

November 26, 2013

BY COURIER & RESS

Ms. Kirsten Walli Board Secretary Ontario Energy Board Suite 2700, 2300 Yonge Street Toronto, Ontario M4P 1E4

Dear Ms. Walli:

RE: Union Gas Limited ("Union")
Panhandle NPS16 Replacement (Highway 40 – Chatham-Kent)
EB-2013-0407

Union hereby requests an Order granting leave to construct approximately 340 metres of NPS16 natural gas pipeline pursuant to s. 90(1) of the Ontario Energy Board Act, 1998, S.O. 1998 c. 15 Sch. B (the "Act"). A package of supporting material is attached.

This pipeline is needed to replace a portion of the Panhandle system which must be replaced for integrity issues.

Union further requests an exemption, pursuant to s. 95 of the Act, from any requirement to hold a hearing pursuant to the requirements of s. 90(1) of the Act.

Replacement of the existing pipeline would not require Ontario Energy Board leave to construct approval, if the existing pipe was removed and a new pipeline was constructed in the existing easement. However, as the section of pipeline to be replaced is under Highway 40, Union is proposing to abandon a portion the existing pipeline in place and obtain a new land right for the replacement pipeline. As new lands rights will be required for the project, the project meets the requirements of s. 90(1) of the Act, requiring leave to construct.

Commencement of construction of the proposed pipeline is scheduled for April, 2014.

In Union's view, there are a number of reasons why this case warrants an exemption including:

1. Unions pipeline integrity program has a demonstrated a need for the pipeline replacement;

- 2. The directly affected landowners have not identified any issues with the project. The landowners have signed the necessary permanent and temporary agreements needed to complete the project.
- 3. The permit process with the provincial Ministry of Transportation ("MTO") for the Highway 40 crossing has been started and MTO has provided Union with a letter of non-objection to the project;
- 4. The alternative to the proposed project would be to remove the existing pipeline and construct a new pipeline across Highway 40. This alternative is not practical as the pipeline is under the main highway between the City of Chatham and the Town of Wallaceburg;
- 5. Union has completed an environmental screening for the replacement work. If the proposed mitigation measures are followed, there will be no long term significant environmental impacts as a result of this project;
- 6. In order to ensure that there is no disruption of services to customers, construction is to be completed by August, 2014.

If you require additional information, please contact Mark Murray, Manager, Regulatory Projects, Union Gas Limited at 519-436-4601.

Yours truly,

Mark Murray Manager, Regulatory Projects and Lands Acquisition :mjp Encl.

cc: Pascale Duguay, Manager Facilities Applications Zora Crnojacki, Project Advisor

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PANHANDLE NPS16 REPLACEMENT (HWY 40-CHATHAM-KENT)

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Project Summary

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- 2 1. Union Gas Limited ("Union"), pursuant to Section 90.(1) of the Ontario Energy Board Act,
- requests approval from the Ontario Energy Board ("OEB") for leave to construct
- 4 approximately 340 metres of NPS16 hydrocarbon (natural gas) pipeline ("Proposed
- 5 Pipeline"). Union is proposing to replace approximately 340 metres of the Panhandle NPS16
- pipeline in the vicinity of St. Clair Road (Highway 40) near Green Valley Line and Bush Line
- 7 in the Municipality of Chatham-Kent (the "Project"). The location of the proposed pipeline is
- shown on Schedule 1.
- 9 2. The affected section of the pipeline was constructed in 1951 and has been inspected
- periodically as part of Union's Integrity Management Program. Results of scheduled
- inspections in 2011 identified integrity issues in the vicinity of the pipeline crossing the
- Highway 40, located approximately 330 metres north of the intersection of Highway 40 and
- Green Valley Line in the Municipality of Chatham-Kent which could pose safety and security
- of supply concerns if not addressed.
- 15 3. Union is proposing to install approximately 340 metres of new pipeline and is proposing to
- abandon in place, approximately 220 metres of the existing pipeline located under Highway
- 40 and on the property east of Highway 40.
- 4. Union is proposing to remove the remaining 120 metres of the pipeline west of Highway 40.
- The Proposed Pipeline will be constructed adjacent to the existing pipeline and will require
- 20 new land rights.
- 5. Union proposes to construct the Proposed Pipeline using a directional bore to go under
- Highway 40 and adjacent watercourse.

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1 6. The estimated costs of the project are \$847,000.

2 7. Union has discussed the Project with the directly affected landowners along the route of the

Proposed Pipeline. The landowners have not identified any concerns with the Project and

have signed the necessary permanent and temporary easement agreements to complete the

5 project.

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8. Union has reviewed the environmental features along the route of the Proposed Pipeline and

7 nothing of significance was found.

8 9. Union is proposing to construct the Proposed Pipeline commencing in the spring of 2014.

Union requests Ontario Energy Board approval by April of 2014.

Background

10. Since 2002, Union has had an extensive pipeline maintenance and integrity management

program in place that includes the regular monitoring of pipelines for corrosion, leaks or other

potential damage to ensure its pipelines remain in safe operating condition.

14 11. As part of this program, Union regularly conducts inline inspections of its pipelines using

tools to determine the condition of the pipelines. Based on the results of these assessments,

Union takes appropriate mitigation action to address any integrity issues that are found.

17 12. The Pipeline was initially inspected using inline inspection tools in 2003 and subsequent

inspection was completed in 2011. Investigative digs were also completed on the Pipeline

subsequent to the inline inspections, and those anomalies which required removal were

removed from the Pipeline. The inspection completed in 2011 identified metal loss within a

"cased" crossing of Highway 40 and pipeline denting in the vicinity of Highway 40.

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1 13. The section of the Pipeline is under a provincial highway and therefore inaccessible for direct

inspection. The most effective action to manage and ensure the long term integrity of the

Pipeline, ensure safety, minimize impacts to the environment and reduce disruption to traffic

is to abandon the existing pipeline in place and construct the Proposed Pipeline.

14. If the replacement is delayed, the integrity concerns may become more serious.

Proposed Facilities

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7 15. Union determined that upsizing the Pipeline was not required as this is a very short length of

pipeline and that the Pipeline should be replaced size for size.

9 **Project Costs and Economics**

16. The estimated costs for the Project are \$847,000. A detailed breakdown of these costs can be

found at Schedule 2.

17. A Discounted Cash Flow report has not been completed as the Project is underpinned by the

relocation requirements and there are no new contracts associated with this replacement.

14 **Design and Construction**

15 18. The Proposed Pipeline will have a Maximum Operating Pressure ("MOP") of 6040 kPa.

16 19. The design and pipe specifications are outlined in Schedule 3. All the design specifications

are in accordance with the Ontario Regulations 210/01 under the Technical Standards and

Safety Act 2000, Oil and Gas Pipeline Systems. This is the regulation governing the

installation of pipelines in the Province of Ontario.

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- 1 20. In consideration for future potential development along the route, the Proposed Pipeline is
- designed to meet Class 3 location requirements. The actual current class location of the areas
- is Class 1.

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- 4 21. To determine Class Location, CSA Z662-11 uses a classification system that takes into
- 5 account land use and population density. The classifications are as follows:
- 6 1) Class 1 areas consist of 10 or fewer dwellings;
- Class 2 areas consist of 11 to 45 dwellings, or a building occupied by 20 or more

 persons during normal use such as playgrounds, recreational areas, or other places of

 public assembly as well as industrial installations;
 - 3) Class 3 areas consist of 46 or more dwellings.
- 11 4) Class 4 contains a prevalence of buildings intended for human occupancy with 4 or more stories above ground.
- 13 22. The Proposed Pipeline will have an outside diameter of 406.4 mm and a minimum wall thickness of 7.9 mm. The pipe will have specified minimum yield strength of 359 MPa.
- 15 23. The Proposed Pipeline will be hydrostatically tested in accordance with the Ontario 16 Regulation requirements.
- The minimum depth of cover will be in accordance with Clause 4.11 of the CSA Code
 Z662-11. The depth of cover of that portion of the Proposed Pipeline beneath Highway 40 is
 governed by Ministry of Transportation and will be no less than 1.2 metres.

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1 25. The majority of the Proposed Pipeline will be constructed using trenchless methods. Schedule

4 describes the General Techniques and Methods of Construction that will be employed in the

construction of the Proposed Pipeline. This Schedule details the following activities; clearing,

stringing of pipe, trenching, welding, backfilling and clean up. Union continuously updates

and refines its construction procedures to minimize potential impacts to lands and has since

seen many improvements as a result of better construction practices.

7 26. In order to address landowner concerns, Union is proposing to abandon the pipe in place on

the east side of Highway 40 and remove the existing pipeline on the west side of Highway 40.

9 27. Schedule 5 indicates that construction will commence in April, 2014 and be completed by the

10 end of July, 2014.

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11 28. The portion of the Pipeline to be abandoned in place will be in compliance with TSSA

guidelines. The TSSA abandonment guidelines can be found at Schedule 6.

Landowners

14 29. For the construction of the Proposed Pipeline, two new permanent easements will be required

and have been obtained from the landowners using Union's form of easement attached as

Schedule 7.

17 30. Union will require crossing permits or agreements from the Ministry of Transportation. The

Ministry of Transportation has also provided confirmation of non-objection as indicated in

Schedule 8 attached.

20 31. Union will not require any fee simple purchases of land to complete the Project.

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1 32. All permanent and temporary easements for construction of the Proposed Pipeline have been

2 obtained.

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3 33. Schedule 9 identifies the maps that show the running line and the land rights required for the

Proposed Pipeline.

