

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT				
NATURE OF CONVEYANCE:	ASSIGNMENT				
CONVEYING PARTY DATA					
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Phillips 66 Company</td> <td>03/20/2013</td> </tr> </tbody> </table>		Name	Execution Date	Phillips 66 Company	03/20/2013
Name	Execution Date				
Phillips 66 Company	03/20/2013				
RECEIVING PARTY DATA					
Name:	Lummus Technology Inc.				
Street Address:	1515 Broad Street				
City:	Bloomfield				
State/Country:	NEW JERSEY				
Postal Code:	07003-3096				
PROPERTY NUMBERS Total: 1					
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>12652318</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	12652318
Property Type	Number				
Application Number:	12652318				
CORRESPONDENCE DATA					
Fax Number:	7132288778				
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>					
Phone:	7132288600				
Email:	khennessy@oshaliang.com				
Correspondent Name:	Jeffrey S. Bergman				
Address Line 1:	909 Fannin				
Address Line 2:	Suite 3500				
Address Line 4:	Houston, TEXAS 77010				
ATTORNEY DOCKET NUMBER:	17344/305002				
NAME OF SUBMITTER:	Jeffrey S. Bergman				
Signature:	/Jeffrey S. Bergman/				
Date:	09/13/2013				
Total Attachments: 11					

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INTELLECTUAL PROPERTY ASSIGNMENT

This INTELLECTUAL PROPERTY ASSIGNMENT ("Assignment") is made and entered into as of 17 MAY, 2013, between Phillips 66 Company ("Seller") and LUMMUS TECHNOLOGY INC. ("Buyer"). This Assignment is made pursuant to that certain Asset Purchase Agreement dated as of 20 MARCH, 2013 (the "Purchase Agreement") between Seller and Buyer.

All capitalized terms used and not otherwise defined herein will have the respective meanings ascribed to such terms in the Purchase Agreement.

In consideration of the premises and mutual covenants contained herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Seller hereby irrevocably sells, conveys, transfers and assigns to the Buyer, and the Buyer hereby accepts the sale, conveyance, transfer, and assignment from the Seller, of all of the Seller's worldwide right, title and interest in and to all of the Seller's Intellectual Property, including that which is identified in Schedule A, and all of Seller's Software identified in Schedule B, together with the goodwill associated therewith and which is symbolized thereby, including the right to sue and recover damages for infringement, misappropriation, or other claims and rights relating to or under any of the above, whether arising prior to or subsequent to the date of this Assignment, in both domestic and foreign jurisdictions. This Assignment includes any and all associated registrations and applications with respect thereto, and any and all renewals and extensions thereof, that may hereafter be secured under the laws now or hereafter in effect in the United States of America and in any other jurisdiction, the same to be held and enjoyed by Buyer from and after the date hereof as fully and entirely as the same would have been held and enjoyed by Seller had this Assignment not been made. Seller hereby agrees to execute any documents and/or instruments as Buyer may reasonably request in order to more effectively assign, transfer, grant, convey, assure and confirm to Buyer, or to aid and assist in the collection of or reducing to Buyer's possession, all of such Intellectual Property, and covenants that Seller will do all things necessary to give full effect to this Assignment, including obtaining and executing any written agreements and other instruments to enable Buyer to record and enforce this Assignment.

This Assignment is subject to all of the terms, conditions and limitations set forth in the Purchase Agreement (including, but not limited to, the representations, warranties, covenants and indemnities set forth in the Purchase Agreement). In the event of any conflict or inconsistency between the terms of this Assignment and terms of the Purchase Agreement, the terms of the Purchase Agreement will prevail. Nothing contained herein will be deemed to alter, modify, expand or diminish the terms of the Purchase Agreement.

THIS ASSIGNMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK, WITHOUT GIVING EFFECT TO ANY LAW OR RULE THAT WOULD CAUSE THE LAWS OF

ANY JURISDICTION OTHER THAN THE STATE OF NEW YORK TO BE APPLIED. EACH PARTY WAIVES THE RIGHT TO A TRIAL BY JURY IN ANY DISPUTE RELATING TO OR ARISING OUT OF THIS AGREEMENT, THE SUBJECT MATTER HEREOF OR THE TRANSACTIONS CONTEMPLATED HEREBY, AND AGREES TO TAKE ANY AND ALL ACTION NECESSARY OR APPROPRIATE TO EFFECT SUCH WAIVER.

