Intellectual Property Office

BL O/0508/24

04 June 2024

PATENTS ACT 1977

BETWEEN

Titan Torque Services Ltd and HRG Well Solutions Ltd	Applicants
and	
Hydra Systems AS	Defendant

PROCEEDINGS

Application for a declaration of non-infringement under section 71 of the Patents Act in respect of patents GB2499172 & GB2555058

HEARING OFFICER Phil Thorpe

Ms Roisin Higgins KC instructed by Murgitroyd & Company for the applicants
Mr Christopher Hall of Counsel instructed by
CMS Cameron McKenna Nabarro Olswang LLP for the defendant
Hearing date: 18 September 2023

DECISION

Introduction

1 Patents GB2499172 and GB2555058 (the GB patents) were granted on 25th December 2013 and 2nd January 2019 respectively with both naming Hydra Systems AS as the proprietor.

2 Both patents relate to methods of plugging and abandoning (P&A) a subterranean well such as an oil well. When such a well is being abandoned, it is necessary to seal the well to prevent oil leaking into the environment.

3 On the 14th March 2022 Titan Torque Services Limited and HRG Well Solutions Ltd (the applicants) filed an application for a declaration of non-infringement under section 71(1) of the Patents Act 1977 (the Act) in respect of the patents. The application also sought similar declarations in respect of what it referred to a corresponding foreign patents that had been granted with a similar claim scope. The applicants identified a specific number of such foreign patents but did not wish to limit its request to just those.

4 A statement of case in support of the application, but limited to just the GB patents, was filed on 23rd March 2022.

5 The defendant filed an initial counterstatement on 26th May 2022 that was somewhat redacted for what it considered to be reasons of confidentiality. It was noted that this was because it contained information that is confidential as between the parties and third parties but not as between the parties themselves. It noted that an unredacted version of the statement had been served on the applicants.

6 The defendant was advised that the purpose of the statement of case and counterstatement is to clearly set out the basis of each side's case for the benefit of the parties and the tribunal. It is therefore not appropriate for the parties and the tribunal to have differing versions of statements of case as has happened here with the redacted counterstatement. The defendant was further advised that if they wished to rely on the comments redacted from the initial counterstatement filed at the IPO then they should file an unredacted counterstatement with a formal request to be made at the date of filing or within 14 days thereof for part of the that counterstatement to be treated as confidential in accordance with rule 53 of the patent rules.

7 An unredacted version of the counterstatement was subsequently filed on 12th July 2022 with no request for confidentiality.

8 The normal evidence rounds then ensued with both sides being granted short extensions of time to file their evidence. The applicants' evidence included an expert report by Mr Bruce Flanders together with videos of the product for which the declaration of non-infringement is sought.

9 The defendant filed an amended counterstatement on 2nd December 2022 which they claimed addressed the applicants' amended statement together with an issue that had come to light during the preparation of their evidence. The defendant's evidence was duly filed and comprised an expert report from Mr Ian Brown.

10 Shortly afterwards the applicants' expert witness indicated that they no longer wished to part of the proceedings. The applicants therefore sought permission to submit a new report from a different expert. This was resisted by the defendant. I therefore convened a video case management conference (CMC) on the 27th February 2023. In attendance were Ms Rosin Higgins KC for the applicants and Mr Christopher Hall for the defendant. Following the CMC, I issued the following directions:

> "Having considered the arguments advanced by the parties at the Case Management Conference held on 27th February 2023, the Hearing Officer issues the following directions:
>
> a) The hearing scheduled for 14th and 15th March 2023 is cancelled.
> b) The applicants' request of 17th January 2023 to amend their statement of case is allowed.
> c) The respondent has until 28th March 2023 to file an amended counterstatement should it so wish.
> d) The applicants request to instruct a new expert witness is granted.
> e) The applicants should submit the new expert report no later than 14th April 2023.
> f) Unless the respondent agrees otherwise, the expert report already submitted by Mr Bruce Flanders will remain as evidence submitted in the proceedings and the parties will be able to make submissions if they wish as to what if any weight should be given to the evidence. Mr Flanders will not be expected to be available for cross examination.
> g) The respondent will have a period of 4 weeks from receipt of the applicants' new expert report to respond including updating the report of Mr Ian Brown already submitted.

h) A hearing will be scheduled for late June or July 2023 – The IPO will contact both sides shortly to agree a date.

i) The applicants shall pay the respondent £2000 as a contribution to its costs associated with dealing with the various requests of the applicants. Please note **this is an interim award** and the matter of wasted costs will be considered at the conclusion of proceedings at which time the quantum of wasted costs associated with the amendment to the statement of case and instruction of new expert witness will be clearer. Payment to be made within 28 days of these directions."

11 I also indicated that if either party wished for reasons for my directions, I would provide them. The defendant asked that I provide those reasons but that any appeal from my directions be held over until my final decision is issued. I therefore advised both parties that I would set out my reasoning for allowing the applicants to file a replacement expert report in my substantive decision thus allowing that to be part of any appeal the parties might wish to make. I will do that now.

Arguments and reasons for the directions

Comptroller's power to manage evidence

12 Rule 82 of the Patent Rules provides the comptroller with the powers to control evidence which includes expert evidence. In particular it notes that:

> (1) Except where the Act or these Rules otherwise provide, the comptroller may give such directions as to the management of the proceedings as he thinks fit, and in particular he may—
>
> (a) require a document, information or evidence to be filed;
>
> ….
>
> (2) The comptroller may control the evidence by giving directions as to—
>
> (a) the issues on which he requires evidence;
>
> (b) the nature of the evidence which he requires to decide those issues; and
>
> (c) the way in which the evidence is to be placed before him, and the comptroller may use his power under this paragraph to exclude evidence which would otherwise be admissible.

13 In exercising this, and indeed any other discretion, the comptroller must act judicially based on reasonable grounds and never in an arbitrary way. He must also have regard to the overriding objective set out in Rule 74 to deal with cases justly.

14 The IPO's Patents Hearing Manual[1] notes in paragraph 1.41 that:

> Situations in which discretion may need to be exercised in inter partes proceedings commonly include requests to extend the time for various acts to be done, to postpone a hearing, to amend a statement of case or to file additional evidence. There must be explanation, and not merely argument, before the comptroller on which the exercise of discretion can be based.

[1] Patents Hearings Manual https://assets.publishing.service.gov.uk/media/6346a95b8fa8f5346a0a30ec/patents-Hearings-manual-Oct22.pdf

15 The manual goes on to note that:

> Although the Civil Procedure Rules 1998 are not binding on the comptroller, some guidance as to the general principles to be applied are to be found in the commentary in "Civil Procedure" under rules 3.1, 3.9 and 17.3. These principles are generally underpinned by the courts' overriding objective to deal with cases fairly.
>
> The requirements of rule 3.1 and 3.9 of the Civil Procedure Rules and their inter-relationship have been considered by the Court of Appeal. Rule 3.1 (2)(a) gives the court, as part of its general powers of case management, the power to extend or shorten the time for compliance with any rule, practice direction or court order (even if an application for extension is made after the time for compliance has expired).
>
> Rule 3.9(1) gives a checklist of factors to be considered on an application for relief from sanctions imposed for a failure to comply with any rule, practice direction or court order: these include: the interests of the administration of justice; whether the application for relief has been made promptly; whether the failure to comply was intentional was not; whether there is a good explanation for the failure yes ; the extent to which the party in default has complied with other rules they have complied, practice directions and court orders and any relevant pre-action protocol; whether the failure to comply was caused by the party or his legal representative not caused by party ; whether the trial date or the likely date can still be met accept it can't if relief is granted; the effect which the failure to comply had on each party; and the effect which the granting of relief would have on each party.

Role of expert evidence

16 Before I address the arguments presented by the parties on how such discretion should be exercised in this instance, it is useful to say a little about the role of expert evidence in proceedings relating to non-infringement . In such proceedings much will invariably turn on the construction of the claims and consideration of how the alleged non-infringing product work. But as stated by Mummery J. in *Glaverbel SA v British Coal Corporation*[2]:

> *"(c) The opinion of expert witnesses on the construction of the specification (or of any other document) will not be admitted by the court. The position was stated as clearly as it can be by Lord Tomlin in the British Celanese case (supra) at page196 in these terms:*
>
> > *"He [that is, an expert witness] is not entitled to say nor is Counsel entitled to ask him what the specification means, nor does the question become any more admissible if it takes the form of asking him what it means to him as an engineer or as a chemist."*
>
> *The cases constantly emphasise that it is for the court, and not for an expert witness, to construe the specification and the ambit of the claims made in it."*
>
> "*It is for the court, not for any witness, however expert, to decide the question of construction in accordance with the meaning of the language used. Evidence can be given by experts to enlighten the judge on the meaning which those skilled in the art would give to technical or scientific terms and phrases and on unusual or special meanings given by such persons to words which might otherwise bear their ordinary meaning*."

17 Jacob LJ. more recently said much the same thing in *Virgin Atlantic Airways Ltd v Premium Aircraft Interiors UK Ltd*[3] where he noted:

> *"One final matter before we move on to the next point. At [228] the judge said he was "comforted" in his interpretation of the claim because his interpretation coincided with that of*

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[2] *Glaverbel SA v British Coal Corporation* [1993] RPC 90

[3] *Virgin Atlantic Airways Ltd v Premium Aircraft Interiors UK Ltd* [2010] RPC 8

Mr Chapman, Contour's expert. But claim construction is a matter for the judge once he has the understanding of the skilled man. It is beside the point what the experts or lawyers think the claim means."

18 I turn now to the arguments put forward by both sides at the CMC. Miss Higgins was keen to stress that the applicants had engaged with their first expert witness in good faith providing what they believed were clear instructions as well as explaining the expectations of an expert witness. Mr Flanders had however informed them first on 5th January 2023, and then in more detail on 12th Jan 2023, that due to increased work commitments he did not have the time to commit to the role of expert witness and that he no longer wished to be involved.

19 Miss Higgins noted that the applicants had informed the tribunal and the other side the following day and had immediately taken steps to secure a replacement expert witness. Miss Higgins also noted that the 5th of January email from Mr Flanders had also raised concerns about the impartiality of Mr Flanders which was something her client had only recently become aware of. In that email Mr Flanders noted that:

"I would like to see the Hydrawell patent go away, because I think it stifles the industry. The claims in their patent brought nothing unique to the table. They took existing technology and claimed it was for specifically for P&A. Had these guys brought something unique in their patent, I would be cheering for them.";

"For my personal interest, it is for my employer to have options. Our current plans do not violate the patent in any way. This has greatly reduced my interest in this. While I think that Hydrawell's patent is unethical, and I would like to see it invalidated, it is not enough of a motivation for me to dedicate a lot of time to this.";

and

"I will try to read the last 3 sections of Exhibits IJB-1-5. I will meet on Thursday to discuss. It could be my participation ends there."

20 According to Ms Higgins there had been no suggestion up to that point that Mr Flanders was in any way conflicted and as such would be unsuitable as an expert witness. Miss Higgins went on to argue that it would be unfair to her client if they were not now allowed to instruct another expert who in addition to providing unbiased expert evidence of their own could also expertly comment on the report of the defendant's expert witness. That was something that Mr Flanders had not been able to do. Indeed, she went so far as to suggest that were her client not be able to replace their expert witness, then they might have to withdraw the reference and refile it.

21 Mr Hall met these arguments in several ways. Firstly, he sought to suggest that what the applicants were trying to do was to in effect replace expert evidence that they did not like with evidence more favourable to their case. He highlighted that were the applicants allowed to instruct a new expect, then the arranged hearing would need to be vacated. He suggested that rather than in effect restarting the expert evidence, that it might be possible for the applicants' new expert to simply endorse the Flanders report. This might still allow the hearing to go ahead as listed. He also noted that the potential unsuitability of Mr Flanders to give evidence had only recently been raised.

22 Mr Hall also argued that if the applicants were allowed to instruct a new expert, then the defendant would be obliged to re-instruct their witness. This would further delay proceedings and incur additional costs. Mr Hall also suggested that the applicants had provided argument rather explanation and as such that was not enough for discretion to be exercised in their favour.

23 Mr Hall also suggested that one way forward would be to adopt the practice in *Smith & Nephew plc v Convatec*[4]. In that case, the expert witness for one side was taken ill and could not give evidence. The trial was therefore adjourned but, in an attempt, to keep any adjournment as short as possible the replacement expert witness, Professor Kennedy, was asked to endorse as much of the previous expert's report as he felt comfortable to do so. The precise procedure Professor Kennedy adopted is set out in paragraphs 19 and 20 of the judgment:

> *"19 Prof Kennedy's position in this case was an unusual and difficult one. These proceedings were due to come on to trial in November 2011 and at that stage Convatec's expert was Prof Qin. At the very last moment Prof Qin was taken ill and could not give evidence. The trial had to be adjourned and Convatec had to find a new expert in very short order. They did so and Prof Kennedy was instructed. He formed his opinions on the prior art first, then the patent. Then he was shown Prof Qin's first reports (Qin 1 and Qin 2). Prof Kennedy commented on them line by line. He was then provided with Prof Burrell's evidence in chief and asked for comments. Then he was provided with Prof Qin's reply report and finally Prof Burrell's reply evidence. Prof Kennedy's evidence in the case consisted of annotated versions of Qin 1, 2 and 3 and relatively short reports in his own words.*
>
> *20. This approach was adopted because at the time of the adjournment it seemed appropriate to require the new expert to adopt Convatec's existing evidence to the extent that he wished to do so. Although this was an understandable approach and it probably did mean a shorter adjournment was possible, since it would inevitably have taken longer for Prof Kennedy to write full reports from scratch, it had the inevitable result that the written expert evidence was unwieldy."*

24 Miss Higgins argued that it would be inappropriate for a similar approach to be adopted here or alternatively for Mr Devereux to simply be asked to endorse Mr Flanders report. Rather to ensure that any report reflected his own expert view, it was necessary to properly instruct him. She added that there would be no prejudice to the defendant in Mr Devereux being able to comment on Mr Brown's report – indeed that is one of the reasons for being able to instruct a new witness. Ms Higgins also indicated that Mr Devereux, who is an accredited expert witness, would be first asked to form his own opinion before commenting on that of Mr Brown. This was how Mr Brown had produced his report forming his own opinion first before commenting on that of Mr Flanders.

25 Ms Higgins also noted that roughly 80% of Mr Brown's evidence would be unaffected as it represented his opinion on the issues. It was only that part that commented on Mr Flanders evidence that would need to be updated to reflect his views on the evidence of Mr Devereux.

