SUPREME COURT OF QUEENSLAND

CITATION:	*Butler & Ors v The State of Queensland* [2013] QSC 354
PARTIES:	**DOUGLAS AND CHRISTINE BUTLER** **JOHN BYRNES** **RONALD DAINTITH** **ROBYN AND RALF DANIEL** **MICHAEL AND LYNDA DONOHUE** **JASON DOYLE AND TERRI DIXON** **JOANNE AND JASON GOODMAN** **BRIGITTE KRAFT** **JEANETTE AND DUDLEY NAYLOR** **ROWAN NOBES** **ALEX AND LIDIA PARDO** **AARTI PRABHA AND RICHARD WATSON** **LESLEY AND DEREK SAVAGE** **NICHOLAS AND TAMARA STOREY** **MICHELLE AND PETER STUART** **CAROL TOMLINSON** **TODD WEBSTER** **SHARON WILLIAMS** (plaintiffs) v **THE STATE OF QUEENSLAND** (defendant)
FILE NO/S:	BS 10258/2009 BS 10255/2009 BS 10278/2009 BS 10259/2009 BS 10274/2009 BS 10271/2009 BS 10272/2009 BS 10262/2009 BS 10253/2009 BS 10265/2009 BS 10280/2009 BS 10277/2009 BS 1216/2010 BS 10254/2009 BS 10266/2009 BS 10269/2009 BS 10273/2009 BS 10309/2009
DIVISION:	Trial Division
PROCEEDING:	Claim

ORIGINATING COURT:	Supreme Court of Queensland
DELIVERED ON:	19 December 2013
DELIVERED AT:	Brisbane
HEARING DATE:	11 – 15, 18 – 22, 25 – 26 February, 14 March, and 16 – 18 September 2013
JUDGE:	Boddice J
ORDER:	**The parties are to prepare a minute of orders in accordance with these reasons. I shall hear the parties as to costs.**
CATCHWORDS:	TORTS – STATUTES, REGULATIONS, ETC – APPLICABILITY AND EFFECT IN ACTIONS FOR NEGLIGENCE – GENERALLY – where a subsidence event occurred in 2008 in Collingwood Park, an area within the confines of a mining lease granted in 1967 – where the plaintiffs claim damages for loss arising from breaches of duty in the granting of a mining lease and the supervision and monitoring of mining work undertaken – where the relevant statutory regime provided for the grant of approval to mine and power to impose special conditions with the responsibility to monitor and supervise compliance – where it was found the 2008 subsidence event was materially contributed to by the size and shape of the pillars and the higher extraction ration – whether the defendant owed the plaintiffs a duty of care in the grant of the mining lease, and for the imposing of conditions on the grant, and the monitoring, supervision and enforcement of compliance TORTS – ESSENTIALS OF ACTION FOR NEGLIGENCE – DUTY OF CARE – IN GENERAL – where the plaintiffs claim the defendant owed a separate duty of care in responding to an earlier subsidence event in 1988 to obviate or minimise the risk of injury – where there was no allegation the defendant was in breach of a duty of care in relation to that subsidence event - whether the defendant owed the plaintiffs a duty of care to take remedial steps TORTS – ESSENTIALS OF ACTION FOR NEGLIGENCE – DAMAGE – GENERAL – where the plaintiffs claim the defendants conduct in failing to monitor, supervise and enforce compliance with the mining lease was a breach of its duty of care and caused or materially contributed to the plaintiffs' loss and damage – where the question is whether there was any diminution in market value, and was any such diminution caused by the subsidence – where the valuation experts disagreed as to the correct methodology for an assessment of damage – whether the plaintiffs established on the balance of probabilities the defendant's breach caused or

materially contributed to each plaintiff's loss and damage

The Coal Mining Acts, 1925 *to* 1964 (Qld), s 12, 33A
Mining on Private Land Act of 1909 (Qld), s 21A(3)
Mineral Resources Act 1989 (Qld)

