# SARNIA AIRPORT STORAGE POOL PROJECT

# WELL DRILLING FINAL MONITORING REPORT

Prepared by: Market Hub Partners Management Inc. on behalf of Sarnia

Airport Storage Pool Limited Partnership

**Environmental Planning** 

September 2010

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## 1.0 INTRODUCTION

This Final Monitoring Report is provided in compliance with the Ontario Energy Board ("Board") Order EB-2008-0002 granting Market Hub Partners Management Inc. and AltaGas Ltd approval of the Application for Well Licences on July 28, 2008, which included the drilling of three (3) new injection/withdraw ("I/W") wells (AIR.1.H1, AIR.3, AIR.4) and to re-enter and complete one existing well (BTS 2-11-VIII) as a Guelph observation well. The wells are located in Lot 32, Concession 9 and Lot 11, Concession 8 in the City of Sarnia, in the County of Lambton. Subsequently, the Board issued an Amending Order on December 24, 2008 transferring the regulatory authorizations to Sarnia Airport Storage Pool Limited Partnership ("SASPLP"). General location maps are included in Appendix "A".

The Sarnia Airport Storage Pool Project is comprised of two (2) separate project components, well drilling and pipeline construction each of which have been given the same Board Orders but separate Conditions of Approval. This Interim Monitoring Report has been produced for the Conditions of Approval related to the Application for Well Licences.

The requirements for and details of this report are outlined in the specific Conditions of Approval issued by the Board in its Order EB-2008-0002 dated July 28, 2008 as listed below. The Conditions of Approval can be found in Appendix "B".

Accordingly, the purpose of this Final Monitoring Report is to fulfill these conditions.

#### 1.0 Condition 1.1

Market Hub Partners Management Inc. and AltaGas Ltd. ("MHP and AltaGas") shall adhere to the evidence as filed with the Board in EB-2008-0002 and comply with applicable laws, regulations and codes pertaining to the construction of the proposed well.

#### 2.0 Condition 2.1

MHP and AltaGas shall offer to pay the landowners and /or tenants just and equitable compensation for any damages, including present and future crop damage arising from: drilling of injection/withdraw wells; installation of gathering pipelines; access road construction.

#### 3.0 Condition 3.1

MHP and AltaGas shall construct the facilities and restore the land in accordance with its Application and evidence and the undertakings given to the Board, except as modified by the Order and these Conditions of Approval.

#### **Condition 3.2**

MHP and AltaGas shall ensure that the movement of equipment is carried out in compliance with all procedures filed with the Board, and as follows:

- i) MHP and AltaGas shall make reasonable efforts to keep the affected landowner as well as adjacent landowners and their respective tenant farmers, or their designated representatives, informed of its plans and construction activities; and
- ii) the installation of facilities and construction shall be coordinated so as to minimize disruption of agricultural land and agricultural activities.

#### Condition 3.3

MHP and AltaGas shall, subject to the recommendation by an independent tile contractor and subject to the landowners' approval, construct upstream and downstream drainage headers adjacent to the drilling area and access roads that cross existing systematic drainage tiles, prior to the delivery of heavy equipment, so that continual drainage will be maintained.

#### Condition 3.4

MHP and AltaGas shall implement all the recommendations identified in the Storage Pool Environmental Management Plan filed as part of Schedule 8-1 of the pre-filed evidence.

#### Condition 4.1

Both during and after construction, MHP and AltaGas shall monitor the impacts of construction, and shall file four copies of both an interim and final monitoring report with the Board. The interim monitoring report shall be filed within six months of the in-service date and the final monitoring report shall be filed within fifteen months of the in-service date.

MHP and AltaGas shall attach a log of all comments and complaints to the interim and final monitoring reports. The log shall record the times of all comments and complaints received, the substance of each comment and complaint, the actions taken in response, and the reasons underlying such actions.

