QUEENSLAND COURTS

# CORONERS COURT OF QUEENSLAND

# FINDINGS OF INQUEST

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| CITATION: | **Inquest into the death of Gareth Leo DODUNSKI** |
| TITLE OF COURT: | Coroners Court of Queensland |
| JURISDICTION: | BRISBANE |
| FILE NO(s): | 2013/2231 |
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| CATCHWORDS: | Coroners: inquest, Work, Health & Safety incident, Deceased fatally struck by drill rig machinery, safety management systems, work, health and safety training and identification of risk, coronial determinations following an unsuccessful prosecution, Non-suspicious death |

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## CONTENT


EXECUTIVE SUMMARY ..... i
THE CORONIAL JURISDICTION ..... iii
INTRODUCTION ..... 1
THE EVENTS OF 23 JUNE 2013 ..... 2
THE INVESTIGATION ..... 5
AUTOPSY ..... 10
DODUNSKI FAMILY CONCERNS ..... 10
THE INQUEST HEARING ..... 11
Issues ..... 12
Background Evidence ..... 13
Particular Viva Voce Evidence given at Inquest ..... 17
*Mr Jacob Kilby* ..... 18
*Other eye-witnesses evidence* ..... 21
*The rig 185 crew* ..... 22
*Mr Carl Thomas* ..... 23
Adequacy of safety management systems at the time of Gareth's death ..... 25
*Engineering controls* ..... 25
*Administrative controls* ..... 28
*Training on ST-80* ..... 32
*Qualifications and experience* ..... 33
*Oversight* ..... 35
Subsequent Improvements to safety management systems ..... 37
SUBMISSIONS BY PERSONS REPRESENTATED AT INQUEST ..... 39
*Mr Kilby* ..... 39
*Mr Thomas* ..... 40
*Dodunski Family Submissions* ..... 40
*Saxon* ..... 41
*Santos* ..... 42
*Resources, Safety & Health Queensland (RSHQ)* ..... 43
CONCLUSIONS BY ISSUES BEFORE THE INQUEST ..... 44
Issue 1 ..... 44
Issue 2 ..... 45
Issue 3 ..... 47
Issue 4 ..... 47
FINDINGS: *Section 45 Coroners Act (Qld)* ..... 48
Identity of the deceased ..... 48
How Gareth died ..... 48
Place of death ..... 48
Date of death ..... 48
Cause of death ..... 48
COMMENTS AND RECOMMENDATIONS ..... 49
Coercive investigation powers ..... 49
Drug and alcohol testing ..... 50
Recommendations ..... 51
Comments ..... 51

# EXECUTIVE SUMMARY

Mr Gareth DODUNSKI ("the deceased" or "Gareth") was 21 years of age when he died at the Fairview Mining Camp, about 66km east of Injune, in Queensland, on Sunday, 23 June 2013. He was working as a ~~Leasehand~~ Floorhand on drill rig 185, operated by Saxon Energy Services Australia Pty Ltd ("Saxon") as contracted by Santos Limited ("Santos"). Gareth died after being struck in the head by an item of drill rig machinery called an 'ST-80 Iron Roughneck tool' (ST-80), which is a large hydraulic torque wrench used to separate drilling pipes extracted from the ground.

At the time of this fatal incident, the deceased was working with another crew member, Mr Daniel Mullings, to attach a 'dog collar' to a section of the drill string before the ST-80 was activated. Mr Mullings and Gareth were on opposite sides of the drill string and were to leave the ST-80 operating area before it was operated from an adjoining operating box or "doghouse" by the driller, Mr Jacob Kilby. Tragically, Mr Kilby engaged the ST-80 while Gareth was still in the 'danger' zone of the ST-80, positioned between it and the drill string. It extended forward toward to well centre and struck Gareth, crushing him against the drill string. Gareth died at the scene from catastrophic head injuries.

The essential factual basis of what occurred is not greatly disputed. This death was not an accident. The law does not recognise an event as an accident when there was a duty to keep the injured person safe. The difficulty prosecuting safety breaches is identifying the extent of the breach of that duty and whether an individual or legal entity should be prosecuted and which charges to allege under the relevant statutory penal regimes. However, that prosecutorial discretion is not a matter for this Court.[1]

Unfortunately, this tragic fatality was the subject of a failed prosecution of Mr Carl Thomas at first instance and by the Industrial Court of Queensland overturning the lower court convictions of Mr Kilby and Saxon on appeal in 2020. Not only did that cause substantial delays but it also caused a misguided assumption by some that the Coroner would act as a "Court of Appeal" and effectively reinstate these convictions. That is not the role of the Coroners Court. It has a therapeutic jurisdiction looking for causes and potential preventions, not blame and liability. It operates on a different standard of proof, onus of proof, admissibility of evidence rules and has no jurisdiction to adjudicate on criminal convictions.

The incident that resulted in Gareth's death could be seen as being solely the consequence of momentary inattention on the part of Mr Kilby when he activated the ST-80 which struck the deceased causing his death. However, a focus on identifying individuals to blame for the incident is not helpful when looking for ways to prevent similar deaths from happening. Human errors can occur in the best organisations with the most sophisticated systems and workers do not go to work wanting to breach safety protocols. Accordingly, it is important to consider the broader context in which errors occur in order to find ways to prevent incidents. This reflects the contemporary theories of Sidney Dekker and the "Swiss Cheese Model" of Professor James Reason in their writings on accidents and system failures.[2]

Some of those "human errors" in this case were outlined on 5 June 2014 in a 'Petroleum and Gas Inspectorate Report' in relation to the incident. In that report, the

[1] *DPP v Tuteru* [2023] VSCA 188 (17 August 2023)
[2] Reason, Human Error Cambridge University Press London 1990 and Dekker, S Foundations of Safety Science: A Century of Understanding Accidents and Disasters Routledge Publishing USA 2019

authors concluded that the evidence gathered in the course of the investigation by the then Department of Natural Resources and Mines ("DNRM") identified the following contributing failures:

1. *Saxon failed to satisfactorily implement risk management systems to identify, assess and mitigate this safety and health risk to workers.*

2. *The design, installation, and commissioning of the rig did not satisfactorily isolate workers from the ST-80 energy of the rig as per the Plant Code of Practice 2005, a safety requirement called up by the Petroleum and Gas Act (Qld).*

3. *There were no visual or audible warning alarms to make workers aware of the pending or actual activation and movement of the ST-80.*

4. *The Emergency Stop Button (ESB) for the ST-80 was not easily visible or accessible on the ST-80 or in the Driller's cabin.*

5. *The Emergency Stop Button (ESB) on the ST-80 was misused as an isolation switch and its emergency use was not readily apparent to the crew.*

6. *On 23 June 2013, there was no specific Job Safety Analysis or Work Instruction available for the task being undertaken, the deceased's crew did not conduct a Pre-Tour Safety Meeting prior to the task and the Safety Management Plan was not followed by the rig crew in relation to the assessment of risk.*

7. *Some workers were not yet competent to undertake the tasks to which they were assigned, and experienced workers were not available to supervise workers who were not yet competent.*

8. *None of Saxon, Santos or the deceased's crew formerly actioned risk concerns about the ST-80 following a similar incident in South Australia and Saxon did not act on informal safety concerns raised by the crew in relation to the ST-80.*

9. *Floor crew did not confirm isolation of the ST-80 (using the ESB) prior to attempting to install the slips and Mr Kilby did not confirm isolation of the ST-80 (using the ESB) with the floor crew or on the HMI screen.*

10. *Mr Kilby attempted to stop the ST-80 by pressing an incorrect button on the touch screen and did not attempt an emergency stop of the ST-80 using the other hard-wired button.*

By way of background, in 2013 south-east Queensland was undergoing a gas exploration boom. Whilst, it could never make an excuse, companies like Santos and Saxon were experiencing severe staff shortages which led to less experienced personnel operating dangerous equipment. Since 2013, what is clear, is that each of the above concerns and others have been addressed in some way by Santos, Saxon, and Resources Safety and Health Queensland (through its various compositions). My task, in reviewing the fatality some ten years later makes it no less tragic but difficulties arise because of that effluxion of time.

I should also note that the Driller, Mr Jacob Kilby, whose momentary inattention was a major contributing factor to Gareth's death, was an impressive witness. He was contrite, credible and readily acknowledged his failings. He contributed to the investigation of improvements to prevent repetition of such a tragedy and his distress was still apparent some nine years after the event.

Last, although it has caused considerable work for this Court and other government agencies, the tenacity of Gareth's family to undercover the complete circumstances behind his death, should be regarded with approbation. Gareth's life was taken far too

soon, and it is hoped that one legacy will be enlightenment of the work health and safety failures on 23 June 2013.

## THE CORONIAL JURISDICTION

Before turning to the evidence, I will say something about the nature of the coronial jurisdiction. The basis of this jurisdiction arises because the police officer who attended this fatal death scene considered the death to be "a violent or unnatural death" within the terms of s7(1)(a)(i) of the *Coroners Act (Qld).* He was then obliged by s7(4) of the Act to report it to a Coroner. Section 11(2) confers jurisdiction on a Coroner to investigate such a death and s28(1) authorises the holding of an inquest into it.

Section 45(2) of the Coroners Act (Qld) provides:

*(2) A coroner who is investigating a death or suspected death must, if possible, find—*

- *(a) who the deceased person is; and*
- *(b) how the person died; and*
- *(c) when the person died; and*
- *(d) where the person died, and in particular whether the person died in Queensland; and*
- *(e) what caused the person to die.*

After considering all of the evidence presented at an Inquest, findings must be given in relation to each of those matters to the extent that they are able to be proved. An inquest is not a trial between opposing parties but an inquiry into the death. Lord Lane CJ in *R v South London Coroner; ex parte Thompson* (1982) 126 S.J. at 625 described a coronial inquest in this way:

> *… an inquest is a fact-finding exercise and not a method of apportioning guilt. The procedure and rules of evidence which are suitable for one are unsuitable for the other. In an inquest it should never be forgotten that there are no parties, there is no indictment, there is no prosecution, there is no defence, there is no trial, simply an attempt to establish facts. It is an inquisitorial process, a process of investigation quite unlike a criminal trial where the prosecutor accuses and the accused defends," … (and) … "the function of an inquest is to seek out and record as many of the facts concerning the death as [the] public interest requires.*

The focus is on discovering what happened, not on ascribing guilt, attributing blame or apportioning liability. The purpose is to inform the deceased's family and the public of how the death occurred with a view to reducing the likelihood of similar deaths. As a result, the Act authorises a coroner to make preventive recommendations (s46) but prohibits findings being framed in a way that appears to determine questions of civil or criminal liability (s45(5)).

Proceedings in a coroner's court are not bound by the rules of evidence because s37 of the Act provides that *"the Coroners Court is not bound by the rules of evidence but may inform itself in any way it considers appropriate*". This flexibility has been explained as a consequence of an inquest being a fact-finding exercise rather than a means of apportioning guilt: an inquiry rather than a trial. However, the rules of evidence and the cornerstone of relevance should not be disregarded and in all cases

the evidence relied upon must be logically or rationally probative of the fact to be determined.[3]

A Coroner should apply the civil standard of proof, namely the balance of probabilities, but the approach referred to as the *Briginshaw* sliding scale is applicable.[4] This means that the more significant the issue to be determined, the more serious an allegation or the more inherently unlikely an occurrence, the clearer and more persuasive the evidence needed for the trier of fact to be sufficiently satisfied that it has been proven to the civil standard.[5] It is also clear that a coroner is obliged to comply with the rules of natural justice and to act judicially.[6] This means that no findings adverse to the interest of any person or organisation may be made without that person or organisation first being given a right to be heard in opposition to that finding. As the High Court made clear in *Annetts v McCann* (1990) 65 ALJR 167 at 168 this includes being given an opportunity to make submissions against findings that might be damaging to the reputation of any individual or organisation.

There was an enormous amount of material in the coronial brief of evidence and evidence given *viva voce* at the Inquest. These reasons record only the evidence I believe is necessary to understand the findings I have made.

For the purposes of s. 46(1) of the Coroners Act (Qld), the issues to be dealt with at this Inquest were:

1) The findings required by s. 45 (2) of the *Coroners Act 2003*; namely the identity of the deceased, when, where and how he died and what caused this death.

2) The circumstances surrounding the death and, in particular, the chain of events leading to the deceased's death by gross cerebral trauma caused by a crushing injury from a drill rig ST-80 Iron Roughneck tool.

3) The adequacy of safety management systems both at the time of this death and now to prevent or minimise risk of death or injury relating to the operation of the drill rig ST-80 Iron Roughneck tool.

4) The adequacy and timeliness of investigations conducted by police, work health and safety and petroleum and gas inspectorates in relation to this death.

5) What actions have been taken since this death to prevent deaths from happening in similar circumstances in the future.

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[3] See Evatt, J in *R v War Pensions Entitlement Appeal Tribunal; Ex parte Bott* (1933) 50 CLR 228 at 256; Lockhart J in *Pearce v Button* (1986) 65 ALR 83, at 97; *Lillywhite v Chief Executive Liquor Licensing Division* [2008] QCA 88 at [34]; Priest v West [2012] VSCA 327at [14] (Coroners Court matter) and *Epeabaka v MIMA* (1997) 150 ALR 397 at 400.
[4] *Anderson v Blashki* [1993] 2 VR 89 at 96 (per Gobbo J)
[5] *Briginshaw v Briginshaw* (1938) 60 CLR 336 at 361 per Sir Owen Dixon J
[6] *Harmsworth v State Coroner* [1989] VR 989 at 994; Freckelton I., "Inquest Law" in The Inquest Handbook, Selby H., Federation Press, 1998 at p13

6) Whether there are any matters about which preventative recommendations might be made pursuant to section 46 of the *Coroners Act 2003.*

# INTRODUCTION

1. Mr Gareth DODUNSKI ("the deceased" or "Gareth") was 21 years of age when he died at the Fairview Mining Camp, about 66km east of Injune, in Queensland, on Sunday, 23 June 2013. He was working as a Floorhand on drill rig 185, operated by Saxon Energy Services Australia Pty Ltd ("Saxon") as contracted by Santos Limited ("Santos"). Gareth died after being struck in the head by an item of drill rig machinery called an 'ST-80 Iron Roughneck tool' (ST-80), which is a large hydraulic torque wrench used to separate drilling pipes extracted from the ground.

2. At the time of this fatal incident, the deceased was working with another crew member, Mr Daniel Mullings, to attach a 'dog collar' to a section of the drill string before the ST-80 was activated. Mr Mullings and Gareth were on opposite sides of the drill string and were to leave the ST-80 operating area before it was operated from an adjoining operating box or "doghouse" by the driller, Mr Jacob Kilby. Tragically, Mr Kilby engaged the ST-80 while Gareth was still in the 'danger' zone of the ST-80, positioned between it and the drill string. It extended forward toward to well centre and struck Gareth, crushing him against the drill string. Gareth died at the scene from catastrophic head injuries.

3. There has been substantial delay in this Coronial Inquest being held. First, the then Department of Natural Resources and Mines (DNRM), Petroleum and Gas Inspectorate, investigated this fatality and produced investigation reports in June 2014. DNRM then commenced proceedings for offences under the *Petroleum and Gas (Production and Safety) Act* 2004 (P&G Act) against Saxon; the rig 185 driller, Mr Jacob Kilby; and another Saxon employee, Mr Carl Thomas. No prosecution was taken against Santos or any employee of Santos. The trials of Saxon and Mr Kilby, which were heard together, commenced on 11 October 2017 and ran over seven hearing days until 8 December 2017. On 18 April 2018 the Industrial Magistrate found Kilby and Saxon guilty of the charges against them. They were sentenced with costs orders imposed on 23 August 2018.

4. The trial of Mr Thomas commenced on 29 October 2018 and took seven hearing days. On 14 June 2019, the Industrial Magistrate found Mr Thomas not guilty and dismissed the charge against him.

5. Mr Kilby and Saxon appealed against their convictions. On 11 December 2019 the Industrial Court allowed both appeals and set aside the convictions against both. The Commissioner for Mine Safety and Health initially applied for judicial review of the Industrial Court decisions and then, in March 2020, commenced appeals against the Industrial Court decisions to the Queensland Court of Appeal. The judicial review applications were consolidated into the appeals. On 1 October 2020, Resources Health and Safety Queensland advised this Court that all of the appeals were ultimately withdrawn by the Work Health and Safety Prosecutor.

6. Obviously disheartened by the unsuccessful prosecutions, Gareth's family understandably commenced a campaign to expose what they considered to be the shortcomings of Saxon and Santos work health and safety obligations to their son. Coroner Clements engaged in a coronial investigation with a view to a possible Inquest. Given the number of proceedings and events associated with the unsuccessful prosecutions arising from Gareth's death, the significant effluxion of time since his death, and the sheer volume of material and

correspondence produced, the Coronial Brief became enormous. The electronic brief alone was 11.46GB in size at that stage. In October 2021, Counsel Assisting produced a lengthy advice to Coroner Clements. The file was transferred to me on 28 January 2022 due to (inter alia) Coroner Clements' forth-coming long service leave. The matter was listed for an Inquest which was heard 5 to 14 September 2022. Further evidence was sought and obtained earlier this year. The Brief of Evidence had almost doubled in size by this stage and parties were given generous timelines to produce written submissions at first instance and in reply. The last of those submissions was received on 5 June 2023.

