502183991 01/04/2013

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
John P. Reardon	01/19/2011
Thomas J. Paskach	01/13/2011
Jerod L. Smeenk	01/13/2011
Paul Evans	02/14/2011

RECEIVING PARTY DATA

Name:	Frontline BioEnergy, LLC.	
Street Address:	1421 South Bell Avenue, Suite 105	
City:	Ames	
State/Country:	IOWA	
Postal Code:	50010	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13107726

CORRESPONDENCE DATA

Fax Number: 5152830231

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 5152422400

Email: ip@brownwinick.com
Correspondent Name: Camille L. Urban

Address Line 1: 666 Grand Avenue, Suite 2000
Address Line 4: Des Moines, IOWA 50309

ATTORNEY DOCKET NUMBER: 16649/0017

NAME OF SUBMITTER: Camille L. Urban

Total Attachments: 4

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> PATENT REEL: 029569 FRAME: 0838

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ASSIGNMENT

WHEREAS, We, John P. Reardon, a citizen of the United States, residing at 6101 Little Piney Dr., Lake St Louis, Missouri 63367 in the County of Jasper, and the State of Missouri, Thomas J. Paskach, a citizen of the United States, residing at 420 Hilltop Road, Ames, Iowa 50014, in the County of Story, and the State of Iowa, Jerod L. Smeenk, a citizen of the United States, residing at 536 Forest Glen, Ames, Iowa 50014, in the County of Story, and the State of Iowa, and Paul Evans, a citizen of the United States, residing at 1715 S. Rex Ave #48, Joplin, Missouri 64801 in the County of Jasper, and the State of Missouri, have made an invention entitled APPARATUS AND METHOD FOR OPTIMIZED ACID GAS AND TOXIC METAL CONTROL IN GASIFIER PRODUCED GASES and have filed a provisional application for Letters Patent of the United States of America based thereon;

NOW, THEREFORE, for good and valuable consideration, receipt of which is acknowledged, each of the undersigned has agreed to assign and transfer and do hereby assign and transfer (other than those rights specifically described in paragraph 27 of the Redemption Agreement, as defined below) unto Frontline BioEnergy, LLC, a limited liability company of the State of Iowa, having its principal office at 1421 South Bell Avenue, Suite 105, Ames, Iowa 50010, its successors and assigns, all of the undersigned's entire right, title and interest in and to the said invention and application entitled Apparatus and Method for Optimized Acid Gas and Toxic Metal Control in Gasifier Produced Gases, having US Application No. 61/395,682 and filing date 5/14/2010, and in and to any nonprovisional, division, continuation or continuation-inpart, of said application, and in and to any and all improvements in the said invention made by us or made jointly with others (provided any such improvement is made during our employment by said Company or within one year thereafter), and in and to any and all Letters Patent and reissues and extensions thereof, of the United States of America and countries foreign thereto (including the right to apply for Letters Patent in foreign countries in its own name and to claim any priority rights for such foreign applications to which such applications are entitled under international conventions, treaties, or otherwise), which have been or may be granted thereon or on any divisional, continuation (in whole or in part), renewal, reissue or other or further application based in whole or in part upon the said invention or improvements thereof, to be held and enjoyed as fully and exclusively as they would have been by us had this assignment and transfer not been made, all such rights subject to the applicable limitations set forth in paragraph 27 of that certain Redemption Agreement by and among Frontline BioEnergy, LLC, J. Reardon Holdings, Inc. and John P. Reardon (the "Redemption Agreement");

We do further agree for ourselves and for our heirs, executors and

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administrators, to execute and deliver without further consideration any further applications, assignments and documents, and to perform such other acts as we lawfully may, that may be deemed necessary by the said **Frontline BioEnergy, LLC**, its successors, assigns and nominees, acting in a commercially reasonable manner, at Frontline BioEnergy LLC's sole expense, fully to secure its interest as aforesaid and to obtain or maintain Letters Patent in any and all countries;

As we do hereby authorize and request the Commissioner of Patents to issue any and all Letters Patent which may be granted upon any of the said applications, to the said **Frontline BioEnergy, LLC**, as the assignee of the entire interest thereon.

IN WITNESS WHEREOF, v year set forth below.	ve have hereunto assigned our names on the day and John P. Reardon	
STATE OF MISSOURI)) ss:	
COUNTY OF St. Low >)	
On this day of January, 2011, before me personally appeared John P. Reardon known to me, and known by me to be the person described in and who executed the foregoing instrument, and acknowledged that he executed the same, as his free act and deed, on the day and year aforesaid. Notary Rublic in and for the State of Missouri, St Louis County Commission # 10968582 My Commission Expires Apr 28, 2014		
	Thomas J. Paskach	
STATE OF IOWA)) ss:	
COUNTY OF STORY)	
On this day of January, 2011, before me personally appeared Thomas J. Paskach known to me, and known by me to be the person described in and who executed the foregoing instrument, and acknowledged that he executed the same, as his free act and deed, on the day and year aforesaid.		
	Notary Public in and for the State of Iowa, County of Story	

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(signatures continue on next page)

administrators, to execute and deliver without further consideration any further applications, assignments and documents, and to perform such other acts as we lawfully may, that may be deemed necessary by the said **Frontline BioEnergy, LLC**, its successors, assigns and nominees, acting in a commercially reasonable manner, at Frontline BioEnergy LLC's sole expense, fully to secure its interest as aforesaid and to obtain or maintain Letters Patent in any and all countries;

As we do hereby authorize and request the Commissioner of Patents to issue any and all Letters Patent which may be granted upon any of the said applications, to the said **Frontline BioEnergy**, **LLC**, as the assignee of the entire interest thereon.

IN WITNESS WHEREOF, we have hereunto assigned our names on the day and year set forth below.

	John P. Reardon
STATE OF MISSOURI)	
COUNTY OF) ss:	
Reardon known to me, and known by me to	11, before me personally appeared John P. be the person described in and who executed the at he executed the same, as his free act and deed,
Notary	Public in and for the
State	of Missouri, County of
	Mony Paskach Thomas J. Paskach
STATE OF IOWA) ss:	
COUNTY OF STORY)	
Paskach known to me, and known by me to foregoing instrument, and acknowledged to on the day and year aforesaid.	11, before me personally appeared Thomas J . to be the person described in and who executed the nat he executed the same, as his free act and deed, y Public in and for the

(signatures continue on next page)

State of Iowa, County of Story

Commission Number 190936
My Commission Expires
July 1, 2012

SS: COUNTY OF Cherokee day of January, 2011, before me personally appeared **Paul Evans** known to me, and known by me to be the person described in and who executed the foregoing instrument, and acknowledged that he executed the same, as his free act and deed, on the day and year aforesaid.
NOTARY PUBLIC-State of Kanda MANDY L. HUDSON Cherokee County My Appt. Expires 1-2. Missouri, County of Kansas Jerod L. Smeenk STATE OF IOWA SS: COUNTY OF STORY day of January, 2011, before me personally appeared Jerod L. Smeenk known to me, and known by me to be the person described in and who executed the foregoing instrument, and acknowledged that he executed the same, as his free act and deed, on the day and year aforesaid. Notary Public in and for the AMY M. MESENBRINK State of Iowa, County of Story Commission Number 190936

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Commission Expires July 1, 2012