

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT3892641

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT	
<b>NATURE OF CONVEYANCE:</b>	SECURITY INTEREST	
<b>CONVEYING PARTY DATA</b>		
	<b>Name</b>	<b>Execution Date</b>
	EARTH TECHNOLOGIES USA LIMITED	08/28/2015
<b>RECEIVING PARTY DATA</b>		
<b>Name:</b>	HENDRICKS RESOURCES LIMITED	
<b>Street Address:</b>	30A BROOK STREET	
<b>City:</b>	LONDON	
<b>State/Country:</b>	ENGLAND	
<b>Postal Code:</b>	W1K5DJ	
<b>PROPERTY NUMBERS Total: 1</b>		
	<b>Property Type</b>	<b>Number</b>
	<b>Application Number:</b>	14586685
<b>CORRESPONDENCE DATA</b>		
<b>Fax Number:</b>		
<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>		
<b>Email:</b>	Alyssa.Hicks@dinsmore.com	
<b>Correspondent Name:</b>	DINSMORE & SHOHL LLP	
<b>Address Line 1:</b>	255 E. 5TH ST.	
<b>Address Line 2:</b>	SUITE 1900	
<b>Address Line 4:</b>	CINCINNATI, OHIO 45202	
<b>NAME OF SUBMITTER:</b>	ALYSSA HICKS	
<b>SIGNATURE:</b>	/Alyssa Hicks/	
<b>DATE SIGNED:</b>	05/27/2016	
<b>Total Attachments: 12</b>		
source=Intellectual_Property_Security_Agreement_5-27-16#page1.tif		
source=Intellectual_Property_Security_Agreement_5-27-16#page2.tif		
source=Intellectual_Property_Security_Agreement_5-27-16#page3.tif		
source=Intellectual_Property_Security_Agreement_5-27-16#page4.tif		
source=Intellectual_Property_Security_Agreement_5-27-16#page5.tif		
source=Intellectual_Property_Security_Agreement_5-27-16#page6.tif		
source=Intellectual_Property_Security_Agreement_5-27-16#page7.tif		

source=Intellectual\_Property\_Security\_Agreement\_5-27-16#page8.tif  
source=Intellectual\_Property\_Security\_Agreement\_5-27-16#page9.tif  
source=Intellectual\_Property\_Security\_Agreement\_5-27-16#page10.tif  
source=Intellectual\_Property\_Security\_Agreement\_5-27-16#page11.tif  
source=Intellectual\_Property\_Security\_Agreement\_5-27-16#page12.tif

INTELLECTUAL PROPERTY SECURITY AGREEMENT

This INTELLECTUAL PROPERTY SECURITY AGREEMENT (this “**IP Security Agreement**”) dated as of August 28, 2015 is entered into by and among Omnis Mineral Technologies, LLC, a Delaware limited liability company (together with its successors and assigns, “**Omnis**”), Earth Technologies USA Limited, a Hong Kong corporation (together with its successors and assigns, “**ETHK**” and together with Omnis, the “**Grantors**”) and Hendricks Resources Limited, a Jersey company (together with its successors and assigns, the “**Secured Party**”, and together with the Grantors, the “**Parties**”).

W I T N E S S E T H:

WHEREAS, Omnis, the Secured Party and Thirty Brook (as defined below) have entered into the Transaction Agreements (as defined below), and the Parties desire that the Grantors grant the Secured Party a security interest in the Collateral (as defined below) to secure certain obligations of Omnis and its Affiliates under the Transaction Agreements.

NOW, THEREFORE, in consideration of the foregoing premises and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the Parties, the Parties hereby agree as follows:

1. *Definitions.* The following terms shall have the following meanings:

“**Affiliate**” shall mean, with respect to any Person, any other Person directly or indirectly controlling, controlled by, or under common control with such other Person at any given time. For the purpose of this definition, the term “control” (including its correlative meanings, the terms “controlling”, “controlled by” and “under common control with”), as used with respect to any Person, means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of such Person, whether through the ownership of voting securities, by contract or otherwise.

“**Applicable Law**” shall mean, with respect to any Person, any federal, state or local law (statutory, common or otherwise), constitution, treaty, convention, ordinance, code, rule, regulation, order, injunction, judgment, decree, ruling or other similar requirement enacted, adopted, promulgated or applied by a governmental authority that is binding upon or applicable to such Person, as amended unless expressly specified otherwise.

