



August 16, 2016

Environmental Approvals Branch  
Manitoba Sustainable Development  
Suite 160, 123 Main Street  
Winnipeg, Manitoba R3C 1A5

Attention: Tracey Braun, M.Sc.  
Director

**RE: Request for Minor Licence Alteration – New Deep Injection Well  
Environmental Act Licence No. 2619RRRR  
Canexus Corporation – Brandon Sodium Chlorate Plant**

Dear Ms. Braun:

On behalf of Canexus Corporation (Canexus), Dillon Consulting Limited (Dillon) is requesting a Minor Alteration to the Canexus Brandon facility's Environmental Act Licence No. 2619RRRR (the Licence). Specifically, approval is requested to install and operate a new deep injection well to replace the existing deep injection well as the primary method for disposal of process reject water. The existing deep injection well will remain available for use as a maintenance back-up; only one well will operate at any point in time.

As outlined in the enclosed Notice of Alteration Report, no changes are proposed to plant capacity or the terms and conditions of the Licence. The environmental effects of this alteration are considered not significant. Approval to drill the well has already been issued by the Petroleum Branch of the Mineral Resources Division of Manitoba Growth, Enterprise, and Trade, and a Salt Water Disposal Permit is pending.

1558 Willson Place  
Winnipeg  
Manitoba  
Canada  
R3T 0Y4  
Telephone  
**204.453.2301**  
Fax  
204.452.4412

**Dillon Consulting  
Limited**



As per your request at our meeting on June 23, 2016, enclosed please find a \$500 cheque payable to the Minister of Finance and a completed Notice of Alteration Form. Please feel free to contact the undersigned with any questions or requests for additional documentation. Thank you for consideration of this alteration request, and we look forward to hearing from you soon.

Yours sincerely,

**DILLON CONSULTING LIMITED**

Dennis Heinrichs, M.Sc., P.Eng.  
Partner

KLW/jar

Attachments: Notice of Alteration Report: Deep Injection Well Installation  
and Operation (four hard copies and one DVD)  
Notice of Alteration Form  
Notice of Alteration Fee

cc: *Ms. Jennifer Winsor, Environmental Engineer, Manitoba Sustainable  
Development*  
*Mr. Colin Welch, Responsible Care Manager, Canexus Corporation*

**Our file: 15-1850**

Notice of Alteration Form



Client File No. : <b>2,768.50</b>		Environment Act Licence No. : <b>2619RRRR</b>	
Legal name of the Licencee: <b>Canexus Corporation</b>			
Name of the development: <b>Brandon Sodium Chlorate Plant</b>			
Category and Type of development per Classes of Development Regulation: <b>Manufacturing</b> <span style="float: right;"><b>Manufacturing and industrial plants</b></span>			
Licencee Contact Person: <b>Colin Welch, Responsible Care Manager</b>			
Mailing address of the Licencee: <b>8080 Richmond Ave E</b>			
City: <b>Brandon</b>		Province: <b>Manitoba</b>	Postal Code: <b>R7A7R3</b>
Phone Number: <b>(204) 725-5304</b>		Fax: <b>(204) 726-5746</b>	Email: <b>colin.welch@canexus.ca</b>
Name of proponent contact person for purposes of the environmental assessment (e.g. consultant): <b>Dennis Heinrichs, Dillon Consulting Limited</b>			
Phone: <b>(204) 453-2301</b>		Mailing address: <b>1558 Willson Place, Winnipeg, MB, R3T 0Y4</b>	
Fax: <b>(204) 452-4412</b>			
Email address: <b>dheinrichs@dillon.ca</b>			
Description of Alteration ( <i>max 90 characters</i> ): <b>Installation and operation of a new deep injection well to replace the existing well as the primary method for disposal of process reject water. No change to plant capacity or licence terms requested.</b>			
Alteration fee attached: Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>			
If No, please explain:			
Date: <b>08/16/2016</b>		Signature: 	
		Printed name: <b>Dennis Heinrichs</b>	
<p>A complete Notice of Alteration (<b>NoA</b>) consists of the following components:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> <b>Cover letter</b></li> <li><input checked="" type="checkbox"/> <b>Notice of Alteration Form</b></li> <li><input checked="" type="checkbox"/> <b>4 hard copies and 1 electronic copy of the NOA detailed report</b> (see "<a href="#">Information Bulletin - Alteration to Developments with Environment Act Licences</a>")</li> <li><input checked="" type="checkbox"/> <b>\$500 Application fee, if applicable</b> (Cheque, payable to the Minister of Finance)</li> </ul>		<p><b>Submit the complete NOA to:</b></p> <p>Director  Environmental Approvals Branch  Manitoba Sustainable Development  Suite 160, 123 Main Street  Winnipeg, Manitoba R3C 1A5</p> <p><b>Formore information:</b></p> <p>Phone: (204) 945-8321  Fax: (204) 945-5229  <a href="http://www.gov.mb.ca/conservation/eal">http://www.gov.mb.ca/conservation/eal</a></p>	



