

500 Consumers Road
North York, Ontario
M2J 1P8
PO Box 650
Scarborough ON M1K 5E3

Bonnie Jean Adams
Regulatory Coordinator
Telephone: (416) 495-5499
Fax: (416) 495-6072
Email: EGDRegulatoryProceedings@enbridge.com



May 22, 2012

VIA COURIER, EMAIL, RESS

Ms. Kirsten Walli
Ontario Energy Board
P.O. Box 2319
2300 Yonge Street, 26th Floor
Toronto, ON M4P 1E4

Re: Enbridge Gas Distribution Inc. ("Enbridge")
EB-2012-0060- Kimball-Colinville - Observation Wells
Interrogatory Responses

In accordance with the Ontario Energy Board's (the "Board") Procedural Order No. 1 for the above noted proceeding, enclosed please find the interrogatory responses of Enbridge.

The submission has been filed through the Board's Regulatory Electronic Submission System (RESS).

If you require further information, please contact the undersigned.

Yours truly,

{Original Signed}

Bonnie Jean Adams
Regulatory Coordinator

cc: Scott Stoll, Aird & Berlis (via Email)
Mark Murray, Manager, Regulatory Projects and Lands Acquisition Union (via Email)
Demetrius Kappos, Counsel, Legal Services Branch MNR (via Email)

BOARD STAFF INTERROGATORY #1

INTERROGATORY

Ref: EB-2012-0060 Application and Evidence, February 15, 2012/Cover Letter

Enbridge indicated that it has applied to the Ministry of Natural Resources for permission to drill four observation wells within the Kimball-Colinville designated storage area.

Observation wells are generally used to monitor the gas content and pressure in the underground storage area.

- a) Please confirm that the proposed four observation wells will be used to monitor the gas content and pressure in the underground storage area.
- b) Please elaborate on any additional purposes for drilling these observation wells beyond those identified in part a).
- c) What is the condition of the observation wells currently operating in the Kimball-Colinville storage area with respect to the wells' ability to carry out the purposes identified in parts a) and b) of this interrogatory?
- d) Please identify the incremental benefits of drilling and subsequently operating the four proposed observation wells over the observation wells already in operation in the Kimball-Colinville storage area.
- e) Please explain why Enbridge is seeking permission to drill these observation wells at this time as apposed to an earlier or later date.
- f) Please provide rationale and reasons for drilling the proposed wells.

RESPONSE

- a) Confirmed
- b) There are no additional purposes other than that outlined in Part a).

Witness: P. Druet

- c) Prior to 2010, there were seven observation wells operating in the Kimball-Colinville storage area. (Please see Attachment 1). These included two in the Guelph reef and five in the A-1 Carbonate formation. In 2010, one of the seven wells, (Imperial Kimball #21) was abandoned due to integrity reasons. The six remaining observation wells (TKC#2, TKC#18, TKC#54, TKC#55, TKC#56 and TKC#57) are old wells drilled 16 to 48 years ago but are still in good condition. One of the four proposed observation wells, TKC#64, is a replacement for the abandoned IK#21 well for the west side of the reservoir. The proposed TKC#63 is planned to monitor the A-1 Carbonate formation on the northwestern side of the storage reservoir, and TKC#65 will do the same near the eastern edge and will be important in delineating the easternmost edge of the A-1 Carbonate formation. The fourth proposed observation well, TKC#66, serves the same function to the northeast.
- d) The incremental benefits of drilling and operating the proposed observation wells are related to the recent geological modeling performed in 2011 which incorporates 3D seismic data acquired in 2010. This modeling allows for more accurate depiction of the reservoir for simulation and optimization. The new geological mapping revealed some differences in the A-1 Carbonate formation from previous mapping. Monitoring from the new observation wells will help resolve the differences. The geological mapping and proposed observation well locations were reviewed with MNR personnel at a meeting on July 21, 2011 at the Enbridge office.
- e) The timing is directly related to the abandonment of IK#21, our revised modeling in 2011 and subsequent meeting with the MNR.
- f) The rationale and reasoning for drilling the proposed observation wells is to confirm the outline and extent of the pressurized A-1 Carbonate reservoir as described in Parts a) to e) above.



PROPOSED OBSERVATION WELL LOCATIONS
COUNTY OF LAMBTON
GEOGRAPHICAL TOWNSHIP OF MOORE

BOARD STAFF INTERROGATORY #2

INTERROGATORY

Ref: EB-2012-0060 Application and Evidence, February 15, 2012, Letter to Ministry of Natural Resources dated February 14, 2012; Section 40 of the Ontario Energy Board Act, 1998, S.O. 1998, c.15 (schedule B).

Enbridge indicated that "It is our hope to start the drilling of the wells by March 15, 2012."

- a) Please confirm that Enbridge has not begun to drill the proposed wells.
- b) Given the procedural timeline for granting a licence to drill the proposed wells, has Enbridge modified its expected start date for the drilling of the observation wells? If so, please provide the new expected start date for the drilling the proposed wells.
- c) What is the expected completion date of the drilling procedure that corresponds to Enbridge's response to part a) of this interrogatory?

RESPONSE

- a) Drilling of the wells has not begun.
- b) Subject to Board approval, Enbridge expects to start drilling operations at the end of June, 2012 with some project preparatory work preceding the commencement of drilling operations.
- c) March 31st, 2013.

BOARD STAFF INTERROGATORY #3

INTERROGATORY

Ref: EB-2012-0060 Application and Evidence, February 15, 2012: Attachment 1/Section 4.1/ Site Preparation; Attachment 2/Section 4.1/ Site Preparation; Attachment 3/Section 4.1/ Site Preparation; Attachment 4/Section 4.1/ Site Preparation

In the pre-filed evidence Enbridge described site preparation for the drilling of each of the proposed wells including stripping and properly stockpiling all soil from the lease, cutting, blocking and diverting drainage tiles as required, and constructing adequate berms and access roads as required.

- a) Does Enbridge expect to construct any new access roads in order to drill and operate the proposed wells? If so, has Enbridge notified the affected landowners of its plans?
- b) Site preparation, construction and well drilling activities may lead to adverse impacts on landowners such as damage to soil, crop losses, and other disruptions. Please provide a list of potential adverse impacts of Enbridge's proposed well drilling activities on affected landowners.
- c) Please provide a list of potential environmental impacts from drilling and operating the proposed observation wells.
- d) Please provide potential mitigation activities for each adverse impact on the environment and land owners listed in parts b) and c) of this interrogatory.

