

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT5095076

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT	
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT	
<b>CONVEYING PARTY DATA</b>		
<b>Name</b>		<b>Execution Date</b>
SUMMIT ESP, LLC		08/10/2018
<b>RECEIVING PARTY DATA</b>		
<b>Name:</b>	HALLIBURTON ENERGY SERVICES, INC.	
<b>Street Address:</b>	3000 N. SAM HOUSTON PARKWAY E.	
<b>City:</b>	HOUSTON	
<b>State/Country:</b>	TEXAS	
<b>Postal Code:</b>	77032-3219	
<b>PROPERTY NUMBERS Total: 79</b>		
<b>Property Type</b>	<b>Number</b>	
Patent Number:	8684679	
Application Number:	61650030	
Application Number:	14166214	
Patent Number:	9816519	
Application Number:	62262781	
Patent Number:	9719523	
Application Number:	14062597	
Application Number:	13801969	
Application Number:	61675578	
Patent Number:	9500202	
Application Number:	62164829	
Patent Number:	9638015	
Application Number:	62078836	
Patent Number:	9017043	
Application Number:	61822085	
Patent Number:	9169848	
Patent Number:	9534603	
Patent Number:	10036398	
Application Number:	14860510	
Application Number:	15247302	

PATENT

Property Type	Number
Application Number:	61974907
Application Number:	62210068
Patent Number:	9829001
Application Number:	62067796
Patent Number:	9638207
Application Number:	62056224
Patent Number:	9932806
Application Number:	61985044
Patent Number:	9677560
Application Number:	62023550
Patent Number:	9046354
Application Number:	61770129
Patent Number:	9175692
Application Number:	61924836
Patent Number:	8919432
Application Number:	61834734
Application Number:	14469353
Application Number:	61870635
Application Number:	16025888
Application Number:	62531689
Application Number:	62500386
PCT Number:	US1825728
Application Number:	62458263
PCT Number:	US1817443
Patent Number:	9039356
Patent Number:	9200642
Application Number:	61908638
Application Number:	15912321
Application Number:	62482061
PCT Number:	US1820954
Application Number:	15651907
Application Number:	62363723
Application Number:	62444927
PCT Number:	US1813269
Application Number:	15677764
Application Number:	62375272
Application Number:	62470022
PCT Number:	US1820716

Property Type	Number
Application Number:	15792525
Application Number:	62412382
Application Number:	62524249
PCT Number:	US1833787
Application Number:	62514597
PCT Number:	US1830305
Application Number:	62472683
PCT Number:	US1822242
Application Number:	15823773
Application Number:	62427147
PCT Number:	US1763350
Application Number:	15086825
Application Number:	62145282
Application Number:	15592119
Application Number:	62335068
Application Number:	16054718
PCT Number:	US1732038
Application Number:	15051179
Application Number:	15789175
Application Number:	62551850
PCT Number:	US1834938

#### CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER: 2069464-0419PTUS

NAME OF SUBMITTER: JOYCE MILLER

SIGNATURE: /Joyce Miller/

DATE SIGNED: 08/13/2018

#### Total Attachments: 10

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## INTELLECTUAL PROPERTY ASSIGNMENT

This Intellectual Property Assignment ("Assignment") is made by Summit ESP, LLC, an Oklahoma limited liability company ("Assignor"), having a correspondence address at 835 West 41<sup>st</sup> Street South, Tulsa, Oklahoma 74107, US, in favor of Halliburton Energy Services, Inc., a Delaware corporation ("Assignee"), having a correspondence address at 3000 N. Sam Houston Parkway E., Houston, Texas 77032-3219, US.

