

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT7851450

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
TBS MINING SOLUTIONS PTY LTD	01/07/2022

RECEIVING PARTY DATA

Name:	AQUIRIAN TECHNOLOGY PTY LTD
Street Address:	190 ST GEORGES TERRACE
City:	PERTH
State/Country:	AUSTRALIA

PROPERTY NUMBERS Total: 1

Property Type	Number
Patent Number:	D913079

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.

Email: dan@feeneylawgroup.com

Correspondent Name: FEENEY LAW GROUP

Address Line 1: 235 PROMENADE STREET

Address Line 2: SUITE 485

Address Line 4: PROVIDENCE, RHODE ISLAND 02908

NAME OF SUBMITTER:	DANIEL W. SULLIVAN
SIGNATURE:	/daniel w. sullivan/
DATE SIGNED:	03/17/2023

Total Attachments: 12

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PATENT

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IP assignment deed

DATED: 1 July 2022

PARTIES

1. TBS MINING SOLUTIONS PTY LTD (ACN 617 016 467), of
Level 3, 190 St Georges Terrace, Perth, Western Australia 6000, Australia (**Assignor**)
2. AQUIRIAN TECHNOLOGY PTY LTD (ACN 657 302 942), of
Level 3, 190 St Georges Terrace, Perth, Western Australia 6000, Australia (**Assignee**)

THE PARTIES AGREE

1. DEFINITIONS AND INTERPRETATION

1.1 Definitions

In this deed:

Technology means apparatus, systems and methods for use in relation to blasting in the mining industry, including:

- blasting design, engineering and optimisation and associated apparatus, equipment and services; blast hole drilling and associated apparatus, equipment and services; loading of blast holes with explosives and/or stemming material and associated apparatus, materials, equipment and services; consumables for use in relation to blasting; other apparatus, equipment and services related to blasting operations carried out in mining, excluding apparatus, systems and methods for use in relation to the provision, transport and installation of explosives magazines and locker systems for explosives and other dangerous substances;
- all Intellectual Property Rights underlying or relating to blast hole drilling and loading and other apparatus, equipment and services related to blasting operations carried out in mining invented, developed, created or acquired by the Assignor, excluding apparatus, systems and methods for use in relation to the provision, transport and installation of explosives magazines and locker systems for

explosives and other dangerous substances;
and

- * all related ideas, concepts, processes, methods, techniques and other technology, inventions, discoveries, data, formulae and specifications that are necessary to enable the Assignee to exploit any relevant patents and to develop, manufacture, market, distribute and sell goods and services in relation to blast hole drilling and loading and other apparatus, equipment and services related to blasting operations carried out in mining excluding apparatus, systems and methods for use in relation to the provision, transport and installation of explosives magazines and locker systems for explosives and other dangerous substances.

Assigned Intellectual Property means all Intellectual Property Rights owned by the Assignor including any and all present and future registered and unregistered Intellectual Property Rights in and in relation to the Technology, the Trade Marks and the Domain Names anywhere in the world, including the Registered IP set out in the Schedule to this deed.

Domain Names means any domain names, uniform resource locators and other names and locators associated with the internet that are owned, used and /or controlled by the Assignor.

Intellectual Property Rights means any and all present or future intellectual property or

Intellectual property right anywhere in the world including without limitation:

- (a) rights in inventions, discoveries, utility models or patents and rights with respect to existing and future patent applications and patentable inventions (including any rights that are equivalent to and/or claim priority from such patents or patent applications), including the right to apply for registration of any such rights and any rights in developments, improvements and all related ideas, concepts, processes, methods, techniques and other technology, inventions, discoveries, data, formulae and specifications;
- (b) copyrights and analogous rights in literary, dramatic or artistic works, or in sound recordings, cinematographic films or other published editions, broadcasts, moral rights and related rights, rights in databases, eligible layout rights, including rights in adaptations, performances, communications;
- (c) rights in designs;
- (d) rights in trade marks or service marks, brands, trade names and business names, domain names, rights to sue for passing off or unfair competition;
- (e) rights in information, including trade secrets, know-how, confidential information, or other scientific, technical or product information thereof;
- (f) all other similar or equivalent rights subsisting now or in the future in any part of the world, in each case whether registered or unregistered and including all rights to apply for registration, renewals or extensions of such rights for their full term, and all rights to take actions against third parties for infringement of the Assigned Intellectual Property whether or not such infringement took place prior to the date of this deed.

