

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT7362316

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

CONVEYING PARTY DATA

Name	Execution Date
BRADLEY P.D. FEDORA	12/03/2021

RECEIVING PARTY DATA

Name:	OLYMPIA TRUST COMPANY
Street Address:	520 - 3RD AVENUE SW
Internal Address:	SUITE 4000
City:	CALGARY
State/Country:	CANADA
Postal Code:	T2P 0R3

PROPERTY NUMBERS Total: 23

Property Type	Number
Patent Number:	8672030
Patent Number:	9121266
Patent Number:	9206659
Patent Number:	8863850
Patent Number:	7735551
Patent Number:	7723274
Patent Number:	8141638
Patent Number:	8561687
Patent Number:	8236738
Patent Number:	8800658
Patent Number:	8105986
Patent Number:	7977285
Patent Number:	8499835
Patent Number:	8770317
Patent Number:	8607897
Patent Number:	9139761
Patent Number:	6904972
Patent Number:	7677308
Patent Number:	9809738

PATENT

Property Type	Number
Patent Number:	9714371
Patent Number:	9523030
Patent Number:	9458686
Patent Number:	9932514

CORRESPONDENCE DATA

Fax Number: (416)216-3930

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: 14162034465

Email: NRFCCIPOMAIL@nortonrosefulbright.com,
anisha.tailor@nortonrosefulbright.com

Correspondent Name: NORTON ROSE FULBRIGHT CANADA LLP

Address Line 1: 2500-1 PLACE VILLE-MARIE

Address Line 4: MONTRÉAL, QUEBEC H3B 1R1

ATTORNEY DOCKET NUMBER:	1000156366
NAME OF SUBMITTER:	NIALL COONEY
SIGNATURE:	/Niall Cooney/
DATE SIGNED:	06/02/2022

Total Attachments: 11
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AMENDED AND RESTATED CANADIAN INTELLECTUAL PROPERTY SECURITY AGREEMENT

This AMENDED AND RESTATED CANADIAN INTELLECTUAL PROPERTY SECURITY AGREEMENT, dated as of December 3, 2021 (as amended, amended and restated, supplemented or otherwise modified from time to time, this **Agreement**), is made by (a) TRICAN WELL SERVICE LTD., an Alberta corporation (the **Borrower**) and (b) EACH OF THE OTHER GRANTOR PARTIES HERETO, (each such party, including the Borrower, a **Grantor** and, collectively, the **Grantors**), in favour of OLYMPIA TRUST COMPANY, in its capacity as Collateral Agent under the Intercreditor Agreement for the benefit of the Senior Secured Parties (as defined in the Intercreditor Agreement) pursuant to the Intercreditor Agreement (together with its successors and assigns in such capacity, the **Collateral Agent**).

WITNESSETH:

WHEREAS, pursuant to a General Security Agreement and Share Pledge dated as of November 12, 2015 (as such agreement may be amended, amended and restated, supplemented or otherwise modified from time to time, the **Security Agreement**), among, *inter alios*, Computershare Trust Company of Canada, in its capacity as collateral agent under the Intercreditor Agreement (**Computershare**), the Borrower and each other person that becomes a party thereto pursuant to the terms thereof, each Grantor granted to Computershare, a security interest in substantially all of such Grantor's property, including, without limitation, the Collateral referred to in Section 2 below;

AND WHEREAS, pursuant to a Collateral Agent Replacement, Appointment and Assignment of Security dated as of October 20, 2021 (the **Collateral Agency Succession Agreement**), among, *inter alios*, Computershare, the Collateral Agent, The Bank of Nova Scotia, as Agent (as defined in the Intercreditor Agreement) and the Grantors, Computershare was removed as collateral agent under the Intercreditor Agreement and the Collateral Agent was appointed and designated in Computershare's place as the successor collateral agent under the Intercreditor Agreement;

AND WHEREAS, in connection with the Collateral Agency Succession Agreement, each Grantor has agreed to execute this Agreement in respect of its Collateral for recording with the Canadian Intellectual Property Office and any other office in which a security interest in the Collateral may be recorded under the laws of any other applicable jurisdiction.