26 As to whether she have provided sufficient explanation to allow me to make an informed decision on discretion, Ms Higgins argued she had. With reference to checklist in the Civil Procedure Rules (CPR), she noted that she had sought relief promptly; the reason for the withdrawal of Mr Brown had been fully explained; that

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[4] *Smith & Nephew Plc v Convatec Technologies Inc.* [2012] EWHC 1602 (Pat), 2012 WL 2065110

the withdrawal was not caused by the applicants or their representative but rather was not of their making and that, to that point, they had complied with all directions from the tribunal. Ms Higgin's accepted that the hearing date would be lost if a new expert witness needed to be instructed but argued that any prejudice to the other side resulting form that could be addressed by an appropriate cost order.

27 I did take the opportunity to read through the initial evidence provided by Mr Brown and Mr Flanders. It was clear that this did stray into areas of construction which is a matter for me. However, it also went to the meaning of specific terms in the claims without a proper understanding of which I would be unable to make an informed decision. It was further clear that there were differences between the witnesses as to the precise meaning I should attach to some of these terms. To do justice to the case it was I believe necessary to allow the experts to fully explore these issues. That pointed me to allowing the applicants to instruct fully a new expert and for there to be an opportunity for both witnesses to comment on the views of the other. I would add that I did not consider this to be a simple case of one party seeking to replace an expert witness with one that might be more favourable to its case.

28 Whilst it is clearly undesirable to have to have to abandon a hearing date so close to its scheduled start, it was clear that that would be the inevitable consequence unless I simply refused the applicants permission to instruct in any way a replacement expert. I was grateful for the suggestions made by Mr Hall as to possible alternatives to this however none of these alternatives would I believe have allowed the original scheduled hearing to go ahead. I was also mindful that even the process adopted in *Smith* had resulted in what the judge described as "unwieldly" expert evidence from Professor Kennedy. Given that, I decided that the fairest way to proceed was to allow the applicants to instruct a new expert without him having to comment in any way on the report provided by Mr Flanders. Any prejudice to the respondent could be addressed by a suitable cost order. The evidence of Mr Flanders would remain as part of the submitted evidence and could be referred to by either side if they wished.

Subsequent submissions

29 Pursuant to my directions the applicants' amended statement of 17th January 2023 was admitted into proceedings. The defendant subsequently filed an amended counterstatement on 28th March 2023.

30 Further the applicants submitted its new expert report from Mr Steven Devereux on 13th April 2023. The respondent then submitted a second expert report of Mr Ian Brown on 1st June 2023 picking up on the points raised by Mr Devereux having been granted a short extension of time to do so. The applicants then sought to provide a second report from Mr Devereux. The respondent also sought to submit a third report from Mr Brown.

31 The matter subsequently came before for a video hearing on 18th September 2023 with Ms Roisin Higgins K.C instructed by Murgitroyd & Company appearing for the applicants and Mr Christopher Hall of Counsel instructed by CMS Cameron McKenna Nabarro Olswang LLP for the defendant. Both sides provided skeleton arguments for which I am grateful. I apologise for the delay in issuing this decision.

The expert witnesses and their reports

32 The applicants as noted provided expert evidence initially from Mr Flanders and then on Mr Flanders' withdrawal from the proceedings, from Mr Devereux. Mr Flanders, whose report I directed remain as part of these proceedings, has been employed as a P&A engineer for BP and Acker BP for the last 16 years. Mr Devereux worked in the oil, gas and geothermal drilling industry since 1979 working for Shell and BP before becoming a consultant for companies such as Schlumberger and Dubai Petroleum.

33 The defendant provided expert evidence from Mr Brown. Mr Brown has over 34 years of experience in oilfield well design and drilling engineering including plugging and abandonment.

34 As noted, Mr Devereux has provided three expert reports whilst Mr Brown has provided two. None of the witnesses was cross-examined at the hearing.

35 I was advised at the hearing that the parties had agreed that they would not object to these additional reports from both Mr Brown and Mr Devereux as they did seek to further clarify the issues in dispute and also to correct some errors in the earlier reports. The only proviso to this was that Mr Hall objected to the admission of paragraphs 9-19 of the second report from Mr Devereux. These paragraphs he argued relied on new information that had been provided to Mr Devereux by James Brown of Murgitroyd but not to the Defendant. Mr Devereux noted in his second report that "Based on my current understanding after receiving more information about the Active Seal design, my first Expert Report only at paragraph 153(a) is incorrect.". He goes on to note that he had misunderstood how the active seals are deployed and retracted based on this material. Mr Hall argued that to allow this into proceedings would alter substantially the possible declaration since the features in paragraphs 9-19 were not included in the original statement of case.

36 At the hearing I indicated that I would consider the admissibility of these paragraphs having heard the substantive arguments on the case. I return to this later in the decision.

37 Other than that, I am content to admit the second report of Mr Devereux and the third report of Mr Brown into proceedings.

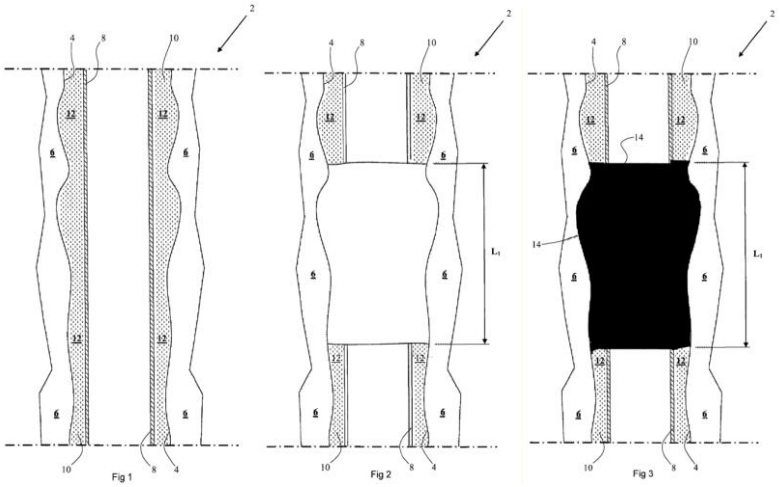
The patents in issue

GB2499172

38 GB2499172 (GB'172) relates to a method of plugging and abandoning (P&A) a subterranean well such as an oil well. When such a well is being abandoned, it is necessary to seal the well to prevent oil leaking into the environment.

39 P&A has traditionally been carried out by so-called milling technology where a mechanical milling tool, which is mounted onto a lower end of a tubular string, is conducted into a desired location in the casing in the well. A longitudinal section of the casing is then milled into pieces, so-called section milling, after which ground up metal shavings and pieces are circulated out of the well. Subsequently an underreamer is conducted into the casing and drills a larger wellbore along the milled

section, and in such a way that the wellbore is enlarged outwardly. Next, a plugging material, typically cement slurry, is pumped down through the tubular string and out into the enlarged wellbore, and possibly into proximate casing portions above and below the enlarged wellbore. This forms a plug across each such longitudinal section in the well. The process is shown in figures 1-3 of the patent.



40 According to the patent, this known milling and plugging method requires several trips into the well for each casing size to be plugged. Consequently, the method is very expensive to carry out. Furthermore, the method involves complete removal of a longitudinal section of the casing of interest, which weakens this area of the well.

41 The invention seeks to address these concerns. According to the invention, a length of the casing within the well is first perforated and then the area outside the casing in this perforated area is washed to provide a space into which a sealing compound such as cement can flow to provide a seal that extends both within the casing but also into the cleaned annulus outside the casing.

42 The perforation, washing and sealing of the well are performed using a tool suspended on a work string within the well bore. Figure 4 of the patent (see below) shows a flow-through tubular work string 16 having a lower end connected to a perforation tool in the form of a perforation gun 18 and which is provided with a number of explosive charges 20. These charges are used to create perforations 22 in the casing wall 8.

43 Figure 6 shows the flow-through tubular work string 16, the lower end of which is releasably connected to a washing tool 24. The washing tool 24 comprises what is referred to as directional means which comprises a first cup-shaped packer element 38 and a second cup shaped packer element 40. These each extend radially outward from the mandrel 30 at a respective axial side of the discharge area 34. By so doing, the washing tool 24 is able to direct the washing fluid 26, which flows outward through the openings 32 in the tubular wall of the mandrel 30, in a radial direction between the flow directing packer elements 38, 40. These packer elements 38, 40 are radially deformable and have an outer diameter being somewhat larger than the inner diameter of the casing 8. For this reason, the packer elements 38, 40 must be pushed with force into the casing 8 for allowing them to be deformed radially, and for overcoming friction between the packer elements 38, 40 and the casing 8 during the pushing operation.

44 Figure 8 shows the longitudinal section L, after having been filled with the fluidized plugging material 50, and after having the tubular work string 16 pulled out of the well 2. The figure also shows the washing tool 24 when left behind in the casing 8 as a support for the plugging material 50.

45 Figure 9 finally shows a combination of a washing tool 24' and an underlying perforation tool in the form of a perforation gun 18'.

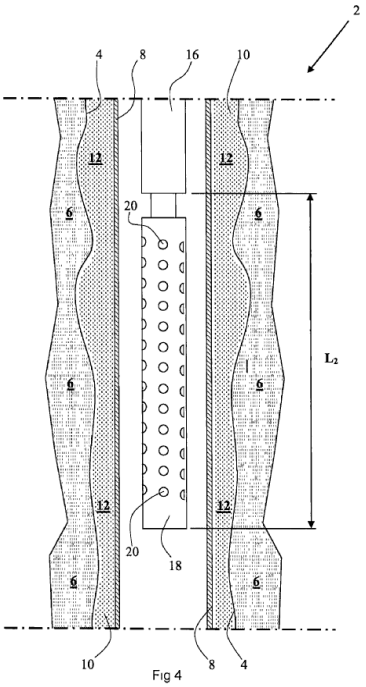


Fig 4

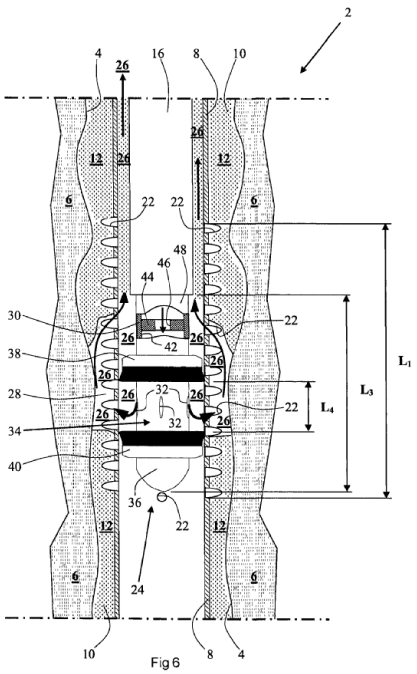


Fig 6

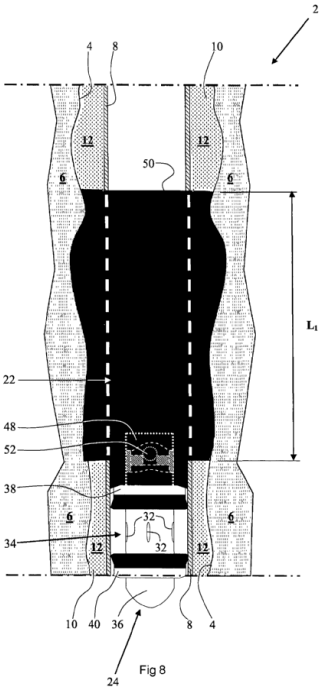


Fig 8

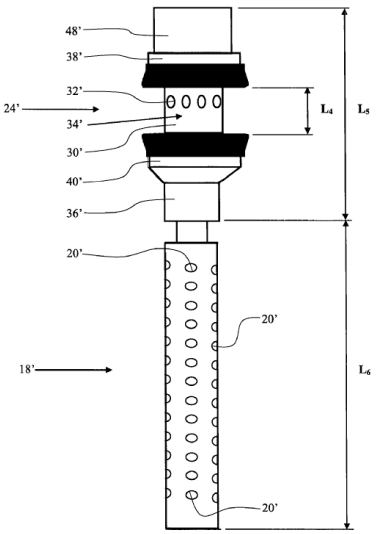


Fig. 9

46 The patent recognises that the individual processes such as perforating, washing and plugging may be known but that bringing these individual processes together in a method for P&A is new. That probably best encapsulates the inventive concept of the patent.

47 The patent has 17 claims of which claim 1 is the only independent claim. This reads:

> 1. A method for combined cleaning of an annulus (10) in a well (2) across a longitudinal section (L_1) of the well (2), and subsequent plugging of the longitudinal section (L_1), said annulus (10) being located outside a casing (8) in the well (2), wherein the method, for such combined cleaning and plugging, comprises the following steps:
>
> (A) conducting a perforation tool (18; 18') into the casing (8) to said longitudinal section (L_1) of the well (2);
>
> (B) by means of the perforation tool (18; 18'), forming holes (22) in the casing (8) along the longitudinal section (L_1), characterized in that the method also comprises the following combination of steps:
>
> (C) by means of a washing tool (24; 24') attached to a lower portion of a flow-through tubular work string (16) and conducted into the casing (8) to the longitudinal section (L_1), pumping a washing fluid (26) down through the tubular work string (16) and out into the casing (8) via the washing tool (24;24');
>
> (D) by means of a directional means associated with the washing tool (24;24'), conducting the washing fluid (26) radially outward into the annulus (10) via at least one hole (22) formed at a first location within the longitudinal section (L_1), after which the washing fluid (26) will flow via the annulus (10) and onward into the casing (8) via at least one hole (22) formed in at least one second location within the longitudinal section (L_1);
>
> (E) pumping a fluidized plugging material (50) down through the tubular work string (16) and out into the casing (8) at the longitudinal section (L_1); and
>
> (F) placing the fluidized plugging material (50) in the casing (8), hence also in the annulus (10) via said holes (22) in the casing (8), along at least said longitudinal section (L_1) of the well (2), whereby both the casing (8) and said annulus (10) is plugged along at least said longitudinal section (L_1) of the well (2).

GB2555058

48 GB2555058 (GB'058) which as noted was granted just over 5 years after GB'172 also concerns a method of plugging and abandoning a subterranean well. The description of GB'058 refers to WO 2012/096580 from which GB'172 is derived. GB'058 also adopts much of the terminology used in GB'172 with the exception that the cleaning tool is referred to as a flushing tool in GB'058. More specifically GB'058 discloses the step of forming perforations in the well bore using a perforation tool lowered into the well. The area around the perforated pipe string is then flushed clean using a flushing tool which has at least one outlet the axis of which is non-perpendicular to the longitudinal axis of the flushing tool.

49 Plugging material is then pumped using the flushing tool into the well to form a plug across the perforated cross section of the well.

50 The non-perpendicular configuration of the at least one flushing outlet in the flushing tool is claimed to ensure very effective flushing and cleaning of both the pipe string

and the annulus outside the pipe string. This in turn ensures good filling and good adhesion of the subsequent plugging material in the pipe string and in the annulus.

