

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT4837662

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECOND LIEN PATENT SECURITY AGREEMENT
CONVEYING PARTY DATA	
Name	Execution Date
CGG HOLDING (U.S.) INC.	02/21/2018
RECEIVING PARTY DATA	
Name:	THE BANK OF NEW YORK MELLON
Street Address:	101 BARCLAY STREET
City:	NEW YORK
State/Country:	NEW YORK
Postal Code:	10286
PROPERTY NUMBERS Total: 3	
Property Type	Number
Patent Number:	6645004
Patent Number:	6928367
Patent Number:	7859945
CORRESPONDENCE DATA	
Fax Number:	(202)408-3141
<i>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.</i>	
Phone:	202-408-3121 X62348
Email:	jean.paterson@cscglobal.com
Correspondent Name:	CSC
Address Line 1:	1090 VERMONT AVENUE NW, SUITE 430
Address Line 4:	WASHINGTON, D.C. 20005
ATTORNEY DOCKET NUMBER:	082720-5
NAME OF SUBMITTER:	JEAN PATERSON
SIGNATURE:	/jep/
DATE SIGNED:	02/23/2018
Total Attachments: 7	
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SCHEDULE I

Second Lien Patent Security Agreement

SECOND LIEN PATENT SECURITY AGREEMENT

This Second Lien Patent Security Agreement, dated as of February 21, 2018 (this “**Patent Security Agreement**”), by and among CGG Holding (U.S.) Inc. and CGG Services (U.S.) Inc. (the “**Grantors**”), in favor of The Bank of New York Mellon, in its capacity as U.S. collateral agent for the Secured Parties (in such capacity, together with any successor thereof, the “**U.S. Collateral Agent**”) pursuant to that certain Indenture, dated as of February 21, 2018 (as amended, restated, amended and restated, supplemented or otherwise modified from time to time, the “**Second Lien Indenture**”), among the CGG Holding (U.S.) Inc., a Delaware corporation (the “**Company**”), CGG S.A., a societe anonyme incorporated under the laws of France (registration number 969 202 241 RCS Paris), the other Obligor party thereto, the Agents party thereto and the other parties party thereto.

WITNESSETH:

WHEREAS, the Grantors are party to that certain Second Lien Pledge and Security Agreement (U.S.) dated as of February 21, 2018, (as amended, restated, amended and restated, supplemented or otherwise modified from time to time, the “**Security Agreement**”) in favor of the U.S. Collateral Agent pursuant to which the Grantors are required to execute and deliver this Patent Security Agreement.

NOW, THEREFORE, in consideration of the premises and to induce the U.S. Collateral Agent, for the ratable benefit of the Secured Parties, to enter into the Second Lien Indenture, the Grantors hereby agree with the U.S. Collateral Agent as follows:

SECTION 1. Defined Terms. Unless otherwise defined herein, terms defined in the Security Agreement and used herein have the meaning given to them in the Security Agreement.

SECTION 2. Grant of Security Interest in Patent Collateral. Each Grantor hereby pledges and grants to the U.S. Collateral Agent for the ratable benefit of the Secured Parties a Lien on and security interest in and to all of its right, title and interest in, to and under all the following Pledged Collateral of such Grantor, whether now existing or hereafter arising or acquired from time to time (collectively, the “**Patent Collateral**”): all United States patents and patent applications (whether issued or applied for), including the United States patents and patent applications listed on Schedule 1 attached hereto, together with any and all (i) rights and privileges arising under applicable legal requirements with respect to the use of any of the foregoing, (ii) inventions and improvements described and claimed therein, (iii) reissues, substitutes, reexaminations, divisions, renewals, extensions, continuations and continuations-in-part thereof and amendments thereto, (iv) proceeds, income, fees, royalties, damages and payments now or hereafter due and/or payable thereunder and with respect thereto including damages, claims and payments for past, present or future infringements or other violations thereof, (v) rights to sue for past, present or future infringements or other violations thereof, and (vi) rights corresponding thereto in the United States.