This Assignment may be executed in one or more counterparts, and by the different parties hereto in separate counterparts, each of which shall be deemed to be an original but all of which taken together shall constitute one and the same agreement.

WHEREFORE, the parties have caused their authorized representatives to execute and deliver this Assignment as of the date first written above.

LUMMUS TECHNOLOGY INC

By: [Signature]
Name: J. A. O. POZTELA
Title: SENIOR VICE-PRESIDENT

PHILLIPS 66 COMPANY

By: [Signature] *BR*
Name: R W BENNETT
Title: VICE PRESIDENT



SCHEDULE A
INTELLECTUAL PROPERTY

Schedule A
Intellectual Property

Included Domain names (currently rerouted to Phillips' external E-Gas page):

e-gas.biz
e-gas.info
e-gas.org
e-gas.us
e-gastechnology.com
e-gastechnology.net
e-gas.mobi

Trademarks:

E-Gas™ Technology
E-STR™ Technology
SQUID™ Slag Treatment
E-Gas & Design (Chinese Application No. 11519267)

Patents:

See following pages

Schedule 4.9(a)
Intellectual Property

Included Domain names (currently rerouted to Phillips' external E-Gas page):

e-gas.biz
e-gas.info
e-gas.org
e-gas.us
e-gastechnology.com
e-gastechnology.net

ConocoPhillips Domain names (not included):

conocophillips gasification.com
conocophillipsgasification.net

Phillips Domain name (not included):

<http://www.phillips66.com/EN/tech/e-gas/Pages/index.aspx>

Trademarks:

E-Gas™ Technology
E-STR™ Technology
SQUID™ Slag Treatment

Patents:

See following pages

IR Number	Technology Area	Status	Title	Dt Rec'd Pat Div	Disposition Code	Date Disp
IR-40564	Coal Gasification (E-Gas)	Inactive	APPLICATION OF A REGENERABLE IMPREGNATED ACTIVATED CARBON SORBENT SYSTEM IN REMOVING SULFUR CONTAMINANTS FROM A SYNGAS STREAM	06/16/2005	Class N (Lack of Development)	02/11/2006
IR-40633	Coal Gasification (E-Gas)	Inactive	E-GAS GASIFICATION TECHNOLOGY METHANE BURNER ASSEMBLY IMPROVEMENTS	12/09/2005	Hold, insufficient benefit to compar	04/26/2007
IR-40701	Coal Gasification (E-Gas)	Inactive	PROCESS OF ENHANCING AMMONIA PRODUCTION IN THE E-GAS PROCESS	05/25/2006	Class N (Lack of Development)	06/02/2006
IR-40703	Coal Gasification (E-Gas)	Inactive	INCREASING SLURRYABILITY OF COAL BY USE OF ULTRASONIC TREATMENT	05/25/2006	Class N (Lack of Development)	02/20/2007
IR-40749	Coal Gasification (E-Gas)	Inactive	CARBON/COKE ADDITIVE AS REGENERATION AID AND PASSIVATION OF SILICATES IN E GAS	09/18/2006	Class N (Lack of Development)	09/22/2006
IR-40748	Coal Gasification (E-Gas)	Inactive	CO2 PASSIVATION OF SILICATES IN E GAS	09/18/2006	Class N (Lack of Development)	09/22/2006
IR-40747	Coal Gasification (E-Gas)	Inactive	CO2 PASSIVATION OF SILICATES IN TALIGAS	09/18/2006	Class N (Lack of Development)	09/22/2006
IR-40746	Coal Gasification (E-Gas)	Inactive	CARBON/COKE ADDITIVE AS REGENERATION AID AND PASSIVATION OF SILICATES IN TALIGAS	09/18/2006	Class N (Lack of Development)	09/22/2006
IR-40801	Coal Gasification (E-Gas)	Inactive	SZORB TYPE MATERIALS FOR GAS CLEAN-UP	02/12/2007	Class N (Lack of Development)	02/12/2007
IR-40879	Coal Gasification (E-Gas)	Inactive	A TWO-STAGE GASIFICATION PROCESS ADDING AMMONIA TO DECREASE ZINC SILICATE FORMATION DURING SZORB REGENERATION	10/17/2007	Class N (Lack of Development)	04/08/2008
IR-40903	Coal Gasification (E-Gas)	Inactive	ELIMINATION OF DRYING STEP BY ADDING AMMONIA IN REGENERATION OF SZORB	01/17/2008	Class N (Lack of Development)	02/08/2008
IR-40904	Coal Gasification (E-Gas)	Inactive	HIGH TEMPERATURE MERCURY REMOVAL SORBENT FOR EGAS TYPE APPLICATIONS	01/31/2008	Class N (Lack of Development)	02/02/2008
IR-40908	Coal Gasification (E-Gas)	Inactive	SIMPLIFICATION OF CO2 REVERSIBLE SORPTION	06/02/2008	Sold, or Otherwise Deactivated	07/28/2008
IR-40984	Coal Gasification (E-Gas)	Inactive	METHOD FOR ACCURATE AND RELIABLE TEMPERATURE MEASUREMENT FOR SLAGGING GASIFIER APPLICATION	02/16/2011		
IR-41748	Coal Gasification (E-Gas)	Active	STANDPIPE-FLUID BED HYBRID SYSTEM FOR CHAR COLLECTION, TRANSPORT, AND FLOW CONTROL	07/17/2012		
P66-00032X	Coal Gasification (E-Gas)	Active	SACRIFICIAL REFRACTORY LINING IN AN ENTRAINED FLOW SLAGGING COAL/PETROLEUM COKE GASIFIER	10/01/2012	Hold	12/11/2012
P66-00053X	Coal Gasification (E-Gas)	Inactive	CHAR/SLASH TRANSPORT-EJECTOR WITH WEAR-RESISTANT INTERVALS	12/19/2012		

