

**ENBRIDGE GAS DISTRIBUTION INC.
POST-CONSTRUCTION
ENVIRONMENTAL MONITORING REPORT NO.1**

**LADYSMITH LOOP PIPELINE
TECUMSEH STORAGE ENHANCEMENT PROJECT
EB-2007-0888/EB-2007-0889/EB-2007-0890**

Prepared by
Enbridge Gas Distribution Inc.
September 14, 2009

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1.0 Introduction

In the spring of 2008 the Ontario Energy Board (“OEB”) under docket number EB-2008-0888/EB-2008-0889/EB-2008-0890 granted Enbridge Gas Distribution Inc. (“Enbridge”) Leave to Construct and operate an NPS 20 (20 inch diameter) pipeline to deliver natural gas to and take away gas from the Ladysmith storage reservoir. The pipeline is part of the Tecumseh Storage Enhancement Project required to meet the demand for high deliverability storage services in Ontario. Prior to obtaining approval, Enbridge conducted the following studies to identify potential impacts resulting from construction, and prepare mitigative measures to minimize environmental and socio-economic impacts.

| Report Title | Conducted by: | Date |
|--|---|----------------|
| Tecumseh Compressor Station To Ladysmith Natural Gas Storage Pool Environmental Assessment Update | Stantec Consulting Limited | November 2007 |
| Tecumseh Gas Storage Ladysmith Pool NPS 14 Pipeline Route Selection/ Environmental Assessment and Storage Pool Environmental Management Plan | Ecological Services for Planning Ltd. (ESP) | October 1993 |
| Archaeological Assessment Tecumseh Gas Storage Ltd. Proposed Ladysmith Project Moore Township County of Lambton | L.R. Bud Parker Archaeological Research Associates Ltd. | November 1992 |
| Archeological Assessment Stage 1: Background Study Tecumseh Gas Storage Ltd. Proposed Ladysmith Project Moore Township County of Lambton | L.R. Bud Parker Archaeological Research Associates Ltd. | September 1992 |

Construction of this pipeline began on July 14, 2008 and was completed on September 26, 2008. The pipeline was commissioned on November 26, 2008.

This report has been prepared in accordance with OEB EB-2008-0888/EB-2008-0889/EB-2008-0890 Board Staff Proposed Conditions of Approval as described below:

- 3.1 Both during and after construction, Enbridge 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. Enbridge shall attach a log of all complaints that have been received 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 each action.

- 3.2 The interim monitoring report shall confirm Enbridge 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 long-term effects of the impacts of construction. This report shall describe any outstanding concerns identified during construction.
- 3.3 The final monitoring report shall describe the condition of any rehabilitated land and the effectiveness of the mitigation measures undertaken. The results of the monitoring programs and analysis shall be included and any recommendations made as appropriate. Any deficiency in compliance with any of the Conditions of Approval shall be explained.

This report is limited to items that have been identified prior to August 2009. Items addressed after this date will be identified in the final Post-Construction Environmental Monitoring Report. This report will summarize actual construction procedures and identify any significant deviations from proposed construction activities.

2.0 Project Description

The Ladysmith Loop pipeline was constructed to deliver natural gas to and take away gas from the Ladysmith storage reservoir. The pipeline is required to meet the demand for high deliverability storage services in Ontario. The pipeline is approximately 4.5 kilometers (km) in length and is located entirely within St. Clair Township (geographic township of Sombra) in Lambton County. The pipeline commences at Enbridge's Tecumseh Compressor Station located at 3595 Tecumseh Road in Mooretown, ON and terminates at the Ladysmith Storage Pool on the north side of Courtright Line, west of Tecumseh Road. Appendix A shows the constructed pipeline within a regional context.

3.0 Environmental Inspection

In order to ensure that environmental commitments were honoured and that the best industry practices were used, a full time inspector was onsite. In general, the duties of the inspector included the following items:

- provide advice to the Project Manager, Construction Inspector, and all construction personnel regarding compliance with environmental legislation, regulations and industry standards;
- provide advice regarding adherence to environmental specifications and commitments made in the previously mentioned documents and to regulatory agencies, including the OEB;
- provide advice on erosion protection measures to be taken in sensitive locations in vicinity of watercourse crossing;
- act as a liaison with environmental regulators, government agencies and interest groups;
- provide immediate advice regarding spill prevention and contingency; and,
- ensure appropriate waste disposal of any hazardous construction wastes.