#### **Condition 4.3**

The final monitoring report shall describe the condition of the rehabilitated land and the effectiveness of the mitigation measures undertaken. The results of the monitoring programs and analysis shall be included and recommendations made as appropriate. Any deficiency in compliance with any of the Conditions of Approval shall be explained.

## 2.0 BACKGROUND

Construction was initiated on January 15, 2009 with topsoil stripping and the installation of new permanent roads and temporary drilling pads. Drilling began on the new I/W wells in early February 2009 and was completed in late April 2009. The conversion of the existing well to a Guelph observation well was initiated on May 2, 2009 and completed on June 10, 2009. Upon completion of the transmission and gathering pipelines, the wells were placed into service on June 26, 2009. Reduction of the temporary well pads to their permanent configuration was performed during the week of August 24th, 2009. SASPLP returned to the site in August of 2010 to perform additional grading of the agricultural land surrounding the well pad as well as and adding gravel to the pad and access road.

# POTENTIAL IMPACTS AND MITIGATION

#### 3.1 Condition 1.1

Market Hub Partners Management Inc. and AltaGas Ltd. ("MHP and AltaGas") shall adhere to the evidence as filed with the Board in EB-2008-0002 and comply with applicable laws, regulations and codes pertaining to the construction of the proposed well.

SASPLP has adhered to the evidence filed with the Board with exception to the following:

Due to the increased size of the well drilling equipment used on this project, it was necessary to enlarge the gravel pad areas required to proceed with drilling operations.

The size of the temporary pads was increased from 60 metres by 60 metres as indicated in the evidence (Schedule 9-9-A), to 100 metres by 100 metres. The increased area required was discussed with the landowners and compensation was adjusted accordingly.

SASPLP has complied with all applicable laws, regulations and codes pertaining to the construction of the wells.

#### 3.2 Condition 2.1

MHP and AltaGas shall offer to pay the landowners and /or tenants just and equitable compensation for any damages, including present and future crop damage arising from: drilling of injection/withdraw wells; installation of gathering pipelines; access road construction.

SASPLP has made an agreement with the landowners and/or tenants to pay compensation for any damages and have reimbursed the landowners/tenants for crop damages endured during construction. SASPLP has also agreed to reimburse the landowners/tenants for any future damages that may occur.

#### 3.3 Condition 3.1

MHP and AltaGas shall construct the facilities and restore the land in accordance with its Application and evidence and the undertakings given to the Board, except as modified by the Order and these Conditions of Approval.

With the exception of the previously mentioned amendment in Condition 1.1, SASPLP has constructed the facilities according to the evidence filed in support of its application and in accordance with all mitigation measures as identified in the Environmental Report filed to the Board.

#### 3.4 Condition 3.2

MHP and AltaGas shall ensure that the movement of equipment is carried out in compliance with all procedures filed with the Board, and as follows:

i) SASPLP shall make reasonable efforts to keep the affected landowner as well as adjacent landowners and their respective tenant farmers, or their designated representatives, informed of its plans and construction activities; and

Prior to any activity associated with the development, the Lands Agent met with the directly affected landowners/tenants to discuss and identify any concerns.

The Lands Agent was available during construction to answer questions and address concerns through the Landowner Relations Program.

ii) the installation of facilities and construction shall be coordinated so as to minimize disruption of agricultural land and agricultural activities.

After meeting with the landowners/tenants and reviewing their needs, the facilities were located so as to serve the requirements of SASPLP and minimize any inconvenience to farming operations. All well work was completed on gravel pads with travel to the wells restricted to gravel roadways. This allowed all weather access to the well locations with no additional impact to adjacent lands.

# 3.5 Condition 3.3

MHP and AltaGas shall, subject to the recommendation by an independent tile contractor and subject to the landowners' approval, construct upstream and downstream drainage headers adjacent to the drilling area and access roads that cross existing systematic drainage tiles, prior to the delivery of heavy equipment, so that continual drainage will be maintained.

SASPLP employed the services of Dillon Consulting Ltd. to prepare drainage plans that would maintain the integrity of the existing drainage system. No pre-construction tiling was necessary and all drainage tile concerns were addressed during post construction tiling.

