

TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

ETAS ID: TM490008

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

CONVEYING PARTY DATA

Name	Formerly	Execution Date	Entity Type
TETRA Technologies, Inc.		09/10/2018	Corporation: DELAWARE
TETRA Production Testing Services, LLC		09/10/2018	Limited Liability Company: DELAWARE

RECEIVING PARTY DATA

Name:	JPMorgan Chase Bank, N.A.
Street Address:	2200 Ross Avenue, 9th floor
Internal Address:	TX1-2905
City:	Dallas
State/Country:	TEXAS
Postal Code:	75201
Entity Type:	national banking association: UNITED STATES

PROPERTY NUMBERS Total: 22

Property Type	Number	Word Mark
Registration Number:	4011701	ADVANCECLEAN
Registration Number:	2482779	BIORID
Registration Number:	2902887	COR CLEAR
Registration Number:	3481558	CV-PRO
Registration Number:	3788512	DEEPDESIGN
Registration Number:	2814544	
Registration Number:	1691059	EXPRESS
Registration Number:	1679991	EXPRESS
Registration Number:	2675999	HI-CHLOR
Registration Number:	3303254	MATCHWELL
Registration Number:	1970434	N-CAL
Registration Number:	1964718	PAYZONE
Registration Number:	3281260	SAFEDEFLO
Registration Number:	2021812	SODEX
Registration Number:	2771093	TETRA
Registration Number:	3629692	TETRA CHEMICALS
Registration Number:	5014046	TETRA CS NEPTUNE

TRADEMARK

Property Type	Number	Word Mark
Registration Number:	2824671	THERMAFIX
Registration Number:	3481559	TP-PRO
Registration Number:	1706080	WINTER THAW
Registration Number:	4165814	STEEL WATERZ
Serial Number:	87423245	READY CLEAR

CORRESPONDENCE DATA

Fax Number: 2142207716
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: 2146617324
Email: sbertino@velaw.com
Correspondent Name: Shannon Bertino
Address Line 1: 2001 Ross Avenue, Ste 3900
Address Line 4: Dallas, TEXAS 75201

NAME OF SUBMITTER:	Shannon Bertino
SIGNATURE:	/Shannon Bertino/
DATE SIGNED:	09/14/2018

Total Attachments: 20

source=[EXECUTED] JPM_TETRA - IP Security Agreement (9.10.18)#page1.tif
source=[EXECUTED] JPM_TETRA - IP Security Agreement (9.10.18)#page2.tif
source=[EXECUTED] JPM_TETRA - IP Security Agreement (9.10.18)#page3.tif
source=[EXECUTED] JPM_TETRA - IP Security Agreement (9.10.18)#page4.tif
source=[EXECUTED] JPM_TETRA - IP Security Agreement (9.10.18)#page5.tif
source=[EXECUTED] JPM_TETRA - IP Security Agreement (9.10.18)#page6.tif
source=[EXECUTED] JPM_TETRA - IP Security Agreement (9.10.18)#page7.tif
source=[EXECUTED] JPM_TETRA - IP Security Agreement (9.10.18)#page8.tif
source=[EXECUTED] JPM_TETRA - IP Security Agreement (9.10.18)#page9.tif
source=[EXECUTED] JPM_TETRA - IP Security Agreement (9.10.18)#page10.tif
source=[EXECUTED] JPM_TETRA - IP Security Agreement (9.10.18)#page11.tif
source=[EXECUTED] JPM_TETRA - IP Security Agreement (9.10.18)#page12.tif
source=[EXECUTED] JPM_TETRA - IP Security Agreement (9.10.18)#page13.tif
source=[EXECUTED] JPM_TETRA - IP Security Agreement (9.10.18)#page14.tif
source=[EXECUTED] JPM_TETRA - IP Security Agreement (9.10.18)#page15.tif
source=[EXECUTED] JPM_TETRA - IP Security Agreement (9.10.18)#page16.tif
source=[EXECUTED] JPM_TETRA - IP Security Agreement (9.10.18)#page17.tif
source=[EXECUTED] JPM_TETRA - IP Security Agreement (9.10.18)#page18.tif
source=[EXECUTED] JPM_TETRA - IP Security Agreement (9.10.18)#page19.tif
source=[EXECUTED] JPM_TETRA - IP Security Agreement (9.10.18)#page20.tif

INTELLECTUAL PROPERTY SECURITY AGREEMENT

THIS INTELLECTUAL PROPERTY SECURITY AGREEMENT (as it may be amended, restated, supplemented or otherwise modified from time to time, this “Intellectual Property Security Agreement”) is entered into as of September 10, 2018 by and among each of the entities listed on the signature pages hereof (such entities and any additional entities which become parties to this Intellectual Property Security Agreement by executing an assumption agreement in substantially the form of Annex I hereto (an “IP Security Agreement Supplement”), each a “Grantor”, and collectively, the “Grantors”), in favor of JPMORGAN CHASE BANK, N.A., in its capacity as administrative agent and collateral agent (the “Administrative Agent”) on behalf of the Secured Parties.