SECTION 3. Security Agreement. The security interest granted pursuant to this Patent Security Agreement is granted in conjunction with the security interest granted to the U.S. Collateral Agent pursuant to the Security Agreement, and the Grantors hereby acknowledge and

affirm that the rights and remedies of the U.S. Collateral Agent with respect to the security interest in the Patent 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 as if fully set forth herein. In the event that any provision of this Patent Security Agreement is deemed to conflict with the Security Agreement, the provisions of the Security Agreement shall control.

SECTION 4. Termination. Once the Obligations have been paid in full, the security interest granted pursuant to the Security Agreement and the security interest granted herein shall terminate and be deemed released and upon written request and cost of the Company, the U.S. Collateral Agent shall execute, acknowledge, and deliver to the Grantors an instrument in writing in recordable form releasing the collateral pledge, grant, lien and security interest in the Patent Collateral under this Patent Security Agreement.

SECTION 5. Counterparts. This Patent Security Agreement may be executed in any number of counterparts, all of which shall constitute one and the same instrument, and any party hereto may execute this Patent Security Agreement by signing and delivering one or more counterparts.

SECTION 6. Governing Law. This Patent Security Agreement and the transactions contemplated hereby, and all disputes between the parties under or relating to this Patent Security Agreement or the facts or circumstances leading to its execution, whether in contract, tort or otherwise, shall be construed in accordance with and governed by the laws (including statutes of limitation) of the State of New York, without regard to conflicts of law principles that would require the application of the laws of another jurisdiction.

[Signature Page Follows]

IN WITNESS WHEREOF, each Grantor has caused this Copyright Security Agreement to be executed and delivered by its duly authorized officer as of the date first set forth above.

CGG HOLDING (U.S.) INC.

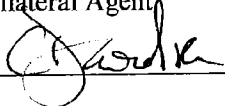
By: *Yves Gouland*
Name: *Yves Gouland*
Title: *Authorized signatory*

CGG SERVICES (U.S.) INC.

By: *Yves Gouland*
Name: *Yves Gouland*
Title: *Authorized signatory*

Accepted and Agreed:

THE BANK OF NEW YORK MELLON,
as U.S. Collateral Agent

By:  _____

Name:

Title:

Charlotte David
Vice President

SCHEDULE 1
to
SECOND LIEN PATENT SECURITY AGREEMENT

UNITED STATES PATENTS AND PATENT APPLICATIONS

United States Patents:

OWNER	TITLE	PATENT NUMBER
CGG Holding (U.S.) Inc.	Geophone keyway tee protective casing	6,645,004
CGG Holding (U.S.) Inc. Abdel Zekkou Prism Holding Corporation	Reservoir fracture characterization	6,928,367
CGG Holding (U.S.) Inc.	Efficient Seismic Data Acquisition with Source Separation	7,859,945
CGG Services (U.S.) Inc.	Method and systems for estimating stress using seismic data	8,619,500
CGG Services (U.S.) Inc.	Device and Method for Calculating 3D Angle Gathers from Reverse Time Migration	8,619,498
CGG Services (U.S.) Inc.	Method and Device for Alternating Depths Marine Seismic Acquisition	9,733,375
CGG Services (U.S.) Inc.	Methods and Systems for Performing Azimuthal Simultaneous Elastic Inversion	8,792,303
CGG Services (U.S.) Inc.	Seismic array towing system	9,151,859
CGG Services (U.S.) Inc.	Method and device for wave fields separation in seismic data	9,116,256

United States Patent Applications:

None.

SCHEDULE II

PATENTS

Legal Owner/Grantor	Official Title	Grant Number	Filing Date	Filing Number	Publication Number	Grant Date
CGG Holding (U.S.) Inc.	Geophone keyway tee protective casing	6,645,004	01/22/2002	10/054,254	2003-0139090	11/11/2003
CGG Holding (U.S.) Inc. Abdel Zekkou Prism Holding Corporation	Reservoir fracture characterization	6,928,367	09/26/2003	10/672,045	2004-0117121	08/09/2005
CGG Holding (U.S.) Inc.	Efficient Seismic Data Acquisition with Source Separation	7,859,945	07/06/2007	11/774,055	US-2009-0010103	12/28/2010

PATENT LICENSES

NONE

PENDING PATENTS

NONE