

TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

ETAS ID: TM452538

SUBMISSION TYPE:	NEW ASSIGNMENT		
NATURE OF CONVEYANCE:	SECURITY INTEREST		
CONVEYING PARTY DATA			
Name	Formerly	Execution Date	Entity Type
OSTARA NUTRIENT RECOVERY TECHNOLOGIES INC.		11/10/2017	Corporation: CANADA
RECEIVING PARTY DATA			
Name:	WHEATSHEAF GROUP LIMITED		
Street Address:	The Quarry, Hill Road, Ecclestone		
City:	Chester		
State/Country:	UNITED KINGDOM		
Postal Code:	CH4 9HQ		
Entity Type:	Company: UNITED KINGDOM		
PROPERTY NUMBERS Total: 7			
Property Type	Number	Word Mark	
Registration Number:	3532577	CRYSTAL GREEN	
Registration Number:	3865199	PEARL	
Registration Number:	3983173	ALL WAYS GREEN	
Registration Number:	3909846		
Registration Number:	4430398	CREATING VALUE FROM WASTE	
Registration Number:	4545954	OSTARA	
Registration Number:	4795742	OSTARA	
CORRESPONDENCE DATA			
Fax Number:	4168680673		
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>			
Phone:	4166017765		
Email:	bbell@mccarthy.ca		
Correspondent Name:	Bethanne Bell, McCarthy Tétrault LLP		
Address Line 1:	Suite 5300, TD Bank Tower		
Address Line 2:	Box 48, 66 Wellington Street West		
Address Line 4:	Toronto, Ontario, CANADA M5K 1E6		
NAME OF SUBMITTER:	Bethanne Bell		

CH \$190.00 3532577

SIGNATURE:	/Bethanne Bell/
DATE SIGNED:	11/29/2017
Total Attachments: 11 source=DOCS-#17267187-v1-Ostara_-_IP_Security_Agreement_2017_-_EXECUTED_VERSION#page1.tif source=DOCS-#17267187-v1-Ostara_-_IP_Security_Agreement_2017_-_EXECUTED_VERSION#page2.tif source=DOCS-#17267187-v1-Ostara_-_IP_Security_Agreement_2017_-_EXECUTED_VERSION#page3.tif source=DOCS-#17267187-v1-Ostara_-_IP_Security_Agreement_2017_-_EXECUTED_VERSION#page4.tif source=DOCS-#17267187-v1-Ostara_-_IP_Security_Agreement_2017_-_EXECUTED_VERSION#page5.tif source=DOCS-#17267187-v1-Ostara_-_IP_Security_Agreement_2017_-_EXECUTED_VERSION#page6.tif source=DOCS-#17267187-v1-Ostara_-_IP_Security_Agreement_2017_-_EXECUTED_VERSION#page7.tif source=DOCS-#17267187-v1-Ostara_-_IP_Security_Agreement_2017_-_EXECUTED_VERSION#page8.tif source=DOCS-#17267187-v1-Ostara_-_IP_Security_Agreement_2017_-_EXECUTED_VERSION#page9.tif source=DOCS-#17267187-v1-Ostara_-_IP_Security_Agreement_2017_-_EXECUTED_VERSION#page10.tif source=DOCS-#17267187-v1-Ostara_-_IP_Security_Agreement_2017_-_EXECUTED_VERSION#page11.tif	

**INTELLECTUAL PROPERTY SECURITY AGREEMENT
(OSTARA NUTRIENT RECOVERY TECHNOLOGIES INC.)**

This Intellectual Property Security Agreement (“**Agreement**”) is entered into as of November 10, 2017, between WHEATSHEAF GROUP LIMITED (the “**Collateral Agent**”) a company registered in England and Wales, in its capacity as collateral agent for the benefit of the Secured Parties (as defined herein) and OSTARA NUTRIENT RECOVERY TECHNOLOGIES INC., a corporation incorporated under the laws of Canada (the “**Debtor**”).