“**Copyrights**” shall mean, collectively, copyrights (whether registered or unregistered in the United States or any other country or jurisdiction or any political subdivision thereof) and all mask works (as such term is defined in 17 U.S.C. Section 901, et seq.), together with any and all (i) registrations and applications therefor, (ii) rights and privileges arising under Applicable Law with respect to such copyrights, (iii) renewals and extensions thereof and amendments

thereto, (iv) income, proceeds, fees, royalties, damages, claims and payments now or hereafter due and/or payable thereunder and with respect thereto, including, without limitation, damages, claims and payments for past, present and future infringements, misappropriations or other violations thereof, (v) rights and remedies to sue for past, present and future infringements, misappropriations and other violations of any of the foregoing and (iv) rights, priorities, and privileges corresponding to any of the foregoing throughout the world.

**“Intellectual Property Rights”** shall mean any and all intellectual property rights, including rights in Copyrights, Patents, Trade Secrets and Trademarks, together with rights in any and all improvements made thereto.

**“Letter Agreement”** shall mean that certain letter agreement by and between Omnis and the Secured Party, dated as of the date hereof, together with any and all amendments thereto.

**“Liens”** shall mean, with respect to any property or asset, any mortgage, lien, pledge, charge, security interest or encumbrance in respect of such property or asset.

**“Loan Agreement”** shall mean that certain loan agreement, dated as of March 29, 2015, by and between Omnis and the Secured Party, together with any and all amendments thereto.

**“Patents”** shall mean, collectively, patents, patent applications, certificates of inventions, industrial designs (whether issued or applied-for in the United States or any other country or jurisdiction or any political subdivision thereof), together with any and all (i) inventions and improvements described and claimed therein, (ii) reissues, divisions, continuations, extensions and continuations-in-part thereof and amendments thereto, (iii) income, proceeds, fees, royalties, damages, and payments now and hereafter due and/or payable under or with respect to any of the foregoing, including, without limitation, damages, claims and payments for past, present and future infringements, misappropriations and other violations thereof, (iv) rights and remedies to sue for past, present and future infringements, misappropriations and other violations of any of the foregoing and (v) rights, priorities, and privileges corresponding to any of the foregoing throughout the world.

**“Person”** shall mean an individual, corporation, partnership, limited liability company, association, trust or other entity or organization.

**“Proceeds”** shall mean all “proceeds” (as such term is defined in Section 9-102(a)(64) of the Uniform Commercial Code as from time to time in effect in the State of New York (the “**New York UCC**”)), including, in any event, all dividends, returns of capital and other distributions and income from “investment property” (as such term is defined in Section 9-102(a)(49) of the New York UCC) and all collections thereon and payments with respect thereto.

**“Project Agreement”** shall mean that certain agreement, dated as of January 24, 2015, by and among Omnis, the Secured Party and CAST Americas LLC, together with any and all amendments thereto.

**“Technology”** shall mean all technology owned by Grantors and their Affiliates that converts certain coal products and by-products, such as process coal slurry, underflow, coal refuse, other coal waste products and other products and by-products into all viable products for resale including, without limitation, agricultural minerals, coal water fuel, solid carbon fuel and metallurgical coal.

**“Thirty Brook”** shall mean Thirty Brook Limited.

**“Thirty Brook Agreement”** shall mean that certain letter agreement, dated as of the date hereof, by and between Omnis and Thirty Brook, together with any and all amendments thereto.

**“Trade Secrets”** shall mean, collectively, (i) all trade secrets, confidential information, know-how and proprietary processes, designs, inventions, technology, and proprietary methodologies, algorithms, and information, (ii) income, proceeds, fees, royalties, damages, claims and payments now or hereafter due and/or payable thereunder and with respect thereto including, without limitation, damages and payments for past, present and future infringements, misappropriations or other violations with respect thereto, (iii) rights and remedies to sue for past, present and future infringements, misappropriations and other violations of any of the foregoing and (iv) rights, priorities, and privileges corresponding to any of the foregoing throughout the world.