PRELIMINARY STATEMENT

WHEREAS, pursuant to that certain Credit Agreement, dated as of the date hereof (as amended, modified, extended, renewed or replaced from time to time, the “Credit Agreement”), among Borrower, certain lenders therein named (collectively, the “Lenders”) and the Administrative Agent, the Lenders have agreed to make loans upon the terms and subject to the conditions set forth therein;

WHEREAS, in order to secure the Borrower’s obligations under the Credit Agreement, each Grantor entered into that certain Pledge and Security Agreement, dated as of the date hereof (as amended, amended and restated, supplemented or otherwise modified from time to time, the “Security Agreement”), in favor of the Administrative Agent for the benefit of the Secured Parties;

WHEREAS, it is a condition precedent to the effectiveness of the Credit Agreement and the obligations of the Lenders under the Credit Agreement that the Grantors shall have executed and delivered this Agreement to the Administrative Agent for the ratable benefit of the Lenders; and

WHEREAS, Grantors will receive direct or indirect benefits from the execution of, and performance of obligations under, this Intellectual Property Security Agreement.

ACCORDINGLY, the Grantors and the Administrative Agent, on behalf of the Secured Parties, hereby agree as follows:

Section 1. Terms Defined in Security Agreement. All capitalized terms used herein and not otherwise defined shall have the meanings assigned to such terms in the Security Agreement.

Section 2. Grant of Security Interest in Intellectual Property Collateral. Each Grantor hereby pledges, assigns and grants to the Administrative Agent, on behalf of and for the ratable benefit of the Secured Parties, a security interest in all of its right, title and interest in, to and under the following Collateral of such Grantor whether now owned by or owing to, or hereafter acquired by or arising in favor of such Grantor (including under any trade name or derivations thereof), and whether owned or consigned by or to, or leased from or to, such Grantor, and regardless of where located (all of which will be collectively referred to as the “IP Collateral”):

(a) all Copyrights, Patents, Trademarks, Licenses and all other Intellectual Property, including, without limitation, those referred to on Schedule 1 hereto; and

(b) all accessions to, substitutions for and replacements, proceeds (including, without limitation, cash proceeds and noncash proceeds), insurance proceeds and products of the foregoing, together with all books and records, customer lists, credit files, computer files, programs, printouts and other computer materials and records related thereto and any General Intangibles at any time evidencing or relating to any of the foregoing;

to secure the prompt and complete payment and performance of the Secured Obligations; provided, however, that "IP Collateral" (and each defined term used in the definition of IP Collateral) shall not include any Excluded Assets; and provided, further, that if and when any property that would otherwise be IP Collateral shall cease to be Excluded Assets, such property shall be deemed at all times from and after such date to constitute IP Collateral.

Section 3. Purpose; Security Agreement. This Intellectual Property Security Agreement has been executed and delivered by the Grantors for the purpose of recording the security interest in the IP Collateral with the United States Patent and Trademark Office. The security interest granted pursuant to this Intellectual Property Security Agreement is granted in conjunction with the security interest granted to the Administrative Agent pursuant to the Security Agreement and each Grantor hereby acknowledges and agrees that the rights and remedies of the Administrative Agent with respect to the security interest in the IP Collateral made and granted hereby are more fully set forth in the Security Agreement, the terms and provisions of which are incorporated by reference herein, mutatis mutandis, as if fully set forth herein.

Section 4. Grantor Remains Liable. Each Grantor hereby agrees that, subject to the terms and conditions of the Credit Agreement and the Security Agreement, anything herein to the contrary notwithstanding, such Grantor shall assume full and complete responsibility for the prosecution, defense, enforcement or any other necessary or desirable actions in connection with its Intellectual Property and IP Licenses subject to a security interest hereunder.

Section 5. Additional Grantors. Each Grantor agrees to cause each new Material Domestic Subsidiary that is required to become a Grantor under the Security Agreement pursuant to Section 5.14 of the Credit Agreement to become a Grantor for all purposes of this Intellectual Property Security Agreement upon execution and delivery by such Subsidiary of an Intellectual Property Security Agreement Supplement. Upon the execution and delivery of an assumption agreement substantially in the form of Annex I hereto by such new Material Domestic Subsidiary, such Material Domestic Subsidiary shall become a Grantor hereunder with the same force and effect as if originally named as a Grantor herein. The execution and delivery of any instrument adding an additional Grantor as a party to this Intellectual Property Security Agreement shall not require the consent of any other Grantor under this Intellectual Property Security Agreement. The rights and obligations of each Grantor hereunder shall remain in full force and effect and shall not be affected or diminished notwithstanding the addition of any new Grantor hereunder.