RECITALS

A. Wheatsheaf Group Limited, VantagePoint Venture Partners 2006 (Q), L.P., VantagePoint CleanTech Partners II, L.P., Fredric W. Corrigan and Steven Pinney (collectively, the “**Secured Parties**”) have agreed to purchase certain convertible notes issued by the Debtor (as the same may be amended, modified or supplemented from time to time, the “**Convertible Notes**”) pursuant to the terms and conditions of a convertible note purchase agreement among, inter alia, the Secured Parties and the Debtor dated as of even date herewith (as the same may be amended, modified or supplemented from time to time, the “**Note Purchase Agreement**”). Capitalized terms used herein without definition are used as defined in the Security Agreement (as defined below).

B. To secure the indebtedness, liabilities and obligations of the Debtor to the Secured Parties pursuant to the Convertible Notes, the Note Purchase Agreement, the Security Agreement (as defined below), this Agreement, and any other documents in connection with the Note Purchase Agreement (collectively, the “**Obligations**”) the Debtor shall grant to the Collateral Agent, on behalf of the Secured Parties, a security interest in its Intellectual Property.

C. Pursuant to the terms of a general security agreement by the Debtor in favour of the Collateral Agent dated as of even date herewith (as the same may be amended, modified or supplemented from time to time, the “**Security Agreement**”), the Debtor has granted to the Collateral Agent a security interest in all of Debtor's present and after acquired personal property including, without limitation, all of the Debtor's right, title and interest, whether presently existing or hereafter acquired, in, to and under its Intellectual Property.

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, and intending to be legally bound, as collateral security for the prompt and complete payment and performance when due of the Obligations, the Debtor hereby represents, warrants, covenants and agrees as follows:

AGREEMENT

1. To secure the Obligations, the Debtor grants and pledges to the Collateral Agent a security interest in all of Debtor's right, title and interest, whether presently existing or hereafter acquired, in, to and under its Intellectual Property (including without limitation those Copyrights, Patents and Trademarks listed on Exhibits A, B and C hereto), and including without limitation all proceeds thereof (such as, by way of example but not by way of

limitation, license royalties and proceeds of infringement suits), the right to sue for past, present and future infringements, and all rights corresponding thereto throughout the world.

2. The security interests are granted under this Agreement in conjunction with the security interest granted to the Collateral Agent under the Security Agreement. The rights and remedies of the Collateral Agent with respect to the security interest granted hereby are in addition to those set forth in the Security Agreement and the other Transaction Documents, and those which are now or hereafter available to the Collateral Agent as a matter of law or equity. Each right, power and remedy of the Collateral Agent provided for herein or in the Security Agreement or any of the Transaction Documents, or now or hereafter existing at law or in equity shall be cumulative and concurrent and shall be in addition to every right, power or remedy provided for herein and the exercise by the Collateral Agent of any one or more of the rights, powers or remedies provided for in this Agreement, the Security Agreement or any of the other Transaction Documents, or now or hereafter existing at law or in equity. shall not preclude the simultaneous or later exercise by any person, including the Collateral Agent, of any or all other rights. powers or remedies.
3. The security interest granted under this Agreement is hereby expressly subordinated to the security interest granted in favour of Comerica Bank pursuant to the Comerica Security Documents.
4. The Debtor represents and warrants that Exhibits A, B, and C attached hereto set forth any and all Intellectual Property in connection to which the Debtor has registered or filed an application with any of the United States Patent and Trademark Office, the United States Copyright Office or the Canadian Intellectual Property Office, as applicable.
5. The Debtor hereby irrevocably appoints the Collateral Agent (and any of the Collateral Agent's designated officers, or employees) as the Debtor's true and lawful attorney to modify, in its sole discretion, this Agreement without first obtaining the Debtor's approval of or signature to such modification by amending Exhibits A, B, and C, hereto, as appropriate, to include reference to any right, title or interest in any Copyrights, Patents or Trademarks acquired by the Debtor after the execution hereof or to delete any reference to any right, title or interest in any Copyrights, Patents or Trademarks in which the Debtor no longer has or claims to have any right, title or interest. The appointment of the Collateral Agent as the Debtor's attorney in fact, and each and every one of the Collateral Agent's rights and powers, being coupled with an interest, is irrevocable until all of the Obligations have been fully repaid and performed and the Collateral Agent's obligation to provide advances or purchase any additional notes is terminated. The Debtor authorizes and requests that the Canadian Intellectual Property Office and any other applicable government office record this Agreement.
6. This Agreement may be executed in any number of counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same agreement.
7. This Agreement will be governed by the laws of British Columbia and the laws of Canada applicable therein, without reference to its principles regarding conflicts of laws.