5 34. Schedule 10 identifies the permanent and temporary land use rights Union has obtained for the

6 construction of the Proposed Pipeline.

7 35. At the conclusion of construction, Union will seek a Full and Final Release from the affected

landowners. This Full and Final Release will include compensation for any damages caused

9 or attributed to the pipeline construction.

10 36. Union has implemented a comprehensive program to provide landowners, tenants, and other

interested persons with information regarding the Proposed Pipeline. Project information was

distributed through correspondence and meetings with the landowners.

13 37. After construction, negotiations with landowners will continue, where necessary, to settle any

damages that were not foreseen or compensated for, prior to construction.

Environmental

16 38. Union retained the services of Azimuth Environmental Consulting, Inc. to review the route of

the Proposed Pipeline, and identify the environmental features that could be impacted by

Proposed Pipeline's construction. Azimuth's Environmental Report ("ER") can be found at

19 Schedule 11

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1 39. Union has also completed an environmental screening for the project consistent with the

requirements of E.B.O. 188. The results of this screening can be found at the Environmental

3 Checklist as Schedule 12.

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4 40. The results of the ER indicate that if the mitigation measures identified in the environmental

report are followed there will be no long term significant environmental impacts.

6 41. Union will implement a program dealing with environmental inspection. This program will

ensure that the recommendation in the ER is followed. An inspector trained in environmental

issues will monitor construction activities and ensure that all activities comply with the

mitigation measures found in the ER. Environmental field studies will start in May 2013.

42. The total estimated environmental mitigation costs associated with the construction of the

proposed facilities are \$47,000. A breakdown of these costs can be found at Schedule 13.

The environmental costs are included in the Projects costs.

First Nations and Métis Nation

43. Union has a long standing practice of consulting with First Nations and Métis Nation, and

has programs in place whereby Union works with them to ensure they are aware of Union's

projects and have the opportunity to participate in both the planning and construction phases

of the Project.

44. Union has an extensive data base and knowledge of First Nations and Métis Nation

organizations in Ontario and consults with the Tribal organizations and the data bases of the

Ministry of Natural Resources, Ministry of Aboriginal Affairs and Aboriginal Affairs and

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- Northern Development Canada to ensure consultation is carried out with the most appropriate groups.
- 45. Union has signed a General Relationship Agreement with the Métis Nation of Ontario which
 describes Union's commitments to the Métis Nation when planning and constructing
 pipeline projects.
- 46. Union sent letters in June 6 of 2013 to the following First Nations and Métis Nation regarding the Project. Copies of these letters are attached as Schedule 14.
- 47. Union sent an email with updated information regarding this project to the following First

 Nations and Métis Nation on October 21 2013. Copies of these letters are attached in

 Schedule 14.
- 48. Due to the size, scope and location of the Project, it is not expected that the First Nations and Métis Nation will have any concerns with the Project.

Title	First Name	Last Name	Agency	Address	City	Prov	Postal
Chief	Christopher	Plain	Aamjiwnaang First Nation	978 Tashmoo Ave	Sarnia	ON	N7T 7H5
Ms.	Sharilyn	Johnston	Aamjiwnaang First Nation	978 Tashmoo Ave	Sarnia	ON	N7T 7H5
Chief	Thomas	Bressette	Chippewas of Kettle and Stony Point	6247 Indian Lane, RR#2	Forest (Kettle & Stony Point FN	ON	N0N 1J0
Mr.	Mark	Bowler	Métis Nation of Ontario	500 Old St. Patrick Street, Unit 3	Ottawa	ON	K1N 9G4
Chief	Burton	Kewayosh	Walpole Island First Nation	117 Tahgahoning Road	Wallaceburg	ON	N8A 4K9
Mr.	Dean	Jacobs	Walpole Island First Nation	R.R.#3	Wallaceburg	ON	N8A 4K9
Chief	Louise	Hillier	Caldwell First Nation	14 Orange Street, P.O. Box 388	Leamington	ON	N8H 3W3
Chief	Joe	Miskokomon	Chippewas of the Thames	320 Chippewas Road, RR#1	Muncey	ON	NOL 1Y0
Chief	Greg	Peters	Moravian of the Thames	14760 Schoolhouse Road, RR 3	Thamesville	ON	NOP 2K0
Chief	Patrick	Waddilove	Munsee- Delaware Nation	289 Jubilee Rd, RR 1	Muncey	ON	NOL 1Y0

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Title	First Name	Last Name	Agency	Address	City	Prov	Postal
Chief	Joel	Abram	Oneida Nation	2212 Elm Ave.	Southwold	ON	N0L 2G0
			of the Thames				

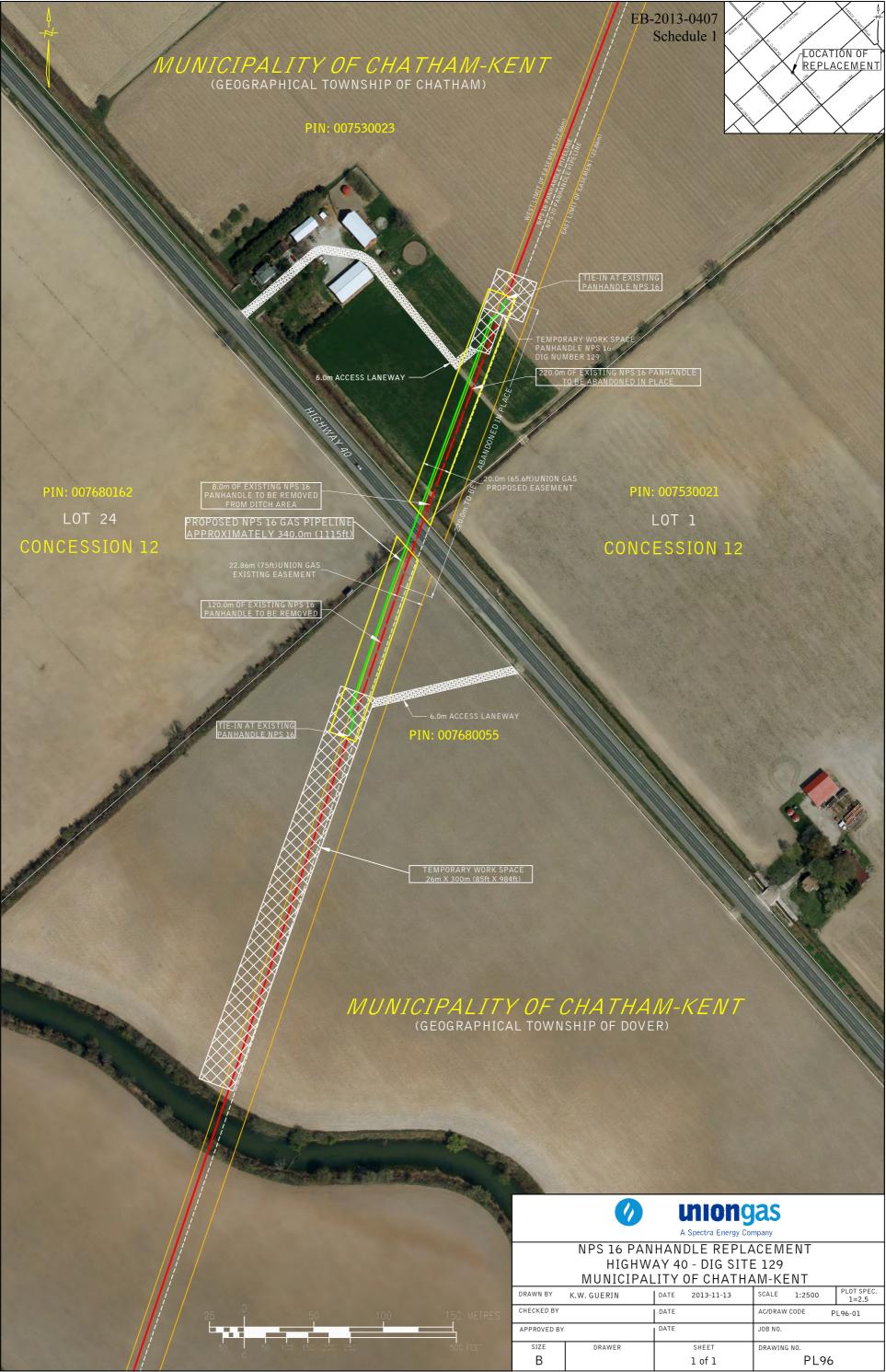
2 49. During construction, Union has inspectors in the field who are available to First Nations and

Métis Nation as a primary contact to discuss and review any issues that may arise during

4 construction.

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TOTAL ESTIMATED PIPELINE CAPITAL COSTS

PANHANDLE NPS16 REPLACEMENT PROJECT

Pipeline and Equipment	¢102.000	
NPS16 Steel Pipe, Coated 340 metres Fittings & Miscellaneous Material	\$102,000 \$25,000	
Tittings & Wiscenancous Waterian	Ψ23,000	
Sub-Total	\$127,000	
Stores Overhead – Fittings and Misc. Material	\$5,000	
Total Pipeline and Equipment		\$132,000
Construction and Labour		
Trenchless Install of 340 metres of NPS 16 Steel Pipe	\$385,000	
Clearing, Stripping topsoil, Dewatering construction area		
Testing, Dewatering, Drying Pipe		
Grouting & Miscellaneous Contract Labour		
Company Labour, X-Ray, Construction Survey, Legal,	\$233,000	
Environmental Fees, Mill Inspection and Consultants		
Easements, Lands & Damages	\$20,000	
Total Construction and Labour		\$638,000
Total Pipeline and Equipment and Construction and Labour		\$770,000
Contingencies		\$77,000
Total Estimated Pipeline Capital Costs – 2014 Construction		\$847,000

Includes the Estimated Environmental Costs Identified in Schedule 13.