51 Further by embodying the fluidized plugging material as a spraying jet emanating from the flushing tool, the plugging material also becomes directional and somewhat concentrated. This is advantageous in that such a spraying jet reaches further out from the flushing tool and may more readily and forcefully engage the formation wall defining the wellbore. Such a spraying jet also gains better access to potential voids in said annulus surrounding the pipe string along the longitudinal section of the well.

52 Further, flushing with the flushing fluid and spraying with the fluidized plugging material may be performed in a single trip into the well which will save on the time and cost of plugging and abandoning the well. The perforation tool can also be attached to the flushing tool such that perforation and flushing can be performed in a single trip. The various method steps are shown in the figures below with the non-perpendicular outlet being shown at 331 in figure 6. It is the use of this non-perpendicular outlet together with using the flushing tool 33 to also pump the plugging material into the cleaned space that provides the inventive concept.

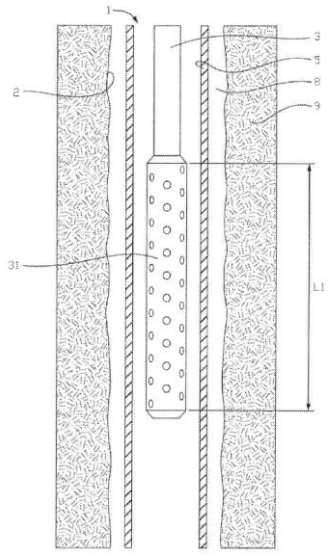


Fig. 4

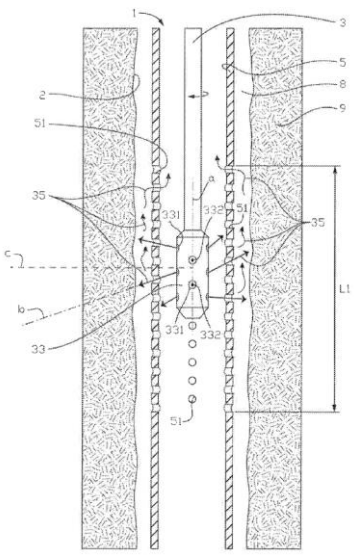


Fig. 6

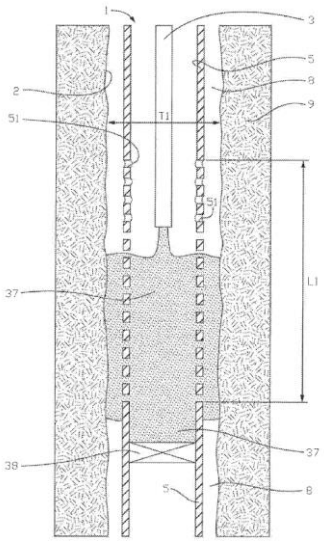


Fig. 7

53 A combined flushing and perforation tool is shown in figure 9.

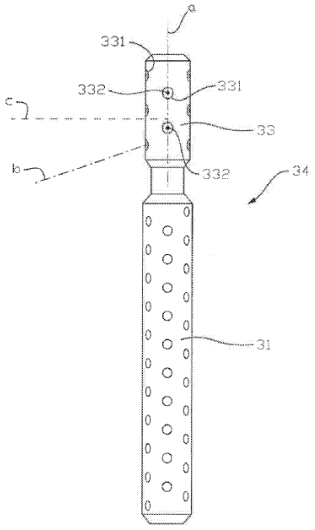


Fig. 9

54 The patent has 29 claims of which the following claim 1 is the only independent claim:

> 1. A method of plugging and abandoning a well (1), the method involving perforation, cleaning and plugging of a longitudinal section (LI) of the well (1), said longitudinal section (LI) comprising a wellbore (2), a pipe string (5) placed within the wellbore (2), and an annulus (8) located between the wellbore (2) and the pipe string (5), wherein the method comprises the following steps:
>
> (A) lowering a perforation tool (31) into the pipe string (5) onto said longitudinal section (LI) of the well (1);
>
> (B) by means of the perforation tool (31), forming perforations (51) in the pipe string (5) along said longitudinal section (LI);
>
> (C) by means of a flushing tool (33) attached to a lower end portion of a tubular work string (3), which is lowered into the pipe string (5) onto said longitudinal section (LI), pumping a flushing fluid (35) down through the tubular work string (3), out through at least one flushing outlet (331) in the flushing tool (33), into the pipe string (5) and further out into said annulus (8) via the perforations (51) in the pipe string (5), thereby cleaning both the pipe string (5) and the annulus (8) along said longitudinal section (LI),
>
> wherein an outlet axis (b) of at least one of said at least one flushing outlet (331) in the flushing tool (33) is non-perpendicular to a longitudinal axis (a) of the flushing tool (33), whereby a corresponding flushing jet from the flushing tool (33) also is non-perpendicular to the longitudinal axis (a) of the flushing tool (33);
>
> (D) pumping a fluidized plugging material (37) down through the tubular work string (3) and into the pipe string (5) at said longitudinal section (LI);
>
> (E) placing the fluidized plugging material (37) in the pipe string (5) along at least said longitudinal section (LI), thereby also placing the fluidized plugging material (37) in said annulus (8) via the perforations (51) in the pipe string (5), whereupon the fluidized plugging

material (37) forms a plug (25) covering substantially a complete cross section (TI) of the well (1) along at least said longitudinal section (LI) of the well (1);

(F) pulling the tubular work string (3) out of the well (1); and

(G) abandoning the well (1),

characterized in that the method, in steps (D) and (E), comprises pumping the fluidized plugging material (37) into the pipe string (5) via at least one spraying outlet in the flushing tool (33) so as to discharge as a corresponding spraying jet from the flushing tool (33).

The applicants' product

55 The amended statement of case filed 17th January 2023 makes it clear that it is the SJI Mk II Tool that is the subject of the declaration sought. A link[5] is provided to a website showing two videos. One of these shows a schematic demonstration of the operation of the SJI Mk I Tool which is not part of the application whilst the other shows the SJI Mk II Tool in use. The figures below are screenshots taken from the video of the Mk II Tool.

The operation of the SJI Mk II System

56 The first step to P&A is to place a suitable plug below the part of the well that is to be sealed by the cement plug. This first plug will provide a closed loop ensuring that any fluid used by the SJI Mk II Tool to wash the well bore, particularly that applied at pressure, does not escape to the formation below and thus ensures that the washing fluid returns to the surface. The plug also provides a base for the lower end of the cement plug which will be pumped during the final operation of the SJI Mk II Tool.

Slotting and Jetting Operation

57 The next step is to cut slots into the well casing. This is achieved using a mechanical serrated cutting blade. Pressurised fluid is pumped into the drill string and acts upon a piston located within the SJI Mk II Tool which moves the serrated cutting blade up an angled ramp such that the blade is pushed mechanically outwards until the serrated teeth formed around the outer circumference of the cutting blade are pushed against the inner surface of the casing and will then slice through the casing to pierce slots through the casing. The reaction force of the cutting blade being pushed outwards against and/or through the casing forces the other side of the SJI Mk II Tool flat against the inner throughbore of the casing. The SJI Mk II Tool is then pushed downwards such that the blade rotates around its pivot point, thereby slicing the serrated teeth through the casing at spaced apart points down the casing.

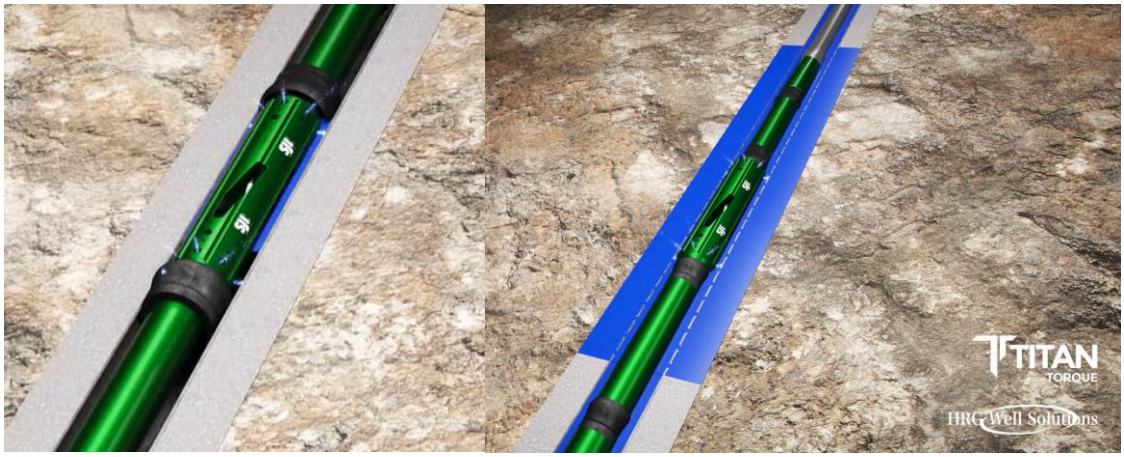
[5] https://titanservices.egnyte.com/fl/vsAzPf7gHS

58 At the same time, an already open single jetting port (located immediately above the point at which the blade projects outwardly from the SJI Mk II System body) has opened and this allows the pressurised jetting to be pumped at high velocity. As the SJI Mk II Tool is then moved down the well, the jetting fluid will strike the inside of the blank casing until the that single jetting port is aligned with a slot that had just been created by the serrated blade, at which point the jetting fluid will strike the cement in the annulus immediately behind the slot and thereby disrupt/break up that section of the cement/formation The SJI Mk II Tool continues to be moved down the well, with the jetting fluid pumped out through the single jetting port repeating the above described process to create a row of slots from top to bottom. The SJI Mk II Tool can then be raised back up the well (the pressure of the jetting fluid will be bled off to allow the serrated cutting blade to be moved back down the ramp under the action of a suitable biasing device such as a spring) such that the serrated blade is moved back to the same height in the well compared with the location it was activated previously. If further rows of slots are required, the SJI Mk II Tool is then rotated in the well by a suitable number of s e.g. between 30 and e.g. 180 s and the above described process can be repeated to create multiple rows of slots. 30

Washing Operation

59 The SJI Mk II Tool utilises at least one drop ball seat that is shear pinned in place just above the single jetting nozzle. The tool is moved back up the well to an area of the casing that has not been perforated. A drop ball (shown below) is dropped down the tool string and lands on the seat. The pressure of the fluid then builds up on the ball causing the shear pins to shear. This uncovers a set of 360°equi-spaced circulation ports formed in the sidewall of the tool. At the same time as these ports are uncovered, the single jetting nozzle will be covered so no more fluid can pass through it.

60 Washing fluid (blue coloured fluid in the screenshots) is then pumped out through these circulation ports to clean the space between the tool and the casing and also in the annulus surrounding the perforated casing. The video for the Mk II SJI Tool shows 3 sets of 360° equi-spaced circulation ports as having been opened by the drop ball. The washing step is conducted from top to bottom by moving the SJI Mk II Tool downwards within the slotted section of the casing towards the plug previously located below the lowermost end of the slots.



61 The SJI Mk II Tool has 4 seals – two of which are highlighted below. The operation of these seals and the path taken by the jetting and washing fluids is at the heart of this dispute and I will return to it in more detail later in this decision.

The cementing step

62 Once the washing operation has been concluded the SJI Mk II Tool is moved to an area where the casing has not been perforated and the operator of the SJI Mk II Tool increases the fluid pressure at the surface. This acts upon the drop ball that is already on the seat and causes a second set of shear pins to be sheared such that the ball seat falls within the body of the tool. This opens up full circulation of fluid all the way through the tool such that firstly a spacer fluid (shown in green in the screenshots) can be pumped through not only the already opened 360° circulation ports formed in the sidewall of the tool but also through the bottom end of the SJI Mk II Tool as the tool is moved through the perforated well bore. To complete the P&A the tool is again moved through the perforated section of the well bore and cement (shown in grey) is pumped into the well and into the annulus outside of the perforated casing to plug the well.

The Law

63 Declarations of non-infringement are governed by section 71 of the Act. Insofar as relevant to this decision, section 71 states: -

> Declaration or declarator as to non- infringement
>
> 71. -(1) Without prejudice to the court's jurisdiction to make a declaration or declarator apart from this section, a declaration or declarator that an act does not, or a proposed act would not, constitute an infringement of a patent may be made by the court or the comptroller in

> proceedings between the person doing or proposing to do the act and the proprietor of the patent, notwithstanding that no assertion to the contrary has been made by the proprietor, if it is shown-
>
> (a) that the person has applied in writing to the proprietor for a written acknowledgement to the effect of the declaration or declarator claimed, and has furnished him with full particulars in writing of the act in question; and
>
> (b) that the proprietor has refused or failed to give such acknowledgment.

64 The applicants have provided with its statement, copies of written correspondence between the applicants and the proprietor that it claims effectively demonstrate that the proprietor has refused to provide a written acknowledgement of non-infringement with respect to GB'172 and GB'058.

65 It is clear that there has indeed been correspondence between the parties. What is unclear, and on which there has been an ongoing dispute between the parties, is whether the applicants have provided both initially and in its subsequent statement of case "full particulars" of the acts for which the declaration is sought. This dispute extended to the reports produced by the various experts and in particular whether Mr Devereux, as the proprietor claims, is seeking to add more detail to the statement of case in his second expert report. I will consider that shortly.

66 In deciding whether a patent is infringed, it is necessary to establish the extent of protection conferred by the patent. Section 125(1) provides the basis on which this should be done, namely that the extent of protection is defined by the claims as construed in light of the description and drawings.

67 In doing so I must interpret the claims in context through the eyes of the person skilled in the art. Ultimately the question is what the person skilled in the art would have understood the patentee to be using the language of the claims to mean. This approach has been confirmed in the decisions of the High Court in *Mylan v Yeda*[6] and the Court of Appeal in *Actavis v ICOS*[7]

68 Having construed the claims, it may also be necessary to consider whether the product in issue infringes on the basis of an immaterial variation. The Court of Appeal in *Icescape v Ice-World* [8] set out how this is to be considered:

> The whole approach to interpretation and scope of protection therefore involves the following steps, considered through the eyes of the notional addressee:
>
> (i) Does the variant *[i.e. the alleged infringement]* infringe any of the claims as a matter of normal interpretation?
>
> (ii) If not, does the variant nevertheless infringe because it varies from the invention in a way or ways which is or are immaterial? This is to be determined by asking these three questions.
>
> (a) Notwithstanding that it is not within the literal (that is to say, I interpolate, normal) meaning of the relevant claim(s) of the patent, does the variant

[6] *Generics UK Ltd (t/a Mylan) v Yeda Research and Dev. Co. Ltd & Anor* [2017] EWHC 2629 (Pat)
[7] *Actavis Group & Ors v ICOS Corp & Eli Lilly & Co.* [2017] EWCA Civ 1671
[8] *Icescape Ltd v Ice-World International BV* [2019] FSR 5

> achieve substantially the same result in substantially the same way as the invention, i.e. the inventive concept revealed by the patent?
>
> (b) Would it be obvious to the person skilled in the art, reading the patent at the priority date, but knowing that the variant achieves substantially the same result as the invention, that it does so in substantially the same way as the invention?
>
> (c) Would such a reader of the patent have concluded that the patentee nonetheless intended that strict compliance with the literal meaning of the relevant claim(s) of the patent was an essential requirement of the invention?

