

## TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

ETAS ID: TM500767

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT		
<b>NATURE OF CONVEYANCE:</b>	RELEASE OF SECURITY INTEREST		
<b>CONVEYING PARTY DATA</b>			
<b>Name</b>	<b>Formerly</b>	<b>Execution Date</b>	<b>Entity Type</b>
JPMorgan Chase Bank, N.A.		10/03/2018	Chartered Bank: DELAWARE
<b>RECEIVING PARTY DATA</b>			
<b>Name:</b>	TGS-NOPEC GEOPHYSICAL COMPANY		
<b>Street Address:</b>	10451 Clay Road		
<b>City:</b>	Houston		
<b>State/Country:</b>	TEXAS		
<b>Postal Code:</b>	77041		
<b>Entity Type:</b>	Corporation: DELAWARE		
<b>PROPERTY NUMBERS Total: 11</b>			
<b>Property Type</b>	<b>Number</b>	<b>Word Mark</b>	
<b>Registration Number:</b>	3653281	TGS	
<b>Registration Number:</b>	3653282		
<b>Registration Number:</b>	2023711	RILEY'S	
<b>Registration Number:</b>	4470711	PRIMA	
<b>Registration Number:</b>	2739067	LOG-LINE PLUS!	
<b>Registration Number:</b>	2445431	LOG-LINE	
<b>Registration Number:</b>	2765668	LOG-LINE PLUS!	
<b>Registration Number:</b>	2327393	SMARTRASTER	
<b>Registration Number:</b>	4431868	A2D	
<b>Serial Number:</b>	86761124	TGS R360	
<b>Serial Number:</b>	86761116	R360	
<b>CORRESPONDENCE DATA</b>			
<b>Fax Number:</b>	7132384285		
<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>			
<b>Phone:</b>	713.220.4614		
<b>Email:</b>	jeannedunn@HuntonAK.com		
<b>Correspondent Name:</b>	HUNTON ANDREWS KURTH LLP		
<b>Address Line 1:</b>	600 Travis St.		
<b>Address Line 2:</b>	Suite 4200		

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TRADEMARK

<b>Address Line 4:</b>	Houston, TEXAS 77002
<b>NAME OF SUBMITTER:</b>	Jeanne Dunn
<b>SIGNATURE:</b>	/Jeanne Dunn/
<b>DATE SIGNED:</b>	12/05/2018
<b>Total Attachments: 6</b> source=Release#page1.tif source=Release#page2.tif source=Release#page3.tif source=Release#page4.tif source=Release#page5.tif source=Release#page6.tif	

## RELEASE OF SECURITY INTEREST IN TRADEMARKS AND PATENTS

THIS RELEASE, dated to be effective as of October 3, 2018 (this "Release"), is made by JPMorgan Chase Bank, N.A., as administrative agent (the "Administrative Agent"), for the benefit of TGS-NOPEC GEOPHYSICAL COMPANY, a Delaware corporation ("TGS"), and A2D Technologies, Inc., a Texas corporation ("A2D" and together with TGS, each a "Grantor" and collectively, the "Grantors"), and their respective successors and assigns. Capitalized terms used but not defined herein shall have the meanings attributed to them in the Trademark and Patent Security Agreements (as defined below).

WHEREAS, pursuant to the Amended and Restated Credit Agreement, dated as of January 22, 2016 (the "Credit Agreement"), among TGS, the Guarantors party thereto, the Lenders party thereto and the Administrative Agent, the Lenders agreed to make Loans to and make other extensions of credit on behalf of TGS;

WHEREAS, in connection with the Credit Agreement, TGS, the Guarantors and the Administrative Agent entered into an Amended and Restated Security and Pledge Agreement, dated as of January 22, 2016 (as amended, supplemented or otherwise modified from time to time, the "Security Agreement");

WHEREAS, pursuant to the Security Agreement, (i) each Grantor executed and delivered that certain Amended and Restated Grant of Trademark Security Interest, dated as of January 22, 2016, in favor of the Administrative Agent, which was recorded in the records of the United States Patent and Trademark Office (the "USPTO") at Trademark Reel 005717, Frame 0874, on January 28, 2016 (the "Trademark Security Agreement") and (ii) TGS executed and delivered that certain Amended and Restated Grant of Patent Security Interest, dated as of January 22, 2016, in favor of the Administrative Agent, which was recorded in the records of the USPTO at Trademark Reel 037601, Frame 0066, on January 27, 2016 ( the "Patent Security Agreement", together with the Trademark Security Agreement, collectively, the "Trademark and Patent Security Agreements");

WHEREAS, pursuant to the Trademark and Patent Security Agreements, each Grantor granted to the Administrative Agent for the benefit of the Secured Parties a security interest in all of Grantor's right, title and interest, as applicable, in and to the following, in each case whether then or thereafter existing or in which Grantor then had or thereafter acquired an interest (collectively, the "Trademark and Patent Collateral");

- (a) all trade names, trademarks and service marks, logos, trademark and service mark registrations, and applications for trademark and service mark registrations, including but not limited to those registrations and applications listed on Schedule A;
- (b) all renewals of trademark and service mark registrations;
- (c) all rights, licenses and goodwill arising out of the foregoing clauses (a) and (b), now existing or hereafter coming into existence, (i) to all income, royalties, damages and other payments (including in respect of all past, present and future infringements) with respect to any of the foregoing, (ii) to sue for all past, present

and future infringements thereof, and (iii) otherwise accruing under or pertaining to any of the foregoing, together, in each case, with the product lines and goodwill of the business connected with the use of, and symbolized by, each such trade name, trademark and service mark;