PANHANDLE NPS16 (HWY 40-CHATHAM-KENT) NATURAL GAS PIPELINE PROJECT

DESIGN AND PIPE SPECIFICATIONS

Design Specifications: NPS 16

Class Location - Class 1
Design Class Location - Class 3
Design Factor - 0.80
Location Factor - 0.625
Maximum Design Pressure - 6040 kPa
Test Medium - Water

Test Pressure - Min: 8456 kPa, Max: 9060 kPa

Valves/Fittings - PN 100 above grade; buried fittings Grade 359 MPa,

7.9 mm wall, Cat I

Minimum Depth of Cover - 1.2 m

Pipe Specifications:

Size - NPS-16 Wall Thickness - 7.9 mm Grade - 359 MPa

Type - Electric Resistance Weld

Description - C.S.A. Standard Z245.1- (Latest Edition)

Category - Cat. I, M5C

Coating - Fusion Bond Epoxy/Abrasion Resistant Overcoat

% SMYS - 43.28%

GENERAL TECHNIQUES AND METHODS OF CONSTRUCTION

- 1. Union Gas Limited ("Union") will provide its own inspection staff to enforce Union's construction specifications and *Ontario Regulation 210/01 under the Technical Standards and Safety Act 2000, Oil and Gas Pipeline Systems*.
- 2. Pipeline construction is divided into several crews that create a mobile assembly line. Each crew performs a different function, with a finished product left behind when the last crew has completed its work.
- Union's contract specifications require the contractor to erect safety barricades, fences, signs or flashers, or to use flag persons as may be appropriate, around any excavation across or along a road.
- 4. It is Union's policy to restore the areas affected by the construction of the pipeline to "as close to original condition" as possible. As a guide to show the "original condition" of the area, photos and/or a video will be taken before any work commences. When the clean up is completed, the approval of the landowner or appropriate government authority is obtained.
- 5. Construction of the pipeline includes the following activities:

Locating Running Line

6. Union establishes the location where the pipeline is to be installed ("the running line"). For pipelines within road allowances, the adjacent property lines are identified and the running line is set at a specified distance from the property line. For pipelines located on private easement, the easement is surveyed and the running line is set at the specified distance from the edge of the easement. The distance from the start of the pipeline (or other suitable point) is marked on the pipeline stakes and the drawings.

Clearing and Grading

7. The right-of-way is prepared for the construction of the pipeline. When required, bushes, trees and crops are removed and the ground leveled. When required, the topsoil is stripped and stored, and/or sod is lifted.

Removing Existing Pipeline

8. The existing trench is excavated exposing the existing pipeline. The spoil material is placed onto the easement, separate from the topsoil. The existing NPS 16 pipeline is removed from the trench, cut into sections and trucked off site. The trench is then backfilled.

Abandoning Existing Pipeline

9. The existing pipe within road allowance and in environmentally sensitive areas can be abandoned in place. The abandoned sections are capped and filled with grout, a low density concrete.

Stringing

10. The joints of pipe are laid end-to-end on supports that keep the pipe off the ground to prevent damage to the pipe coating.

Welding

11. The pipe is welded/fused into manageable lengths. The welds in steel pipe are radiographically inspected, if required, and the welds are coated.

Burying

12. Pipe may be buried using either the trench method or the trenchless method. All utilities that will be crossed or paralleled by the pipeline are located by the appropriate utility prior to installing the pipeline. Prior to trenching, all such utilities will be hand-located or hydro vacuumed.

Trench Method: Trenching is done by using a trenching machine or hoe excavator depending upon the ground conditions. Provisions are made to allow residents access to their property, as required. All drainage tiles that are cut during the trench excavation are flagged to signify that a repair is required. All tiles are measured and recorded as to size, depth, type and quality. This information is kept on file with Union. If a repair is necessary in the future, Union will have an accurate method of locating the tile. Next, the pipe is lowered into the trench. For steel pipe, the pipe coating is tested using a high voltage electrical tester as the pipe is lowered into the trench. All defects in the coating are repaired before the pipe is lowered in. Next, if the soil that was excavated from the trench is suitable for backfill, it is backfilled. If the soil is not suitable for

backfill (such as rock), it is hauled away and the trench is backfilled with suitable material such as sand. After the trench is backfilled, drainage tile is repaired.

Rock Excavation: Rock in solid beds or masses will be removed by "Hoe Ram", where practical. Where rock that is too hard to "Hoe Ram" is encountered, blasting will be permitted in accordance to Union's construction procedures and the *Canadian Explosives Act*. The contractor shall obtain all necessary permits and shall comply with all legal requirements in connection with the use, storage and transportation of explosives.

Trenchless Method: Trenchless methods are alternate methods used to install pipelines under railways, roads, sidewalks, trees and environmentally sensitive areas. The trenchless method proposed for the NPS 16 pipeline is directional drilling. This method involves setting up a receiving hole and an exit hole, drilling a pilot hole on the design path, reaming the pilot hole larger by passing a cutting tool and pulling the pipe back through the bored hole.

Tie-Ins

13. The sections of pipelines that have been buried using either the trench or trenchless method are joined together (tied-in).

Cleaning and Testing

14. To complete the construction, the pipeline is cleaned, tested in accordance with Union's specifications using water.

Restoration

15. The final activity is the restoration. The work area is leveled, the sod is replaced in lawn areas and other grassed areas are re-seeded. Where required, concrete, asphalt and gravel are replaced to return the areas to as close to the original conditions as possible.

Panhandle NPS16 Replacement Project - Construction Schedule

VEIVILLY		Apr-14	-14			May-14	-14			Jun	Jun-14)n	Jul-14			Aug-14	-14	
ACIIVII	7	7 14 21 28	21	28	2	12	19	26 2	2	9 1	16 23	3 30	7	14	21	28	4	11	18	25
Field Survey Work																				
Tree Clearing																				
Access and Site Prep																				
Stringing																				
Welding																				
Crossing Preparation																				
Crossing Installation																				
Pressure Testing																				
Final Tie-ins																				
Clean Up & Abandon in place																				



PIPELINE ABANDONMENT CHECKLIST

PLANNING

- 1. Has subsidence been considered for pipelines having a diameter greater than 323.9 mm (12 inches)?
- 2. Has the pipeline company notified the landowners and proper authorities (municipalities, MOE, MTO, MNR, etc.) of the abandonment?
- 3. Have abandonment procedures for crossings been agreed upon by utilities (road, railway, pipelines, etc.) and authorities responsible for rivers and streams crossed by the pipeline?
- 4. Has consideration been given to the effect of drainage in the area surrounding the abandoned pipeline, which may act as a conduit for ground water after the pipe is perforated by corrosion?
- 5. Has consideration been given to the removal of all the aboveground facilities?
- 6. Has consideration been given to any hazards posed to people, equipment, wildlife or livestock by any apparatus left in place above or underground?

IMPLEMENTATION

- 1. Has the abandoned pipeline been physically isolated from the live pipeline?
- 2. Has the pipeline been drained of all fluids and adequately cleaned to prevent ground water contamination from hydrocarbon residue on the pipe wall after the pipe is perforated by corrosion?
- 3. Have all aboveground facilities been removed and has consideration been given to removing underground facilities such as anode beds and tanks?

LIABILITY/RISK MANAGEMENT

- 1. Does the pipeline company have a contingency plan to remedy any contamination caused by the abandoned pipeline?
- 2. Has consideration been given to conducting post-abandonment surveillance programs?
- 3. Has consideration been given to maintaining signage after the pipeline is abandoned?
- 4. Has consideration been given to providing a locate service after the pipeline is abandoned?



PIPELINE EASEMENT

(the "Easement")

Between

(hereinafter called the "Transferor")

and

UNION GAS LIMITED

(hereinafter called the "Transferee")

This easement is an Easement in Gross

WHEREAS the Transferor is the owner in fee simple of those lands and premises more particularly described as: **PIN**: Click here to enter text.**Legal Description**: Click here to enter text. (hereinafter called the "Transferor's Lands").