**DILLON**  
CONSULTING

CANEXUS CORPORATION

# **Notice of Alteration: Deep Injection Well Installation and Operation**

Brandon Sodium Chlorate Plant

# Table of Contents

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<b>1.0</b>	<b>Introduction</b>	<b>1</b>
1.1	Background .....	1
<b>2.0</b>	<b>Description of Alteration</b>	<b>1</b>
2.1	Installation .....	1
2.2	Operation .....	2
<b>3.0</b>	<b>Potential Impacts and Mitigation Measures</b>	<b>3</b>
3.1	During Installation.....	3
3.1.1	Mitigation Measures.....	3
3.1.2	Potential Impacts .....	4
3.2	During Operation .....	4
3.2.1	Mitigation Measures.....	4
3.2.2	Potential Impacts .....	5
3.3	At Decommissioning .....	5
<b>4.0</b>	<b>Conclusion</b>	<b>5</b>
	<b>Appendices</b>	
A	Salt Water Disposal Permit No. 153B	
B	Legal Survey of Well Site	
C	Well Licence No. 10548	

## 1.0 Introduction

The purpose of this Notice of Alteration is to describe the proposed alteration to the Canexus Corporation (Canexus) Brandon sodium chlorate plant, identify the potential environmental and human health effects from the alteration, and describe the mitigation measures which will be implemented to reduce the potential and/or extent of impacts.

### 1.1 Background

Canexus currently operates a deep injection well to dispose of reverse osmosis reject water from its process. Clauses No. 8 through 13 and 27 of the facility's Environment Act Licence No. 2619 RRRR (the Licence) govern the well's operation and require that all excess reverse osmosis reject water from the facility be directed through the reject water storage tank to the on-site deep injection well. Only reverse osmosis reject water is permitted to be disposed of in this well. The well also operates in compliance with Salt Water Disposal Permit No. 153B, attached as **Appendix A** and issued by what is now the Petroleum Branch, Mineral Resources Division of Manitoba Growth, Enterprise, and Trade (the Petroleum Branch).

The current well was installed approximately 30 years ago and is approaching the end of its useable life, as evidenced by increasing pressure readings at the wellhead. A functional deep injection well is critical to plant operations. As such, Canexus proposes to install and operate a new deep injection well. Details of the new well's installation and operation are included below in Section 2.0.

## 2.0 Description of Alteration

The proposed new deep injection well will replace the existing well as the primary disposal method for reverse osmosis reject water. The current deep injection well will become a redundant back-up, only operating when the new well is out of service.

### 2.1 Installation

The new deep injection well will be located approximately 500 m to the south of the existing deep injection well. The attached legal survey (**Appendix B**) identifies the coordinates and elevations of the proposed well and corresponding access road. The proposed well will be completed at an approximate depth of 1000 metres below ground surface with the exact total vertical depth to be confirmed by geologists while drilling. A permit application to drill the new well was submitted to the Petroleum Branch in spring 2016 and approved via the issuance of Well Licence No. 10548 on June 24, 2016 (see **Appendix C**). Samples will be taken during drilling as per Well Licence No. 10548 Clause 2. The well will be properly cased to direct flow to the intended formation. Canexus's intention is to drill the new well

in fall 2016, provided necessary approvals are in place and capital funds are available, with the new well supporting services being installed at a later date within 2017.

The new well will receive reverse osmosis reject water from the existing reject water storage tank. Pump sizes and hydraulics will be reviewed and upgrades made if needed. The new well will be serviced by an underground piping extension from the existing wellhead, including cathodic protection. New shut-off valves, instrumentation and controls will be installed at the existing wellhead to allow each well to be isolated while the other remains in operation. All materials, equipment and construction specifications will be in line with industry standards and Canexus's commitment to quality and Responsible Care.

## 2.2 Operation

The Canexus Brandon plant operates 24 hours a day, year round. Upon completion, the new deep injection well will be the primary well in operation, while the current well remains available, as a back-up system, in the event of downtime due to maintenance or operational issues. Keeping the existing well tied into the system is desirable to improve production process robustness. Canexus's current set-up, with a single deep injection well, is a source of process vulnerability: whenever operational issues are encountered or maintenance is required on the existing deep injection well, reject water begins to build up on site and production is put at risk. Following installation of the new well, during maintenance on one well the other could be brought online to continue disposal of reverse osmosis reject water, mitigating the production risk.