## THE EVENTS OF 23 JUNE 2013

7. The events of 23 June 2013 and general circumstances in which Gareth died are well-described in the decision of Vice President O'Connor, in the Industrial Court of Queensland, on the successful appeal against the convictions of Kilby and Saxon. His Honour noted[7]:

> *[27] On 23 June 2013, the Rig 185 crew were tripping out. In the crew were Mr Kilby (the driller), Mr Dixon (the Derrickhand), Mr Jenner (who was in the loader at the bottom of the V-Door at ground level) and the floor crew comprising Mr Daniel Mullings and Mr Gareth Dodunski ("the crew").*
>
> *[28] A meeting was held at 12:38pm. Thereafter, the crew commenced the process of tripping out. There were "pre-job safety meetings" at 1:45pm and 2:45pm, where the processes of "running in hole" and "pulling out of hole" were discussed respectively, for the specific depths reached at that point of the drilling process. Mr Kilby told police that the incident was at about 3:30pm, after the crew had just had a "smoko". By the time of the incident, they had been undertaking that task for three hours. The drill collar was not reached until just before the incident.*
>
> *[29] "Tripping out" or "Pulling out of Hole" or "POOH" are the various terms used to describe the process of pulling the drill string out of the drill hole. The drill string consists of numerous lengths of drill pipe, below which are the drill collars and the bottom hole assembly. The lengths of pipe in the drill string are screwed together. As the drill string is pulled out, each length of pipe is unscrewed and lowered down onto the catwalk. The process has substantial involvement of machines. The drill string is pulled out of the hole by the "top drive", which is operated by the driller. Elevators latch onto the drill string up at the top drive.*
>
> *[30] The function of the ST-80 during this process is to break the connections between each length of pipe. The driller activates the ST-80 and causes it to extend to well centre by pressing the "auto break" button on the HMI screen in the doghouse ("the relevant button on the HMI screen"). Once activated, it takes the ST-80 6.8 seconds to extend from its home position to well centre. After the ST-80 has disconnected from the drill string the length of drill pipe held by the top drive, the elevators then kick the disconnected length of pipe out towards the skate. The skate then lowers the length of pipe out through the V-Door down onto the catwalk. The skate was operated by the Derrickman who sat to the right of the Driller in the doghouse and whose job it was to operate the machines that took the pipe off down onto the catwalk.*
>
> *[31] The ST-80 and the top drive are both operated by the driller using controls in a room called the doghouse. The driller sits on a chair facing the rig floor through a glass window. Mr Kilby was the driller on the day in question. To the driller's right*

[7] *Kilby v Harrison; Saxon Energy Services Australia Pty Ltd v Harrison* [2019] ICQ 021

*is the derrickman, who operates the skate. On the day in question, that person was Jared Dixon.*

*[32] An intermediate step that was required before the ST-80 extended to well centre was to "set slips". The setting of slips is necessary because without them the drill string would fall back down once it is disconnected from the length of pipe held by the top drive. Once installed, "slips" take the weight of the drill string and stop it falling back down the hole.*

*[33] There are two types of "slips". The first is manual slips. They are the chain like device wrapped around the drill string.*

*[34] The other type of slips are mechanical, or automatic, slips. For the automatic slips to be used, they must be attached to a hydraulic connection to the rig floor. Once connected, they may be set by the driller by the functioning of a joystick in the doghouse. Installing automatic slips is quite time consuming and is not used when pulling out the length of drill string that was being pulled out by the Rig 185 crew on 23 June 2013.*

*[35] Manual slips are installed by workers on the rig floor. This is a quick "in and out, operation". On the day in question, the workers on the rig floor were the deceased, Gareth Dodunski, and Daniel Mullings.*

*[36] Once the slips are installed, the driller would operate the top drive to take the weight off the drill string so that it was taken by the slips.*

*[37] The process of tripping out involves a series of steps that are repeated numerous times: The top drive pulls up the drill string until a join in the drill pipe is reached. The slips are then installed. On the day in question, manual slips were used, so they were installed manually by the workers on the rig floor. The driller would then operate the top drive to take the weight off the drill string so that it was taken by the slips. The driller then presses the relevant button on the HMI screen and the ST-80 extends to well centre in 6.8 seconds. The ST-80 breaks the connection between the drill string and the length of drill pipe held by the top drive. The disconnected length of pipe would then be lowered onto the catwalk.*

*[38] The process would be repeated numerous times until the drill collar was reached. At that point, there would be a change in the process. When that stage is reached it is necessary to use the "dog collar" as well as the slips. That is necessary because the shape of the drill collar is different to that of the drill pipe. …*

*[43] Mr Mullings gave the following undisputed account of the events up to the point of the incident as follows:*

> *"Well, we'd obviously just set slips. Gareth went and grabbed the dog collar. We both went over to the drill string and knelt down and started to – to tie it up. I was on the outside of the drill string, between the drill string and the catwalk. Gareth was in between the drill string and the ST-80. I was holding the two green handles you can see in the picture there, kneeling down. We were both kneeling down, obviously, looking at what we were doing. I looked up just – and noticed the ST-80 was – was coming. As soon as I realised, I grabbed Gareth's right arm and tried to pull him out of the way. But it had already caught his left arm and head and it pulled him in. I stood up pretty much straight away and, you know, a bit frantic, looked over into the dog house at Jake and Jarod. They were both trying to stop the ST-80 and try get it out...Once it had reached its well centre, obviously, they were able to retract it. When they retracted it, Gareth obviously fell down. He fell down onto the slips. I grabbed and just tried to pull him out of the way."*

*[44] Mr Dixon gave the following undisputed account:*

a) *at the time of the incident, he was inside the doghouse with Mr Kilby and Mr Marshall who were having a conversation;*
b) *he could not recall what was said in that conversation or the duration of it;*
c) *he could not say whether Mr Kilby physically turned to speak to Mr Marshall;*
d) *he did not see the slips set or the dog collar put on because his focus was on things away from the drill floor. At the time of the incident, the second-to-last heavyweight drill pipe connection had been broken and was being removed. The last heavyweight drill pipe was being pulled out, which was then to be followed by the cross-over and drill collar. This was when the slips were set and the dog collar was about to be put on. However, Mr Dixon didn't see the dog collar being put on because his attention was directed elsewhere.*
e) *he heard Mr Kilby swear and then turned to see the ST-80 two or three feet away from Mr Dodunkski, who had his back to the machine;*
f) *he could hear Mr Kilby yelling out but could not recall whether Mr Kilby was using the intercom machine.*

8. DNRM investigators conducted a preliminary interview with Mr Marshall, early in the investigation, on 27 June 2013. Investigators requested a further interview with Mr Marshall later in the investigation, but he declined that request through his lawyers. Mr Marshall did not give a formal statement and was not able to be located to give evidence at the inquest hearing. In the course of the preliminary interview, Mr Marshall described the incident as follows:

*I was looking for the Lease Hand and then so I went up to the rig floor, asked if the Lease Hand was around and then they called for him so I was waiting in the doghouse for them and then that's when the incident happened shortly after, I don't know the time but I was in the back corner so I didn't, like looking at the, all the documents on the back there and making sure it was all nice and tidy and ready and then I heard the commotion and then I seen to look what had happened.*
*…*
*MR BARRON: Okay. Look I appreciate it's difficult for you. Do you recall what was said, like were you talking to anyone at the time like were you talking to the Driller or the Derrickman or anyone there? No when I, well when I walked in of course I'm going to say hello and how's your day right. And so then I asked if they seen the Lease Hand when he called for them and then so then I turned around and walked back, get on with their business, and then I don't know how long after, probably I think they started pulling up and then probably I would assume they would have been putting on the dog collars and set the slips and putting on the dog collars and stuff but then I heard all the commotion so.*

*MR BARRON: So in between when you last spoke to the Driller and the actual incident, just a ballpark figure, how many seconds do you think had passed, like was it a minute, 30 seconds, 10 seconds? It could have been a minute or two minutes or so.*

*MR BARRON: Okay so you weren't talking to the Driller...No.... at the time that.. .No. … So I didn't even see the, all I heard was the commotion, just jump and then like I turned around to look but I couldn't see anything, pretty much halfway retracting back is the ST-80. But I didn't see it getting, come into hole centre and coming back.*

9. Mr Marshall was not asked, during this interview, about the E-Stop or any training or procedures for the use of the ST-80 on Rig 185.

## THE INVESTIGATION

10. Following the fatal incident causing Gareth's death, Queensland Police Service ("QPS") and DNRM Inspectors attended the scene after the incident on 23 June 2013. There was no investigation conducted by Workplace Health and Safety Queensland as the Petroleum and Gas Inspectorate ("The Inspectorate" - then part of DNRM) was responsible for investigating incidents involving an operating plant on a petroleum facility lease.[8]

11. The DNRM Petroleum and Gas Inspectorate took the lead on the investigation of the incident and Gareth's death. The investigation continued for over 12 months following the incident. The Lead Investigator was Senior Inspector Ian Bartels, assisted by Principal Investigations Officer, John Baron.

12. The DNRM investigators interviewed many of the rig 185 crew in the months immediately after the incident. They secured the scene with the assistance of QPS and used powers available to them under P&G Act and to obtain relevant documents and evidence from Saxon and Santos.

13. A number of key personnel from Saxon and Santos declined to participate in formal interviews with the Inspectorate. They had a common law right to do so. For the purposes of the investigation, this limited the evidence available to the inspectorate in relation to their roles and activities relevant to this fatal incident. They were:

    a. Daniel Marcano, Saxon Australian Manager and Executive Safety Manager;

    b. Carl Thomas, Saxon Operations Manager;

    c. Jacob Kilby, Saxon Driller;

    d. Ashley Jenner, Saxon Motorman;

    e. David Knox, Santos CEO, and Executive Safety Manager;

    f. Wayne Schefe, Santos Operating Company Representative, Site Safety Manager; and

    g. Santos EHS Field Advisors.

14. The Inspectorate engaged Safety Wise Solutions to prepare an independent ICAM report in relation to the incident. The author of that report, dated 12 January 2014, concluded that the following factors contributed to the incident:

    *a. The Lease Hand and Floor Hand were performing work in a designated hazardous zone.*

    *b. Immediately following a distraction in the Driller's Cabin, the ST-80 Iron Roughneck was actuated from a HMI touch screen in the Driller's Cabin before the two floor crew were clear of the danger zone.*

[8] See s670(2)(a) and Chapter 10 of the *Petroleum and Gas (Production and Safety) Act* 2004.

c. *The Drill Rig Operator found the HMI touch screen for the ST-80 Iron Roughneck confusing and was not able to successfully arrest the forward extension of the plant when he realised the floor crew were still in the forward trajectory path.*

d. *There was no hazard operability study of Rig 185, however, it appears Saxon may have presented a formal safety assessment to Santos in the form of a Significant Hazard Risk Register.*

e. *Equipment certification was not in place - an obligation under the Petroleum and Gas (Production and Safety) Act 2004.*

f. *There was an obstructed field-of-view from the Driller's Cabin with the view of the floor working area where the ST-80 Iron Roughneck was and the two floor crew were obscured.*

g. *Established work practices were not incorporated into Work Instructions and a Job Safety Analysis and incorrect documents were referenced at start of shift for the task.*

h. *The level of risk analysis was inappropriate for the degree of risk. Controls provided to manage the risks were lower level controls that could not protect crew members from entanglement /crushing.*

i. *Hazard identification processes did not cover all operations and equipment and identified controls for the risk of entanglement which were written in the Safety Management Plan were missing.*

j. *It does not appear that Santos, as the Petroleum Authority Licence Holder, had fulfilled its stated commitments and accountabilities under the Competency Standards for the Petroleum and Gas Drilling Industry (2011, Version #1).*

k. *On-the-job training and mentoring was undertaken rather than formal training with competency assessment.*

l. *The Floor Hand, Lease Hand and Driller were found to be relatively inexperienced in the task being performed and did not have the required competencies for the positions they were in on the day of the incident, nor were they effectively supervised.*

m. *It was found that E-Stop Devices on the ST-80 Iron Roughneck and in the Driller's Cabin did not meet Australian Standards and were not utilised following recognition of the immediate danger.*

15. The key issues and recommendations of the Safety Wise ICAM report were:

- *No HAZOP performed. Commissioning procedure is inadequate.*
- *Ensuring safety controls enable workers and drillers to confirm that the path of the iron roughneck is clear of personnel.*
- *The sound of equipment moving such as an iron roughneck may be muffled by other noises on the equipment or work site.*
- *Layout or design of the drill rig and doghouse may impede a clear visual line of sight of workers in danger zones.*
- *Emergency stop controls must be nearby, identifiable, and readily accessible.*

- *Safety controls on remote operated devices must be reviewed regularly to ensure they are adequate in controlling any risk of injury or harm.*[9]

16. On 5 June 2014 a 'Petroleum and Gas Inspectorate Report' was approved in relation to the incident. In that report the authors concluded that the evidence gathered in the course of the DNRM investigation revealed numerous failures and systems that contributed to the incident, including:

    a. *Saxon failed to satisfactorily implement risk management systems to identify, assess and mitigate safety and health risks to workers.*

    b. *Workers were not satisfactorily isolated from the ST-80 energy source during the design, installation, and commissioning of the rig as per the Plant Code of Practice 2005, a safety requirement called up by the P&G Act.*

    c. *There were no visual or audible warning alarms to make workers aware of the pending or actual activation and movement of the ST-80.*

    d. *The emergency stop for the ST-80 was not easily visible or accessible on the ST-80 or in the Driller's cabin.*

    e. *The Emergency Stop Button (ESB) on the ST-80 was misused as an isolation switch and its emergency use was not readily apparent to the crew.*

    f. *The crew did not conduct a Pre-Tour Safety Meeting prior to the task.*

    g. *There was no specific Job Safety Analysis or Work Instruction available for the task being undertaken.*

    h. *The Safety Management Plan was not followed by the rig crew in relation to the assessment of risk.*

    i. *Workers were not yet competent to undertake the tasks to which they were assigned.*

    j. *Experienced workers were not available to supervise workers who were not yet competent.*

    k. *Crew did not formerly action risk concerns about the ST-80 following a similar incident in South Australia.*

    l. *Saxon did not act on informal safety concerns raised by the crew in relation to the ST-80.*

    m. *The ST-80 was not isolated by the floor crew prior to attempting to install the slips.*

    n. *Floor crew did not confirm isolation of the ST-80 (using the ESB) prior to attempting to install the slips.*

    o. *Driller did not confirm isolation of the ST-80 (using the ESB) with the floor crew or on the HMI screen.*

    p. *Driller attempted to stop the ST-80 by pressing an incorrect button on the touch screen.*

    q. *Driller did not attempt an emergency stop of the ST-80 using the other hard wired button.*[10]

[9] pp 52 – 53.
[10] pp 55-57.

17. The report concluded:

> *The investigation established the conditions and events surrounding the incident beginning with the design of Rig 185 that included a remote operated ST-80 and its associated equipment. Rig 185 was manufactured in Canada where the ST-80 was installed. This installation provided a potentially unsafe environment for floor crew involved in the intended activities of Rig 185. This potentially unsafe environment remained with rig 185 through its manufacture, import, supply and commissioning. Rig 185 entered service in Qld after the Santos approved commissioning phase.*
>
> *The investigation found at the time of the incident, the ST-80, its associated equipment and the rig 185 installed environments did not conform to the Act or the relevant safety requirement. The investigation could not find evidence that third party auditing and commissioning of rig 185 provided an assessment of the rig for conformance with the requirements of the Act, safety requirement or its referenced Australian Standard. The investigation found that rig 185 continued its service in Qld undergoing changes to the ST-80 controls and the driller's cabin environment without being subjected to a management of change and risk assessments process. These changes may have impacted on line of sight and affected ST-80 remote control parameters.*
>
> *…*
>
> *The investigation found the risk management of rig 185 operations was not adequately implemented and verified. Particularly the formal safety assessments conducted around the ST-80 activities. The failure of risk management processes from design through to daily operations exposed the workers to a hazard which could have been effectively controlled with readily available and common controls.*
>
> *It seems likely the ESB[11] located on the ST-80 was not latched to isolate the ST-80 energy source. It is not clear who was responsible for this step, or if the step was attempted and did not succeed. The ST-80 was activated without confirming the ESB was latched and the floor crew were clear and the operator of the ST-80 was unable to respond effectively to the impending fatal event.*
>
> *The investigation found the event conditions present at the time of the incident originated at the design of rig 185 and were adversely supported by the failure of Saxon to effectively implement their own safety management plan and associated systems. The failure to do so from the design stage, through commissioning and operations resulted in numerous controls either not being in place or failing. Potentially any one of these controls could have prevented the incident from occurring or minimised the impact of the event.*
>
> *The multiple failures of the controls resulted in the tragic consequence of the death of Mr Gareth Dodunski.[12]*

18. Also on 5 June 2014, a 'Petroleum and Gas Inspectorate Report – Addendum – Santos Interaction' was approved in relation to the role of Santos, relevant to the incident. The report concluded:

> *While Santos has been involved in the petroleum and gas industry for a substantial time, Santos states that they are not expert in rig design, building or operations and that they rely on contractors to provide the expertise needed to conduct drilling activities at their well sites.*
>
> *Despite this purported lack of expertise, Santos attempted to implement a prequalification process to ensure contractor SMPs comply with the Act and the Santos*

[11] Emergency Stop Button
[12] pp 64-65

*SMP. To achieve this, Santos engages third party inspections and audits as a means of prequalifying contractors and conducts baseline assessments of contractor SMPs. An examination of the rig 185 experience has highlighted that these processes had limited success.*

*…*

*The failure of the rig 185 safety management system, including equipment elements, resulted in the tragic death of Mr Dodunski. This addendum highlights the possibility and need for tenure holders such as Santos to exercise effective control of their contractors to minimise safety and health risks. Such outcomes can be achieved through sound risk management, effective monitoring and review, and reasonable contractor management.*[13]

19. On 2 June 2014 an 'Addendum – Appendix 11 Emergency response review' report was approved relating to the response by Santos paramedics and Queensland Ambulance Services (QAS) to the incident. The report concluded:

*Personnel at the incident scene appeared to be unable to establish immediate and effective contact with emergency services.*

*When contact was made, emergency services were unable to respond effectively due to a lack of precise directions and difficulty negotiating the access route. Effective and timely emergency response is critical to reducing the consequences of incidents at remote locations.*

*Although a more timely emergency response may not have saved Mr Dodunski, these findings should be reviewed by all operators doing work in remote locations.*

*It is disappointing that a number of these issues were identified in the investigation of the death of Cameron Cole, which also occurred at a drill site on Santos Fairview Lease in 2009. Despite the clear learnings for improved emergency response arising from that death and the introduction of an aero medical evacuation service in 2011, the emergency response to this incident was clearly inadequate.*[14]

20. Recommendations from the Emergency response review included regular emergency response drills, inclusion of local emergency services, and improvement to communications systems.

