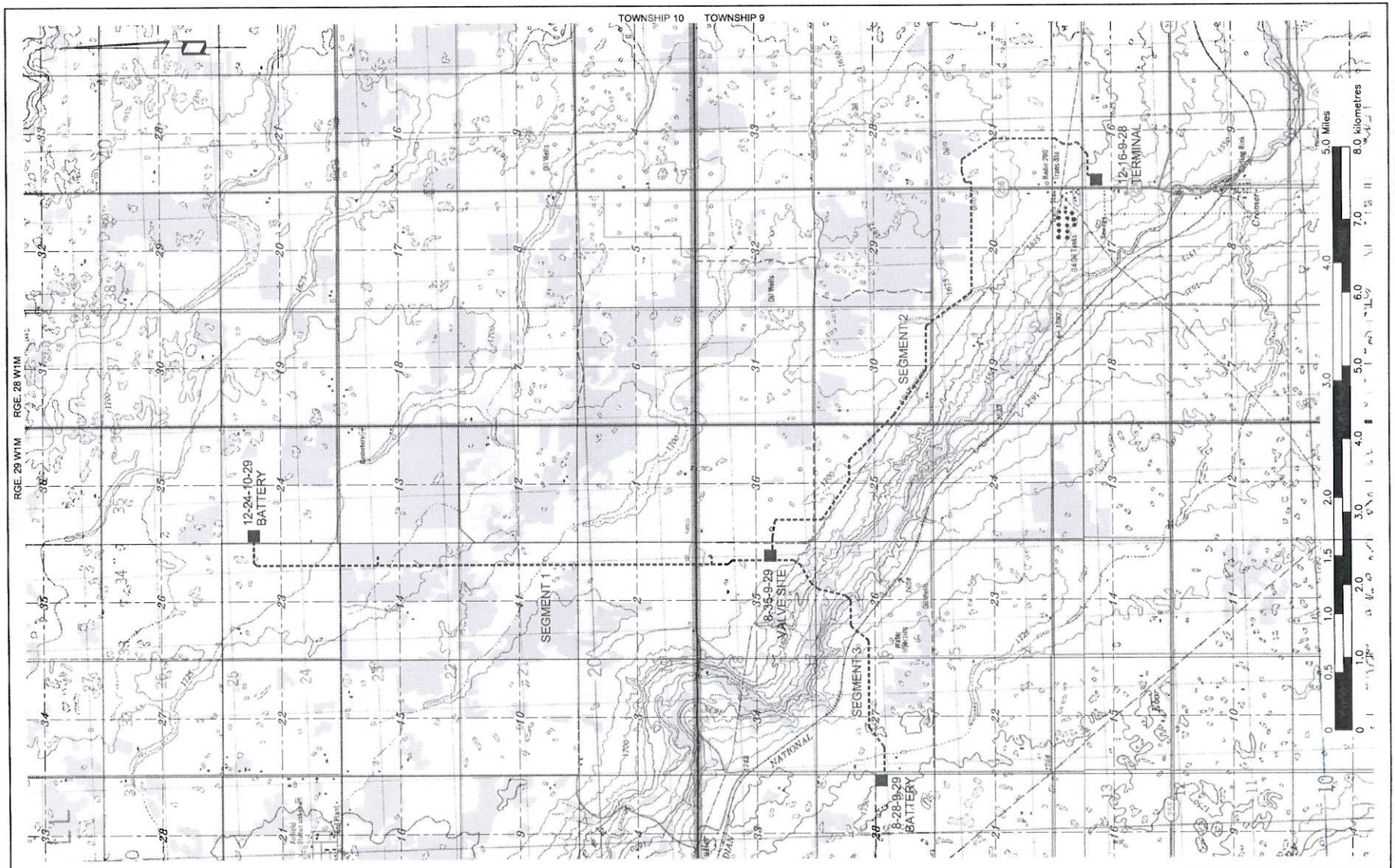
d) Proof of the right to access the proposed surface ROW.