RESPONSE

- a) All wells will have access roads. All affected landowners have been notified.
- b) Please see Environmental Screening Reports for TKC 63 (Attachment 1), TKC 64 (Attachment 2), TKC 65 (Attachment 3) and TKC 66 (Attachment 4). Potential adverse impacts can be found in Section 2 in each of the reports.
- c) Please see Section 2 in Attachments 1, 2, 3, and 4.
- d) Please see Section 2 in Attachments 1, 2, 3, and 4 under "Mitigative Measures". In addition, Stantec Consulting Ltd. has been retained to monitor the ground water conditions.

Witness: K. McConnell

ENBRIDGE GAS DISTRIBUTION INC.
Proposed Observation Well TKC # 63
Environmental Screening Report

January 2012

Table of Contents

1.0 INTRODUCTION	Page 1
1.1 Description and Purpose of the Proposed Observation Well	Page 1
1.2 Definition of Study Area	Page 1
1.3 Objective of the Environmental Screening	Page 1
1.4 Approval Process and Regulatory Requirements	Page 1
2.0 ENVIRONMENTAL SCREENING AND MITIGATION MEASURES	Page 2
2.1 Physical Features	Page 2
2.1.1 Geology	Page 2
2.1.2 Topography	Page 2
2.1.3 Soils	Page 2
2.2 Natural Environment Features	Page 2
2.2.1 Vegetation	Page 2
2.2.2 Trees	Page 3
2.3 Socio-Economic Features	Page 3
2.3.1 Land Use	Page 3
2.3.2 Tile Drainage	Page 3
3.0 SUMMARY	Page 3
4.0 REFERENCES	Page 3

Appendices

Appendix A:

Site Map of Proposed Observation Well Location

Appendix B:

Photographs of Proposed Observation Well Location

1.0 INTRODUCTION

1.1 Description and Purpose of the Proposed Pipeline

The proposed TKC #63 Moore 6-18-VIII (TKC 63) observation well will be installed within the Enbridge Gas Distribution Inc (Enbridge) Kimball-Colinville Designated Storage Area (DSA), but will not be connected to existing Enbridge natural gas storage pipeline infrastructure. The purpose of the proposed observation well is to delineate geological conditions and monitor gas storage pressure. Observation well TKC 63 is proposed to be located approximately 850 meters (m) south of Rokeby Line and 110 m east of Tecumseh Road, situated entirely within Concession 8, Lot 18 of Moore Township in Lambton County (see Appendix A for location of TS 21 in regional context)..

This proposed observation well will require a 10 m by 10 m permanent installation and a 42 m by 60 m temporary working area for drill rig set-up and storage facilities. The permanent installation includes aboveground wellhead infrastructure surrounded by a 1.8 m high chain link fence, solar panel (located approximately 6 m from the wellhead itself) and a 1.8 m wide gravel driveway for access.

1.2 Definition of Study Area

The study area for the environmental screening is circular, with a radius of 120 m originating at the proposed location of the observation well. Features adjacent to the study area, such as the Physical, Natural and Socio-Economic were identified. Photographs of the proposed location of the observation well are shown in Appendix B.

1.3 Report Objectives

The purpose of this Environmental Screening is to:

- identify the environmental issues associated with the proposed tie-in pipeline route; and
- determine the mitigation and/or restorative techniques required preventing or reducing any potential negative impacts and to enhance any positive effects on the environment caused by the proposed pipeline.

The Environmental Screening for this project was prepared following generally accepted principles of "Environmental Screening Principles for Distribution System Expansion Projects by Ontario Natural Gas Utilities, as outlined in the Ontario Energy Board's ("OEB") E.B.O. 188 Report.

The Environmental Screening report also refers to Enbridge's generic planning and construction manuals, which are the Construction Manual, the Planning, Design and Records Manual, and Reference Manual for the Environmental Screening Checklist.

1.4 Approval Process and Regulatory Requirements

This observation well is being planned in accordance with Ontario Energy Board (OEB) regulations. The OEB requires that the level of environmental planning, documentation and reporting applied by the utilities for distribution system expansion projects be determined by the potential environmental impacts associated with each project.

Construction of the observation is also regulated by the Ontario Ministry of Natural Resource through the Oil, Gas and Salt Resources Act and the Canadian Standards Association Z341 Standard – Storage of Hydrocarbons in Underground Formations.

2.0 ENVIRONMENTAL SCREENING AND MITIGATION MEASURES

For each physical, natural or socio-economical feature identified below, the following information is provided:

- A description of the features within the temporary and permanent areas for the observation well within Enbridge's gas storage facilities;
- If necessary, comments on how the observation well is proposed to be modified to mitigate potential impacts on the features described; and,
- If necessary, other measures to mitigate potential impacts on the described features.

2.1 Physical Features

2.1.1 Geology

The underlying geological material is generally within 10 to 60 m of the surface. The observation well is anticipated to be installed to a depth of approximately 730 m below grade.

Mitigative Measures

To minimize impacts to the underlying geological formation Enbridge will employ its standard mitigation measures for natural gas storage well installation. Upon completion the well will be permanently sealed using cement to a depth of approximately 700 m below grade to prevent any impacts from the surface from infiltrating the underlying geological formations.

2.1.2 Topography

The proposed observation well will be installed on relatively flat topography.

Mitigative Measures

To minimize impacts on the topography the land will be degraded to its original contour and ploughed with furrows across any undulating slopes to increase water retention.

2.1.3 Soil

The proposed observation well is within agricultural land, potentially with tile drainage.

Mitigative Measures

To minimize impacts on soils and tile drainage with the impacted area, the following mitigative measures are recommended, where required:

- Topsoil stripping and segregation should occur before construction begins;
 - Limit construction during wet weather conditions;
 - Use lightweight and wide-tracked equipment to minimize compaction;
 - Identify tile drainage locations and install heavy duty tiles under permanent access driveway
 - Contain drilling fluids and cuttings within aboveground storage tanks
- NOTE: Drill cuttings will be solidified and disposed of at an Ontario Ministry of Environment approved waste disposal site.

2.2 Natural Environment Features

2.2.1 Vegetation

Pipeline construction is not anticipated to have an impact on rare plants. However some clearing of agricultural vegetation may be required along the proposed easement.

Mitigation Measures

The clearing of agricultural vegetation is not anticipated outside of the permanent and temporary working areas.

2.2.2 Trees

The proposed easement is adjacent to trees and shrubs which may be impacted by observation well installation.

Mitigative Measures

To minimize impacts on the trees and shrubs adjacent to the proposed working area the following mitigative measures are recommended, where required:

- Excavation activities should occur outside the dripline of the trees and shrubs;
- Temporary fencing may be required outside dripline of trees and shrubs;
- Overhanging branches that may be affected by equipment should be noted and protected; and,
- Use lightweight and wide-tracked equipment to minimize compaction.