**“Trademarks”** shall mean, collectively, all trademarks, service marks, certification marks, tradenames, corporate names, company names, business names, slogans, logos, trade dress, internet domain names, and other source identifiers, whether registered or unregistered in the United States or any other country or jurisdiction or any political subdivision thereof, together with any and all (i) registrations and applications for any of the foregoing, (ii) goodwill connected with the use thereof and symbolized thereby, (iii) rights and privileges arising under Applicable Law with respect to the use of any of the foregoing, (iv) extensions and renewals thereof and amendments thereto, (v) income, proceeds, fees, royalties, damages and payments now and hereafter due and/or payable under or with respect to any of the foregoing, including, without limitation, damages, claims and payments for past, present or future infringements, misappropriations or other violations thereof, (vi) rights and remedies to sue for past, present and future infringements, misappropriations and other violations of any of the foregoing and (vii) rights, priorities, and privileges corresponding to any of the foregoing throughout the world.

**“Transaction Agreements”** shall mean the Letter Agreement, the Loan Agreement, the Project Agreement and the Thirty Brook Agreement.

2. *Security Interest.* In order to secure the obligations referred to in Paragraph 3 hereof, each Grantor, on behalf of itself and its Affiliates, hereby grants to the Secured Party a continuing security interest in, to and under the Technology, together with all Intellectual Property Rights therein and related thereto, whether now owned, or at any time hereafter acquired by, such Grantor or any its Affiliates, or in which such Grantor or any of its Affiliates now has, or at any time in the future may acquire, any right, title or interest, including (a) the Patents set forth on Exhibit A and (b) the Trademarks set forth on Exhibit B, and together with all Proceeds in or arising from any of the foregoing (collectively, the “**Collateral**”).

3. *Secured Obligations.* The obligations secured hereby are the exclusive rights granted by Omnis and its Affiliates to (a) the Secured Party under (i) Section 5.1 of the Loan Agreement, (ii) Section 7 of the Project Agreement and (iii) Paragraphs 4 and 6 of the Letter Agreement and Exhibit B thereto, and (b) Thirty Brook under Paragraphs 4 and 5 of the Thirty Brook Agreement and Exhibit A thereto (collectively, the “**Exclusive Rights**”).

4. *Remedies.* Upon any breach of any of the Exclusive Rights by any Grantor or any of its Affiliates (any such breach, an “**Event of Default**”) which breach is not cured within fifteen days of written notice by the Secured Party to ETHK of the alleged breach, (a) the Secured Party may exercise all rights and remedies available to a secured party under the Uniform Commercial Code or other Applicable Law with respect to the Collateral, including sale or other disposal of the Collateral or any part thereof and (b) any and all license agreements among the Grantors and their Affiliates with respect to the Collateral shall automatically terminate and be of no continuing effect. Notwithstanding anything herein to the contrary, and without limiting the foregoing, York Global Finance 48, LLC is hereby made a third party beneficiary of this IP Security Agreement with respect to the rights and remedies provided to the Secured Party under this Section 4, including the right to enforce such rights and remedies.

5. *Representations of Grantors.* Each Grantor hereby represents and warrants to the Secured Party that:

(a) Except for the security interest granted to the Secured Party pursuant to this IP Security Agreement, the Grantors and their Affiliates are the sole and exclusive owners of, and hold all right, title and interest in, to and under, each item of Collateral free and clear of any Liens. No financing statement or other public notice with respect to all or any part of the Collateral is on file or of record in any public office, except such as have been filed in favor of the Secured Party.

(b) This IP Security Agreement is effective to create in favor of the Secured Party legal, valid and enforceable Liens on, and security interests in, all of the Grantors’ right, title and interest in and to the Collateral hereunder, and when all appropriate filings or recordings are

made in the appropriate offices as may be required under Applicable Law, this IP Security Agreement will constitute first priority fully perfected Liens on, and security interests in, all right, title and interest of the Grantors in such Collateral.

6. *Covenants of Grantors.* Each Grantor hereby covenants to the Secured Party as follows:

(a) Without the prior written consent of the Secured Party, neither such Grantor nor any of its Affiliates shall sell, license, exchange, assign or otherwise transfer or dispose of, or grant any rights with respect to, or mortgage or otherwise encumber, any of the Collateral, other than (i) pursuant to non-exclusive licenses in the ordinary course of business, but in each case subject to any exclusive license granted to the Secured Party and/or any of its Affiliates pursuant to any Transaction Agreement (including any exhibit thereto), (ii) pursuant to licenses of the Intellectual Property Rights in the Collateral to any wholly-owned subsidiary of the Secured Party or (iii) to a wholly-owned Affiliate of such Grantor upon written notice to the Secured Party (provided that such transferee shall assume all rights and obligations of such Grantor hereunder including executing an applicable joinder agreement, and any purported transfer in violation of the foregoing shall be void ab initio).