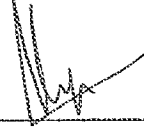
WHEREAS, Assignor desires to transfer to Assignee Assignor's entire right, title and interest to the patents and patent applications listed on Schedule A (the "Patent Property"); and

NOW, THEREFORE, be it known by all whom it may concern that for and in exchange of good and valuable consideration, Assignor agrees to assign and hereby assigns to Assignee for the territory of the United States of America and the entire world Assignor's entire right, title and interest in and to the Patent Property, and in and to any and all patent applications in the United States and all countries foreign to the United States which may claim priority to said Patent Property or which may be directed to the inventions embodied in the Patent Property, said patent applications including without limitation any and all provisionals, non-provisionals, divisionals, continuations, continuations-in-part, utility models, industrial models, and designs, and in and to any and all patents in the United States and all countries foreign to the United States which may be granted therefore and thereon, and in and to any reissues, reexaminations, and extensions of said patents. Assignor hereby transfers and conveys to Assignee any right to recover for past and future infringement of the Patent Property assigned herein.

Assignor HEREBY covenants and agrees that it will at any time, upon the request and at the expense of Assignee, execute and deliver any and all papers and do all lawful acts that may be necessary or desirable to perfect the title to said Patent Property, applications and patents, and we authorize the Commissioner of Patents and Trademarks, or any other patent-issuing authority in the United States or any other country, to issue said patents associated with said Patent Property to Assignee.

ASSIGNMENT

IN TESTIMONY WHEREOF, I execute this assignment on the date set forth below my name.



Clive D. Menezes  
Vice President  
Summit ESP, LLC

THE STATE OF: Texas §  
COUNTY OF: Harris §

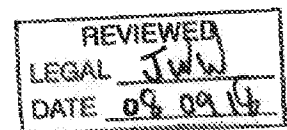
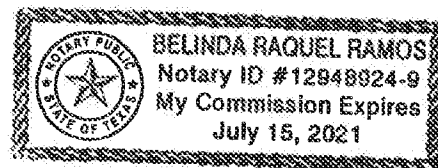
Before me personally appeared the above-identified individual and acknowledged that the foregoing assignment to be his voluntary act and deed on the 10 day of August 2018.

Notary Public:

State of:

My commission expires:

Belinda Ramos  
Texas  
July 15, 2021



# SCHEDULE A

<u>Title</u>	<u>Country</u>	<u>Appl. No.</u>	<u>Filing Date</u>	<u>Patent No.</u>	<u>Issue Date</u>
ABRASION RESISTANCE IN WELL FLUID WETTED ASSEMBLIES	US	13/777,870	2-26-2013	8,684,679	4-1-2014
ABRASION RESISTANCE IN WELL FLUID WETTED ASSEMBLIES	US	61/650,030	5-22-2012		
ABRASION RESISTANCE IN WELL FLUID WETTED ASSEMBLIES	US	14/166,214	1-28-2014		
ABRASION RESISTANCE IN WELL FLUID WETTED ASSEMBLIES	CA	2,807,882	2-28-2013	2,807,882	11-10-2015

PRESS-FIT BEARING LOCKING SYSTEM, APPARATUS AND METHOD	US	15/367,042	12-1-2016	9,816,519	11-14-2017
PRESS-FIT BEARING LOCKING SYSTEM, APPARATUS AND METHOD	US	62/262,781	12-3-2015		
PRESS-FIT BEARING LOCKING SYSTEM, APPARATUS AND METHOD	CA	2,950,622	12-1-2016		

APPARATUS, SYSTEM AND METHOD FOR PUMPING GASEOUS FLUID	US	14/602,650	1-22-2015	9,719,523	8-01-2017
APPARATUS, SYSTEM AND METHOD FOR PUMPING GASEOUS FLUID	US	14/062,597	10-24-2013		
APPARATUS, SYSTEM AND METHOD FOR PUMPING GASEOUS FLUID	US	13/801,969	3-13-2013		
APPARATUS, SYSTEM AND METHOD FOR PUMPING GASEOUS FLUID	US	61/675,578	7-25-2012		
APPARATUS, SYSTEM AND METHOD FOR PUMPING GASEOUS FLUID	CA	2,831,924	10-29-2013		
APPARATUS, SYSTEM AND METHOD FOR PUMPING GASEOUS FLUID	CA	2,809,956	3-18-2013		