21. On 3 April 2014 a Compliance Report by Mr Baron identified a range of potential breaches of the P&G Act by Saxon and Santos personnel. As I have noted, Mr Kilby, Mr Thomas and Saxon were prosecuted for alleged offences under the P&G Act and all were ultimately acquitted of the offences charged. None of the other persons identified in the Compliance Report were prosecuted for any offence arising from Gareth's death or the circumstances surrounding his death.

22. It is important to note that the prosecutions alleged a serious work health and safety offence involving "recklessness" on the part of Mr Kilby and Saxon. Based on the factual outline above, it is unremarkable that the Industrial Court of Queensland in overturning the convictions found that "recklessness" was not made out to the beyond reasonable doubt standard. The Court found that it had not been established that Mr Kilby had "consciously disregarded" the known and obvious risk that the deceased would be struck by the ST-80 to the beyond reasonable doubt standard.

[13] p 25.
[14] C2.11, p 8

## AUTOPSY

23. On 25 June 2013 an experienced forensic pathologist, Dr Guard, conducted an autopsy consisting of an external and full internal examination of Gareth's body as necessary to establish cause of death.

24. Dr Guard concluded that the cause of Gareth's death was massive brain trauma due to multiple fractures on both sides of his skull.

25. The toxicology results showed that no alcohol or drugs were detected in Gareth's system.

## DODUNSKI FAMILY CONCERNS

26. The deceased's parents, Mr and Mrs Dodunski engaged with the Coroners Court of Queensland consistently and frequently over the years since Gareth's death. Mr Philip Dodunski has long personal experience in the drilling industry and has an extensive knowledge of the work methods, systems and employment practices of the industry. It is fair to say he and Mrs Dodunski were extremely frustrated with the course and duration of the investigations and 'failed' prosecutions. They were particularly frustrated that a number of key personnel were not required to give evidence about their roles and responsibilities relating to the incident in which Gareth died.

27. Notably, Mr and Mrs Dodunski were concerned to know (inter alia) why:

    - Saxon's Executive Safety Manager, Mr Marcano, was not prosecuted, despite the recommendations in the DNRM investigation reports and their own requests to the prosecutors.

    - The prosecutors proceeded with charges, particularly under s 704 of the P&G Act when they were purportedly told by lawyers acting for the prosecution in relation to Saxon and Kilby to "prepare for a Not Guilty as it is virtually impossible to prove reckless in a court."

    - The recruitment of under-qualified and ill-experienced drill rig crews and the appointment of drillers and operators without necessary training and experience was not a feature of the prosecution case.

    - Mr Thomas' employment history and experience, including allegations that he forged his CV and evidence produced by Saxon to suggest they employed Assistant Drillers, which is contrary to evidence produced by Mr and Mrs Dodunski was not properly investigated.

28. Unfortunately, this tragic fatality was the subject of a failed prosecution of Mr Thomas at first instance and Mr Kilby and Saxon when the Industrial Court of Queensland overturned their convictions on appeal in 2020. Not only did that cause substantial delays but it also caused a misguided assumption that the Coroner would act as a "Court of Appeal" and effectively reinstate these convictions. That is not the role of the Coroners Court. It has a therapeutic jurisdiction looking for causes of death and potential preventions - not blame and

liability. It operates on a different standard of proof, onus of proof, admissibility of evidence rules and has no jurisdiction to adjudicate on criminal convictions.

29. On 25 May 2021, Mr and Mrs Dodunski wrote to this Court setting out their hopes for preventative measures that might be considered at an inquest into Gareth's death, as follows:

- Requirement for Assistant Driller Position on all operating rigs;
- Requirement of 2-3 years' experience as Assistant Driller before promotion to Driller;
- Competency assessment for Drillers;
- Requirement to inform regulator who is the appointed drill Operator;
- Appointed Operators must have required qualifications in Risk Management and Safety, as well as required experience in those areas;
- Requirement for Regulator to be informed of any changes being made to safety systems and controls, followed by inspections;
- Requirement for all Safety Alerts to be published nationally;
- Reporting requirements for safety issues;
- Prohibition on commencing operations until all required personnel are in place to operate the rig with all required qualifications;
- Compulsory audible alarms;
- Compulsory drug testing after any type of safety incident;
- Routine full safety inspections by Inspectorate;
- Requirement to prevent tampering with safety system documents after safety incident;
- Requirement for operations to cease immediately following incident and pending investigation by Inspectorate;
- Time limitation for finalisation of prosecution proceedings;
- Requirement for meaningful engagement with next of kin/families during prosecution process.

30. Given the effluxion of time since Gareth's death, some of these concerns had already been addressed, for example, by the establishment of the Work Health and Safety Prosecutor and Resources Safety and Health Queensland. However, Mr and Mrs Dodunski's concerns were a useful starting point in determining the issues before this Inquest. Their contribution to this investigation has been critical.

## THE INQUEST HEARING

31. The coronial brief of evidence was tendered at the commencement of the inquest hearing. It contains a huge volume of documentary and testimonial evidence in the form of statements and transcripts of interviews as well as transcripts and judgments from the industrial prosecutions and responses to requests for information issued by this court.

32. The inquest took place over seven hearing days, from 5 to 14 September 2022, in which oral evidence was heard from 18 witnesses. Several witnesses initially proposed to be called were ultimately not required to give oral evidence.

33. After the conclusion of the evidence at the inquest, the court also heard a personal statement about Gareth from his family.

34. It was noted by Counsel Assisting at the outset of the inquest that three former Saxon employees who could have given evidence relevant to the court's enquiries, Aaron Marshall, Cliff Monks, and Daniel Marcano, had not been located despite substantial efforts over a long period. Mr Marshall was the rig Superintendent and was an eyewitness to the incident. Mr Monks was the rig 185 Day Tourpush and Mr Kilby's direct supervisor at the time of the incident. Daniel Marcano was the Saxon Australian Manager and Executive Safety Manager at the time.

35. I determined that, although it would have been preferable to hear from them, every possible avenue of search had been undertaken prior to the inquest and the inquest should not be further delayed on account of those witnesses.

36. Unfortunately, Mr Marcano had not previously given any information or account of what he knew about the incident or the factors that may have contributed to it. He declined to be interviewed, as was his right, by investigators from the Petroleum and Gas Inspectorate following the incident.

## Issues

37. Following the pre-inquest conference on 18 March 2022, I determined that, in addition to the findings required by s45 of the Act, the following issues were to be explored and determined at the inquest.

    a. The findings required by s. 45 (2) of the *Coroners Act 2003*; namely the identity of the deceased, when, where and how he died and what caused this death. (*Statutory requirement*)

    b. The circumstances surrounding the death and, in particular, the chain of events leading to the deceased's death by gross cerebral trauma caused by a crushing injury from a drill rig ST-80 Iron Roughneck tool (***Issue 1***).

    c. The adequacy of safety management systems both at the time of this death and now to prevent or minimise risk of death or injury relating to the operation of the drill rig ST-80 Iron Roughneck tool (***Issue 2***).

    d. The adequacy and timeliness of investigations conducted by police, work health and safety and petroleum and gas inspectorates in relation to this death (***Issue 3***).

    e. What actions have been taken since this death to prevent deaths from happening in similar circumstances in the future (***Issue 4***).

    f. Whether there are any matters about which preventative recommendations might be made pursuant to section 46 of the *Coroners Act 2003* (***Issue 5***).

38. In determining these issues, I was greatly assisted by written submissions by Counsel Assisting, Gareth's parents, and the legal representatives for persons with leave to appear.

## Background Evidence

### *Prior incident – Rig 188 (South Australia)*

39. The DNRM Inspectorate Report outlined a previous serious incident in which Saxon employees working on a Santos lease in South Australia were injured by an ST-80. This incident occurred on 28 April 2013 on Saxon Rig 188, just under two months before Gareth's death. The circumstances of that incident were described in the Saxon Safety Alert issued following the incident as follows:

> *Rig had reached Total Depth and started to [pull out of hole (**POOH**)]. At approximately 0315 Crew were having difficulty breaking out Joint. Night Tour Pusher was called to Rig Floor to assist in helping break out joints. With the use of Rig Tongs the joint was broken out. On the next joint an attempt was made to use the ST-80 to break it out however; connection was still over torqued. The Rig tongs were applied to break connection by Motor man and Derrickman (IP's)*[15]*.*
>
> *Whilst still trying to feed more line into the Breakout Tong, the incorrect button (ST-80) was pushed and the ST-80 was accidently commanded to travel to well centre, resulting in the Derrickman being caught between the ST-80 and Manual tong resulting in a fractured arm and bruising to lower back/buttocks.*

40. Dr Tilman Rasche was engaged by DNRM to prepare an expert report in relation to the incident on rig 185 in which Gareth was killed. He opined that the incidents on rig 188 and rig 185 were materially similar, despite the workers involved performing different tasks. Dr Rasche explained his view in evidence as follows:

> *Essentially the reason why I said that they are similar in nature is because the equipment that was used was almost identical. They were both utilising the … ST-80 Roughneck, and I guess the circumstance in which the first incident in South Australia was almost identical to the one that occurred in Queensland some two months later.*[16]

41. At 1:30pm on the same day as the Rig 188 incident, Gareth's crew on Rig 185 had a safety meeting at which the Rig 188 incident was discussed. A meeting report signed by the crew and managers who were present records that the following topics were discussed during that meeting:

- *Time out for safety;*
- *Tong use pinch between ST-80 & Stump;*
- *Always isolate ST-80 when not in use; and*
- *JSA [Job Safety Analysis (**JSA**)] to be adjusted.*

42. The Saxon Safety Alert, issued on 30 April 2013, identified the following causes and contributing factors and made the following recommendations in relation to the rig 188 incident:

> *CAUSE(S):*
> 1. *Equipment not isolated: Iron Roughneck (E-Stop) was not isolated before operating tongs.*
> 2. *Equipment operated incorrectly: Iron Roughneck was commanded to extend by mistake (wrong button pushed on incorrect [Human Machine Interface (**HMI**)] screen.*
>
> *CONTRIBUTING FACTOR(S):*

[15] 'IP' means 'Injured Person'
[16] Inquest Transcript, Day 6: T4: L25-29.

1. *Inadequate [Permit to Work (**PTW**)]: Two (2) different operations (using tongs while drilling then while tripping) were conducted under one (1) PTW.*
2. *Inadequate TRA [Task Risk Assessments (**TRA**)][17]: Isolation requirement of Iron Roughneck were not identified in the TRA.*
3. *Failure to follow procedure: TRA was not reviewed.*
4. *Over torqued pipe: Last two Drill pipe joints were over torqued using Top Drive and manual tong instead of ST-80.*

*RECOMMENDATION(S):*

*(i) Issue alert to all Saxon Rigs. Expected closure 30/4.*

*(ii) Update the following TRAs (making connection B2, Tripping out of hole C6 and rigging in and operating manual tongs B3) to include and reference Isolation of the ST-80 when using Manual Tongs. Expected closure 30/4.*

*(iii) Relocate (or install another) isolation ball valve to isolate Iron Roughneck from HPU when Iron Roughneck not in use. Expected closure 1/5.*

*(iv) Mandate PTW verifier as Tour pusher or Driller only. Implemented by this alert.*

*(v) Ensure all crew members are briefed on this alert at Safety Sunday for the following 8 weeks. Acknowledgement must be signed and dated by crew.*

43. In respect of the Saxon Safety Alert, the Inspectorate Report noted that:

> *While this incident occurred when the rig was performing a different task to that of the Gareth Dodunski incident, it does highlight the dangers of the floor crew being positioned in or near the motion path of an ST-80. Saxon clearly recognised the failure of relying on human based behaviour in the Implementation of risk control (functioning of an [E-Stop]) and the contributing factor of inadequate risk assessment (TRA). Saxon issued the Safety Alert in order to provide an opportunity for their employees to consider similar risks and discuss how their activities could be performed.*[18]

44. Evidence was provided to the court by the time of inquest that:

a) the Alert was updated later on the same day it was issued (30 April 2013) to show a risk potential of 'high';

b) the three TRAs identified in the Alert, as well as two additional TRAs, were updated on 28 April 2013 in accordance with the recommendations in the Alert;

c) on or before17 June 2013 Saxon modified the control screens for the ST-80s on all rigs so that only the driller's HMI screen could be used to control the ST-80 (previously there were two operational screens in the driller's cabin – for the driller and the derrickman – each of which could be used to operate the ST-80).

45. Evidence was given at inquest that the third recommendation of the Safety Alert, that the isolation button on the ST-80 be relocated, or another isolation ball valve be installed elsewhere, wasn't implemented on rig 185 by time of Gareth's' death because the relevant parts were not available at the time.

## *Gareth's death - Rig 185*

46. The Inspectorate Report described the position and operation of Rig 185 in Queensland:

[17] A TRA is the South Australian equivalent of a JSA.
[18] p 21.

*Drill Rig 185 (Rig 185) was owned by [Saxon] and operated by employees of [Saxon]. Rig 185 was operating at a location prepared by Santos for the expected construction of 10 coal seam gas wells on the Petroleum Lease called Fairview for which [Santos] is the principal holder. The lease is located approximately 66 kilometres east of Injune in the state of Queensland (described as FV 13-14-1-10). Rig 185 operated 24 hours a day 7 days a week with crew shifts rotating on a midnight to midday (night crew) and midday to midnight (day crew) rotation.*

*…*

*The Day Tourpusher shift commences at 6:00am and finishes at 6:00pm with the shifts of both [Day and Night] Tourpushers overlapping the shifts of the other rig workers.*

*…*

*Saxon Rig 185 night crew commenced the construction of the coal seam gas well FV 13-14-09 on 23 June 2013. A depth of 152.7 metres was reached by the end of the night crew shift. On 23 June 2013 at 12:00pm, a pre-tour safety meeting was held and the day crew (Gareth's crew) proceeded to drill the surface well hole to a depth of 163.5 metres…*

*In preparation for completion of the construction of the well surface hole, rig 185 commenced well construction procedures necessary prior to removing, or pulling out of hole (POOH), the drill string components…*[19]

47. The Incident Investigation (ICAM) report prepared for the Inspectorate by Safetywise Solutions records the events immediately prior to the incident as follows:

*Immediately prior to the incident, there was a distraction to operations when the Rig Superintendent (Mr Aaron Marshal) entered the Driller's Cabin and spoke to the Driller (Mr Kilby) in the Driller's Cabin. Mr Marshal was looking for the Rig Day Lease Hand and while in the Driller's Cabin started looking for some paperwork in a filing cabinet.*

*The Driller (Mr Kilby) stated that he turned back from talking to the Rig Superintendent and automatically actuated the ST-80 Iron Roughneck to well hole centre on the control screen, before belatedly realising that the Floor Hand and Lease Hand were finishing the installation of the dog collar and were not clear.*

*The Lease Hand (Mr Mulling), who was adjacent to the drill string, stated that he noticed the movement of the ST-80 Iron Roughneck and proceeded to move away before trying to grab the arm of the Floor Hand (Mr Dodunski). At this point in time, it was reported that the Floor Hand was apparently concentrating with his head in a downwards position, as he was trying to thread a bolt on the dog collar and he apparently shrugged the Lease Hand away.*

*When the Driller (Mr Kilby) realised that the Floor and Lease Hands were still in the hazardous zone he repeatedly pressed an incorrect button on the touch screen in the Driller's Cabin to try and retract the ST-80 Iron Roughneck. He was not able to correct the actuation error made in time and the Floor Hand, who was in the direct forward path of the moving plant sustained severe head injuries, as evidenced by the damage to his hard hat…when he was crushed between the ST-80 Iron Roughneck and the drill collar.*[20]

48. Mr Kilby declined to be formally interviewed for the Inspectorate investigation and did not give evidence at his trial, as was his right. The prosecution relied on some informal statements made by Mr Kilby shortly after the incident. However, his account of the incident was not tested until the inquest.

[19] pp 9 - 10.
[20] pp 16-17.

