506467984 01/26/2021

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6514760

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
FRANCISCO SANCHEZ	10/13/2020

RECEIVING PARTY DATA

Name:	ORICA USA INC.	
Street Address:	33101 EAST QUINCY AVENUE	
City:	WATKINS	
State/Country:	COLORADO	
Postal Code:	80137	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16978347

CORRESPONDENCE DATA

Fax Number: (317)231-7433

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: 3172311313

Email: juan.amador@btlaw.com

Correspondent Name: JUAN P AMADOR

Address Line 1: 11 SOUTH MERIDIAN STREET Address Line 4: INDIANAPOLIS, INDIANA 46204

ATTORNEY DOCKET NUMBER:	84945-325325	
NAME OF SUBMITTER:	BRIAN K JARMAN	
SIGNATURE:	/Brian K. JARMAN/	
DATE SIGNED:	01/26/2021	

Total Attachments: 5

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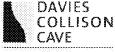
PATENT 506467984 REEL: 055026 FRAME: 0558

MARCH 2019

DEED OF CONFIRMATION AND ASSIGNMENT

FRANCISCO SANCHEZ AND ORICA USA INC. AND ORICA INTERNATIONAL PTE LTD

Davies Collison Cave Pty Ltd Intellectual Property 1 Nicholson St, Melbourne, VIC, 3000 Tel: +61 3 9254 2777 Fax: +61 3 9254 2770 Ref: 35523183 © Davies Collison Cave Pty Ltd 2019



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INTELLECTUAL PROPERTY General

PATENT REEL: 055026 FRAME: 0559

DEED OF CONFIRMATION AND ASSIGNMENT

THIS DEED is made on the 10/13/2020.

BETWEEN:

Francisco Sanchez of 1769 Geneva Street, Aurora, Colorado 80010 United States of America (Sanchez)

AND

Orica USA Inc. of 33101 East Quincy Avenue, Watkins, Colorado 80137, United States of America (Orica USA)

AND

Orica International Pte Ltd of 78 Shenton Way #06-15 Tower 2, Singapore 079120 (OIPL)

WHEREAS:

- A. Sanchez contributed with other co-inventors to an invention or inventions generally relating to optically initiating a target volume of tertiary explosive medium in the absence of prior or concurrent initiation of primary and/or secondary explosive charges (Invention) that is described and/or claimed in PCT Patent Application No. PCT/US2019/21280 entitled "Systems, apparatuses, devices, and methods for initiating or detonating tertiary explosive media by way of photonic energy" filed on 8 March, 2019 in the name of Orica International Pte Ltd.
- B. At the time of making his contribution to the Invention, Sanchez was employed by Orica USA, and he hereby acknowledges that he is under an obligation to assign all his right, title and interest in and to the Invention for the United States of America and for all countries foreign thereto (Foreign Territories) to Orica USA or to such other party as may be nominated by Orica USA (as applicable).
- C. OIPL has now requested that Orica USA and Sanchez, and Orica USA and Sanchez have agreed to, enter into this Deed of Confirmation and Assignment.

NOW THIS DEED OF ASSIGNMENT WITNESSES as follows:

- 1. Sanchez hereby acknowledges that:
 - (a) he was involved with other co-inventors in the creation of the Invention;
 - (b) the Invention was created by him and other co-inventors while he was an employee of Orica USA;

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General

- (c) all of his involvement in the creation of the Invention was in the ordinary course of his employment, that is, all such involvement was in performance of the position which he was employed by Orica USA to perform; and
- (d) as a consequence of the employment relationship with Orica USA, the whole right, title and interest in the Invention vested in Orica USA upon creation
- To the extent that Sanchez has retained any right, title or interest in the Invention, at Orica USA's direction, Sanchez hereby assigns all of that right, title and interest in and to the Invention to OIPL absolutely.
- 3. Orica USA hereby acknowledge that all their right, title and interest in and to the Invention is vested absolutely in and is the property of OIPL, the right, title and interest in and to the Invention being:
 - (a) all of the right, title and interest in and to the Invention for the United States of America and for Foreign Territories;
 - (b) the right to file any application for patent or similar provision in the United States of America or Foreign Territories in respect of the Invention (including any regular divisional, continuation or continuation-in-part application) whether in the name of OIPL or in such other name or names as OIPL may direct (Foreign Application) together with the rights obtained in any patent or patents issued pursuant thereto or reissue or re-examination thereon; and
 - (c) the right to file an international application under the Patent Cooperation Treaty designating the United States of America and/or Foreign Territories for patent or similar provision in respect of the Invention whether in the name of OIPL or in such other name or names as OIPL may direct together with the rights obtained in any patent or patents issued pursuant thereto in the United States of America or in Foreign Territories.
- 4. To the extent that, as at the date of this Deed, Orica USA holds any right, title or interest in the Invention in its own right, Orica USA hereby assigns, transfers and sets over to OIPL absolutely any and all of that right, title and interest in and to the Invention.
- 5. Sanchez and Orica USA agree, at the request of OIPL, to execute such documents and do all such acts and things as OIPL may reasonably require:
 - (a) to enable any application in respect of the Invention to be filed in the name of OIPL or otherwise as it may direct;
 - (b) to assist in the prosecution of any such application so filed; and
 - (c) to vest in OIPL or as it may direct any such application and any right granted pursuant thereto.

The provisions of this clause 5 shall continue to bind the Inventors notwithstanding that at the time when they are called upon to implement the same their employment with OA or Orica USA may have ceased.

 Orica USA hereby agrees that Sanchez may execute assignments of the Invention and any Foreign Application directly to OIPL subsequent to the effective date hereof

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- and that any such assignment by Sanchez shall be treated as a confirmatory assignment of the rights assigned hereby.
- 7, In this Deed, the expression "Sanchez" includes his respective legal personal representatives and the expressions "Orica USA" and "OIPL" include their respective successors and assigns.
- 8, The Deed may be executed in counterparts by each party to this Deed, 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 document.
- 9, This Deed takes effect under, is governed by, and shall be construed according to the laws of the State of Victoria, Australia.

IN WITNESS WHEREOF the parties hereto have executed this Deed effective the date first above mentioned.

SIGNED, SEALED and DELIVERED by FRANCISCO SANCHEZ in the presence of:	
Janufu Stady Signature of Witness	10/13/2020 Date
Jennifer Sanchez	
Name of Witness	
EXECUTED for and on behalf of ORICA) USA INC. by its duly authorised officer in) the presence of:	3 1 1887 S. Mar J.
Signature of Witness	Signature of Authorised Officer James K. Bonnor, President Name and title of Authorised Officer
Tereasa Harsh Name of Witness	October 2/ 2020

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General

EXECUTED for and on behalf of ORICA INTERNATIONAL PTE LTD by its duly authorised officer in the presence of:	
	Signature of Authorised Officer
	Kent thooks - Vice-President Global Suppy Cha
Signature of Witness	Name and title of Authorised Officer
Christing Tan Name of Witness	39 10 303-0 Date

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General

PATENT REEL: 055026 FRAME: 0563

RECORDED: 01/26/2021