Registered IP means the applications and registrations listed in the Schedule and any other Intellectual Property Rights that claim priority from and/or are equivalent to such applications and registrations.

Trade Marks means any TOTAL BLASTHOLE, TBS or COLLAR KEEPER trade marks owned, used and /or controlled by the Assignor, including all common law, unfair competition and other rights in connection therewith, all rights arising

under the Paris Convention, and all the benefits of any registrations and/or applications for registration of the Trade Marks anywhere in the world, and the right to file further trade mark applications for any substantially identical or deceptively or confusingly similar trade mark in any country or any jurisdiction. For clarity, this includes but is not limited to the trade marks listed in the Schedule.

1.2 Interpretation

In this deed unless the context indicates a contrary intention:

- (a) Headings are for convenience only and do not affect interpretation.
- (b) References to clauses and sub-clauses are references to clauses and sub-clauses of this deed.
- (c) The singular includes the plural and vice versa.
- (d) The words "such as", "including", "particularly" and similar expressions are not used as nor are intended to be interpreted as words of limitation.
- (e) A reference to:
 - i. a thing (including but not limited to a chose in action or other right) includes a part of that thing;
 - ii. a party means a party to this deed and includes its successors and permitted assigns;
 - iii. a document includes all amendments or supplements to that document.

2. ASSIGNMENT OF INTELLECTUAL PROPERTY

2.1 Assignment

- (a) In consideration of the issue to the Assignor on the date of this deed and nothing else, of \$1.00 (one dollar) the receipt and sufficiency of which is hereby acknowledged by the Assignor, the Assignor hereby assigns, transfers and sets over to the Assignee all of its present and future right, title and interest in and to the Assigned Intellectual Property, effective as at the date of this deed or the date upon which any such future Assigned Intellectual Property Rights come into existence.
- (b) The Assignee will be responsible for the payment of any duties which arise from the execution, delivery and performance of this deed.

- (c) The Assignee must pay the costs of recording the change of owner with the relevant intellectual property offices in relation to all Registered IP assigned to the Assignor under this deed.

2.2 Rights included

The assignment in clause 2.1 includes the right to sue for, and recover, damages and other relief in relation to any infringement of any of the rights assigned by this document, whether before or after the date of this document.

3. FURTHER ASSURANCE

The Assignor agrees at the request and cost of the Assignee that it will at all times after the date of this deed execute all instruments and do all things as may be reasonably necessary or desirable to:

- (a) vest all rights and title to an interest in the Assigned Intellectual Property Rights in the Assignee absolutely as legal and beneficial owner; and
- (b) secure and preserve full rights in any intellectual property registered in respect of the Assigned Intellectual Property.

4. GENERAL

4.1 Variation

No variation of the deed is effective unless made in writing and signed by each party.

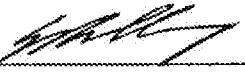
4.2 Severability

Any term of this deed which is wholly or partially void or unenforceable is severed to the

EXECUTED AS DEED

Executed for and on behalf of **TBS MINING
SOLUTIONS PTY LTD**:

By Gregory Patching (Director)


Signature

Date: _____
01/07/2022

extent that it is void or unenforceable. The validity or enforceability of the remainder of this deed is not affected.

4.3 Operation of this document

Any right that a party may have under this document is in addition to, and does not replace or limit any other right that the party may have.

4.4 Waiver

- (a) No waiver of a right or remedy under this deed is effective unless it is in writing and signed by the party granting it. It is only effective in the specific instance and for the specific purpose for which it is granted.
- (b) A single or partial exercise of a right or remedy under this deed does not prevent a further exercise of that or of any other right or remedy. Failure to exercise or delay in exercising a right or remedy under this deed does not operate as a waiver or prevent further exercise of that or of any other right or remedy.

