

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT7372417

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST
CONVEYING PARTY DATA	
Name	Execution Date
APERGY BMCS ACQUISITION CORP.	06/07/2022
APERGY ESP SYSTEMS, LLC	06/07/2022
CHAMPIONX USA INC.	06/07/2022
HARBISON-FISCHER, INC.	06/07/2022
NORRIS-RODS, INC.	06/07/2022
PCS FERGUSON, INC.	06/07/2022
THETA OILFIELD SERVICES, INC.	06/07/2022
US SYNTHETIC CORPORATION	06/07/2022
RECEIVING PARTY DATA	
Name:	JPMORGAN CHASE BANK, N.A.
Street Address:	500 STANTON CHRISTIANA ROAD, NCC5, 1ST FLOOR
Internal Address:	LOAN AND AGENCY SERVICES GROUP
City:	NEWARK
State/Country:	DELAWARE
Postal Code:	19713
PROPERTY NUMBERS Total: 66	
Property Type	Number
Application Number:	17448813
Application Number:	17507763
Application Number:	14804973
Application Number:	17484547
Application Number:	17167314
Application Number:	17552858
Application Number:	17139539
Application Number:	17234601
Application Number:	17305069
Application Number:	17483753
Application Number:	16826029
Application Number:	17483430

Property Type	Number
Application Number:	17156765
Application Number:	17479553
Application Number:	17244755
Application Number:	17234400
Application Number:	17237017
Application Number:	17148145
Application Number:	17238472
Application Number:	16249824
Application Number:	16787214
Application Number:	29723823
Application Number:	29723822
Application Number:	29786961
Application Number:	15190364
Application Number:	17455804
Application Number:	17306704
Application Number:	17691051
Application Number:	17550221
Application Number:	17589765
Application Number:	17549628
Application Number:	17549519
Application Number:	16993055
Application Number:	17592388
Application Number:	17451535
Application Number:	16909838
Application Number:	17061419
Application Number:	17518100
Application Number:	17360704
Application Number:	17323537
Application Number:	29734635
Application Number:	29734689
Application Number:	29830851
Application Number:	17587734
Application Number:	17550864
Application Number:	17678819
Application Number:	17707569
Application Number:	17713161
Application Number:	17713170
Application Number:	16935475

Property Type	Number
Application Number:	17021752
Application Number:	17034257
Application Number:	29760765
Application Number:	29769089
Application Number:	17680729
Application Number:	17401112
Application Number:	17401030
Application Number:	17363410
Application Number:	17318365
Application Number:	63309936
Application Number:	63320914
Application Number:	63318663
PCT Number:	US2021013627
PCT Number:	US2021031561
PCT Number:	US2021038902
PCT Number:	US2021063349

CORRESPONDENCE DATA

Fax Number: (214)746-7777

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.

Phone: 2147467700

Email: brian.lee@weil.com

Correspondent Name: ANGELA ESTRADA

Address Line 1: 200 CRESCENT COURT, SUITE 300

Address Line 4: DALLAS, TEXAS 75201

ATTORNEY DOCKET NUMBER:	15474.0007
NAME OF SUBMITTER:	ANGELA ESTRADA
SIGNATURE:	/Angela Estrada/
DATE SIGNED:	06/08/2022
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 13

source=ChampionX.2022 - Tab 06 - Patent Security Agreement Supplement [Executed]#page1.tif

source=ChampionX.2022 - Tab 06 - Patent Security Agreement Supplement [Executed]#page2.tif

source=ChampionX.2022 - Tab 06 - Patent Security Agreement Supplement [Executed]#page3.tif

source=ChampionX.2022 - Tab 06 - Patent Security Agreement Supplement [Executed]#page4.tif

source=ChampionX.2022 - Tab 06 - Patent Security Agreement Supplement [Executed]#page5.tif

source=ChampionX.2022 - Tab 06 - Patent Security Agreement Supplement [Executed]#page6.tif

source=ChampionX.2022 - Tab 06 - Patent Security Agreement Supplement [Executed]#page7.tif