The Transferor does hereby GRANT, CONVEY, TRANSFER AND CONFIRM unto the Transferee, its successors and assigns, to be used and enjoyed as appurtenant to all or any part of the lands, the right, liberty, privilege and easement on, over, in, under and/or through a strip of the Transferor's Lands more particularly described as: Choose an item. **PIN**: Click here to enter text. **Legal Description**: Click here to enter text. (hereinafter called the "Lands") to survey, lay, construct, maintain, brush, clear trees and vegetation, inspect, patrol, alter, remove, replace, reconstruct, repair, move, keep, use and/or operate one pipeline for the transmission of Pipeline quality natural gas as defined in The Ontario Energy Board Act S.O. 1998 (hereinafter called the "Pipeline") including therewith all such buried attachments, equipment and appliances for cathodic protection which the Transferee may deem necessary or convenient thereto, together with the right of ingress and egress at any and all times over and upon the Lands for its servants, agents, employees, those engaged in its business, contractors and subcontractors on foot and/or with vehicles, supplies, machinery and equipment for all purposes necessary or incidental to the exercise and enjoyment of the rights, liberty, privileges and easement hereby granted. The Parties hereto mutually covenant and agree each with the other as follows:

- 1. In consideration of the sum of TWO Dollars (\$2.00) of lawful money of Canada (hereinafter called the "Consideration"), which sum is payment in full for the rights and interest hereby granted and for the rights and interest, if any, acquired by the Transferee by expropriation, including in either or both cases payment in full for all such matters as injurious affection to remaining lands and the effect, if any, of registration on title of this document and where applicable, of the expropriation documents, subject to Clause 12 hereof to be paid by the Transferee to the Transferor within 90 days from the date of these presents or prior to the exercise by the Transferee of any of its rights hereunder other than the right to survey (whichever may be the earlier date), the rights, privileges and easement hereby granted shall continue in perpetuity or until the Transferee, with the express written consent of the Transferor, shall execute and deliver a surrender thereof . Prior to such surrender, the Transferee shall remove all debris as may have resulted from the Transferee's use of the Lands from the Lands and in all respects restore the Lands to its previous productivity and fertility so far as is reasonably possible, save and except for items in respect of which compensation is due under Clause 2, hereof. Transferor and Transferee hereby agree that nothing herein shall oblige Transferee to remove the Pipeline from the Lands as part of Transferee's obligation to restore the Lands.
- 2. The Transferee shall make to the Transferor (or the person or persons entitled thereto) due compensation for any damages to the Lands resulting from the exercise of any of the rights herein granted, and if the compensation is not agreed upon by the Transferee and the Transferor, it shall be determined by arbitration in the manner prescribed by the Expropriations Act, R.S.O. 1990, Chapter E-26 or any Act passed in amendment thereof or substitution therefore. Any gates, fences and tile drains curbs, gutters, asphalt paving, lockstone, patio tiles interfered with by the Transferee

shall be restored by the Transferee at its expense as closely as reasonably possible to the condition and function in which they existed immediately prior to such interference by the Transferee and in the case of tile drains, such restoration shall be performed in accordance with good drainage practice and applicable government regulations.

- 3. The Pipeline (including attachments, equipment and appliances for cathodic protection but excluding valves, take-offs and fencing installed under Clause 9 hereof) shall be laid to such a depth that upon completion of installation it will not obstruct the natural surface run-off from the Lands nor ordinary cultivation of the Lands nor any tile drainage system existing in the Lands at the time of installation of the Pipeline nor any planned tile drainage system to be laid in the Lands in accordance with standard drainage practice, if the Transferee is given at least thirty (30) days notice of such planned system prior to the installation of the Pipeline; provided that the Transferee may leave the Pipeline exposed in crossing a ditch, stream, gorge or similar object where approval has been obtained from the Ontario Energy Board or other Provincial Board or authority having jurisdiction in the premises. The Transferee agrees to make reasonable efforts to accommodate the planning and installation of future tile drainage systems following installation of the Pipeline so as not to obstruct or interfere with such tile installation.
- 4. As soon as reasonably possible after the construction of the Pipeline, the Transferee shall level the Lands and unless otherwise agreed to by the Transferor, shall remove all debris as may have resulted from the Transferee's use of the Lands therefrom and in all respects restore the Lands to its previous productivity and fertility so far as is reasonably possible, save and except for items in respect of which compensation is due under Clause 2 hereof.
- 5. It is further agreed that the Transferee shall assume all liability and obligations for any and all loss, damage or injury, (including death) to persons or property that would not have happened but for this Easement or anything done or maintained by the Transferee hereunder or intended so to be and the Transferee shall at all times indemnify and save harmless the Transferor from and against all such loss, damage or injury and all actions, suits, proceedings, costs, charges, damages, expenses, claims or demands arising therefrom or connected therewith provided that the Transferee shall not be liable under the clause to the extent to which such loss, damage or injury is caused or contributed to by the gross negligence or wilful misconduct of the Transferor.
- 6. In the event that the Transferee fails to comply with any of the requirements set out in Clauses 2, 3, or 4 hereof within a reasonable time of the receipt of notice in writing from the Transferor setting forth the failure complained of, the Transferee shall compensate the Transferor (or the person or persons entitled thereto) for any damage, if any, necessarily resulting from such failure and the reasonable costs if any, incurred in the recovery of those damages.
- 7. Except in case of emergency, the Transferee shall not enter upon any of the Transferor's Lands, other than the Lands, without the consent of the Transferor. In case of emergency the right of entry upon the Transferor's Lands for ingress and egress to and from the Lands is hereby granted. The determination of what circumstances constitute an emergency, for purposes of this paragraph is within the absolute discretion of the Transferee, but is a situation in which the Transferee has a need to access the Pipeline in the public interest without notice to the Transferor, subject to the provisions of Clause 2 herein. The Transferee will, within 72 hours of entry upon such lands, advise the Transferor of the said emergency circumstances and thereafter provide a written report to Transferor with respect to the resolution of the emergency situation The Transferee shall restore the lands of the Transferor at its expense as closely as reasonably practicable to the condition in which they existed immediately prior to such interference by the Transferee and in the case of tile drains, such restoration shall be performed in accordance with good drainage practice.
- 8. The Transferor shall have the right to fully use and enjoy the Lands except for planting trees over the lesser of the Lands or a six (6) metre strip centered over the Pipeline, and except as may be necessary for any of the purposes hereby granted to the Transferee, provided that without the prior written consent of the Transferee, the Transferor shall not excavate, drill, install, erect or permit to be excavated, drilled, installed or erected in, on, over or through the Lands any pit, well, foundation, pavement, building, mobile homes or other structure or installation. Notwithstanding the foregoing the Transferee upon request shall consent to the Transferor erecting or repairing fences, hedges, pavement, lockstone constructing or repairing tile drains and domestic sewer pipes, water pipes, and utility pipes and constructing or repairing lanes, roads, driveways, pathways, and walks across, on and in the Lands or any portion or portions thereof, provided that before commencing any of the work referred to in this sentence the Transferor shall (a) give the Transferee at least (30) clear days notice in writing describing the work desired so as to enable the Transferee to evaluate and comment on the work proposed and to have a representative inspect the site and/or be present at any time or times during the performance of the work, (b) shall follow the instructions of such

representative as to the performance of such work without damage to the Pipeline, (c) shall exercise a high degree of care in carrying out any such work and, (d) shall perform any such work in such a manner as not to endanger or damage the Pipeline as may be required by the Transferee.

- 9. The rights, privileges and easement herein granted shall include the right to install, keep, use, operate, service, maintain, repair, remove and/or replace in, on and above the Lands any valves and/or take-offs subject to additional agreements and to fence in such valves and/or take-offs and to keep same fenced in, but for this right the Transferee shall pay to the Transferor (or the person or persons entitled thereto) such additional compensation as may be agreed upon and in default of agreement as may be settled by arbitration under the provisions of The Ontario Energy Board Act, S.O. 1998, or any Act passed in amendment thereof or substitution therefore. The Transferee shall keep down weeds on any lands removed from cultivation by reason of locating any valves and/or take-offs in the Lands.
- 10. Notwithstanding any rule of law or equity and even though the Pipeline and its appurtenances may become annexed or affixed to the realty, title thereto shall nevertheless remain in the Transferee.
- 11. Neither this Agreement nor anything herein contained nor anything done hereunder shall affect or prejudice the Transferee's rights to acquire the Lands or any other portion or portions of the Transferor's lands under the provisions of The Ontario Energy Board Act, S.O. 1998, or any other laws, which rights the Transferee may exercise at its discretion in the event of the Transferor being unable or unwilling for any reason to perform this Agreement or give to the Transferee a clear and unencumbered title to the easement herein granted.
- 12. The Transferor covenants that he has the right to convey this Easement notwithstanding any act on his part, that he will execute such further assurances of this Easement as may be requisite and which the Transferee may at its expense prepare and that the Transferee, performing and observing the covenants and conditions on its part to be performed, shall have quiet possession and enjoyment of the rights, privileges and easement hereby granted. If it shall appear that at the date hereof the Transferor is not the sole owner of the Lands, this Easement shall nevertheless bind the Transferor to the full extent of his interest therein and shall also extend to any after-acquired interest, but all moneys payable hereunder shall be paid to the Transferor only in the proportion that his interest in the Lands bears to the entire interest therein.
- 13. In the event that the Transferee fails to pay the consideration as hereinbefore provided, the Transferor shall have the right to declare this Easement cancelled after the expiration of 15 days from personal service upon the Manager, Land Services of the Transferee at its Executive Head Office in Chatham, Ontario, (or at such other point in Ontario as the Transferee may from time to time specify by notice in writing to the Transferor) of notice in writing of such default, unless during such 15 day period the Transferee shall pay the said consideration; upon failing to pay as aforesaid, the Transferee shall forthwith after the expiration of 15 days from the service of such notice execute and deliver to the Transferor at the expense of the Transferee, a valid and registrable release and discharge of this Easement.
- 14. All payments under these presents may be made either in cash or by cheque of the Transferee and may be made to the Transferor (or person or persons entitled thereto) either personally or by mail. All notices and mail sent pursuant to these presents shall be addressed to:

the Transferor at:

and to the Transferee at: Union Gas Limited

P.O. Box 2001 50 Keil Drive North

Chatham, Ontario N7M 5M1 Attention: Manager, Land Services

or to such other address in either case as the Transferor or the Transferee respectively may from time to time appoint in writing.

15. The rights, privileges and easement hereby granted are and shall be of the same force and effect as a covenant running with the Transferor's Land and this Easement, including all the covenants and conditions herein contained, shall extend to, be binding upon and inure to the benefit of the heirs, executors, administrators, successors and assigns of the Parties hereto respectively; and,

wherever the singular or masculine is used it shall, where necessary, be construed as if the plural, or feminine or neuter had been used, as the case may be.