NOW, THEREFORE, in consideration of the premises and the mutual covenants and agreements hereinafter set forth, each Grantor and the Collateral Agent agree as follows:

1 Defined Terms

Unless otherwise defined in this Agreement, terms used in this Agreement have the respective meanings given to them in the Security Agreement.

2 Grant of Security

Each Grantor hereby grants to the Collateral Agent for the benefit of the Beneficiaries a security interest in and to all of such Grantor's right, title and interest in and to its intellectual property, whether or not such interest is joint or in common with one or more third parties or another Grantor, including the following (the **Collateral**):

- (a) all present and future Canadian and foreign patents, design patents and certificates of invention that may be developed or acquired by or on behalf of such Grantor, or similar industrial property rights, and applications for any of the foregoing, including, but not limited to, the patents set forth in Schedule A hereto opposite the name of such Grantor, as Schedule A may be supplemented from time to time by supplements to the Security Agreement and this Agreement which shall be executed and delivered by such Grantor to the Collateral Agent from time to time, and all reissues, divisions, continuations,

continuations-in-part, renewals, extensions and reexaminations thereof and amendments thereto (the **Patents**);

- (b) all present and future Canadian and foreign trademarks, trade names, corporate names, company names, business names, fictitious business names, internet domain names, service marks, certification marks, collective marks, logos, other source or business identifiers, designs and general intangibles of a like nature, all registrations and applications for any of the foregoing including, but not limited to, the trademark and service mark registrations, applications, and licenses set forth in Schedule B hereto opposite the name of such Grantor, as Schedule B may be supplemented from time to time by supplements to the Security Agreement and this Agreement which shall be executed and delivered by such Grantor to the Collateral Agent from time to time, together with the goodwill connected with the use thereof and symbolized thereby and all extensions and renewals thereof (the **Trademarks**);
- (c) all present and future Canadian and foreign copyrights (including industrial designs and community designs), including but not limited to copyrights in software and databases, and all "topography" (as defined in the *Integrated Circuit Topography Act (Canada)*), whether registered or unregistered, including, without limitation, the registrations and applications and copyright licenses set forth in Schedule C hereto opposite the name of such Grantor, as Schedule C may be supplemented from time to time by supplements to the Security Agreement and this Agreement which shall be executed and delivered by such Grantor to the Collateral Agent from time to time, and all extensions and renewals thereof (the **Copyrights**);
- (d) all rights of any kind whatsoever of such Grantor accruing under any of the foregoing provided by the applicable law of any jurisdiction, by international treaties and conventions and otherwise throughout the world;
- (e) any and all royalties, fees, income, payments and other proceeds now or hereafter due or payable with respect to any and all of the foregoing; and
- (f) any and all claims and causes of action with respect to any of the foregoing, whether occurring before, on or after the date hereof, including all rights to and claims for damages, restitution and injunctive and other legal and equitable relief for past, present and future infringement, dilution, misappropriation, violation, misuse, breach or default, with the right but no obligation to sue for such legal and equitable relief and to collect, or otherwise recover, any such damages.

3 Security for Obligations

This Agreement secures, and the Collateral is collateral security for, with respect to each Grantor, the prompt and complete payment and performance in full when due, whether at stated maturity, by required prepayment, declaration, acceleration, demand or otherwise of the Obligations.

4 Scope of Security Interest

To the extent that the creation of the security interest would result in the termination of any agreement, licence or permit of the Grantors (each, a **Restricted Asset**), the security interest will not attach to the Restricted Asset but each Grantor shall hold its interest in the Restricted Asset and its proceeds in trust for the Collateral Agent, and shall assign such Restricted Asset or the proceeds thereof to the Collateral Agent or as it may direct immediately upon obtaining the consent of the other party.

Each Grantor will use commercially reasonable efforts to (i) obtain all necessary consents to the assignment of such Restricted Asset to the Collateral Agent, and (ii) ensure that all agreements, licences or permits entered into or granted after the date of this Agreement expressly permit assignment to the Collateral Agent of the benefits of such agreements, licences or permits as Collateral.

5 Recordation

Each Grantor authorizes and agrees that it will, at its own expense, cause this Agreement, and any supplements or amendments thereto, to be recorded at the Canadian Intellectual Property Office, the United States Trademark and Patent Office, the United States Copyright Office (and any successor office and any similar office in any United States state or other country) and at the appropriate provincial personal property security registries. Each Grantor authorizes the United States Commissioner for Patents, the United States Commissioner for Trademarks and the United States Register of Copyrights and any other government officials to record and register this Agreement.