[Signatures on following page]

IN WITNESS WHEREOF, the parties have caused this Intellectual Property Security Agreement to be duly executed by its officers thereunto duly authorized as of the first date written above.

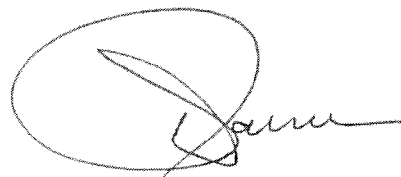
Address of the Debtor:

Suite 690, 1199 W. Pender Street
Vancouver, BC V6E 2R1

The Debtor:

**OSTARA NUTRIENT RECOVERY
TECHNOLOGIES INC.**

By:



Name: Dan Parmar

Title: President & Chief Executive
Officer

Address of the Collateral Agent:

The Quarry, Hill Road, Eccleston, Chester,
CH4 9HQ

The Collateral Agent:

WHEATSHEAF GROUP LIMITED

By:



Name:

Title: *CEO*

EXHIBIT A

Copyrights

None.

EXHIBIT B

Patents

[See attached]




Title	Pending	Granted	Jurisdiction	Application/Patent Number	Owner
Fluidized Bed Wastewater Treatment		X	Canada	2552842	University of British Columbia
Fluidized Bed Wastewater Treatment		X	USA	7622047	University of British Columbia
Fluidized Bed Wastewater Treatment		X	USA	7922897	University of British Columbia
Fluidized Bed Wastewater Treatment		X	Australia	2004315614	University of British Columbia
Fluidized Bed Wastewater Treatment		X	South Korea	10-1098890	University of British Columbia
Fluidized Bed Wastewater Treatment		X	PRC (China)	1964921	University of British Columbia
Fluidized Bed Wastewater Treatment	X		Europe	1713732	University of British Columbia
Method for Fines Control		X	USA	8999007	Ostara Nutrient Recovery Technologies Inc.
Reactor Apparatus And Methods For Fines Control	X		Canada	2917720	Ostara Nutrient Recovery Technologies Inc.
Method for Fines Control	X		Europe	14823442.0	Ostara Nutrient Recovery Technologies Inc.
Reactor Apparatus And Methods For Fines Control	X		China	105611985	Ostara Nutrient Recovery Technologies Inc.
Slow and Fast Release Fertilizer Composition and Methods for Making Same		X	Canada	2914452	Ostara Nutrient Recovery Technologies Inc.
Slow and Fast Release Fertilizer Composition and Methods for Making Same	X		USA	14/895570	Ostara Nutrient Recovery Technologies Inc.
Slow and Fast Release Fertilizer Composition and Methods for Making Same	X		China	CN105452197	Ostara Nutrient Recovery Technologies Inc.
Slow and Fast Release Fertilizer Composition and Methods for Making Same	X		Europe	14811297.2	Ostara Nutrient Recovery Technologies Inc.
Treatment Of Phosphate-Containing Wastewater	X		Canada	2799294	Ostara Nutrient Recovery Technologies Inc.
Treatment Of Phosphate-Containing Wastewater	X		Brazil	BR 112012029278.1	Ostara Nutrient Recovery Technologies Inc.
Treatment Of Phosphate-Containing Wastewater	X		USA	13/698129	Ostara Nutrient Recovery Technologies Inc.
Treatment Of Phosphate-Containing Wastewater		X	Mexico	339660	Ostara Nutrient Recovery Technologies Inc.
Treatment Of Phosphate-Containing Wastewater		X	Morocco	34312	Ostara Nutrient Recovery Technologies Inc.
Treatment Of Phosphate-Containing Wastewater With Fluorosilicate And Phosphate Recovery	X		Canada	2845019	Ostara Nutrient Recovery Technologies Inc.
Treatment Of Phosphate-Containing Wastewater With Fluorosilicate And Phosphate Recovery	X		Brazil	112014006571	Ostara Nutrient Recovery Technologies Inc.
Treatment Of Phosphate-Containing Wastewater With Fluorosilicate And Phosphate Recovery	X		USA	14/240701	Ostara Nutrient Recovery Technologies Inc.
Treatment Of Phosphate-Containing Wastewater With Fluorosilicate And Phosphate Recovery	X		Mexico	MX/a/2014/002082	Ostara Nutrient Recovery Technologies Inc.
Treatment Of Phosphate-Containing Wastewater With Fluorosilicate And Phosphate Recovery		X	Morocco	35528	Ostara Nutrient Recovery Technologies Inc.
Treatment Of Phosphate-Containing Wastewater With Fluorosilicate And Phosphate Recovery	X		PRC (China)	201280046358.7	Ostara Nutrient Recovery Technologies Inc.
Reactor For Precipitating Solutes From Wastewater and Associated Methods		X	Australia	2012225140	Ostara Nutrient Recovery Technologies Inc.
Reactor For Precipitating Solutes From Wastewater and Associated Methods	X		Brazil	112013022778	Ostara Nutrient Recovery Technologies Inc.