49. Sergeant Chris Mitchell (QPS), who spoke to Mr Kilby at the scene on the day of the incident, recorded Mr Kilby's account in his police notebook as follows:

> *I commenced work at 12 midday at the rig site. My role is the driller. I am responsible for the drill and crew. I work the controls of the drill as per the program set by Santos.*
>
> *At about half past three just after smoko we were pulling out the string and just got the drill collar. I set slips and Gareth and Dan went in to fit the dog collar, they went in on their own accord. I was speaking with Aaron who was trying to find the day lease hand. I then feel like I have fucked up and gone into auto pilot and hit the button for the ST-80 to come out and break the connection. As soon as I hit it, I saw the boys there. I was trying to stop it, but you can't stop it once you have started it. The boys should have hit the emergency stop as soon as they went in which would not allow the ST-80 to be operated.*
>
> *When the ST-80 came out Gareth had his back to it and Dan was in front, they were fitting the dog collar. I'm still trying to press off on the screen and yelling "Get out" but wouldn't have been able to hear me as I was in the dog house.*
>
> *The ST-80 then grabbed Gareth's head and pushed it into the drill collar. As it had finished doing what it was supposed to do I was then able to retract the ST-80…*

50. Inspectorate Principal Investigator John Baron interviewed Mr Kilby the day after the incident. During that interview, Mr Kilby said:

> *…I was rung from the rig manager's office looking for the day lease hand so I tried calling him on the intercom and hoped that he would have heard it and gone to the office. Continued doing what we're doing. We just... finished pulling the heavy weights which don't require a dog collar, just break them out straight away. Then got to the first drill collar, I've set slips, in this time Aaron, the superintendent, has come up to enquire as to where the day lease was. I briefly stopped doing what I was doing, said I'd called him on the intercom, don't know where he is. Gone back to the job and gone straight into break out without realising that the boys had already gone in there to put the dog collar on. And as soon as I've realised I've trying [sic] to hit stop but there is no stop button... should have been hitting retract which is on the other side of the screen. And in this time I'm trying to shout but they can't hear me 'cause I'm in the doghouse and that is when the ST- 80 collected Gareth and killed him.*
> *…*
> *...depending what you do, you press break or make and [the ST-80] will do the same thing, it will come out to hole centre. And then you go position confirm, saying that you are where you want to be. But once you hit make or break, that's it, it comes out...*
> *…*
> *...So it's in the home position and then you hit break or make, in this case I hit break because... the intention was to break the joint…*
> *…*
> *... if you are quick enough you can hit retract, which in that moment in time I wasn't thinking retract, I was thinking off and there's an off button right next to break and I'm hitting it with no effect. And... our policy is we're supposed to have the emergency stop on whenever the boys are in there and Gareth was the best at doing that, we never had to, always had to tell him to take the bloody thing off so we could do the job. And this one time he didn't put it on.*
> *…*
> *...I just finished talking to Aaron, I've gone straight to what my next step is which is to break out the joint and then as soon as I've touched it I've realised the boys have...gone in there without looking at me for confirmation...*[21]

[21] Transcript of interview with Jacob Kilby, pp 4 – 6.

51. Following the incident, Saxon and Santos workers commenced the emergency response procedure but were unable to establish effective and immediate communications with emergency services. The first successful communication with emergency services was approximately 10 minutes after the incident.

52. CPR was commenced approximately 18 minutes after the incident. The first ambulance was dispatched approximately 20 minutes after the incident.

53. Emergency services did not receive adequate directions to the incident scene and encountered difficult access conditions. Santos paramedics based at Fairview first arrived at the scene approximately 70 minutes after the incident.

54. Gareth was pronounced dead at the scene at 5:10pm, nearly two hours after the incident.

55. Despite the long delay before medical attention arrived at the scene, Gareth's injuries were so catastrophic that they were not survivable. Dr Plaescke advised this court, by letter dated 23 August 2022, that:

> *"… a faster or different emergency response would not have prevented Mr Dodunski from dying from his injuries, even if he sustained the same injuries in the vicinity of a tertiary hospital in a major city with immediate definitive care."*

56. The Emergency response review conducted by the Inspectorate as part of the investigation into this incident noted similarities with the emergency response in relation to the death of Cameron Cole in 2009 at Lucas Rig 151, nearby to the location of Gareth's death. The review noted, in particular, that similar problems in communication, correctly identifying location, and delay in the arrival of emergency services were found in the response to that prior incident.

57. The State Coroner delivered findings in relation to the death of Cameron Cole, including with respect to the emergency response, on 11 September 2015.

58. In light of those findings and Dr Plaeske's opinion that Gareth's injuries were not survivable, it is not necessary for me to make any further findings or comment about the emergency response to this incident.

## Particular Viva Voce Evidence given at Inquest

59. The evidence given at inquest by those most closely involved in incident, namely Mr Kilby, Mr Mullings and Mr Dixon, did not differ markedly from the accounts which they gave during the investigation. However, at inquest each of these witnesses also provided the court with additional information about their experience, training, use of the ST-80 and their knowledge of its hazards and safety features.

60. The evidence was consistent that the crew of rig 185, including Gareth, Mr Kilby, Mr Mullings and Mr Dixon were competent and capable, although each was still completing their on-the-job training requirements. Mr Schefe, the Santos 'company man', thought they were a good crew with a lot of potential.

61. The essential factual basis of what occurred is not disputed. However, this death was not an accident. The undisputed evidence was that the risk which the ST-80

posed to workers was a risk of a crush injury which arose when they positioned themselves between the drill string and the ST-80. The law does not recognise an event as an accident when there was a duty to keep the injured person safe. The difficulty is often recognising the extent of the breach of that duty and whether an individual or legal entity should be prosecuted under the relevant statutory penal regimes. However, that prosecutorial discretion is not a matter for this Court.

62. I accept the submission of Counsel Assisting that there is no evidence before this Court to suggest the incident in which Gareth died was caused by incompetence or gross negligence, as opposed to momentary error and inadvertence.

### *Mr Jacob Kilby*

63. Mr Kilby was the first witness to give evidence at the inquest, and it was the first time that he had given his account under affirmation and subject to cross-examination. Mr Kilby's counsel had made a claim for privilege against self-incrimination pursuant to s39 of the Act on Mr Kilby's behalf, which was upheld, and Mr Kilby gave his evidence under the protections provided in that section.

64. Mr Kilby told the court that he had commenced employment with Saxon in June 2012 as a derrickman, and then worked as an assistant driller. He said that he had worked as a driller for only two weeks prior to 23 June 2013. He was in the process of completing the required competencies for the job as driller.

65. Mr Speed, Saxon Site Safety Manager for Rig 185, described Mr Kilby as a competent driller, who performed his duties and operated the rig as expected. Mr Beswick, the Saxon Rig Manager, agreed.

66. Mr Kilby gave evidence that he had received on the job training in the operation of the ST-80 and had operated the machine previously as a derrickman. He described this on-the-job training as "an evolving process of utilising the machine and operating it and learning as you go".[22] Mr Kilby said that the ST-80 on Rig 185 was "very automated"[23], and that he had used a similar piece of equipment while working for a previous employer which was operated with a joystick, and would cease movement if the operator let go of the joystick, known as a deadman's switch.

67. Mr Kilby recalled that, on 23 June 2013, he and the rig crew were on the third day of a hitch, and they were in the process of tripping out. He calculated that he would have activated the ST-80 approximately 20 times on that day before the incident. When asked about whether there was a practice on rig 185 of using the E-Stop on the ST-80 while tripping out, Mr Kilby said:

> *It's primarily used for when we're at the [bottom hole assembly]. For when you're in the danger zone for an extended period of time. When we were conducting run in or pull out hole with just the drill pipe, it wasn't really practiced. The - they used that one, because you're only there to throw the slips in, and then you're out. So you're not – it – it was almost redundant to push and then pull out. It would slow down the operation.*[24]

[22] Inquest Transcript, Day 1: T16L46.
[23] Inquest Transcript, Day 1: T16L19.
[24] Inquest Transcript, Day 1: T19L5.

68. Mr Kilby gave evidence that it was common, in his experience, that a member of the rig crew would position themselves between the drill string and the ST-80 in order to attach the dog collar, and it was his understanding that one of the rig crew would have pressed the E-Stop as they entered the danger zone around the drill string. This was a procedure which was particularly talked about and discussed following the rig 188 incident.

69. Mr Kilby was asked about the driller's Human-Machine Interface (HMI) screen which he used to control the ST-80 and explained the process of activating the ST-80 either in automatic or manual mode. He agreed that there was no emergency stop button on the HMI screen at the time of the incident. There was an 'off' button located with the automatic controls, but this button did not stop the motion of the ST-80 once activated – rather, the button marked 'retract', located amongst the manual controls, should be used to stop and retract the ST-80 in either automatic or manual mode.

70. Mr Kilby gave evidence that, at the time of the incident, the only other way for the driller to stop the ST-80 in an emergency was to hit the 'kill switch' for the whole rig which was located on another panel next to the HMI screen. Mr Kilby said that he had never practiced bringing the ST-80 to an emergency stop, nor had he had any particular training in respect of emergencies involving the ST-80. Mr Kilby agreed that he found that the methods by which the driller could stop the forward motion of the ST-80 in case of an emergency were confusing.

71. Mr Kilby gave evidence that he and other employees discussed the incident on rig 188 in South Australia at safety meetings, but that there was no specific training that he was required to do after that incident relating to how to stop the ST-80 in an emergency. He said that, in his view, the change that occurred after the rig 188 incident, which shut down the ST-80 control screen at the derrickhand's station, put more responsibility on the driller and was therefore less safe for the workers on the rig floor.

72. Mr Kilby told the court that, following the rig 188 incident, he still had concerns about the risk to rig workers entering the danger zone where there was no deadman's switch on the ST-80, but he was not so concerned that he felt he needed to raise a safety concern with Saxon or stop work.

73. In relation to the circumstances of the incident in which Gareth was killed, Mr Kilby gave the following evidence:

> *Just prior – directly before the incident I recall being asked – like, we were discussing – I believe – because this is the first time I've seen [Aaron Marshal] since I'd become a driller. So I think he was discussing how things were going and just general chatter. But the direct question I remember is, he asked about the whereabouts of the day leasehand and I just thought that was a strange question. Why is the superintendent wanting to know where the day leasehand was and I felt like I'd dealt with prior, because I was – the time that I took direct concentration away from the rig and, unfortunately, turned and looked back at him to answer the question.*[25]

74. Mr Kilby said that, at the time he turned away, Gareth and Mr Mullings were on the rig floor, but he couldn't recall whether they had moved into the danger zone.

[25] Inquest Transcript, Day 1: T43L6.

He thinks he was turned away from the rig floor to speak to Mr Marshal for "10 seconds, 20 seconds".[26]

75. He went on:

> *And then that broke my concentration because I was thinking about where is this day leasehand and I turned back to the screen and that's when I've hit the [break][27] button and looked and seen that they were in there and was trying to stop it and I panicked and – yeah.*[28]

76. In answers to questions about what happened after that, Mr Kilby gave the following evidence:

> *Did you see, at any stage, that Gareth and Daniel Mullings were in the danger zone?---After I pushed the button I saw them there.*
>
> *And what did you do then?---I just stopped it – that, ineffectively.*
>
> *Do you remember how – what you did to try and stop it?---I was smashing the off button, because in my head I was thinking, "Off". But I should've been hitting retract or hitting the kill switch or – yeah. But it – it happened so quickly and by the time I was panicking it just – yeah.*
>
> *You say you smashed the off button. Did you hit it multiple times?---Yeah. I was tapping it repeatedly and say, "Off", and then yelling saying, "Get – get out". But, yeah, it's – by that stage it was too late.*
>
> *And, now, with the benefit of hindsight, you say that you should've hit either retract or one of the emergency kill switches?---Yes.*
>
> *I see. Did hitting the off button have any effect on the forward motion of the ST-80 at all?---No.*[29]

77. In written submissions to this Court, Gareth's parents made the point that setting the slips and then the dog collar is not "an in and out task",[30] and that Gareth and Mr Mullings would therefore have been in the danger zone for the entire time that they were setting the slips and the collar. They say that Mr Kilby must have known this, and say that:

> *Mr Kilby cannot say [Gareth and Mr Mullings] went in without checking for confirmation, or of their own accord as they were already doing the task which he knew before any question [by Mr Marshall] was even asked.*[31]

78. In his evidence before this Court, Mr Kilby did not, in fact, say that Gareth and Mr Mullins had gone into the danger zone without checking for confirmation from him. In cross-examination by Counsel for the family, Mr Kilby was asked questions about the process of installing the slips and dog collar, and signals between the driller and the rig crew during that process. During these questions it was clear that Mr Kilby considered the setting of slips and the dog collar as one task, with signals to occur before and after this task. He also agreed that it was the 'after' signal that had failed, and that this was because he did not look for a

[26] Inquest Transcript, Day 1: T43L34.
[27] The work 'break' in this part of the transcript is misspelled as 'brake'.
[28] Inquest Transcript, Day 1: T43L38.
[29] Inquest Transcript, Day 1: T44: L5-23.
[30] Family submissions, para 17.
[31] Family submissions, para 18.

visual signal from the rig floor before pressing the button for the ST-80 on this occasion.

79. I find that Mr Kilby was a co-operative and honest witness, who made appropriate concessions about his level of training and ability as a driller at the time that the incident occurred.

80. I accept Mr Kilby's evidence that he activated the ST-80 in a moment of distraction and inadvertence and immediately tried to retract the ST-80 but pressed the wrong button on the HMI screen, failing to stop its forward motion before the ST-80 struck Gareth. He readily acknowledged that his inexperience was a factor which contributed to this tragedy.

*Other eye-witness evidence*

81. Mr Mullings gave evidence that he had been a day Leasehand for three months at the time of Gareth's death and that Gareth was his immediate superior in the crew. Mr Mullings said he had been trained by his crews on the job to stand clear of the ST-80 when it was in operation, and to activate the E-Stop if he went inside the derrick. He and Gareth did not have any agreement about who should hit the E-Stop when they were working together – it was whoever went inside the derrick, but there was usually no check between them that it had been done. Mr Mullings told the court that he had never received any formal training in how to stop the ST-80 in an emergency. He said it was good practice for the floorhand who approached from the driller's side of the string to press the E-Stop, as that was the side of the ST-80 that the E-Stop was on.

82. Mr Mullings was asked about whether it was necessary for floorhands to place themselves in between the ST-80 and the drill string, and he said that this would depend on the way in which the slips were set before the dog collar was put on. His evidence was that in order to set the slips in the safest way, for the floorhands to pull them out, then the dog collar had to be oriented so that a floorhand would have to be between the ST-80 and the drill string in order to properly attach the dog collar.

83. Mr Mullings said that when the incident occurred, it was the first time that day that the dog collar had been used, and that was why Gareth was in front of the ST-80. Mr Mullings did not press the E-Stop before he and Gareth went onto the floor to attach the dog collar, and he did not notice see Gareth press it. He didn't hear the ST-80 coming out, and when he noticed it, it was too far out for him to hit the E-Stop.

84. The only other person to witness the incident was Aaron Marshall, the Rig Superintendent, who was in the doghouse talking to Mr Kilby at the time. He gave limited information to the Inspectorate investigation and could not be located to be called as a witness at the inquest. His evidence about the circumstances surrounding Gareth's death is confined to this.

85. The loss of this important evidence is a direct consequence of the absence of any power in the P&G Act for investigators to compel a person to answer questions or give information that might tend to incriminate them or expose them to a civil penalty. I address that issue below in the section regarding comments and recommendations that I might make pursuant to section 46 of the Act.

*The rig 185 crew*

86. Jared Dixon gave evidence that he had been in his position as derrickman for about a year prior to June 2013, and that he didn't recall any formalised training in the use of the ST-80 or in respect of how to stop it in an emergency. He told the court that the crew worked out together how to operate the machine, and that, in an emergency, he guessed he would just hit the E-Stop. Mr Dixon said he had concerns when the second HMI panel for the ST-80 was locked out after the Rigg 188 incident, as that placed all the responsibility for the ST-80 on the driller.

87. Mr Dixon recalled that it was common for a floorhand to position himself between the ST-80 and the drill string in order to set the dog collar, and that he did not recall any formal arrangement or instruction as to which of the floorhands should press the E-Stop before working in the danger zone. In cross-examination, Mr Dixon said that, after the rig 188 incident, there was ongoing concern among the workers about the risk posed by the ST-80, and that he himself was nervous about it because he knew he wasn't in control of it.

88. Ashley Jenner was a motorhand in Gareth's crew on rig 185. He did not witness the incident because he was working elsewhere on the lease at the time. However, he gave evidence about his training and experience, particularly in relation to the ST-80. At the time of Gareth's death, Mr Jenner had been working in the gas drilling industry for about 4 years. He had worked his way up from the position of day Leasehand. Prior to joining the crew for Rig 185, he had never used an ST-80. He said he was aware that there was a manual for the ST-80 but he was not given any formal training in its operation. He said "it was all on the job."[32]

89. Mr Jenner's evidence differed from Mr Kilby's in that Mr Jenner said it was not common in his experience for workers to position themselves between the ST-80 and the drill string during the tripping out process or to set the dog collar. He said that, in his experience, the floorhands would position themselves at 90 degrees to the position in which Mr Mulling and Gareth were in at the time of the incident.

90. Cliff Monks was the "day tourpush" for Gareth's crew. He could not be located to give evidence at the inquest, but he participated in an interview with Inspectorate investigators in December 2013. He told investigators that the E-Stop on the rig floor was "supposed to be pressed on every connection."[33] He explained that when he saw workers in the 'crush zone' without the E-Stop having been pressed, he would stop the operation and tell them to hit the E-Stop.

91. Paul Beswick and Craig Speed were the Rig Managers and Site Safety Managers, working alternating rosters. Neither were on site at the rig at the time of the incident. When Mr Beswick left the rig in the morning of 23 June 2013, he assigned responsibility for the rig to Mr Monks until Mr Speed arrived later in the day. Mr Beswick gave evidence that he was involved in the commissioning of rig 185 and didn't, at that time, have any concerns about the lack of engineering

[32] Inquest Transcript, Day 2: T48: L24.
[33] Transcript of interview with Monks, line 322.

controls to prevent the ST-80 from being activated while workers were in the danger zone between it and the drill string.