4.5 Governing Law

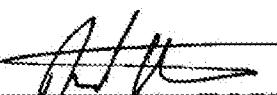
This deed is governed by the laws of Western Australia.

4.6 Jurisdiction

Each party irrevocably and unconditionally submits to the non-exclusive jurisdiction of the courts of Western Australia.

4.7 Counterparts

This deed may be executed in counterparts.


Signature

Date: _____
01/07/2022

Executed for and on behalf of AQUIRIAN
TECHNOLOGY PTY LTD:

By Gregory Patching (Director)

Signature

Date: 01/07/2022

By David Kelly (Director)

Signature

Date: 01/07/2022

Schedule Registered IP

The Registered IP means:

- (a) the pending and registered patent, trade mark and design rights listed in this Schedule;
- (b) any other present and future applications for patents, trade marks and designs which are equivalent to and/or claim priority from the listed rights set forth in this Schedule, including in relation to any improvements;
- (c) any granted patents, trade marks and designs issuing from such applications as set out in paragraph (b) above;
- (d) any re-issues, continuations or extensions of such patents, trade marks and designs and/or patent, trade mark and design applications.

Patents

Provisional

Country	Reference	Patent No	Filing Date	Title	Status
Australia	Collar Keeper	2017902834	19 Jun 2017	A METHOD AND APPARATUS FOR PREVENTING ROCK FRAGMENTS FROM ENTERING A BLAST HOLE	PCT filed
Australia	Collar Keeper	2017903102	4 Aug 2017	A METHOD AND APPARATUS FOR PREVENTING ROCK FRAGMENTS FROM ENTERING A BLAST HOLE	PCT filed
Australia	Collar Keeper	2017903341	18 Aug 2017	A METHOD AND APPARATUS FOR PREVENTING ROCK FRAGMENTS FROM ENTERING OR COLLAPSING INTO A BLAST HOLE	PCT filed
Australia	Collar Keeper	2017904388	4 Dec 2017	A method and apparatus for preventing rock fragments from entering or collapsing into a blast hole	PCT filed
Australia	Guide Tube	20199D4101	30 Oct 2019	A METHOD AND APPARATUS FOR DRILLING AND POSITIONING A COLLAR SUPPORT SLEEVE INTO A BLAST HOLE	PCT filed
Australia	Guide Tube	20209D1360	30 Apr 2020	A METHOD AND APPARATUS FOR DRILLING AND POSITIONING A COLLAR SUPPORT SLEEVE INTO A BLAST HOLE	PCT filed
Australia	Guide Tube Mk2	2021903123	23 Sep 2021	APPARATUS AND METHOD FOR SUPPORTING A COLLAR REGION OF A BLAST HOLE DURING DRILLING	Filed

Country	Reference	Patent No	Filing Date	Title	Status
Australia	Contour Loading	20219032771	11 Oct 2021	METHOD AND APPARATUS FOR DEPOSITING EXPLOSIVES INTO A BLAST HOLE ON DIFFICULT TO ACCESS OR DANGEROUS TERRAIN	Filed
Australia	Guide Tube Mk 2	2021904057	14 Dec 2021	APPARATUS AND METHOD FOR SUPPORTING A COLLAR REGION OF A BLAST HOLE DURING DRILLING	Filed
Australia	Contour Container	2022900631	15 Mar 2022	A METHOD AND APPARATUS FOR DEPLOYING A LINING FOR EXPLOSIVES INTO A BLASTHOLE	Filed
Australia	Reflector	2022901809	29 Jun 2022	REFLECTOR FOR POWER CABLE	Filed