Title	Pending	Granted	Jurisdiction	Application/Patent Number	Owner
Reactor For Precipitating Solutes From Wastewater and Associated Methods	X		Canada	2829113	Ostara Nutrient Recovery Technologies Inc.
Reactor For Precipitating Solutes From Wastewater and Associated Methods		X	China	CN103492322	Ostara Nutrient Recovery Technologies Inc.
Reactor For Precipitating Solutes From Wastewater and Associated Methods	X		Europe	2683659	Ostara Nutrient Recovery Technologies Inc.
Reactor For Precipitating Solutes From Wastewater and Associated Methods	X		Mexico	MX/a/2013/010229	Ostara Nutrient Recovery Technologies Inc.
Reactor For Precipitating Solutes From Wastewater and Associated Methods	X		Morocco	35022	Ostara Nutrient Recovery Technologies Inc.
Reactor For Precipitating Solutes From Wastewater and Associated Methods	X		South Korea	1020137026441	Ostara Nutrient Recovery Technologies Inc.
Reactor For Precipitating Solutes From Wastewater and Associated Methods	X		USA	14/003777	Ostara Nutrient Recovery Technologies Inc.
Methods And Apparatus For Struvite Recovery Using Upstream CO2 Injection	X		Europe	2489641	Ostara Nutrient Recovery Technologies Inc.
Methods And Apparatus For Struvite Recovery Using Upstream Phosphate Injection		X	Europe	EP2489640 (and its validations including in Spain, Belgium, Ireland, Luxembourg, Monaco, Germany, UK, and Netherlands)	Ostara Nutrient Recovery Technologies Inc.
Methods And Apparatus For Struvite Recovery Using Upstream Phosphate Injection		X	United Kingdom	EP2489640	Ostara Nutrient Recovery Technologies Inc.
Methods And Apparatus For Struvite Recovery Using Upstream Phosphate Injection		X	Spain	ES2625530	Ostara Nutrient Recovery Technologies Inc.
Methods And Apparatus For Struvite Recovery Using Upstream Phosphate Injection		X	Germany	602012030660.2	Ostara Nutrient Recovery Technologies Inc.
Methods And Apparatus For Struvite Recovery Using Upstream Phosphate Injection		X	Netherlands	NL2489640	Ostara Nutrient Recovery Technologies Inc.
Waste Activated Sludge Stripping To Remove Internal Phosphorus		X	USA	7604740	Clean Water Institute
Waste Activated Sludge Stripping To Remove Internal Phosphorus		X	USA	8496827	Clean Water Institute
Waste Activated Sludge Stripping To Remove Internal Phosphorus		X	South Korea	10-1304396000	Clean Water Institute
Waste Activated Sludge Phosphorus and Magnesium Stripping Process and Struvite Production System		X	Canada	2686114	Clean Water Institute
Waste Activated Sludge Stripping To Remove Internal Phosphorus		X	Australia	2009209439	Clean Water Institute
Waste Activated Sludge Stripping To Remove Internal Phosphorus		X	China	101970360	Clean Water Institute
Waste Activated Sludge Stripping To Remove Internal Phosphorus		X	Europe	2238081 (and its validations)	Clean Water Institute
Waste Activated Sludge Stripping To Remove Internal Phosphorus		X	Russia	2454374	Clean Water Institute
Waste Activated Sludge Stripping To Remove Internal Phosphorus		X	Singapore	174002	Clean Water Institute
Waste Activated Sludge Stripping To Remove Internal Phosphorus		X	New Zealand	586702	Clean Water Institute
Waste Activated Sludge Stripping To Remove Internal Phosphorus		X	South Africa	201005666	Clean Water Institute
Waste Activated Sludge Stripping To Remove Internal Phosphorus		X	Singapore	174002	Clean Water Institute
Waste Activated Sludge Phosphorus and Magnesium Stripping Process and Struvite Production System		X	Spain	2604964	Clean Water Institute
Waste Activated Sludge Phosphorus and Magnesium Stripping Process and Struvite Production System		X	Denmark	2238081	Clean Water Institute