- 16. (a) The Transferee represents that it is registered for the purposes of the Harmonized Goods and Services Tax (hereinafter called "HST") in accordance with the applicable provisions in that regard and pursuant to the Excise Tax Act, (R.S.C., 1985, c. E-15), (hereinafter called "Excise Tax Act"), as amended.
 - (b) The Transferee covenants to deliver a Statutory Declaration, Undertaking and Indemnity confirming its HST registration number, which shall be conclusive evidence of such HST registration, and shall preclude the Transferor from collection of HST from the Transferee.
 - (c) The Transferee shall undertake to self-assess the HST payable in respect of this transaction pursuant to subparagraphs 221(2) and 228(4) of the Excise Tax Act, and to remit and file a return in respect of HST owing as required under the said Act for the reporting period in which the HST in this transaction became payable.
 - (d) The Transferee shall indemnify and save harmless the Transferor from and against any and all claims, liabilities, penalties, interest, costs and other legal expenses incurred, directly or indirectly, in connection with the assessment of HST payable in respect of the transaction contemplated by this Easement. The Transferee's obligations under this Clause shall survive this Easement.
- 17. The Transferor hereby acknowledges that this Easement will be registered electronically.

DATED this day of Choose an item. 20

Signature (Transferor)	Signature (Transferor)
Insert name here	Insert name here
Print Name(s) (and position held if applicable)	Print Name(s) (and position held if applicable)
Choose an item.	Choose an item.
Enter Text here	Enter Text here
Address (Transferor)	Address (Transferor)

UNION GAS LIMITED

Signature (Transferee)
Insert name here, Choose an item.
Name & Title (Union Gas Limited)
I have authority to bind the Corporation.
Telephone Number (Union Gas Limited)

Municipality of Chatham-Kent

Province of Ontario

DECLARATION REQUIRED UNDER SECTION Choose an item. OF THE PLANNING ACT, R.S.O. 1990, as amended

I, Click here to enter text., of the Click here to enter text., in the Province of Ontario.

DO SOLEMNLY DECLARE THAT

- 1. I am Choose an item., Lands Department of Union Gas Limited, the Transferee in the attached Grant of Easement and as such have knowledge of the matters herein deposed to.
- 2. The use of or right in the land described in the said Grant of Easement is being acquired by Union Gas Limited for the purpose of a Choose an item. line within the meaning of Part VI of the Ontario Energy Board Act, 1998.

AND I make this solemn declaration conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath, and by virtue of The Canada Evidence Act.

DECLARED before me at the
Click here to enter text.,
in the Province of Ontario

This day of Choose an item. 20

A Commissioner, etc.

O'Connor, Joel

From:

Fleming, Kevin (MTO) [Kevin.Fleming@ontario.ca]

Sent:

August-15-13 3:52 PM

To:

O'Connor, Joel

Subject:

RE: Union Gas Limited - Panhandle NPS 16 (406.4mm O.D) Replacement

Joel,

The plan you submitted for a proposed pipe boring under Highway 40 north of Green Valley Line (Chatham Kent) has been reviewed; my comments are as follows:

- The depth appears to be sufficient;
- The Municipality should be contacted to ensure there is no impact on the Municipal Drain;
- Work proposed for GWP 3121-10-00 (Chatham to Wallaceburg) are not anticipated to impact the proposed gas line installation:
- Based on the currently schedule, if the Union Gas work is carried out in early 2014 as indicated, scheduling conflicts with GWP 3121-10-00 will not occur.

It is unclear if Union Gas is requesting to construct an access route from Highway 40 for this work. Any addition of access routes will require MTO review prior to installation.

The MTO does not object to the aforementioned project, provided all of the necessary documents are acquired, and all of the Regulations and requirements are met.

Please let me know if you have any questions.

Regards,

Kevin Fleming

Technical Services Officer (A)
Operations Office
MTO - London
T: 519-873-4176
C: 226-374-8287
Kevin.Fleming@ontario.ca

From: O'Connor, Joel Sent: July-29-13 9:27 AM To: 'Fleming, Kevin (MTO)'

Subject: Union Gas Limited - Panhandle NPS 16 (406.4mm O.D) Replacement

Hi Kevin,

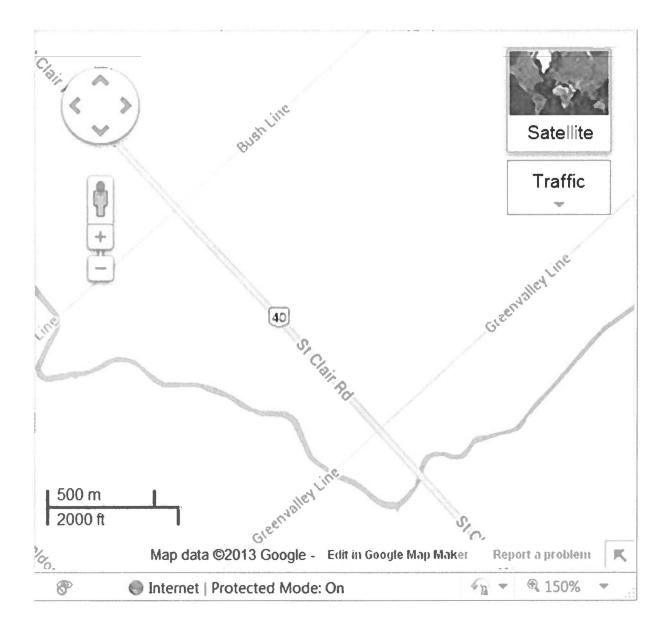
Union Gas Limited runs an extensive integrity management program to identify potential anomalies in our pipelines. When a potential anomaly is found, the pipeline is typically excavated and inspected manually to determine what corrective action must be taken.

During our investigations, an anomaly was detected in our NPS 16 Panhandle pipeline which runs underneath Highway 40 near the intersection of Greenvalley Line in Municipality of Chatham-Kent(Please see the map below). Due to this line being located under the highway and cannot be inspected, Union Gas has elected to replace the pipeline early next year.

As this pipeline is regulated by the Ontario Energy Board(OEB), Union Gas will be required to obtain approval prior to commencing construction.

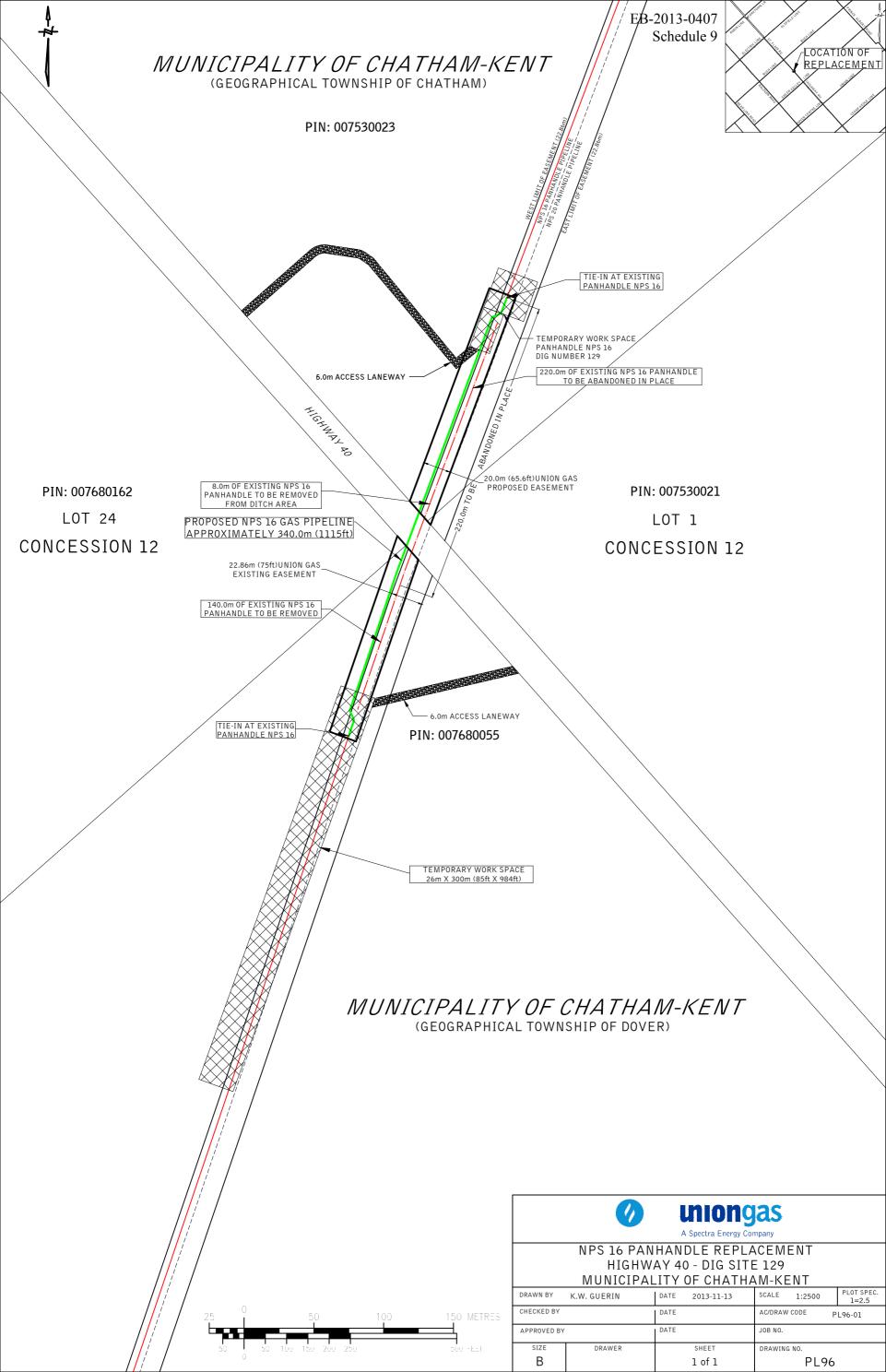
In order to facilitate this process, Union Gas Limited is currently requesting a "letter of non-objection" from the Ministry of Transportation indicating that the MTO is willing to issue a permit to Union Gas to complete the work provided all technical requirements are met(Union Gas is delaying applying for the encroachment permit as it will expire prior to construction commencing).