Collar Keeper - Patents

Country	Reference	Patent No	Filing Date	Title	Status
International	Collar Keeper	PCT/AU2018/050752	18 Jul 2018	A method and apparatus for preventing rock fragments from entering a blast hole	National Phase completed
ARPO	Collar Keeper	AP/P/2020/012178	18 Jul 2018	A METHOD AND APPARATUS FOR PREVENTING ROCK FRAGMENTS FROM ENTERING OR COLLAPSING INTO A BLAST HOLE	Under examination
Argentina	Collar Keeper	AR112557B1	18 Jul 2018	A METHOD AND APPARATUS FOR PREVENTING ROCK FRAGMENTS FROM ENTERING OR COLLAPSING INTO A BLAST HOLE	Granted
Australia	Collar Keeper	2018303336	18 Jul 2018	A METHOD AND APPARATUS FOR PREVENTING ROCK FRAGMENTS FROM ENTERING OR COLLAPSING INTO A BLAST HOLE	Awaiting examination
Brazil	Collar Keeper	BR11202000110454	18 Jul 2018	A METHOD AND APPARATUS FOR PREVENTING ROCK FRAGMENTS FROM ENTERING OR COLLAPSING INTO A BLAST HOLE	Awaiting examination
Canada	Collar Keeper	3,070,500	18 Jul 2018	A METHOD AND APPARATUS FOR PREVENTING ROCK FRAGMENTS FROM ENTERING OR COLLAPSING INTO A BLAST HOLE	Awaiting examination

Country	Reference	Patent No	Filing Date	Title	Status
Chile	Collar Keeper	62938	18 Jul 2018	A METHOD AND APPARATUS FOR PREVENTING ROCK FRAGMENTS FROM ENTERING OR COLLAPSING INTO A BLAST HOLE	Granted
China	Collar Keeper	201880047248.X	18 Jul 2018	A METHOD AND APPARATUS FOR PREVENTING ROCK FRAGMENTS FROM ENTERING OR COLLAPSING INTO A BLAST HOLE	Awaiting re-examination
China	Collar Keeper	202111094220.1 (Divisional of CN 201880047248.X)	17 Sep 2021	A METHOD AND APPARATUS FOR PREVENTING ROCK FRAGMENTS FROM ENTERING OR COLLAPSING INTO A BLAST HOLE	Awaiting examination
Colombia	Collar Keeper	NC2019/0014945	18 Jul 2018	A METHOD AND APPARATUS FOR PREVENTING ROCK FRAGMENTS FROM ENTERING OR COLLAPSING INTO A BLAST HOLE	Under examination
EPO	Collar Keeper	18834321.4	18 Jul 2018	A METHOD AND APPARATUS FOR PREVENTING ROCK FRAGMENTS FROM ENTERING OR COLLAPSING INTO A BLAST HOLE	Awaiting examination
India	Collar Keeper	202017006712	18 Jul 2018	A METHOD AND APPARATUS FOR PREVENTING ROCK FRAGMENTS FROM ENTERING OR COLLAPSING INTO A BLAST HOLE	Under examination
Indonesia	Collar Keeper	P00 2020 00794	18 Jul 2018	A METHOD AND APPARATUS FOR PREVENTING ROCK FRAGMENTS FROM ENTERING OR COLLAPSING INTO A BLAST HOLE	Under examination
Mexico	Collar Keeper	Mx/4/2020/0000736	18 Jul 2018	A METHOD AND APPARATUS FOR PREVENTING ROCK FRAGMENTS FROM ENTERING OR COLLAPSING INTO A BLAST HOLE	Awaiting examination
Panama	Collar Keeper	92971-01	18 Jul 2018	A METHOD AND APPARATUS FOR PREVENTING ROCK FRAGMENTS FROM ENTERING OR COLLAPSING INTO A BLAST HOLE	Published
Peru	Collar Keeper	81-2020	18 Jul 2018	A METHOD AND APPARATUS FOR PREVENTING ROCK FRAGMENTS FROM ENTERING OR COLLAPSING INTO A BLAST HOLE	Awaiting examination