Docket #	Country	Status	Filing Type	Application Date	Application Number	Technology Area	Title	Owner/Parent Filing #	Parent Number
34256	Australia	Issue Pending*	Patent Cooperation Treaty	07/30/2008	2008242931	Coal Gasification (E-Gas)	UPRIGHT GASIFIER	Philips 66	09/07/2007 PCT/US2008/071550
34259	Canada	Filed	Patent Cooperation Treaty	07/30/2008	2693218	Coal Gasification (E-Gas)	UPRIGHT GASIFIER	Philips 66	09/07/2007 PCT/US2008/071550
34259	China P.R.	Filed	Patent Cooperation Treaty	07/30/2008	2008B0151929.9	Coal Gasification (E-Gas)	UPRIGHT GASIFIER	Philips 66	09/07/2007 PCT/US2008/071550
34259	European Patent Convention	Filed	PCT/EPC Application	07/30/2008	08756844.2	Coal Gasification (E-Gas)	UPRIGHT GASIFIER	Philips 66	09/07/2007 PCT/US2008/071550
34259	Japan	Filed	Patent Cooperation Treaty	07/30/2008	2010-520146	Coal Gasification (E-Gas)	UPRIGHT GASIFIER	Philips 66	09/07/2007 PCT/US2008/071550
34259	Korea South	Filed	Patent Cooperation Treaty	07/30/2008	10-2010-7003287	Coal Gasification (E-Gas)	UPRIGHT GASIFIER	Philips 66	09/07/2007 PCT/US2008/071550
34259	Taiwan	Filed	Patent Cooperation Treaty	09/05/2008	097129328	Coal Gasification (E-Gas)	UPRIGHT GASIFIER	Philips 66	09/07/2007 PCT/US2008/071550
34255	Venezuela	Filed	National	03/31/2012	13485583	Coal Gasification (E-Gas)	UPRIGHT GASIFIER	Philips 66	09/07/2007 PCT/US2008/071550
34259/US1	United States	Filed	National	03/31/2012	097130659	Coal Gasification (E-Gas)	SUPPLIER NOZZLE	Philips 66	09/07/2007 PCT/US2008/071550
34272	Taiwan	Filed	National	08/26/2008	08280346	Coal Gasification (E-Gas)	BURNER NOZZLE	Philips 66	09/07/2007 PCT/US2008/071550
34275	Venezuela	Filed	National	08/29/2008	2008-011773	Coal Gasification (E-Gas)	CONTAMINANT REMOVAL FROM A GAS STREAM	Philips 66	01/31/2008 PCT/US2008/079321
34275	Australia	Filed	Patent Cooperation Treaty	10/09/2008	2008339418	Coal Gasification (E-Gas)	CONTAMINANT REMOVAL FROM A GAS STREAM	Philips 66	01/31/2008 PCT/US2008/079321
34275	Brazil	Filed	Patent Cooperation Treaty	10/09/2008	PI 0822101-4	Coal Gasification (E-Gas)	CONTAMINANT REMOVAL FROM A GAS STREAM	Philips 66	01/31/2008 PCT/US2008/079321
34275	China P.R.	Filed	Patent Cooperation Treaty	10/09/2008	08817627.9	Coal Gasification (E-Gas)	CONTAMINANT REMOVAL FROM A GAS STREAM	Philips 66	01/31/2008 PCT/US2008/079321
34275	Canada	Filed	Patent Cooperation Treaty	10/09/2008	200880129448.7	Coal Gasification (E-Gas)	CONTAMINANT REMOVAL FROM A GAS STREAM	Philips 66	01/31/2008 PCT/US2008/079321
34275	European Patent Convention	Filed	Patent Cooperation Treaty	10/09/2008	08817627.9	Coal Gasification (E-Gas)	CONTAMINANT REMOVAL FROM A GAS STREAM	Philips 66	01/31/2008 PCT/US2008/079321
34275	Japan	Filed	Patent Cooperation Treaty	10/09/2008	2010-544988	Coal Gasification (E-Gas)	CONTAMINANT REMOVAL FROM A GAS STREAM	Philips 66	01/31/2008 PCT/US2008/079321
34275	Korea South	Filed	Patent Cooperation Treaty	10/09/2008	10-2010-7017146	Coal Gasification (E-Gas)	CONTAMINANT REMOVAL FROM A GAS STREAM	Philips 66	01/31/2008 PCT/US2008/079321