Amaca Pty Ltd v New South Wales (2004) 132 LGERA 309; [2004] NSWCA 124, distinguished
Bennett v Minister of Community Welfare (1992) 176 CLR 408; [1992] HCA 27, cited
Caledonian Collieries Limited v Speirs (1957) 97 CLR 202; [1957] HCA 14, cited
Caltex Refineries (Qld) Pty Ltd v Stavar (2009) 75 NSWLR 649; [2009] NSWCA 258, followed
Cole v South Tweed Heads Rugby League Football Club Ltd (2004) 217 CLR 469; [2004] HCA 29, cited
French v QBE Insurance (Australia) Limited (2011) 58 MVR 214; [2011] QSC 105, cited
Graham Barclay Oysters Pty Ltd v Ryan (2002) 211 CLR 540; [2002] HCA 54, applied
Kenny and Good v MGICA (1999) 199 CLR 413; [1999] HCA 25, cited
Kuhl v Zurich Financial Services Australia Ltd (2011) 243 CLR 361; [2011] HCA 11, cited
Miller v Miller (2011) 242 CLR 446; [2011] HCA 9, cited
NSW v Fahy (2007) 232 CLR 486, followed
Newcastle City Council v Shortland Management Services (2003) 57 NSWLR 173; [2003] NSWCA 156, distinguished
Roads and Traffic Authority of NSW v Dederer (2007) 234 CLR 330; [2007] HCA 42, followed
Stuart v Kirkland-Veenstra (2009) 237 CLR 215; [2009] HCA 15, followed
Sullivan v Moody (2001) 207 CLR 562; [2001] HCA 59, cited
Wicks v State Rail Authority (NSW) (2010) 241 CLR 60; [2010] HCA 22, cited
Woolcock Street Investments Pty Ltd v CDG Pty Ltd (2004) 216 CLR 515; [2004] HCA 16, cited
Wyong Shire Council v Shirt (1980) 146 CLR 40; [1980] HCA, followed

COUNSEL: K N Wilson QC, with M Hodge, for the plaintiffs
M B Hinson QC, with M Hindman, for the defendants

SOLICITORS: Shine Lawyers for the plaintiffs
Crown Law for the defendant

[1] Collingwood Park is a residential suburb near Ipswich in the State of Queensland. It is comprised of hundreds of houses in many suburban streets spread over a wide area. Whilst not obvious on the surface, a large area of the suburb is positioned over land mined for coal many years ago. That mining, which occurred deep underground, was undertaken pursuant to leases granted by the defendant.

[2] On 26 April 2008, a subsidence event occurred near the intersection of Collingwood Drive and Duncan Street, Collingwood Park. It is common ground subsidence occurred because pillars in disused coal mines deep beneath that surface collapsed at or around that time. Underground coal mining of that land area had been undertaken between 1967 and 1987, although, the particular area below the 2008 subsidence event had not been mined since 1974.

[3] The plaintiffs owned property in Collingwood Park on 26 April 2008. Each claims, in separate proceedings, damages for loss allegedly suffered by reason of breaches of duty by the defendant in the grant of the mining lease, the supervision and monitoring of mining work undertaken pursuant to that lease, the failure to warn of ongoing risk of subsidence following an earlier subsidence in 1988, and the failure to undertake remediation work following that earlier subsidence event.

[4] The defendant denies it is liable for damages in each proceeding. In issue is the existence of the alleged duty of care, its breach, and causation. In respect of some plaintiffs, the defendant denies any loss has been suffered, whilst in respect of the remaining plaintiffs, damage is admitted but not the extent of that damage.

Background

[5] The 2008 subsidence event fell within the confines of mining lease CML568, granted in 1967 to Westfalen Colliery Pty Ltd ("Westfalen"). CML568 was positioned underground various portions of surface land. Relevantly, for the purposes of the plaintiffs' claims, the portions included Portions 55, 56 and 57 in the Parish of Goodna, County of Stanley. Those portions were alienated from the Crown, without reservation of mineral rights, prior to 1 March 1910. As such, the owners of the fee simple owned the coal beneath it.[1]

[6] At the time CML568 was granted, Portion 55 was owned by the Queensland Housing Commission ("QHC"). Portions 56 and 57 were owned by another mining company, Noblevale Colleries Pty Ltd ("Noblevale"). Both QHC and Noblevale objected to the grant of CML568, as did the owners of other private land within the proposed lease area. After considering the various objections, the Wardens Court recommended CML568 not be granted. This recommendation was overruled by the relevant Minister, with the support of Cabinet.