Country	Reference	Patent No	Filing Date	Title	Status
Russia	Collar Keeper	2724644	18 Jul 2018	A METHOD AND APPARATUS FOR PREVENTING ROCK FRAGMENTS FROM ENTERING OR COLLAPSING INTO A BLAST HOLE	Granted
South Africa	Collar Keeper	2020/00246	18 Jul 2018	A METHOD AND APPARATUS FOR PREVENTING ROCK FRAGMENTS FROM ENTERING OR COLLAPSING INTO A BLAST HOLE	Granted
United States	Collar Keeper	11,175,119	18 Jul 2018	A METHOD AND APPARATUS FOR PREVENTING ROCK FRAGMENTS FROM ENTERING OR COLLAPSING INTO A BLAST HOLE	Granted
United States	Collar Keeper	17499,088	12 Oct 2021	A METHOD AND APPARATUS FOR PREVENTING ROCK FRAGMENTS FROM ENTERING OR COLLAPSING INTO A BLAST HOLE	Under examination

Guide Tube - Patents

Country	Reference	Patent No	Filing Date	Title	Status
International	Guide Tube	PCT/AU2020/0 51176	29 October 2020	A METHOD AND APPARATUS FOR DRILLING AND POSITIONING A COLLAR SUPPORT SLEEVE INTO A BLAST HOLE	National phase completed
ARIPO	Guide Tube	National phase of PCT/AU2020/0 51176	29 Oct 2020	A METHOD AND APPARATUS FOR DRILLING AND POSITIONING A COLLAR SUPPORT SLEEVE INTO A BLAST HOLE	Filed
Australia	Guide Tube	2020373299	29 Oct 2020	A METHOD AND APPARATUS FOR DRILLING AND POSITIONING A COLLAR SUPPORT SLEEVE INTO A BLAST HOLE	Filed
Brazil	Guide Tube	BR 112022008153-7	29 Oct 2020	A METHOD AND APPARATUS FOR DRILLING AND POSITIONING A COLLAR SUPPORT SLEEVE INTO A BLAST HOLE	Filed
Canada	Guide Tube	3,158,178	29 Oct 2020	A METHOD AND APPARATUS FOR DRILLING AND POSITIONING A COLLAR SUPPORT SLEEVE INTO A BLAST HOLE	Awaiting examination
Chile	Guide Tube	977-2022	29 Oct 2020	A METHOD AND APPARATUS FOR DRILLING AND POSITIONING A COLLAR SUPPORT SLEEVE INTO A BLAST HOLE	Filed

Country	Reference	Patent No	Filing Date	Title	Status
China	Guide Tube	202080077671.1	29 Oct 2020	A METHOD AND APPARATUS FOR DRILLING AND POSITIONING A COLLAR SUPPORT SLEEVE INTO A BLAST HOLE	Awaiting examination
Colombia	Guide Tube	NC2022/0006420	29 Oct 2020	A METHOD AND APPARATUS FOR DRILLING AND POSITIONING A COLLAR SUPPORT SLEEVE INTO A BLAST HOLE	Awaiting examination
Europe	Guide Tube	20881244.6	29 Oct 2020	A METHOD AND APPARATUS FOR DRILLING AND POSITIONING A COLLAR SUPPORT SLEEVE INTO A BLAST HOLE	Filed
India	Guide Tube	202247026005	29 Oct 2020	A METHOD AND APPARATUS FOR DRILLING AND POSITIONING A COLLAR SUPPORT SLEEVE INTO A BLAST HOLE	Published
Indonesia	Guide Tube	P00202205590	29 Oct 2020	A METHOD AND APPARATUS FOR DRILLING AND POSITIONING A COLLAR SUPPORT SLEEVE INTO A BLAST HOLE	Filed
Mexico	Guide Tube	MX/a/2022/004998	29 Oct 2020	A METHOD AND APPARATUS FOR DRILLING AND POSITIONING A COLLAR SUPPORT SLEEVE INTO A BLAST HOLE	Filed
Panama	Guide Tube	93927-01	29 Oct 2020	A METHOD AND APPARATUS FOR DRILLING AND POSITIONING A COLLAR SUPPORT SLEEVE INTO A BLAST HOLE	Filed
Peru	Guide Tube	National phase of PCT/AU2020/051176	29 Oct 2020	A METHOD AND APPARATUS FOR DRILLING AND POSITIONING A COLLAR SUPPORT SLEEVE INTO A BLAST HOLE	Filed
Russia	Guide Tube	2022112807	29 Oct 2020	A METHOD AND APPARATUS FOR DRILLING AND POSITIONING A COLLAR SUPPORT SLEEVE INTO A BLAST HOLE	Filed
South Africa	Guide Tube	2022/04990	29 Oct 2020	A METHOD AND APPARATUS FOR DRILLING AND POSITIONING A COLLAR SUPPORT SLEEVE INTO A BLAST HOLE	Filed
United States	Guide Tube	17/768,417	29 Oct 2020	A METHOD AND APPARATUS FOR DRILLING AND POSITIONING A COLLAR SUPPORT SLEEVE INTO A BLAST HOLE	Filed