7. Environmental Protection Plan

An Environmental Assessment (EA) submission prepared by Matrix Solutions Inc. following the guidelines for Environmental Act Proposals (EAPs) under the Manitoba Environment Act will be submitted to Manitoba Conservation under separate cover.

Appendix A

Overview of Pipeline Route



NOTES:

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

REVISIONS

REV.	DESCRIPTION	DATE	REV. BY	APP. BY
A	ISSUED FOR REVIEW	11-08-08	GS	
B	ISSUED FOR REGULATORY APPROVAL	11-09-30	CEM	

ENGINEER'S STAMP

DRAWN	GS	DATE	11-02-21
CHECKED		DATE	
ISSUED		DATE	
AS-BUILT		DATE	
PROJECT NO.	1560	SCALE	1:50,000

Tundra oil and gas ltd.

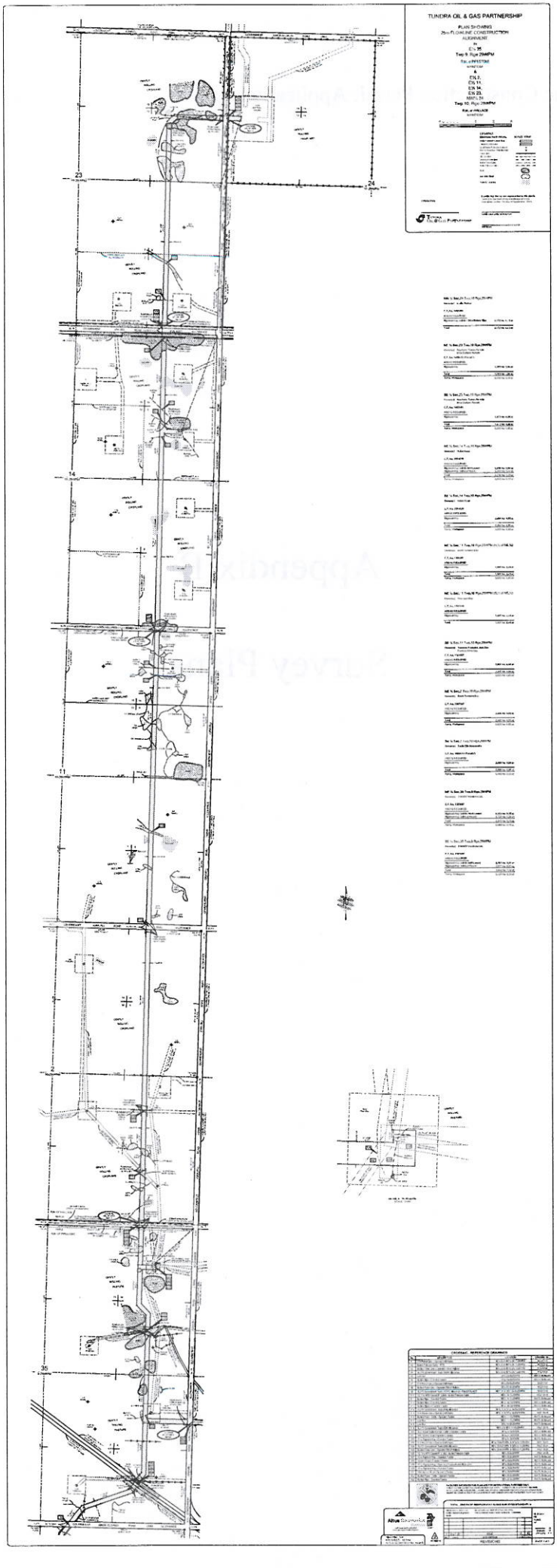
NORTH DALY SINCLAIR
12-24-10-28 W1M, 02-28-09-29 W1M
SYSTEM MAP - BATTERY SALES LINE