# ASSIGNMENT

Title	Country	Appl. No	Filing Date	Patent No.	Issue Date
APPARATUS, SYSTEM AND METHOD FOR PUMPING GASEOUS FLUID	CN	20131136481	4-19-2013		
THRUST BEARING SURFACE FOR FLOATER-STYLE CENTRIFUGAL PUMPS	US	15/160,850	5-20-2016	9,500,202	11-22-2016
THRUST BEARING SURFACE FOR FLOATER-STYLE CENTRIFUGAL PUMPS		62/164,829	5-21-2015		
THRUST BEARING SURFACE FOR FLOATER-STYLE CENTRIFUGAL PUMPS	CA	2,930,865	5-20-2016	2,930,865	4-18-2017
ELECTRIC SUBMERSIBLE PUMP INVERTED SHROUD ASSEMBLY	US	14/938,439	11-11-2015	9,638,015	5-02-2017
ELECTRIC SUBMERSIBLE PUMP INVERTED SHROUD ASSEMBLY	US	62/078,836	11-12-2014		
ELECTRIC SUBMERSIBLE PUMP INVERTED SHROUD ASSEMBLY	CA	2,911,955	11-12-2015	2,911,955	10-31-2017
APPARATUS AND SYSTEM FOR SEALING SUBMERSIBLE PUMP ASSEMBLIES	US	14/274,233	5-9-2014	9,017,043	4-28-2015
APPARATUS, SYSTEMS AND METHODS FOR SEALING SUBMERSIBLE PUMP ASSEMBLIES	US	61/822,085	5-10-2013		
APPARATUS AND SYSTEM FOR SEALING SUBMERSIBLE PUMP ASSEMBLIES	US	14/657,835	3-13-2015	9,169,848	10-27-2015
APPARATUS AND SYSTEM FOR A THRUST-ABSORBING HORIZONTAL SURFACE PUMP ASSEMBLY	US	14/677,559	4-2-2015	9,534,603	1-3-2017
APPARATUS AND SYSTEM FOR A THRUST-ABSORBING HORIZONTAL SURFACE PUMP ASSEMBLY	US	15/356,088	11-18-2016	10,036,398	7-31-2018
APPARATUS AND SYSTEM FOR SEALING SUBMERSIBLE PUMP ASSEMBLIES	US	14/860,510	9-21-2015		
ABRASION RESISTANCE IN WELL FLUID WETTED ASSEMBLIES	US	15/247,302	8-25-2016		



# ASSIGNMENT

Title	Country	Appl. No	Filing Date	Patent No.	Issue Date
APPARATUS, SYSTEM AND METHOD FOR A HYDRODYNAMIC THRUST BEARING FOR USE IN HORIZONTAL PUMP ASSEMBLIES	US	61/974,907	4-3-2014		
ABRASION RESISTANCE IN WELL FLUID WETTED ASSEMBLIES	US	62/210,068	8-26-2015		
APPARATUS AND SYSTEM FOR A THRUST-ABSORBING HORIZONTAL SURFACE PUMP ASSEMBLY	CA	2,887,280	4-2-2015		
APPARATUS AND SYSTEM FOR A THRUST-ABSORBING HORIZONTAL SURFACE PUMP ASSEMBLY	CA	2,851,452	5-9-2014	2,851,452	3-15-2016
ABRASION RESISTANCE IN WELL FLUID WETTED ASSEMBLIES	CA	2,940,395	8-26-2016		
APPARATUS, SYSTEM AND METHOD FOR SEALING SUBMERSIBLE PUMP ASSEMBLIES	CA	2,911,254	5-9-2014	2,911,254	10-4-2016
APPARATUS AND SYSTEM FOR SEALING SUBMERSIBLE PUMP ASSEMBLIES	CA	2,910,931	5-9-2014		
APPARATUS AND SYSTEM FOR A THRUST-ABSORBING HORIZONTAL SURFACE PUMP ASSEMBLY	CO	14100956	5-9-2014	14100956	5-29-2015