69 Kitchin LJ. (as he then was) clarified that 'normal interpretation' in step (i) means 'purposive interpretation' and that assessment of the inventive concept in step (ii) requires having regard to the *"problem underlying the invention and the patent's inventive core."*

70 The principles of purposive construction were further considered out by Floyd LJ. in *Saab Seaeye Limited v Atlas Elektronik*[9] where he noted:

> *"There was no dispute about the principles which apply to the construction of patent claims. Both parties relied, as did the judge, on the summary in this court's judgment in Virgin Atlantic v Premium Aircraft [2010] RPC 8 at [5]:*
>
> > *(i) The first overarching principle is that contained in Article 69 of the European Patent Convention.*
> >
> > *(ii) Article 69 says that the extent of protection is determined by the claims. It goes on to say that the description and drawings shall be used to interpret the claims. In short the claims are to be construed in context.*
> >
> > *(iii) It follows that the claims are to be construed purposively – the inventor's purpose being ascertained from the description and drawings.*
> >
> > *(iv) It further follows that the claims must not be construed as if they stood alone – the drawings and description only being used to resolve any ambiguity. Purpose is vital to the construction of claims.*
> >
> > *(v) When ascertaining the inventor's purpose, it must be remembered that he may have several purposes depending on the level of generality of his invention. Typically, for instance, an inventor may have one, generally more than one, specific embodiment as well as a generalised concept. But there is no presumption that the patentee necessarily intended the widest possible meaning consistent with his purpose be given to the words that he used: purpose and meaning are different.*
> >
> > *(vi) Thus purpose is not the be-all and end-all. One is still at the end of the day concerned with the meaning of the language used. Hence the other extreme of the Protocol – a mere guideline – is also ruled out by Article 69 itself. It is the terms of the claims which delineate the patentee's territory.*
> >
> > *(vii) It follows that if the patentee has included what is obviously a deliberate limitation in his claims, it must have a meaning. One cannot disregard obviously intentional elements.*
> >
> > *(viii) It also follows that where a patentee has used a word or phrase which, acontextually, might have a particular meaning (narrow or wide) it does not necessarily have that meaning in context.*

[9] *Saab Seaeye Limited v Atlas Elektronik* [2017] EWCA Civ 2175

> *(ix) It further follows that there is no general 'doctrine of equivalents.'*
>
> *(x) On the other hand purposive construction can lead to the conclusion that a technically trivial or minor difference between an element of a claim and the corresponding element of the alleged infringement nonetheless falls within the meaning of the element when read purposively. This is not because there is a doctrine of equivalents: it is because that is the fair way to read the claim in context.*
>
> (xi) Finally purposive construction leads one to eschew the kind of meticulous verbal analysis which lawyers are too often tempted by their training to indulge.'
>
> *Sub-paragraph (ix) must now be read in the light of the Supreme Court's judgment in Actavis v Lilly[10], which explains that, at least when considering the scope of protection, there is now a second question, to be asked after the patent claim has been interpreted, which is designed to take account of equivalents..."*

71 Mr Hall also referred me to the comments of Pumfrey LJ in *Nokia v Interdigital*[11] on seeking where possible to construe a claim first before considering infringement. There he noted:

> *"... Although one construes a claim 'as if the defendant had never been born', in any complex case it is essential to see where the shoe pinches so that one can concentrate on the important points. It is important nevertheless that the opportunity thus presented to construe the document with one eye on the infringement must be rejected, as far as possible. ..."*

72 That is what I will now try to do.

Construing the claims in GB'058 and GB'172

The Skilled person and common general knowledge

73 There is little between the parties on the identity and common general knowledge of the person skilled in the art. Both Mr Devereux and Mr Brown agree that the skilled person would be a drilling engineer with a degree in an engineering discipline and experience in the oil and gas industry.

74 The GB'172 Patent is directed to "any type of subterranean well", so the skilled person would have experience of both onshore and offshore wells. The relevance of this is that the skilled person would not be focused exclusively on deep offshore wells and would be aware for example of perforation techniques associated with lower cost, onshore wells. In terms of the common general knowledge, the experts are generally agreed that this would extend as to how wells are formed, operated and abandoned.

75 Both sides were agreed that the meaning of three aspects of the inventions set out in the claims are central to this dispute. More particularly what do the terms "perforation tool" and "directional means" mean and do the claims cover an arrangement where the perforation tool and washing tool are combined in a single body?

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[10] *Actavis v Lilly* [2017] UKSC 48
[11] *Nokia Corporation v Interdigital Technology Corporation* [2007] EWHC 3077 (Pat)

Perforation Tool

76 The first issue I will consider is the construction of the term “perforation tool” in the claims of the two patents. I did not take either side to be arguing that the term should be construed differently in the two patents notwithstanding the difference in priority dates. The applicants argued that the phrase “is one which would have a particular meaning to the skilled person and, accordingly, cannot simply be construed using its everyday meaning.

77 Both Mr Brown and Mr Devereux accepted that at the priority date of the patents, the prevailing method of perforating casings was to use an explosive perforation gun. There is however some difference between the experts as to whether non-explosive perforation techniques were also used in particular in P&A. Mr Brown highlighted some of the limitations with using explosives and refers to alternative chemical cutters, high pressure hydraulic jetting, and electro-mechanical and mechanical tubing punches. He referred for example to the Otis “A” Type tubing perforator (datasheet reproduced below) which was first highlighted in the report of Mr Flanders, and which could be deployed from the surface on a wire (known as a ·slickline') and punch a single perforation in the production tubing. The tubing perforator could be re-deployed and re-set to punch additional perforations in the production tubing during the same trip.

Otis® ‘A’ Type Tubing Perforator

Slickline Downhole Tools

The Otis Tubing Perforator Punch is a mechanical device, designed to perforate standard and heavy wall tubing, under pressure. Deployed into the well by conventional means, the perforator punch requires no explosives, eliminating the possibility of perforating the casing.

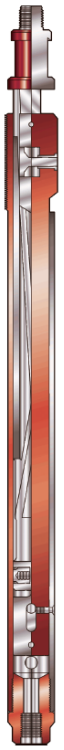
The design benefits include:

- Greater tubing penetration
- Positive indication of perforation on tool removal
- Safety release mechanism, allowing the tool to be retrieved from the well without perforating
- The perforator is designed to withdraw the punch and release automatically after perforating
- Utilises upward jarring impacts for perforation action

The perforator is used in conjunction with a tubing collar stop or slip type stop which provides an anchor to allow upward jarring, activating the perforator

When ordering please specify tubing size, weight and grade.

Hunting ‘A’ Type Tubing Perforators are available with various connections to suit customer requirements



OTIS® A TYPE TUBING PERFORATOR PUNCH

Normal Size	Part Number	Top Connection	Bottom Connection	Fishing Neck	Extended Max Length	Extended Punch (OD)	Retracted Punch (OD)
1.250"	62AO29	5/8" 11 UN	3/4" 10 UN	1.000"	30.75"	1.580"	1.230"
1.500"	62AO19	15/16" 10 UN	5/8" 11 UN	1.188"	35.19"	1.812"	1.469"
1.750"	62AO9	15/16" 10 UN	15/16" 10 UN	1.188"	37.37"	2.047"	1.621"
2.000"	62AO25	15/16" 10 UN	15/16" 10 UN	1.375"	39.31"	2.141"	1.875"
2.000"	62AO24	15/16" 10 UN	15/16" 10 UN	1.375"	38.81"	2.250"	1.839"
2.500"	62AO11	15/16" 10 UN	15/16" 10 UN	1.375"	29.62"	2.688"	2.125"
2.500"	62AO20	15/16" 10 UN	15/16" 10 UN	1.375"	44.34"	2.781"	2.201"
3.000"	62AO1	1 1/16" 10 UN	1 1/16" 10 UN	2.312"	50.87"	3.344"	2.688"
3.000"	62AO26	1 1/16" 10 UN	1 1/16" 10 UN	2.312"	51.00"	3.344"	2.810"
4.000"	62AO31	1 1/16" 10 UN	1 1/16" 10 UN	2.312"	64.22"	3.920"	2.970"
4.500"	62AO28	1 1/16" 10 UN	1 1/16" 10 UN	2.312"	53.00"	4.400"	3.650"
4.50"	62AO27	1 1/16" 10 UN	1 1/16" 10 UN	3.125"	51.54"	4.370"	3.750"
5000"	62AO30	1 1/16" 10 UN	1 1/16" 10 UN	3.125"	64.22"	5.000"	4.110"

78 Mr Brown also referred to a mechanical perforator produced by Holte Manufacturing. According to the information from the manufacturer's website provided by Mr Brown, the Holte perforator can be threaded onto a drill string to effectively perforate the inside wall of installed steel and PVC casing in a variety of situations. Air or water engages "a 6-point cutter wheel while down pressure from the rig makes the wheel rotate and perforate to the desired depth". Mr Brown also referred to a casing cutter from the same manufacturer which has a single cutting blade designed for cutting steel pipes above or below ground.

79 Mr Devereux's response was that he was not personally aware of the mechanical cutting blade type tool from Holte or from any other supplier before this case. He noted he had not seen any reference to it in the literature or textbooks or discussed in forums and that he only found it when searching the internet. He opined that the "average" skilled person at the priority date of the patent would also not be aware of this type of tool.

80 I note that notwithstanding his considerable expertise in the field of drilling, Mr Devereux accepted that he is not an expert on perforation. On balance I prefer the evidence of Mr Brown that the PSA would be aware of mechanical perforating tools at the relevant time. This would constitute part of that's person common general knowledge.

81 Would the person skilled in the art however understand the claims in the patents to extend to such devices? Neither patent refers specifically to mechanical perforators. The relevant part of the description in GB'172 on page 5 lines 24-35 reads:

> "Moreover, said perforation tool may be comprised of a conventional perforation tool comprising explosives, i.e. explosive charges arranged in a desired manner. Such a perforation tool, also referred to as a perforation gun, may be conducted into the well being mounted onto a lower end of a cable, so-called wireline operation, or mounted onto a lower end of a tubular string consisting of drill pipes or coiled tubing, for example. When mounted onto a tubular string, such perforation is usually referred to as a so-called tubing-conveyed perforation (TCP). As an alternative, so-called abrasive technology may be used for perforation of said casing. For abrasive perforation, a water cutting tool is used, the tool of which is provided with a nozzle emitting a high-velocity water jet containing solid particles, so-called abrasives, the water jet cutting through said casing. Conventional and abrasive perforation constitute prior art."

82 GB'058 says even less simply referring to:

> *"*A perforation tool, here in the form of a perforation gun 31 of a type known per se,*".*

though that patent also refers back to the description in GB'172.

83 Mr Hall was keen to emphasise that the scope of the claims should not be limited to the specific embodiments disclosed in the specification. He referred in support to the judgment in *Nokia v IPCom*[12] where Floyd J as he then was noted:

> *"Where a patentee has used general language in a claim, but has described the invention by reference to a specific embodiment, it is not normally legitimate to write limitations into the claim corresponding to details of the specific embodiment, if the patentee has chosen not to do so. The specific embodiments are merely examples of what is claimed as the invention,*

[12] *Nokia GmbH v IPCom GmbH & Co KG* [2009] EWHC 3482 (Pat)

and are often expressly, although superfluously, stated not to be "limiting". There is no general principle which requires the court to assume that the patentee intended to claim the most sophisticated embodiment of the invention. The skilled person understands that, in the claim, the patentee is stating the limits of the monopoly which it claims, not seeking to describe every detail of the manifold ways in which the invention may be put into effect."

84 Mr Hall noted that this canon of construction holds even where there is only a single specific embodiment described in the specification referring to Meade J. in *Add 2 Research v Dspace.*[13]

85 I would observe that though it is not determinative of the issue, the description in the patents also notes that the figures relate to "non-limiting examples" or "exemplary" embodiments of the invention.

86 Ms Higgins however argued that even if the term "perforation tool" could be considered to extend beyond the specific embodiments disclosed, it would still not extend as far as the type of mechanical cutting blade of the SJI Mk II Tool. This is because:-

(i) as Mr Devereux notes such mechanical devices, if they existed at the priority date, were not within the CGK of the skilled person as a means for creating a set of perforations (the patent refers to "conventional perforation tools" - mechanical cutting blades could not have been regarded as such by the PSA if they were not within his CGK);

(ii) the use of the mechanical blade in the SJI Mk II Tool is only applicable to making slots purely designed for accessing the annulus, whereas the perforation tools described in GB'172 penetrate far deeper, through any cement in the annulus and into outer casing or rock, thus having a general application to all types of perforations – so perforating guns and abrasive jet tools are general perforation tools, whereas the mechanical blade used in the Tool is not; and

iii) moreover, an express object of the GB'172 is to reduce the number of trips in the well– the mechanical cutting blade forms an integral part of one single Tool, and the perforation tool in the GB'172 could not be replaced with the Tool itself as this would make it impossible for the system to perforate, wash and cement in one run: (i) the Tool is designed to move along the well creating slots while simultaneously pumping fluid and directing high pressure fluid at the newly created slots, however the Tool could not move were it deployed below the washing tool in the GB'172 due to the use of the swab cups in the '172; and (ii) the Tool would be prevented from carrying out the necessary pumping procedure, as the swab cups in the GB'172 would seal the path for fluids to flow up the well.

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[13] *Add2 Research and Development Limited v Dspace Digital Signal Processing & Control Engineering Gmbh Dspace Limited* [2021] EWHC 1630 (Pat)

87 I have already determined that mechanical perforators were a part of the skilled person CGK so that in effect addresses point i). For completeness I will set out Mr Hall's response on this point had that not been the case.