4.0 Construction Effects and Mitigation Measures

Construction effects and mitigation measures which were implemented to minimize the potential effects the construction of the Ladysmith Loop pipeline are summarized in Table 1 (see pages 4 to 6). All activities were conducted in adherence to the contract documentation between Enbridge and the contractor as well as the Enbridge Construction Policies and Procedures.

Table 1.
Construction Effects and Mitigation Measures

| Activity | Duration | Potential Effect | Mitigation Measures |
|------------------|---|---|--|
| Vegetation Cover | Throughout Construction (July 2008– September 2008) | Permanent removal of vegetation. Aesthetic degradation. Changes in surface drainage patterns affecting amount of water available. Changes to sunlight or wind exposure regimes. | Limits of work area marked to minimize encroachment into vegetated areas. Majority of construction completed within agricultural fields and Hydro Right-Of-Way. |
| Topsoil Handling | Throughout Construction | Disruption of surface and subsurface soils. Soil mixing may result in loss of productivity. | Contractor stripped topsoil and stockpiled separately from subsoil. Mixing of soils was minimized. Segregated topsoil was replaced on surface following construction. Topsoil was tilled prior to cultivation. |

Table 1.
Construction Effects and Mitigation Measures

| Activity | Duration | Potential Effect | Mitigation Measures |
|---------------------------|--|--|--|
| Noise | Throughout Construction | Disturbances to sensitive receptors (i.e. residents, seniors' homes, schools). | Construction equipment conformed to guidelines for sound and emission levels. |
| Climate | Throughout Construction | Heavy rainfall may result in flooding of adjacent lands, erosion and compaction and rutting (if construction persists). High winds may erode loose soil material, including topsoil and create nuisance dust. | During wet soil conditions construction on agricultural lands were suspended. Work resumed only upon approval by Chief Inspector. Nuisance dust was controlled by applying water to work area (if required). |
| Municipal Drain Crossing | Throughout Construction (July 2008–September 2008) | Disruption of watercourse through siltation and sedimentation. Erosion of channel banks and loss of vegetation cover. Contamination of surface water. Interruption of subsurface drainage along pipeline trench. | Crossing of Taggart/Trapp and Long Drains were completed by directional drill. Sediment fencing installed to prevent sedimentation and siltation. |
| Road Crossings | Throughout Construction | Open cut roads inconvenience motorists and traffic flow. Restricted access to businesses and residences. | One road crossing (Moore Road 6) was completed by directional drill. Warning signs and barricades set up to increase visibility and prevent public access. |
| Trenching and Excavation | Throughout Construction | Open trenches present a hazard to vehicular and pedestrian traffic. Restricts access | Protective barricades (i.e., snow fence, concrete barriers) were erected around trenches and excavations during construction activities. |
| Utility Crossings | Throughout Construction | Minimum distance separation from buried or above-ground services may not provide sufficient room within the Hydro ROW for the installation of a gas pipeline; damage to utilities may inconvenience landowners | In accordance with the Enbridge Policies and Procedures, locates were obtained prior to any excavation work. Warning signs posted in vicinity of overhead power lines |
| Archaeological Monitoring | Throughout Construction | Disturbance and potential destruction of archaeological artifacts. | Archaeological Research Associates Limited conducted a background study and a Stage 1 Archaeological Assessment prior to construction to identify areas of high potential for artifacts. |

Table 1.
Construction Effects and Mitigation Measures

| Activity | Duration | Potential Effect | Mitigation Measures |
|---------------------|-------------------------|---|--|
| Spills | Throughout Construction | Contamination of air, soil, surface water or ground water. Inconvenience to landowners and public | As required, contractor had spill containment kits at the project site. |
| Hydrostatic Testing | August 2008 | Disruption of water supply to landowners or emergency services. Uncontrolled discharge of water could cause erosion, sedimentation and contamination of surface water supplies. | Water for hydrostatic testing was obtained from the St. Clair River. No significant adverse environmental effects resulted from the hydrostatic testing and dewatering procedures. |
| Pipe Energizing | September 2008 | Inconvenience and/or negative health effects to nearby landowners and the public. | Energizing was completed in accordance with Enbridge Policies and Procedures. |
| Clean-Up | Throughout Construction | Restores the pipeline easement to pre-construction conditions. | Clean up activities were conducted in accordance with the Enbridge Construction Manual. Final site grading/tilling of the Hydro ROW south of Moore Road 6 will be completed within the next few months. Results of the clean-up program will be examined again in the summer of 2010 |

5.0 Residual Issues

Overall, construction activities were carried out with a high level of respect for the environment. There is one unresolved issues that remains at the time of completion of this report (September 2009) for the Ladysmith Loop pipeline. This issue will need to be addressed prior to the final monitoring of the pipeline route.