Only one well will be operated at any point in time. Each well will operate in compliance with their respective Salt Water Disposal Permits and the facility's Licence. The existing well's Salt Water Disposal Permit has been attached as **Appendix A**. A salt water disposal permit for the new well is pending and will be forwarded by Canexus to Manitoba Sustainable Development when received from the Petroleum Branch. Injection operations will not commence until the new Salt Water Disposal Permit is obtained. Clauses No. 8 through 13 and 27 of the facility's Environment Act Licence requires minimum calibration (annually), a maximum operating pressure (6,000 kPa), and a maximum daily injection rate (1,090 m<sup>3</sup>/d). The clauses also list required equipment such as storage tank containment measures, flow and pressure meters, and well sampling taps. Monitoring and reporting of reject water volumes and pressures are required on a monthly basis. No changes are requested to these clauses.

## 3.0 Potential Impacts and Mitigation Measures

### 3.1 During Installation

A fuel spill and/or leak of drilling lease fluid during the operation and refuelling of construction vehicles may lead to both soil and water (groundwater or surface water) impacts. Construction waste such as drilling mud, rags, containers, drums, and plastic from construction equipment and material may lead to adverse impacts on soil if not disposed of properly. Insufficient drilling mud pressure during installation of the well could lead to a blowout (if formation pressure exceeds drilling mud pressure), with uncontrolled release of drilling mud and/or brine to the surface.

#### 3.1.1 Mitigation Measures

To mitigate potential consequences from fuel spills or leaks, during the installation of the new deep injection well and associated services at the Canexus Brandon Sodium Chlorate Plant, Canexus will comply with applicable requirements as stated in Section 23 of Environment Act Licence No. 2619 RRRR, as follows:

- a) *Manitoba Regulation 188/2001* or any future amendments thereto, respecting the storage and handling of petroleum products and allied products; and
- b) *The Manitoba Dangerous Goods Handling and Transportation Act*, and regulations issues thereunder, respecting the handling, transport, storage and disposal of any dangerous goods brought onto or generated at the Development.

As required by Section 24 of the licence, Canexus stores all petroleum products within a curbed storage holding area designed to contain a volume of liquid equal to 110% of the volume of the largest storage tank plus the effective displacement volume of all other tanks located within the curbed area. Similarly, to mitigate potential impacts to soil or water from spills of drilling fluids (brine from the formation, drilling mud, runoff, etc.), the drilling contractor will be required to ensure the drilling lease area is properly bermed to prevent release of fluids. Canexus's Well Drilling Program, updated in May 2016, states "Under no circumstances are any fluids to be pumped off the lease."

As per Canexus' Emergency Response Plan for Spills/Release Response, if a significant spill or leak occurs, Canexus will assess the hazards associated with the spill. If there is an immediate human health or safety hazard, evacuation will be initiated. If not, the spill will be contained and clean-up will occur. As required in Section 26 in Environment Act Licence No. 2619 RRRR, spill recovery equipment is available on-site at all times to address a spill of any liquid dangerous good or hazardous waste which may not be contained completely by existing provisions. A trailer dedicated for plant spill control equipment is located in the Emergency Response building on the west side of the salt offloading tracks. The equipment in the trailer can be used for spill control and clean-up should a spill occur. Minor spill response equipment is also available throughout the plant site. The appropriate personnel and authorities will be notified in the event of a reportable spill.

To mitigate the risk of a blowout occurring during drilling, blowout prevention equipment will be implemented by the Contractor. If an event occurs, the equipment activates, containing the pressure and avoiding a blowout. All blowout prevention equipment will be inspected daily. The drilling supervisor will be required to confirm rig crews are trained in the operation of the equipment, and a blowout prevention drill will be run prior to drilling out the surface casing. Blowout prevention closing time checks will be run at least once per week with each crew.

### 3.1.2 Potential Impacts

Considering the risks of fuel or lease fluid spills and Canexus's containment measures and spill response procedures, the potential for significant environmental impacts from the installation of the deep injection well is considered low. Given the geological conditions in Manitoba (relatively low formation pressures) and the proper use of appropriate blowout prevention equipment, the potential for an uncontrolled blowout occurring during drilling is considered low and not significant.

## 3.2 During Operation

The primary environmental risk during operation of the deep injection well is a leak in the delivery pipe or well casing that could lead to soil or groundwater impacts, either from Canexus reverse osmosis reject water leaking into soil or the freshwater aquifers, or from brackish formation water travelling upwards and mixing with the fresh groundwater aquifers above.