[7] The area below the 2008 subsidence event was known as the Westfalen No 3 mine. The point of entry to the mine was distant from the surface land above the No 3 mine. However, the relevant area of the mine is easily identified as the mining area was broken into panels. The 2008 subsidence event was largely above panels H1 and H2. That area had been mined in about 1972. By late 1973, mining had progressed beyond those panels.

[8] CML568 was progressively mined over 20 years by means of a method known as bord and pillar. It involved the extraction of a percentage of the coal seam, with the balance remaining in pillars between bords or "drives" formed by the mining process. At the time of commencement of mining, there were few dwellings or other structures on the surface land within CML568.

[9] Westfalen No 3 mine was abandoned after it had been flooded in January 1974. Water had entered the mine with considerable force. Buildings atop mining shafts were destroyed by the force of air pushed from the mine by the flood waters.

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1 Section 21A(3), *Mining on Private Land Act* of 1909.

Following those floods, large volumes of water were removed from the mine with the assistance of a submersible pump. By January 1975, mining work had recommenced, although not in the area in and around the 2008 subsidence.

[10] After the flood, the areas in panels H1 and H2 were completely abandoned as they were deemed unsafe. One witness described that area as a "no go zone".[2] An examination of those workings following the 1974 flood had revealed significant destruction of timber supports, with crown and roof falls occurring over large areas, although in some sections only minimal damage was observed at the time. Other evidence indicated significant deterioration including chimney collapses, degradation of timber support, rock weakening, and fretting of the sides of pillars associated with the absence of support.

[11] It was accepted by all experts who gave evidence that the 1974 flood substantially weakened, if not damaged, the pillars left to support the ground above.

The plaintiffs

[12] The area of the 2008 subsidence event straddled Portions 55 and 56. Three of the plaintiffs' properties are located in Portion 55. Each of those properties is located close to the subsidence event. All but two of the remaining plaintiffs' properties are located in Portion 56. Four of those properties are located close to the subsidence event. The remaining two plaintiffs' properties are located on Portion 57, some distance from the 2008 subsidence event.

[13] The plaintiffs in BS10258/2009, Douglas and Christine Butler, purchased their residential property at 8 Fowler Street on 1 July 1994. Their property borders the 2008 subsidence event, and lies within the lease area CML568.

[14] The plaintiff in BS10255/2009, John Byrnes, purchased his residential property at 13 McLaughlin Street on 11 October 1988. His property also borders the 2008 subsidence event, and lies within the lease area CML568.

[15] The plaintiff in BS10278/2009, Ronald Daintith, purchased his residential property at 17 Hannant Street on 25 September 1985. His property is outside the 2008 subsidence event and does not have below it any underground mining area although it remains within the lease area CML568.

[16] The plaintiffs in BS10259/2009, Robyn and Ralph Daniel, own two properties in Collingwood Park. One property, at 25 Reerden Street, was purchased on 1 June 1990. The other property, at 1 Burrell Street, was transferred by Will on 14 April 1993. Both properties are outside the 2008 subsidence event area and do not have beneath them any mine workings. Each remains within the lease area CML568.

[17] The plaintiffs in BS10274/2009, Michael and Lynda Donohue, purchased their residential property at 7 Fowler Street on 5 April 1978. It borders the 2008 mind subsidence event, and lies within the lease area CML568.

[18] The plaintiffs in BS10271/2009, Jason Doyle and Terri Dixon, purchased their residential property at 24 Duncan Street on 1 July 2003. It is located outside the 2008 subsidence event but is positioned over mine workings. It lies within the lease area CML 568.

[19] The plaintiffs in BS10272/2009, Joanne and Jason Goodman, purchased their residential property at 17 Lawrie Drive on 29 January 2004. It lies outside the 2008

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[2] T3-92/10.

subsidence event but is located over mine workings. It lies within the lease area CML568.

[20] The plaintiff in BS10262/2009, Brigitte Kraft, purchased her residential property at 24 Reerden Street on 3 June 1988. It lies outside the 2008 subsidence event but is positioned over mine workings. It lies within the lease area CML568.