88 Mr Hall noted that the scope of patent claims can extend beyond simply what was known at the priority date. Indeed, as a matter of law, whether an infringing embodiment is itself an invention is irrelevant. Quoting LJ. Bowen he notes that "*the superadding of ingenuity to a robbery does not make the operation justifiable*"[14]. He also refers to *Illumina Cambridge Limited v Latvia MGI Tech SIA*[15] where, Birss J as he then observed:

> *"To take an example mentioned in argument in this case, say an inventor invented a new teapot which was inventive and useful because its spout was shaped in a new way so as not to drip. The claim would be to a teapot with the spout shaped in that special way. The claim might well not say anything about the material from which to make the teapot, because it is irrelevant to the invention. Equally the claim might refer to "a tea pot made of any suitable material". There would be no difference between a claim which expressly said that or one which was silent. Either way the claim can be said to encompass a range of teapots made of different materials. Now the patent needs to enable the skilled person to make the product. In the example I will assume the skilled person could choose, identify and test suitable materials at the priority date without an undue burden. China would work and chocolate would not.*
>
> *However the claim would be infringed later on even if a teapot was made using a new inventive form of Pyrex glass which had not been invented at theteapot patent's priority date. Furthermore in my judgment this fact, that the claim covers types of teapot which it does not enable, does not reveal some insufficiency. The fact that the skilled person could not make such a teapot at the priority date of the teapot patent does not matter. …"*

89 On the second point Mr Hall noted that the applicants and Mr Devereux are seeking to draw an apparent distinction relating to the depth of perforation. This he argues is inconsistent with the applicants' pleading. I note however that the amended statement of case at paragraph 15 does seek to differentiate mechanical based perforation tools on the basis of "how far radially they can cut outwards". More substantially Mr Hall argued that the perforation requirement of the claim is satisfied by the slotting process of the SJI Mk II Tool on its own, or alternatively by the combined slotting and jetting process. I agree with Mr Hall's first alternative. The claims in both patents merely require that the perforation tool forms "holes in the casing". There is simply no further requirement as to the effect of the tool beyond the casing. Even if were implicit that the material in the annulus surrounding the perforated casing was also disturbed by the action of the perforation tool then I am satisfied that the skilled person would understand that this was not intended to exclude mechanical perforation tools. They would appreciate that whatever tool was used to perforate the casing would also impact on the material beyond the casing albeit to different extents.

90 Mr Hall noted that in respect of the last of these points that claim 1 simply does not require the three steps of perforating, washing and cementing to be carried out in a single trip. I agree. Whilst GB'172 sets out a number of issues with prior P&A methods including the need at times to have multiple trips down the well, it merely states that it is an objective of the invention to remedy or reduce at least one of these

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[14] *Wenham Gas Co Ltd v Champion Gas Lamp Co* (1892) 9 RPC 49
[15] *Illumina Cambridge Limited v Latvia MGI Tech SIA* [2021] RPC 12

disadvantages or to provide “a useful alternative to the prior art”. More importantly as Mr Hall noted, the main claims in the patents are not limited to conducting all the operations in one trip. Rather that possibility is only introduced in the dependent claims which refer to the perforation tool being dis-engagingly connected to the washing tool. I would add finally that I have not been presented with any compelling evidence to suggest that even if the single trip was a requirement of claim 1, that that would lead the skilled person to exclude mechanical perforation tools from their construction of “perforation tool”.

91 Weighing up all the arguments leads me to conclude that the skilled person would not understand that the patentee was seeking to limit the scope of the patent to only explosive perforation guns or indeed just the type of perforation tools described in the patent. Rather it extends more broadly than that and will cover other perforating tools including mechanical perforating tools that are capable of perforating the casing.

Separate perforation and washing tools

92 The second area of dispute between the parties is whether the claims should be construed as requiring the perforation tool and the washing tool to be separate and/or separable. For the purposes of the declaration sought there is also a dispute as to whether the particulars of the SJI Mk II Tool are sufficient to determine the configuration of the perforation and washing devices and if so, does it fall within a purposive construction of the claims. I address that later when I consider whether the use of that particular tool does indeed infringe.

93 For now, I will focus on the construction of the two patents. GB’172 as discussed presents several embodiments. In a first embodiment the perforation and washing tools are separate tools, and the perforation tool is removed from the well before the washing tool is introduced. In a second embodiment the method includes:

> “.. connecting the perforation tool to the washing tool to form an assembly thereof; and connecting the assembly to said lower portion of the tubular work string. By so doing, perforation and washing are carried out in only one trip into the well.”

94 The description goes on to note that:

> “the method, before step (A), may also comprise a step of providing the perforation tool with a disengagement means structured for selective activation and separation of the perforation tool from the washing tool after step (B). Then, the perforation tool will fall downward into the well and, hence, away from said longitudinal section, whereby the perforation tool is left behind in the well.”

95 The claims seek to reflect these different embodiments. Claim 1 refers to conducting a perforation tool into the casing and a washing tool attached to a lower portion of a flow through tubular work string. It is silent on the relative positions of the tools and as to whether they are incorporated into a single tool or are separable or not. Claim 5 however does refer explicitly to the perforation tool and a washing tool being arranged together to form an assembly. Claim 6 goes on to state that the perforation tool is disposed below the washing tool in the assembly with claim 7 providing the further restriction that perforation is separable from the washing tool to allow the perforation tool to fall downward into the well after it has perforated the casing.

96 Mr Hall argued that claim 1 as drafted covers not only the narrow subsidiary arrangements in claims 5-7, but also the broader arrangement in which the perforation and washing tools are arranged in an inseparable assembly agnostic as to their relative positions. Such an interpretation of claim 1 is consistent with the purpose of the perforation tool and the washing tool, which is to carry out the steps of perforation and washing within the method of claim 1. Claim 1 he noted is not a product claim, and it is indifferent as to the precise configurations of the perforation tool.

97 Mr Hall also noted that GB'172 is clear that there are additional advantages of the invention if the tools can be assembled in such a way to enable perforation and washing to be carried out in a single trip. He noted that this could be achieved by connecting two existing tools together as shown in Figure 9. Another way would be to design a bespoke single assembly. That he noted is not an embodiment taught by the GB'172 specification, but excluding such an embodiment from the claim would be arbitrary and without purpose.

98 Mr Hall sought to build on this argument by proposing a hypothetical variant of Figure 9 of GB'172 with the perforating and washing functions embodied inseparably within a single assembly contained within one tool body. This is depicted by the red outline in the following figure with gaps for the washing fluid and perforating means to pass through. Such a tool would facilitate carrying out the method of claim 1, and the skilled person would understand it to fall within the claim.

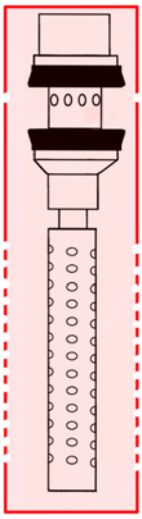


Fig. 9

99 Ms Higgins instead argued that Claim 1 of GB'172 is not so broad. She noted it describes a "perforation tool" at integers (A) and (B), and a washing tool at integers (C) and (D). From this, the skilled person would understand that the two steps of perforating and washing, described at (A)-(B) and (C)-(D) respectively, would have to be carried out consecutively. The skilled person would further know that a wireline conveyed perforating gun or coiled tubing conveyed abrasive jet tool cannot be placed above the washing tool and instead requires to be placed below it, as shown in Figures 4 and 9 of the GB'172. She went on to explain Mr Devereux's position that the perforating then washing process would not work were the perforating gun placed above the washing tool. This is because once the gun fires, there are holes in

the tube. If the gun was above the washing tool, any fluid pumped would exit the pipe through the gun and not through the washing tool below as this is the path of least resistance.

100 Further Mr Devereux noted that the gun must be below the washing tool to allow it to be released after firing. Further it would be clear to the skilled person that the perforation and washing tools were separate, to allow the perforating gun to be released after firing. That same skilled person would also know that the two tools could not be combined as suggested by Mr Hall as the perforation tool could damage or destroy the washing tool on activation.

101 Mr Hall met this by noting that Mr Devereux's evidence focuses on his opinion that the use of a perforating gun would demand a specific configuration The difficulty with that opinion is that claim 1 is not limited to the use of a perforating gun, and with an abrasive perforation method or indeed a mechanical perforation method Mr Devereux's concerns do not apply.

102 So what do I conclude? Claim 1 is a method claim that requires certain steps to be carried out. To the extent that the underlying apparatus is capable of performing these steps then that is all that is required. It is in my view clearly within the scope of the claim for the perforating and washing tools to be either separate tools, to be two tools joined together either separably or not, or combined in a single tool. That is a clear reflection of how the claim set as a whole is drafted. I accept however that the latter is unlikely to be an option if the perforation is performed by a perforation gun. But as noted above I do not believe the claim is limited only to perforation guns.

103 I was not presented with any argument that I should construe this requirement in GB'058 any differently to how I have construed it for GB'172.

Directional means

104 The final issue of construction I need to consider is what is meant by "directional means" in GB'172?

105 I would note firstly that this question of construction applies only to GB'172. GB'058 neither claims nor discloses similar "directional means".

106 As discussed above the directional means in GB'172 are stated in claim 1 as being "associated with the washing tool" and serve to conduct:

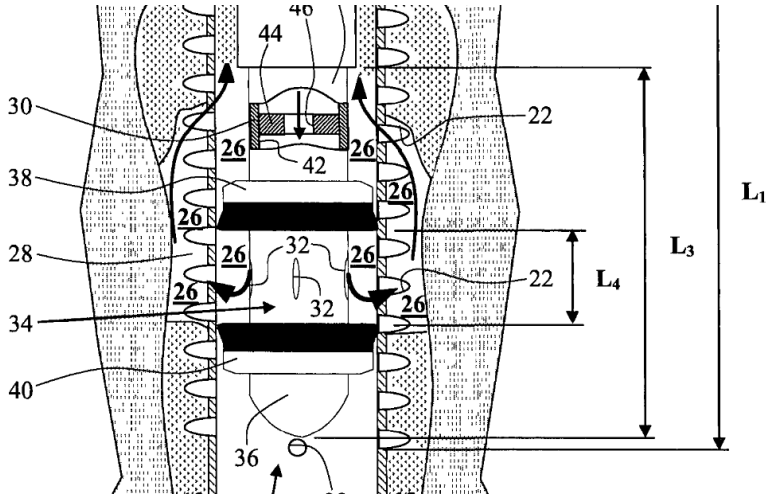
> the washing fluid radially outward into the annulus via at least one hole formed at a first location within the longitudinal section, after which the washing fluid will flow via the annulus and onward into the casing via at least one hole formed in at least one second location within the longitudinal section;

107 The description in GB'172 notes further that:

> The washing tool comprises:
>
> - a mandrel having a tubular wall provided with at least one flow-through opening located within a discharge area of the mandrel; and

- a first flow guide and a second flow guide, each of which extends radially outward from the mandrel at a respective axial side of the discharge area of the mandrel, whereby the washing tool is structured in a manner allowing it to direct a washing fluid, which is flowing via the mandrel and outward through the at least one opening in said tubular wall, in a radial direction between the first flow guide and the second flow guide.

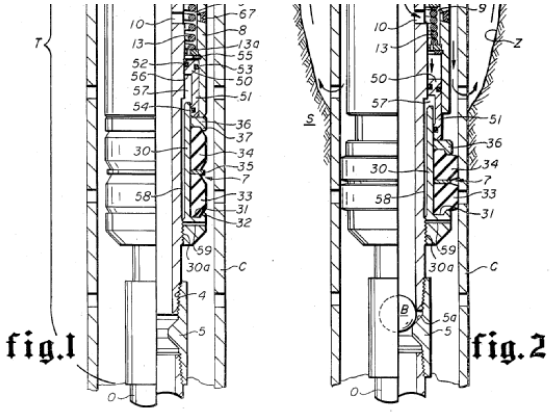
108 The patent provides several alternative embodiments for the flow guides. In one embodiment (see figure below) the flow guides are shown as a first cup-shaped packer element 38 and a second cup shaped packer element 40. These each extend radially outward from the mandrel 30 at a respective axial side of the discharge area 34. By so doing, the washing tool 24 is able to direct the washing fluid 26, which flows outward through the openings 32 in the tubular wall of the mandrel 30, in a radial direction between the flow directing packer elements 38, 40.



109 These cup-shaped packer elements typically comprise rubber materials and/or elastomer materials that are usually mixed with reinforcing metal wires or similar. The description notes that in the oil terminology, such cup-shaped packer elements are usually referred to as swab cups. The cups can have an outer diameter larger than the inner diameter of the casing.

110 According to another embodiment, each of the first flow guide and the second flow guide may comprise a sealing device structured in a manner allowing it to seal, at least partially, against a surrounding casing. This sealing device may comprise a sealing ring.

111 In yet another embodiment the flow guides comprise radially expandable sealing devices structured for selective activation and expansion against the casing. The description refers to an example of such devices in the context of the washing tool according to US4279306 A (see 33 and 34 below in figures 1 and 2 of US4279306 A).



112 By the time of the hearing, the issues in dispute had effectively coalesced around the following questions:

i. Is it necessary for the “directional means” to prevent any fluid passing either up or down the casing – in other words do they need to form a perfect seal so that all the fluid flows out into the annulus?

ii. Are the “directional means” required to act on the fluid flow after it has left the washing tool or could features of the tool itself provide the directional means?

113 Ms Higgins picking up on these various arrangements and drawing on the evidence of Mr Devereux argued that the skilled person would understand the function of the “directional means” was to force the fluid flowing out of the washing tool mandrel between the swab cups to enter the annular space through perforated holes made in the casing. They would understand that the swab cups would constrain the flow of fluid exiting the washing tool so that the fluid could not flow upwards or downwards past the swab cups inside the casing.

114 Mr Hall argued that the claim would not be construed as being so limited as to require all the washing fluid to be directed outwards between the two flow guides or seals 38 and 40. He says there are five reasons for this.

115 First, as a matter of purely literal interpretation, neither the words ‘all’ nor ‘swab cups’ are to be found in claim 1. The patentee chose to use broader language, as the skilled person would readily appreciate. Second, the purpose of the ‘directional means’ is described as ensuring that the washing fluid “flows at high velocity out into the annulus and, hence, contributes to the effective washing and cleaning in the annulus…”. That is a broad purpose, and could no doubt be satisfied by all sorts of embodiments including those in which only a proportion of the washing fluid passes into the annulus. Mr Brown in his evidence has repeatedly stated that a ‘less than perfect seal’ would work and have desirable benefits.

116 Mr Hall noted that Mr Devereux had suggested that the washing and cleaning operation would not work as well if the directional means did not create a perfect seal but as Mr Hall pointed out the claim is not limited to ‘the best’ embodiment of the invention.

117 Mr Halls third point is that the general disclosure of the washing tool refers to there being two “flow guides”. The patent discloses several specific embodiments of such flow guides - including “radially extending collars”, “cup shaped packer elements” known as “swab cups”, “a sealing device” and a “radially expandable sealing device”. There are therefore several disclosed specific embodiments, one of which involves the use of cup-shaped packer elements known as ‘swab cups’, but the general disclosure of ‘flow guides’ is broader, and the claim uses the still broader term ‘directional means’. Plainly the skilled person would understand that to cover all the specific embodiments and not to be limited to swab cups. That conclusion is consistent with the case law and with Mr Devereux’s suggestion that alternative ‘inflatable sealing elements’ would work. There is no plausible reason why the claim should exclude such means.

