504622668 11/01/2017

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	RELEASE OF SECURITY INTEREST IN PATENTS FILED AT R/F 024804/0924

CONVEYING PARTY DATA

Name	Execution Date
BARCLAYS BANK PLC	10/31/2017

RECEIVING PARTY DATA

Name:	TECHNISAND, INC.
Street Address:	8834 MAYFIELD ROAD
City:	CHESTERLAND
State/Country:	OHIO
Postal Code:	44026

PROPERTY NUMBERS Total: 11

Property Type	Number
Patent Number:	5597784
Patent Number:	5422183
Patent Number:	6114410
Patent Number:	6328105
Patent Number:	5990051
Patent Number:	5520250
Patent Number:	5837656
Patent Number:	5948734
Patent Number:	5955144
Patent Number:	7049272
Application Number:	61248024

CORRESPONDENCE DATA

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PATENT 504622668 REEL: 044348 FRAME: 0332

ATTORNEY DOCKET NUMBER:	039269-0165	
NAME OF SUBMITTER:	ANGELA M. AMARU	
SIGNATURE:	/S/ Angela M. Amaru	
DATE SIGNED:	11/01/2017	
Total Attachments: 9		
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RELEASE OF SECURITY INTEREST IN PATENTS

This Release of Security Interest in Patents is dated as of November 1, 2017 (as it may be restated, supplemented or otherwise modified from time to time, this "Release"), is made by Barclays Bank PLC as collateral agent (in such capacity, "Collateral Agent") for the Secured Parties.

WHEREAS, Collateral Agent, Technisand, Inc. and Fairmount Santrol Inc. (f/k/a Fairmount Minerals, Ltd.) ("Grantors") are party to the U.S. Pledge and Security Agreement dated as of August 5, 2010 (as amended, restated, supplemented or otherwise modified, the "Pledge and Security Agreement"; unless otherwise defined herein, terms defined in the Pledge and Security Agreement and used herein have the meaning given to them in the Pledge and Security Agreement) pursuant to which Grantors granted a security interest to the Collateral Agent in the Patent Collateral (as defined below);

WHEREAS, pursuant to the Pledge and Security Agreement, Grantors entered into that certain Patent Security Agreement, dated as of August 5, 2010 in favor of Collateral Agent (as amended, restated, supplemented or otherwise modified, the "Patent Security Agreement"), granting to Collateral Agent, for the benefit of the Secured Parties, a security interest in and continuing lien on all of Grantors' right, title and interest in, to and under all of the Grantors' patents and patent applications, including, without limitation, those listed on Schedule A attached hereto, together with (i) all reissues, divisions, continuations, continuations-in-part, extensions, renewals, and reexaminations thereof, (ii) all improvements thereto, (iii) the right to sue or otherwise recover for any past, present and future infringement or other violation thereof, (iv) all Proceeds of the foregoing, including, without limitation, license fees, royalties, income, payments, claims, damages, and proceeds of suit now or hereafter due and/or payable with respect thereto, and (v) all other rights of any kind accruing thereunder or pertaining thereto throughout the world (collectively, the "Patent Collateral");

WHEREAS, the Patent Security Agreement was recorded with the United States Patent and Trademark Office on August 9, 2010 at Reel 024804 and Frame 0924 for Technisand, Inc. and at Reel 024804 and Frame 0940 for Fairmount Minerals, Ltd.; and

WHEREAS, Collateral Agent has agreed to release its lien on and security interest in the Patent Collateral and to re-assign all rights in the Patent Collateral to Grantors.

NOW, THEREFORE, in consideration of the foregoing, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Collateral Agent hereby terminates the Patent Security Agreement and terminates, discharges, relinquishes and releases, as of the date hereof, its security interest in and lien on all of Grantors' right, title and interest in, to and under the Patent Collateral and Collateral Agent hereby re-assigns to Grantors any right, title or interest it may have in such Patent Collateral, all without warranty or representation of any kind.

THIS RELEASE SHALL BE DEEMED TO BE A CONTRACT UNDER THE LAW OF THE STATE OF NEW YORK WITHOUT REGARD TO ITS CONFLICT OF LAWS PRINCIPLES THAT WOULD REQUIRE THE APPLICATION OF ANY OTHER LAW.

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IN WITNESS WHEREOF, the Collateral Agent has caused this Release of Security Interest in Patents to be duly executed and delivered by its duly authorized officer as of the date first above written.

BARCLAYS BANK PLC,

as Collateral Agent

Name: May Yiuang

Title: Assistant Vice President

[Signature Page to Fairmount Patent Release]

SCHEDULE A TO RELEASE OF SECURITY INTEREST IN PATENTS

[See attached.]