### 3.2.1 Mitigation Measures

Regular inspections and maintenance are conducted at the plant, including annual pressure tests of the annulus between the tubing and casing as required by Drilling and Production Regulation 111/94 under *The Oil and Gas Act*. Injection profile logs are also run every three years. Should a test indicate the casing may be leaking or other operational issues with the deep well, Canexus would take immediate action to notify the appropriate authorities, confirm whether or not a leak was occurring and take approved remedial action.

The deep well pressures (wellhead and annulus) and flow meters are remotely monitored from the central control room, with a high pressure trip on the wellhead pressure meter that would immediately shut off the pump should the pressures rise above 6000 kPa. A pressure indicator on the annulus of the deep well system will alarm in the control room at 3500 kPa. There is also an annual pressure test performed on the annulus by an external third party and results must be forwarded to the MB Petroleum Branch for approval. This test requires that the pressure be held at 3500 kPa for 15 minutes to ensure integrity of the casings. Canexus inspects the physical wellhead weekly for signs of deterioration and conducts maintenance and repairs as-required. Canexus regularly monitors the injection system and would detect a pump shutdown caused by a high pressure reading, investigate and respond appropriately. The monitoring, inspection and preventative maintenance procedures put in

place to mitigate the risk of a casing leak would continue with the installation of a new deep injection well and be expanded to include both the existing and the new well.

### 3.2.2 Potential Impacts

As outlined in Section 2.2, no changes are proposed to the volume of reject water disposed of at Conexus, and although the existing well will be kept available as a back-up, only one well will operate at any one time. Considering Canexus's procedures to monitor, detect, and address casing leaks promptly, the potential for residual impacts to the environment from the operation of a new deep injection well is considered low and not significant.

### 3.3 Decommissioning

Should the well need to be decommissioned, appropriate mitigation measures will be followed to properly seal the well. Approval will be obtained from the Petroleum Branch to abandon the well and notification will be provided to Manitoba Sustainable Development. Impacts due to the decommissioning of the system on soil, surface water, or groundwater are not anticipated.

## 4.0 Conclusion

The new well and associated system modifications do not change the type or quantity of raw materials or substances that would be used or processed at the facility. No increase to the facility production limit of 325,000 tonnes per year or reject water disposal limit of 1,090 m<sup>3</sup> per day are requested. Although the alteration will increase the number of wells on site, only one injection well will operate at any one time. The environmental effects of this alteration are considered not significant. It is Dillon's opinion that the requested alteration is consistent in design and operation with the current licenced development.

# Appendix A

## *Salt Water Disposal Permit No. 153B*



## SALT WATER DISPOSAL PERMIT NO. 153B

Subject to The Oil and Gas Act, the Drilling and Production Regulation and the following conditions, permission is granted to **NEXEN CHEMICALS CANADA PARTNERSHIP LIMITED** to dispose of salt water into the **Ordovician Red River Formation, Silurian Interlake Group and Devonian Winnipegosis Formation** through the well, **Nexen Chemicals Brandon SWD B16-10-10-18 (WPM)**.

1. The well shall be completed for disposal as approved under Section 47 of the Drilling and Production Regulation.
2. The volume of salt water disposed through the well shall be continuously metered and reported to the Petroleum Branch on a monthly basis.
3. The maximum wellhead pressure at which water may be injected is 6000 kPa.
4. Injection profile logs to accurately determine the distribution of injected fluids between the completed intervals shall be run once every three years.
5. Nexen Chemicals Canada Partnership Limited shall ensure that the necessary approvals, permits, and licences required pursuant to The Environment Act, C.C.S.M., c.E125 and The Water Rights Act, C.C.S.M., c.W80 are obtained.
6. The Director may from time to time establish a maximum rate at which water may be injected into the well.
7. The annulus of the well shall be pressure tested in accordance with Section 50 of the Drilling and Production Regulation.
8. The permit shall expire upon abandonment or conversion of the well or may be rescinded at any time by the Director.
9. A copy of this permit is to be posted at the salt water disposal facility.

5-AUG-03.