Section 6. Counterparts. This Intellectual Property Security Agreement may be executed in any number of counterparts, all of which taken together shall constitute one agreement, and any of the parties hereto may execute this Intellectual Property Security Agreement by signing any such counterpart. Delivery of an executed counterpart of a signature page of this Intellectual Property Security Agreement by facsimile or other electronic transmission (e.g., ".pdf" or ".tif")

shall be effective as delivery of a manually executed counterpart of this Intellectual Property Security Agreement.

Section 7. Governing Law. THIS INTELLECTUAL PROPERTY SECURITY AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE INTERNAL LAWS OF THE STATE OF TEXAS.

Section 8. Intercreditor Agreement. Notwithstanding anything herein to the contrary, the exercise of any right or remedy by the Administrative Agent hereunder is subject to the limitations and provisions of that certain Intercreditor Agreement, dated as of the date hereof, among the Administrative Agent, WILMINGTON TRUST, NATIONAL ASSOCIATION and the other parties thereto (the “Intercreditor Agreement”). In the event of any conflict between the terms of the Intercreditor Agreement and the terms of this Intellectual Property Security Agreement, the terms of the Intercreditor Agreement shall govern.

[SIGNATURE PAGES FOLLOW]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed and delivered by their respective authorized officers as of the day and year first above written.

GRANTORS:

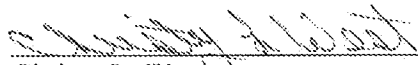
TETRA TECHNOLOGIES, INC.

By: Joseph J. Meyer
Name: Joseph J. Meyer
Title: Vice President – Finance, Treasurer and
Assistant Secretary

**TETRA PRODUCTION TESTING SERVICES,
LLC**

By: Joseph J. Meyer
Name: Joseph J. Meyer
Title: Treasurer

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

By: 
Name: Christy L. West
Title: Authorized Officer

[SIGNATURE PAGE TO INTELLECTUAL PROPERTY SECURITY AGREEMENT -- TETRA TECHNOLOGIES, INC.]

TRADEMARK
REEL: 006465 FRAME: 0980

SCHEDULE 1
TO
INTELLECTUAL PROPERTY SECURITY AGREEMENT

PATENTS

<u>Loan Party</u>	<u>Nature of Interest</u> (e.g., owner, licensee, other)	<u>Description</u>	<u>Registration Number</u> (N/A for applications)	<u>Date of Application / Issue Date</u>	<u>Country of Application / Issuance</u>
TETRA Technologies, Inc.	Owner	Rapid Deployment Frac Water Transfer System	9,371,723	11/15/2011/ 6/21/2016	United States
TETRA Technologies, Inc.	Owner	Rapid Deployment Frac Water Transfer System	9,052,037	11/30/2012/ 6/9/2015	United States
TETRA Technologies, Inc.	Owner	Rapid Deployment Frac Water Transfer System	9,550,652	6/9/2015/ 1/24/2017	United States
TETRA Technologies, Inc.	Owner	Rapid Deployment Frac Water Transfer System	10,000,358	1/23/2017/ 6/19/2018	United States
TETRA Technologies, Inc.	Owner	Rapid Deployment Frac Water Transfer System	9,400,065	5/8/2013/ 7/26/2016	United States
TETRA Technologies, Inc.	Owner	Method of Delivering Frac Fluid and Additives	8,162,048	9/8/2009/ 4/24/2012	United States
TETRA Technologies, Inc.	Owner	Method of Delivering Frac Fluid and Additives	8,316,935	4/23/2012/ 11/27/2012	United States
TETRA Technologies, Inc.	Owner	Method of Delivering Frac Fluid and Additives	8,540,022	11/27/2012/ 9/24/2013	United States
TETRA Technologies, Inc.	Owner	Method of Delivering Frac Fluid and Additives	9,127,537	9/24/2013/ 9/8/2015	United States
TETRA Technologies, Inc.	Owner	Method of Delivering Frac Fluid and Additives	9,732,602	9/8/2015/ 8/5/2017	United States
TETRA Technologies, Inc.	Owner	Multi Chamber Mixing Manifold	8,834,016	4/27/2012/ 9/16/2014	United States
TETRA Technologies, Inc.	Owner	Multi Chamber Mixing Manifold	9,144,775	9/16/2014/ 9/29/2015	United States