6 Supplemental Security

This Agreement is in addition to and without prejudice to all other security now held or which may hereafter be held by the Collateral Agent.

7 Execution in Counterparts

This Agreement may be executed in any number of counterparts (including by facsimile or other electronic transmission), each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same agreement. Any party hereto may execute this Agreement by signing any counterpart. The words "execution", "execute", "executed", "signed", "signature" and words of like import in this Agreement or in or related to any document to be signed in connection with this Agreement and the transactions contemplated hereby, shall be deemed to include electronic signatures or the keeping of records in electronic form, each of which shall be of the same legal effect, validity or enforceability as a manually executed signature or the use of a paper-based recordkeeping system, as the case may be, in accordance with applicable law including, without limitation, as in provided Parts 2 and 3 of the *Personal Information Protection and Electronic Documents Act* (Canada), the *Electronic Commerce Act, 2000* (Ontario), the *Electronic Transactions Act* (British Columbia), the *Electronic Transactions Act* (Alberta), or any other similar laws based on the Uniform Electronic Commerce Act of the Uniform Law Conference of Canada. The Collateral Agent may, in its discretion, require that any such documents and signatures executed electronically or delivered by fax or other electronic transmission be confirmed by a manually-signed original thereof; provided that the failure to request or deliver the same shall not limit the effectiveness of any document or signature executed electronically or delivered by fax or other electronic transmission.

8 Grants, Rights and Remedies

This Agreement has been entered into in conjunction with the provisions of the Security Agreement. Each Grantor does hereby acknowledge and confirm that the grant of the security interest hereunder to, and the rights and remedies of, the Collateral Agent with respect to the Collateral are more fully set forth in the Security Agreement, the terms and provisions of which are incorporated herein by reference as if fully set forth herein.

9 Governing Law

This Agreement shall be governed by, and construed in accordance with, the laws of the Province of Alberta and the laws of Canada applicable therein, without regard to conflict of laws principles.

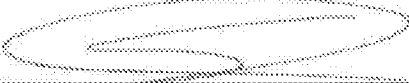
IN WITNESS WHEREOF, the parties hereto have executed this Agreement by their duly authorized officers as of the day and year first above written.

TRICAN WELL SERVICE LTD., as a Grantor

Per: 

Name: Bradley P.D. Fedora

Title: President & CEO

Per: 

Name: Scott Matson

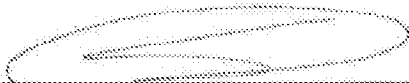
Title: Chief Financial Officer

1704477 ALBERTA LTD., as a Grantor

Per: 

Name: Bradley P.D. Fedora

Title: President & CEO

Per: 

Name: Scott Matson

Title: SVP Finance & CFO

OLYMPIA TRUST COMPANY, as the Collateral Agent

Per: 

Name: Dean Naugler

Title: VP, Corporate & Shareholder Services

Per: 

Name: Matthew Kelly *Simon Law*

Title: Relationship Manager *Manager Corporate Trust*

**Schedule A
Patents and Patent Applications**

Owner/Applicant	Patent	Registration/ Application No.
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
Trican Well Service Ltd.	Flow-actuated pressure equalization valve for a downhole tool	2,683,432
Trican Well Service Ltd.	Eccentric, coil-in-coil tubing	2,889,456
Trican Well Service Ltd.	Fluid displacement stimulation of deviated wellbores using a temporary conduit	2,877,036
Trican Well Service Ltd.	Microbial-enhanced well cementing and remediation	2,871,202
Trican Well Service Ltd.	Gas separator	2,581,136
Trican Well Service Ltd.	Method and system for fracturing subterranean formations with a proppant and dry gas	2,531,444
Trican Well Service Ltd.	Method for making particulate slurries and particulate slurry compositions	2,545,563
Trican Well Service Ltd.	Fracturing fluid and method for fracturing subterranean formations	2,570,953
Trican Well Service Ltd.	Apparatus and method of fracturing	2,580,590
Trican Well Service Ltd.	Pressure containment devices and methods of using same	2,674,268
Trican Well Service Ltd.	Control of particulate entrainment by fluids	2,684,966
Trican Well Service Ltd.	Control of particulate entrainment by fluids	2,848,264
Trican Well Service Ltd.	Aqueous particulate slurry compositions and methods of making same	2,683,516
Trican Well Service Ltd.	Resin coated proppant slurry compositions and methods of making and using same	2,693,427