source=ChampionX.2022 - Tab 06 - Patent Security Agreement Supplement [Executed]#page8.tif

source=ChampionX.2022 - Tab 06 - Patent Security Agreement Supplement [Executed]#page9.tif

source=ChampionX.2022 - Tab 06 - Patent Security Agreement Supplement [Executed]#page10.tif
source=ChampionX.2022 - Tab 06 - Patent Security Agreement Supplement [Executed]#page11.tif
source=ChampionX.2022 - Tab 06 - Patent Security Agreement Supplement [Executed]#page12.tif
source=ChampionX.2022 - Tab 06 - Patent Security Agreement Supplement [Executed]#page13.tif

PATENT SECURITY AGREEMENT SUPPLEMENT dated as of June 7, 2022 (this "*Agreement*"), between APERGY BMCS ACQUISITION CORP., APERGY ESP SYSTEMS, LLC, CHAMPIONX USA INC., HARBISON-FISCHER, INC., NORRIS-RODS, INC., PCS FERGUSON, INC., THETA OILFIELD SERVICES, INC. and US SYNTHETIC CORPORATION (the "*Grantors*") and JPMorgan Chase Bank, N.A. ("*JPMCB*"), as Administrative Agent.

Reference is made to (a) that certain Amended and Restated Credit Agreement, dated as of June 7, 2022 (as amended, restated, amended and restated, supplemented or otherwise modified from time to time, the "*Credit Agreement*"), by and among, *inter alios*, ChampionX Corporation, a Delaware corporation (the "*Borrower*"), the Lenders from time to time party thereto, the Issuing Banks from time to time party thereto and the Administrative Agent and (b) that certain Guarantee and Collateral Agreement, dated as of May 9, 2018 (as amended, restated, amended and restated, supplemented or otherwise modified from time to time, the "*Collateral Agreement*"), between the Borrower, the Guarantors from time to time party thereto and the Administrative Agent. The Lenders and the Issuing Banks have extended, and have agreed to extend, credit to the Borrower subject to the terms and conditions set forth in the Credit Agreement. The Grantors are Affiliates of the Borrower, will derive substantial benefits from the extension of credit to the Borrower under the Credit Agreement and are willing to execute and deliver this Agreement in order to induce the Lenders and the Issuing Banks to extend such credit. Accordingly, the parties hereto agree as follows:

SECTION 1. Terms. Each capitalized term used but not otherwise defined herein shall have the meaning specified in the Credit Agreement or the Collateral Agreement, as applicable. The rules of construction specified in Section 1.03 of the Credit Agreement also apply to this Agreement, *mutatis mutandis*.

SECTION 2. Grant of Security Interest. As security for the payment or performance, as the case may be, in full of the Obligations, each Grantor, pursuant to the Collateral Agreement, did and hereby does grant to the Administrative Agent and its permitted successors and assigns, for the benefit of the Secured Parties, a security interest in all of such Grantor's right, title and interest in, to and under the portion of the Article 9 Collateral constituting Patents (including those listed on Schedule I hereto), subject to the exclusions set forth in Section 4.01(d) of the Collateral Agreement (collectively, the "*Patent Collateral*").

SECTION 3. Collateral Agreement. This Agreement has been executed and delivered by the Grantors for the purpose of recording the grant of security interest herein with the United States Patent and Trademark Office. The security interest granted hereby has been granted to the Administrative Agent for the benefit of the Lenders in connection with the Collateral Agreement and is expressly subject to the terms and conditions thereof. Each Grantor hereby acknowledges and affirms that the rights and remedies of the Administrative Agent with respect to the Patent Collateral are more fully set forth in the Collateral Agreement, the terms and provisions of which are hereby incorporated herein by reference as if fully set forth herein. In the event of any conflict between the terms of this Agreement and the Collateral Agreement, the terms of the Collateral Agreement shall govern.

SECTION 4. Counterparts. This Agreement may be executed in counterparts (and by different parties hereto on different counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. Delivery of an executed counterpart of a signature page of this Agreement by facsimile or other electronic imaging shall be effective as delivery of a manually executed counterpart of this Agreement.