2.3 Socio-Economic Features

2.3.1 Land Use

The proposed observation well should not restrict future development, or impede the continuation of agricultural activities in its' vicinity.

Mitigation Measures

Construction of the observation well is not expected to have an impact on the planning policies and existing land use adjacent to it. Consequently, mitigation measures are not required.

2.3.2 Tile Drainage

Tile drains are installed throughout the cultivated field in which observation well is proposed to be located.

Mitigation Measures

Tile drains encountered during construction will be marked and either repaired or re-routed upon project completion. Heavy duty tile drains will be installed beneath permanent access driveway.

3.0 SUMMARY

It is Enbridge's opinion that the location of the proposed observation well TKC 63 minimizes potential environmental effects and that the mitigation measures proposed will ensure that construction and operation of the well will result in negligible long-term effects.

4.0 REFERENCES

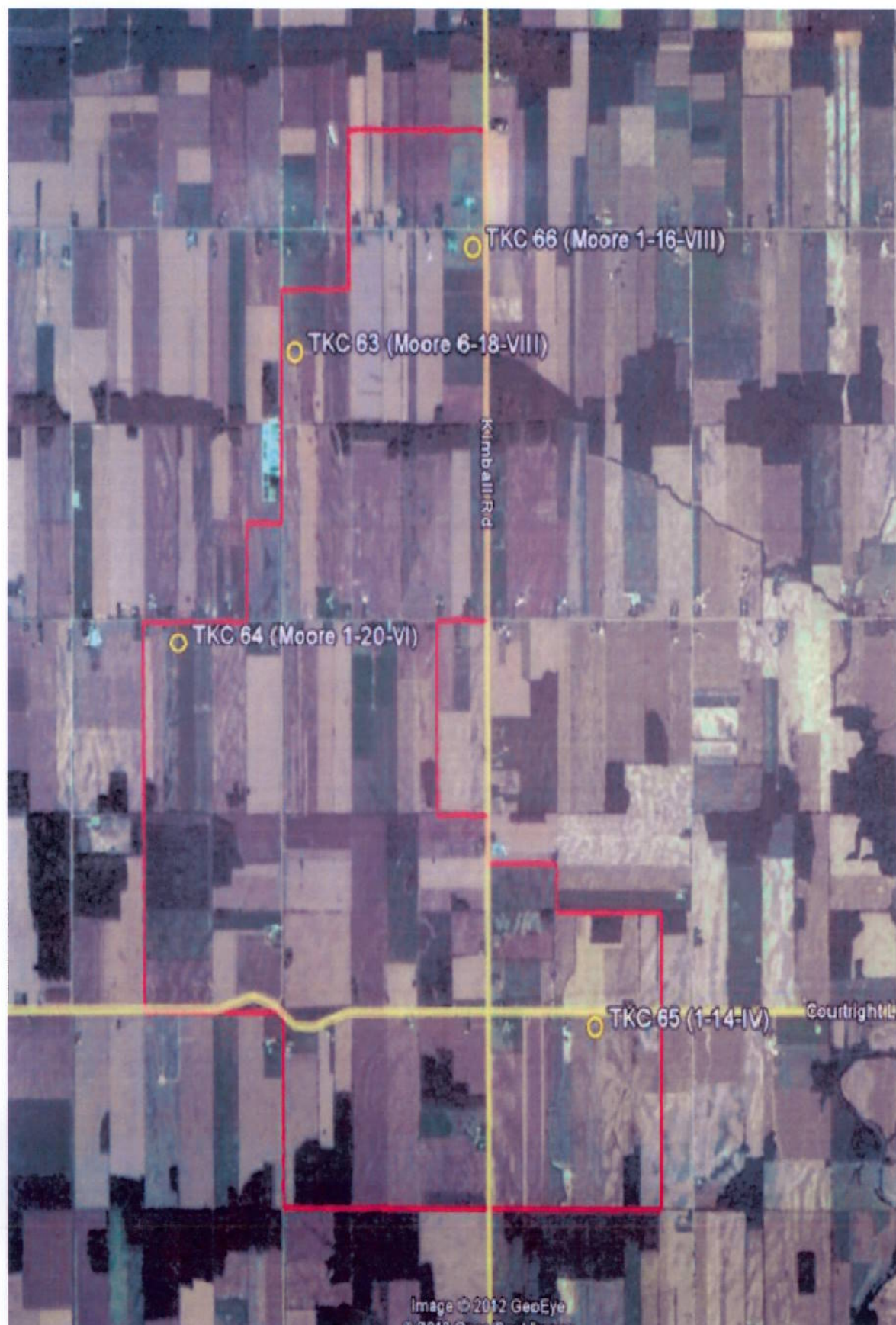
Enbridge Gas Distribution Inc., March 2011. Reference Manual for the Environmental Screening Checklist, Toronto.

Enbridge Gas Distribution Inc., January 2011. Construction Manual, Toronto.

Ontario Energy Board, 2010. Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario, Sixth Edition, Toronto.

Appendix A

Site Map of Proposed Observation Well Location



Appendix B

Photographs of Proposed Observation Well Location



Photo 1 – Looking east towards proposed location of TKC 63



Photo 2: Looking north towards proposed location for TKC 63



Photo 3: Looking south towards proposed location for TKC 63



Photo 4: Looking west towards proposed location for TKC 63

ENBRIDGE GAS DISTRIBUTION INC.
Proposed Observation Well TKC #64
Environmental Screening Report

January 2012

Table of Contents

1.0 INTRODUCTION	Page 1
1.1 Description and Purpose of the Proposed Observation Well	Page 1
1.2 Definition of Study Area	Page 1
1.3 Objective of the Environmental Screening	Page 1
1.4 Approval Process and Regulatory Requirements	Page 1
2.0 ENVIRONMENTAL SCREENING AND MITIGATION MEASURES	Page 1
2.1 Physical Features	Page 2
2.1.1 Geology	Page 2
2.1.2 Topography	Page 2
2.1.3 Soils	Page 2
2.2 Natural Environment Features	Page 2
2.2.1 Vegetation	Page 2
2.3 Socio-Economic Features	Page 3
2.3.1 Land Use	Page 3
2.3.2 Tile Drainage	Page 3
3.0 SUMMARY	Page 3
4.0 REFERENCES	Page 3

Appendices

Appendix A:

Site map of Proposed Observation Well Location

Appendix B:

Photographs of Proposed Observation Well Location

1.0 INTRODUCTION

1.1 Description and Purpose of the Proposed Pipeline

The proposed TKC #64 Moore 2-20-VI (TKC 64) observation well will be installed within the Enbridge Gas Distribution Inc (Enbridge) Kimball-Colinville Designated Storage Area (DSA) and will not be connected to existing Enbridge natural gas storage pipeline infrastructure. The purpose of the proposed observation well is to delineate geological conditions and monitor gas storage pressure. Observation well TKC 64 is proposed to be located approximately 150 meters (m) south of Moore Line and 900 m west of Tecumseh Road, situated entirely within Concession 6, Lot 20 of Moore Township in Lambton County (see Appendix A for location of TKC 64 in regional context).