Designs

Country	Reference	Design No	Filing Date	Title	Status
ARPO	Collar Keeper	03-B0111-6.8	10 May 2018	Flexible sheet for insertion in a borehole	Granted
Argentina	Collar Keeper	933525	10 Nov 2017	Flexible sheet for insertion in a borehole	Granted
Australia	Collar Keeper	201716879	10 Nov 2017	Flexible sheet for insertion in a borehole	Registered
Australia	Collar Keeper (Tapered Edge)	201717414	4 Dec 2017	Flexible sheet for insertion in a borehole	Registered
Brazil	Collar Keeper	BR301018001950-4	9 May 2018	Flexible sheet for insertion in a borehole	Rejected
Canada	Collar Keeper	181,236	7 May 2018	Flexible sheet for insertion in a borehole	Granted
Chile	Collar Keeper	1227-2018	7 May 2018	Flexible sheet for insertion in a borehole	Granted
China	Collar Keeper	2018080200762410	9 May 2018	Flexible sheet for insertion in a borehole	Granted
Colombia	Collar Keeper	NC2018/004929	10 May 2018	Flexible sheet for insertion in a borehole	Granted
EPO	Collar Keeper	005257037	3 May 2018	Flexible sheet for insertion in a borehole	Granted
India	Collar Keeper	305346	4 May 2018	Flexible sheet for insertion in a borehole	Granted
Indonesia	Collar Keeper	A00201801419	9 May 2018	Flexible sheet for insertion in a borehole	Registered
Mexico	Collar Keeper	MX/F/2018/001383	10 May 2018	Flexible sheet for insertion in a borehole	Granted
Panama	Collar Keeper	92171-01	8 May 2018	Flexible sheet for insertion in a borehole	Granted
Peru	Collar Keeper	749-2018	8 May 2018	Flexible sheet for insertion in a borehole	Granted
Russia	Collar Keeper	201716879	4 May 2018	Flexible sheet for insertion in a borehole	Granted
South Africa	Collar Keeper	F2018/00715	10 May 2018	Flexible sheet for insertion in a borehole	Granted
United States	Collar Keeper	29/647,240	10 May 2018	Flexible sheet for insertion in a borehole	Granted

pending and registered trade marks

Country	Mark	Application No.	Classes	Status
Australia	TOTAL BLASTHOLE	1883844	7, 2, 17, 37, 42	Registered
Australia	TBS	1883854	7, 2, 17, 37, 42	Registered
Australia	COLLAR KEEPER	1883861	7, 17	Registered
United Kingdom	COLLAR KEEPER	UK00801454664	7,17	Registered
International Registration	COLLAR KEEPER	1454664	7, 17	Protected all territories
	• Botswana			
	• China			
	• Colombia			
	• European Union			
	• Ghana			
	• Indonesia			
	• India			
	• Mexico			
	• Namibia			
	• Russia			
	• United States of America			
	• Zambia			

domain names

Domain name	Status
www.thermungesolutions.com	Registered