<u>Loan Party</u>	<u>Nature of Interest</u> (e.g., owner, licensee, other)	<u>Description</u>	<u>Registration Number</u> (N/A for applications)	<u>Date of Application / Issue Date</u>	<u>Country of Application / Issuance</u>
TETRA Technologies, Inc.	Owner	Multi Chamber Mixing Manifold	9,457,329	9/29/2015/ 10/4/2016	United States
TETRA Technologies, Inc.	Owner	Multi Chamber Mixing Manifold	9,884,300	10/4/2016/ 2/6/2018	United States
TETRA Technologies, Inc.	Owner	Multi Chamber Mixing Manifold	9,522,367	1/28/2013/ 12/20/2016	United States
TETRA Technologies, Inc.	Owner	Above Ground Storage Containment System and Method	8,640,901	5/24/2012/ 2/4/2014	United States
TETRA Technologies, Inc.	Owner	Above Ground Storage Containment System and Method	9,228,309	2/4/2014/ 1/5/2016	United States
TETRA Technologies, Inc.	Owner	Above Ground Storage Containment System and Method	9,157,205	3/18/2013/ 10/13/2015	United States
TETRA Technologies, Inc.	Owner	Above Ground Storage Containment System and Method	9,630,773	10/13/2015/ 4/25/2017	United States
TETRA Technologies, Inc.	Owner	System and method for predicting compatibility of fluids with metals	7,519,481	9/11/2006/ 4/14/2009	United States
TETRA Technologies, Inc.	Owner	Thermal insulating packer fluid	8,186,436	9/10/2009/ 5/29/2012	United States
TETRA Technologies, Inc.	Owner	Method for Monitoring Corrosion Damage to a Metal Sample	7,387,031	12/22/2006/ 6/17/2008	United States
TETRA Technologies, Inc.	Owner	Calcium Supplement for Animals and Method for Making Same	7,105,191	5/23/2003/ 9/12/2006	United States
TETRA Technologies, Inc.	Owner	Clear Brine Drill-In Fluid	6,124,244	9/26/2000	United States
TETRA Technologies, Inc.	Owner	Method For Making Moisture Resistant Calcium-Containing Particles	5,997,601	12/7/1999	United States
TETRA Technologies, Inc.	Owner	Method For Enhancing The Compatibility Of A Zinc-Brine Completion Fluid With A Fracturing Fluid	6,138,755	10/31/2000	United States

<u>Loan Party</u>	<u>Nature of Interest</u> (e.g., owner, licensee, other)	<u>Description</u>	<u>Registration Number</u> (N/A for applications)	<u>Date of Application / Issue Date</u>	<u>Country of Application / Issuance</u>
TETRA Technologies, Inc.	Owner	Method Of Producing Zinc Bromide	6,036,937	3/14/2000	United States
TETRA Technologies, Inc.	Owner	Method For Removing Filtercake	6,143,698	11/7/2000	United States
TETRA Technologies, Inc.	Owner	Method Of Producing Zinc Bromide	6,117,408	9/12/2000	United States
TETRA Technologies, Inc.	Owner	Method For Regeneration Of Used Halide Fluids	6,730,234	5/4/2004	United States
TETRA Technologies, Inc.	Owner	Method For Producing A Halide Brine	7,087,209	8/8/2006	United States
TETRA Technologies, Inc.	Owner	Thermal Insulating Fluids	8,895,476	11/25/2014	United States
TETRA Technologies, Inc.	Owner	Thermal Insulating Fluids	9,523,028	12/20/2016	United States
TETRA Technologies, Inc.	Owner	Rapid Deployment Frac Water Transfer System	AU2011329041	11/15/2011/ 8/18/2016	Australia
TETRA Technologies, Inc.	Owner	Method For Applying Halide Brines To Surfaces	2,318,585	10/18/2005	Canada
TETRA Technologies, Inc.	Owner	Method For Regeneration Of Used Halide Fluids	1414753	3/1/2006	China
TETRA Technologies, Inc.	Owner	Method For Regeneration Of Used Halide Fluids	1 414 753	3/1/2006	EPO
TETRA Technologies, Inc.	Owner	Method Of Producing Zinc Bromide	E 1 140702	4/28/2004	France
TETRA Technologies, Inc.	Owner	Method For Producing Zinc Bromide	135492	9/21/2004	Israel
TETRA Technologies, Inc.	Owner	Method For Regeneration Of Used Halide Fluids	157852	10/6/2006	Israel