Owner/Applicant	Patent	Registration/ Application No.
Trican Well Service Ltd.	Hydrocarbon fluid compositions and methods for using same	2,643,251
Trican Well Services Ltd.	Compositions and methods for enhancing fluid recovery for hydraulic fracturing treatments	2,690,768
Trican Well Service Ltd.	Compositions and methods for enhancing fluid recovery for hydraulic fracturing treatments	2,787,132
Trican Well Service Ltd.	Well service compositions and methods	2,772,833
Trican Well Service Ltd.	Smart fluid compositions and methods for well service operations	2,731,014
Trican Well Service Ltd.	Fracturing tool anchor	2,748,609
Trican Well Service Ltd.	Fracturing tool anchor	2,784,506
Trican Well Service Ltd.	Hydrocarbon-based fluid compositions and methods of using same	2,735,428
Trican Well Service Ltd.	Fracturing slurry compositions and methods for making same	2,845,069
Trican Well Service Ltd.	Fracturing slurry compositions and methods for making same	2,883,811
██████████	██████████	██████████
Trican Well Service Ltd.	Aqueous slurry for particulates transportation	2,897,441
Trican Well Service Ltd.	Spray set-up for one the fly coating of proppants in a fracture application	2,877,025
██████████	██████████	██████████
Trican Well Service Ltd.	Hanger assembly and system including hanger assembly and heater string	2,809,273
Trican Well Service Ltd.	Heater string and process of well heating	2,704,561
Trican Well Service Ltd.	Downhole chemical delivery for oil and gas wells	2,803,326
Trican Well Service Ltd.	Composite solids system to prepare polymer solutions for hydraulic fracturing treatments	2,814,286

Owner/Applicant	Patent	Registration/ Application No.
Trican Well Service Ltd.	Composition and method to replace polysaccharides in hydraulic fracturing	2,822,279
Trican Well Service Ltd.	Viscous fluid systems from waste water	2,896,924
Trican Well Service Ltd.	Oil-based dust suppression composition and method of use	3,047,473
[REDACTED]	[REDACTED]	[REDACTED]
Trican Well Service Ltd.	System for cementing tubulars comprising a mud motor	8,672,030
Trican Well Service Ltd.	Burst disk-actuated shaped charges, systems and methods of use	9,121,266
Trican Well Service Ltd.	Applications of smart fluids in well service operations	9,206,659
Trican Well Service Ltd.	Apparatus and method for stimulating subterranean formations	8,863,850
Trican Well Service Ltd.	Method and system for fracturing subterranean formations with a proppant and dry gas	7,735,551
Trican Well Service Ltd.	Method for making particulate slurries and particulate slurry compositions	7,723,274
Trican Well Service Ltd.	Fracturing method and apparatus utilizing gelled isolation fluid	8,141,638
Trican Well Service Ltd.	Pressure containment devices and methods of using same	8,561,687
Trican Well Service Ltd.	Control of particulate entrainment by fluids	8,236,738
Trican Well Service Ltd.	Control of particulate entrainment by fluids	8,800,658
Trican Well Service Ltd.	Aqueous particulate slurry compositions and methods of making same	8,105,986
Trican Well Service Ltd.	Hydrocarbon fluid compositions and methods for using same	7,977,285