34275	Malaysia	Filed	Patent Cooperation Treaty	10/09/2008	PI 2010039079	Coal Gasification (E-Gas)	CONTAMINANT REMOVAL FROM A GAS STREAM	Philips 66	01/31/2008 PCT/US2008/079321
34275	New Zealand	Issue Pending*	Patent Cooperation Treaty	10/09/2008	8886853	Coal Gasification (E-Gas)	CONTAMINANT REMOVAL FROM A GAS STREAM	Philips 66	01/31/2008 PCT/US2008/079321
34275	Taiwan	Filed	National	10/21/2008	097140318	Coal Gasification (E-Gas)	AND PROCESS	Philips 66	09/15/2008 12192471
34277	United States	Filed	National	09/15/2008	127192471	Coal Gasification (E-Gas)	AND PROCESS	Philips 66	09/15/2008 PCT/US2008/048230
34277	Taiwan	Filed	National	06/17/2009	0981120296	Coal Gasification (E-Gas)	AND PROCESS	Philips 66	08/15/2009 PCT/US2009/058806
34277	Australia	Filed	Patent Cooperation Treaty	06/23/2009	2008282334	Coal Gasification (E-Gas)	AND PROCESS	Philips 66	08/15/2009 PCT/US2009/058806
34277	Canada	Filed	Patent Cooperation Treaty	06/23/2009	200890131485.6	Coal Gasification (E-Gas)	AND PROCESS	Philips 66	08/15/2009 PCT/US2009/058806
34277	China P.R.	Filed	Patent Cooperation Treaty	06/23/2009	08799887.8	Coal Gasification (E-Gas)	AND PROCESS	Philips 66	08/15/2009 PCT/US2009/058806
34277	European Patent Convention	Filed	PCT/EPC Application	06/23/2009	106DE/NP/2011	Coal Gasification (E-Gas)	AND PROCESS	Philips 66	08/15/2009 PCT/US2009/058806
34277	India	Filed	Patent Cooperation Treaty	06/23/2009	52301511	Coal Gasification (E-Gas)	AND PROCESS	Philips 66	08/15/2009 PCT/US2009/058806
34277	Japan	Filed	Patent Cooperation Treaty	06/23/2009	10-2011-700877	Coal Gasification (E-Gas)	AND PROCESS	Philips 66	08/15/2009 PCT/US2009/058806
34277	Korea South	Filed	Patent Cooperation Treaty	07/30/2008	109-30-0437	Coal Gasification (E-Gas)	CONTAMINANT REMOVAL	Philips 66	11/02/2008 61143100
41058	Saudi Arabia	Filed	National	09/31/2009	10551190	Coal Gasification (E-Gas)	CONTAMINANT REMOVAL	Philips 66	09/31/2009 PCT/US2009/058806
41058	United States	Filed	National	09/31/2009	2009311824	Coal Gasification (E-Gas)	CONTAMINANT REMOVAL	Philips 66	09/31/2009 PCT/US2009/058806
41058	Australia	Filed	Patent Cooperation Treaty	09/14/2009	2009311824	Coal Gasification (E-Gas)	CONTAMINANT REMOVAL	Philips 66	09/14/2009 PCT/US2009/058806
41058	Canada	Filed	Patent Cooperation Treaty	09/14/2009	2739114	Coal Gasification (E-Gas)	CONTAMINANT REMOVAL	Philips 66	09/14/2009 PCT/US2009/058806
41058	China P.R.	Filed	Patent Cooperation Treaty	09/14/2009	200980144414.8	Coal Gasification (E-Gas)	CONTAMINANT REMOVAL	Philips 66	09/14/2009 PCT/US2009/058806
41058	European Patent Convention	Filed	PCT/EPC Application	09/14/2009	08792506.6-2113	Coal Gasification (E-Gas)	CONTAMINANT REMOVAL	Philips 66	09/14/2009 PCT/US2009/058806
41058	India	Filed	Patent Cooperation Treaty	09/14/2009	34450DE/NP/2011	Coal Gasification (E-Gas)	CONTAMINANT REMOVAL	Philips 66	09/14/2009 PCT/US2009/058806
41058	Japan	Filed	Patent Cooperation Treaty	09/14/2009	555878711	Coal Gasification (E-Gas)	CONTAMINANT REMOVAL	Philips 66	09/14/2009 PCT/US2009/058806
41058	Korea South	Filed	Patent Cooperation Treaty	09/14/2009	10-2011-7010518	Coal Gasification (E-Gas)	CONTAMINANT REMOVAL	Philips 66	09/14/2009 PCT/US2009/058806