SCHEDULE A to PATENT SECURITY AGREEMENT

PATENTS AND PATENT APPLICATIONS

Jurisdiction	Grantor	Title	Application No.	Filing Date	Patent No.	Issue Date
United States of America	TechniSand, Inc.**	COMPOSITE AND REINFORCED COATINGS ON PROPPANTS AND PARTICLES	08/465,823	06-Jun- 1995	5,597,7 84	28- Jan- 1997
United States of America	TechniSand, Inc.	COMPOSITE AND REINFORCED COATINGS ON PROPPANTS AND PARTICLES	08/069,929	01-Jun- 1993	5,422,1 83	06- Jun- 1995
United States of America	TechniSand, Inc.	PROPPANT CONTAINING BONDABLE PARTICLES AND REMOVABLE PARTICLES	09/129,063	04- Aug- 1998	6,114,4 10	05- Sep- 2000
United States of America	TechniSand, Inc.	PROPPANT CONTAINING BONDABLE PARTICLES AND REMOVABLE PARTICLES	09/616,648	14-Jul- 2000	6,328,1 05	11- Dec- 2001
United States of America	TechniSand, Inc. and Fairmount Minerals, Ltd.	INJECTION MOLDED DEGRADABLE CASING PERFORATION BALL SEALERS	09/055,549	06- Apr- 1998	5,990,0 51	23- Nov- 1999
Canada	TechniSand, Inc.	INJECTION MOLDED DEGRADABLE CASING PERFORATION BALL SEALERS	2,320,949	05- Apr- 1999	2,320,9 49	30- May- 2006
United States of America	Fairmount Minerals, Ltd.	INJECTION MOLDED DEGRADABLE CASING PERFORATION BALL SEALERS	09/444,901	22- Nov- 1999	6,380,1 38	30- Apr- 2002
United States of America	TechniSand, Inc.	METHOD AND PROCESS FOR THE STABILIZATION OF RESIN COATED PARTICULATES	08/285,908	04- Aug- 1994	5,520,2 50	28- May- 1996
United States of America	Fairmount Minerals, Ltd.	PROPPANTS WITH SOLUBLE COMPOSITE COATINGS	11/541,874	02-Oct- 2006	7,490,6 67	17- Feb- 2009
Canada	Fairmount Minerals, Ltd.	PROPPANTS WITH SOLUBLE COMPOSITE COATINGS	2,665,160	01-Oct- 2007		
China	Fairmount Minerals, Ltd.	PROPPANTS WITH SOLUBLE COMPOSITE COATINGS	200780036 592.0	01-Oct- 2007		
Mexico	Fairmount Minerals, Ltd.	PROPPANTS WITH SOLUBLE COMPOSITE COATINGS	09/003394	01-Oct- 2007		

^{*} Co-owned by Georgia-Pacific Chemicals, LLC

^{**} In process of being assigned to TSI

^{***} USPTO shows Fairmount Minerals, Inc. as current owner. U.S. Borrower is in the process of correcting the assignment to Fairmount Minerals, Ltd.