<u>Loan Party</u>	<u>Nature of Interest</u> (e.g., owner, licensee, other)	<u>Description</u>	<u>Registration Number</u> (N/A for applications)	<u>Date of Application / Issue Date</u>	<u>Country of Application / Issuance</u>
TETRA Technologies, Inc.	Owner	Method For Producing Zinc Bromide	2169	8/13/2003	Jordan
TETRA Technologies, Inc.	Owner	Method For Regeneration Of Used Halide Fluids	2313	1/4/2006	Jordan
TETRA Technologies, Inc.	Owner	Method for Producing Haldine Brine	2380	7/2/2007	Jordan
TETRA Technologies, Inc.	Owner	Rapid Deployment Frac Water Transfer System	MX/a/2013/0055 40	11/15/2011/ 9/26/2016	Mexico
TETRA Technologies, Inc.	Owner	Method For Producing Zinc Bromide	1 140 702	4/28/2004	Netherlands
TETRA Technologies, Inc.	Owner	Method For Regeneration Of Used Halide Fluids	1414753		Netherlands
TETRA Technologies, Inc.	Owner	Method for Producing Haldine Brine	1 492 728	9/6/2006	Netherlands
TETRA Technologies, Inc.	Owner	Method For Regeneration Of Used Halide Fluids	324.398	10/1/2007	Norway
TETRA Technologies, Inc.	Owner	Method For Producing Zinc Bromide	EP(UK)1140702	4/13/2004	UK
TETRA Technologies, Inc.	Owner	Method For Regeneration Of Used Halide Fluids	1414753	3/1/2006	UK
TETRA Technologies, Inc.	Owner	Method for Producing Halide Brine	1492728	6/6/2006	UK


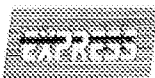
PATENT APPLICATIONS

<u>Loan Party</u>	<u>Nature of Interest</u> (e.g., owner, licensee, other)	<u>Description</u>	<u>Application Number</u>	<u>Date of Application / Issue Date</u>	<u>Country of Application / Issuance</u>
TETRA Technologies, Inc.	Owner	Rapid Deployment Frac Water Transfer System	16/010,663	6/17/2018	United States
TETRA Technologies, Inc.	Owner	Multi Chamber Mixing Manifold	15/384,860	12/20/2016	United States
TETRA Technologies, Inc.	Owner	Above Ground Storage Containment System and Method	15/494,662	4/24/2017	United States
TETRA Technologies, Inc.	Owner	In Situ Treatment Analysis Mixing System	14/921,295	10/23/2015	United States
TETRA Technologies, Inc.	Owner	Temperature Stability of Polyols and Sugar Alcohols in Brines	15/468,802	03/24/2017	United States
TETRA Technologies, Inc.	Owner	High Density, Low TCT Divalent Brines And Uses Thereof	15/468,842	03/24/2017	United States
TETRA Technologies, Inc.	Owner	High Density, Low TCT Monovalent Brines And Uses Thereof	15/468,940	03/24/2017	United States
TETRA Technologies, Inc.	Owner	Stabilization and Reduction of TCT of Divalent Iodide-Containing Brines	15/791,748	10/24/2017	United States
TETRA Technologies, Inc.	Owner	Stabilization and Reduction of TCT of Brines Containing Monovalent Iodides	15/791,872	10/24/2017	United States
TETRA Technologies, Inc.	Owner	Stabilization of Iodide-Containing Brines and Brine Mixtures	15/792,154	10/24/2017	United States
TETRA Technologies, Inc.	Owner	Method of Delivering Frac Fluid and Additives	15/675,950	8/14/2017	United States
TETRA Technologies, Inc.	Owner	The Temperature Stability of Polyols and Sugar Alcohols in Brines	2017/33096	03-22-2017	GCC
TETRA Technologies, Inc.	Owner	High Density, Low TCT Divalent Brines And Uses Thereof	2017/33095	03-22-2017	GCC
TETRA Technologies, Inc.	Owner	High Density, Low TCT Monovalent Brines And Uses Thereof	2017/33093	03-22-2017	GCC





<u>Loan Party</u>	<u>Nature of Interest</u> (e.g., owner, licensee, other)	<u>Description</u>	<u>Application Number</u>	<u>Date of Application / Issue Date</u>	<u>Country of Application / Issuance</u>
TETRA Technologies, Inc.	Owner	Improving The Temperature Stability of Polyols and Sugar Alcohols in Brines	PCT/US2017/023995	03-24-2017	PCT
TETRA Technologies, Inc.	Owner	High Density, Low TCT Divalent Brines And Uses Thereof	PCT/US2017/024008	03-24-2017	PCT
TETRA Technologies, Inc.	Owner	High Density, Low TCT Monovalent Brines And Uses Thereof	PCT/US2017/023996	03-24-2017	PCT
TETRA Technologies, Inc.	Owner	Rapid Deployment Frac Water Transfer System	20110104264	11/15/2011	Argentina
TETRA Technologies, Inc.	Owner	Rapid Deployment Frac Water Transfer System	2817725	11/15/2011	Canada
TETRA Technologies, Inc.	Owner	Rapid Deployment Frac Water Transfer System	001510-2011	11/15/2011	Venezuela