Date

for Director of Petroleum

### PETROLEUM DOCUMENT REGISTRY

Document No. 03-902

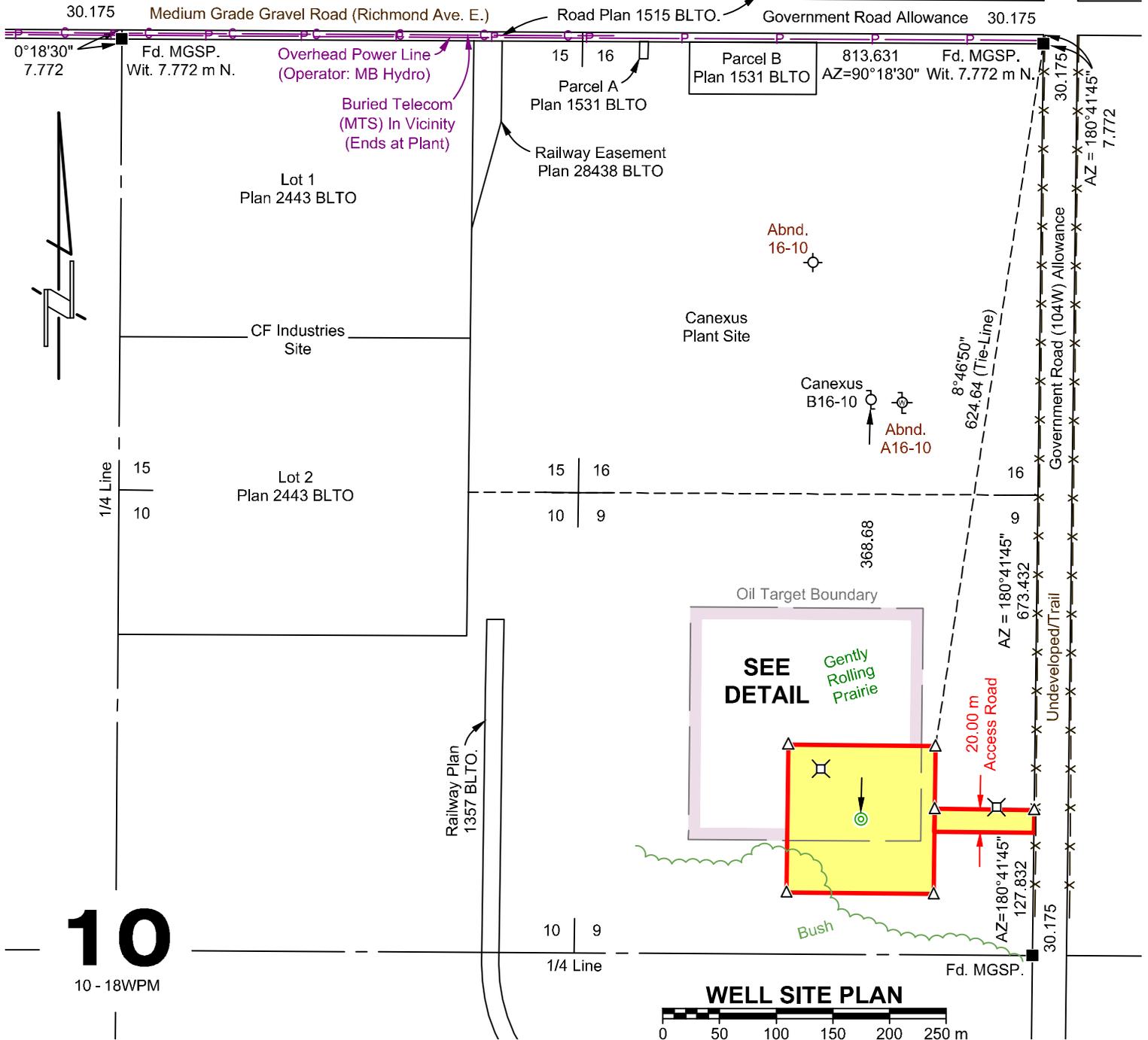
Registered: AUG 6, 2003

Petroleum Registrar

## **Appendix B**

### ***Legal Survey of Well Site***

AZ = 270°18'30"  
813.683 (N.E. 10 to N. ¼ 10)



Plan Showing Survey of  
**CANEXUS BRANDON SWD 9-10-10-18WPM**  
**Well Site and Access Road**  
**L.S.9 Sec.10 Twp.10 Rge.18 WPM**

City of Brandon

ELEVATION ON GROUND  
 AT WELL LOCATION = **365.26**

CO-ORDINATES:  
 690.16 m S. of N. Bdy. } Sec. 10  
 152.85 m W. of E. Bdy. }

GEO Co-ordinates	UTM Co-ordinates
49°49'17.496"	NAD 83 { 5519116.260 N 440449.312 E
99°49'40.365"	
49°49'17.454"	NAD 27 { 5518895.671 N 440477.970 E
99°49'38.833"	

Target Co-ordinates  
 18.81 North } From SE Corner of Oil Target  
 52.85 West }

Datum: Elevations shown are referenced to  
 Winn-Cacs-GSD 974000(Elev: 248.687).  
 Vertical Geodetic Datum CGVD28

I certify that the survey represented by this plan  
 is correct to the best of my knowledge and was  
 completed on the 24th day of November, 2015.