41058	Patent Cooperation Treaty	Filed	Patent Cooperation Treaty	09/14/2009	PCT/US2009/058806	Coal Gasification (E-Gas)	CONTAMINANT REMOVAL	Philips 66	09/14/2009 PCT/US2009/058806
41058	Taiwan	Filed	National	09/23/2009	098132087	Coal Gasification (E-Gas)	CONTAMINANT REMOVAL	Philips 66	09/23/2009 PCT/US2009/058806
41058	Saudi Arabia	Filed	National	10/14/2009	109-30-0821	Coal Gasification (E-Gas)	STAGED SLURRY ADDITION	Philips 66	12/17/2008 611438312
34276	Taiwan	Filed	National	11/19/2009	098139377	Coal Gasification (E-Gas)	STAGED SLURRY ADDITION	Philips 66	12/17/2008 611438312
34276	Saudi Arabia	Filed	National	12/15/2009	109-30-0782	Coal Gasification (E-Gas)	STAGED SLURRY ADDITION	Philips 66	12/17/2008 611438312
34276	Australia	Filed	Patent Cooperation Treaty	12/17/2009	2008353765	Coal Gasification (E-Gas)	STAGED SLURRY ADDITION	Philips 66	12/17/2009 PCT/US2009/089546
34276	Canada	Filed	Patent Cooperation Treaty	12/17/2009	46410DE/NP/2011	Coal Gasification (E-Gas)	STAGED SLURRY ADDITION	Philips 66	12/17/2009 PCT/US2009/089546
34276	China P.R.	Filed	Patent Cooperation Treaty	12/17/2009	200880150750.4	Coal Gasification (E-Gas)	STAGED SLURRY ADDITION	Philips 66	12/17/2009 PCT/US2009/089546
34276	European Patent Convention	Filed	PCT/EPC Application	12/17/2009	09758954.6	Coal Gasification (E-Gas)	STAGED SLURRY ADDITION	Philips 66	12/17/2009 PCT/US2009/089546
34276	India	Filed	Patent Cooperation Treaty	12/17/2009	098140744	Coal Gasification (E-Gas)	STAGED SLURRY ADDITION	Philips 66	12/17/2009 PCT/US2009/089546
34276	Japan	Filed	Patent Cooperation Treaty	12/17/2009	10-2011-7013757	Coal Gasification (E-Gas)	STAGED SLURRY ADDITION	Philips 66	12/17/2009 PCT/US2009/089546
34276	Korea South	Filed	Patent Cooperation Treaty	12/17/2009	098140744	Coal Gasification (E-Gas)	STAGED SLURRY ADDITION	Philips 66	12/17/2009 PCT/US2009/089546
34311	Taiwan	Filed	National	06/01/2012	139564504	Coal Gasification (E-Gas)	TAR-FREE GASIFICATION SYSTEM AND PROCESS	Philips 66	12/24/2008 61146697
34311	United States	Filed	National	12/15/2009	2009330376	Coal Gasification (E-Gas)	TAR-FREE GASIFICATION SYSTEM AND PROCESS	Philips 66	12/24/2008 PCT/US2009/089546
34311	Australia	Filed	Patent Cooperation Treaty	12/15/2009	2739497	Coal Gasification (E-Gas)	TAR-FREE GASIFICATION SYSTEM AND PROCESS	Philips 66	12/24/2008 PCT/US2009/089546
34311	Canada	Filed	Patent Cooperation Treaty	12/15/2009	200990152311.7	Coal Gasification (E-Gas)	TAR-FREE GASIFICATION SYSTEM AND PROCESS	Philips 66	12/24/2008 PCT/US2009/089546
34311	China P.R.	Filed	Patent Cooperation Treaty	12/15/2009	09801805.8	Coal Gasification (E-Gas)	TAR-FREE GASIFICATION SYSTEM AND PROCESS	Philips 66	12/24/2008 PCT/US2009/089546
34311	European Patent Convention	Filed	PCT/EPC Application	12/15/2009	48910DE/NP/2011	Coal Gasification (E-Gas)	TAR-FREE GASIFICATION SYSTEM AND PROCESS	Philips 66	12/24/2008 PCT/US2009/089546
34311	India	Filed	Patent Cooperation Treaty			Coal Gasification (E-Gas)	TAR-FREE GASIFICATION SYSTEM AND PROCESS	Philips 66	