(b) Such Grantor will notify the Secured Party promptly if it knows that any application or registration relating to any Collateral may become abandoned or dedicated to the public, or of any adverse determination or development (including the institution of, or any adverse determination or development in, any proceeding in the United States Copyright Office, the United States Patent and Trademark Office or any court) regarding such Grantor's or its Affiliates' ownership of such Collateral, its or its Affiliates' right to register or patent the same, or its or its' Affiliates right to keep and maintain the same.

(c) If any of such Grantor's or its Affiliates' rights to any Collateral are infringed, misappropriated or diluted by a third party, such Grantor will notify the Secured Party within 30 days after it learns thereof and will, unless such Grantor shall reasonably determine that such action would be of negligible value, economic or otherwise, promptly sue for infringement, misappropriation or dilution and to recover any and all damages for such infringement, misappropriation or dilution, and take such other actions as such Grantor shall reasonably deem appropriate under the circumstances to protect such Collateral.

7. *Term.* This IP Security Agreement shall terminate upon the last to terminate or expire of the Exclusive Rights (it being understood that, notwithstanding the foregoing, in no event shall this IP Security Agreement terminate if the termination or expiration of any such Exclusive Right occurs in

any way due to the fact that any Grantor or any of its Affiliates (a) dissolves or is the subject of any dissolution, a winding up or liquidation; (b) makes a general assignment for the benefit of creditors; (c) is insolvent or unable to pay its debts as they become due; or (d) files or has filed against it a petition in bankruptcy, for a reorganization or an arrangement, or for a receiver, trustee or similar creditors' representative for its property or assets or any part thereof, or any other proceeding under any Applicable Law).

8. *Financing Statements; Further Assurances.* The Grantors hereby authorize the Secured Party to file any financing statement or similar record in any filing office or otherwise with any governmental authority the Secured Party deems appropriate, such record to be in such form as the Secured Party deems appropriate. The Grantors will do, and will cause their Affiliates to do, all such further things and execute such further documents as the Secured Party may reasonably request to record, confirm, perfect or validate the foregoing grant of security or to enable the Secured Party to protect and enforce the same.

9. *Power of Attorney.* Each Grantor, on behalf of itself and its Affiliates, hereby appoints and constitutes the Secured Party (and all Persons designated by the Secured Party) as such Grantor's and its Affiliates' true and lawful attorney-in-fact, with full power of substitution, for the purpose of carrying out the provisions of this IP Security Agreement and taking any action and executing any instrument that the Secured Party may deem necessary or advisable to accomplish the purposes hereof at any time after the occurrence and during the continuance of any Event of Default (subject to the cure period set forth in Section 4). Each power of attorney granted in the preceding sentence is coupled with an interest and shall be irrevocable prior to the termination of this IP Security Agreement pursuant to Paragraph 7 hereof.

10. *Governing Law.* This IP Security Agreement and the rights and obligations of the Parties under this IP Security Agreement shall be governed by and construed in accordance with the laws of the State of New York, without regard to the conflicts of law rules of such state.

11. *Counterparts.* This IP Security Agreement may be executed in any number of counterparts, all of which taken together shall be deemed to constitute one and the same document.

12. *Notices.* All notices shall be sent via email to the addresses set out below:

To: Omnis

Omnis Mineral Technologies, LLC  
3757 State Street  
Suite 2A



Santa Barbara, CA 93105  
Attention: Simon Hodson

With a copy to:

Charles Kolstad, Esq.  
Venable LLP  
2049 Century Park East, Suite 2100  
Los Angeles, CA 90067  
Facsimile: +1 310-229-9901  
Email: Ckkolstad@Venable.com

To: ETHK

Earth Technologies USA Limited  
c/o: King & Wood Mallesons  
Hutchinson House, 9th Floor  
10 Harcourt Road, Central, Hong Kong  
Facsimile: + 852 3443-1299

To: Secured Party

Hendricks Resources Limited  
30A Brook Street  
London, England W1K5DJ  
Attention: Julian McIntyre

*[Remainder of this page left intentionally blank.]*

**IN WITNESS WHEREOF**, the Parties have caused this IP Security Agreement to be executed and delivered by their duly authorized representatives upon the date first herein written.