This proposed observation well will require a 10 m by 10 m permanent installation and a 42 m by 60 m temporary working area for drill rig set-up and storage facilities. The permanent installation includes aboveground wellhead infrastructure surrounded by a 1.8 m high chain link fence, solar panel (located approximately 6 m from the wellhead itself) and a 1.8 m wide gravel driveway for access.

1.2 Definition of Study Area

The study area for the environmental screening is circular, with a radius of 120 m originating at the proposed location of the observation well. Features adjacent to the study area, such as the Physical, Natural and Socio-Economic were identified. Photographs of the proposed location of the observation well are shown in Appendix B.

1.3 Report Objectives

The purpose of this Environmental Screening is to:

- identify the environmental issues associated with the proposed tie-in pipeline route; and
- determine the mitigation and/or restorative techniques required preventing or reducing any potential negative impacts and to enhance any positive effects on the environment caused by the proposed pipeline.

The Environmental Screening for this project was prepared following generally accepted principles of "Environmental Screening Principles for Distribution System Expansion Projects by Ontario Natural Gas Utilities, as outlined in the Ontario Energy Board's ("OEB") E.B.O. 188 Report.

The Environmental Screening report also refers to Enbridge's generic planning and construction manuals, which are the Construction Manual, the Planning, Design and Records Manual, and Reference Manual for the Environmental Screening Checklist.

1.4 Approval Process and Regulatory Requirements

This observation well is being planned in accordance with Ontario Energy Board (OEB) regulations. The OEB requires that the level of environmental planning, documentation and reporting applied by the utilities for distribution system expansion projects be determined by the potential environmental impacts associated with each project.

Construction of the observation is also regulated by the Ontario Ministry of Natural Resource through the Oil, Gas and Salt Resources Act and the Canadian Standards Association Z341 Standard – Storage of Hydrocarbons in Underground Formations.

2.0 ENVIRONMENTAL SCREENING AND MITIGATION MEASURES

For each physical, natural or socio-economical feature identified below, the following information is provided:

- A description of the features within the temporary and permanent areas for the observation well within Enbridge's gas storage facilities;
- If necessary, comments on how the observation well is proposed to be modified to mitigate potential impacts on the features described; and,
- If necessary, other measures to mitigate potential impacts on the described features.

2.1 Physical Features

2.1.1 Geology

The underlying geological material is generally within 10 to 60 m of the surface. The observation well is anticipated to be installed to a depth of approximately 730 m below grade.

Mitigative Measures

To minimize impacts to the underlying geological formation Enbridge will employ its standard mitigation measures for natural gas storage well installation. Upon completion the well will be permanently sealed using cement to a depth of approximately 700 m below grade to prevent any impacts from the surface from infiltrating the underlying geological formations.

2.1.2 Topography

The proposed observation well will be installed on relatively flat topography.

Mitigative Measures

To minimize impacts on the topography the land will be degraded to its original contour and ploughed with furrows across any undulating slopes to increase water retention.

2.1.3 Soil

The proposed observation well is within agricultural land, potentially with tile drainage.

Mitigative Measures

To minimize impacts on soils and tile drainage with the impacted area, the following mitigative measures are recommended, where required:

- Topsoil stripping and segregation should occur before construction begins;
 - Limit construction during wet weather conditions;
 - Use lightweight and wide-tracked equipment to minimize compaction;
 - Identify tile drainage locations and install heavy duty tiles under permanent access driveway
 - Contain drilling fluids and cuttings within aboveground storage tanks
- NOTE: Drill cuttings will be solidified and disposed of at an Ontario Ministry of Environment approved waste disposal site.

2.2 Natural Environment Features

2.2.1 Vegetation

Observation well construction is not anticipated to have an impact on rare plants. However some clearing of agricultural vegetation may be required along the proposed easement.

Mitigation Measures

The clearing of agricultural vegetation is not anticipated outside of the permanent and temporary working areas.

2.3 Socio-Economic Features

2.3.1 Land Use

The proposed observation well should not restrict future development, or impede the continuation of agricultural activities in its' vicinity.

Mitigation Measures

Construction of the observation well is not expected to have an impact on the planning policies and existing land use adjacent to it. Consequently, mitigation measures are not required.

2.3.2 Tile Drainage

Tile drains are installed throughout the cultivated field in which observation well is proposed to be located.

Mitigation Measures

Tile drains encountered during construction will be marked and either repaired or re-routed upon project completion. Heavy duty tile drains will be installed beneath permanent access driveway.

3.0 SUMMARY

It is Enbridge's opinion that the location of the proposed observation well TKC 64 minimizes potential environmental effects and that the mitigation measures proposed will ensure that construction and operation of the well will result in negligible long-term effects.