SECTION 5. CHOICE OF LAW. THIS AGREEMENT AND ANY CLAIM, CONTROVERSY, DISPUTE OR CAUSE OF ACTION (WHETHER IN CONTRACT OR TORT OR OTHERWISE) BASED UPON, ARISING OUT OF OR RELATING TO THIS AGREEMENT SHALL

BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAW OF THE STATE OF
NEW YORK.

[SIGNATURE PAGES FOLLOW]

IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement as of the day and year first above written.

APERGY BMCS ACQUISITION CORP.,
as Grantor



By: _____
Name: Curtis Stucki
Title: Vice President, Chief Financial Officer
and Treasurer

APERGY ESP SYSTEMS, LLC,
HARBISON-FISCHER, INC.,
NORRIS RODS, INC.,
PCS FERGUSON, INC.,
as Grantors

By: _____
Name: Daniel T. Erdman
Title: Vice President and Treasurer

CHAMPIONX USA INC.,
as Grantor

By: _____
Name: Antoine Marcos
Title: Vice President, Chief Financial Officer
and Treasurer

US SYNTHETIC CORPORATION,
as Grantor


By: _____
Name: Robert Galloway
Title: President

IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement as of the day and year first above written.

APERGY BMCS ACQUISITION CORP.,
as Grantor

By: _____
Name: Curtis Stucki
Title: Vice President, Chief Financial Officer
and Treasurer

APERGY ESP SYSTEMS, LLC,
HARBISON-FISCHER, INC.,
NORRIS RODS, INC.,
PCS FERGUSON, INC.,
as Grantors

By:  _____
Name: Daniel T. Erdman
Title: Vice President and Treasurer

CHAMPIONX USA INC.,
as Grantor

By: _____
Name: Antoine Marcos
Title: Vice President, Chief Financial Officer
and Treasurer

US SYNTHETIC CORPORATION,
as Grantor

By: _____
Name: Robert Galloway
Title: President

IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement as of the day and year first above written.

APERGY BMCS ACQUISITION CORP.,
as Grantor

By: _____
Name: Curtis Stucki
Title: Vice President, Chief Financial Officer
and Treasurer

APERGY ESP SYSTEMS, LLC,
HARBISON-FISCHER, INC.,
NORRIS RODS, INC.,
PCS FERGUSON, INC.,
as Grantors

By: _____
Name: Daniel T. Erdman
Title: Vice President and Treasurer

CHAMPIONX USA INC.,
as Grantor

Antoine Marcos
By: _____
Name: Antoine Marcos
Title: Vice President, Chief Financial Officer
and Treasurer

US SYNTHETIC CORPORATION,
as Grantor

By: _____
Name: Robert Galloway
Title: President

IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement as of the day and year first above written.

APERGY BMCS ACQUISITION CORP.,
as Grantor

By: _____
Name: Curtis Stucki
Title: Vice President, Chief Financial Officer
and Treasurer

APERGY ESP SYSTEMS, LLC,
HARBISON-FISCHER, INC.,
NORRIS RODS, INC.,
PCS FERGUSON, INC.,
as Grantors

By: _____
Name: Daniel T. Erdman
Title: Vice President and Treasurer

CHAMPIONX USA INC.,
as Grantor

By: _____
Name: Antoine Marcos
Title: Vice President, Chief Financial Officer
and Treasurer

US SYNTHETIC CORPORATION,
as Grantor

By: Rob Galloway
Name: Robert Galloway
Title: President

THETA OILFIELD SERVICES, INC.,
as Grantor

By: 

Name: Daniel T. Erdman

Title: Vice President and Treasurer

JPMORGAN CHASE BANK, N.A.,
as Administrative Agent

By: 