Following drilling operations, post construction tiling was undertaken between June 02 and June 25, 2009, once the size of the drilling pad was decreased to its permanent configuration. All plans were discussed and approved by the landowner.

#### 3.6 Condition 3.4

MHP and AltaGas shall implement all the recommendations identified in the Storage Pool Environmental Management Plan filed as part of Schedule 8-1 of the pre-filed evidence.

SASPLP has implemented all the recommendations as outlined in the Environmental and Social-Economic Assessment prepared by Stantec Consulting Ltd. An Environmental Inspector was on site on a regular basis to observe operations such as, topsoil stripping and road/pad construction as well as other procedures that may have had an impact on the environment.

#### 3.7 *Condition 4.1*

Both during and after construction, MHP and AltaGas shall monitor the impacts of construction, and shall file four copies of both an interim and final monitoring report with the Board. The interim monitoring report shall be filed within six months of the in-service date and the final monitoring report shall be filed within fifteen months of the in-service date. MHP and AltaGas shall attach a log of all comments and complaints to the interim and final monitoring reports. The log shall record the times of all comments and complaints received, the substance of each comment and complaint, the actions taken in response, and the reasons underlying such actions.

#### 3.7.1 Report Circulation

Four (4) copies of this interim monitoring report are being provided to the Board.

#### 3.7.2 Landowner Concerns

The SASPLP complaint tracking system, which identifies the current status of landowner complaints received as a result of pipeline construction, was in effect during construction and remains in effect. A complaint is identified as a concern raised by a landowner, which has not been resolved to the landowner's satisfaction within three (3) working days. There were no complaints entered into the complaint tracking system.

During construction, a number of concerns were raised to SASPLP and its contractor. These issues were minor in nature and were dealt with by SASPLP or its Contractor in an expeditious manner typically within 48 hours.

There are no outstanding issues related to this project. SASPLP will continue to monitor the state of the land and environment and will address any additional landowner concerns, if they should arise.

#### 3.8 *Condition 4.3*

The final monitoring report shall describe the condition of the rehabilitated land and the effectiveness of the mitigation measures undertaken. The results of the monitoring programs and analysis shall be included and recommendations made as appropriate. Any deficiency in compliance with any of the Conditions of Approval shall be explained.

The entire right of way and in particular the areas adjacent to watercourses were reviewed for stability, subsidence and vegetation re-establishment in the spring/summer of 2010 and found to be successfully rehabilitated with no deficiencies in compliance identified.

#### 3.8.1 Monitoring Programs

The previously filed Interim Monitoring Report provides a description of the successfully completed monitoring programs (Water well, Archaeology, Soil Testing)

undertaken prior to, during and following construction to monitor the effects of construction.

### 3.8.1.1 Water Well Monitoring

Further water well testing was performed following the first storage cycle with the results compared and analyzed with the water quality of the original survey. To date there have been no water well complaints received.