^{****} In process of being assigned to FML

Norway	Fairmount Minerals, Ltd.	PROPPANTS WITH SOLUBLE COMPOSITE COATINGS	20091737	01-Oct- 2007		
Russian Federation	Fairmount Minerals, Ltd.	PROPPANTS WITH SOLUBLE COMPOSITE COATINGS	200911664 8	01-Oct- 2007		
European Patent Convention	Fairmount Minerals, Ltd.	PROPPANTS WITH SOLUBLE COMPOSITE COATINGS	07839079.6	01-Oct- 2007		
Hong Kong	Fairmount Minerals, Ltd.	PROPPANTS WITH SOLUBLE COMPOSITE COATINGS	10101985.3	26-Feb- 2010		
United States of America	Fairmount Minerals, Ltd.	SOLUBLE FIBERS FOR USE IN RESIN COATED PROPPANT	10/793,429	04- Mar- 2004	7,244,4 92	17- Jul- 2007
United States of America	Fairmount Minerals, Ltd.	SOLUBLE DIVERTING AGENTS	11/336,344	20-Jan- 2006		
Russian Federation	TechniSand, Inc.	SOLUBLE DIVERTING AGENTS	200713165	20-Jan- 2006		
China	TechniSand, Inc.	SOLUBLE DIVERTING AGENTS	200680009 369.2	20-Jan- 2006		
Canada	TechniSand, Inc.	SOLUBLE DIVERTING AGENTS	2,595,686	20-Jan- 2006		
United Kingdom	TechniSand, Inc.	SOLUBLE DIVERTING AGENTS	0714796.0	20-Jan- 2006		
Norway	TechniSand, Inc.	SOLUBLE DIVERTING AGENTS	20074239	20-Jan- 2006		
Mexico	TechniSand, Inc.	SOLUBLE DIVERTING AGENTS	2007/00885	20-Jan- 2006		
United States of America	TechniSand, Inc.*	WELL TREATMENT FLUID COMPATIBLE SELF- CONSOLIDATING PARTICLES	08/611,170	05- Mar- 1996	5,837,6 56	17- Nov- 1998
United States of America	TechniSand, Inc.*	WELL TREATMENT FLUID COMPATIBLE SELF- CONSOLIDATION PARTICLES	09/137,601	21- Aug- 1998	5,948,7 34	07- Sep- 1999
United States of America	TechniSand, Inc.*, **	WELL TREATMENT FLUID COMPATIBLE SELF- CONSOLIDATION PARTICLES	09/137,580	21- Aug- 1998	5,955,1 44	21- Sep- 1999
United States of America	TechniSand, Inc.	DOWNHOLE CHEMICAL DELIVERY SYSTEM FOR OIL AND GAS WELLS	10/195,989	16-Jul- 2002	7,049,2 72	23- May- 2006
United States of America	Fairmount Minerals, Ltd.	PROCESS FOR INCREMENTAL COATING OF PROPPANTS FOR HYDRAULIC FRACTURING AND PROPPANTS PRODUCED THEREFROM	10/611,200	01-Jul- 2003	7,135,2 31	14- Nov- 2006

United States of America	Fairmount Minerals, Ltd.***	PROCESS FOR INCREMENTAL COATING OF PROPPANTS FOR HYDRAULIC FRACTURING AND PROPPANTS PRODUCED THEREFROM	11/582,644	18-Oct- 2006		
United States of America	Fairmount Minerals, Ltd.	DEGRADABLE BALL SEALERS AND METHODS FOR USE IN WELL TREATMENT	11/640,813	18- Dec- 2006	7,647,9 64	19- Jan- 2010
United States of America	Fairmount Minerals, Ltd.***	COMPOSITION OF MATTER AND METHOD OF APPLICATION FOR ELIMINATION OF ODORS IN SHELL SAND ENCAPSULATION	11/645,992	27- Dec- 2006		
Australia	TechniSand, Inc.	COMPOSITION OF MATTER AND METHOD OF APPLICATION FOR ELIMINATION OF ODORS IN SHELL SAND ENCAPSULATION	200725443	24- Apr- 2007		
Canada	TechniSand, Inc.	COMPOSITION OF MATTER AND METHOD OF APPLICATION FOR ELIMINATION OF ODORS IN SHELL SAND ENCAPSULATION	2,652,547	24- Apr- 2007		
China	TechniSand, Inc.	ELIMINATION OF ODORS IN SHELL SAND ENCAPSULATION	200780018 008.9	24- Apr- 2007		
European Patent Convention	TechniSand, Inc.	COMPOSITION OF MATTER AND METHOD OF APPLICATION FOR ELIMINATION OF ODORS IN SHELL SAND ENCAPSULATION	07755971.4	24- Apr- 2007		
Israel	TechniSand, Inc.	COMPOSITION OF MATTER AND METHOD OF APPLICATION FOR ELIMINATION OF ODORS IN SHELL SAND ENCAPSULATION	195,353	24- Apr- 2007		
India	TechniSand, Inc.	COMPOSITION OF MATTER AND METHOD OF APPLICATION FOR ELIMINATION OF ODORS IN SHELL SAND ENCAPSULATION	6283/CHEP /2008	24- Apr- 2007		
Japan	TechniSand, Inc.	COMPOSITION OF MATTER AND METHOD OF APPLICATION FOR ELIMINATION OF ODORS IN SHELL SAND ENCAPSULATION	2009- 510954	24- Apr- 2007		