5.1 Site Grading

Site grading and tilling of the topsoil in the Hydro ROW south of Moore Road 6 is still required to be completed to restore the pipeline easement to pre-construction conditions. This work will be completed within the next few months. Results of this restoration work will be examined in the summer of 2010.

6.0 Landowner Comments and Complaints

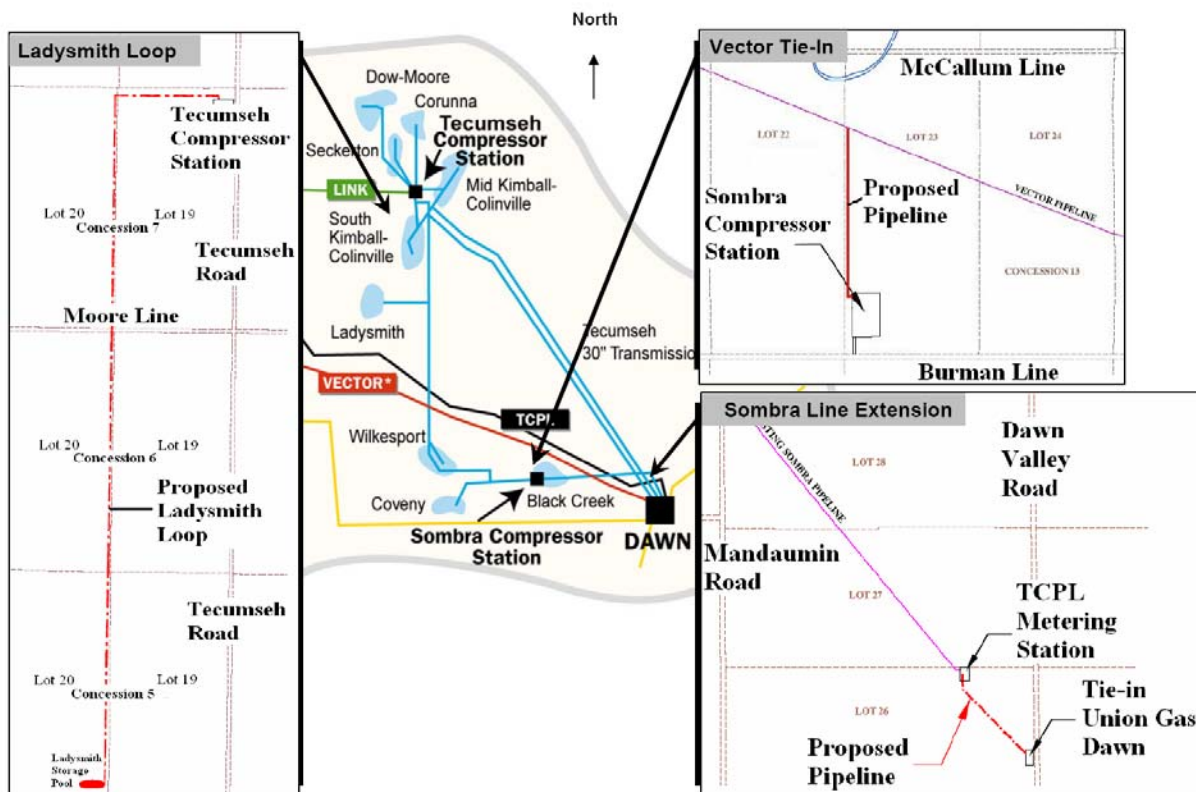
Five complaints were communicated by Mr. Eugene Robbins, Mr. Claire Robbins and Mr. Gary Robbins to Enbridge Gas Storage during the construction of the Ladysmith Loop pipeline. The nature of the complaints included notice of construction, damage to farm equipment, location of the pipeline within the pipeline easement, excavation in the vicinity of tile drainage, and the handling of standing water. The complaints occurred between May 14 and September 16, 2008. Each complaint was addressed immediately upon receipt to the satisfaction of the complainant. A record of the Registered Complaint is found in Appendix C.