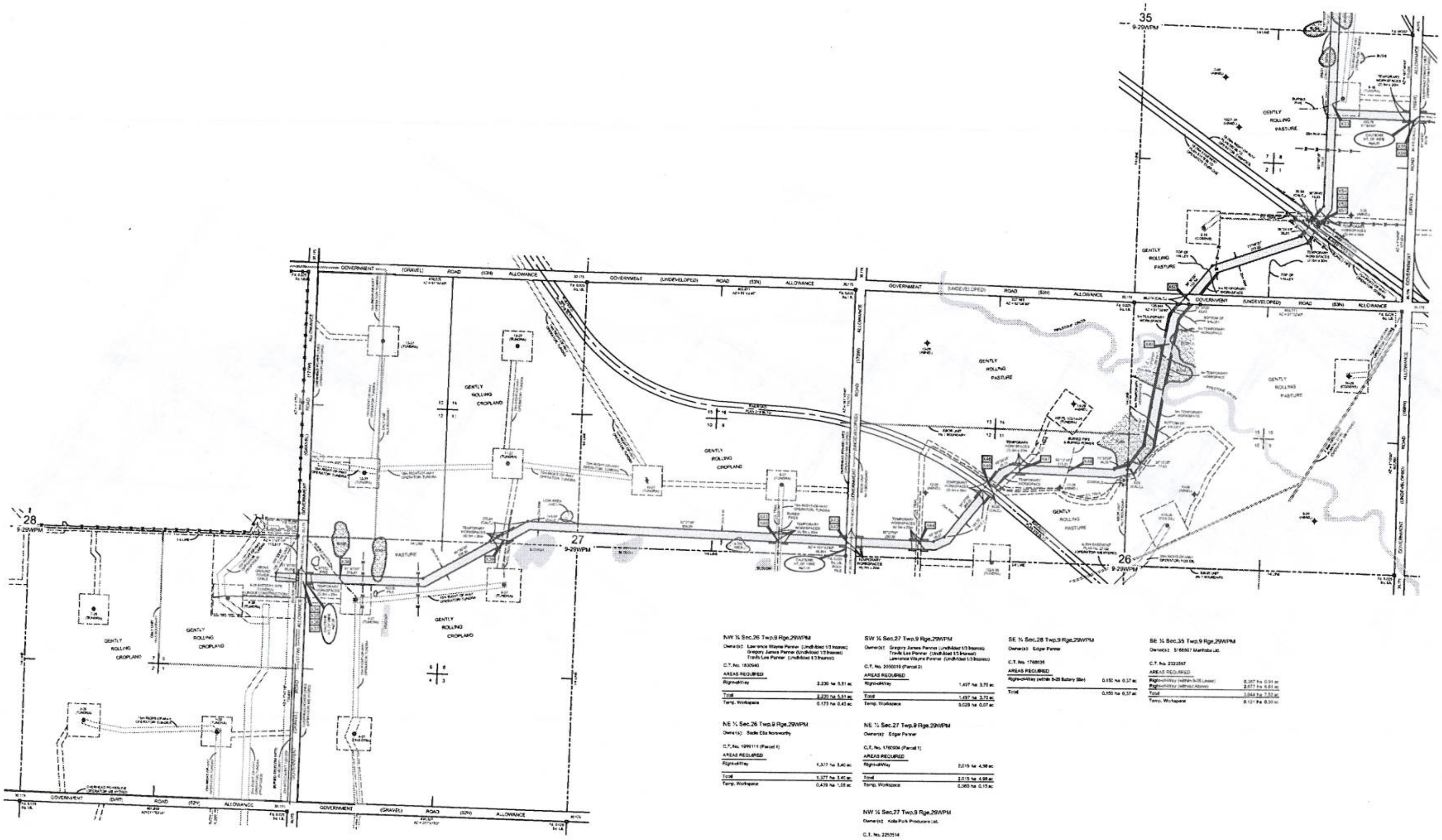
FILENAME	DRAWING NO.	REVISION
1560pl7001.dwg	A1-1560-PL-7001	6

S:\PROJECTS\TUNDRA\1560 Tundra Sales Pipeline Scoping Study\Drawings\Issued\Issued for Regulatory Approval 11Sep30\1560pl7001.dwg, 10/7/2011 3:54:51 PM