Owner/Applicant	Patent	Registration/ Application No.
Trican Well Service Ltd.	Well service compositions for consolidation of particulates in subterranean coal seams	8,499,835
Trican Well Service Ltd.	Center discharge gas turbodrill	8,770,317
Trican Well Service Ltd.	Center discharge gas turbodrill	8,607,897
Trican Well Service Ltd.	Aqueous particulate slurry compositions and methods of making same	9,139,761 Appl. No. 13/305,325
Trican Well Service Ltd.	Fracturing with viscoelastic surfactant based fluid	6,904,972
Trican Well Service Ltd.	Gas separator	7,677,308
Trican Well Service Ltd.	Microbial-enhanced well cementing and remediation	14/536,430
Trican Well Service Ltd.	Method for making particulate slurries and particulate slurry compositions	12/759,469
Trican Well Service Ltd.	Control of particulate entrainment by fluids	14/273,030
Trican Well Service Ltd.	Applications of smart fluids in well service operations	13/021,698
Trican Well Service Ltd.	Fracturing tool anchor	13/569,556
Trican Well Service Ltd.	Composition and methods for making aqueous slurry	14/696,125
Trican Well Service Ltd.	Method and system for purging coil tubing using onsite gas	2,941,454 WO/2015/131284
Trican Well Service Ltd.	Real-time monitoring of wellbore cleanout using distributed acoustic sensing	WO/2016/179677
Trican Well Service Ltd.	Method for making transportable aqueous slurries by particulate hydrophobicization	WO/2006/116868
Trican Well Service Ltd.	Slurry compositions and methods for making same	WO/2007/033489
Trican Well Service Ltd.	Cryogenic pump and inlet header	WO/2017/136934
Trican Well Service Ltd.	Controlled release of chemicals in oilfield operations	WO/2017/181289
Trican Well Service Ltd.	Controlling degradation rates of diverting agents	WO/2016/141489

**Schedule B
Trademarks and Trademark Applications**

Owner/Applicant	Jurisdiction	Trademark	Registration / Application No.
Trican Well Service Ltd.	Canada	Trican 53280-135	TMA764,312
Trican Well Service Ltd.	Canada	Trican & Design 53280-137	TMA764,302
Trican Well Service Ltd.	Canada	Trican & Design (in reverse)	TMA842,081
Trican Well Service Ltd.	Canada	Trican Well Service Ltd.	TMA583,720
Trican Well Service Ltd.	Canada	Trican Well Service Ltd. & Design	TMA584,263
Trican Well Service Ltd.	Canada	Trican Well Service & Design	TMA824,649
Trican Well Service Ltd.	Canada	Trican Well Service & Design (in reverse)	TMA841,997
Trican Well Service Ltd.	Canada	Aquacheck 53280-105	TMA720,888
Trican Well Service Ltd.	Canada	Aquaplug 53280-101	TMA720,889
Trican Well Service Ltd.	Canada	Aquaseal 53280-116	TMA720,890
Trican Well Service Ltd.	Canada	BPS	TMA797,785
Trican Well Service Ltd.	Canada	BPS (Burst Port System)	TMA797,784
Trican Well Service Ltd.	Canada	Catalyst Frac System 53280-127	TMA758,278
Trican Well Service Ltd.	Canada	CBM Solutions 53280-139	TMA758,932
Trican Well Service Ltd.	Canada	DSA 53280-133	TMA753,462
Trican Well Service Ltd.	Canada	DSA (Dirty Sandstone Acid)	TMA794,192
Trican Well Service Ltd.	Canada	Ecoclean 53280-99	TMA739,894
Trican Well Service Ltd.	Canada	FlowRider	TMA797,787
Trican Well Service Ltd.	Canada	Gel-Pac-Frac 53280-103	TMA708,921
Trican Well Service Ltd.	Canada	Nitricarbon Frac 53280-97	TMA706,476

Owner/Applicant	Jurisdiction	Trademark	Registration / Application No.
Trican Well Service Ltd.	Canada	Nitrojet 53280-122	TMA743,513
Trican Well Service Ltd.	Canada	Proplock 53280-145	TMA782,736
Trican Well Service Ltd.	Canada	SRVMAX	TMA789,405
Trican Well Service Ltd.	Canada	Trinet	TMA603,092
Trican Well Service Ltd.	Canada	Well-Sol 53280-108	TMA719,364
Trican Well Service Ltd.	Canada	Worldwide Knowledge Local Solutions	TMA845,834
Trican Well Service Ltd.	Canada	Worldwide Knowledge - Local Solutions	TMA845,835
Trican Well Service Ltd.	United States	Trican 53280-136	3,906,176
Trican Well Service Ltd.	United States	Trican & Design 53280-138	3,906,177
Trican Well Service Ltd.	United States	Worldwide Knowledge - Local Solutions	4,729,797

**Schedule C
Copyrights and Copyright Applications**

Nil.