118 Fourth, in one specific embodiment the skilled person is taught that the device seals “at least partially, against a surrounding casing”. It is obvious that a partially sealing device must allow some fluid to flow past it so the ‘directional means’ of claim 1 cannot be required, as the applicants contend, to prevent fluid from flowing “anywhere other than outward”. Were that the case, then the claim would be limited to an arbitrary selection of the specific embodiments.

119 Fifth, the general description of the invention states that it may comprise the step of moving the washing tool up and down along the perforated longitudinal section of the casing while the washing fluid flows radially outward. Mr Devereux’s evidence as to how the skilled person would interpret the claim is inconsistent with that disclosure, because moving swab cups up and down in this manner would damage the casing, and ‘inflatable sealing elements’ would necessarily be static during operation. The skilled person would not understand the directional means of the claim to be limited to ‘perfectly sealing’ swab cups (or inflatable packers) which cannot be moved while the washing fluid is flowing radially outward. The claim cannot be limited to means which prevent something which the patent says may occur.

120 Mr Hall concluded that the scope of the claim should be construed as extending beyond perfectly sealing swab cups to cover any means which direct the fluid in a manner that achieves the stated purpose. That may be through the use of any of the specific embodiments disclosed in the patent, or via Mr Devereux’s inflatable sealing elements, or by any other suitable method.

121 I did not take Ms Higgins to be disagreeing fundamentally with this construction that the seal need not be perfect.

122 I should add for completeness that there was a brief exchange between counsel as to what had been specifically pleaded in respect of the extent of the sealing. Mr Hall suggested that the pleaded case was that there was a perfect seal. Indeed, he seemed to suggest that if the pleaded case had been based on there being a perfect seal and that I subsequently concluded the claim did not require this, then the applicants’ whole case must fail.

123 The actual wording in the amended statement of case reads in this respect as follows:

> "The directional means of claim 1 requires some sort of feature that prevents the fluid from flowing anywhere other than radially outward and therefore directs the fluid radially outward into the annulus (such as a pair of spaced apart cups as disclosed in the Patent) and which confine the fluid from flowing up and down and thereby force the fluid radially outwardly into the outer annulus)."

124 Whilst this could be taken to be arguing that a perfect seal was required, Ms Higgins was keen to note, perhaps echoing Mr Hall's arguments above, that the statement of case does not refer to "all" the fluid. More persuasively she notes that there was a healthy exchange between the witnesses as to whether or not the claim required a perfect seal. Obviously as Mr Hall was at pains to constantly remind me, matters of construction are for me to decide. In substance therefore the exchange between the experts was not of great value. What it did however show was that the issue of the extent of the sealing required by the claim was clearly an issue that was before the parties even if the amended statement of case was perhaps not as clear as it could have been. It was not a case that at the hearing Ms Higgins suddenly shifted her focus to an aspect of the claim that hadn't been considered before. As noted, both experts had given their views. In his second report for example Mr Brown observed when commenting on changes made in the amended statement of case to clarify how the SJI Mk II worked that:

> *"The Amended Statement of Grounds re-iterates that not all of the washing fluid will make it outside the casing. That implies that some of it will. I previously stated that, where the directional means were (cup) seals, there was no requirement for a perfect seal. Indeed, a less than perfect seal would have the benefit of lubricating the cup seals' contact with the casing, permitting easier longitudinal movement of the tool and reducing wear on the cup seals' leading edge."*

125 Further in his final report Mr Brown observes that:

> *" In paragraph 33 of his report, Mr. Devereux states "The [172] patent requires all of the fluid during washing to be directed through one or more holes in the casing, between the Directional Means swab cups"(emphasis mine). I disagree that the '172 Patent requires this. In fact, it states the opposite."*

126 Mr Brown then goes on to refer to the description which as I have set out above explicitly provides for a partial seal. It is that part of the description that in my view is telling. Indeed, it is clear to me from this passage alone that the directional means do not need to provide a perfect seal to prevent any fluid passing up or down the space between the washing tool and the casing. That claim 1 also does not explicitly refer to the conducting all the fluid into the annulus lends further support to this construction. Hence, I am satisfied that the claim does cover a situation where the directional means provide effectively a perfect seal but it also extends to directional means providing only a partial seal.

127 Of more significance to the issues before me is the second question relating to the construction of "directional means" which is whether the term extends beyond the type of flow guides set out in the various embodiments, all of which are external to the washing tool, and if so, how far does it extend. Mr Hall argued that it extends to cover arrangements where the directional means is rather provided by features within the washing tool itself. This might include for example the nozzle 32 in the washing tool.

128 Ms Higgins argued however that it is clear from the wording of the claim that the directional means cannot be any part of the tool that was involved in the fluid being pumped into the casing, ie, the flow through hole 32 in the tool itself. The fluid has already come out of hole 32 before we get any mention of directional means, so whatever determines how the fluid comes out of hole 32 cannot be considered the directional means. Her second point is that every time the directional means is referred to by the patent, it is as some kind of sealing device. Whilst it does not have to be a 100% perfect sealing device, it should nevertheless engage with the wall of the casing and constrain the fluids to force them through into the annulus.

129 Ms Higgins contended that from the wording of claim 1 and the helpful explanation of figure 6, it is quite clear that claim requires a stepped approach and that the directional means in part (D) come after the fluid has been pumped into the casing in part (C). The significance of this is that if the claim does require a strict order of steps, then the directional means will serve to conduct the washing fluid after it has exited the washing tool and passed into the casing. It follows according to Ms Higgins that the ports themselves in the washing tool or indeed anything within the washing tool cannot provide the directional means required of the claim.

130 Mr Hall in contrast argued that claim 1 does not require a strict order of steps. He refers in support to claim 5 which is dependent from claim 1 and which describes that the method in claim 1 can comprise the step of connecting the perforation tool to the washing tool before step (A). Claim 1 should therefore be read with that in mind.

131 Step (A) of claim 1 has the perforation tool being conducted into the casing. Given it is connected to the washing tool, at this point both the washing tool and the perforation tool have been conducted into the casing. Step (C) then refers to the washing tool attached to a lower portion of the string and conducted into the casing. So this part of step (C) is referring in this embodiment of claim 1 to a state of affairs that already pertains and it is not requiring things to happen in a strict order. It follows therefore that strict order is not a part of claim 1.

132 He went on to argue that the washing tool has an associated directional means by which the washing fluid is pumped down through the tubular string out into the casing and conducted radially outwards into the annulus. This may be by means of a jet associated with the washing tool. The fluid is being pumped down through the tubular work string, through the jet, out into the casing and directed into the perforations. Such an arrangement would he argues in itself provide the directional means required by part D of the claim.

133 I am not persuaded that the term “directional means” as used in the claim would be considered to extend that far. Setting aside for the moment the argument about whether the steps in claim 1 are required to be performed in a strict order, it is clear that each of the several examples given of directional means involve some form of sealing means for sealing at least partially the space between the exterior of the washing tool and the casing. For reasons that I have already touched on, care needs to be taken not to overly restrict the scope of a claim to the described embodiments. However here the patent provides a number of examples all of which have the common feature of impeding to some extent flow between the outside of the washing tool and the casing. That is I believe a fundamental requirement of the directional means which might be provided by other possible undisclosed embodiments but it is

not provided by features within the washing tool casing. The sort of directional means within the tool that Mr Hall refers to do not achieve the same function as the directional means required by the claim.

134 I find further support for this construction in the order in which claim 1 sets out the various steps. Notwithstanding Mr Hall's argument relating to claim 5, I believe that claim 1 is setting out a sequence of steps to be carried out in a particular order. The conducting of the washing fluid outward into the annulus by the directional means happens after the pumping of the fluid out of the washing tool and into the casing.

135 Claim 5 requires that the perforation tool and the washing tool are connected together and to the lower end of the drill string before step A. If that happens then it is I believe still possible to follow the steps of claim 1 in the sequence set out. Step A requires conducting the perforation tool, and in this instance also the washing tool, into the casing to the longitudinal section of the well. Step B then requires the forming of holes using the perforation tool. Step C then requires the pumping of the washing fluid by means of a washing tool that is "attached to a lower portion of a flow-through work string" and "which is conducted into the casing". I do not take step C as requiring that the steps of attaching the washing tool to the drill string and conducting it to down the well are performed at that time. They could have already happened as would be case for the arrangement in claim 5. Indeed, I can see no reason why the steps in claim 1 could not be performed in the order given by the arrangement of claim 5.

136 I would add that Mr Hall did raise another pleading point here arguing that the statement of grounds did not clearly set out this line of argument about whether claim 1 requires a particular sequence and that this then excluded anything from within the washing machine itself providing the required "directional means".

137 Mr Hall is correct I believe that Ms Higgins had not previously argued that the claim required a particular sequence of events. The applicants had however consistently argued that the purpose of the directional means is to direct the fluid towards the annulus rather than up or down the casing in the gap between the tool and the casing. The argument that the holes 32 provide the direction means has also been clearly challenged. Perhaps the most relevant part of the amended statement of case reads as follows:

> In relation to assisting interpretation thereof, the feature "by means of a directional means associated with the washing tool (24; 24')" has no further structural definition in claim 1, but the "by means of' language does clearly tie the function of the directional means to the outcome of the washing fluid being conducted "radially outward into the annulus (10) via at least one hole (22) formed at a first location within the longitudinal section (L 1)".
>
> The description is relatively silent in terms of further, specific definition of the term "directional means" but it does explain (on page 15, lines 25 to 32):-
>
> > "Further, the washing tool 24 comprises a directional means which, in this embodiment, comprises a first cup-shaped packer element 38 and a second cup shaped packer element 40, so-called swab cups, each of which extends radially outward from the mandrel 30 at a respective axial side of the discharge area 34. By so doing, the washing tool 24, when in an operational position, is structured in a manner allowing it to direct the washing fluid 26, which flows outward through the

> openings 32 in the tubular wall of the mandrel 30, in a radial direction between the flow directing packer elements 38, 40."
>
> This (particularly the "Further" language") clearly teaches the skilled person that the "openings 32" alone are not enough to be regarded as "directional means" within the meaning of the claim and that the skilled person will understand that some additional/separate "directional means" are required/essential. In addition, it is clear (particularly from the "By doing so" language that the purpose of the swab cups is to channel or direct the fluid out through the perforated openings 32 in the casing by confining the washing fluid between them (i.e. not allowing the washing fluid to flow past them) in order to direct the fluid radially outwards.

138 It is not unusual for advocates to develop their arguments during oral submissions. That is what Ms Higgins did here. It was however on a matter of construction that was clearly in issue and as such even if it was not previously argued it did not in my opinion give rise to any valid pleading point. I would add that Mr Hall was able to present a robust, though ultimately unsuccessful, counterargument.

139 Weighing up the submissions and arguments, I reach the conclusion that the skilled person would interpret this "directional means" feature as meaning a structural feature that prevents partially or fully the fluid from flowing either up or down between the washing tool and the casing but instead directs it radially outward into the annulus through the perforated casing.

140 I would add that neither side provided any argument on the construction of any of the terms in GB'058 other than those discussed above.

141 Having construed what are the key parts of the claims I turn now to consider whether the use of the SJI Mk II Tool as described infringes the claims as I have construed them.

Full Particulars

142 It is common ground that the burden for proving non-infringement lies with the applicants and to do that it is necessary to provide full particulars of the acts and article for which a declaration of non-infringement is sought. Mr Hall highlighted the comments of Scarman LJ in *Mallory Metallurgical Products Limited v Black Sivalls and Bryson Incorporated*[16] where he noted:

> *"…. the description must be sufficiently clear and precise to enable the court to declare that an article corresponding with the description would not constitute an infringement. The burden of proving the absence of infringement rests, in my judgment, upon the plaintiff. If there be lack of clarity or precision, the court is not in a position to grant the declaration sought."*

143 Mr Hall further contended that the requirement to provide particulars in writing to resolve issues of non-infringement is analogous to the requirement in patent litigation to serve a product and process description (PPD) to resolve issues of infringement. In that regard, he noted that the Courts have repeatedly emphasised the need for such a description to provide explanation and not mere assertion. He referred to the

[16] *Mallory Metallurgical Products Limited v Black Sivalls and Bryson Incorporated* [1977] RPC 321

comments of Birss J (as he then was) concerning such descriptions in *Vringo Infrastructure, Inc. v ZTE (UK) Limited*[17] which read:

> *"... full particulars' means particulars sufficient to enable all issues of infringement to be resolved. The description must be complete in all relevant areas. A description of the product either in general terms or including tendentious assertions is not acceptable."*

and

> *"It is manifest that ZTE's PPD was not in accordance with those principles. It is conclusory in nature. It makes no effort to allow the patentee or the court to understand what it is about the product or process in question which leads to the conclusion that it does not infringe. It is nothing more than a bare assertion that the equipment does not do something. Whenever someone in a PPD asserts that something relevant is absent, it is incumbent on that party preparing a product description to explain why. The explanation may be entirely obvious and require very little text or it may not, but whether it is obvious or not, the product description itself, and not evidence served afterwards, has to explain why it is not there."*

144 Mr Hall argued that there were a number of serious deficiencies in the particulars provided by the applicants when they sought the initial acknowledgement that they were not infringing and that those particular still persist. He notes that the particulars did not, and still do not provide a full and complete technical description of a method sufficient to reach conclusions of non-infringement. They are instead argumentative, taking the approach of asserting how the claimed features are to be construed, and then contending that the proposed product does not have the features so construed. That is not a permissible approach which has prevented the experts from properly understanding how product works. He highlights in support the difficulties that the experts have expressed in understanding how the seals are configured and operated.

145 He noted that the original statement of case referred to a video of the SJI Mk I rather than the Mk II. That was only corrected in January 2023 when the amended statement of grounds was filed which included a link to a video of the Mk II Tool.

146 Mr Hall further noted that whilst the amended statement does refer to the 'SJI Mk II System' , there is in his view no such thing – rather the system is still being developed. What is provided is a marketing video of a product labelled the 'SJI System' but which does not correspond to the description in the amended statement of case. Further the statement of case describes a multiplicity of unfinished products that operate differently. He concluded by suggesting any declaration made expressly in respect of the 'SJI Mk II system' is liable to mislead were it to be used (as is no doubt intended) as part of the applicants' marketing efforts. It is trite that a party may not obtain a misleading declaration.