TRADEMARKS

<u>Loan Party</u>	<u>Nature of Interest</u> (e.g., owner, licensee, other)	<u>Property Covered</u>	<u>Registration Number</u>	<u>Date of Application / Registration</u>	<u>Country of Application / Registration</u>
TETRA Technologies, Inc.	Owner	ADVANCECLEAN	4,011,701	8/16/2011	United States
TETRA Technologies, Inc.	Owner	BIORID	2,482,779	8/28/2001	United States
TETRA Technologies, Inc.	Owner	COR CLEAR	2,902,887	11/16/2004	United States
TETRA Technologies, Inc.	Owner	CV-PRO	3,481,558	8/5/2008	United States
TETRA Technologies, Inc.	Owner	DEEPDESIGN	3,788,512	5/11/2010	United States

<u>Loan Party</u>	<u>Nature of Interest</u> <u>(e.g., owner, licensee, other)</u>	<u>Property Covered</u>	<u>Registration Number</u>	<u>Date of Application /Registration</u>	<u>Country of Application /Registration</u>
TETRA Technologies, Inc.	Owner	(Design Logo - Tetrahedron on circle) 	2,814,544	2/17/2004	United States
TETRA Technologies, Inc.	Owner	(EXPRESS logo) 	1,691,059	6/9/1992	United States
TETRA Technologies, Inc.	Owner	EXPRESS	1,679,991	3/24/1992	United States
TETRA Technologies, Inc.	Owner	HI-CHLOR	2,675,999	1/21/2003	United States
TETRA Technologies, Inc.	Owner	MATCHWELL	3,303,254	10/2/2007	United States
TETRA Technologies, Inc.	Owner	N-CAL	1,970,434	4/23/1996	United States
TETRA Technologies, Inc.	Owner	PAYZONE	1964718	3/6/1996	United States
TETRA Technologies, Inc.	Owner	SafeDEFlo	3,281,260	8/21/2007	United States
TETRA Technologies, Inc.	Owner	SODEX	2021812	12/10/1996	United States
TETRA Technologies, Inc.	Owner	TETRA	2,771,093	10/7/2003	United States
TETRA Technologies, Inc.	Owner	TETRA CHEMICALS	3,629,692	6/2/2009	United States

<u>Loan Party</u>	<u>Nature of Interest</u> (e.g., <u>owner,</u> <u>licensee,</u> <u>other</u>)	<u>Property Covered</u>	<u>Registration Number</u>	<u>Date of Application /Registration</u>	<u>Country of Application /Registration</u>
TETRA Technologies, Inc.	Owner	(TETRA CS NEPTUNE stylized composite) 	5014046	8/2/2016	United States
TETRA Technologies, Inc.	Owner	THERMAFIX	2,824,671	3/23/2004	United States
TETRA Technologies, Inc.	Owner	TP-PRO	3,481,559	8/5/2008	United States
TETRA Technologies, Inc.	Owner	WINTER THAW	1,706,080	8/11/1992	United States
TETRA Production Testing Services, LLC	Owner	(STEEL WATERZ stylized composite) 	4165814	6/26/2012	United States
TETRA Technologies, Inc.	Owner	ADVANCECLEAN	830872922	12/30/2014	Brazil
TETRA Technologies, Inc.	Owner	MATCHWELL	829.338.411	1/19/2010	Brazil
TETRA Technologies, Inc.	Owner	SafeDEflo	914133	2/15/2008	Benelux
TETRA Technologies, Inc.	Owner	GREYWOLF	TMA913,631	7/8/2014/ 9/11/2015	Canada
TETRA Technologies, Inc.	Owner	GREYWOLF logo	TMA913,632	7/8/2014/ 9/11/2015	Canada
TETRA Technologies, Inc.	Owner	ADVANCECLEAN	TMA865,147	11/15/2013	Canada