### *Mr Carl Thomas*

92. Mr and Mrs Dodunski have raised concerns, with Inspectorate investigators, and with this court, about certain post-incident conduct of Carl Thomas and other employees of Saxon. In summary, the concerns relate to information given to investigators by Mr Thomas about Gareth's Next of Kin; dealings with Gareth's belongings and potential evidence following the incident; and interactions between Saxon and Gareth's family.

93. During the Inspectorate investigation Mr Thomas declined to be interviewed by investigators, and he did not give evidence at his trial in the Industrial Magistrates Court, in accordance with his common law right. His evidence, about the incident involving Gareth, and those matters raised by the family, was given and tested for the first time during the inquest.

94. Mr Thomas told the court that, at the time of Gareth's death, his title was Operations Manager or Deputy Operations Manager working for Saxon. Initially he was unable to clarify which of these titles was correct, but said that he worked 'under' Daniel Marcano, the Saxon Australian Manager and Executive Safety Manager. When challenged in cross-examination by counsel for Gareth's family, he insisted that he was the Deputy Operations Manager, despite having stated his role as Operations Manager on his LinkedIn profile at the relevant time. He said that Mr Marcano was the Operations Manager at the time in addition to being 'Country Manager'.

95. Mr Thomas said that among his responsibilities as Operations Manager or Deputy Operations Manager was to commission the last 4 of 16 Australian rigs for Santos, and that his responsibilities to facilitate the commissioning of those rigs (185, 186, 187 and 188) were:

> *…every check off for those rigs in the shipping, the engineering, and the importation and sign-off – basically, working through spreadsheets. Both Saxon and Santos, together, going through to make sure every little piece is signed off so that those rigs can go to work.*[34]

96. Mr Thomas' evidence was that part of his job was to ensure that the Saxon rigs, including rig 185, met the necessary safety standards. He explained that, in practical terms his job was to check that the necessary signoffs had been done by the third parties who were contracted to check over each piece of equipment or machinery against the relevant standards. Mr Thomas denied having any working knowledge of the ST-80 himself, nor any direct responsibility for ensuring that the rig 185 crew were properly trained in the use of the ST-80. He also denied that it was part of his role to ensure that any safety modifications which were directed after the rig 188 incident were implemented on rig 185.

97. In addition, Mr Thomas denied having any responsibility for ensuring that the crew who worked on rig 185 were appropriately qualified and trained for the jobs that they were doing, although he was aware of the training modules and the training spreadsheets which tracked when each employee completed each

[34] Inquest Transcript, Day 1: T72L4.

module. He specifically denied having any responsibility for ensuring that the rig crew were properly trained in using the ST-80.

98. Despite being the Operations Manager or Deputy Operations Manager, Mr Thomas said he had no involvement in the Safety Alert sent out after the rig 188 incident or in any modifications to plant or procedures on rig 185 after that incident. He could not recall whether he made any inquiries to establish whether the recommendations from the rig 188 incident were implemented on rig 185 before Gareth died.

99. To a limited extent, Mr Thomas was asked in cross-examination by the family's counsel about Mr and Mrs Dodunski's concerns that Mr Thomas had represented that he was the next of kin or family contact, had kept information from Mr and Mrs Dodunski or given them incorrect information, and had given incorrect information about their wishes to other employees and to police. Mr Thomas admitted to having advised police that he was to be the contact point for the family but said this was what he had been requested to do by Mr and Mrs Dodunski. He denied other allegations put to him by counsel for the family about certain things it is alleged he had said about the incident, his qualifications, and whether he had hired Gareth to work at Saxon.

100. I find that Mr Thomas was a difficult witness whose evidence was, at times, unhelpful and evasive. He did not present as a credible or reliable witness. Moreover, his self-appointment as "liaison" between Saxon and the deceased's family is so littered with conflict of interest that it was reprehensible. I do not agree with the submissions made by Counsel for Mr Thomas that I should not make such comments as Mr Thomas' evidence did not relate to a relevant issue for consideration. Mr Thomas was a witness before this Court and, as such it is open to me to comment on his presentation as a witness.

101. Comment on Mr Thomas's presentation as a witness is relevant, as Counsel Assisting submitted, as to whether the Court can rely on his denials in respect of either his professional responsibility or his personal interactions. Notwithstanding his acquittal in the industrial prosecution, there is scope on the evidence for this Court to conclude that Mr Thomas did have responsibility for safety on rig 185 or that his conduct (or lack thereof) contributed to the circumstances surrounding Gareth's death. However, to do so would be to suggest his guilt of a criminal offence, which is prohibited by the Coroners Act *(Qld)*. Further it would be poor public policy for this court to make a determination of guilt in the face of the acquittal.

102. I do not accept Mr Thomas' contention that he was, essentially, only responsible for the administrative task of checking that the appropriate third parties had certified that various machinery adhered to the relevant safety standards is not contradicted by any evidence before this Court. However, I make no further observations or findings about Mr Thomas.

103. Likewise, there is little evidence before this Court which could resolve, one way or another, the dispute between the family and Mr Thomas as to their personal interactions and his interactions with police. While I do not rely on Mr Thomas' denials of wrongdoing in this respect, there is insufficient other evidence on which I can make a determination. Accordingly, I accept the submission by

Gareth's parents that Mr Thomas's actions after Gareth's death caused them "added trauma and distress".[35]

104. Importantly, the exact nature of those actions, and whether or not they were as alleged by Gareth's parents is not a matter for determination in these findings because such post-mortem actions do not relate to the cause of death.

## Adequacy of safety management systems at the time of Gareth's death

105. The evidence suggests that the safety management systems in place on rig 185 prior to Gareth's death were not adequate to prevent or minimise risk of death or injury relating to the operation of the ST-80. Those systems included:

    a) the engineering measures deployed on rig 185 to control the ST-80 and restrict its operation while workers were in the danger zone between the ST-80 and the drill string;

    b) the administrative controls in the form of policies, procedures and directions given to crew members about using the ST-80 and working in the danger zone around the ST-80;

    c) the training and qualifications of crew members; and

    d) the oversight measures intended to ensure risks were properly identified and mitigated.

### *Engineering controls*

106. The ST-80 on rig 185 was remotely operated from the driller's cabin or 'doghouse'. Prior to the incident on rig 188 in South Australia, the ST-80 could be operated from either of two HMI screens in the doghouse, one operated by the driller and the other by the derrickman. After that incident, the ST-80 could only be controlled from the driller's HMI screen.

107. The control screens for the ST-80 included electronic buttons to turn the ST-80 on and off; to extend and retract; and to operate in manual or automatic modes. There was no emergency stop button for the ST-80 on either HMI screen before Gareth's death. There was an indicator to alert the driller to the E-Stop on the rig floor being activated but that E-Stop could not be controlled from the HMI screen.

108. There were several emergency stop buttons for the hydraulic systems on the rig to the right of the driller's HMI screen but none specifically for the ST-80. It is apparent from the videos taken by investigators after the incident that use of the hydraulic 'kill' buttons next to the HMI screen did not immediately arrest the forward motion of the ST-80 once activated and extending to well centre.

109. Mr Kilby agreed that the methods by which the driller could stop the forward motion of the ST-80 in the case of an emergency were confusing. Mr Beswick, who had significantly more experience as a derrickman and driller than Mr Kilby,

[35] Family submissions, part 8.

said he didn't think the screens were confusing, but he thought "they could have been better".[36]

110. Mr Kilby said that after the rig 188 incident he thought there was some risk for workers on the rig floor in the absence of a 'deadman's switch' to isolate the ST-80 but was not so concerned that he thought drilling operations should cease. He said:

> *I guess my point is that I – didn't put the same thought of safety into it until after the incident and realising how dangerous that machine was after seeing it first-hand. But prior to that, I felt like we were taking measures in the right direction, and I was happy to continue.* [37]

111. There was an E-Stop button on the rig floor on the left side of the ST-80. There is some divergent evidence that this button was used or to be used as an isolation measure for the ST-80 when workers were in the danger zone between the ST-80 and the drill string.

112. Prior to Gareth's death, there was no other isolation measure that could be used by the rig crew to prevent the ST-80 from being inadvertently activated while workers were on the rig floor and at risk of being struck by the ST-80. Mr Hammond, the rig electrician, gave evidence about isolating the hydraulics when working on the ST-80 but explained this was something not usually done during normal drilling operations.

113. The Saxon Safety Alert issued after the rig 188 incident contained a recommendation to "*Relocate (or install another) isolation ball valve to isolate Iron Roughneck from HPU when Iron Roughneck not in use."* Mr Bosnjak said that recommendation was not implemented on rig 185 by time of Gareth's' death because the relevant parts were not available at the time. This is discussed later in the subsequent improvement to safety management systems section.

114. The SafetyWise Solutions Report, noted this about the control of the ST-80:

> *The control of the ST-80 Iron Roughneck was held by the Driller in the Driller's Cabin, not by those operators on the floor who were exposed to the hazard. A Deadman's switch or control on the floor that had to be positively activated would have given control to those in closest proximity to the hazard.*
>
> *Such a switch could have been designed to ensure that the energy source for the ST-80 for instance could not be activated until a control was depressed and following visual confirmation that the area was clear, the Driller could then initiate the ST-80.*[38]

115. At the time of this incident, there was no warning system on rig 185, such as a flashing lights or an audible alarm, to alert workers on the rig floor to the activation of the ST-80. Nor was there any physical barrier to prevent workers entering the area between the ST-80 and the drill string when the E-Stop was not engaged.

116. Mr Jenner said he thought it was dangerous to use the E-Stop as a routine isolation measure because it was an emergency feature. He said he raised this concern with Saxon in safety cards he gave to the driller, Mr Kilby. However there is no documentary evidence of any such cards having been submitted to Saxon.

[36] Inquest Transcript, Day 5: T19: L31-32.
[37] Inquest Transcript, Day 2: T50: L9-13.
[38] p. 31.

Mr Jenner agreed that he did not raise this concern with the rig manager or site safety officer.

117. Paul Gordon, a Santos EHS Field Advisor at the time of this incident, said in his statement:

> *I was aware that the ST-80 was isolated by persons who were working on the rig floor. At that time in the Surat Basin in Queensland, my understanding was that the isolation was to be performed by use of the E-stop button. I was aware that persons were using the E-stop button to isolate the ST-80, when that was not its designed function. The recommendations arising from the Rig 188 Incident to install a dedicated isolation control on the rig floor were welcomed by me as an improvement on the existing isolation function.*[39]

118. Mr Gordon said in oral evidence he was not responsible for rig 185 but was generally concerned about the use of an E-Stop as a routine isolation measure but did not suggest the Queensland rigs should be shut down until an alternative such as the South Australian recommendation was implemented in Queensland.

119. Samuel Lloyd was the Rig Safety and Training Coordinator (RSTC) for rig 185 at the time of this incident. He agreed that the engineering controls that might have been applied to the risk posed to workers by the ST-80 included a form of dedicated isolation or a barrier to prevent workers from entering the danger zone when the ST-80 was operational, but at the time of Gareth's death the only engineering control available was the E-Stop button on the rig floor.

120. The DNRM Inspectorate Report concluded that there was "*a failure to eliminate risks and implement engineering controls to mitigate the risks of operational hazards during the design and manufacture*[40]*"* of rig 185. Mr Barron explained that conclusion in evidence as follows:

> *The risks were related to a hazard. The hazard was the – the – the hydraulic energy inherent – in the ST-80 and – and was the control of that hazard when there were people in its path.*
>
> *And so how do you control that hazard? Was that looked at? There was also – I think there was the fact that that ST-80 was originally built or sold as a device that's operated with a person – an operator at the ST-80 and it was installed on Rig 185 as a device to – operated remotely from within the doghouse.*[41]

121. Mr Barron considered that the E-Stop was not an appropriate means of isolating the ST-80. He explained:

> *So it's meant to be used in the event of an emergency. But in this case it was used as a process. So – in this routine task that they do on the rig, they're told to go in there, hit the ESB button. So it's used like an off/on switch. The problem with – with using a device – emergency stop button as an off/on switch, is – my view was that it tends to desensitise people to its actual purpose. In the case of an emergency, what do you do? We go for the emergency stop button. So it's possible that using it as an on and off switch, could desensitise people to that purpose as an emergency stop button.* [42]

122. Dr Rasche's report included the following criticism of the use of the E-Stop during routine operations on Rig 185:

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[39] at [46].
[40] p. 5.
[41] Inquest Transcript, Day 4: T57: L26-32.
[42] Inquest Transcript, Day 4: T59: L1-8.

*A significant oversight and dangerous flaw is the explicit recommendation to continue using the E-stop (emergency stop) as what I presume is meant to be the primary isolation device/system instead of a dedicated and fit for purpose isolation associated with a tag-out/lock out system (see the Santos Report at page 10). In my opinion this is dangerous as it creates a range of highly unsafe scenarios.*

*…*

*The fact that an E-Stop was used as the main (and only) means of isolation suggests that overall quality and understanding of critical safety rules and behaviours were lacking on site.* [43]

123. In oral evidence, I questioned Dr Rasche about his criticism of the use of the E-Stop as an isolation measure. After a series of exchanges in oral evidence, Dr Rasche agreed that "*there's an ease of reversing the effectiveness of the emergency button by someone just reversing it."*[44] Under cross-examination by Counsel for Saxon, this exchange occurred with Dr Rasche:

*Yes. But it has the same effect, does it not, because if pressed, it isolates the equipment; is that right?---I guess it does; however, it is not – it is not an accepted means of energy isolation. There's a slight difference. I use an emergency stop if there was an emergency and I want to shut down – shut down the energy. However, as an ongoing means of operating safely, I – I – I, and the industry at large and any safe professional cannot support the use of energy iso – emergency stops.*

*It has the same effect, does it not, in that it means that the piece of equipment won't be used – can't be used?---Well, it has the effect of shutting down the energy.*

*Yes. It shuts down or isolates the energy - - -?---Yep.*[45]

124. Ms De Landre, the author of the SafetyWise Solutions Report, said this about the E-Stop:

*The physical location of the E-Stop on the floor was if there was an issue going on, you would have to almost place your – or you would be placing yourself in the path of a moving – what you would consider a very significant hazard in order to actually depress that. And the E-Stop itself did not meet Australian design standards: the shrouding, the colour, the location. And so when the event actually occurred, the natural reaction, I believe, would be you'd want to move away from any perceived danger, as opposed, in reality, you had to move towards it if you were going to be pressing it. But it wasn't only that. We also had a situation going on where that E-Stop was being used in normal operations as an isolation-type device. So it wasn't primarily seen as the oh no button and we press it. It was seen as an everyday thing that we're using all the time as an isolation-type button on the floor.* [46]

### *Administrative controls*

125. There is no evidence to suggest that at any time prior to Gareth's death, there was any documented policy, procedure, or work instruction applicable to rig 185 that directed workers to activate the E-Stop on the rig floor before entering the danger zone between the ST-80 and the drill string. It seems there was an informal practice adopted by the rig crew of doing so, but there is divergent

[43] p.12, p. 19.
[44] Inquest Transcript, Day 6: T9-10: L14.
[45] Inquest Transcript, Day 6: T15: L4-14.
[46] Inquest Transcript, Day 6: T12: L33-44.

evidence about when that practice commenced and how strictly it was implemented.

126. Following the rig 188 incident, there was an HSE Meeting at rig 185 on 28 April 2013. The report of that meeting records the attendance of all the relevant crew. The report records the topics raised in the meeting as:

- *Time out for safety*
- *Always isolate ST-80 when not in use*
- *To use pinch between ST-80 and Stump*
- *JSA to be adjusted*

The "recommendations" recorded in the report are "*Check JSA (Job Safety Analysis) relevant"* and "*Include isolation into PTW* [Permit to Work] *for tongs*".

127. Saxon issued a Safety Alert which included the following recommendations about controls to mitigate the risk of workers being struck by the ST-80:

*"1. Issue alert to all Saxon rigs. Expected closure 30/4*
*2. Update the following TRA's (making connection B2, Tripping out of hole C6 and rigging in and operating manual tongs B3) to include and reference isolation of ST80 when using Manual Tongs. Expected closure 30/4*
*3. Relocate (or install another) isolation ball valve to isolate Iron Roughneck from HPU when Iron Roughneck not in use.*
*4. Mandate PTW verifier as Tour pusher or Driller only. Implemented by this alert.*
*5. Ensure all crew member are briefed on this alert at Safety Sunday for the following 8 weeks. Acknowledgement must be signed and dated by crew and forwarded to HSE Manager."*

128. The 2nd recommendation did not extend to updating any of the Saxon safety management system documents to include the risk to workers from the ST-80 other that when using manual tongs. As such, it did not apply to the work Gareth was doing at the time of this incident.

129. There was an HSE Meeting of the rig 185 crew at 12:38pm on 23 June 2013. The meeting report records the attendance of Gareth, Mr Kilby and Mr Mullings. The topics raised were: "Tripping out of hole"; "keep an eye on your mate"; and "two people pulling slips". The recommendations/corrective actions noted were "PPE at all times" and "review JSA".

130. The Saxon JSA Worksheet for "Set in slips. Position Dog Collar. Remove Dog Collar. Remove Slips" does not mention the ST-80, or the hazard of working in the danger zone between it and the drill string or identify any risk to workers from the ST-80.

131. Mr Lloyd agreed in evidence that this JSA should have been reviewed after the rig 188 incident to include reference to the E-Stop as an isolation measure.