ELECTRIC SUBMERSIBLE PUMP ASSEMBLY BEARING	US	14/920,565	10-22-2015	9,829,001	11-28-2017
ELECTRIC SUBMERSIBLE PUMP ASSEMBLY BEARING	US	62/067,796	10-23-2014		
ELECTRIC SUBMERSIBLE PUMP ASSEMBLY BEARING	CA	2,910,163	10-23-2015		

CENTRIFUGAL PUMP FOR HANDLING ABRASIVE-LADEN FLUID	US	14/865,305	9-25-2015	9,638,207	5-2-2017
CENTRIFUGAL PUMP FOR HANDLING ABRASIVE-LADEN FLUID	US	62/056,224	9-26-2014		
CENTRIFUGAL PUMP FOR HANDLING ABRASIVE-LADEN FLUID	CA	2,905,848	9-25-2015	2,905,848	9-12-2017

# ASSIGNMENT

Title	Country	Appl. No	Filing Date	Patent No.	Issue Date
APPARATUS, SYSTEM AND METHOD FOR REDUCING GAS TO LIQUID RATIOS IN SUBMERSIBLE PUMP APPLICATIONS	US	14/696,537	4-27-2015	9,932,806	4-3-2018
APPARATUS, SYSTEM AND METHOD FOR REDUCING GAS TO LIQUID RATIOS IN SUBMERSIBLE PUMP APPLICATIONS	US	61/985,044	4-28-2014		
APPARATUS, SYSTEM AND METHOD FOR REDUCING GAS TO LIQUID RATIOS IN SUBMERSIBLE PUMP APPLICATIONS	CA	2,889,539	4-27-2015		

CENTRIFUGAL PUMP IMPELLER SUPPORT SYSTEM AND APPARATUS	US	14/796,610	7-10-2015	9,677,560	6-13-2017
CENTRIFUGAL PUMP IMPELLER SUPPORT SYSTEM AND APPARATUS	US	62/023,550	7-11-2014		

APPARATUS, SYSTEM AND METHOD FOR MEASURING STRAIGHTNESS OF COMPONENTS OF ROTATING ASSEMBLIES	US	13/796,470	3-12-2013	9,046,354	6-2-2015
APPARATUS, SYSTEM AND METHOD FOR MEASURING STRAIGHTNESS OF COMPONENTS OF ROTATING ASSEMBLIES	US	61/770,129	2-27-2013		
APPARATUS, SYSTEM AND METHOD FOR MEASURING STRAIGHTNESS OF COMPONENTS OF ROTATING ASSEMBLIES	CA	2,809,620	3-15-2013		

MOTOR SHROUD FOR AN ELECTRIC SUBMERSIBLE PUMP	US	14/590,775	1-6-2015	9,175,692	11-3-2015
MOTOR SHROUD FOR AN ELECTRIC SUBMERSIBLE PUMP	US	61/924,836	1-8-2014		
MOTOR SHROUD FOR AN ELECTRIC SUBMERSIBLE PUMP	CA	2,876,901	1-7-2015		

APPARATUS, SYSTEM AND METHOD FOR REDUCING GAS INTAKE IN HORIZONTAL SUBMERSIBLE PUMP ASSEMBLIES	US	14/303,116	6-12-2014	8,919,432	12-30-2014
APPARATUS, SYSTEM AND METHOD FOR REDUCING GAS INTAKE IN HORIZONTAL SUBMERSIBLE PUMP ASSEMBLIES	US	61/834,734	6-13-2013		