34311	Japan	Filed	Patent Cooperation Treaty	12/15/2009	54397/4/1	Coal Gasification (E-Gas)	TAR-FREE GASIFICATION SYSTEM AND PROCESS	Phillips 66	12/24/2009	PCT/US2009/069856
34311	Korea South	Filed	Patent Cooperation Treaty	12/15/2009	10420117014610	Coal Gasification (E-Gas)	TAR-FREE GASIFICATION SYSTEM AND PROCESS	Phillips 66	12/24/2009	PCT/US2009/069856
34296	Saudi Arabia	Filed	National	12/20/2008	108 31 0007	Coal Gasification (E-Gas)	TAR-FREE GASIFICATION SYSTEM AND PROCESS	Phillips 66	12/24/2009	61/146159
34296	United States	Filed	National	01/05/2010	12/652318	Coal Gasification (E-Gas)	GASIFICATION SLAG PRODUCT	Phillips 66	01/21/2009	PCT/US2010/020220
34296	Canada	Filed	Patent Cooperation Treaty	01/06/2010	201099004946.4	Coal Gasification (E-Gas)	GASIFICATION SLAG PRODUCT	Phillips 66	01/21/2009	PCT/US2010/020220
34286	China P.R.	Filed	Patent Cooperation Treaty	01/08/2010	4824DELNP/2011	Coal Gasification (E-Gas)	GASIFICATION SLAG PRODUCT	Phillips 66	01/21/2009	PCT/US2010/020220
34286	Korea South	Filed	Patent Cooperation Treaty	01/08/2010	70-2011-7016951	Coal Gasification (E-Gas)	GASIFICATION SLAG PRODUCT	Phillips 66	01/21/2009	PCT/US2010/020220
34286	Patent Cooperation Treaty	Filed	Patent Cooperation Treaty	01/08/2010	PCT/US2010/020220	Coal Gasification (E-Gas)	GASIFICATION SLAG PRODUCT	Phillips 66	01/21/2009	PCT/US2010/020220
40936	United States	Filed	National	02/02/2010	125698866	Coal Gasification (E-Gas)	FLUX ADDITION AS A FILTER CONDITIONER	Phillips 66	03/26/2010	61/287812
40933	Australia	Filed	Patent Cooperation Treaty	03/30/2010	2010236889	Coal Gasification (E-Gas)	AND PROCESS	Phillips 66	03/26/2010	PCT/US2010/029217
40933	Canada	Filed	Patent Cooperation Treaty	03/30/2010	27563932	Coal Gasification (E-Gas)	AND PROCESS	Phillips 66	03/26/2010	PCT/US2010/029217
40933	China P.R.	Filed	Patent Cooperation Treaty	03/29/2010	2010090015480.9	Coal Gasification (E-Gas)	AND PROCESS	Phillips 66	03/26/2010	PCT/US2010/029217
40933	European Patent Convention	Filed	PCT/EP Application	03/30/2010	10723431.2	Coal Gasification (E-Gas)	AND PROCESS	Phillips 66	03/26/2010	PCT/US2010/029217
40933	India	Filed	Patent Cooperation Treaty	03/30/2010	8995DELNP/2011	Coal Gasification (E-Gas)	AND PROCESS	Phillips 66	03/26/2010	PCT/US2010/029217
40933	Japan	Filed	Patent Cooperation Treaty	03/30/2010	509617142	Coal Gasification (E-Gas)	AND PROCESS	Phillips 66	03/26/2010	PCT/US2010/029217
40933	Korea South	Filed	Patent Cooperation Treaty	03/30/2010	10-2011-7023025	Coal Gasification (E-Gas)	AND PROCESS	Phillips 66	03/26/2010	61/166784-12/732290
40933	Patent Cooperation Treaty	Filed	Patent Cooperation Treaty	03/30/2010	PCT/US2010/029217	Coal Gasification (E-Gas)	AND PROCESS	Phillips 66	03/26/2010	PCT/US2010/029217