7.0 Summary

This Interim Post-Construction Environmental Monitoring Report has been prepared in accordance with the OEB Decision Docket No. EB-2008-0888/EB-2008-0889/ EB-2008-0890. It documents construction and clean-up activities between the winter (2008) and spring (2009). In general, measures implemented during construction and clean-up have been successful. One outstanding issue will be addressed in the Final Post-Construction Environmental Monitoring Report that will be prepared in the summer of 2010. This report will document continued remediation activities if needed, and address additional issues that may arise.

APPENDIX A
MAP OF LADYSMITH LOOP PIPELINE

Enbridge Gas Distribution Inc.
Proposed Tecumseh Storage Enhancement Project



APPENDIX B
PHOTO LOG



Photo 1 – Tie-in location at Ladysmith Storage Pool



Photo 2 – Looking north along Hydro ROW/Pipeline Easement from Tie-In Location



Photo 3 – Looking north along Hydro ROW/Pipeline Easement from Tie-In Location



Photo 4: Looking south along Hydro ROW/Pipeline Easement from Moore Road 6



Photo 5: Looking southeast along Hydro ROW/Pipeline Easement from Moore Road 6



Photo 6: Looking northeast at crossing of Moore Road 6 and Long Drain



Photo 7: Looking north at Hydro ROW/Pipeline Easement from Moore Road 6



Photo 8: Looking west from tie-in location at Enbridge Tecumseh Compressor Station

APPENDIX C
LANDOWNER COMPLAINT AND COMMENT LOG

**LADYSMITH TO TECUMSEH COMPRESSOR STATION-
 NPS 20 PIPELINE CONSTRUCTION PROJECT**

REGISTERED COMPLAINTS

| | | | |
|--------------------------------|---|----------|-------------------------------------|
| BY: | Eugene Robbins | NUMBER: | |
| | | DATE: | May 14, 2008 |
| | | MADE TO: | Terry Chupa |
| | | | |
| | | | |
| <u>NATURE OF THE COMPLAINT</u> | | | |
| | <p>In my (Terry Chupa) letter to Eugene of May 2, 2008, I advised Eugene, as I did the other landowners, that construction was going to start on July 14, 2008. He did not like the timing and said that we should wait a week or so until after the winter wheat is harvested, rather than waste the crop.</p> <p>He also added that he was told, or was at least under the impression, that in our initial talks about the proposed pipeline installation, that the installation would not take place until after the wheat harvest.</p> | | |
| | | | |
| | | | |
| <u>RESOLUTION</u> | | | |
| | <p>Eugene was correct in that in the early design stages we had anticipated starting construction after the wheat was harvested.</p> <p>As a solution, Eugene invoked his rights under Clause 5 of the Letter of Understanding and requested that the Company install a layer of mulch, crop or other suitable alternative between the existing topsoil and the stripped topsoil pile in situations where a crop is not present.</p> <p>In this case the crop did exist, and Enbridge agreed to compensate Eugene for the existing wheat crop for its use as a layer of mulch.</p> <p>This solution was satisfactory to Eugene.</p> <p>There were several other landowners along the route with similar circumstances. Enbridge offered the same solution to these landowners and all of them accepted the offer.</p> | | |
| | <p>On July 7, 2008 I paid Eugene for the crop used as a layer of mulch as final settlement for this issue.</p> | | |
| | | | |
| | | | |
| DATE: | August 13, 2009 | BY: | Terry Chupa <i>TChupa</i> Aug 13/09 |
| MANAGER: | IAN MARSHALL <i>IM</i> | | 8/13/09 |