Name: Arina Mavilian
Title: Executive Director

SCHEDULE I

Patents

Registered Owner	Title	Pat. No./ Publ. No. / Appl. No.	Issue Date Pub. Date App. Date
Apergy BMCS Acquisition Corporation	PICK INCLUDING POLYCRYSTALLINE DIAMOND COMPACT	{20220120180} 17/448813	{4/21/2022} 9/24/2021
Apergy ESP Systems, LLC	DOWNHOLE CENTRIFUGAL PUMP DIFFUSER WITH PROTUBERANT VANES AND RELATED PUMPS AND METHODS	{20220065266} 17/507763	{3/3/2022} 10/21/2021
ChampionX USA Inc.	COMPOSITION AND METHOD FOR RECOVERING HYDROCARBON FLUIDS FROM A SUBTERRANEAN RESERVOIR	10214679 14/804973	2/26/2019 7/21/2015
ChampionX USA Inc.	METHODS OF MAKING ACRYLAMIDE-ACRYLIC ACID COPOLYMERS	10501625 15/190364	12/10/2019 6/23/2016
ChampionX USA Inc.	FLUORESCENT WATER TREATMENT COMPOUNDS AND METHOD OF USE	{20220024788} 17/484547	{1/27/2022} 9/24/2021
ChampionX USA Inc.	COMPOSITIONS AND METHODS FOR CORROSION INHIBITOR MONITORING	{20210163818} 17/167314	{6/3/2021} 2/4/2021
ChampionX USA Inc.	COMPOSITIONS FOR ENHANCED OIL RECOVERY	{20220106515} 17/552858	{4/7/2022} 12/16/2021
ChampionX USA Inc.	FLUID DIVERSION COMPOSITION IN WELL STIMULATION	{20210122967} 17/139539	{4/29/2021} 12/31/2020
ChampionX USA Inc.	ALKYL LACTONE-DERIVED CORROSION INHIBITORS	{20210246360} 17/234601	{8/12/2021} 4/19/2021
ChampionX USA Inc.	USE OF MULTIPLE CHARGED CATIONIC COMPOUNDS DERIVED FROM POLYAMINES FOR CLAY STABILIZATION IN OIL AND GAS OPERATIONS	{20210332288} 17/305069	{10/28/2021} 6/30/2021
Harbison-Fisher, Inc.	BALL CHECK-VALVE FOR LINEAR RECIPROCATING DOWNHOLE PUMPS	{20220090470} 17/483753	{3/24/2022} 9/23/2021
Harbison-Fisher, Inc.	PARTICULATE SEPARATOR FOR PRODUCTION WELLS	{20200308950} 16/826029	{10/1/2020} 3/20/2020
PCS Ferguson, Inc.	TORPEDO PLUNGER	{20220112792}	{4/14/2022}

Registered Owner	Title	Pat. No./ Publ. No. / Appl. No.	Issue Date Pub. Date App. Date
		17/483430	9/23/2021
PCS Ferguson, Inc.	GAS LIFT VALVE AGING PROCESS AND APPARATUS	{20210246769} 17/156765	{8/12/2021} 1/25/2021
US Synthetic Corporation	POLYCRYSTALLINE DIAMOND TABLES AND COMPACTS AND RELATED METHODS	{20220001348} 17/479553	{1/6/2022} 9/20/2021
US Synthetic Corporation	BEARING APPARATUS	{20210355991} 17/244755	{11/18/2021} 4/29/2021
US Synthetic Corporation	SHEAR CUTTER PICK MILLING SYSTEM	{20210262179} 17/234400	{8/26/2021} 4/19/2021
US Synthetic Corporation	ASSEMBLIES AND APPARATUSES INCLUDING SUPERHARD ELEMENTS	{20210239159} 17/237017	{8/5/2021} 4/21/2021
US Synthetic Corporation	CORROSION RESISTANT BEARING ELEMENTS, BEARING ASSEMBLIES, BEARING APPARATUSES, AND MOTOR ASSEMBLIES USING THE SAME	{20210131488} 17/148145	{5/6/2021} 1/13/2021
US Synthetic Corporation	BEARING ASSEMBLIES, RELATED BEARING APPARATUSES, AND RELATED METHODS	{20210381549} 17/238472	{12/9/2021} 4/23/2021
US Synthetic Corporation Ulterra Drilling Technologies, L.P.	SHAPED CUTTERS	11255129 16/249824	2/22/2022 1/16/2019
US Synthetic Corporation	SUPERABRASIVE COMPACTS, METHODS OF MAKING THE SAME, AND APPARATUSES USING THE SAME	{20200256133} 16/787214	{8/13/2020} 2/11/2020
US Synthetic Corporation	CUTTING TOOL	D908753 29/723823	1/26/2021 2/11/2020
US Synthetic Corporation	CUTTING TOOL	D914070 29/723822	3/23/2021 2/11/2020
US Synthetic Corporation	DRILL BIT	D947910 29/786961	4/5/2022 6/3/2021