4.0 REFERENCES

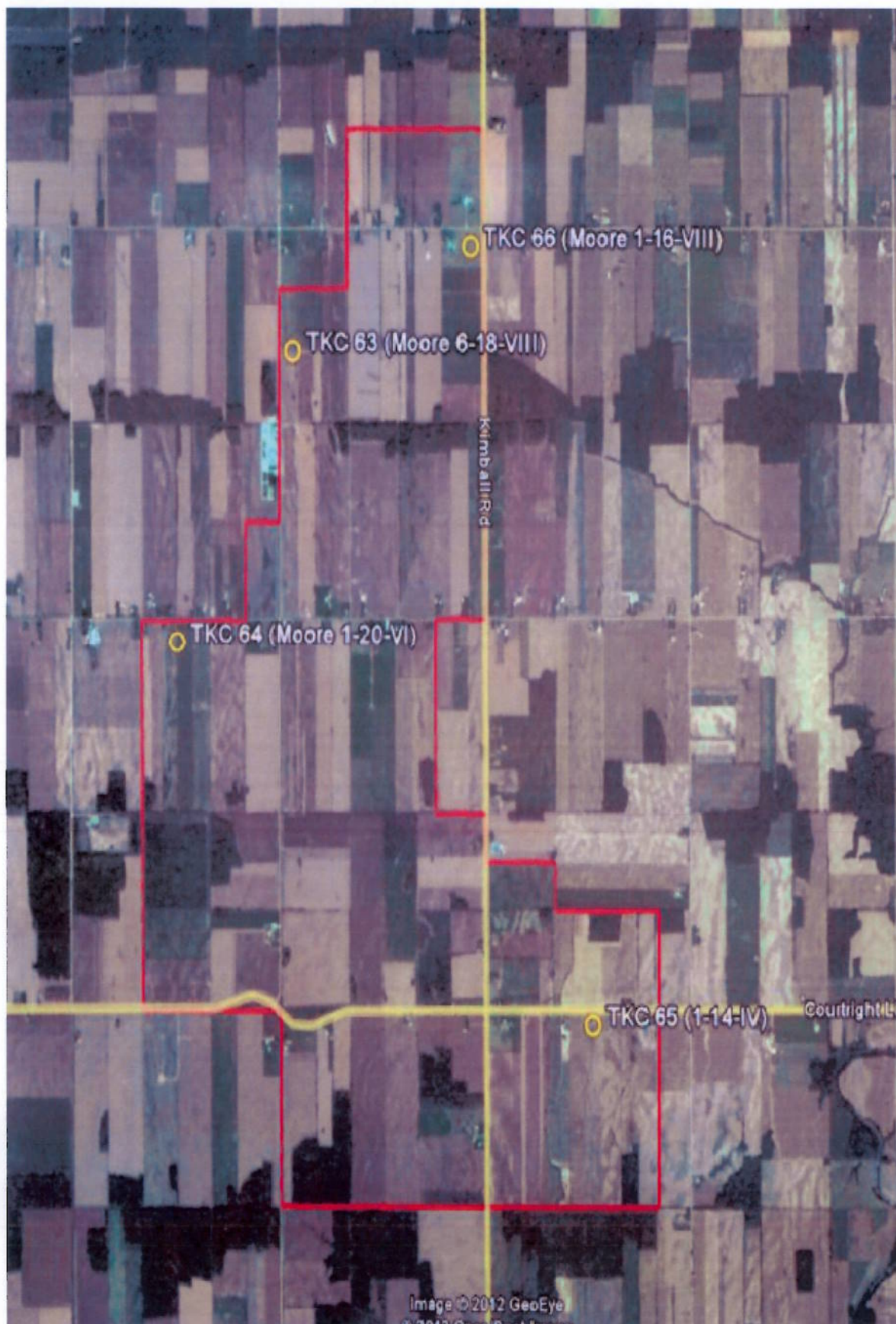
Enbridge Gas Distribution Inc., March 2011. Reference Manual for the Environmental Screening Checklist, Toronto.

Enbridge Gas Distribution Inc., January 2011. Construction Manual, Toronto.

Ontario Energy Board, 2010. Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario, Sixth Edition, Toronto.

Appendix A

Site Map of Proposed Observation Well Location



Appendix B

Photographs of Proposed Observation Well Location



Photo 1 – Looking west towards proposed location of TKC 64



Photo 2: Looking east towards proposed location for TKC 64



Photo 3: Looking north towards proposed location for TKC 64



Photo 4: Looking south towards proposed location for TKC 64

ENBRIDGE GAS DISTRIBUTION INC.
Proposed Observation Well TKC #65
Environmental Screening Report

January 2012

Table of Contents

1.0 INTRODUCTION	Page 1
1.1 Description and Purpose of the Proposed Observation Well	Page 1
1.2 Definition of Study Area	Page 1
1.3 Objective of the Environmental Screening	Page 1
1.4 Approval Process and Regulatory Requirements	Page 1
2.0 ENVIRONMENTAL SCREENING AND MITIGATION MEASURES	Page 2
2.1 Physical Features	Page 2
2.1.1 Geology	Page 2
2.1.2 Topography	Page 2
2.1.3 Soils	Page 2
2.2 Natural Environment Features	Page 2
2.2.1 Vegetation	Page 2
2.3 Socio-Economic Features	Page 3
2.3.1 Land Use	Page 3
2.3.2 Tile Drainage	Page 3
3.0 SUMMARY	Page 3
4.0 REFERENCES	Page 3

Appendices

Appendix A:

Site Map of Proposed Observation Well Location

Appendix B:

Photographs of Proposed Observation Well Location

1.0 INTRODUCTION

1.1 Description and Purpose of the Proposed Pipeline

The proposed TKC #65 Moore 2-14-IV (TKC 65) observation well will be installed inside the Enbridge Gas Distribution Inc (Enbridge) Kimball-Colinville Designated Storage Area (DSA) and will not be connected to existing Enbridge natural gas storage pipeline infrastructure. The purpose of the proposed observation well is to delineate geological conditions and monitor gas storage pressure. Observation well TKC 65 is proposed to be located approximately 110 meters (m) south of Moore Line and 875 m east of Waubuno Road, situated entirely within Concession 4, Lot 14 of Moore Township in Lambton County (see Appendix A for location of TKC 65 in regional context).

This proposed observation well will require a 10 m by 10 m permanent installation and a 42 m by 60 m temporary working area for drill rig set-up and storage facilities. The permanent installation includes aboveground wellhead infrastructure surrounded by a 1.8 m high chain link fence, solar panel (located approximately 6 m from the wellhead itself) and a 1.8 m wide gravel driveway for access.

1.2 Definition of Study Area

The study area for the environmental screening is circular, with a radius of 120 m originating at the proposed location of the observation well. Features adjacent to the study area, such as the Physical, Natural and Socio-Economic were identified. Photographs of the proposed location of the observation well are shown in Appendix B.

1.3 Report Objectives

The purpose of this Environmental Screening is to:

- identify the environmental issues associated with the proposed tie-in pipeline route; and
- determine the mitigation and/or restorative techniques required preventing or reducing any potential negative impacts and to enhance any positive effects on the environment caused by the proposed pipeline.

The Environmental Screening for this project was prepared following generally accepted principles of "Environmental Screening Principles for Distribution System Expansion Projects by Ontario Natural Gas Utilities, as outlined in the Ontario Energy Board's ("OEB") E.B.O. 188 Report.

The Environmental Screening report also refers to Enbridge's generic planning and construction manuals, which are the Construction Manual, the Planning, Design and Records Manual, and Reference Manual for the Environmental Screening Checklist.

1.4 Approval Process and Regulatory Requirements

This observation well is being planned in accordance with Ontario Energy Board (OEB) regulations. The OEB requires that the level of environmental planning, documentation and reporting applied by the utilities for distribution system expansion projects be determined by the potential environmental impacts associated with each project.

Construction of the observation is also regulated by the Ontario Ministry of Natural Resources through the Oil, Gas and Salt Resources Act and the Canadian Standards Association Z341 Standard – Storage of Hydrocarbons in Underground Formations.