**LADYSMITH TO TECUMSEH COMPRESSOR STATION-
 NPS 20 PIPELINE CONSTRUCTION PROJECT**

REGISTERED COMPLAINTS

| | | | |
|--------------------------------|--|-----------------|-------------------------------------|
| BY: | Eugene Robbins | NUMBER: | |
| | | DATE: | June 28, 2008 |
| | | MADE TO: | Terry Chupa |
| | | | |
| NATURE OF THE COMPLAINT | | | |
| | When harvesting along the spill pile from the pipeline construction, the combine (Gary Robbins) hit a clump of mud that was beyond the snow fence and caused \$500.00 to the combine. I believe that they (Robbins) fixed it themselves. | | |
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| RESOLUTION | | | |
| | <p>I (Terry Chupa) examined and photographed the area and confirmed that several chunks of soil (largest about 2ft x 2ft) had rolled off the spill pile, through the snow fence and off the Temporary Working Area lands on to lands that were not part of our work site.</p> <p>I could see where some of the clumps had been hit by the combine. I advised the construction crew and they walked the remainder of the pipeline and removed the clumps of mud off the work site and placed them back on the work site. This was not done on Eugene's seeing as the crop was already harvested and the soil clump issue would be resolved during restoration and farming operations.</p> <p>Eugene told me to settle the damages with Gary Robbins.</p> <p>I had a couple of meetings with Gary to settle the damages to the combine, the last being a phone conversation of January 15, 2009. He still was not sure of the severity or permanency of the damage to the combine and he said he would contact someone senior at the dealership in Forest where he bought the combine to assess the damage.</p> | | |
| | Gary Robbins had the combine repaired and on July 21, 2009 I reimbursed Gary for the cost of the repair as final settlement for this issue. | | |
| | | | |
| | | | |
| DATE: | August 13, 2009 | BY: | Terry Chupa <i>TChupa Aug 13/09</i> |
| MANAGER: | IAN MACROBIE <i>IMacrobie</i> | | 8/13/09 |

File: L50E-22912-020

**LADYSMITH TO TECUMSEH COMPRESSOR STATION-
 NPS 20 PIPELINE CONSTRUCTION PROJECT**

REGISTERED COMPLAINTS

| | | | |
|--|-------------------------|----------|------------------------------------|
| BY: | Eugene Robbins | NUMBER: | |
| | | DATE: | July 15, 2008 |
| | | MADE TO: | Terry Chupa |
| | | | |
| NATURE OF THE COMPLAINT | | | |
| <p>During the easement negotiation process, Eugene and I (Terry Chupa) agreed that the new pipeline would be installed as far to the north as possible. At that time I gave him a drawing showing the pipeline positioned in the centre of the 10 metre wide permanent easement.</p> <p>Eugene noticed that the survey stakes for the centre line of the pipeline were south of the mid point of the easement width. We told him that the drawing was intended to be a schematic and that the pipeline could be installed anywhere within the easement, which was as far north as possible.</p> <p>Eugene said this was not acceptable</p> | | | |
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| RESOLUTION | | | |
| <p>Enbridge installed the pipeline in the midpoint of the easement width as shown on the drawing. Eugene was satisfied with this solution that provided him with what he asked for.</p> | | | |
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| DATE: | August 13, 2009 | BY: | TERRY CHUPA <i>Terry</i> Aug 13/09 |
| MANAGER: | IAN MACROBBIE <i>IM</i> | | 8/13/09 |