OMNIS MINERAL  
TECHNOLOGIES, LLC

HENDRICKS RESOURCES LIMITED

By: \_\_\_\_\_  
Title: \_\_\_\_\_

By: \_\_\_\_\_  
Title: \_\_\_\_\_

EARTH TECHNOLOGIES USA  
LIMITED

By: \_\_\_\_\_  
Title: \_\_\_\_\_

[Signature Page to Omnis/Hendricks IP Security Agreement]

IN WITNESS WHEREOF, the Parties have caused this IP Security Agreement to be executed and delivered by their duly authorized representatives upon the date first herein written.

OMNIS MINERAL  
TECHNOLOGIES, LLC

HENDRICKS RESOURCES LIMITED

By: \_\_\_\_\_  
Title:

By:  \_\_\_\_\_  
Title: Director

EARTH TECHNOLOGIES USA  
LIMITED

By: \_\_\_\_\_  
Title:

[Signature Page to Omnis/Hendricks IP Security Agreement]

**Exhibit A**  
**Patents**

The intellectual property licensed by Earth Technologies USA Limited incorporates the use of standard processing equipment found in the coal and related industries as well as proprietary intellectual property to create a more efficient refining process in terms of output quality and economics. The manufacturing process requires the following processing steps in the production of coal products:

1. Milling, Cleaning and Separation Circuit: Wet materials processing, wherein the raw coal is made into a highly dispersed fine particle and water slurry of 50 wt.% solids,
2. Flotation Circuit: Separation of coal particles and non-coal particles via micro-bubble optimized flotation technology,
3. Milling, Mixing, Dewatering Circuit for CWF: Sizing and moisture control of coal particles to create a flowable water carbon fuel,
4. Dewatering Circuit: Dewatering using rotary vacuum filtration with vibration assist,
5. Mixing, Extrusion Circuit: Mixing for homogenization and extrusion of coal pellets,
6. Drying Circuit: Dewater the pellets to a moisture content of less than 2%,
7. Coating Circuit: Coating for water resistance and product stability,
8. Mineral Matter Processing: Dewatering and drying of mineral matter,

The process technology includes the following novel and unique features:

1. The input slurry of raw materials has a maximum particle size of less than 0.3 mm and an average particle size of approximately 0.15 mm.
2. The coal input slurry solids content is < 50%.
3. The flotation froth is greater than 50% solids.
4. The mechanical rotary vacuum dewatering achieves greater than 76% solids with vibration assist for an average particle size of 0.15 mm.
5. There are no binder chemicals used in the process.
6. The coal fines preparation process is designed as a closed-loop system with respect to water, chemicals and air emissions.
7. Chemical usage, flotation, and drying efficiencies are significantly higher than industry standards.
8. Pulse jet dryers operate in O<sub>2</sub> depleted atmosphere with multiple fuels including coal particle fuel.
9. Temperature profile with pulse jet engines limits the formation of NO<sub>x</sub>.

10. Dewatering of mineral matter is accomplished with mechanical capillary paths.

These unique features significantly impact process economics and efficiency. These features are discussed in and are part of filed patent applications. In addition to the patents, the proprietary processing chemicals supplied by StarSource, LLC, are unique to the industry.

#### **Patent Publications**

United States Patent Publication

VIBRATION ASSISTED VACUUM DEWATERING OF FINE COAL PARTICLES

Publishing No.: US 2015/0184099 A1

Published Date: July 2, 2015

Serial No.: 61/922,374

Filing Date: December 31, 2013

#### **Patent Cooperation Treaty Patent Publications**

VIBRATION ASSISTED VACUUM DEWATERING OF FINE COAL PARTICLES

Application No.: PCT/US14/72850

Publication No.: WO 2015/103316 A1

Filing Date: December 30, 2014

Published Date: July 9, 2015

United States Non-Provisional Patent Application

FLOTATION SEPARATION OF FINE COAL PARTICLES FROM ASH-FORMING PARTICLES

US Patent Application No.: 14/495,657

Filing Date: September 24, 2014

United States Patent Application

COAL-DERIVED MINERAL MATTER AS A SOIL AMMENDMENT

Serial No.: 14/694,735

Filing Date: April 23, 2015

**Exhibit B**  
**Trademarks**

Registered Trademarks

Trademark Applications