*K. Todd Baley*  
 Manitoba Land Surveyor

*[Signature]*  
 Witness



Azimuths are NAD 83 (Zone 14) UTM Grid.  
 All distances shown are horizontal and at ground level.  
 Combined Scale factor derived = 0.999591

AREAS:	HECTARES	ACRES
Well Site	= 1.690	4.18
Access Road	= 0.176	0.43
Total	= 1.866	4.61

CERTIFICATE OF TITLE:  
 NE 10-10-18WPM CT No. 2641467/2 (Parcel One)  
 Canexus Corporation

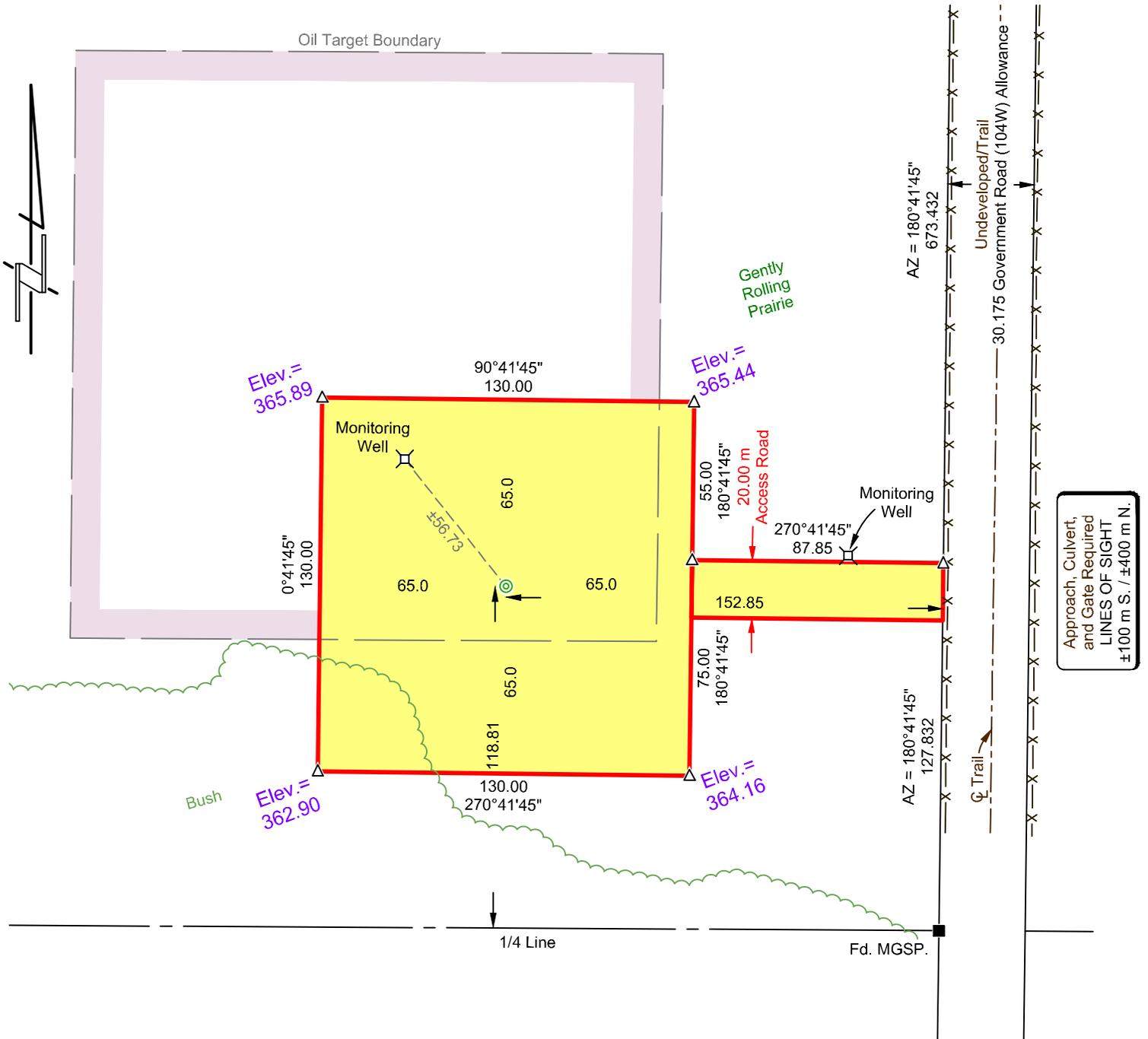
- Legal Survey Posts (found / planted) ----- ■
- Planted Wood Hub ----- △
- Surveyed Well Centre ----- ● Producer ----- ●
- Standing Well ----- ○ Abandoned Producer ----- ⊕
- Injection Well (Former Producer) ----- ⊕ Abandoned Dry ----- ⊕
- Abandoned Water Injection ----- ⊕ Injection Well ----- ⊕
- Surface Location - Horizontal / Directional / Slant ----- x
- Portions referred to outlined thus -----
- Distances are in metres.