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<u>Title</u>	<u>Country</u>	<u>Appl. No</u>	<u>Filing Date</u>	<u>Patent No.</u>	<u>Issue Date</u>
APPARATUS, SYSTEM AND METHOD FOR REDUCING GAS INTAKE IN HORIZONTAL SUBMERSIBLE PUMP ASSEMBLIES	CA	2,854,108	6-12-2014	2,854,108	6-2-2015
MODULAR INTAKE FILTER SYSTEM, APPARATUS AND METHOD	US	14/469,353	8-26-2014		
MODULAR INTAKE FILTER SYSTEM, APPARATUS AND METHOD	US	61/870,635	8-27-2013		
MODULAR INTAKE FILTER SYSTEM, APPARATUS AND METHOD	CA	2,860,815	8-27-2014		
FLUID MOVING APPARATUS AND SYSTEM FOR AN ELECTRIC SUBMERSIBLE GAS SEPARATOR	US	16/025,888	7-2-2018		
FLUID MOVING APPARATUS AND SYSTEM FOR AN ELECTRIC SUBMERSIBLE GAS SEPARATOR	US	62/531,689	7-12-2017		
RETAINING RING ANTI-MIGRATION SYSTEM AND METHOD	US	62/500,386	5-2-2017		
RETAINING RING ANTI-MIGRATION SYSTEM AND METHOD	PCT	US18/25728	4-2-2018		
DIFFUSER ANTI-ROTATION SYSTEM AND APPARATUS	US	62/458,263	2-13-2017		
DIFFUSER ANTI-ROTATION SYSTEM AND APPARATUS	PCT	US18/17443	2-8-2018		
ABRASIVE HANDLING SUBMERSIBLE PUMP ASSEMBLY DIFFUSER	US	14/550,333	11-21-2014	9,039,356	5-26-2015
ABRASIVE HANDLING SUBMERSIBLE PUMP ASSEMBLY DIFFUSER	US	14/682,794	11-21-2014	9,200,642	12-1-2015

# ASSIGNMENT

<u>Title</u>	<u>Country</u>	<u>Appl. No</u>	<u>Filing Date</u>	<u>Patent No.</u>	<u>Issue Date</u>
ABRASIVE HANDLING SUBMERSIBLE PUMP ASSEMBLY DIFFUSER	US	61/908,638	11-25-2013		
ABRASIVE HANDLING SUBMERSIBLE PUMP ASSEMBLY DIFFUSER	CA	2,871,970	11-21-2014	2,871,970	7-14-2015
PRESS-FIT THRUST BEARING SYSTEM AND APPARATUS	US	15/912,321	3-5-2018		
PRESS-FIT THRUST BEARING SYSTEM AND APPARATUS	US	62/482,061	4-5-2017		
PRESS-FIT THRUST BEARING SYSTEM AND APPARATUS	PCT	US18/20954	3-5-2018		
BUSHING ANTI-ROTATION SYSTEM AND APPARATUS	US	15/651,907	7-17-2017		
BUSHING ANTI-ROTATION SYSTEM AND APPARATUS	US	62/363,723	7-18-2016		
BUSHING ANTI-ROTATION SYSTEM AND APPARATUS	CA	2,974,121	7-18-2017		
ELECTRIC SUBMERSIBLE PUMP DUAL GAS AND SAND SEPARATOR	US	62/444,927	1-11-2017		
ELECTRIC SUBMERSIBLE PUMP DUAL GAS AND SAND SEPARATOR	PCT	US18/13269	1-11-2018		
TORQUE TRANSMITTING KEY FOR ELECTRIC SUBMERSIBLE PUMPS	US	15/677,764	8-15-2017		
TORQUE TRANSMITTING KEY FOR ELECTRIC SUBMERSIBLE PUMPS	US	62/375,272	8-15-2016		
TORQUE TRANSMITTING KEY FOR ELECTRIC SUBMERSIBLE PUMPS	CA	2,976,586	8-15-2017		