[21] The plaintiffs in BS10253/2009, Dudley and Jeanette Naylor purchased their residential property at 4 Warren Court on 23 November 2006. It borders the 2008 subsidence event. It lies within the lease area CML568.

[22] The plaintiff in BS10265/2009, Rowan Nobes purchased his residential property at 9 Milgate Street on 1 July 1997. It lies outside the 2008 subsidence event but is located over mine workings. It lies within the lease area CML568.

[23] The plaintiffs in BS10280/2009, Alex and Lidia Pardo, own two properties in Collingwood Park. One, at 22 McLaughlin Street, was purchased on 23 April 1999. The second, at 28 McLaughlin Street was purchased, on 11 February 2005. Both properties border the 2008 subsidence event. Both lie within the lease area CML568.

[24] The plaintiffs in BS10277/2009, Richard Watson and Aarti Prabha, purchased their residential property at 19 Milgate Street on 17 August 2007. It lies outside the 2008 subsidence event but is located over mine workings. It is also located inside the lease area CML568.

[25] The plaintiffs in BS1216/2010, Lesley and Derek Savage, purchased their residential property at 3 Manning Court on 27 September 2002. It lies outside the 2008 subsidence event and is not located over any mine workings. It does, however, lie within the lease area CML568.

[26] The plaintiffs in BS10254/2009, Nicholas and Tamara Storey, purchased vacant land at 48 Bassili Drive on 31 July 2004. That land lies outside the 2008 subsidence event, is not located over any mine workings, and lies outside the lease area CML568.

[27] The plaintiffs in BS10266/2009, Michelle and Peter Stuart, purchased their residential property at 13 Milgate Street on 1 June 2006. It lies outside the 2008 subsidence event but is located over mine workings. It is also located inside the lease area CML568.

[28] The plaintiff in BS10269/2009, Carol Tomlinson, won her residential property at 88 Collingwood Drive in a lottery in January 1984. It lies outside the 2008 subsidence event, and is not located over mine workings. It is, however, located inside lease area CML568.

[29] The plaintiff in BS10273/2009, Todd Webster, purchased his residential property at 4 Volgler Street on 28 June 2006. It lies outside the 2008 subsidence event but is located over mine workings. It is also located inside the lease area CML568.

[30] The plaintiff in BS10309/2009, Sharon Williams, purchased her residential property at 7 Lawrie Drive on 17 January 2003. It lies outside the 2008 subsidence event but is located over mine workings. It is also located inside lease area CML568.

The claim

[31] The pleadings in each case are extensive. In essence, each plaintiff alleges:

(a) CML568 was granted in circumstances where the defendant knew, or ought to have known, that the surface land had residences erected upon it, or was subdividable land likely within a short period of time to have residences erected upon it;

(b) the defendant owed a duty of care to owners and potential owners of the surface land to exercise reasonable care:

(i) in and about the grant of CML568;

(ii) in and about the supervision of any mining work and, in particular, adherence to conditions of the mining lease;

(iii) in taking action to prevent foreseeable damage occurring as a consequence of the mining work and, in particular, non-adherence to the conditions of the mining lease;

(c) the defendant owed a duty of care to all residents of Collingwood Park, whether or not their land overlay the mining lease area, to exercise reasonable care in taking action to prevent foreseeable damage occurring as a consequence of the mining work and, in particular, non-adherence to the conditions of the mining lease;

(d) the defendant breached its duty of care by:

(i) failing to impose proper and adequate conditions on the grant of CML568;

(ii) failing to properly and adequately supervise and monitor the mining work such that those conditions imposed were not observed in the area of mine underlying the 2008 subsidence area;

(iii) failing to properly warn of the ongoing risk of further subsidence following the 1988 subsidence;

(iv) failing to undertake any, or any adequate, remediation work after the 1988 subsidence so as to prevent the 2008 subsidence;

(f) as a consequence of the defendant's breaches of its duties, each of the plaintiffs suffered economic loss, being a diminution in the value in their real property. It is also alleged particular plaintiffs suffered actual damage as a consequence of the subsidence event.