Appendix B

Survey Plans


TUNDRA OIL & GAS PARTNERSHIP
PLAN SHOWING
20cm FLOWLINE CONSTRUCTION
ALBERMENT
SW
23
24
14
11
2
35



NW ¼ Sec.26 Twp.9 Rge.29WPM

Owner(s): Lawrence Wayne Penner (Undivided 1/3 Interest)
Gregory James Penner (Undivided 1/3 Interest)
Travis Lee Penner (Undivided 1/3 Interest)

C.T. No. 1830940

AREAS REQUIRED	
Right-of-Way	2.230 ha 5.51 ac
Total	2.230 ha 5.51 ac
Temp. Workspace	0.173 ha 0.43 ac

SW ¼ Sec.27 Twp.9 Rge.29WPM

Owner(s): Gregory James Penner (Undivided 1/3 Interest)
Travis Lee Penner (Undivided 1/3 Interest)
Lawrence Wayne Penner (Undivided 1/3 Interest)

C.T. No. 2050018 (Parcel 2)

AREAS REQUIRED	
Right-of-Way	1.497 ha 3.70 ac
Total	1.497 ha 3.70 ac
Temp. Workspace	0.029 ha 0.07 ac

SE ¼ Sec.28 Twp.9 Rge.29WPM

Owner(s): Edgar Penner

C.T. No. 1768035

AREAS REQUIRED	
Right-of-Way (within 8-28 Battery Site)	0.150 ha 0.37 ac
Total	0.150 ha 0.37 ac

SE ¼ Sec.35 Twp.9 Rge.29WPM

Owner(s): 5168507 Manitoba Ltd.

C.T. No. 2333597

AREAS REQUIRED	
Right-of-Way (within 8-35 Lease)	0.367 ha 0.91 ac
Right-of-Way (without Above)	2.677 ha 6.61 ac
Total	3.044 ha 7.52 ac
Temp. Workspace	0.121 ha 0.30 ac

NE ¼ Sec.26 Twp.9 Rge.29WPM

Owner(s): Sadie Ella Norsworthy

C.T. No. 1999111 (Parcel 1)

AREAS REQUIRED	
Right-of-Way	1.377 ha 3.40 ac
Total	1.377 ha 3.40 ac
Temp. Workspace	0.439 ha 1.08 ac

NE ¼ Sec.27 Twp.9 Rge.29WPM

Owner(s): Edgar Penner

C.T. No. 1760904 (Parcel 1)

AREAS REQUIRED	
Right-of-Way	2.015 ha 4.98 ac
Total	2.015 ha 4.98 ac
Temp. Workspace	0.060 ha 0.15 ac

NW ¼ Sec.27 Twp.9 Rge.29WPM

Owner(s): Kola Pork Producers Ltd.

C.T. No. 2253514

AREAS REQUIRED	
Right-of-Way	0.645 ha 1.59 ac
Total	0.645 ha 1.59 ac
Temp. Workspace	0.031 ha 0.08 ac

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PLAN SHOWING
25m FLOWLINE CONSTRUCTION
ALIGNMENT
IN
N½ 26,
N½ & SW¼ 27,
SE¼ 28 & SE¼ 35
Twp 9, Rge 29WPM

R.M. of PIPESTONE

LEGEND:
Distances are in metres. SCALE: 1:5000
Portions referred to shown thus
Temporary work space
Legal Survey Posts found, placed
Planted wood hub, Deflection Point
Fence Line
Oil / Gas Line
Overhead Power Line
Buried Power Cables
Buried Telecom Cables
Bush
Low Area / Slough
Water Covered Area

I certify that the survey represented by this plan is correct to the best of my knowledge and was completed on the 7th day of September, 2011.