<u>Loan Party</u>	<u>Nature of Interest</u> (e.g., <u>owner,</u> <u>licensee,</u> <u>other</u>)	<u>Property Covered</u>	<u>Registration Number</u>	<u>Date of Application /Registration</u>	<u>Country of Application /Registration</u>
TETRA Technologies, Inc.	Owner	(CC FOOD Logo) 	009 949 306	9/23/2011	CTM (Europe)
TETRA Technologies, Inc.	Owner	(CC ROAD Logo) 	009 949 331	9/19/2011	CTM (Europe)
TETRA Technologies, Inc.	Owner	(CC TECH Logo) 	009 949 314	9/26/2011	CTM (Europe)
TETRA Technologies, Inc.	Owner	(CC Farm Logo) 	010632115	6/12/2012	Europe
TETRA Technologies, Inc.	Owner	(EMC x2 stylized) 	1.369.359	11/9/2010	Italy
TETRA Technologies, Inc.	Owner	SafeDEflo	914 133	6/13/2006	Madrid
TETRA Technologies, Inc.	Owner	SafeDEflo	914133	3/13/2008	Norway
TETRA Technologies, Inc.	Owner	SafeDEflo	914133	9/15/2009	Russian Federation
TETRA Technologies, Inc.	Owner	SafeDEflo	1002/84	7/30/2008	Saudi Arabia
TETRA Technologies, Inc.	Owner	SafeDEflo	914133	9/12/2007	United Kingdom
TETRA Technologies, Inc.	Owner	TETRA CS NEPTUNE & design	5,014,046	08/02/2016	United States

<u>Loan Party</u>	<u>Nature of Interest</u> (e.g., <u>owner,</u> <u>licensee,</u> <u>other</u>)	<u>Property Covered</u>	<u>Registration Number</u>	<u>Date of Application /Registration</u>	<u>Country of Application /Registration</u>
TETRA Technologies, Inc.	Owner	TETRA CS NEPTUNE and Device	1282972	11/11/2015	Madrid Protocol
TETRA Technologies, Inc.	Owner	TETRA CS NEPTUNE and Device	1282972	11/11/2015	Issued 0081761.008101
TETRA Technologies, Inc.	Owner	TETRA CS NEPTUNE and Device	1282972	11/11/2015	Austria
TETRA Technologies, Inc.	Owner	TETRA CS NEPTUNE and Device	1282972	11/11/2015	Bahrain
TETRA Technologies, Inc.	Owner	TETRA CS NEPTUNE and Device	1282972	11/11/2015	Bulgaria
TETRA Technologies, Inc.	Owner	TETRA CS NEPTUNE and Device	1282972	11/11/2015	Benelux (Covering Belgium, Netherlands, and Luxembourg)
TETRA Technologies, Inc.	Owner	TETRA CS NEPTUNE and Device	1282972	11/11/2015	Cyprus
TETRA Technologies, Inc.	Owner	TETRA CS NEPTUNE and Device	1282972	11/11/2015	Czech Republic
TETRA Technologies, Inc.	Owner	TETRA CS NEPTUNE and Device	1282972	11/11/2015	Denmark
TETRA Technologies, Inc.	Owner	TETRA CS NEPTUNE and Device	1282972	11/11/2015	Estonia
TETRA Technologies, Inc.	Owner	TETRA CS NEPTUNE and Device	1282972	11/11/2015	European Community (Covering 26 EU Countries)

<u>Loan Party</u>	<u>Nature of Interest</u> (e.g., <u>owner,</u> <u>licensee,</u> <u>other</u>)	<u>Property Covered</u>	<u>Registration Number</u>	<u>Date of Application /Registration</u>	<u>Country of Application /Registration</u>
TETRA Technologies, Inc.	Owner	TETRA CS NEPTUNE and Device	1282972	11/11/2015	France
TETRA Technologies, Inc.	Owner	TETRA CS NEPTUNE and Device	1282972	11/11/2015	Germany
TETRA Technologies, Inc.	Owner	TETRA CS NEPTUNE and Device	1282972	11/11/2015	Greece
TETRA Technologies, Inc.	Owner	TETRA CS NEPTUNE and Device	1282972	11/11/2015	Hungary
TETRA Technologies, Inc.	Owner	TETRA CS NEPTUNE and Device	1282972	11/11/2015	Ireland
TETRA Technologies, Inc.	Owner	TETRA CS NEPTUNE and Device	1282972	11/11/2015	Italy
TETRA Technologies, Inc.	Owner	TETRA CS NEPTUNE and Device	1282972	11/11/2015	Lithuania
TETRA Technologies, Inc.	Owner	TETRA CS NEPTUNE and Device	1282972	11/11/2015	Latvia
TETRA Technologies, Inc.	Owner	TETRA CS NEPTUNE and Device	1282972	11/11/2015	Oman
TETRA Technologies, Inc.	Owner	TETRA CS NEPTUNE and Device	1282972	11/11/2015	Portugal
TETRA Technologies, Inc.	Owner	TETRA CS NEPTUNE and Device	1282972	11/11/2015	Romania