2.0 ENVIRONMENTAL SCREENING AND MITIGATION MEASURES

For each physical, natural or socio-economical feature identified below, the following information is provided:

- A description of the features within the temporary and permanent areas for the observation well within Enbridge's gas storage facilities;
- If necessary, comments on how the observation well is proposed to be modified to mitigate potential impacts on the features described; and,
- If necessary, other measures to mitigate potential impacts on the described features.

2.1 Physical Features

2.1.1 Geology

The underlying geological material is generally within 10 to 60 m of the surface. The observation well is anticipated to be installed to a depth of approximately 730 m below grade.

Mitigative Measures

To minimize impacts to the underlying geological formation Enbridge will employ its standard mitigation measures for natural gas storage well installation. Upon completion the well will be permanently sealed using cement to a depth of approximately 700 m below grade to prevent any impacts from the surface from infiltrating the underlying geological formations.

2.1.2 Topography

The proposed observation well will be installed on relatively flat topography.

Mitigative Measures

To minimize impacts the land will be degraded to its original contour and ploughed with furrows across any undulating slopes to increase water retention.

2.1.3 Soil

The proposed observation well is within cultivated agricultural land.

Mitigative Measures

To minimize impacts on soils and tile drainage with the impacted area, the following mitigative measures are recommended, where required:

- Topsoil stripping and segregation should occur before construction begins;
 - Limit construction during wet weather conditions;
 - Use lightweight and wide-tracked equipment to minimize compaction;
 - Contain drilling fluids and cuttings within aboveground storage tanks
- NOTE: Drill cuttings will be solidified and disposed of at an Ontario Ministry of Environment approved waste disposal site.

2.2 Natural Environment Features

2.2.1 Vegetation

Observation well construction is not anticipated to have an impact on rare plants. However some clearing of agricultural vegetation may be required along the proposed easement.

Mitigation Measures

The clearing of agricultural vegetation is not anticipated outside of the permanent and temporary working areas.

2.3 Socio-Economic Features

2.3.1 Land Use

The proposed observation well should not restrict future development, or impede the continuation of agricultural activities in its vicinity.

Mitigation Measures

Construction of the observation well is not expected to have an impact on the planning policies and existing land use adjacent to it. Consequently, mitigation measures are not required.

2.3.2 Tile Drainage

Tile drains are installed throughout the cultivated field in which observation well is proposed to be located.

Mitigation Measures

Tile drains encountered during construction will be marked and either repaired or re-routed upon project completion. Heavy duty tile drains will be installed beneath permanent access driveway.

3.0 SUMMARY

It is Enbridge's opinion that the location of the proposed observation well TKC 65 minimizes potential environmental and socio-economic effects and that the mitigation measures proposed will ensure that construction and operation of the well will result in negligible long-term impacts.

4.0 REFERENCES

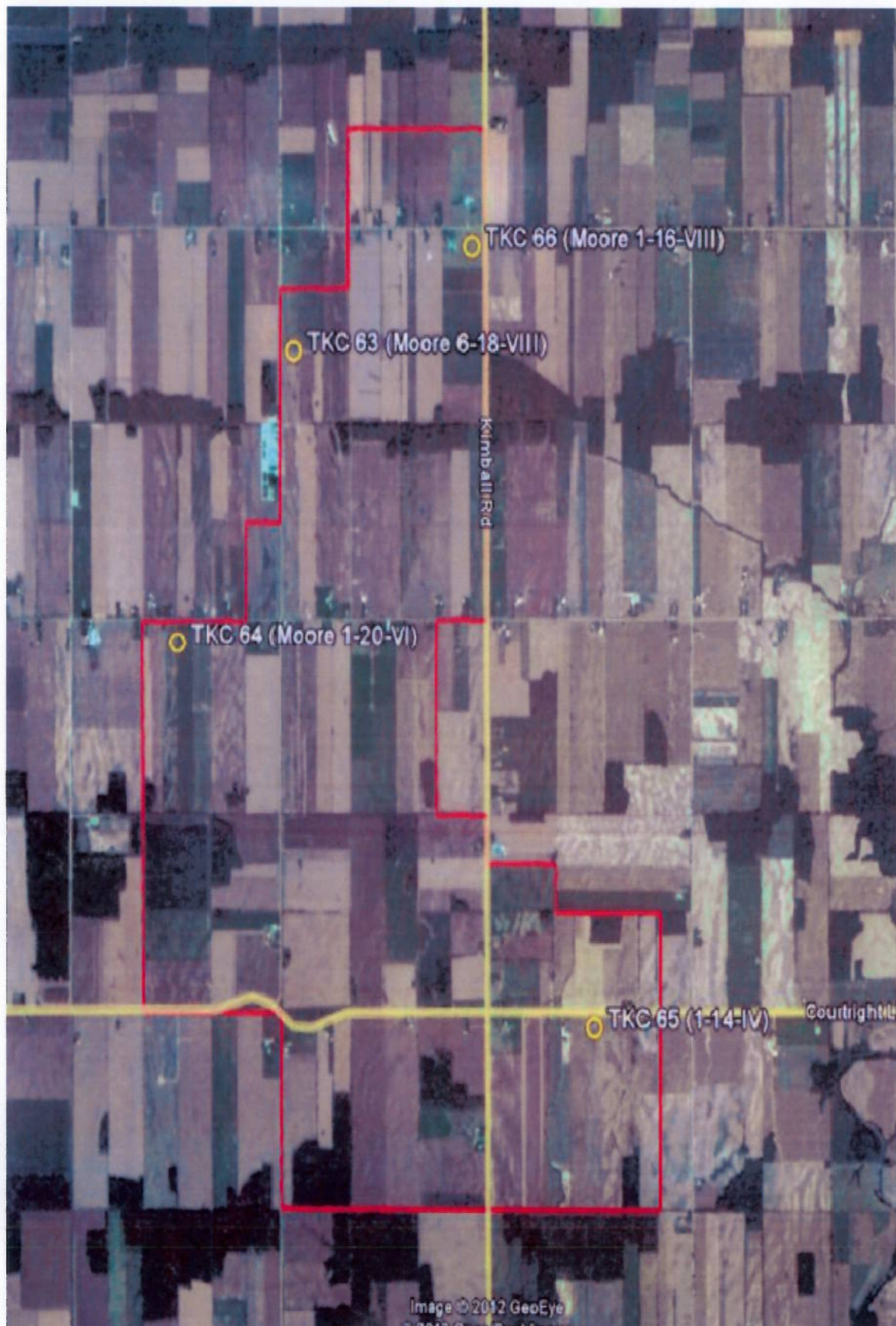
Enbridge Gas Distribution Inc., March 2011. Reference Manual for the Environmental Screening Checklist, Toronto.