Korea, Republic of	TechniSand, Inc.	COMPOSITION OF MATTER AND METHOD OF APPLICATION FOR ELIMINATION OF ODORS IN SHELL SAND ENCAPSULATION	10-2008- 7030872	24- Apr- 2007	
Mexico	TechniSand, Inc.	COMPOSITION OF MATTER AND METHOD OF APPLICATION FOR ELIMINATION OF ODORS IN SHELL SAND ENCAPSULATION	2008/01465	24- Apr- 2007	
Singapore	TechniSand, Inc.	COMPOSITION OF MATTER AND METHOD OF APPLICATION FOR ELIMINATION OF ODORS IN SHELL SAND ENCAPSULATION	200808556-	24- Apr- 2007	
Hong Kong	TechniSand, Inc.	ELIMINATION OF ODORS IN SHELL SAND ENCAPSULATION	10100046.2	05-Jan- 2010	
United States of America	Fairmount Minerals, Ltd.***	COMPOSITION OF MATTER AND METHOD OF APPLICATION FOR ELIMINATION OF HEXAMETHYLENETETRAMINE IN SHELL SAND ENCAPSULATION	11/645,991	27- Dec- 2006	
Australia	TechniSand, Inc.	COMPOSITION OF MATTER AND METHOD OF APPLICATION FOR ELIMINATION OF HEXAMETHYLENETETRAMINE IN SHELL SAND ENCAPSULATION	200725443	24- Apr- 2007	
Canada	TechniSand, Inc.	COMPOSITION OF MATTER AND METHOD OF APPLICATION FOR ELIMINATION OF HEXAMETHYLENETETRAMINE IN SHELL SAND ENCAPSULATION	2,652,485	24- Apr- 2007	
China	TechniSand, Inc.	COMPOSITION OF MATTER AND METHOD OF APPLICATION FOR ELIMINATION OF HEXAMETHYLENETETRAMINE IN SHELL SAND ENCAPSULATION	200780027 213.1	24- Apr- 2007	

European Patent Convention	TechniSand, Inc.	COMPOSITION OF MATTER AND METHOD OF APPLICATION FOR ELIMINATION OF HEXAMETHYLENETETRAMINE IN SHELL SAND ENCAPSULATION	07755970.6	24- Apr- 2007	
Israel	TechniSand, Inc.	COMPOSITION OF MATTER AND METHOD OF APPLICATION FOR ELIMINATION OF HEXAMETHYLENETETRAMINE IN SHELL SAND ENCAPSULATION	195,354	24- Apr- 2007	
India	TechniSand, Inc.	COMPOSITION OF MATTER AND METHOD OF APPLICATION FOR ELIMINATION OF HEXAMETHYLENETETRAMINE IN SHELL SAND ENCAPSULATION	6285/CHE NP/2008	24- Apr- 2007	
Japan	TechniSand, Inc.	COMPOSITION OF MATTER AND METHOD OF APPLICATION FOR ELIMINATION OF HEXAMETHYLENETETRAMINE IN SHELL SAND ENCAPSULATION	2009- 510953	24- Apr- 2007	
Korea, Republic of	TechniSand, Inc.	COMPOSITION OF MATTER AND METHOD OF APPLICATION FOR ELIMINATION OF HEXAMETHYLENETETRAMINE IN SHELL SAND ENCAPSULATION	10-2008- 7030870	24- Apr- 2007	
Mexico	TechniSand, Inc.	COMPOSITION OF MATTER AND METHOD OF APPLICATION FOR ELIMINATION OF HEXAMETHYLENETETRAMINE IN SHELL SAND ENCAPSULATION	08/014649	24- Apr- 2007	
Singapore	TechniSand, Inc.	COMPOSITION OF MATTER AND METHOD OF APPLICATION FOR ELIMINATION OF HEXAMETHYLENETETRAMINE IN SHELL SAND ENCAPSULATION	200808555- 7	24- Apr- 2007	

Hong Kong	TechniSand, Inc.	COMPOSITION OF MATTER AND METHOD OF APPLICATION FOR ELIMINATION OF HEXAMETHYLENETETRAMINE IN SHELL SAND ENCAPSULATION	10100261.0	11-Jan- 2010		
United States of America	Fairmount Minerals, Ltd.***	RAPID ACTION COATER	11/630,966	27- Dec- 2006		
Canada	Fairmount Minerals, Ltd.	RAPID ACTION COATER	2,575,665	15- Aug- 2005		
China	Fairmount Minerals, Ltd.	RAPID ACTION COATER	200580028 030.2	15- Aug- 2005		
European Patent Convention	Fairmount Minerals, Ltd.	RAPID ACTION COATER	05786569.3	15- Aug- 2005		
Mexico	Fairmount Minerals, Ltd.	RAPID ACTION COATER	07/01919	15- Aug- 2005		
United States of America	Fairmount Minerals, Ltd.***	ENVIRONMENTALLY SAFE PROMOTER FOR USE IN FLOTATION SEPARATION OF CARBONATES FROM MINERALS	1/203,919	15- Aug- 2005	7,275,6 43	02- Oct- 2007
United States of America	TechniSand, Inc.**	META CROSSLINKED BENZYL POLYMERS	61/248,024	02-Oct- 2009		

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