40933	Canada	Filed	Patent Cooperation Treaty	10/20/2010	2010990057513.6	Coal Gasification (E-Gas)	FLUX ADDITION AS A FILTER CONDITIONER	Phillips 66	12/18/2009	PCT/US2010/053398
40933	China P.R.	Filed	Patent Cooperation Treaty	10/20/2010	EP 1682969A.5	Coal Gasification (E-Gas)	FLUX ADDITION AS A FILTER CONDITIONER	Phillips 66	12/18/2009	PCT/US2010/053398
40933	European Patent Convention	Filed	PCT/EP Application	10/20/2010	PCT/US2010/053398	Coal Gasification (E-Gas)	FLUX ADDITION AS A FILTER CONDITIONER	Phillips 66	12/18/2009	PCT/US2010/053398
40933	India	Filed	Patent Cooperation Treaty	10/20/2010	10-2012-7014806	Coal Gasification (E-Gas)	FLUX ADDITION AS A FILTER CONDITIONER	Phillips 66	12/18/2009	PCT/US2010/053398
40933	Korea South	Filed	Patent Cooperation Treaty	10/20/2010	PCT/US2010/053398	Coal Gasification (E-Gas)	FLUX ADDITION AS A FILTER CONDITIONER	Phillips 66	12/18/2009	PCT/US2010/053398
41271	United States	Filed	National	01/05/2011	129808051	Coal Gasification (E-Gas)	TWO-STAGE GASIFIER	Phillips 66	01/12/2010	61/289434
41271	China P.R.	Filed	Patent Cooperation Treaty	01/09/2011	PCT/US2011/20340	Coal Gasification (E-Gas)	TWO-STAGE GASIFIER	Phillips 66	01/12/2010	61/294434
41271	European Patent Convention	Filed	PCT/EP Application	01/09/2011	PCT/US2011/20340	Coal Gasification (E-Gas)	TWO-STAGE GASIFIER	Phillips 66	01/12/2010	61/294434
41271	India	Filed	National	01/09/2011	PCT/US2011/20340	Coal Gasification (E-Gas)	TWO-STAGE GASIFIER	Phillips 66	01/12/2010	61/294434
41271	Japan	Filed	National	01/09/2011	PCT/US2011/20340	Coal Gasification (E-Gas)	TWO-STAGE GASIFIER	Phillips 66	01/12/2010	61/294434
41271	Korea South	Filed	National	01/09/2011	10-2012-7018018	Coal Gasification (E-Gas)	TWO-STAGE GASIFIER	Phillips 66	01/12/2010	61/294434
41271	Patent Cooperation Treaty	Filed	Patent Cooperation Treaty	01/09/2011	PCT/US2011/20340	Coal Gasification (E-Gas)	TWO-STAGE GASIFIER	Phillips 66	01/12/2010	61/294434
41292	United States	Filed	Patent Cooperation Treaty	09/13/2011	PCT/US2011/051460	Coal Gasification (E-Gas)	REMOVAL WITH CONCOMITANT SYNTHESIS GAS	Phillips 66	09/13/2010	61/282140
41292	Patent Cooperation Treaty	Filed	Patent Cooperation Treaty	09/13/2011	PCT/US2011/051460	Coal Gasification (E-Gas)	REMOVAL WITH CONCOMITANT SYNTHESIS GAS	Phillips 66	09/13/2010	61/282140
41329	United States	Filed	National	09/13/2011	130201310	Coal Gasification (E-Gas)	SULFUR REMOVAL WITH CONCOMITANT	Phillips 66	09/13/2010	61/231319
41329	Patent Cooperation Treaty	Filed	Patent Cooperation Treaty	09/13/2011	PCT/US2011/051381	Coal Gasification (E-Gas)	SULFUR REMOVAL WITH CONCOMITANT	Phillips 66	09/13/2010	61/231319
41705	United States	Filed	National	06/26/2012	61/964445	Coal Gasification (E-Gas)	TWO STAGE GASIFICATION WITH DUAL QUENCH	Phillips 66	n/a	n/a
41705	United States	Filed	National	11/30/2012	61/731927	Coal Gasification (E-Gas)	THERMAL SENSING SYSTEM	Phillips 66	n/a	n/a