Enbridge Gas Distribution Inc., January 2011. Construction Manual, Toronto.

Ontario Energy Board, 2010. Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario, Sixth Edition, Toronto.

Appendix A

Site Map of Proposed Observation Well Location



Appendix B

Photographs of Proposed Observation Well Location



Photo 1 – Looking west towards proposed location of TKC 65



Photo 2: Looking north towards proposed location for TKC 65



Photo 3: Looking northeast towards proposed location for TKC 65



Photo 4: Looking east towards proposed location for TKC 65

ENBRIDGE GAS DISTRIBUTION INC.
Proposed Observation Well TKC #66
Environmental Screening Report

January 2012

Table of Contents

1.0 INTRODUCTION	Page 1
1.1 Description and Purpose of the Proposed Observation Well	Page 1
1.2 Definition of Study Area	Page 1
1.3 Objective of the Environmental Screening	Page 1
1.4 Approval Process and Regulatory Requirements	Page 1
2.0 ENVIRONMENTAL SCREENING AND MITIGATION MEASURES	Page 1
2.1 Physical Features	Page 2
2.1.1 Geology	Page 2
2.1.2 Topography	Page 2
2.1.3 Soils	Page 2
2.2 Natural Environment Features	Page 2
2.2.1 Vegetation	Page 2
2.3 Socio-Economic Features	Page 3
2.3.1 Land Use	Page 3
2.3.2 Tile Drainage	Page 3
2.3.3 Livestock Operations	Page 3
3.0 SUMMARY	Page 3
4.0 REFERENCES	Page 3

Appendices

Appendix A:

Site map of Proposed Observation Well Location

Appendix B:

Photographs of Proposed Observation Well Location

1.0 INTRODUCTION

1.1 Description and Purpose of the Proposed Pipeline

The proposed TKC #66 Moore 1-16-VIII (TKC 66) observation well will be installed within the Enbridge Gas Distribution Inc (Enbridge) Kimball-Colinville Designated Storage Area (DSA) and will not be connected to existing Enbridge natural gas storage pipeline infrastructure. The purpose of the proposed observation well is to delineate geological conditions and monitor gas storage pressure. Observation well TKC 66 is proposed to be located approximately 120 meters (m) south of Rokeby Line and 120 m west of Kimball Road, situated entirely within Concession 8, Lot 16 of Moore Township in Lambton County (see Appendix A for location of TS 21 in regional context).

This proposed observation well will require a 10 m by 10 m permanent installation and a 42 m by 60 m temporary working area for drill rig set-up and storage facilities. The permanent installation includes aboveground wellhead infrastructure surrounded by a 1.8 m high chain link fence, solar panel (located approximately 6 m from the wellhead itself) and a 1.8 m wide gravel driveway for access.

1.2 Definition of Study Area

The study area for the environmental screening is circular, with a radius of 120 m originating at the proposed location of the observation well. Features adjacent to the study area, such as the Physical, Natural and Socio-Economic were identified. Photographs of the proposed location of the observation well are shown in Appendix B.

1.3 Report Objectives

The purpose of this Environmental Screening is to:

- identify the environmental issues associated with the proposed tie-in pipeline route; and
- determine the mitigation and/or restorative techniques required preventing or reducing any potential negative impacts and to enhance any positive effects on the environment caused by the proposed pipeline.

The Environmental Screening for this project was prepared following generally accepted principles of "Environmental Screening Principles for Distribution System Expansion Projects by Ontario Natural Gas Utilities, as outlined in the Ontario Energy Board's ("OEB") E.B.O. 188 Report.

The Environmental Screening report also refers to Enbridge's generic planning and construction manuals, which are the Construction Manual, the Planning, Design and Records Manual, and Reference Manual for the Environmental Screening Checklist.

1.4 Approval Process and Regulatory Requirements

This observation well is being planned in accordance with Ontario Energy Board (OEB) regulations. The OEB requires that the level of environmental planning, documentation and reporting applied by the utilities for distribution system expansion projects be determined by the potential environmental impacts associated with each project.

Construction of the observation is also regulated by the Ontario Ministry of Natural Resource through the Oil, Gas and Salt Resources Act and the Canadian Standards Association Z341 Standard – Storage of Hydrocarbons in Underground Formations.

2.0 ENVIRONMENTAL SCREENING AND MITIGATION MEASURES

For each physical, natural or socio-economical feature identified below, the following information is provided:

- A description of the features within the temporary and permanent areas for the observation well within Enbridge's gas storage facilities;
- If necessary, comments on how the observation well is proposed to be modified to mitigate potential impacts on the features described; and,
- If necessary, other measures to mitigate potential impacts on the described features.

2.1 Physical Features

2.1.1 Geology

The underlying geological material is generally within 10 to 60 m of the surface. The observation well is anticipated to be installed to a depth of approximately 730 m below grade.

Mitigative Measures

To minimize impacts to the underlying geological formation Enbridge will employ its standard mitigation measures for natural gas storage well installation. Upon completion the well will be permanently sealed using cement to a depth of approximately 700 m below grade to prevent any impacts from the surface from infiltrating the underlying geological formations.

2.1.2 Topography

The proposed observation well will be installed on relatively flat topography.

Mitigative Measures

To minimize impacts on the topography the land will be degraded to its original contour and ploughed with furrows across any undulating slopes to increase water retention.

2.1.3 Soil

The proposed observation well is within agricultural land, potentially with tile drainage.

Mitigative Measures

To minimize impacts on soils and tile drainage with the impacted area, the following mitigative measures are recommended, where required:

- Topsoil stripping and segregation should occur before construction begins;
 - Limit construction during wet weather conditions;
 - Use lightweight and wide-tracked equipment to minimize compaction;
 - Contain drilling fluids and cuttings within aboveground storage tanks
- NOTE: Drill cuttings will be solidified and disposed of at an Ontario Ministry of Environment approved waste disposal site.

2.2 Natural Environment Features

2.2.1 Vegetation

Observation well construction is not anticipated to have an impact on rare plants. However some clearing of agricultural vegetation may be required along the proposed easement.

Mitigation Measures

The clearing of agricultural vegetation is not anticipated outside of the permanent and temporary working areas.

2.3 Socio-Economic Features

2.3.1 Land Use

The proposed observation well should not restrict future development, or impede the continuation of agricultural activities in its' vicinity.

Mitigation Measures

Construction of the observation well is not expected to have an impact on the planning policies and existing land use adjacent to it. Consequently, mitigation measures are not required.

2.3.2 Tile Drainage

Tile drains are installed throughout the cultivated field in which observation well is proposed to be located.

Mitigation Measures

Tile drains encountered during construction will be marked and either repaired or re-routed upon project completion. Heavy duty tile drains will be installed beneath permanent access driveway.