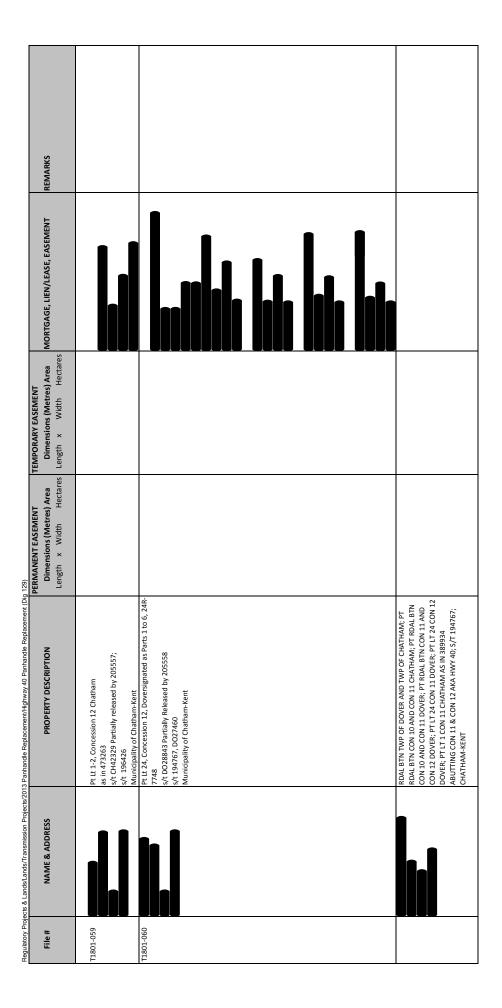
Attached is design drawing showing the proposed installation.



Thanks and Best Regards, Joel

Joel O'Connor Land Agent Lands Department | Union Gas Limited (Phone) 519-436-4600 x 5002951 (Cell) 226-626-3025







NPS 16 Panhandle St. Clair Road (Highway 40) Replacement

Environmental Report

Prepared for: Union Gas Limited

Prepared by: Azimuth Environmental Consulting, Inc.

October 2013

AEC 13-155



Environmental Assessments & Approvals

October 16, 2013 AEC 13-155

Union Gas Ltd. 750 Richmond St. Chatham, ON N7M 5M1

Attention: Norm Dumouchelle, Environmental Planner

Re: Environmental Report

Union Gas NPS 16 Panhandle St. Clair Road (Highway 40) Replacement Lot 1, Concession 12, Municipality of Chatham-Kent

Dear Mr. Dumouchelle:

Azimuth Environmental Consulting is pleased to submit the Environmental Report for the NPS 16 Panhandle St. Clair Road (Highway 40) Replacement at the abovementioned location. It is our understanding that an ER will form part of Unions application to the Ontario Energy Board for the construction of this project.

Our investigation revealed that the proposed replacement of approximately 340 metres of pipeline will not have negative impacts on the natural heritage features within the area nor will it impact any species of conservation concern if the suggested mitigation measures are followed as described in this report.

If you have any questions or require further information, please do not hesitate to call.

Yours truly,

AZIMUTH ENVIRONMENTAL CONSULTING, INC.

Lisa Moran, B.Sc.Env.

Lisa Morar

Terrestrial Ecologist

Attach:



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1.0 BACKGROUND AND PROPOSED WORKS

Union Gas is proposing to replace approximately 340 metres of the existing NPS 16 inch Panhandle natural gas pipeline approximately 300m north of the corner of Green Valley Road and St. Clair Road (Hwy 40), Municipality of Chatham-Kent. Testing has verified anomalies on the pipeline which indicate dents and damage to the pipe coating. These anomalies have been detected in the vicinity of St. Clair Road requiring a replacement.

A portion of the pipeline will be replaced in the same trench via open cut, by use of hoe excavator that will excavate a trench the width of which approximates the diameter of the pipeline plus 0.3 metres, depending on ground conditions at the time. replacement sections of pipe are lowered into the trench and padded with soils, the native material will be backfilled into the trench by an excavator. Union is aware that the watercourse may contain Species at Risk. A permit from the St. Clair Region Conservation Authority (Regulation 171/06) has been acquired by Union Gas in order to permit construction activities to replace this segment of pipeline in proximity to the watercourse. In order to minimize the disturbance of the drain, Union Gas is proposing to replace the existing aerial crossing of the NPS 16 inch pipeline to beneath the road and the watercourse using the horizontal directional drill method (HDD) ensuring the bore pits are located at least 30 metres from the watercourse and silt fence placed between the pit and the watercourse. The crossing will fall under the DFO-OGLA AGREEMENT 2008 and will follow the DFO Operational Statement for High-Pressure Directional Drilling. The operation is scheduled to take place between September 1, 2013 and August 31, 2014. Union will provide 48 hours notification to the St. Clair Region Conservation Authority (SCRCA) prior the start of the HDD and will make notification to DFO as per the agreement.

Following the HDD of the new pipe the existing pipe will be abandoned and Union is proposing to remove the existing aerial pipeline crossing to avoid future maintenance issues. A shallow trench will be excavated in the road allowance between the watercourse and Hwy 40 to expose and cut the abandoned pipeline. A similar operation to the east of the watercourse will be performed and the cut section of pipeline will be pulled from the east through the ground and removed thus not disturbing the watercourse.

2.0 ENVIRONMENTAL SETTING

2.1 Agricultural and Soils

The study area contains areas that are intensively cultivated cash crops (e.g., soybeans, corn). The Canada Land Inventory mapping identified the area is composed of Class 2 soils.

The soils are predominately clay, silt, sand and gravel with Brookston clay loam throughout study area (OMAFRA, 1930).



Union Gas has developed construction procedures for mitigating agricultural impacts (compaction, soil mixing) to ensure the productivity of the affected agricultural lands are maintained after construction.

2.2 Terrestrial Environment

The entire study area is intensively cultivated Class 2 agricultural land. There are no wooded areas, designated Provincially Significant wetlands, Areas of Natural and Scientific Interest or Environmentally Sensitive Areas within or adjacent (i.e. within 120m) of the study area. Since there are no environmental features present within the study area, the study area would not provide any significant function as wildlife habitat.

2.3 Aquatic Environment

The Townline Drain drains into Bear Creek which is a tributary of Lake St. Clair. Tributaries of Lake St. Clair provide habitat for warm water fish communities with 19 species including Northern Pike, Largemouth Bass, Rock Bass and Sunfish. Although within the Townline Drain, it is expected to provide potential habitat for small warm water bait fish. The Drain conveys surface and ground water discharge from the agricultural lands and the associated subsurface drainage systems that is pumped to the municipal drains.

2.4 Species at Risk

The Ministry of Natural Resources has identified 247 listed S1, S2 or S3 species for the Chatham Kent area. These species are generally all Carolinian species that could have been found in the area prior to development of the intensive agricultural land use and would be expected to have habitat present further south in the United States. The intensive nature of the agricultural production and the disturbed habitat found within the road allowances are not expected to provide critical habitat for the species listed.

2.4.1 Terrestrial Species

Of these species, based on the features within the study area and based on other studies conducted within the general area, we feel that there is potential suitable habitat for Eastern Foxsnake and Blanding's Turtle. The road allowance has semi-maintained grass/field adjacent to them which may provide potentially suitable habitat for Foxsnake. Additionally, although there are no ponds within the study area, the deep roadside ditch (i.e. Townline Drain) may provide suitable habitat and the gravel/sandy road shoulder may offer potential nesting habitat for turtles including the Blanding's Turtle.

2.4.2 Aquatic Species

There are records for aquatic SAR within the general area for species of fish including Channel Darter, Eastern Sand Darter, Lake Chubsucker and Northern Madtom.



The Aylmer District Ministry of Natural Resources (Catherine Jong, Species at Risk Biologist, 519-773-4736) should be contacted prior to construction activities to provide them with an opportunity to review the proposed works with respect to the terrestrial and aquatic Species at Risk. The MNR will be able to provide comment as to whether the proposed works will likely contravene section 9 or 10 of the Endangered Species Act, 2007.

3.0 IMPACT ASSESSMENT

3.1 Terrestrial Environment

Construction will occur within the agricultural lands and road allowance. The ditches within the road allowances are composed of grasses, weedy herbaceous vegetation and woody vegetation. The woody vegetation in the right-of-way is very limited and generally restricted to a row of windbreak trees along the property boundary at the drain crossing.

Since directional drilling will be employed in the vicinity of the drain, none of the trees located within the hedgerow will have to be removed.