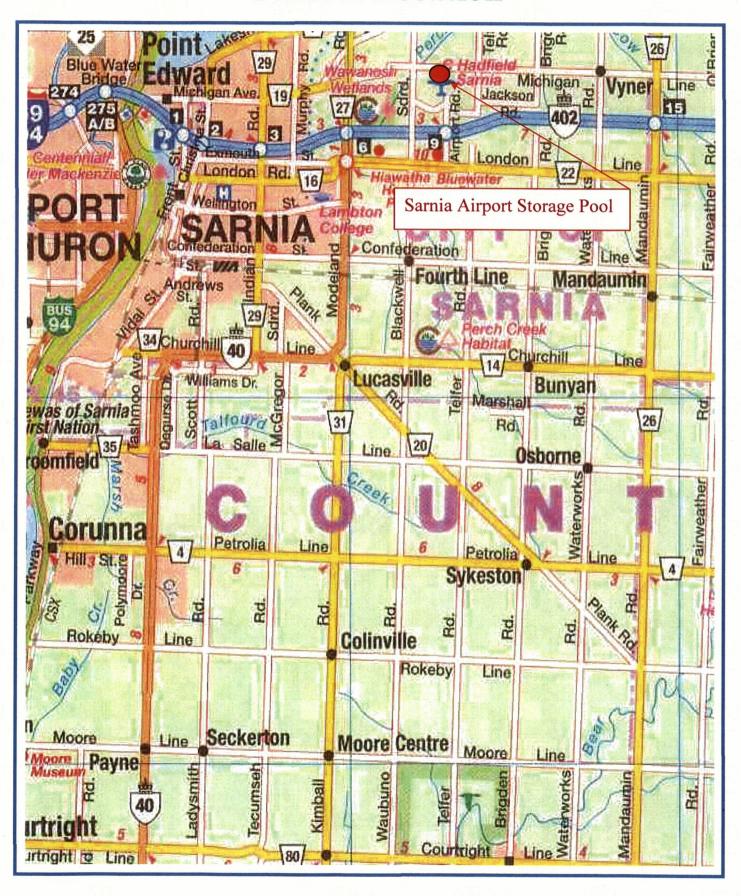
#### 4.0 SUMMARY

This Well Drilling Final Monitoring Report has been prepared as per the conditions in the Board Order EB-2008-0002. The report in conjunction with the previously filed Interim Monitoring Report provides an outline of SASPLP compliance with the commitments of its pre-filed evidence, the measures implemented during construction to minimize disturbance to the environment and a description of SASPLP monitoring programs. It is anticipated that these measures will effectively eliminate any long-term impacts to the environment.

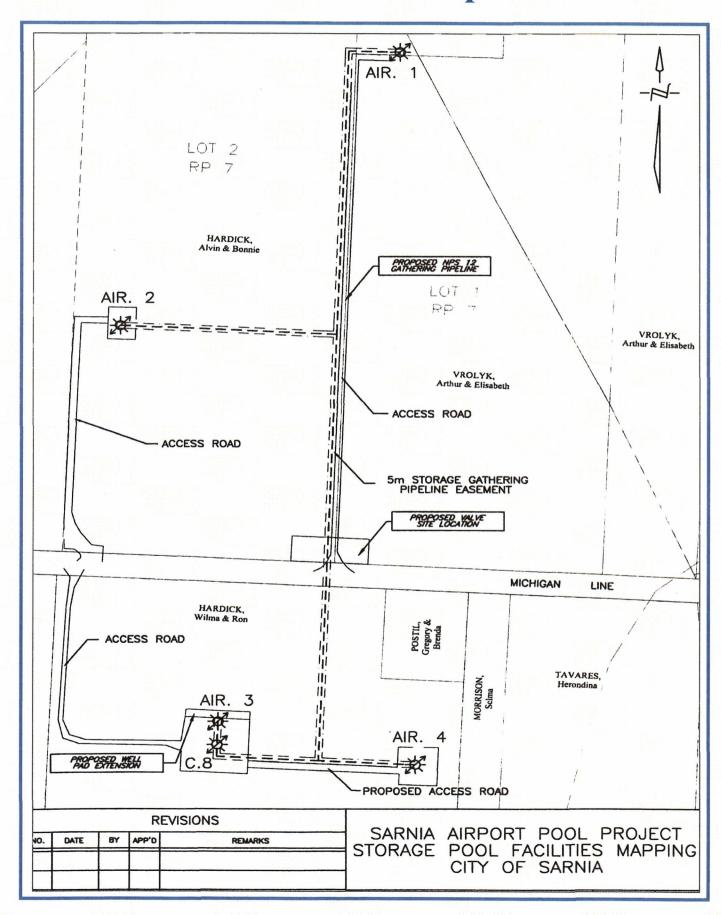
"Appendix A"

**Location Maps** 

# Sarnia Airport Storage Pool General Location



# Sarnia Airport Pool Location Map



# "Appendix B"

# **Conditions of Approval**

#### Schedule 2

#### Market Hub Partners Management Inc. and AltaGas Ltd.

#### **Application for Wells Licences**

EB-2008-0002

## **Conditions of Approval**

Sarnia Airport Pool Development Project
Market Hub Partners Management Inc. and AltaGas Ltd.

