

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT6689252

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	FIRST LIEN PATENT SECURITY AGREEMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
SERCEL, INC.	04/22/2021
SERCEL-GRC CORP.	04/22/2021
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	THE BANK OF NEW YORK MELLON, LONDON BRANCH, AS SECURITY AGENT
<b>Street Address:</b>	ONE CANADA SQUARE, CANARY WHARF
<b>City:</b>	LONDON
<b>State/Country:</b>	UNITED KINGDOM
<b>Postal Code:</b>	E14 5AL
<b>PROPERTY NUMBERS Total: 21</b>	
<b>Property Type</b>	<b>Number</b>
Patent Number:	6483775
Patent Number:	6731389
Patent Number:	6645004
Patent Number:	7382689
Patent Number:	7859945
Patent Number:	9151859
Patent Number:	9791579
Patent Number:	10330806
Patent Number:	9733370
Patent Number:	8899105
Patent Number:	9251983
Patent Number:	9651575
Patent Number:	9506340
Patent Number:	10468158
Patent Number:	9909640
Patent Number:	10253616
Patent Number:	10450855
Patent Number:	10295689
Patent Number:	10788094
<b>PATENT</b>	

<b>Property Type</b>	<b>Number</b>
<b>Patent Number:</b>	9759837
<b>Application Number:</b>	16410418

**CORRESPONDENCE DATA**

**Fax Number:**  
*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:** 800-494-5225  
**Email:** ipteam@cogencyglobal.com  
**Correspondent Name:** STEWART WALSH  
**Address Line 1:** 1025 VERMONT AVE NW, SUITE 1130  
**Address Line 2:** COGENCY GLOBAL INC.  
**Address Line 4:** WASHINGTON, D.C. 20005

<b>ATTORNEY DOCKET NUMBER:</b>	1366547 PAT
<b>NAME OF SUBMITTER:</b>	ADAM SIEGEL
<b>SIGNATURE:</b>	/Adam Siegel/
<b>DATE SIGNED:</b>	05/03/2021

**Total Attachments: 9**  
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FIRST LIEN PATENT SECURITY AGREEMENT

This First Lien Patent Security Agreement, dated as of April 22, 2021 (this “**Patent Security Agreement**”), by and among each guarantor listed on Schedule 1 hereto (the “**Grantors**”), in favor of THE BANK OF NEW YORK MELLON, LONDON BRANCH, in its capacity as security agent for the Secured Parties (in such capacity, together with any successor thereof, the “**Security Agent**”) pursuant to that certain Indenture dated as of April 1, 2021 (as amended, restated, amended and restated, supplemented or otherwise modified from time to time, the “**First Lien Indenture**”), by and among CGG S.A., a société anonyme incorporated under the laws of France (registration number 969 202 241 RCS Evry) (“**Parent**”), CGG Holding (U.S.) Inc., a Delaware corporation (“**U.S. Parent**”), the other Obligors party thereto, BNY Mellon Corporate Trustee Services Limited, as trustee, The Bank of New York Mellon, London Branch, as paying agent and security agent, The Bank of New York Mellon SA/NV, Dublin Branch, as transfer agent and registrar, and the other parties party thereto and the Super Senior Revolving Facilities Agreement, dated as of April 1, 2021 (as amended, restated, amended and restated, supplemented or otherwise modified from time to time, the “**Credit Agreement**”), by and among Parent, the Original Borrower (as defined therein), the Original Guarantor (as defined therein), the Original Lenders (as defined therein), Barclays Bank Ireland PLC, Goldman Sachs Bank Europe SE, J.P. Morgan AG, and Morgan Stanley Bank AG, as the Mandated Lead Arrangers (as defined therein), Lucid Agency Services Limited, as the Agent (as defined therein) and The Bank of New York Mellon, London Branch, and The Bank of New York Mellon SA/NV, Paris Branch, as security agents.

W I T N E S S E T H:

WHEREAS, the Grantors have acceded as parties to that certain First Lien Pledge and Security Agreement (U.S.) dated as of April 1, 2021, (as amended, restated, amended and restated, supplemented or otherwise modified from time to time, the “**Security Agreement**”) in favor of the Security 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 Security Agent, for the ratable benefit of the Secured Parties, to enter into the First Lien Indenture and the Credit Agreement, the Grantors hereby agree with the Security 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 Security 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 2 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, divisionals, 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 Security Agent pursuant to the Security Agreement, and the Grantors hereby acknowledge and affirm that the rights and remedies of the Security 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 or as otherwise provided in the Security Agreement, 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 U.S. Parent, the Security 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.

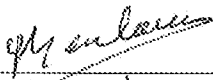
SECTION 5. Counterparts. This Patent Security Agreement may be executed in any number of counterparts, all of which shall constitute one and the same instrument, and any party hereto may execute this Patent Security Agreement by signing and delivering one or more counterparts.

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 Patent Security Agreement to be executed and delivered by its duly authorized officer as of the date first set forth above.

SERCEL, INC.

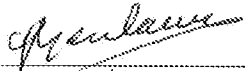
By:   
Name: YVES GOULAES  
Title: Authorized Signatory

*[Signature page to the First Lien Patent Security Agreement]*

{2367907;}

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

SERCEL-GRC CORP.