132. The Work Instruction for the task of "Set in slips. Position Dog Collar. Remove Dog Collar. Remove Slips" does not include any reference to the use of the E-Stop on the rig floor or any other means of ensuring the ST-80 was not activated while performing the task. That is despite the Instruction having been issued on 10 May 2013, after the rig 188 incident and before Gareth's death.

133. The JSA Worksheet for "POOH BHA" and the Work Instruction for "Remove BHA" are also lacking any mention of the hazard posed by the ST-80 or any

instruction to workers to activate the E-STOP on the rig floor or otherwise communicate with the driller to ensure the ST-80 was not activated while workers were on the rig floor.

134. Mr Beswick agreed, in oral evidence, that the hazard posed to workers by inadvertent operation of the ST-80 during these tasks should have been recognised in the work instructions. However, he said that prior to the rig 188 incident, he didn't think it was such a particular concern that it was necessary to review and amend the relevant JSAs or Work Instructions.

135. Dr Rasche concluded that there was "less than adequate job safety analysis on rig 185".

> *Critical hazards and resultant risks such as being crushed by the ST80 or other mechanical equipment, or say entanglement in the drill pipe are not covered in the JSA. This denies the worker any assistance recognizing the hazards, associated dangers and a safe method of work, and also denies the writer of work instructions and training materials vital safety information.*[47]

136. Dr Rasche also considered that the work instructions were "*of poor quality and offer little to no value in terms of safety as they omit critical steps such as energy isolation, other important instructions (e.g., body positioning) and basic PE requirements."*[48]

137. Mr Kilby gave evidence that it was "desirable" for a JSA to have been done specifically in relation to the Bottom Hole Assembly task, but the crew did not do one on the day of the incident due to "time constraints". [49]

138. The Task Risk Assessment Worksheet for "Using ST80 for break out operations" makes reference to use of the E-Stop only once, at the point the break operations have finished. It provides: "

> *Ensure you close the HPU isolation valve to the ST 80 and activate the E- Stop button on the ST80* ***after use****.*
>
> *Driller to ensure the ST80 HPU isolation valve is closed* ***whenever ST80 is not in use****.*
> (My emphasis)

139. Mr Dixon said there was a pre-tour meeting at the start of the shift that day. He initially said he couldn't remember what was discussed. Then he said it was "just safety stuff". When asked to clarify what he meant he said there was definite discussion of the ST-80, "where to stand, where not to stand". He said he thought the use of the E-Stop was also discussed but couldn't remember exactly what was said. He was certain that it was necessary for the floor crew to position themselves between the ST-80 and the drill string in order to set the dog collar. He thought it was a matter for them to discuss and decide between them who activated the E-Stop on the rig floor.[50] When I asked Mr Dixon whether there was some direction to workers that they must not go onto the rig floor without the E-Stop being pressed, he said "yeah" but didn't know if it was written down anywhere. [51]

[47] p. 16.
[48] p. 18.
[49] Inquest Transcript, Day 1: T53: L4-8.
[50] Inquest Transcript, Day 2: T11-13.
[51] Inquest Transcript, Day 2: T14: L18-28.

140. In his statement to the Inspectorate investigation, Mr Dixon said:

> *The emergency stop is meant to be activated before the slips are set. Pushing the emergency stop meant that the Driller could not activate the ST-80. As far as I know, there was no set procedure on who was meant to push the emergency stop. Generally there would be a discussion between the crew on the floor as to who was required to push the emergency stop next at the time of completing the task. Once the slips are set by the drill floor crew, the emergency stop is released to allow the Driller to operate the ST-80.*
>
> *During the work task of removing the bottom hole assembly, the staff on the rig floor communicate using hand signals, for example a thumbs up or a head nod to indicate to the Driller that the emergency stop has been activated.*[52]

141. At the inquest Mr Dixon gave evidence that he could not say that the floor crew always activated the E-stop on the rig floor when they were working around the ST-80. He recalled that being discussed after the rig 188 incident but could not say it was always done, even after that incident. He said the crew relied on the driller to be aware of what the crew were doing.

142. Mr Mullings gave evidence that he usually worked on the rig floor with Gareth but they didn't have any formal discussion, practice or agreement about who should activate the E-Stop. He said "*whoever went inside usually did the e-stop. It was their – their responsibility if they were going inside to activate it."* [53] Mr Mullings recalled discussing the rig 188 incident in safety meetings[54] and toolbox talks but said he did not receive any further training on the ST-80 following that incident and before Gareth's death.

143. Mr Jenner said he was told, after the incident on rig 188, that the E-Stop on the ST-80 was to be used in case of an emergency and as "an isolation point" when someone was "in between those derrick legs".[55] He said that "wasn't an initial safety measure put in place."[56] He could not recall ever being told, prior to the rig 188 incident, to use the E-Stop as a way of isolating the ST-80 during ordinary operations. However, he said this was a requirement across the company after the rig 188 incident.

144. Mr Speed gave evidence that prior to the incident on 23 June 2013, Saxon only required workers to press the E-Stop when they had to work between the ST-80 and the drill string, noting that there were hazards other than the ST-80 in the area designated by the yellow mat marked 'danger'. He also said that the task of tripping out did not require a Permit to Work because that task was considered routine and not complex.

145. Mr Lloyd, the RSTC for rig 185, gave evidence that 'in the early days of the rig operation' crew members were not required to use the E-Stop as a means of isolating the ST-80. He thought that requirement commenced in response to the rig 188 incident. He said that prior to Gareth's death he had heard the driller or derrickman telling floor crew to use the E-Stop many times.

146. Dr Rasche told the Court that having the driller watch the floor crew undertake their work on the rig floor was also an administrative control.

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[52] at [28]-[29].
[53] Inquest Transcript, Day 2: T29: L46-47.
[54] Including the one on 23 June 2013.
[55] Inquest Transcript, Day 2: T52.
[56] Inquest Transcript, Day 2: T49: L1.

147. Mr Kilby also gave evidence that he felt Saxon and Santos each encouraged workers on site to identify safety concerns and speak up about them.

*Training on ST-80*

148. Mr Kilby gave evidence that he had never been given any particular training in how to stop the forward motion of the ST-80 in the case of an emergency. He couldn't recall if he had any refresher training following the incident on rig 188.

149. Mr Dixon said he thought there were SOPs (Safe Operating Procedures) or JSAs in relation to the ST-80 but could recall having any emergency training in relation to the ST-80 before or after the rig 188 incident.

150. Mr Mullings gave evidence that he didn't have anything to do with the operation of the ST-80 as a Leasehand. He was never given any formal training in respect of emergency situations involving the ST-80 but had been given some informal training outside on the drill floor. He described the training as "*basically, just what it does and you'd be standing clear, essentially*."[57] He said this about what he was told about the E-Stop: "*When it wasn't in operation, if we were near the ST-80, inside, obviously just be aware and it would usually have the e-stop activated*".[58]

151. Mr Jenner said in his statement to investigators, and confirmed in oral evidence, that he received informal, on the job, training on the ST-80. He said he was aware there was a manual for the ST-80 but had not read it himself. He had not received any training in or opportunity to practice how to stop the ST-80 in the case of an emergency.

152. Mr Speed gave evidence that while he was the night tourpush, sometime after May 2012, he received some training on how to use the E-Stop on the ST-80 in an emergency. However, he could not recall any specific discussion or further training about that after the rig 188 incident.

153. Mr Lloyd could not recall any formal training program for the ST-80. Rather, he said, it was done on the job. He recalled occasions when the driller or derrickman would tell Leasehands where to stand or not stand. Mr Lloyd said he did not think that there would have been benefit in having formalised training in the use of the E-Stop as a means of isolating the ST-80.

154. Mr Beswick gave evidence that he had shown rig crew members how to activate the E-Stop on the rig floor. He said this had occurred prior to Gareth's death but he could not recall if the rig 188 incident had been the catalyst for that training. He initially said that he didn't believe there was any practice or expectation by him, prior to the rig 188 incident, that workers would use the E-Stop to isolate the ST-80 when undertaking the routine work of tripping out. Under cross-examination by counsel for Saxon, Mr Beswick was taken to evidence he had given in the industrial prosecution of Saxon and Mr Kilby. He conceded that the procedure regarding the use of the E-Stop had actually been in place prior to the rig 188 incident, but that it was 'enforced' by Saxon after that incident. It was

[57] Inquest Transcript, Day 2: T29: L14-15.
[58] Inquest Transcript, Day 2: T29: L16-25.

clarified that Mr Beswick's evidence previously was not that the practice was 'enforced' but that "it would have been brought up at least verbally in meetings".[59]

*Qualifications and experience*

155. A significant amount of oral evidence at the inquest was focused on the skills and qualifications of the rig 185 crew on 23 June 2013. A Santos training matrix for the rig 185 crew records that, as at 13 June 2013, none of the crew who were ultimately working on 23 June 2013 (other than Cliff Monks, who is not listed in the matrix) had completed the qualifications necessary for their roles.[60]

156. The DNRM Inspectorate Report concluded that "*lack of training, supervision, and experience of people on the rig were contributing factors"* [61] to the incident. Mr Barron explained that finding as follows:

> *So we looked at the people on the rig floor and the – we included the rig managers as well. We looked at what their qualifications were in –in relation to their positions and what we found was – so there were some mandatory requirements for – for training, which is a – a safety requirement under the Act, under out Act. And what we found was the guys on the floor were enrolled but not yet competent.* [62]

157. Counsel on behalf of Saxon has submitted that this conclusion is a misunderstanding of the requirements of the *Petroleum and Gas (Production and Safety Regulation) 2004* (now repealed) (P & G Regulation) and the Drilling Competency Standard applicable at the time. The misunderstanding arises from the definitions of 'competent person' and 'direct supervision' as outlined in the Regulation and the Standards.

158. At the time of this incident, section 54AA of the *Petroleum and Gas (Production and Safety Regulation) 2004* (now repealed) provided:

> ***54AA Operator to ensure drilling rig workers meet competency requirements***
> *(1)The operator of a drilling operating plant must ensure each person working on a drilling rig, that is drilling a prescribed well at the plant, meets the required competencies identified for their position under the drilling competency standard.*
> *(2) However, subsection (1) does not apply if the person is—*
> *(a) undergoing training for the required competencies; and*
> *(b) acting under the direct supervision of a competent person for the drilling rig.*
> *Note—See also section 166 for the application of this section.*
> *(3) In this section—**drilling competency standard** means the document titled 'Competency Standard for the Petroleum and Gas Drilling Industry (2011)' published on the department's website.*

159. The Drilling Competency Standard applicable at the time relevantly provided as follows:

> ***Direct Supervision***
> *Section 54AA (2)(b) of the P&G Reg uses the term 'acting under direct supervision'. This is not defined in the P&G Reg and so for the purpose of interpreting this term and use under this Standard, it is proposed that 'direct supervision' be defined as:*

[59] Inquest Transcript, Day 5: T34: L23-26.
[60] It is noted in the DNRM Inspectorate Report that Gareth had, in fact, completed his Cert II training, and had been certified as competent by Cliff Monks at 12:30pm on the day of his death. The Santos training matrix relied on in court had not been updated to reflect this.
[61] p. 5.
[62] Inquest Transcript, Day 5: T59: L21-26.

*'The person conducting the work has been clearly instructed by a competent person on the site of the work **and** the person supervising maintains the ability for positive contact with that person, (i.e. they can talk face to face if need be) should a question arise'.*

*In essence, this means that the competent person supervising must be on site and capable of providing face to face supervision as required on each and every shift.*

***Competent person***

*In most cases rig crews are undergoing training as permitted under section 54AA (2)(b) of the P&G Reg, however, this means that an operationally competent person is required to supervise them.*

*The supervising person must be able to provide evidence of their competence and to a level equal to or higher than the person conducting the work. The holding of a Diploma or Advanced Diploma is not in itself sufficient unless the person can demonstrate they have the hands on experience for the role that they are supervising.*

160. Counsel for Saxon points out, in written submissions, that the interaction between these two sections means that a 'competent person' may still be undergoing training for their position and still be acting under 'direct supervision', and that 'direct supervision' is the ability to have contact with the supervisor should a question arise.

161. I accept that, in accordance with these provisions, all members of the rig crew who were working on the day that Gareth died were competent and working under direct supervision. In accepting that Saxon complied with the relevant legislative provisions in respect of training and supervision, however, I do not accept that having relatively inexperienced crew working and supervising each other up that chain was best practice. I note that various members of the crew had differing views as to their own competency and that of other crew members.

162. Cliff Monks was the Day Tourpush on 23 June 2013. He told investigators he had a Diploma in drilling (which is a higher qualification than Certificate III); over ten years' experience in the drilling industry and had been working for Saxon since July 2012.

163. Mr Kilby said that, in hindsight, he thought he was not sufficiently experienced to be a driller at the time of Gareth's death. He explained that he was probably the least experienced derrickman, in terms of hours, in the crew he was promoted to driller. However, under cross-examination by counsel for Gareth's family, Mr Kilby explained that at the time he accepted the promotion to driller he was nervous but felt he was capable.

164. Mr Mullings had no experience in the drilling industry prior to commencing work on rig 185 very shortly before Gareth's death.

165. Mr Jenner had been working for Saxon for about a year at the time of Gareth's death. He had four years' experience in the drilling industry.

166. Craig Speed, the incoming Rig Manager and Saxon Site Safety Manager on rig 185 on 23 June 2013, had more than 18 years' experience in the drilling industry at the time of this incident. Before being promoted to Rig Manager, he was the night tourpush for rig 185 and had management of the rig overnight. He gave evidence that he was satisfied the crew of rig 185 were competent and those who had not completed their required qualifications were at all times directly supervised by sufficiently competent and qualified personnel.

167. Mr Lloyd, the RSTC for rig 185, gave evidence that he didn't see it as a problem that none of the crew from Mr Kilby down, on 23 June 2013, had yet completed the qualifications imposed by the Standard. He thought they were a competent crew.

168. Dr Rasche concluded that there was less than adequate training, competency, and supervision status of workers on rig 185. He reported:

> *It appeared that most workers involved in the incident at rig 185 were carrying out their duties at a higher level than their actual competency.*
>
> *It was also apparent that some key personnel had only recently been promoted to their roles - while they may have been competent against certain assessment standards, actual job competency and skill may have been less than adequate for the complex and variable working environment on a drill rig.*
> *…*
> *It is my opinion that, allowing an operational (pyramid) structure where relatively inexperienced workers supervise trainee workers who in turn may be responsible for the safety of other trainee workers, creates an easy pathway to an accident.*[63]

169. I note that Dr Rasche's views do not depend on the misinterpretation of the Regulation and Standards pointed out by Saxon but points out the inadequacies of the structure which was allowed by those legislative provisions at the time of Gareth's death.

### *Oversight*

170. The DNRM Inspectorate Report, Santos Addendum examined the interaction between Saxon and Santos and the "accompanying safety management systems". The Summary of that report, relevantly, included the following:

> *Rig 185 safety management system was not adequately implemented and verified prior to the incident. The Safety Management Plan, including equipment compliance, was subjected to a Santos prequalification process that did not identify equipment noncompliance. Santos applied oversight, or monitoring of rig 185 activities as part of their contractor management. Developing competency and supervision issues were identified yet it appears Santos did not intervene.*
> *Formal hazard identification and risk assessment processes were required to be implemented by Saxon and Santos, as per their respective Safety Management Plan's, with Santos conducting reviews to ensure identified risk controls were in place. Inadequate risk controls around the ST-80 activities were identified as contributing to the death of Mr Dodunski. Santos did not identify the lack, or inadequacy of some of the ST-80 risk controls.*[64]

171. Mr Schefe, the Santos OCR (Operating Company Representative) and Santos Safety Manager for rig 185, gave evidence that it was part of his duties to monitor and ensure Saxon's compliance with its safety management plan for the site. That involved weekly audits and regular informal inspections as well as attending site safety meetings. He did not have any line management authority over the Saxon rig crew, but would regularly communicate and liaise with the rig manager, Mr Beswick. Mr Schefe said that, after the rig 188 incident, there was regular discussion at safety meetings on rig 185 about the need to use the E-Stop button

[63] p.18-19.
[64] p.6.

on the ST-80 as an isolation measure whenever a worker was inside the 'danger zone'.

172. Under cross-examination by counsel for Gareth's family, Mr Schefe agreed that he did not identify any need for an audible alarm or flashing lights on the ST-80 before Gareth's death. He agreed that there had not been any concerns raised with him about the operation of the ST-80 before Gareth's death and Santos had not given Saxon any direction regarding the use of the ST-80 after the rig 188 incident but before Gareth's death. He said he was not aware of any modifications to the ST-80 as a result of the rig 188 incident before Gareth's death.