Patent Applications

Registered Owner	Title	Appl. No.	App. Date
Apergy BMCS Acquisition Corporation	PERCUSSION DRILL BIT WITH AT LEAST ONE WEAR INSERT, RELATED SYSTEMS, AND METHODS	17/455804	11/19/2021
Apergy BMCS Acquisition Corporation	MATERIAL-REMOVAL SYSTEMS, CUTTING TOOLS THEREFOR, AND RELATED METHODS	17/306704	5/3/2021
Harbison-Fisher, Inc.	BALL CHECK-VALVE FOR LINEAR RECIPROCATING DOWNHOLE PUMPS	17/691051	3/9/2022
Harbison-Fisher, Inc.	SHEAR COUPLING FOR SUCKER ROD STRING	17/550221	12/14/2021
Norris Rods, Inc.	GEAR ROD ROTATOR SYSTEMS	17/589765	1/31/2022
PCS-Ferguson, Inc.	BEARING ASSEMBLIES, APPARATUSES, DEVICES, SYSTEMS, AND METHODS INCLUDING BEARINGS	17/549628	12/13/2021
Theta Oilfield Services, Inc.	DEVICES, SYSTEMS, AND METHODS FOR DETECTING THE ROTATION OF ONE OR MORE COMPONENTS FOR USE WITH A WELLBORE	17/549519	12/13/2021
US Synthetic Corporation	LEACHED SUPERABRASIVE ELEMENTS AND SYSTEMS, METHODS AND ASSEMBLIES FOR PROCESSING SUPERABRASIVE MATERIALS	16/993055	8/13/2020
US Synthetic Corporation	LEACHED SUPERABRASIVE ELEMENTS AND SYSTEMS, METHODS AND ASSEMBLIES FOR PROCESSING SUPERABRASIVE MATERIALS	17/592388	2/3/2022
US Synthetic Corporation	MULTI-PART SUPERABRASIVE COMPACTS, ROTARY DRILL BITS INCLUDING MULTI-PART SUPERABRASIVE COMPACTS, AND RELATED METHODS	17/451535	10/20/2021
US Synthetic Corporation	LEACHED SUPERABRASIVE ELEMENTS AND SYSTEMS, METHODS AND ASSEMBLIES FOR PROCESSING SUPERABRASIVE MATERIALS	16/909838	6/23/2020
US Synthetic Corporation	LEACHED SUPERABRASIVE ELEMENTS AND LEACHING SYSTEMS METHODS AND ASSEMBLIES FOR PROCESSING SUPERABRASIVE ELEMENTS	17/061419	10/1/2020