[32] In its defence, the defendant:

(a) admits it knew the surface land covered by CML568 contained some residences but said most of the land was forest and grazing land;

(b) admits it knew the surface land was subdivided, with the potential for further subdivision subject to rezoning and approval of the local council;

(c) says it had no basis for knowing or believing a plethora of residences utilising various materials would be constructed on the subdivided portions of the surface land and therefore denies that it knew, or expected further residential development could occur on the surface land;

(d) says the conditions imposed on CML568 were on the basis of the land being a built up area, and were standard conditions which had approved effective for the protection of surface areas under normal mining conditions;

(e) denies it owed a duty of care in the circumstances;

(f) denies it breached that duty of care, either in the imposition of conditions or in the supervision and monitoring of mining pursuant to those conditions;

(g) denies it is liable for the claimed loss.

Evidence

The grant of CML568

[33] The Governor-in-Council was empowered to grant a coal mining lease over private land.[3] Specified conditions applied to all such leases, including covenants with respect to the conditions on which the mining was to be allowed or with respect to the stowing or packing of the underground areas included in the mining tenement.[4] There was also power to impose special conditions.

[34] Although CML568 was granted in January 1967, the only lease document produced at trial was a Grant of Lease for 12 years from 1 July 1975. Other material tendered at trial established CML568 was granted in January 1967, with the relevant conditions being approved by the Minister for Mines on 21 April 1967.

[35] Prior to that date, the Inspector of Mines wrote to the Chief Inspector of Mines. After noting the depth and thickness of the coal seams, and that it would not be possible having regard to that thickness to work the full height, the Inspector observed the major portion of the lease consisted of grazing and forest land with an occasional farmhouse in some areas. Most buildings were in the north-west corner of the proposed lease area.

[36] The Inspector suggested the following conditions:

> "(A) In respect to the area in general with the exception of B.
> (i) No mining to be carried out at a less depth than 100 ft. from the surface;
>
> (B) In respect of the North West Corner of Lease – Portions 171-172.
> (i) No mining at less depth than 150 ft. from the surface.
> (ii) Extraction not to exceed 40% by 7 yard bords leaving pillars of uniform size and sides.
> (iii) Height of any one seam being extracted not to exceed 20'.
> (iv) Pillar to be left Pillar over pillar and drive over drive;
> (v) No pillars to be extracted under the built up area.
>
> (C) In respect of Internal Roads
> (i) Under and within one chain of any road mining to be carried out to 40% extraction leaving uniform pillar sizes.
> (ii) Over this area no pillars to be extracted.
>
> (D) In respect of External Roads:
> (i) No pillars to be extracted within one chain of Boundary Pillar.

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3 Section 33A, *The Coal Mining Acts*, 1925 *to* 1964.

4 Section 12, *The Coal Mining Acts*, 1925 *to* 1964.

(E) In respect of Goodna Creek:

(i) Mining under and within one chain of river bank not to exceed 40% by drives not to exceed 7 yards in width leaving pillars of uniform size.

(ii) Over this area no pillars to be extracted.

(F) In respect to building in areas other than A.

(i) Mining in the vicinity of 2 chain of any building not to exceed 40% extraction leaving uniform pillar sizes.

(ii) Pillar to be left under building and no pillar to be extracted within 31 yards of this pillar.

(iii) The position of all buildings to be shown on the Mine Plan.

These are suggested conditions for your consideration. I consider no damage to surface would result if conditions as suggested were carried out."

[37] On 7 April 1967 the Chief Inspector of Coal Mines wrote to the Under Secretary of the Department of Mines, referring to the Inspector's suggested conditions and making recommendations as to the conditions to be imposed on any grant of the lease. Those recommended conditions were similar to the Inspector's suggested conditions, although they were not identical.

[38] On 26 April 1967, the Under Secretary of the Department of Mines advised the Ipswich Mining Warden that the Minister had approved conditions of CML568. Those conditions were in the following terms:

"(a) <u>In respect of area generally</u>

(i) No mining at a depth less than 100 feet from the surface unless otherwise specified.

(b) <u>In respect of Surface Buildings and Dwellings</u>

(i) No mining at a depth less than one hundred and fifty (150) feet from the surface.