By:   
Name: YVES GOULARD  
Title: Authorized signatory

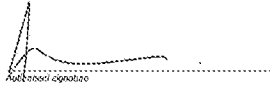
*[Signature page to the First Lien Patent Security Agreement]*

{2307907;}

Accepted and Agreed:

THE BANK OF NEW YORK MELLON, LONDON BRANCH,  
as Security Agent

By: —

A handwritten signature in black ink, appearing to read 'Tina Howson', written over a dotted line.

Digitally  
signed by  
Tina Howson

*[Signature page to the First Lien Patent Security Agreement]*

SCHEDULE 1

to

FIRST LIEN PATENT SECURITY AGREEMENT

GRANTORS

NAME	ADDRESS
Sercel, Inc.	17200 Park Row HOUSTON, TX 77084-4925 USA
Sercel-GRC Corp.	13914 East Admiral Pl., Ste. B, TULSA, OK 74116-2107 USA



# SCHEDULE 2

to

## FIRST LIEN PATENT SECURITY AGREEMENT

### UNITED STATES PATENT REGISTRATIONS AND PATENT APPLICATIONS

#### UNITED STATES PATENT REGISTRATIONS

Legal Owner/Grantor	Filing Date	Filing Number	Publication Number	Grant Date	Grant Number	Official Title
Sercel, Inc.	6/4/2001	09/873,894	—	11/19/2002	US6483775	Bird Communications System in a Marine Seismic Cable
Sercel, Inc.	5/8/2002	10/141,372	US2003/210403	5/4/2004	US6731389	Method and apparatus for the elimination of polarization fading in interferometric sensing systems
Sercel, Inc.	1/22/2002	10/054,254	US2003/139090	11/11/2003	US6645004	GEOPHONE KEYWAY TEE PROTECTIVE CASING
Sercel, Inc.	8/10/2005	11/161,640	US2007/036033	6/3/2008	US7382689	Flexible hydrophone
Sercel, Inc.	7/6/2007	11/774,055	US2009/010103	12/28/2010	US7859945	Efficient Seismic Data Acquisition with Source Separation
Sercel, Inc.	12/9/2009	12/634,169	US2010/149910	10/6/2015	US9151859	SEISMIC ARRAY TOWING SYSTEM
Sercel, Inc.	6/16/2011	13/493,361	US2012/269033	10/17/2017	US9791579	Dual axis geophones for pressure/velocity sensing streamers forming a triple component streamer
Sercel, Inc.	6/16/2011	15/645,167	US2017/315246	6/25/2019	US10330806	Dual axis geophones for

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[[5621007]]

**PATENT**  
**REEL: 056122 FRAME: 0316**

Legal Owner/Grantor	Filing Date	Filing Number	Publication Number	Grant Date	Grant Number	Official Title
						pressure/velocity sensing streamers forming a triple component streamer
Sercel, Inc.	6/16/2011	16/410,418	US2019/265372			Dual axis geophones for pressure/velocity sensing streamers forming a triple component streamer
Sercel, Inc.	6/16/2011	13/664,708	US2013/064038	8/15/2017	US9733370	Dual axis geophones for pressure/velocity sensing streamers forming a triple component streamer
Sercel-GRC Corp.	8/29/2012	13/597,827	US2014/060173	12/2/2014	US8899105	Slim capacitance sensor for downhole applications
Sercel, Inc.	4/19/2013	13/866,161	US2014/312713	2/2/2016	US9251983	Depth activated sensor switch and method
Sercel, Inc.	10/25/2013	14/063,290	US2015/114079	5/16/2017	US9651575	Method and Apparatus for Testing a Sensor
Sercel-GRC Corp.	3/13/2014	14/209,260	US2014/0311235	11/29/2016	US9506340	Downhole Quartz Gauge with Minimal Electronics
Sercel, Inc.	5/7/2014	14/271,852	US2015/325336	11/5/2019	US10468158	Apparatus and method for an electromechanical cable overstress indicator
Sercel, Inc.	10/8/2014	14/509,137	US2016/102729	3/6/2018	US9909640	Apparatus and Method for vibration mitigation through sequential impedance optimization
Sercel, Inc.	12/14/2015	14/967,881	US2016/177702	4/9/2019	US10253616	Carrier mechanism and installation

SCHEDULE 2 - 2

[[5621007]]

**PATENT**  
**REEL: 056122 FRAME: 0317**

Legal Owner/Grantor	Filing Date	Filing Number	Publication Number	Grant Date	Grant Number	Official Title
						method for downhole gauge
Sercel-GRC Corp.	4/4/2016	15/089,698	US2017/284189	10/22/2019	US10450855	System and method for parameter measurement in well
Sercel, Inc.	10/3/2016	15/283,668	US2018/097348	5/21/2019	US10295689	Controlled curvature bend device and method
Sercel, Inc.	11/3/2017	15/802,621	US2018/051770	9/29/2020	US10788094	Apparatus and Method for vibration mitigation through sequential impedance optimization
Sercel-GRC Corp.	11/11/2014	15/028,821	US2016/259086	9/12/2017	US9759837	Ground Fault Tolerant Data Communication System for a Downhole Instrument

#### PATENT LICENSES

None.

#### PENDING PATENTS

None.

SCHEDULE 2 - 3

[[5621007]]

RECORDED: 05/03/2021

**PATENT**  
**REEL: 056122 FRAME: 0318**