OPERATOR:  
**CANEXUS CORPORATION**



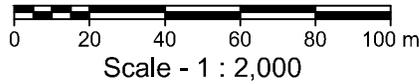
NTS Sheet: 62/G13	
Client File No.:	AFE No.:
REV. 1	Revision: Added survey ties
Date: November 30, 2015	Job No.: 189861
File: 189861W-R1	Initials: CM - MT - AV

# CANEXUS CORPORATION



Approach, Culvert, and Gate Required  
LINES OF SIGHT  
±100 m S. / ±400 m N.

### DETAIL



**The Proposed Well :**

- |   | YES                                 | NO                                  |
|---|-------------------------------------|-------------------------------------|
| - Is at least 1.5 km from the Corporate Limits of a City, Town or Village (Brandon) | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| - Is at least 100 m from a Water Covered Area                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| - Is at least 75 m from any Surface Improvements                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| - Is at least 45 m from any Surveyed Road   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| - Is at least 75 m from any Aircraft Runway or Taxiway                              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| - Is at least 75 m from any Water Well  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| - Approximately 0.0 km from the nearest Urban Centre (Brandon)                      |                                     |                                     |
| - Approximately 2.1 km from the nearest Residence (NW¼ 3-10-18WPM)                  |                                     |                                     |

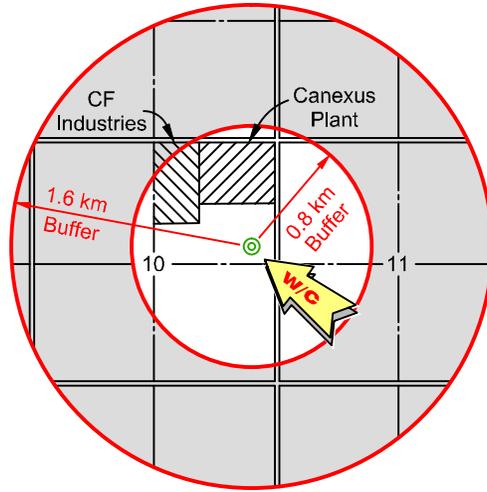


Facilities shown on this plan are for informational purposes only. Prior to any construction on lease or access road, CANEXUS CORPORATION, MTS Communications Inc., Manitoba Hydro, and Manitoba Hydro-Gas Operations **MUST** be contacted for location of any underground facilities that may exist.

**CANEXUS BRANDON SWD 9-10-10-18WPM**

Client File No.:	AFE No.:	
REV. 1	Revision: Added survey ties	
	Date: November 30, 2015	Job No.: 189861
	File: 189861W-R1	Initials: CM - MT - AV

# CANEXUS CORPORATION



## SURFACE DEVELOPMENT



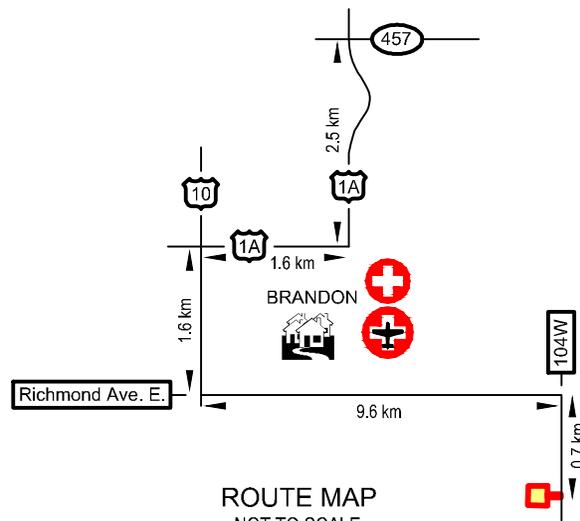
Scale - 1 : 50,000

NOTE:

Residences are shown thus:-----■

### Legend:

-  HOSPITAL
-  LIFE FLIGHT EMERGENCY SERVICE
-  SECONDARY HIGHWAY
-  PRIMARY HIGHWAY
-  MUNICIPAL ROAD
-  TRANSCANADA HIGHWAY



ROUTE MAP  
NOT TO SCALE

### CANEXUS BRANDON SWD 9-10-10-18WPM

Client File No.:	AFE No.:	
REV.	Revision: Added survey ties	
	Date: November 30, 2015	Job No.: 189861
	File: 189861W-R1	Initials: CM - MT - AV

## Appendix C

***Well Licence No. 10548***

## APPLICATION FOR WELL LICENCE

In compliance with The Oil and Gas Act and the Drilling and Production Regulation, application is hereby made for a well licence for:

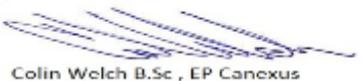
**Well Name** Canexus Brandon SWD 09-10-10-18 (WPM)  
**Well Location** 09 10 10 18 (WPM)  
 (LSD) (Quadrant) (Section) (Township) (Range)  
**Name of Well Owner** Canexus Corporation  
**Manitoba Corporation No** 820518603MC0002  
**Address of Well Owner** 8080 Richmond Ave East, Brandon Mb R7A 7R3  
**Telephone** (204)-728-3777 **Fax** (204)-726-5746  
**Surface Location** 09 10 10 18 (WPM)  
 (LSD) (Quadrant) (Section) (Township) (Range)  
**Ground Elevation** 365.26 metres above sea level

Surface Co-ordinates	Directional or Horizontal Well BottomHole Co-ordinates
690.16m S of N of Sec 10	690.16m S of N of Sec 10
152.85m W of E of Sec 10	152.85m W of E of Sec 10

**Surface Owner** Canexus Corporation  
**Occupant** Canexus Corporation  
**Royalty Owner(s)** Canexus Corporation  
**Freehold Oil and Gas Rights Leased By** Canexus Corporation  
 (Name of Oil and Gas Lease Agent and Corporation)  
**Crown Reservation or Lease No.** \_\_\_\_\_  
**Type of Well** SWD  
**Projected Total Depth** 1000.24m in Ordovician

	Casing Size O.D. mm	Weight Kg/m	Grade	From	To	Estimated Cemented Interval
1.	244.50	48.10	K-55	Surface	160.00	Surface
2.	177.80	34.23	J-55	Surface	710.00	Surface
3.				Surface		

**Drilling Contractor** To Be Determined **Rig No.** 0  
**Expected Spud Date** 15-Jul-2016  
**Responsible Agent of Company at Well** Steve Lobreau **Telephone** (306)-483-8546

  
Colin Welch B.Sc., EP Canexus

24-May-2016

(Date) DD/MMM/YYYY

(Signature of applicant)

For assistance in completing this form contact Paulette Seymour at (204) 945-6575 or Dan Surzyshyn at (204) 945-8102.

For Department Use Only

**Well Licence No.: 10548**

**UWI: 100.09-10-010-18W1.00**

**Well Classification: DEVELOPMENT (NON CONFIDENTIAL)**  
Please see attached conditions.

24-Jun-2016  
Date of Issue



Reviewed by:



Director of Petroleum

## **Lic. No. 10548 Canexus Brandon SWD 09-10-10-18 (WPM)**

A licence to drill a well known as Canexus Brandon SWD 09-10-10-18 (WPM) is hereby granted to Canexus Corporation.

The Licensee shall comply with all the provisions of the Oil and Gas Act, the Drilling and Production Regulation and the following terms and conditions:

1. The Petroleum Branch will forward a copy of the surface lease for the above location to the Surface Rights Board to satisfy the requirements of Section 15 of the Surface Right Act.
2. The licensee is to provide samples taken at 5m intervals from the surface casing shoe to T.D. One set of samples is to be washed, dried and preserved in vials that are labeled with the name of the well and the depth at which each sample was taken (in accordance with Subsection 111(2) of the regulation) and shipped to the Rock Preparation Lab at 10 Midland Street in Winnipeg.
3. Canexus must ensure that the cover of each sample cutting tray is labeled with the licence #, location and intervals for that particular tray.
4. If produced gas vented from the well contains H<sub>2</sub>S, the licensee shall ensure that the concentration of hydrogen sulphide beyond the well site does not exceed the levels set out in Schedule G. However, due to the proximity of the residence, if H<sub>2</sub>S odours are detected off-lease, the licensee may be required to install equipment to eliminate the odours.
5. Canexus is also required to sample the Stony mountain, Stonewall and wiinnipeg Formation waters to establish baseline water quality. Canexus is also required to provide an analysis of the sampled water to the petroleum branch. The analysis should include the cations: NA, K, Ca, Mg, Fe, the anions: Cl, HCO<sub>3</sub>, SO<sub>4</sub>, CO<sub>3</sub>, OH and also TDS, pH, H<sub>2</sub>S, relative density, resistivity, salinity and Total Alkalinity as CaCO<sub>3</sub>.
6. Canexus is not permitted to commence disposal until a salt water disposal permit is issued.
7. Effective June 1, 2013. All submissions are now required to be submitted in digital format, emailed to petroleum@gov.mb.ca, as per Informational Notice 13-05.  
Please ensure that the following is included in the subject line of your email: Company name, well licence #, location (bottomhole) and the type of report (see Appendix 1) for logs see Appendix 3.