(ii) Drives are not to exceed seven (7) yards in width and pillars of uniform size and sides are to be left containing not less than sixty (60) percentum of the seam with the shortest side of any pillar shall be not less than twenty-four (24) yards.

(iii) No pillars are to be extracted.

(iv) The position of all buildings to be accurately shown on mine plan.

(c) <u>In respect of Roads</u>

(i) Under the within one chain of any road drives are not to exceed seven (7) yards in width and pillars of uniform size and sides are to be left containing not less than sixty (60) percentum of the seam. The shortest side of any pillar shall be not less than twenty-four (24) yards.

(ii) Under and within twenty-two (22) yards of any road no pillar of coal is to be extracted.

(d) In respect of Goodna Creek

(i) Under and within twenty-two (22) yards of the high water level of Goodna Creek drives are not to exceed seven (7) yards in width and pillars of uniform size and sides are to be left containing not less than sixty (60) percentum of the seam with the shortest side of any pillar to be not less than twenty-four (24) yards.

(ii) Under or within twenty-two (22) yards of the high water level of Goodna Creek no pillar of coal is to be extracted.

(e) In respect of pillars generally

(i) No pillars to be extracted without the approval of the Minister."

[39] In March 1970, after mining had been undertaken for some time, further correspondence was entered into between the Inspector of Mines and the Chief Inspector of Mines in relation to Mining Lease CML568. By letter dated 20 March 1970, the Inspector of Coal Mines advised:

> "The above mining conditions are the standard provided for the protection of surface areas of coal mining leases and have proved, under normal mining conditions, to be quite effective whilst permitting companies to operate and economically produce coal for current markets.
>
> Were extreme conditions of mining or severe control imposed over coal mining leases it could, in some instances, make coal mining in such areas an economic impossibility.
>
> In CML568 seam workings could aggregate to 30 feet in thickness from the two seams proved in the lease, but as the mining equipment comprises a borer type continuous miner forming reasonably solid coal ribs on roadways, 40 per centum extraction should provide adequate support for the surface.
>
> If total extraction or percentage of extraction of coal in excess of 40 per centum is carried out in the areas of this lease not limited by the mining conditions subsidence of the surface could occur, but such areas of surface are at present and were at the period of issue of the coal mining lease scrub land and farm land of much less value than the value of the coal under the surface.
>
> The conditions of the lease and the workable or recoverable quantity of coal from such area would be the basis on which the mining company operating the lease would lay out their mining methods and purchases of mining machinery and equipment.
>
> …
>
> It would be impossible and impracticable to guarantee 'any possible damage to the surface by subsidence' on the area held by Westfalen

> Colliery Coy. without sterilising or prohibiting mining completely in such area.
>
> …
>
> It is not practicable or possible to make mining conditions to protect unimproved land from surface subsidence over an indefinite period or protection of buildings that may be built at some unknown future period and completely unrealistic to prohibit mining under a surface area devoid of buildings or residence."

[40] Following that correspondence, the Chief Inspector provided advice to the Under Secretary for Mines. Relevantly, that advice was as follows:

> "(2) The seam in the area lies at considerable depth and the surface area consists mainly of forest and grazing land.
>
> (3) Conditions were looked at very very closely before approval of the lease and with a total extraction of 40% will provide adequate support for the surface.
>
> (4) Mining conditions were fixed on the basis of the land being a built up area, as will be the case in all future lease applications in the Ipswich district.
>
> (5) Mining operations can proceed under the conditions set down without any damage to the surface as a result of subsidence.
>
> I RECOMMEND -
>
> (a) Copy of the mining conditions be forwarded to the Secretary Noblevale Collieries Pty Ltd.
>
> (b) He should be advised conditions as approved are adequate for the protection of the land as it is as present and conditions cannot be set to guard against any possible hypothetical set of circumstances which may or may not arise in the future."

[41] This correspondence suggests that notwithstanding the terms of the mining lease, the conditions were intended to operate on the basis all of the land above CML568 had surface buildings, dwellings and roads. That was the view of one of the inspectors having responsibility for the No 3 mine. He gave evidence the conditions applied to all workings.[5] No-one ever suggested to him the conditions only applied where there were existing buildings or structures on the surface.