2.3.3 Livestock Operations

The proposed observation well will be installed within an active pasture area for cattle originating from the farm located to the west.

Mitigation Measures

A fence will be installed around the perimeter of the temporary working area to protect the pastured animals. Upon project completion this fence will be removed and replaced with the permanent chain link fence encompassing the facilities.

3.0 SUMMARY

It is Enbridge's opinion that the location of the proposed observation well TKC 66 minimizes potential environmental effects and that the mitigation measures proposed will ensure that construction and operation of the well will result in negligible long-term effects.

4.0 REFERENCES

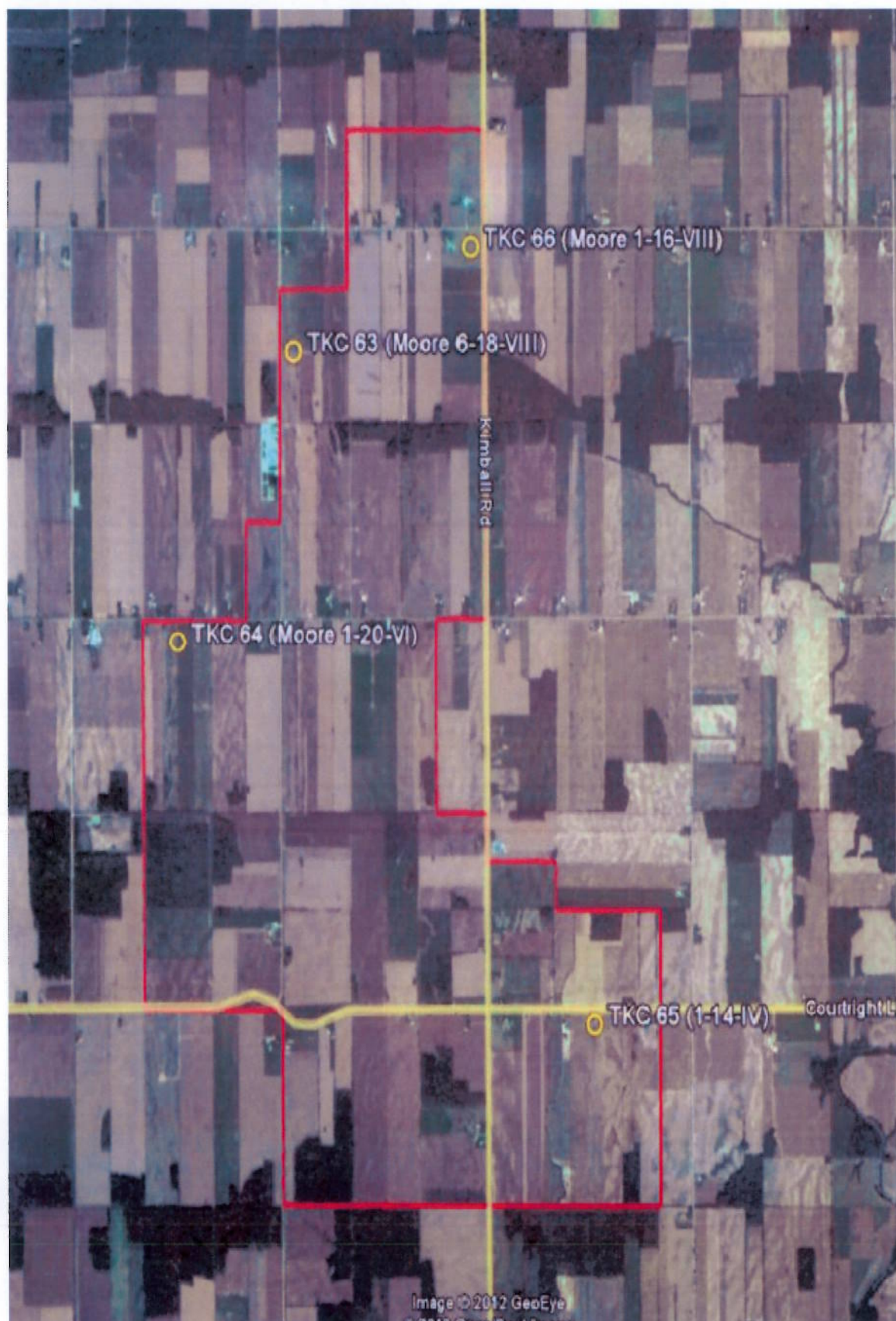
Enbridge Gas Distribution Inc., March 2011. Reference Manual for the Environmental Screening Checklist, Toronto.

Enbridge Gas Distribution Inc., January 2011. Construction Manual, Toronto.

Ontario Energy Board, 2010. Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario, Sixth Edition, Toronto.

Appendix A

Site Map of Proposed Observation Well Location



Appendix B

Photographs of Proposed Observation Well Location



Photo 1 – Looking west towards proposed location of TKC 66



Photo 2: Looking south towards proposed location for TKC 66



Photo 3: Looking north towards proposed location for TKC 66



Photo 4: Looking east towards proposed location for TKC 66

BOARD STAFF INTERROGATORY #4

INTERROGATORY

- a) Please discuss Enbridge's approach to compensate affected landowners for any crop losses or any other damages to their property?
- b) Please describe implementation of processes or procedures to ensure that landowners are able to express their complaints/comments related to the well drilling activities to Enbridge?

RESPONSE

- a) Enbridge's compensation provides a one-time payment related to construction and annual payments related to the use of the land and well. Similar to other gas storage operations, Enbridge provides compensation for the following:

- ❖ Disturbance and inconvenience;
- ❖ Current and future crop losses;
- ❖ Occupation of land during the project;
- ❖ An annual payment for the lane and well site; and
- ❖ An annual payment for the well itself.

Prior to construction, affected landowners are notified in writing of the compensation details. The one-time payment made for the construction phase is based on Enbridge Gas Storage Operations' latest negotiated pipeline construction compensation package and the specific circumstances of the landowner. After construction is complete, the affected area for compensation is measured, and there is further discussion to determine if there are other extraneous damages which would be determined based on fair market value.

In addition, Enbridge's approach to compensate affected landowners is consistent with the existing Gas Storage Lease between Enbridge and the landowner.

- b) Enbridge attempts to avoid complaints/comments through project organization and discussions with landowners during planning stages of the project. After Board approval and prior to construction, each affected landowner will receive written notification of contact information for the Enbridge employee responsible for the project and the Enbridge land representative for the project. Landowners are advised to contact either of these individuals with comments or complaints related to

the well drilling activities. Comments/complaints from landowners are discussed with the landowner and are recorded and reviewed. Landowners are notified of actions taken.