Registered Owner	Title	Appl. No.	App. Date
US Synthetic Corporation	METHODS OF PROCESSING A POLYCRYSTALLINE DIAMOND ELEMENT	17/518100	11/3/2021
US Synthetic Corporation	SYSTEMS AND METHODS FOR MOUNTING A CUTTER IN A DRILL BIT	17/360704	6/28/2021
US Synthetic Corporation	POLYCRYSTALLINE DIAMOND COMPACT AND APPLICATIONS THEREFOR	17/323537	5/18/2021
US Synthetic Corporation	RADIAL BEARING	29/734635	5/14/2020
US Synthetic Corporation	RADIAL BEARING	29/734689	5/14/2020
US Synthetic Corporation	DRILL BIT	29/830851	3/15/2022
US Synthetic Corporation	BEARING ASSEMBLIES, RELATED BEARING APPARATUSES AND RELATED METHODS	17/587734	1/28/2022
US Synthetic Corporation	POLYCRYSTALLINE DIAMOND COMPACTS, METHODS OF MAKING SAME, AND APPLICATIONS THEREFOR	17/550864	12/14/2021
US Synthetic Corporation	CUTTING TOOL WITH PCD INSERTS, SYSTEMS INCORPORATING SAME AND RELATED METHODS	17/678819	2/23/2022
US Synthetic Corporation	METHODS OF LEACHING A SUPERABRASIVE BODY AND APPARATUSES AND SYSTEMS FOR THE SAME	17/707569	3/29/2022
US Synthetic Corporation	NOZZLES, NOZZLE ASSEMBLIES INCLUDING THE SAME, AND METHODS OF USING THE SAME	17/713161	4/4/2022
US Synthetic Corporation	NOZZLES INCLUDING POLYCRYSTALLINE DIAMOND OR POLYCRYSTALLINE CUBIC BORON NITRIDE	17/713170	4/4/2022
US Synthetic Corporation	POLYCRYSTALLINE DIAMOND COMPACTS AND METHODS OF FABRICATING SAME	16/935475	7/22/2020
US Synthetic Corporation	SUPERHARD COMPACTS, ASSEMBLIES INCLUDING THE SAME, AND METHODS INCLUDING THE SAME	17/021752	9/15/2020
US Synthetic Corporation	MATERIAL-REMOVAL SYSTEMS, CUTTING TOOLS, THEREFOR, AND RELATED METHODS	17/034257	9/28/2020
US Synthetic Corporation	CUTTING TOOL	29/760765	12/3/2020
US Synthetic Corporation	PICK	29/769089	2/3/2021
US Synthetic Corporation	POLYCRYSTALLINE DIAMOND	17/680729	2/25/2022

Registered Owner	Title	Appl. No.	App. Date
	BODIES INCLUDING ONE OR MORE THREADS, APPARATUSES INCLUDING THE SAME, AND METHODS OF FORMING AND USING THE SAME		
US Synthetic Corporation	BEARING ASSEMBLIES, APPARATUSES, AND METHODS INCLUDING BEARING ELEMENTS	17/401112	8/12/2021
US Synthetic Corporation	TORQUE COUPLING ASSEMBLIES AND RELATED SYSTEMS AND METHODS	17/401030	8/12/2021
US Synthetic Corporation	ASSEMBLIES AND METHODS OF FORMING POLYCRYSTALLINE DIAMOND USING SUCH ASSEMBLIES	17/363410	6/30/2021
US Synthetic Corporation	BEARING ASSEMBLIES, APPARATUSES, AND METHODS INCLUDING BEARING ELEMENTS	17/318365	5/12/2021
US Synthetic Corporation	RADIALLY ADJUSTABLE RADIAL PDC BEARINGS	US2021/013627	01/15/2021
US Synthetic Corporation	ATTACHMENT OF PDC BEARING MEMBERS, BEARING ASSEMBLIES INCORPORATING SAME AND RELATED METHODS	US2021/031561	5/10/2021
ChampionX USA Inc.	IMIDAZOLINE-DERIVED COMPOUNDS AND USE AS NATURAL GAS HYDRATE INHIBITORS	US2021/038902	6/24/2021
Harbison-Fischer, Inc.	SHEAR COUPLING FOR SUCKER ROD STRING	US2021/063349	1/7/2022
PCS Ferguson, Inc.	SINGLE PILOT FLUID LINE ACTUATION GAS LIFT VALVE AND RELATED SYSTEMS AND METHODS (Gas Lift Valve Patent Application)	63/309936	2/14/2022
US Synthetic Corporation	SUPERHARD CUTTING ELEMENTS, CUTTING TOOLS INCLUDING THE SAME, AND METHODS OF USING THE SAME	63/320914	3/17/2022
US Synthetic Corporation	POLYCRYSTALLINE DIAMOND ELEMENT INCLUDING AT LEAST ONE LEACHING FEATURE, CUTTING TOOL INSERTS AND SYSTEMS INCORPORATING SAME, AND RELATED METHODS	63/318663	3/11/2022