EXHIBIT C

Trademarks

[See attached]

Mark	Pending	Granted	Jurisdiction	Application/Mark Number	Owner
CRYSTAL GREEN		X	Canada	TMA717,588	Ostara Nutrient Recovery Technologies Inc.
CRYSTAL GREEN		X	United States	3,532,577	Ostara Nutrient Recovery Technologies Inc.
CRYSTAL GREEN		X	European Community	005350186	Ostara Nutrient Recovery Technologies Inc.
CRYSTAL GREEN		X	China	10675407	Ostara Nutrient Recovery Technologies Inc.
PEARL		X	Canada	TMA760,919	Ostara Nutrient Recovery Technologies Inc.
PEARL		X	United States	3,865,199	Ostara Nutrient Recovery Technologies Inc.
PEARL		X	European Community	007604168	Ostara Nutrient Recovery Technologies Inc.
ALWAYS GREEN		X	Canada	TMA 584,976	Ostara Nutrient Recovery Technologies Inc.
ALL WAYS GREEN		X	Canada	TMA790,894	Ostara Nutrient Recovery Technologies Inc.
ALL WAYS GREEN		X	United States	3,983,173	Ostara Nutrient Recovery Technologies Inc.
ALL WAYS GREEN		X	European Community	008637555	Ostara Nutrient Recovery Technologies Inc.
Flower Design Logo 		X	Canada	TMA776,695	Ostara Nutrient Recovery Technologies Inc.
Flower Design Logo 		X	United States	3,909,846	Ostara Nutrient Recovery Technologies Inc.
Flower Design Logo 		X	European Community	008637381	Ostara Nutrient Recovery Technologies Inc.
CREATING VALUE FROM WASTE		X	Canada	TMA854371	Ostara Nutrient Recovery Technologies Inc.
CREATING VALUE FROM WASTE		X	United States	4,430,398	Ostara Nutrient Recovery Technologies Inc.
OSTARA - CREATING VALUE FROM WASTE		X	European Community	009362831	Ostara Nutrient Recovery Technologies Inc.
OSTARA		X	Canada	TMA855514	Ostara Nutrient Recovery Technologies Inc.
OSTARA		X	Canada	TMA934138	Ostara Nutrient Recovery Technologies Inc.
OSTARA		X	United States	4545954	Ostara Nutrient Recovery Technologies Inc.
OSTARA		X	United States	4795742	Ostara Nutrient Recovery Technologies Inc.