Wildlife habitat in the study area is primarily limited to small mammals and birds that may inhabit the road allowance grassy habitat or individual trees within or adjacent to the road allowance. Construction of the pipeline will not change the habitat conditions within the road allowances.

3.2 Aquatic Environment

The watercourses and municipal drains are capable of providing warm water fish habitat and as such are protected from any harmful alteration by the Federal Fisheries Act (Fisheries and Oceans, 1989). Therefore, implementation of appropriate erosion and sediment control for work in proximity to watercourses should be implemented to ensure no harmful alteration or destruction of fish habitat.

Proper mitigation techniques implemented and maintained throughout the duration of the construction process, will aid in the prevention of:

- Siltation and sedimentation due to construction activities in or adjacent to a watercourse;
- Siltation and sedimentation due to directional drill fluid fracturing into watercourse; and
- Erosion of exposed soils from the construction site.

3.3 Species at Risk

There is no expectation the project will impact critical habitat for species at risk and



therefore, the project is not expected to contravene the Endangered Species Act, 2007 provided the mitigation measures as outlined below are adhered to. The pipeline is located either on intensively cultivated agricultural land or within the herbaceous/grass vegetation within the municipal road allowance. There are no other natural environmental features located within or adjacent to the study area. The municipal drain crossings will utilize HDD to avoid any disturbance to the feature.

4.0 MITIGATION MEASURES

Mitigation and restoration measures will be completed in accordance with established procedures as outlined in the Ontario Energy Board, Environmental Guidelines For Locating, Constructing and Operating Hydrocarbon Pipelines in Ontario, 2003, Fifth Edition. Union Gas has developed operating and construction practices, in consultation with the approval agencies (e.g., Department of Fisheries and Oceans, Ontario Ministry of Natural Resources, Ministry of the Environment, conservation authorities) that effectively mitigate and restore disturbances to the affected lands during construction. This information and project experience was used to help define the possible mitigation measures that could be applied to minimize the potential impacts. Union Gas construction procedures detailing the standard methods of construction on agricultural land for clearing, watercourse crossings, topsoil conservation, grading, trenching, tile repair, clean-up will be applied to the construction and restoration phases of the project. These procedures will be adhered to during construction unless modified in specific conditions to minimize any environmental impacts, in consultation with the environmental inspector and notification of the property owner.

4.1 Agricultural and Soils

Agricultural lands will be affected by the replacement of the existing pipeline. Adherence to the Union Gas construction practices for agricultural land will mitigate the impacts of replacing the pipeline. The land shall be returned to production in a timely fashion.

At the initiation of the construction the contractor will strip the topsoil placing it adjacent to the work area and will ensure proper separation between the topsoil and subsoil during construction. Stockpiled soil should be located at least 30 metres away from watercourses and protected from erosion. Following completion of the pipeline installation the work area subsoils will be graded and the topsoil will be placed back on the work area and graded to match the pre-construction condition. The topsoil stripping and restoration will be done under the supervision of an environmental inspector to ensure the disturbed area is returned to the pre-construction condition.



Soybean cyst nematode is a small plant-parasitic round worm that feeds on and reproduces within the root adversely impacting the plant health. Union Gas tests the cultivated agricultural soils along the route for the presence of the nematode. If present, all equipment is cleaned with a high pressure washer to avoid the transport of the cyst nematode beyond the infected fields.

Prior to construction Union Gas consults with the property owner to determine if the affected agricultural fields have subsurface tile drainage. If the route crosses a systematic drainage system the headers and the tile runs are located and remedial action is taken to correct potential drainage problems during construction. Surface drainage shall be restored to pre-construction conditions. Union Gas's wet soil shutdown practice will be adhered to if it is necessary to work on agricultural lands.

4.2 Terrestrial Environment

If required, woody vegetation removal should be restricted from occurring between April 30 to August 1, in accordance with the Migratory Bird Convention Act and Migratory Bird Regulations, to avoid impacting bird nests and eggs. If project scheduling requires the removal of individual trees or shrubs during the nesting period Azimuth recommends qualified personal assess them for evidence of nesting activity prior to removal to avoid any potential loss of active nests.

4.3 Aquatic Environment

The Townline Drain is capable of providing warm water fish habitat and as such is protected from any harmful alteration by the Federal Fisheries Act (Fisheries and Oceans, 1989). Functioning as warm water habitat we expect the warm water fisheries timing window for construction to occur between March 31 to July 1 will be applied for all inwater works. Implementation of appropriate erosion and sediment control for work in proximity to watercourses should be implemented to ensure no harmful alteration or destruction of fish habitat.

Union Gas proposes to utilize horizontal directional drill technique to cross the Townline Drain. The following conditions should be adhered to for horizontal directional drilled crossings:

- Union Gas will follow the DFO Operational Statement for High Pressure Directional Drilling.
- Sediment fences are to be established between the drilling/exit points (bore pits) and the watercourse (potential for sediment to enter watercourse).
- The drilling/exit points are to be located a minimum of (10) metre from the water's edge.
- The pipeline will be installed a minimum of 1.5 metres below the stream bed.



 All excess material is to be removed from the construction site to an approved location.

4.4 Species at Risk

Eastern Foxsnake, Blanding's Turtle and several fish species have been identified as having potential habitat within the study area.

4.4.1 Habitat Protection and Habitat Specific Features

- Eastern Foxsnakes and their habitat are protected under the ESA 2007. Specific features such as rotting logs or stumps, piles of organic material (such as compost, sawdust, or woodchips), rock piles, brush piles, and dump sites of old agricultural debris/equipment are likely to provide habitat functions for Eastern Foxsnake in the project area. This species may also utilize old bridges, culverts, and foundations as communal over-wintering sites. If any of these features are found to occur, they must be protected from all disturbances that would result in damage or destruction of their habitat functions.
- If any of the features mentioned above are determined to be located in an area that would be disturbed by the project, the MNR Species at Risk staff (contact information provided below) should be contacted for site-specific advice on what activities may result in damage or destruction to the particular habitat feature.

4.4.2 Stabilization Materials

• The use of mesh or netting type stabilization material should not be used for erosion control measures, if applicable. To prevent the entanglement of Eastern Foxsnake, an alternative product such as Curlex Net-free® blanket or the use of riprap over geotextile fabric is recommended.

4.4.3 Visual Examinations

 Construction machinery and vegetation clearing equipment that is left idle for over one (1) hour or is parked overnight at the project site between April 1st to November 30th must be surveyed for the presence of Eastern Foxsnake before ignition. This visual examination should include all lower components of the machinery, including operational extensions and running gear.

4.4.4 Species at Risk Observations or Encounters

- All on-site personnel must be made aware of the potential presence of species at risk, especially Eastern Foxsnake.
- If an Eastern Foxsnake or Blanding's Turtle is observed in or near the construction area, active machinery and equipment should maintain a minimum operating distance of thirty (30) meters from the individual until the following day, or as directed by MNR Aylmer District.
- Should on-site personnel be unable to allow an incidentally encountered species at



risk individual to disperse from the active project location under its own ability, the MNR Species at Risk staff (contact information below) must be contacted immediately for additional guidance.

Should any of the project parameters change, or if it is not possible to comply with the above conditions, please notify the MNR Aylmer District office (Catherine Jong, Species at Risk Biologist, 519-773-4736) immediately to obtain advice on whether the changes may result in the requirement for an authorization under the ESA 2007.

4.3.5 Aquatic Species at Risk

Provisions for the protection of all aquatic SAR have been described above in the "Aquatic Environment" section. Employing horizontal directional drilling (HDD) under the Townline Drain will limit any potential disturbance to the watercourse and its inhabitants including any potential SAR. Should the HDD technique be unsuccessful and an open cut (i.e. dam and pump) is required to cross the Townline) Drain, MNR (Catherine Jong, Species at Risk Biologist, 519-773-4736) should be notified to ascertain whether a permit according to the Ontario Endangered Species Act (2007) is required for the in-water works.

5.0 ARCHAEOLOGY

Archaeological assessments (Stages 1-2) are currently being completed by D.R. Poulton & Associates for the project. All reports will be submitted to the Ministry of Tourism, Culture and Sport for their review.

6.0 CONCLUSION

Through the implementation of the aforementioned mitigation measures, through the utilization of horizontal directional drilling under the Townline Drain and following the appropriate restoration techniques, it is anticipated that there will be no adverse impact on the limited natural heritage features and functions that have been identified within the area.



Environmental Checklist

The Project Originator is responsible for reviewing and completing the following checklist to determine if the project should be forwarded to EH&S Planning for their review. When completing this form, please ensure that a Description of Feature is given and that the Proposed Mitigation is identified for those features marked YES in the Impacted column.

NPS 16 Panhandle **Project Name: Project Number:**

Replacemnt Project

#129

2013-03-22 Date:

Project Originator: Pipeline Engineering

Project Description: Union Gas Limited is proposing to replace approximately 340 metres of

the existing NPS 16 inch Panhandle Pipeline located within the

Municipality of Chatham-Kent.

Following testing of the pipeline, metal loss was detected under Highway 40 north of the City of Chatham. Union is proposing to replace the existing line by installing a new section of pipeline using the directional drill method and abandoning the existing line in place.