* Written Notice of Allowance has been received and the application will soon issue as a Patent

40933US1 United States *Granted/93572 National
40933US2 United States *Granted/85072 National

** Moved to Schedule 4 (9/1) Granted Patents

SCHEDULE B

SOFTWARE

[Same as Schedule 4.10 to the Purchase Agreement.]

**Schedule 4.10
Included Software**

- E-Gas™ Generic Dynamic Simulator Software [requires a Dynsim license agreement from Invensys (not Included Software) and a multi-core hi-speed computer (not an included E-Gas™ Technology Asset) to run effectively]
- Computational Fluid Dynamics (“CFD”) data files [requires a FieldView Software license (not Included Software) to view CFD results]
- Gasifier CFD Model [requires a FieldView Software license (not Included Software) to view CFD results]
- E-Gas™ Master Model [Aspen Plus based, requires license from Aspen (not Included Software)]
- E-STR™ Master Model [Aspen Plus based, requires license from Aspen (not Included Software)]
- Reliability-Availability-Maintainability Model [requires ARINC Raptor Software License (not Included Software)]
- Cost Estimating Model
- E-Gas™ Dynamic Simulation Model
- PDP Design Template
- Equipment Sizing Calculators
- Process Design Tools
- Proprietary Equipment Sizing Calculators
- Numerous process model runs for project proposals and development projects [Aspen Plus based, requires license from Aspen (not Included Software)]