147 I will turn to Ms Higgin's response shortly but on the last point raised by Mr Hall I was struck by the comments of Floyd J, as he was then, in *Omnipharm v Merial*[18] which is one of the authorities Mr Hall has listed. In that case Floyd J was asked to consider whether a declaration under s71 should only be granted to an applicant who "could show a settled, firm and realistic plan to do an act". J Floyd noted that:

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[17] *Vringo Infrastructure, Inc. v ZTE (UK) Limited* [2015] EWHC 818 (Pat)
[18] *Omnipharm v Merial* 2011 EWHC 3393 (Pat)

> *"I do not think that the requirement that an applicant should propose to do an act requires any investigation into how settled, firm or commercially realistic the proposal is. A requirement for an investigation into the seriousness of a proposal would detract from the underlying purpose of the section, not contribute to it. It is sufficient for the applicant to propose to do the act. Moreover the application is of its nature conditional: almost all applications on the "proposing to do" basis will be contingent on the court declaring that the proposed act is not an infringement. Accordingly it is perfectly proper for an applicant to have a range of alternative proposals all of which he would be content to proceed with if declared not to infringe. If that is "wishful thinking, then the section allows it."*

148 I would add that Mr Hall was seeking to rely on that case to support his argument that the 'Statement of Grounds' and the associated 'YouTube video' to which the 10th March 2022 application refers no longer describe the product in respect of which the applicants propose to do any act, which is a pre-requisite for declaratory relief under s.71.

149 I turn now to Ms Higgins who provided a lengthy and detailed response to the points raised by Mr Hall. Also relying on *Mallory Metallurgical Products,* she argued it is only necessary that the requirements to provide full particulars have been satisfied before the final declaration is made - or at some stage as matters progress. It does not have to be before proceedings are raised and it does not have to be at an interim stage thereafter, provided that by the time this matter concludes I am satisfied that the particulars and the wording of the declaration are sufficient.

150 She contends that it is quite clear that the particulars provided here have been sufficient to allow the respondent and their expert witness to address the applicants' case and that there is nothing to prevent me making the determination sought.

151 Ms Higgins also referred to the Office's decision in *Melkris Limited*[19] to highlight the discretion that the comptroller has to deal with the question of this nature in any event. In this case, which of course is not binding on me, the Hearing Officer had to deal with several preliminary issues relating to perceived deficiencies in the initial particulars provided by the applicant to the patent holder. One of these that does not apply here was that the patent holder had not actually received the request for an acknowledgement that the applicant was not infringing before the applicant actually applied to the comptroller. Ms Higgin's highlights that even on that point the Hearing Officer resisted striking out the case.

152 More relevant was the fact that the applicant had not provided the necessary details of the operation and use of the device for which it was seeking the declaration. Rather all that was provided were some photographs without any explanation of what was depicted or how the various parts joined together. The Hearing Officer whilst expressing his disquiet with this, did however note firstly that the defendant's expert did not appear to have any difficulty in understanding how the device worked. The Hearing Officer also noted that any doubts in this respect would have been dispelled by the applicant's further submissions. The Hearing Officer therefore decided not to require any further amendment of the statement of case.

153 Ms Higgins also referred in this respect to the office decision in *Delta Print & Packaging* [20]. In this case despite deficiencies in the particulars, the Hearing Officer

[19] *Melkris Limited* BL 03/69/01
[20] *Delta Print & Packaging* O/92/97

refused to strike out the reference instead giving a further opportunity for the applicant to clarify the act for which the declaration was sought.

154 Ms Higgin's suggested that these cases underline the pragmatic approach that I should take. If there is enough information before the tribunal now, it is not necessary to go back into what was said in previous iterations of statements of grounds and correspondence, or to suggest that, for example, that the applicants are somehow stuck with the documents originally served or is bound to seek a further acknowledgement from the defendant under section 71.

155 I agree but only to a limited extent. It is clearly desirable that the fullest possible description of the product for which a declaration is sought is provided at the earliest opportunity. Ideally this should be during efforts to obtain the initial acknowledgement of non-infringement. That may not happen, and rather further details will emerge as the proceedings progress. Indeed, that appears to have occurred in *Mallory* with the judge at first instance making an order for further and better particulars to be provided. What is clearly important is that there must be sufficient detail to allow a decision to be made. But in the interests of fairness, it is also important that both sides to the dispute have the opportunity to comment or provide evidence on those details. That is, I believe what *Mallory* is teaching.

156 To determine whether that is the case here, it is I believe necessary to look at the particular matters of construction that are in issue and then determine whether the applicants have provided to this tribunal and the other side sufficient detail of the operation of the SJI Mk II Tool to enable the question of infringement to be determined. That is what I will now do starting with the possible infringement of GB'172 .

Infringement of GB'172

Perforation Tool

157 I will start by considering the question of whether the SJI Mk II Tool as disclosed in the video and amended statement of case has a "perforation tool" as I have purposively construed that term in the patents. On that question I can I think be brief as the applicants' case on this limb depended on a much narrower construction than I arrived at. Indeed, there is nothing before me to suggest that mechanical perforator in the SJI Mk II Tool does not satisfy the requirement in the patents for a tool for forming perforations in the pipe casing.

158 I would add that Mr Hall put forward an alternative argument that should the perforator in the SJI Mk II Tool not fall within the scope of the claims as purposively construed, that it would nevertheless represent an immaterial variation. Given my finding above I do not need to consider that.

Separate perforation and washing

159 The SJI Mk II Tool comprises a serrated rotatable cutting blade, a single jetting port and the 360° circulation port which are depicted as being combined within the one tool body.

160 Mr Hall argued that his variant of Figure 9 can be compared with the picture in the amended statement of case and the accompanying disclosure that in most circumstances the washing function is carried out only by the upper-most set of 360° circulation ports in the tool. These are located above the toothed wheel within the SJI Mk II Tool (shown between the red lines in the picture). He contends that these two representations are materially identical – a single housing with a perforation tool at the bottom and a washing tool at the top.

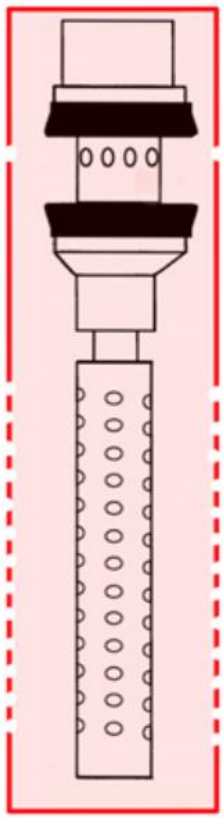
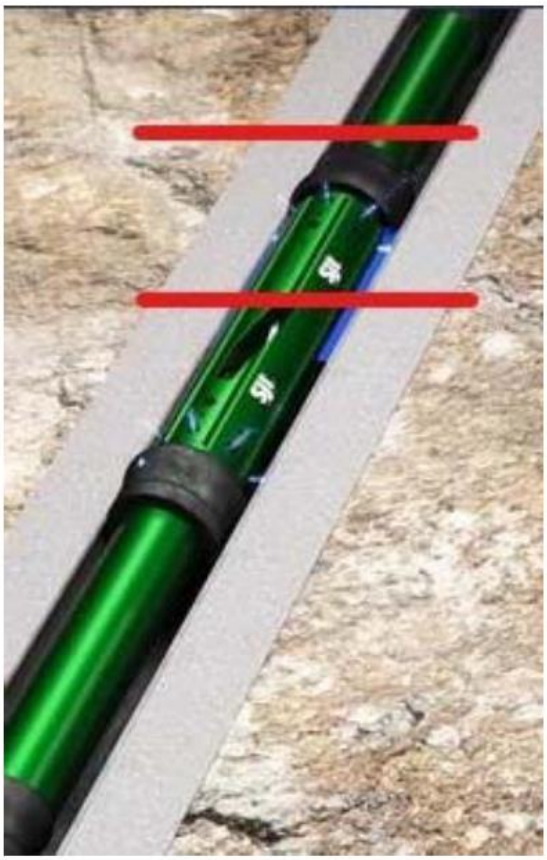


Fig. 9



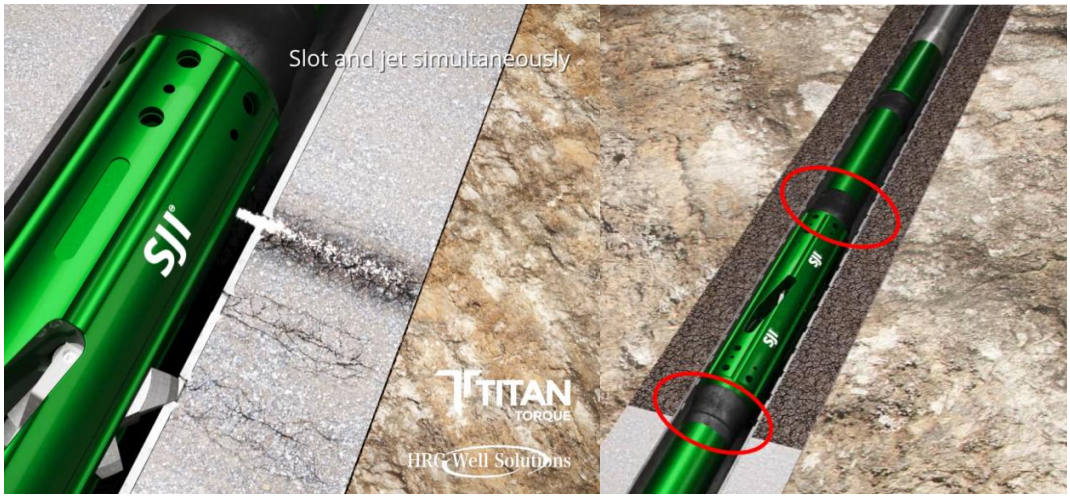
161 I can see why Mr Hall may wish to depict the patent claim and the tool in this way though it is a hypothetical arrangement of the patented tool that is not explicitly disclosed in the patents. However, I believe that it is manifestly clear that the SJI Mk II Tool is capable of perforating the casing and also washing the annulus and that is all the claim requires. That the washing and perforation devices are combined in one body in the tool does not take it outside the scope of claim 1 of GB'172 given how I have purposively construed it.

162 I would add that Mr Hall again puts forward an alternative argument that should the claims of the patent be construed as not including the two tools in a single body, that the SJI Mk II Tool would in this respect nevertheless still represent an immaterial variation. Given my finding above I do not need to consider that.

Directional means

163 I turn next to the issue of “directional means” which as noted is relevant only to the question of infringement of GB’172. As I explained earlier there was considerable discussion on this at the hearing. I will start by looking at what the video and statement of case say about the flow of the jetting and washing fluids in the SJI Mk II Tool.

164 According to the amended statement of case, the jetting fluid (shown in white below) is pumped out at high velocity of a single jetting port located just above the perforation blades. It will initially strike the inside of the casing however as the tool is moved down and then up the well the jet will align with the perforated slot. At that point the fluid will strike the cement in the annulus immediately behind the slot and thereby disrupt/break up that section of the cement/formation (as shown below).



165 According to the statement, the active seals of the tool, circled in red above, have not yet been activated. The statement notes that the active seals are arranged only to be activated to seal against the inner surface of the casing when the SJI Mk II Tool is in a blank section (i.e. without slots) of the casing.

166 The video does show the seals activated shortly after the drop ball has dropped causing the first shear pins to be sheared so as to expose the washing circulation

ports (see left screenshot above). At this point the tool is in a blank section of the casing. When the tool is subsequently moved down to wash the annulus the seals are shown as retracted (right screenshot above).

167 According to the statement, during slotting and jetting with the single jetting nozzle and then washing with the circulation ports, the seals do not seal against the inner surface of the slotted casing but instead each cup does not extend any wider than the outer surface of the mandrel of the tool. This enables the washing or jetting fluid to flow through the gap between the outer surface of the seals and the casing as shown above.

168 In other words, each active seal/cup is intentionally stood off from the inner surface of the slotted casing by the same distance to the outer surface of the mandrel such that fluid can flow there between. Accordingly, whilst the active cup seals of the SJI Mk II Tool permit bypass of the well fluid when running into the well underneath the cup seals through a bypass channel, the main passage of fluid past the active cup seals is over the outside surface thereof because they are spaced apart from the inner surface of the casing.

169 After the washing step, the tool is moved up to a blank section and the pressure of the fluid is increased. This increased pressure acts on the ball to cause a second set of shear pins to be sheared to open up a further outlet in the bottom of the tool. It is through this bottom outlet and also through the 360° equi-spaced outlets that the cement is pumped to seal the well.

170 The statement notes that the video for the SJI Mk II Tool incorrectly shows the seals still within the slotted section of the casing when the drop ball seat shears the second set of shear pins second drop ball lands upon the second ball seat. That is stated as being incorrect and shows instead a former Mk I version of the tool. Rather the active seals will activate as the pressure of fluid increases in order to significantly speed up the build up of pressure within the SJI Mk II Tool in order to permit the drop ball seat to shear the second set of shear pins.

171 The video shows also a second outer pair of active seals on the tool however they are stated as only being present for redundancy purposes should the inner set of seals fail. The statement notes that the seals of the SJI Mk II Tool have been specifically designed so as to remain retracted, and so not to expand and not to provide a sealing function whilst the SJI Mk II Tool is conducting said slotting and jetting operation and/or conducting a washing operation because if they did then they would hydraulically lock and/or cause a piston effect on the Tool.

172 The statement also provides further information on the design of the seals noting that the active seals can have either:-

i. two pairs of seals/cups (i.e. four cups - or "flups"), the two inner active seals/cups are arranged to be active simultaneously or inactive simultaneously with one another (with the two outer active seals/cups being provided just in case the inner active seals/cups malfunction or are damaged) or;

ii. one pair of seals/cups (ie two cups - or "flups") This version ii) of the has the seals/cups located approximately in the same location as the two inner cups of version i) immediately above and below the slotting blade as shown in the SJI Mk II video In any event, both active seals/cups are arranged to be active simultaneously or inactive simultaneously with one another.

173 I should for completeness make some observations on the experts understanding of the working of the SJI Mk II Tool and in particular the role of the seals. As Mr Hall has explained, there was some initial confusion on behalf of both Mr Brown and Mr Devereux as to the actual nature of the seals in the tool and their function. In particular there was some confusion as to whether the seals were permanently in contact with the casing or whether they were seals that could be expanded and retracted. I am satisfied that that this as is set out above was clarified in the amended statement of grounds. The statement also includes a set of responses to queries raised by Mr Brown and the respondent on this issue.