EB-2008-0002

#### **Conditions of Approval**

## **Wells Drilling Licences Application**

- 1. General Requirements
- 1.1. Market Hub Partners Management Inc. and AltaGas Ltd. ("MHP and AltaGas) shall adhere to the evidence as filed with the Board in EB-2008-0002 and comply with applicable laws, regulations and codes pertaining to the construction of the proposed wells.
- 1.2 Authorization for the issuance of the drilling licences is limited to twelve months from the date of the Board's Report to the Ministry of Natural Resources.
- 1.3 The authority granted under this Order to MHP and AltaGas is not transferable to another party without leave of the Board. For the purpose of this condition another party is any party except Sarnia Airport Storage Pool Limited Partnership.
- 2. Just and Equitable Compensation
- 2.1 MHP and AltaGas shall offer to pay landowners and/or tenants just and equitable

compensation for any damages, including present and future crop damage arising from: drilling of injection/withdrawal wells; installation of gathering pipelines; access road construction.

### 3. Construction Requirements

- 3.1 MHP and AltaGas shall construct the facilities and restore the land in accordance with its Application and evidence and the undertakings given to the Board, except as modified by this Order and these Conditions of Approval.
- 3.2 MHP and AltaGas shall ensure that the movement of equipment is carried out in compliance with all procedures filed with the Board, and as follows:

- i) MHP and AltaGas shall make reasonable efforts to keep the affected landowner as well as adjacent landowners and their respective tenant farmers, or their designated representatives, informed of its plans and construction activities; and
- ii) the installation of facilities and construction shall be coordinated so as to minimize disruption of agricultural land and agricultural activities.
- 3.3 MHP and AltaGas shall, subject to the recommendation by an independent tile contractor and subject to the landowners approval, construct upstream and downstream drainage headers adjacent to the drilling area and access roads that cross existing systematic drainage tiles, prior to the delivery of heavy equipment, so that continual drainage will be maintained.
- 3.4 MHP and AltaGas, shall implement all the recommendations of the Storage Pool Environmental Management Plan filed as part of Schedule 8-1 of the pre-filed evidence.

#### 4. Monitoring and Reporting Requirements

- 4.1 Both during and after construction, MHP and AltaGas shall monitor the impacts of construction, and shall file four copies of both an interim and a final monitoring report with the Board. The interim monitoring report shall be filed within six months of the in-service date, and the final monitoring report shall be filed within fifteen months of the in-service date. MHP and AltaGas shall attach a log of all complaints to the interim and final monitoring reports. The log shall record the times of all complaints received, the substance of each complaint, the actions taken in response, and the reasons underlying such actions.
- 4.2. The interim monitoring report shall confirm MHP and AltaGas adherence to Condition 1.1 and shall include a description of the impacts noted during construction and the actions taken or to be taken to prevent or mitigate the longterm effects of the impacts of construction. This report shall describe any outstanding concerns identified during construction.
- 4.3 The final monitoring report shall describe the condition of the rehabilitated land and the effectiveness of the mitigation measures undertaken. The results of the monitoring programs and analysis shall be included and recommendations made as appropriate. Any deficiency in compliance with any of the Conditions of

Approval shall be explained.

#### 5. **Project and Communication Requirements**

- 5.1 For the purposes of these conditions, conformity of the Applicant with CSA Z341.1-06, shall be to the satisfaction of the Ministry of Natural Resources.
- 5.2 MHP and AltaGas shall designate one of its employees as project manager who will be responsible for the fulfilment of these conditions, and shall provide the employee's name to the Ministry of Natural Resources, the Board and to all appropriate landowners.
- 5.3 The Board's designated representative for the purpose of these Conditions of Approval shall be the Manager, Facilities Applications.