File: L50-22912-020



**ENBRIDGE - GAS STORAGE OPERATIONS
 REGISTERED COMPLAINT**

| | | | |
|--|---|-----------------|--|
| BY: | CLAUDE ROSSIGNOL LANDOWNER @ 1077 NOBILITE. | NUMBER: | 001 |
| | | DATE: | JULY 18, 2008 |
| | | MADE TO: | RALPH EYRE ON BEHALF OF ENBRIDGE |
| NATURE OF THE COMPLAINT | | | |
| <p>RECEIVED A PHONE CALL FROM CLAUDE ROSSIGNOL ABOUT 10:00 AM JULY 17, 2008 IN REGARDS TO THE STRIPPING OF TOP SOIL ON HIS FARM FOR THE LACKSMITH RESERVE. CLAUDE HAD DISCOVERED THAT THE SOMEONE HAD STRIPPED THE TOP SOIL OVER TOP OF CLAUDE'S MAIN HEADER TILE FOR ABOUT 400m FROM MOORE LANE.</p> <p>THE ORIGINAL AGREEMENT THAT CLAUDE HAD WITH ENBRIDGE WAS THAT THE TILE BE BE LOCATED AND MARKED SO THAT NO EXCAVATING WOULD TAKE PLACE OVER THE TILE AND THAT THE TOP SOIL BE PILED OVER THE TILE TO KEEP EQUIPMENT OFF THE TILE.</p> | | | |
| RESOLUTION | | | |
| <p>JEFF FAIRCHILD, TERRY CHUFA, RICHARD & PETER DEKORAL MET WITH CLAUDE ON HIS FARM FRIDAY MORNING JULY 18/08. WE RESOLVED THAT THE TILE WAS NOT LOCATED PROPERLY AND THEREFORE THE REASON FOR STRIPPING THE TOP SOIL FROM THE WORK AREA. IT WAS AGREED UPON WITH ALL THAT WE PUT BLUE PAILS 6.7m EAST OF THE WEST LIMIT TO PROTECT THE TILE FROM TRAFFIC & STRIPPING. SO AS OF NOW THERE WILL BE NO EQUIPMENT, TRUCKS OR SOIL OVER CLAUDE'S TILE. TERRY ALSO AGREED TO FIX/REPLACE THE TILE MARK IF NECESSARY.</p> | | | |
| DATE: | JULY 18, 2008 | BY: | JEFF FAIRCHILD |
| MANAGER: | [Signature] | | |

A readable version of the handwritten registered complaint has been provided on the following page.

Registered Complaint by Claire Robbins, Landowner at 1077 Moore Line

Number: 001

Date: July 18, 2008

Made To: Ralph Eyre on Behalf of Enbridge

Nature of Complaint

Received a phone call from Claire Robbins about 10:00pm July 17, 2008 in regards to the stripping of topsoil on his farm for the Ladysmith pipeline. Claire had discovered that Sommerville had stripped the topsoil over the top of Claire's main header-tile for about 400m from Moore line.

The overall agreement that Claire had with Enbridge was that the tile be located and so that no excavating would take place over the tile and that the topsoil be filled over the tile to keep equipment off the tile.

Resolution

Jeff Fairchild, Terry Chupa, Ralph Eyre, and Peter DeKoning met with Claire on his farm Friday July 18, 2008. We resolved that the tile was not located properly and therefore the reason for the stripping the topsoil from the wrong area. It was agree upon with all that we put blue flags 6.7 metres East of the West Limit to protect the tile from traffic and stripping. So as of now there will be no equipment, trucks or soil over Claires tile. Terry also agreed to fix/repair the tile main if necessary

ENBRIDGE - GAS STORAGE OPERATIONS
 REGISTERED COMPLAINT

| | | | |
|--|--------------|----------|----------------|
| BY: | Gary Robbins | NUMBER: | 7115B |
| | | DATE: | Sept 16/08 |
| | | MADE TO: | Terry Chapp |
| NATURE OF THE COMPLAINT | | | |
| <p>Due to the topsoil pile location on Ait Elys property, the surface water is dammed up by the topsoil pile and not allowing the surface water to flow west.</p> <p>Due to the deep excavations on Ait Elys property, I told Terry I would like wait until Mon Sept 22 to open it up.</p> <p>Terry Chapp informed Gary of same and thought it was O.K.</p> <p>After loading my e-mails on Sun Sept 21, I saw that Gary Robbins had contacted Neil McKay from the OEB.</p> | | | |
| RESOLUTION | | | |
| <p>On Monday I took Gary Robbins to the site and opened up the topsoil pile as I said I would.</p> <p>He seemed O.K. with it and the incident was resolved.</p> | | | |
| DATE: | Sept 22/08 | BY: | Jeff Fairchild |
| MANAGER: | J. Fairchild | | |

A readable version of the handwritten registered complaint has been provided on the following page.

Registered Complaint by Gary Robbins

Number: 7115B

Date: September 16, 2008

Made To: Terry Chupa

Nature of Complaint

Due to the topsoil pile location on Art Eyre property, the surface water is dammed up by the topsoil pile and not allowing the surface water to flow West.

Due to the deep excavating on Art Eyre property, I told Terry I would like wait until Mon Sept22 to open it up.

Terry Chupa informed Gary of same and thought it was OK.

After reading my emails on Sun Sept 21, I saw that Gary Robbins had contacted Neil McKay from the OEB.

Resolution

On Monday I took Gary Robbins to the site and opening up the topsoil pile as I said I would. He seemed O.K with it and the incident was resolved.