<u>Loan Party</u>	<u>Nature of Interest</u> (e.g., owner, licensee, other)	<u>Property Covered</u>	<u>Registration Number</u>	<u>Date of Application /Registration</u>	<u>Country of Application /Registration</u>
TETRA Technologies, Inc.	Owner	TETRA CS NEPTUNE and Device	1282972	11/11/2015	Slovakia
TETRA Technologies, Inc.	Owner	TETRA CS NEPTUNE and Device	1282972	11/11/2015	Slovenia
TETRA Technologies, Inc.	Owner	TETRA CS NEPTUNE and Device	1282972	11/11/2015	Spain
TETRA Technologies, Inc.	Owner	TETRA CS NEPTUNE and Device	1282972	11/11/2015	Turkmenistan
TETRA Technologies, Inc.	Owner	TETRA CS NEPTUNE and Device	1282972	11/11/2015	United Kingdom
TETRA Technologies, Inc.	Owner	TETRA CS NEPTUNE and Device	174380	11/11/2015	Kuwait

TRADEMARK APPLICATIONS

<u>Loan Party</u>	<u>Nature of Interest</u> (e.g., owner, licensee, other)	<u>Property Covered</u>	<u>Application Registration Number</u>	<u>Date of Application /Registration</u>	<u>Country of Application /Registration</u>
TETRA Technologies, Inc.	Owner	READY CLEAR	87423245	10/17/2017	United States
TETRA Technologies, Inc.	Owner	TETRA CS NEPTUNE and Device	SN 201600175	11/11/2015	Norway

LICENSES

<u>Loan Party</u>	<u>Agreement</u>
TETRA Technologies, Inc.	Oracle License and Services Agreement dated May 28, 2008 between TETRA Technologies, Inc. and Oracle America Inc., as amended
TETRA Technologies, Inc.	Microsoft Business and Services Agreement dated April 23, 2013 between TETRA Technologies, Inc. and Microsoft Licensing GP, as amended

TRADE SECRETS

The Grantors own various proprietary Trade Secrets that are utilized in their business.

ANNEX I TO

INTELLECTUAL PROPERTY SECURITY AGREEMENT

THIS ASSUMPTION AGREEMENT (this "Assumption Agreement"), dated as of _____, 20__, by _____, a _____ (the "Additional Grantor"), in favor of JPMORGAN CHASE BANK, N.A., as administrative agent (in such capacity, the "Administrative Agent") for the benefit of the Secured Parties. All capitalized terms not defined herein shall have the meaning ascribed to them in the Security Agreement (as defined below).

PRELIMINARY STATEMENTS

A. TETRA TECHNOLOGIES, INC., a Delaware corporation, the other Loan Parties from time to time party thereto, the Administrative Agent and the Lenders have entered into a Credit Agreement, dated as of September 10, 2018 (as amended, restated, supplemented or otherwise modified from time to time, the "Credit Agreement").

B. In connection with the Credit Agreement, the Loan Parties have entered into the Intellectual Property Security Agreement, dated as of September 10, 2018 (as amended, restated, supplemented or otherwise modified from time to time, the "Intellectual Property Security Agreement"), in favor of the Administrative Agent for the benefit of the Secured Parties.

C. The Credit Agreement requires the Additional Grantor to become a party to the Intellectual Property Security Agreement.

D. The Additional Grantor has agreed to execute and deliver this Assumption Agreement in order to become a party to the Intellectual Property Security Agreement.

ACCORDINGLY, IT IS AGREED:

1. Security Agreement. By executing and delivering this Assumption Agreement, the Additional Grantor, as provided in Section 5 of the Intellectual Property Security Agreement, hereby becomes a party to the Intellectual Property Security Agreement as a "Grantor" thereunder with the same force and effect as if originally named therein as a Grantor and, without limiting the generality of the foregoing, hereby expressly assumes all obligations and liabilities of a Grantor thereunder. The information set forth in Annex 1-A hereto is hereby added to the information set forth in the appropriate Schedules to the Intellectual Property Security Agreement. The Additional Grantor represents and warrants that the information set forth in Annex 1-A attached hereto is true and correct in all respects and sets forth all information required to be scheduled under the Intellectual Property Security Agreement with respect to the Additional Grantor. The Additional Grantor shall take all steps necessary to perfect, in favor of the Administrative Agent, a first-priority security interest in and lien against the Additional Grantor's IP Collateral.

2. GOVERNING LAW. THIS ASSUMPTION AGREEMENT AND THE RIGHTS AND OBLIGATIONS OF THE PARTIES UNDER THIS ASSUMPTION AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED AND INTERPRETED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF TEXAS.

IN WITNESS WHEREOF, the undersigned has caused this Assumption Agreement to be duly executed and delivered as of the date first written above.

[ADDITIONAL GRANTOR]

By: _____
Name: _____
Title: _____