173. In terms of Santos' oversight of the training and qualifications of the Saxon rig crew, Mr Schefe gave evidence that he received the skills and training matrix and understood that the crew were progressing through their required competencies under the supervision of the rig manager but did not have any line-management control over the progress of their training. He said it did not bother him that none of the rig crew on 23 June 2013 had completed the required qualifications for their positions because he thought they were "an exceptional crew".[65]

174. Mr Gordon, the Santos EHS advisor, said in oral evidence he was concerned that the recommendation arising from the rig 188 incident to install a dedicated isolation control on the rig floor was not implemented on Queensland rigs and he reported that concern to the Saxon rig manager at the time, although he couldn't recall the name of that person.[66]

175. Mr Gordon also addressed the role Santos had in relation to overseeing the training and competency of the Saxon rig crew. He said:

> *We would generally review and just ensure that obviously the key training requirements were done. Our – or in process. Like, it would say in the competencies that crew members were either enrolled or had completed it, and then for your senior personnel like your drillers, rig managers, night pushers that they had relevant well control certification as well.* [67]

176. Mr Anthony, the Santos Group Risk and Audit Manager and head of safety for Santos at the time of Gareth's death explained that Santos had a monitoring and oversight role for Saxon as the operator of rig 185 that involved ensuring that Saxon was complying with its own safety management plan for the site. He described the response to the rig 188 incident by Santos as follows:

> *Following the Rig 188 Incident, Saxon informed Santos of its improvement actions through discussions and by way of a HSE Alert Bulletin dated 30 April 2013. I understand that Saxon gave briefings in relation to the Rig 188 Incident, and associated lessons and improvements, to its rig personnel in South Australia and in Queensland.*
>
> *Santos issued its own D&C EHS Flash dated 28 April 2013 in relation to the Rig 188 Incident to communicate the improvement actions and learnings throughout Santos. Santos' Vice President Technical and Engineering, who had accountability for Drilling and Completions, met with Saxon following the Rig 188 Incident and prior to the Rig 185 Incident to discuss Saxon's safety performance and seek assurances from Saxon that the learnings and improvements arising from the Rig 188 Incident had been applied*

[65] Inquest Transcript, Day 3: T43: L18-31.
[66] Inquest Transcript, Day 4: T14.
[67] Inquest Transcript, Day 4: T29: L15-19.

*to all Saxon drill rigs at Santos operations in Australia. I understand that those assurances were provided by Saxon during that meeting.*[68]

177. The Santos alert issued on 28 April 2013 in relation to the rig 188 incident identified the failure to isolate the ST-80 before the tongs were used as one of the things that 'was learnt' from the incident.

178. Mr Anthony said he knew that following the rig 188 incident that the recommended changes to the secondary HMI screen was implemented at rig 185 but the recommended installation of a HPU isolation valve for the ST-80 was not.

## Subsequent Improvements to safety management systems

179. Prior to inquest, the Court required Saxon and Santos to provide information from a suitably qualified person as to the changes and improvements in safety management systems and equipment, since Gareth's death, to address the risk or injury arising from the operation of the ST-80.

### *Saxon*

180. Saxon provided a statement from their current Health and Safety Manager and Operations Integrity Manager, Jason Bosnjak. Mr Bosnjak has 22 years' experience in health and safety in the petroleum industry with the Australian Army and with Saxon. At the time of Gareth's death, Mr Bosnjak was a Rig Safety Training Coordinator for Saxon.

181. Mr Bosnjak gave a written statement to the court in which he explained that, in his role at the time, he was not directly involved in Saxon's response to Gareth's death, but that that Saxon took the following steps in July 2013:

- *A hydraulic isolation valve was installed at rig floor level on each rig so that hydraulic power to the ST-80 can be isolated by rig floor workers;*
- *Dual 'push to run' controls were installed on each rig. This means that ST-80s are only able to be activated when a rig floor worker turns on a lever to give hydraulic power to the ST-80, then holds down a button on the rig floor, and at the same time, the Driller holds down a button on the HMI screen. If either the Driller or the rig floor worker removes their finger from the respective buttons, the ST-80 will stop. The push to run controls are 'momentary' in that they must be continuously depressed in order for the ST-80 to continue moving;*
- *Audible sirens and visible beacon lights were installed on the ST-80 to warn rig floor workers when its arm is about to extend, and while it is in activation;*
- *Saxon painted the travel area of the ST-80 and the Driller's line of sight on each rig in red (which means no go zone);*
- *Saxon replaced the e-stop buttons on the ST-80s and had them function-tested by a licensed electrician qualified to work on the rigs;*
- *A tool stop button was installed on the ST-80 HMI screen. When pushed the button deactivates all the valves controlling the ST-80;*

[68] at [19]-[20].

- *A software interlock was implemented between the ST-80 and tongs so that the tongs can only be operated only when the ST-80 is in the home position; and*

- *Saxon prepared a Job Safety Analysis (**JSA**) in July 2013 entitled 'Make Up / Break Up Tubular with ST-80.' Relevant controls referred to in the JSA include isolation through the hydraulic isolation valve and HMI tool stop button, dual momentary push buttons and visual and audio warnings.*[69]

182. Significantly, Mr Bosnjak advised the Court that Saxon (SLR) currently has contracts in place with clients for only four rigs fitted with an ST-80, one of which is contracted Santos. He explained that Saxon has retained the changes implemented in 2013 and added further safety improvements to the ST-80 since then. These are set out in detail at paragraphs 73 to 86 of his statement and include improved isolation measures; 'red zones'; improved risk assessments and procedures; training; audits; and limited entry to the driller's cabin.

183. Mr Bosnjak also explained Saxon's responses to the various recommendations made in the Inspectorate Reports and expert statements, most of which have been implemented by Saxon.

184. Santos provided a statement from current Group Risk and Audit Manager, Andrew Antony. Mr Antony is a chemical engineer with 22 years' experience in health, safety and management in the mining industry, the last 20 of those with Santos. At the time of Gareth's death, he was Head of Safety for Santos.

185. Mr Antony gave a written statement to the court which confirmed Santos' knowledge of the changes and improvements that Saxon made to their safety management systems and equipment to address the risk arising from the ST-80, both after the Rig 188 incident and the incident on rig 185 that resulted in Gareth's death. Mr Antony advised that, following Gareth's death, Santos suspended rig operations in Queensland and South Australia, while:

> *Santos discussed Saxon's proposed improvements with Saxon during their development, and independently considered the appropriateness of them and whether they addressed the underlying causes of the Rig 185 Incident.*[70]

186. Mr Antony explained that rigs were not permitted to restart until all improvement actions had been completed, verified and signed off on by Santos.

187. Mr Kilby gave evidence that he had thought a lot about improvements that could be made to safety management systems since Gareth's death. He said:

> *That, yeah, the dead man switch is the most obvious one, to my mind. And then giving an isolation point that wasn't in the danger zone for the rig workers to have some control over for the own benefit and to know that they could control it. And then also the driller to have an emergency stop button that they could directly press. And yes, having it with sirens and things is great. And, I think, just having a better – like, even the screen layout, it's so confusing that, I think, you could make that a lot more intuitive. And – and better training. Like, I – in the terms of having to go through, like, a proper Omron course or something like that instead of just relying on monkey see, monkey do.*[71]

[69] at [32]-[59].
[70] G1, [23].
[71] Inquest Transcript, Day 1: T51: L2-10.

188. Mr Speed confirmed each of the changes described in Ms Bosnjak's statement were made after Gareth's death, but could not explain why they were not implemented before Gareth's death and particularly in the two months after the rig 188 incident.

189. Mr Gordon described the changes in Santos' oversight and commissioning process since Gareth's death as follows:

> *So from the process we apply now, as I stated before earlier, the commissioning side of it is very extensive. We physically check equipment. We would be supplied registers and we would physically check that those registers align with the equipment on site. Another process is from our – the safety coaches' role is we would have certain topics we would verify when we went to a site, and they included covering – ensuring exclusions zones for various tasks. So if it was working at heights confined space lifting, we would ensure the exclusion zones are in place. Permit to work was one of them. And it would only be done on open permits – so live permits. So we would physically grab that permit off the board and then we would ensure the controls that are in place – or that are written in place and signed off as verified, we would physically go and check that was – that was occurred.*[72]

190. None of the Saxon or Santos witnesses, other than Mr Bosnjak, could offer any explanation as to why the changes made at rig 185 after Gareth's death were not made earlier and, particularly, in the two months between the rig 188 incident and 23 June 2013.

## SUBMISSIONS BY PERSONS REPRESENTATED AT INQUEST

191. These findings are much aligned with the written submissions by Counsel Assisting. I have deliberately done so because they are comprehensive and were largely adopted by the legal representatives for persons given such leave at this Inquest. I have already noted, where apposite, some of these submissions above.

### *Mr Kilby*

192. Mr Trevino KC urged this Court to adopt the submissions made by Counsel Assisting to the effect that Mr Kilby activated the ST-80 in a moment of distraction and inadvertence and immediately tried (albeit unsuccessfully) to retract the ST-80. Further, that there is no evidence before the Court to suggest that Mr Dodunski's death was caused by incompetence or gross negligence.

193. With the caveat from acknowledgement by Mr Kilby that his inexperience was a causative factor in this death, I accept that submission. Mr Jacob Kilby, whose momentary inattention was a major contributing factor to Gareth's death, was an impressive witness. He was contrite, credible and readily acknowledged his failings. He contributed to the investigation of improvements to prevent repetition such a tragedy and his distress was still apparent some nine years after the event.

[72] Inquest Transcript, Day 4: T26: L7-18.

*Mr Thomas*

194. Mr McCafferty KC had the difficult task of defending the character of Mr Thomas. I have noted earlier that I consider his self-appointment as "liaison" between Saxon and the deceased's family to be so littered with conflict of interest that it was reprehensible. He was also an unimpressive witness. However, more forensically, Mr McCafferty properly pointed to the fact that there was a dearth of evidence to conclude that Mr Thomas did have responsibility for safety on rig 185 and/or that his conduct (or lack thereof) contributed to the circumstances surrounding Mr Dodunski's death. McCafferty was also quite correct in submitting that Mr Thomas's personal interactions with the family following this tragedy had little relevance to my enquiry into the causes of this fatality and might well breach the prohibition pursuant to the *Coroners Act (Qld*) regarding suggestion of criminal or civil liability.

*Dodunski Family Submissions*

195. The Dodunski family were represented by Mr Patrick Wilson of Counsel, instructed by the Caxton Legal Service at the Inquest. They chose to make submissions without his assistance, which were received in early April, this year. Unfortunately, most of their contentions related to technical aspects of the ST-80's operation which were not put to witnesses in as much detail before the Inquest; attacked the credibility of Mr Kilby and Mr Thomas with selective extracts from unsworn witnesses like Mr Marshall (who did not give evidence at the Inquest); and effectively attacking the Industrial Courts' decisions to acquit Mr Thomas, Mr Kilby and Saxon.

196. There is little assistance given to this Court through comparing and contrasting evidence given over a ten-year period and relying solely on business records to establish complex scenarios. I can give little weight to contentions that were not put to witnesses who might contradict them. More importantly, this Inquest cannot act as an intermediate appellate court reviewing unsuccessful prosecutions.

197. Mr and Mrs Dodunski also raised further allegations against Saxon in a written communication to me, which was provided after the Inquest had been closed. I gave Saxon the opportunity to respond to those allegations, which it did. Those communications with the Court have not been included in the exhibits before the Court. The allegations relate to some differences in various versions of the Daily Drilling Reports for rig 185 that are in evidence. I find that the differences in those reports have been adequately explained by Saxon in its response to the Court and, in any event, the differences do not raise any issue with respect to the circumstances surrounding Gareth's death. (I have found that here is no foundation in the evidence for any allegation of wrongdoing by Saxon, either after the incident or in the investigation of it by the Inspectorate or this Court.)

198. I do not wish to characterise the Dodunski family submissions as unhelpful or pernicious. They assisted me in better understanding of the technical aspects of the operation of the ST-80 and gave great insight into the excellent character of the deceased. The submissions certainly supported many of the criticisms of Saxon's operations which formed the background to this tragedy highlighted in these findings. Further, they reinforced my respect for the Dodunski family's

tenacity in exposing the flaws in the work, health and safety procedures which caused this tragedy. I was particularly moved by this concluding paragraph:

> *In closing your Honour we would like to say, Grief is pernicious and a daily battle to endure. It doesn't ease you carry it every day like a weight that you can never put down, we were handed that weight by the actions or lack of action of individuals and these Companies.*
>
> *We have felt that Gareth was forgotten during all the previous legal processes and it is our opinion from being subjected to it that Gareth's fatality has not been dealt with fairly or justly.*
>
> *Gareth is of the utmost importance, Gareth is the victim in all of this and he matters and his life mattered and it was cut short because of the act his Driller committed and so many critical safety failures by management and these Companies, and the inconceivable tragedy in all of this is that it was so obviously foreseeable and easily preventable by them all. We have to live with that knowledge every single day.*
>
> *We would like to submit if we may, this quote in regard to safety from Sir Brian Appleton: "Safety is not an intellectual exercise. Safety is truly a matter of life and death. The sum and quality of our individual contributions to the management of safety determines whether the colleagues we work with live or die".*

199. The Dodunski family also raised a number of concerns specific to RSHQ. Those questions did not relate specifically to this investigation into the cause of this fatality but were helpfully directly answered by RSHQ.

### *Saxon*

200. Mr Glynn and Mr Scott provided comprehensive and helpful submissions on behalf of Saxon, Mr Bosnjak and Mr Speed. Primarily, these submissions dealt with criticisms of Saxon Safety Management Systems in particular, the ST-80 commissioning process, training, expert reports, engineering controls, administrative controls and specific criticisms of Saxon by the Dodunski family. The was a helpful outline of work health and safety measures undertaken in 2013 and submissions regarding future preventative measures (which are dealt with in the later "Recommendations").

201. I have made specific findings in relation to most of these aspects of this Inquest. It is clear that Saxon had a safety regime in place but there were deficiencies, which are highlighted in my findings. I am disappointed with the attacks, in Saxon's submissions, on the expertise of expert witnesses Ms de Landre, Inspector Ian Bartels and Dr Rasche called at the Inquest. There was no objection to the opinion evidence of these witnesses at the time of the Inquest and no evidence before me contradicting their opinions.

202. A substantial part of the Saxon submissions to this Inquest dealt with issues rebutting contentions made by the Dodunski family attacking the credibility of Mr Kilby and the factual basis of the prosecutions of Saxon, Mr Kilby and Mr Thomas. As I have indicated earlier, the purpose of this Inquest is not to review failed prosecutions but to investigate the causes of this tragedy. Accordingly, I

do not propose to traverse those issues but I understand why Saxon's lawyers have addressed them. I have accepted the submission by Counsel Assisting that Mr Kilby activated the ST-80 in a moment of distraction and inadvertence as was brought out in the consistent accounts of Mr Kilby and Mr Dixon during the investigation, prosecutions and at this Inquest.

203. I accept the importance, as submitted, of Saxon undertaking a comprehensive review of the circumstances of the incident and what could be done to eliminate the risk of the Incident occurring again in the future. The steps taken by Saxon in response to the Incident were comprehensive. It involved both the introduction of engineering controls as well as training staff in new safety procedures. Helpfully they were identified from the statement of Mr Jason Bosnjak:

    a. *installation of a hydraulic isolation valve at rig floor level on each rig so that hydraulic power to the ST-80 can be isolated by rig floor workers;*
    b. *dual push to run controls were installed on each rig, which means the ST-80 can only be operated if both the driller and a worker on the rig floor press and hold down buttons to activate the ST-80;*
    c. *audio and visual alarms were installed to warn rig floor workers when the ST- 80 was in activation;*
    d. *additional floor markings were painted onto the travel area of the ST-80 to warn workers of the ST-80's path and the driller's line of sight;*
    e. *a rubber flap was installed at the base of the ST-80 so that items cannot get stuck under the ST-80 when it is in operation;*
    f. *the e-stop buttons were replaced on the ST-80s and were function tested by a qualified electrician;*
    g. *a tool stop button was installed on the ST-80 HMI screen which, when pushed, deactivates all the valves controlling the ST-80;*
    h. *a software interlock was implemented between the ST-80 and the tongs so that the tongs can only be operated when the ST-80 is in the home position; and*
    i. *a new Job Safety Analysis entitled 'Make up /Break up Tubular with ST-80' was prepared.*

## *Santos*

204. In June 2013, the operation of drilling activities on a petroleum authority were governed by the P&G Act. Santos Toga Pty Ltd was the holder of a petroleum authority, PL 232, near Injune in Queensland. This was a site Santos held with a view to developing operations for coal seam gas extraction. As part of that, Santos contracted Saxon Energy Services Pty Ltd ("Saxon") to drill a number of coal seam gas wells on the lease. As the evidence makes plain, Rig 185 was owned by Saxon, and operated by Saxon employees.

205. Mr Holt KC and Mr Dighton for Santos submitted that:

    a. *The Santos safety management system complied with the relevant statutory obligations imposed at the time on Santos and its statutory operator, and was otherwise an adequate safety management system for a petroleum authority holder;*

    b. *Those statutory safety obligations intersected with, but did not overlap, the statutory safety obligations of Saxon (as the owner of Rig 185) and its statutory operator with respect to Saxon's operations and personnel;*

c. *The actions taken by Santos in seeking to check that Saxon had identified and remedied the risks posed by manual use of the ST-80 by Saxon's workers following the Rig 188 incident were consistent with its role and obligations under the Santos safety management system, and were reasonable in the circumstances given the risk identified and information available at the time of the Rig 188 incident;*

d. *No act or omission by Santos was a contributing factor to the tragic death of Mr Dodunski; and*

e. *The improvements made to the procedures and controls relevant to the operation of the ST-80 following the Rig 185 incident were detailed and comprehensive and remain effective in addressing the identified safety risks.*

206. Santos' counsel concluded that the causative elements in the death of Mr Dodunski and the fact that they do not relate to anything for which Santos was responsible. Notwithstanding that position, they submitted that Santos sought to assist the Court in the constructive approach required by the stated task of this inquest, through the evidence of Mr Schefe, Mr Gordon and Mr Antony. I agree. This evidence was particularly helpful in setting out in detail the regulatory landscape at the time of the incident as well as the steps that have been taken since that time to ensure there can no repeat of what occurred.