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<u>Title</u>	<u>Country</u>	<u>Appl. No</u>	<u>Filing Date</u>	<u>Patent No.</u>	<u>Issue Date</u>
APPARATUS, SYSTEM AND METHOD FOR FLOW RATE HARMONIZATION IN ELECTRIC SUBMERSIBLE PUMP GAS SEPARATORS	US	62/470,022	3-10-2017		
APPARATUS, SYSTEM AND METHOD FOR FLOW RATE HARMONIZATION IN ELECTRIC SUBMERSIBLE PUMP GAS SEPARATORS	PCT	US18/20716	3-2-2018		
ELECTRIC SUBMERSIBLE PUMP INTAKE SYSTEM, APPARATUS, AND METHOD	US	15/792,525	10-24-2017		
ELECTRIC SUBMERSIBLE PUMP INTAKE SYSTEM, APPARATUS, AND METHOD	US	62/412,382	10-25-2016		
FALLBACK PREVENTION VALVE APPARATUS, SYSTEM AND METHOD	US	62/524,249	6-23-2017		
FALLBACK PREVENTION VALVE APPARATUS, SYSTEM AND METHOD	PCT	US18/33787	5-22-2018		
COMPLIANT KEYWAY FOR AN ELECTRIC SUBMERSIBLE PUMP BEARING SLEEVE	US	62/514,597	6-2-2017		
COMPLIANT KEYWAY FOR AN ELECTRIC SUBMERSIBLE PUMP BEARING SLEEVE	PCT	US18/30305	4-30-2018		
ELECTRIC SUBMERSIBLE PUMP GAS SEPARATOR	US	62/472,683	3-17-2017		
ELECTRIC SUBMERSIBLE PUMP GAS SEPARATOR	PCT	US18/22242	3-13-2018		
TORQUE TRANSFER SYSTEM FOR CENTRIFUGAL PUMPS	US	15/823,773	11-28-2017		
TORQUE TRANSFER SYSTEM FOR CENTRIFUGAL PUMPS	US	62/427,147	11-28-2016		

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Title	Country	Appl. No.	Filing Date	Patent No.	Issue Date
TORQUE TRANSFER SYSTEM FOR CENTRIFUGAL PUMPS	AR	P170103301	11-28-2017		
TORQUE TRANSFER SYSTEM FOR CENTRIFUGAL PUMPS	PCT	US17/63350	11-28-2017		

THRUST BEARING SUSPENSION SYSTEM AND APPARATUS	US	15/086,825	3-31-2016		
THRUST BEARING SUSPENSION SYSTEM AND APPARATUS	US	62/145,282	4-9-2015		

APPARATUS, SYSTEM AND METHOD FOR LIVE WELL ARTIFICIAL LIFT COMPLETION	US	15/592,119	5-10-2017		
APPARATUS, SYSTEM AND METHOD FOR LIVE WELL ARTIFICIAL LIFT COMPLETION	US	62/335,068	5-11-2016		
APPARATUS, SYSTEM AND METHOD FOR LIVE WELL ARTIFICIAL LIFT COMPLETION	US	16/054,718	8-3-2018		
APPARATUS, SYSTEM AND METHOD FOR LIVE WELL ARTIFICIAL LIFT COMPLETION	PCT	US17/32038	5-10-2017		

TORQUE TRANSMITTING COUPLING FOR AN ELECTRICAL SUBMERSIBLE PUMP EQUIPMENT STRING	US	15/051,179	2-23-2016	9,976,602	5-22-2018
CENTRIFUGAL PUMP SEALING SURFACES	US	15/789,175	10-20-2017		
CROSSOVER SYSTEM AND APPARATUS FOR AN ELECTRIC SUBMERSIBLE GAS SEPARATOR	US	62/551,850	8-30-2017		
TORQUE TRANSMITTING COUPLING FOR AN ELECTRICAL SUBMERSIBLE PUMP EQUIPMENT STRING	CA	2,943,410	3-4-2016		

INDUCTIVELY COUPLED SENSOR AND SYSTEM FOR USE THEREOF	PCT	US18/34938	5-29-2018		
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PATENT

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