- (d) all patents and patent applications, the inventions and improvements described and claimed therein, and all patentable inventions, including but not limited to the patents and patent applications listed on Schedule A;
- (e) all reissues, divisions, continuations, renewals, extensions and continuations-in-part of the foregoing;
- (f) all rights, licenses and goodwill arising out of the foregoing clauses (d) and (e), now existing or hereafter coming into existence, (i) to all income, profits, royalties, damages and payments now or hereafter due and/or payable under and with respect thereto, including damages and payments for past, present or future infringements thereof, (ii) to sue for past, present and future infringements thereof, and (iii) otherwise accruing under or pertaining to any of the foregoing throughout the world;
- (g) all licenses or user or other agreements granted to either Grantor with respect to any of the foregoing, in each case whether now or hereafter owned or used; and
- (h) all causes of action, claims and warranties now or hereafter owned or acquired by either Grantor in respect of any of the items listed above.

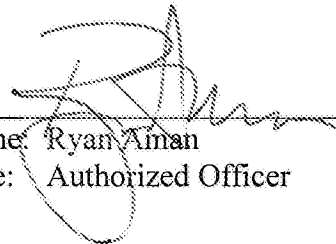
WHEREAS, the Administrative Agent acknowledges that the conditions for termination of its security interest in the Trademark and Patent Collateral have been met, and accordingly, the Administrative Agent has agreed to: (i) release all of its security interest covering the Trademark and Patent Collateral; (ii) restore all right, title and interest in and to the Trademark and Patent Collateral to the relevant Grantor; and (iii) dissolve any and all liens and encumbrances respecting the Trademark and Patent Collateral under the Security Agreement and the Trademark and Patent Security Agreements or otherwise.

NOW, THEREFORE, in consideration of the foregoing and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Administrative Agent hereby terminates the Trademark and Patent Security Agreements and terminates, releases and discharges in its entirety any and all security interests that it has pursuant to the Trademark and Patent Security Agreements and the Security Agreement, and discharges, quit claims, and relinquishes unto the Grantors, and re-assigns to the Grantors, any and all right, title and interest that it may have, in, to and under the Trademark and Patent Collateral.

[Signature Page Follows]

IN WITNESS WHEREOF, the Administrative Agent has caused this Release to be executed and delivered by its duly authorized officer as of the date first set forth above.

JP MORGAN CHASE BANK, N.A.,  
as Administrative Agent

By:   
Name: Ryan Aman  
Title: Authorized Officer

## SCHEDULE A

### U.S. Registered Trademarks

<u>Registered Owner</u>	<u>Trademark/Service Mark</u>	<u>Registration or Serial Number</u>	<u>Registration or Filing Date</u>
TGS-NOPEC	TGS (US)	3653281	07-14-2009
TGS-NOPEC	TGS (EU)	006894943	05-10-2001
TGS-NOPEC	TGS logo (US)	3653282	07-14-2009
TGS-NOPEC	RILEY'S (US)	2023711	12-17-1996
TGS-NOPEC	TGS logo (EU)	006898167	05-11-2009
TGS-NOPEC	TGS(NO)	249725	02-09-2009
TGS-NOPEC	TGS logo (NO)	249888	02-18-2009
TGS-NOPEC	PRIMA (US)	4470711	01-21-2014
TGS-NOPEC	PRIMA (AU)	1596631	12-12-2013
TGS-NOPEC	PRIMA (BR)	840743469	12-18-2013
TGS-NOPEC	PRIMA (CA)	898097	3-5-2015
TGS-NOPEC	PRIMA (UK)	UK00003051746	07-18-2014
TGS-NOPEC	PRIMA (MX)	1456689	05-23-2014
A2D	LOG-LINE PLUS! (US)	2739067	07-15-2003
A2D	A2D (MX)	703157	06-20-2001

<u>Registered Owner</u>	<u>Trademark/Service Mark</u>	<u>Registration or Serial Number</u>	<u>Registration or Filing Date</u>
A2D	A2D (MX)	703158	06-20-2001
A2D	LOG-LINE (MX)	769327	11-22-2002
A2D	LOG-LINE (MX)	769328	11-22-2002
A2D	LOG-LINE (US)	2445431	04-24-2001
A2D	LOG-LINE PLUS! (MX)	776927	01-31-2003
A2D	LOG-LINE PLUS! (MX)	887614	06-23-2005
A2D	LOG-LINE PLUS! (US)	2765668	09-16-2003
A2D	SMARTRASTER (MX)	703156	06-20-2001
A2D	SMARTRASTER (US)	2327393	03-07-2000
A2D	A2D (US)	4431868	11-12-13
A2D	A2D (CA)	1643978	09-18-2013
A2D	A2D (MX)	1430885	01-29-2014
A2D	A2D (EU)	012106084	01-24-2014
A2D	A2D (NO)	273667	12-13-2013
A2D	TGS R360 (US)	86761124	09-18-2015
A2D	R360 (US)	86761116	09-18-2015

**U.S. Issued Patent**

<u>Patent No.</u>	<u>Issue Date</u>	<u>Invention</u>	<u>Inventor</u>
6317695	11-12-2001	Seismic Data Processing	Zhou, Zheng-Zheng Stein, Jaime A. Keehan, Michael S.

Schedule A to Release of Security Interest in Trademarks and Patents

**RECORDED: 12/05/2018**

**TRADEMARK  
REEL: 006542 FRAME: 0467**