174 The statement then sets out the path of the washing fluid exiting the upper set of 360°equi-spaced circulation ports. When the tool is located in the blank section of the well, the path of least resistance is back up to the surface of the well via the gap between the outer surface of the drill string and the inner surface of the casing. However, when the upper end of the SJI Mk II Tool enters the slotted section, the washing fluid exiting the upper set of 360° equi-spaced circulation ports will flow either up the gap (i.e. a. below) or outwards through the slots (i.e. b. below) closest in alignment to the uppermost set of 360° ports and in doing so will move/lift/wash away the moveable material (consisting of the previously disturbed/broken up cement). This it is argued will create a “syringe” effect due to:-

i) the drill string being moved downwards;

ii) the previously installed plug preventing any fluid flowing down past itself; and

iii) the pumping of the washing fluid having nowhere else to go apart from either:-

a. up the gap between the outside of the drill string and inner surface of the casing; or

b. out through the slot(s) into the annulus and upwards in the annulus and re-enter the gap (above said uppermost set of 360° ports) between the outside of the drill string and inner surface of the casing.

175 In other words, not all of the washing fluid which exits the uppermost set of 360° ports (or the other sets of 360° ports if used) is guaranteed to flow out through the slots (i.e. some of it will just flow straight up the gap between the outside of the SJI Mk II Tool and inner surface of the casing (but that assists the washing process of the SJI Mk II Tool because it assists in lifting the broken up debris created by the slotting blade & single jetting nozzle).

176 According to Ms Higgins this means that the SJI Mk II Tool has no directional means associated with the washing tool to conduct the washing fluid radially outward into the annulus as required in claim 1 (i.e. the directional means of claim 1 requires some sort of feature that prevents the fluid from flowing anywhere other than radially

outward and therefore directs the fluid radially outward into the annulus (such as a pair of spaced apart cups as disclosed in the Patent) and which confine the fluid from flowing up and down and thereby force the fluid radially outwardly into the outer annulus).

177 Mr Hall's position on this is predominantly focused on how the term in the claim should be construed. I have already discussed that at some length concluding that the breadth of the term is not as broad as Mr Hall contended. In particular it does not extend to cover any arrangement within the washing tool that might direct the washing fluid.

178 Mr Hall's comments on the SJI Mk II Tool were unsurprisingly focused on his broader construction noting the video shows unambiguously that the washing fluid is ejected from the washing tool radially outward through the perforations into the annulus. This is described in the video and in the amended statement of case as a cleaning /washing process, thus satisfying the purpose of the Patent. Whilst he highlighted the lack of detail as to how this was achieved, he noted that the tool plainly must have some means to achieve that effect – fluid does not flow in such directions and with such force of its own accord. That, he submitted met the requirements of the claim. Unfortunately, this is not relevant to how I have construed this requirement.

179 Rather I have concluded on the basis of the evidence before me that the operation of the SJI Mk II as depicted in the video and set out in the amended statement of case does not direct the washing fluid as required by the claim. In particular and notwithstanding some uncertainty amongst the experts as to the nature and type of seals used, I am satisfied that when the tool is performing the washing step the seals are retracted and thus there is no directional means to the extent that I have construed that term.

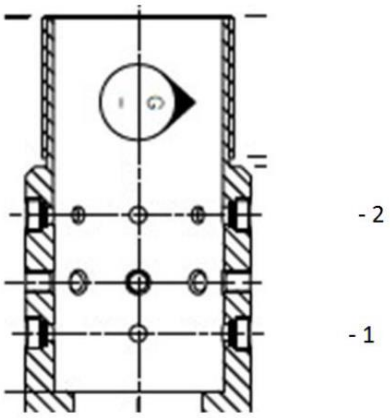
180 I would add that at the hearing Mr Hall sought to introduce an alternative argument in respect of the "directional means" based on immaterial variation. That had not been pleaded, unlike on the previous two issues of construction, and was resisted by Ms Higgins who argued that it was simply too late to introduce such an argument which would require additional expert evidence. I agreed with Ms Higgins and refused its admission.

181 For completeness I would also note that having carefully considered the matter I have not admitted into proceedings paragraphs 9-19 of Mr Devereux's second witness statement. The particular paragraphs sought to provide additional details on the type of seals used in the SJI Mk II Tool. Neither the respondent nor their expert had not had the opportunity prior to the hearing to effectively respond to it hence it would be unfair to them to admit it.

Infringement of GB'058

182 In addition to the issues I have just discussed in relation to GB'172 with the exception of the "directional means", GB'058 also requires that the claim requires that the washing tool, which the patent actually refers to as the flushing tool, has an 'outlet' which is "non-perpendicular to a longitudinal axis of the flushing tool".

183 The statement of case addresses this question by means of an engineering drawing of a section of the SJI Mk II Tool (reproduced below).



184 The statement notes that for clarity purposes, the above drawing does not include the drop-ball sleeve that is located within the bore of the body, and which catches the drop-ball as shown in the video. It does however show a cross section of the part of the body of the SJI Mk II Tool that has the single jetting port (1) and the upper most 360° set of circulation ports (2). The body of the SJI Mk II Tool is shown in the drawing as being in the same vertical orientation as the SJI Mk II Tool video such that the single jetting 5 port (1) is shown vertically below the set of 360° circulation ports (2).

185 The further set of ports formed through the side wall of the body that are located in between (1) and (2) do not provide a circulation path between the throughbore of the body and the outside of the body but instead are used to hold the first set of shear pins. Most importantly according to the statement, the above Engineering Drawing uses the conventional engineering notation of the dashed lines to show that both of the:-

i) the central axis of the single jetting port (2) and also

ii) the central axis of each of the 360° circulation ports (2)

are perpendicular to the longitudinal axis of the SJI Mk II Tool body.

186 The two other sets of 360° set of circulation ports as shown in the SJI Mk II Tool video (shown being located below the slotting/cutting blade in two spaced part locations) also have the same orientation as the 360° set of circulation ports as shown in the above Engineering Drawing and thus are also perpendicular to the longitudinal axis of the SJI Mk II Tool body.

187 Mr Hall argued that there was simply not enough technical description provided to enable a proper understanding of how the washing fluid is ejected out from the flushing tool. As such the applicants have not discharged their burden of proof and no declaration should be granted.

188 Ms Higgins' response was to unsurprisingly argue that they had provided a sufficient level of detail. I agree. On the basis of the material before I am satisfied that the method of using the SJI Mk II depicted in the video and set out in the amended statement of grounds does not provide at least one flushing outlet in the flushing tool which is non-perpendicular to a longitudinal axis of the flushing tool thus providing for a corresponding flushing jet from the flushing tool which is non-perpendicular to the longitudinal axis (a) of the flushing tool (33).

Conclusion on infringement

189 I have found that the method of using the SJI Mk II Tool as disclosed in the video provided and as described in the amended statement of case dated 22nd July 2022 does not infringe either GB2499172B or GB2555058B . The applicants are therefore entitled to a declaration of non-infringement.

Declaration

190 At the hearing there was some discussion about the nature of any declaration that I might make if I were to find that there was no infringement.

191 The first issue was the geographical extent of any declaration. As I noted at the top of this decision the original statement of case referred to a number of foreign patents. Fortunately, by the time of the hearing it had been agreed that any declaration would only be in respect of the two GB patents.

192 However, Mr Hall was also keen that any declaration be limited to acts occurring just in Scotland. The basis for this, he argued, is an exchange of correspondence in April 2002. The first was a letter from the defendant to the applicants dated 20th April 2022 which included the following query:

> "3. Location of commercial activities
>
> We note that the Request is silent as to the location of your proposed activities. Given the declaration sought would cover the whole of the United Kingdom our client assumes that your clients intend to conduct the commercial activities in relation to the SJI Mk II system throughout the United Kingdom (i.e., Scotland, England, Wales and Northern Ireland). Please confirm if our assumption is incorrect."

193 The response from the applicants was dated 27th April 2022 and noted:

> "3. Location of commercial activities
>
> Our clients are in active discussions about commercialising their tool and the opportunity has arisen to use it in several fields within the UK Continental Shelf. All of those fields lie within the "the Scottish area" as defined by The Civil Jurisdiction (Offshore Activities) Order 1987. Our client has no reason to believe that there will be any imminent call for the tool to be used elsewhere within the UK or the UK Continental Shelf."

194 Mr Hall noted that the amended counter statement dated 12th July 2022 specifically referred to this correspondence and noted:

> "6. By letter of 27 April 2022, Addleshaw Goddard (for the Applicants) represented that the Applicants' proposed activities are confined to Scotland.
>
> 7. In the premises, the acts in respect of which the declaration is sought are limited to:
>
> > (a) the acts of supplying, offering to supply, operating, offering to operate, manufacturing, selling, offering for sale, renting, offering for rent, and keeping for disposal or otherwise;
> >
> > (b) acts in respect of the SJI Mk II system as described in the Statement of Grounds; and
> >
> > (c) acts in Scotland.
>
> 8. Any act beyond the scope of the limitations set out in the immediately preceding paragraph is not an act covered by the declaration sought, and the Patentee reserves its position in respect of these acts."

195 Mr Hall further noted that the applicants served an amended statement of grounds in January 2023 which did not respond to the respondent's statement about the limited territorial extent of the declaration. The respondent filed a further re-amended counterstatement in March 2023 again highlighting the limited territorial nature of the declaration that it believed was being sought. The applicants again did not respond. A further letter was sent by the respondent in August 2023 seeking clarification on this and other issues. The applicants responded on the day before skeleton arguments for the hearing were due to be exchanged stating that a declaration is sought in respect of acts carried out "anywhere in the UK".

196 Mr Hall contended that the scope of any declaration makes a material difference because of potential infringement proceedings. More specifically if the applicants proposed a potentially infringing act in England and Wales then that would allow the defendant to bring infringement proceedings in the Patents Court in London. A proposed act just in Scotland would however restrict the defendant to bringing proceedings in the Scottish courts. In respect of the sort of activities that might be involved with the invention at issue here Mr Hall referred in support of this argument to the Civil Jurisdiction (Offshore Activities) Order[21] which defines the English area for the purposes of the order as the offshore area adjacent to England and Wales the Scottish area as being the area adjacent to Scotland. The order goes on to state that:

> "The law in force in England and Wales shall apply for the determination of questions arising out of relevant acts taking place in the English area; the law in force in Scotland shall apply for the determination of questions arising out of relevant acts taking place in the Scottish area."

197 Mr Hall went on to note that the effect of the confirmation from the applicants that it intended to restrict its activities to Scotland was that it prevented the defendant from being able to sue for infringement in the Patents Court of England and Wales. He suggested that if the defendant had not given that assurance then the respondent might have launched infringement proceedings before the patents court and that this dispute before the IPO might not have happened.

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[21] The Civil Jurisdiction (Offshore Activities) Order 1987

198 At the hearing Mr Hall also suggested that the letter from the applicants creates an estoppel because it was a representation that his client had relied on. He went on to say that for me to grant a declaration that extended beyond Scotland would be an abuse of process and that his client would "inevitably appeal against it" were I to do so.

199 Ms Higgins response was firstly to note that Mr Hall had not previously raised the issue of a possible estoppel before the hearing and that included in his skeleton argument. She contended that a statement about immediate commercial planned activities back in 2022 made in correspondence between the parties cannot be said to have estopped or anything similar the applicant from seeking the standard declaration applying to the United Kingdom. She then went on to say that it was difficult to see how the respondent's actions would be impacted by the applicants' indication in 2022 that it was proposing to carry out activities only in Scotland. Either they think it is infringement or not. If the respondent had felt that litigation was the way to go proceedings could have been raised in the court in Scotland. There really is no difference there at all.

200 More importantly Ms Higgins was keen to stress that it had never been her client's position as can be seen on the face of the formal documents such as the amended statement of case that there was ever an intent to limit any declaration to Scotland. If the respondent had formed that view, then that was not the fault of the applicants. She noted further that there have been a lot of letters between the parties, but it is not at all the case that there was ever a formal position adopted by the applicants that they wanted an order restricted to Scotland. Ms Higgins also noted that a declaration had initially been sought in relation to foreign patents as well, so it is difficult to see how one goes from that to restriction to Scotland.

201 Having heard the various submissions I advised the parties that I considered this to be an application for a declaration in respect of the United Kingdom as a whole. In reaching this position I was mindful in particular that the applicants had at no point sought to limit its statement of case in any way in this respect. I would add that I am unaware of a declaration having been previously granted by the Comptroller at least that did not extend to United Kingdom as a whole.

202 Mr Hall was however on surer ground when he raised concerns as to what appeared to be a significantly broader declaration in terms of permissible acts in Ms Higgin's skeleton argument. By way of example this including within its wording acts such as:

> "(c) disposing of, offering to dispose of or using any plugged well obtained directly by means of a method of combined cleaning and plugging of an annulus in a well or keeping any such plugged well whether for disposal or otherwise; or

203 Given that this had only appeared in the applicants' skeleton argument I agreed with the parties that I would allow them to an opportunity after I had issued my substantive decision to comment on the declaration I would make. Any submissions on the nature of the declaration should be filed within 5 weeks from the date of this decision.

204 To perhaps assist the parties, I will make the provisional observation that the claims in both patents are directed to a method of plugging and abandoning a well. There are no product or apparatus claims. I would add that the applicants have not I believe put forward any arguments relating to contributory infringement under section 60(2). Further given the nature of the application of the claimed method, it would appear that any declaration should be directed primarily to the acts set out in section 60(1)(b). A possible draft declaration is provided below though the parties are of course free to propose alternative formulations. If no submissions are received on this, then I will formally issue the draft declaration.

> Draft Declaration
>
> "I therefore declare, on the basis of the evidence and arguments before me, that the use or the offer for use of the method of plugging and abandoning a well using the SJI Mk II Tool as set out below does not and would not constitute an infringement of either GB2499172B or GB2555058B.
>
> The method of using the SJI Mk II Tool is as disclosed in the video having the file name "SJI Mark 2 Tool Video.mp4" and which can be viewed at:- https://titanservices.egnyte.com/fl/vsAzPf7gHS in combination with the description as set out in the amended Statement of Grounds filed by Titan Torque Services Limited at the UKIPO on 17th January 2023 (filed in support of the Declaration of Non-Infringement application by Titan Torque Services Limited ("Titan Torque") and HRG Well Solutions Limited ("HRG") in relation to UK PatentsGB2499172B and GB2555058B)."

Costs

205 It is long established practice that in proceedings before the comptroller only a contribution towards the successful party's costs should normally be awarded and that the amount should be guided by the comptroller's published scale unless the circumstances warrant departing from the published scale[22]. I have already made an interim costs order in favour of the respondent, but it should be noted it is just that, an interim award of an initial payment as a result of the applicants being allowed to instruct a new expert.

206 I will allow both sides a period of 5 weeks from the date of this decision to make any submissions they wish to make on the matter of costs.

Appeal

207 Any appeal must be lodged within 28 days after the date of this decision.

PHIL THORPE
Deputy Director on behalf of the comptroller

[22] Tribunal practice notice (2/2016): Costs in proceedings before the Comptroller - GOV.UK (www.gov.uk)