Feature and Description	Impacted Yes/No	Proposed Mitigation		
Water Course Crossings Description: Crossings see attached drawings for locations I Municipal Drain	Yes	See sections 3.44 and 3.45 C&M Manual for mitigation. Adhere to SCR and permit requirements Watercourse crossed using the directional drill Union will aquire a permit from the Lower Thames Valley Conservation Authority.		
Social Impacts Description: Construction in road allowance Noise, Dust, Traffic, Residencial Access	Yes	See sections 18.7 and 18.8 of the C&M manual for mitigation Noise - to be controlled to the greatest extent possible so as to minimize the disruptiont of nearby residents (i.e.ensure all equipment have proper mufflers). Dust - control dust as required. Traffic -		
Land use Designations Description:	No			
Agricultural Resources Description: It will be necessary to access the work site on agricultural lands.	Yes	See sections 3.46 and 3.25 C&M Manual for mitigation - Soybean Cyst Nematode testing required - Soil compaction monitoring		
Vegetation and Wildlife Habitat Description: Speies at Risk	Yes	SAR screening will be completed to determine if surveys are necessary. Watercourse will be crossed using the directional drill method to avoid instream disturbance.		

		1 450 2 0
Water Wells and Hydrology Description: Possible water well monitoring	Yes	t. Unions standard water well monitoring program.
Heritage Resources Description: Archaeological Resources (artifacts)	No	A Stage 1 and 2 survey will be undertaken in spring 2013 to determine the potential for artifacts.
Geological Resources and Minerals Description:	No	
Additional Concerns Description:	No	

8034 -2002/01

TOTAL ESTIMATED ENVIRONMENTAL COSTS

NPS 16 PANHANDLE ST. CLAIR ROAD (HWY 40) REPLACEMENT

Pre-Construction

11e-Construction		
Environmental Review Archaeology Hearing Costs (Environmental Consultant) Species at Risk Surveys Permits	\$ 10,000 10,000 5,000 10,000 	
Total Pre-Construction	\$	<u>37,000</u>
Construction		
Environnemental Inspection Soil Monitoring	\$ 1,000 <u>4,000</u>	
Total Construction	\$	<u>5,000</u>
Post Construction		
Site Restoration	\$ <u>5,000</u>	
Total Post Construction	\$	<u>5,000</u>
Total Estimated Environmental Costs	\$	<u>47,000</u>



Chief Burton Kewayosh Walpole Island First Nation 117 Tahgahoning Road Wallaceburg, ON N8A 4K9

Attention: Chief Burton Kewayosh

Reference: Union Gas Limited – Proposed NPS 16 Panhandle Pipeline Replacement

Union Gas Limited ("Union Gas") plans to replace approximately 300 meters of existing 16 inch diameter natural gas pipeline located in the Municipality of Chatham-Kent, in the vicinity of St. Clair Road (40 Highway), near Green Valley Line and Bush Line. The work is being undertaken as part of an ongoing pipeline maintenance and integrity management program to ensure that Union Gas pipelines remain in safe operating condition at all times. Union Gas regularly inspects the interior and exterior of its pipelines and based on the result of these assessments, Union Gas will take the appropriate action to correct any issues that are found.

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For any questions or concerns regarding the Project, please do not hesitate to contact the undersigned or John Bonin, Union Gas Limited, JBonin@uniongas.com, 519-539-8509, Extension 5021063

Sincerely,

Norm Dumouchelle Environmental Planner



Chief Greg Peters Moravian of the Thames 14760 Schoolhouse, Thamesville, ON NOP 2K0

Attention: Chief Greg Peters

Reference: Union Gas Limited – Proposed NPS 16 Panhandle Pipeline Replacement

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Norm Dumouchelle Environmental Planner



Chief Joe Miskokomon Chippewas of the Thames 320 Chippewas Road, RR#1 Muncey, ON N0L 1Y0

Attention: Chief Joe Miskokomon

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Sincerely,

Norm Dumouchelle Environmental Planner



Chief Joel Abram
Oneida Nation of the Thames
2212 Elm Avenue
Southwold, ON NOL 2G0

Attention: Chief Joel Abram

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Sincerely,

Norm Dumouchelle Environmental Planner



Chief Louise Hiller
Caldwell First Nation
14 Orange Street, P.O. Box 388
Leamington, ON N8H 3W3

Attention: Chief Louise Hiller

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Norm Dumouchelle Environmental Planner



Chief Patrick Waddilove Munsee-Delaware Nation 289 Jubilee Rd., RR.1 Muncey, ON NOL 1Y0

Attention: Chief Patrick Waddilove

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Sincerely,

Norm Dumouchelle Environmental Planner



Chief Thomas Bressette Chippewas of Kettle and Stony Point 6247 Indian Lane, RR #2 Forest, ON N0N 1J0

Attention: Chief Thomas Bressette

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Norm Dumouchelle Environmental Planner



Chief Christopher Plain Aamjiwnaang First Nation 978 Tashmoo Ave., Sarnia, ON N7T 7H5

Attention: Chief Christopher Plain

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Mr. Dean Jacobs Walpole Island First Nation R.R. #3 Wallaceburg, ON N8A 4K9

Attention: Mr. Dean Jacobs

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Mr. Gary Northcott Director of Engineering Services Municipality of Chatham-Kent P.O. Box 640 Chatham, ON N7M 5K8

Attention: Mr. Gary Northcott

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Attachment: Study Area Map c.c. Ralph Pugliese



Mr. Mark Bowler Métis Nation of Ontario Director, Lands, Resources & Consultation Branch 500 Old St. Patrick Street, Unit 3 Ottawa, ON K1N 9G4

Attention: Mr. Mark Bowler

Reference: Union Gas Limited – Proposed NPS 16 Panhandle Pipeline Replacement

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Mr. Ralph Pugliese Director of Planning Services Municipality of Chatham-Kent P.O. Box 640 Chatham, ON N7M 5K8

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Attachment: Study Area Map c.c. Gary Northcott



Ms. Sharilyn Johnston Environmental Officer Aamjiwnaang First Nation 978 Tashmoo Ave., Sarnia, ON N7T 7H5

Attention: Ms. Sharilyn Johnston

Reference: Union Gas Limited - Proposed NPS 16 Panhandle Pipeline Replacement

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Sincerely,

Norm Dumouchelle Environmental Planner

From:

Bonin, John

Sent:

October-21-13 6:50 PM

To:

Caldwell First Nation (cfnchief@live.com)

Subject:

Panhandle NPS16 Replacement at Highway 40 Chatham Kent

Attachments:

Environmental Report - NPS 16 Panhandle St Clair Road - Highway 40 - Rep....pdf

On June 5, 2013, Union Gas provided you with information on a project to replace approximately 300 meters of existing 16 inch diameter natural gas pipeline located in the Municipality of Chatham-Kent, in the vicinity of St. Clair Road (40 Highway), near Green Valley Line and Bush Line. The work is being undertaken as part of an ongoing pipeline maintenance and integrity management program to ensure that Union Gas pipelines remain in safe operating condition at all times. Union Gas regularly inspects the interior and exterior of its pipelines and based on the result of these assessments, Union Gas will take the appropriate action to correct any issues that are found.

Here is an update on the project:

- 1) The Environmental study is complete and a copy is attached
- 2) Construction timeframe is scheduled for spring of 2014
- 3) The Archeology study is planned for the fall of 2013
- 4) Target filing for OEB is end of the October 2013

If you have any questions or comments please feel free to call or email me

John Bonin

Manager First Nations and Métis Affairs Union Gas

Phone: 519-539-8509 ext 5021063 Email: jbonin@uniongas.com

From:

Bonin, John

Sent: To: October-21-13 6:50 PM Chief Tom Bressette

Subject:

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Attachments:

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Union Gas

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Subject: Panhandle NPS16 Replacement at Highway 40 Chatham Kent

Attachments: Environmental Report - NPS 16 Panhandle St Clair Road - Highway 40 - Rep....pdf

On June 5, 2013, Union Gas provided you with information on a project to replace approximately 300 meters of existing 16 inch diameter natural gas pipeline located in the Municipality of Chatham-Kent, in the vicinity of St. Clair Road (40 Highway), near Green Valley Line and Bush Line. The work is being undertaken as part of an ongoing pipeline maintenance and integrity management program to ensure that Union Gas pipelines remain in safe operating condition at all times. Union Gas regularly inspects the interior and exterior of its pipelines and based on the result of these assessments, Union Gas will take the appropriate action to correct any issues that are found.

Here is an update on the project:

- 1) The Environmental study is complete and a copy is attached
- 2) Construction timeframe is scheduled for spring of 2014
- 3) The Archeology study is planned for the fall of 2013
- 4) Target filing for OEB is end of the October 2013

If you have any questions or comments please feel free to call or email me

John Bonin

Manager First Nations and Métis Affairs Union Gas

From:

Bonin, John

Sent:

October-21-13 6:49 PM Chief Burton Kewayosh

To: Subject:

Panhandle NPS16 Replacement at Highway 40 Chatham Kent

Attachments:

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John Bonin

Manager First Nations and Métis Affairs Union Gas

From:

Bonin, John

Sent:

October-21-13 6:54 PM

To:

Mark Bowler

Subject:

Panhandle NPS16 Replacement at Highway 40 Chatham Kent

Attachments:

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Manager First Nations and Métis Affairs

Union Gas

From:

Bonin, John

Sent:

October-21-13 6:51 PM

To:

Chief Joel Abram

Subject:

Panhandle NPS16 Replacement at Highway 40 Chatham Kent

Attachments:

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John Bonin

Manager First Nations and Métis Affairs

Union Gas

From:

Bonin, John

Sent:

October-21-13 6:51 PM

To:

Chief Roger Thomas

Subject:

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Attachments:

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Manager First Nations and Métis Affairs

Union Gas

From:

Bonin, John

Sent:

October-21-13 6:51 PM

To:

Chief Gregory Peters

Subject:

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