### *Resources, Safety & Health Queensland (RSHQ)*

207. Ms Bryson, for RSHQ, explained that at the time of Gareth Dodunski's death, the Petroleum and Gas Inspectorate was part of a division within the Department of Employment, Economic Development and Innovation. Later, the Petroleum and Gas Inspectorate became part of the Department of Natural Resources and Mines, and then the Department of Natural Resources, Mines and Energy. The above changes were brought about via Machinery of Government changes. Following the commencement of the *Resources Safety and Health Queensland Act* on 1 July 2020, the Petroleum and Gas Inspectorate became a division within Resources Safety and Health Queensland, a statutory body with regulatory powers relating to safety in the resources sector.

208. RSHQ appropriately dealt with Issue 3 and Issue 5 before the Inquest.

209. Issue 3 concerned the adequacy and timeliness of investigations into Gareth's death. I have accepted that the evidence before the court is supportive of a finding that the investigation was thorough, comprehensive, and conducted in a timely manner, despite the investigation team not being able to compel witnesses to answer questions. I note that the Dodunski family have made criticisms such as the failure to "drug test" Mr Kilby. I regard them as peripheral. For example, there is no evidence whatsoever that Mr Kilby was under the influence of intoxicating substances during working hours.

210. Issue 5 concerned recommendations and I have adopted the helpful submissions outlined by Ms Bryson in the "Recommendations" section.

211. I wish to thank all legal representatives and the Dodunski Family for their diligent efforts in assisting this Court to traverse such an enormous brief of evidence in their written submissions.

## CONCLUSIONS BY ISSUES BEFORE THE INQUEST

212. Notwithstanding the limitations in analysing evidence from events of up to ten years ago, I make the following conclusions:

Issue 1

213. I find that Gareth died after being struck by an item of drill rig machinery, a 'ST-80' Iron Roughneck tool, which is a large hydraulic torque wrench.

214. On the day of his death, Gareth was working as a Floorhand on drill rig 185, operated by Saxon. The rig was located at a well site on a petroleum lease held by Santos.

215. Prior to Gareth's death, on 23 June 2013, the rig crew on rig 185 were "Tripping out" or "Pulling out of Hole", terms used to describe the process of pulling the drill string out of the drill hole. The drill string consists of numerous lengths of drill pipe, below which are the drill collars and the bottom hole assembly. The lengths of pipe in the drill string are screwed together. As the drill string is pulled out, each length of pipe is unscrewed and lowered down onto the catwalk. The process has substantial involvement of machines. The drill string is pulled out of the hole by the "top drive", which is operated by the driller.

216. The function of the ST-80 during this process is to break the connections between each length of pipe. This process is commenced by the driller, from the doghouse, pressing a button to activate the ST-80, which causes it to extend to well centre. Once activated, it takes the ST-80 only seconds to extend from its home position to the well centre.

217. The ST-80 breaks the connection between the drill string and the length of drill pipe held by the top drive. The disconnected length of pipe would then be lowered onto the catwalk.

218. At the time of the incident that caused Gareth's death, he was working with another crew member, Daniel Mullings, to attach the 'dog collar' to a section of drill pipe on the rig floor. In the adjoining doghouse was the driller, Jacob Kilby.

219. The ST-80 and the top drive are both operated by the driller using controls in the doghouse. The driller sits on a chair facing the rig floor through a glass window. To the driller's right is the derrickman. On the day in question, that person was Jared Dixon.

220. The ST-80 should not be operated while any person is working or otherwise on the rig floor between the ST-80 and the drill string in the 'danger' zone.

221. In this case, at about 3.20pm on the afternoon of 23 June 2013, Mr Kilby activated the ST-80 by pressing a button on the Human Machine Interface (HMI) screen in the doghouse. He did so while Gareth and Mr Mullings were still

working on the rig floor and Gareth was positioned between the ST-80 and the drill string in the 'danger' zone.

222. At the time Mr Kilby activated the ST-80, Gareth was concentrating on his work on the rig floor with his head down and did not see the ST-80 move.

223. In the seconds available, Mr Mullings attempted to warn Gareth of the danger but the ST-80 continued to extend forward, taking only seconds to hit Gareth and crush him against the drill pipe. He suffered catastrophic injuries.

224. The incident occurred in circumstances where Gareth and Mr Mullings were performing a routine task on the rig floor. Neither had engaged the E-Stop on the rig floor before commencing the task of setting the dog collar and Gareth putting himself in the danger zone between the drill string and the ST-80.

225. In a moment of inadvertence or distraction, Mr Kilby activated the ST-80 from the doghouse. He then repeatedly pressed the wrong button on the driller's HMI screen in a frantic attempt to stop the forward motion of the ST-80.

226. The HMI controls for the ST-80 were confusing and liable to produce an error such as the one that occurred. Mr Kilby had not received any formal training on the use of the ST-80 or the process by which it's forward motion might be stopped in an emergency, despite the recent incident on rig 188.

227. There was no E-Stop function on the HMI screen that could have been used to immediately stop the ST-80 and there was no isolation switch or failsafe in place at the time to prevent the inadvertent activation of the ST-80 other that the E-Stop on the rig floor, which was not engaged.

228. Following the incident, the rig crew commenced an emergency response procedure but were unable to establish effective and immediate communications with emergency services. The first successful communication with emergency services was approximately 10 minutes after the incident. Emergency services did not receive adequate directions to the incident scene and encountered difficult access conditions. Santos paramedics based at Fairview first arrived at the scene approximately 70 minutes after the incident.

229. Notwithstanding the delay in emergency medical care reaching the scene of the incident, Gareth's injuries were not survivable and would have caused his death even if the incident had occurred in the vicinity of a tertiary hospital in a major city. As such, the delay in emergency response did not contribute in any way to Gareth's death.

Issue 2

230. I find that the safety management systems in place for rig 185 at the time of Gareth's death were not adequate to prevent or minimise risk of death or injury relating to the operation of the drill rig ST-80 Iron Roughneck tool.

231. The remote controls for the ST-80 on the driller's HMI were confusing and did not include an easy or obvious mechanism to immediately arrest the forward motion of the ST-80 in the case or an emergency.

232. There was no emergency stop function on the driller's HMI screen and the hydraulic emergency stop buttons for the rig did not immediately arrest the forward motion if pressed.

233. There were not adequate high-order control measures in place to prevent or mitigate the risk of injury or death of a worker by the inadvertent or accidental activation of the ST-80 by the driller during routine operations. There were inadequate engineering controls in place, including the absence of a dual-control switch or dedicated isolation measure for the ST-80 on the drill floor. There was no physical barrier to prevent workers being exposed to the risk of being struck by the ST-80 if it was activated during routine operations.

234. The administrative controls in place at the time were also inadequate. The relevant Work Instruction, Task Risk Assessment, and Job Safety Analysis documents did not refer adequately, or in some cases at all, to the hazard of the ST-80 to workers performing the routine tasks involved in tripping out or POOH. In particular, the relevant documents did not identify the real and obvious risk that a worker might suffer serious injury or death if the ST-80 was activated while the worker was positioned between the ST-80 and the drill string and did not provide for any method of mitigating that risk.

235. There was an informal practice used by the rig crew of pressing the E-Stop button on the ST-80 while working between it and the drill string. It is likely this practice was more rigorously deployed after the rig 188 incident, but it was not formalised in any of the Saxon safety management system documents. Nor was there specific training directed to the requirement to use the E-Stop during routine operations.

236. The crew of rig 185 were considered a 'good' crew who knew their jobs and worked hard. All the members of the rig crew from the driller, Mr Kilby, down in the hierarchy of positions were still completing the training competencies required for their roles by the time of Gareth's death. The only member of the rig crew onsite at the time of this incident who had completed the qualification and training required for their role was the Tourpush, Mr Monks. He was not in the doghouse or on the rig floor at the time of this incident.

237. Counsel Assisting submitted that "the oversight and monitoring of safety management systems on site by Santos was also inadequate in that it failed to identify and remediate the risk to workers of inadvertent activation of the ST-80 during routine POOH operations", and that "that risk was apparent from at least the time of the rig 188 incident, which was known to Santos".[73] I accept the submissions made by the Counsel for Santos, that Santos had no statutory obligation at the time to identify this inadequacy, and that "Santos' obligation for monitoring and oversight of Saxon was and internal requirement that arose under Santos' own safety management system".[74] I also accept the submissions made by Counsel for Santos as to the danger of hindsight bias, and the positive steps which were taken by Santos following the rig 188 incident. I agree that the failure in oversight was Saxon's and that, while in hindsight things could have been done differently by Santos following the rig 188 incident, Santos took all reasonable steps at the time.

[73] Submissions by Counsel Assisting, para 212.
[74] Submissions on behalf of Santos, para 28.

238. I agree with the submission made by Counsel Assisting that, despite the inadequacy of training, supervision and oversight on rig 185 at the time of Gareth's death, none of those features contributed to his death.

## Issue 3

239. I find that the investigation undertaken by the DNRM Petroleum and Gas Inspectorate was competent and thorough. It was undertaken in a timely manner, especially considering the volume of material to be considered, the number of witnesses and potential witnesses, and the need for expert review.

240. In written submissions, counsel for Saxon submitted that I should give little weight to the opinions expressed by Mr Bartels, Ms De Landre and Dr Rasche because they do not hold qualifications in the petroleum and gas industry. I do not think this is a particularly reasonable or useful criticism. All three 'experts' outlined their qualifications and the basis upon which they gave their opinions in their reports. All three were cross-examined before me. With the exception of some minor matters noted above, I accept their evidence and opinions in the context in which they were given and thank them for their assistance in this matter.

241. Regrettably, the investigators were not able to obtain information or an account of events from several key witnesses who may have been able to assist the investigation but declined to be interviewed. I make no criticism of those individuals, who were entitled to decline to provide information in circumstances where that information may tend to incriminate them or expose them to a civil penalty. However, it is clear that the investigation was limited by the inability of investigators to compel all relevant witnesses to give information or answer questions, while preserving the protection of the privilege against self-incrimination.

## Issue 4

242. Due to those changes made since Gareth's death, I find that the safety management systems that apply to work of the kind being done by Gareth at the time of this incident are now adequate to prevent or minimise risk of death or injury relating to the operation of the ST-80. It is apparent that significant and substantive changes have been made since Gareth's death to improve the safety of workers using and working around the ST-80.

## FINDINGS: *Section 45 Coroners Act (Qld)*

**Identity of the deceased** – Gareth Leo Dodunski

**How Gareth died** – Gareth died after being struck by an item of drill rig machinery, a 'ST-80' Iron Roughneck tool, which is a large hydraulic torque wrench.

Gareth was working as a Floorhand on drill rig 185, operated by Saxon. The rig was located at a well site on a petroleum lease held by Santos.

He was working with another crew member, Daniel Mullings, to attach the 'dog collar' to a section of drill pipe on the rig floor. In the adjoining doghouse was the driller, Jacob Kilby.

At about 3.20pm on the afternoon of 23 June 2013, in a moment of inadvertence or distraction Mr Kilby activated the ST-80 by pressing a button on the Human Machine Interface screen in the doghouse. He did so while Gareth and Mr Mullings were still working on the rig floor and Gareth was positioned between the ST-80 and the drill string in the 'danger' zone.

At the time Mr Kilby activated the ST-80, Gareth was concentrating on his work on the rig floor with his head down and did not see the ST-80 move.

In the seconds available, Mr Mullings attempted to warn Gareth of the danger but the ST-80 continued to extend forward, taking only seconds to hit Gareth and crush him against the drill pipe. He suffered catastrophic injuries.

**Place of death** – Fairview Mining Camp ROMA QLD 4455 AUSTRALIA

**Date of death**– 23/06/2013

**Cause of death** – Gross cerebral trauma due to multiple comminuted depressed fractures of skull due to trauma from rig machinery.

## COMMENTS AND RECOMMENDATIONS

243. Section 46 of the Coroners Act, insofar as it is relevant to this matter, provides that a coroner may comment on anything connected with a death that relates to public health or safety or ways to prevent deaths from happening in similar circumstances in the future.

244. I acknowledge the recommendations submitted to me for consideration by Gareth's parents in their submissions. Most of these are very sensible but, in my view, are already addressed in current procedures. I thank RSHQ for answering several of Gareth's parents' recommendations directly in their written submissions.

245. Given the evidence outlined above, there is little scope for further comment or recommendations for change to safety systems that would further improve safety measures and prevent similar deaths in the future.

246. Mr Kilby gave evidence that he thought a more formal and structured training and qualification regime for drill rig crews, something akin to apprenticeships where a certain number of years' experience and competency was necessary before progressing to the next level.

247. However, the evidence before the Court does not support a finding that the training and qualification regime for rig crews contributed to the cause of this incident and Gareth's death. Therefore the evidence does not give support to making any recommendation consistent with Mr Kilby's evidence.

248. Two other matters arise from the evidence that warrant comment.

### Coercive investigation powers

249. It is apparent that the investigation of this incident was limited by the inability of investigators to obtain formal statements from several key witnesses, including Mr Kilby and Mr Marshall.

250. At present, and at the time of Gareth's death, there is no provision in the P&G Act that authorises investigators to require a person to give information or answer questions in circumstances where such information or answers might tend to incriminate the person.

251. Various other Queensland Acts that regulate the investigation of workplace accidents and deaths do include such provisions, each also providing protections to the person subject to such a requirement from their responses being used against them.[75]

252. After the inquest, this Court sought additional information from Resources Safety and Health Queensland, which now incorporates the Petroleum and Gas Inspectorate, about potential changes to the powers available to inspectors under the P&G Act.

[75] See *Work Health and Safety Act 2011* ss171-172; *Coal Mining Safety and Health Act 1999* (CMSHA) ss139-141; *Mining and Quarrying Safety and Health Act 1999* (MQSHA) ss 154-156.

253. David Lonton, Director of Serious Incident Investigation Unit at RSHQ, provided a statement dated 18 October 2022. He advised that he considered that the investigation of serious incidents would be assisted by investigators being given a power to compel persons to answer questions in circumstances where such answers might tend to incriminate them. He said:

> *Parliament determined it appropriate to confer the respective powers under the CMSHA and MQSHA for inspectors and authorised officers to compel witnesses to answer questions that may tend to incriminate them following the Wardens inquiry into the events at Moura no 2 Underground Mine on Sunday 7 August 1994. This incident resulted in eleven coal mine workers losing their lives as a consequence of an underground explosion.*
>
> *The power to compel witnesses to answer questions is used regularly in investigations into high potential incidents and serious accidents at mines and quarries in Queensland. It is an effective investigative tool when investigating complex matters, including where workers have been seriously injured or killed.*
> *…*
> *I am supportive of any recommendation that would harmonise the P&G Act with the CMSHA and MQSHA in terms of the powers granted to inspectors and authorised officers to compel persons to answer questions, even where answering those questions may tend to incriminate them.*

254. Mr Lonton explained that the Inspectorate had previously sought to have the P&G Act amended to include coercive powers similar to those in other Acts but were unsuccessful.

255. It is critical that such coercive powers and the protective indemnities are seated in precise terms in legislation: see *X7 v Australian Crime Commission* (2013).

## Drug and alcohol testing

256. Mr Lonton also addressed a question raised by the Court as to the capacity of P&G Inspectorate investigators to require drug and alcohol testing following serious incidents. I note that there is no evidence in this case that any of those persons involved in the incident in which Gareth was killed were affected by drugs or alcohol. However, in the context of considering the powers available to investigator's additional information was sought after the inquest.

257. Mr Lonton's view was that it may be of assistance to investigators if the P&G Act was amended to provide a power to investigators to direct officers of the Queensland Police Service to obtain specimens for drug and/or alcohol testing. However, Mr Lonton said there were practical considerations that may make such a change unnecessary. These include:

    a. petroleum and gas rigs are located in often very remote locations;
    b. there can be delays in notifications of incidents being received by RSHQ and further delays associated with travel, depending on the location of the incident;
    c. there is already a recognised method of information sharing between two investigative agencies; and
    d. the introduction and implications of the *Human Rights Act 2019* would need to be carefully considered as part of any proposal to amend the P&G Act.

258. Mr Lonton also considered that a power to require a person to submit to drug or alcohol testing was best placed with police.

## Recommendations

259. I make a specific recommendation pursuant to s46 of the Act:

> That the Queensland Government give consideration to amending the P&G Act to include provisions similar to sections 139 to 141 of the *Coal Mining Safety and Health Act 1999*, authorising investigators of serious incidents to require 'relevant' persons to give information or answer questions as directed by investigators in circumstances where such information or answers might tend to incriminate the person with the assurance in statute that such information could not be used against that person in proceedings for an offence or civil penalty.

260. I make a more general recommendation:

> That the Queensland Government rationalise and harmonise the various Work Health and Safety Acts into one body of legislation. At present there are variously differing offence descriptions and elements, differing time limitations for prosecutions, differing avenues of appeal and legal review, differing transitional historical provisions and differing definitions of "breaches of safety" in the *Coal Mining Safety and Health Act 1999, Petroleum and Gas (Production and Safety) Act, Work Health and Safety Act 2001* and *Mining and Quarrying Safety and Health Act 1999*.

## Comments

It would be remiss of me to not formally acknowledge the work of Counsel Assisting, Mr Ben McMillan and Ms Sarah Lane. Their mastery and marshalling of the enormous brief of evidence in this investigation was prodigious.

As stated earlier, I have acknowledged Gareth's parents, Philip and Michelle Dodunski, who have relentlessly sought answers about the circumstances of Gareth's death. I again express my condolences on the family's tragic loss of a fine young man. His family have worked tirelessly to ensure that Gareth's death is not forgotten and to advocate for improvements in the industry which would ensure that such a death does not occur again to another family.

I close the inquest.

Donald MacKenzie
Coroner
BRISBANE
31 August 2023