OPERATOR:

TUNDRA OIL & GAS PARTNERSHIP

MANITOBA LAND SURVEYOR

WITNESS

CROSSING / REFERENCE DRAWINGS

No.	DESCRIPTION	LOCATION	DRAWING No.
333	Buried Pipe - Operator: Tundra	SE¼ 35-9-29WPM	Not To Be Issued
334	20m, MTS Caveat [illegible] - Buried Telecom Cable	SE¼ 28 & SW¼ 27-9-29WPM	143215S-34
335	Above Ground Power Cable - Operator: MB Hydro	SE¼ 28 & SW¼ 27-9-29WPM	143215S-35
336	20.115 Government Road (171W) Allowance (Developed)	SE¼ 28 & SW¼ 27-9-29WPM	143215S-36
337	O/H Power Line - Operator: MB Hydro	SE¼ 28 & SW¼ 27-9-29WPM	143215S-37
338	Multiple Buried Pipes - Operator: Tundra	SW¼ 27-9-29WPM	Not To Be Issued
339	15m Access Road - Operator: Tundra	NW¼ 27-9-29WPM	Not To Be Issued
340	15m Access Road - Operator: Tundra	NE¼ 27-9-29WPM	Not To Be Issued
341	15m, Right-of-Way - Operator: Tundra (Multiple Buried Pipes)	NE¼ 27-9-29WPM	Not To Be Issued
342	O/H Power Line - Operator: MB Hydro	NE¼ 27 & NW¼ 26-9-29WPM	143215S-42
343	20.115 Government Road (170W) Allowance (Undeveloped)	NE¼ 27 & NW¼ 26-9-29WPM	143215S-43
344	15m Access Road - Operator: Tundra	NW¼ 26-9-29WPM	Not To Be Issued
345	Railroad Plan 219 B.T.O.	NW¼ 26-9-29WPM	143215S-45
346	15m Access Road - Operator: Tundra	NW¼ 26-9-29WPM	Not To Be Issued
347	15m Access Road - Operator: Tundra	NW¼ 26-9-29WPM	Not To Be Issued
348	Buried Pipe & Buried Power Cable - Operator: [illegible]	NW¼ 26-9-29WPM	143215S-48
349	Pipestone Creek	NE¼ 26-9-29WPM	143215S-49
350	20.115 Government Road (53N) Allowance (Developed)	NE¼ 26 & SE¼ 35-9-29WPM	143215S-50
351	15m, Right-of-Way - Operator: Corsina (Buried Pipe)	SE¼ 35-9-29WPM	143215S-51
352	18.29m, Easement Plan E-475 - Operator: Enbridge (Buried Pipes x2)	SE¼ 35-9-29WPM	143215S-52
353	18.29m, Right-of-Way Plan 857 - Operator: Enbridge (Buried Pipes x5)	SE¼ 35-9-29WPM	143215S-53
354	15m Access Road - Operator: Corsina	SE¼ 35-9-29WPM	143215S-54
355	20.115 Government Road (168W) Allowance (Developed)	SE¼ 35 & SW¼ 36-9-29WPM	143215S-55
356	O/H Power Line - Operator: MB Hydro	SE¼ 35 & SW¼ 36-9-29WPM	143215S-56

FACILITIES SHOWN ON THIS PLAN ARE FOR INFORMATIONAL PURPOSES ONLY. PRIOR TO ANY CONSTRUCTION ON RIGHT-OF-WAY, TUNDRA OIL & GAS PARTNERSHIP, MTS COMMUNICATIONS INC., MANITOBA HYDRO, AND MANITOBA HYDRO-GAS OPERATIONS MUST BE CONTACTED FOR LOCATION OF ANY UNDERGROUND FACILITIES THAT MAY EXIST.

TOTAL LENGTH OF RIGHT-OF-WAY ALONG SURVEYED BOUNDARY =

All distances shown are horizontal and at ground level.

All azimuths are NAD 83 (Zone 14) UTM. The combined Scale Factor derived is 0.99960

No.	DATE	DESCRIPTION	DWN	CKD
0	Oct. 7, 2011	ISSUED	CP	RS

REVISIONS

FIELD BOOK: N/A
PAGE/S: N/A

Surveyed by: DH
Drafted by: CP
Checked by: RS

PAGE 2 of 3

Altus Geomatics Manitoba

Client File: N/A
NTS SHEET: 62 F/14
ALTUS GEOMATICS File: 143215

REVISION 0

TUNDRA OIL & GAS PARTNERSHIP