[42] However, Noel Kathage, whose family owned Westfalen, gave evidence of an instruction being given at some point during mining operations that only 40% of the coal could be extracted from the coal seams. He could not remember when that instructions was given but recalled it followed discussions about the rezoning and subdivision of the surface land.[6]

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5 T3-85/45.

6 T3-51/40-50; T3-52/14-20.

Mining of CML568

[43] Mining of No 3 mine was undertaken using a continuous miner known as a Joy 6CM, and a machine known as a Marietta borer. The Joy 6CM operated by cutting the seam using multiple passes. In the relevant area, no more than two passes were cut. The Marietta borer operated by "tunnelling" out the seam, thereby creating the bord or "drive" and the adjoining pillars. Due to its operating method, the adjoining pillars were often diamond shaped rather than square. For ease of operations, a diamond shaped pillar often had 3 to 4 feet removed from each point.

[44] Throughout the operation of the mine, up to date mining plans were kept which were of sufficient accuracy to allow anyone perusing those plans to calculate the size and shape of the pillars within a particular mining area. Mr Kathage, the Underground Manager for the No 3 Mine from 1971, accepted the mine plans for panels H1 and H2 indicated pillars were of varying shapes and sizes. Many of the pillars were diamond shaped.

[45] Mr Kathage knew at the relevant time the height and width of pillars were relevant factors for pillar stability. Another relevant factor was the type of coal. He did not have any safety concerns about the shape of the pillars. He could not recall any concerns being expressed by inspectors about the height of the workings, the extraction ratio, the width of the drives or the size or shape of pillars. Inspectors usually raised issues concerning the safety of miners. Mr Kathage was not aware it was a condition of the lease that the shortest side of any pillar be no less than 24 yards long.

[46] The average height of the workings of the areas in panels H1 and H2 was 6.1 metres, although on occasions the height was significantly greater. The depth of the workings in panels H1 and H2 from the surface ranged from 115 to 150 metres. No pillars were extracted in panels H1 and H2. Expert evidence was that there was no typical working height for bord and pillar mine workings at the time, although height was a relevant factor in considering the question of the stability of any mining area. Mr Kathage did not consider there was anything unusual in the height of the workings of the No 3 Mine. Only two passes were undertaken, leaving a height of workings of about 18 to 20 feet.

[47] Keith Teske was employed as the Mine Manager of Westfalen No 3 between 1979 and 1983. He had not worked in the areas of Panels H1 and H2. Mr Teske said the Marietta borer created diamond shaped pillars. He was not concerned about the stability of diamond shaped pillars. He did not recall having a pillar the size of 24 yards. Pillar sizes were usually anything from 35 to 40. He agreed that in the case of diamond shaped pillars, up to about one metre may be taken from the point either deliberately or as part of the process of mining.

[48] Warren Brown was employed as the Mine Manager of Westfalen No 3 Mine from about mid-1983 to mid-1987. He did not have any first-hand experience with the relevant area of the mine, and had never seen the area below the 2008 subsidence event. He accepted having pillars of uniform size and shape was relevant to pillar stability. He also accepted the wider the drive, the less stable the roof area. Stability also decreased with the height of the pillars.

Inspection of No 3 Mine

[49] *The Coal Mining Acts*, 1925 *to* 1964 ("the Acts") contained provisions for the inspection and supervision of coal mining. Relevantly, for present purposes, an

employee of the defendant was given the power, as an inspector, to enter, inspect and examine any coal mine and to enquire whether there was compliance with the provisions of the Acts. That inspector was obliged to enter particulars in a record book of every defect observed in the state of the mine and any alterations or requirements thought necessary. The inspector had power to order the remedy of any defective practice.

[50] The owner of the coal mine also had obligations under the Acts. Those obligations included keeping updated, accurate mine plans, and to make them available to inspectors. On cessation of mining work, the mine owner was obliged to send to the Inspector of Mines an accurate plan of the workings of the mine.

[51] Douglas Bailey was a Mines Inspector for the No 3 Mine from 1970 to 1973. It was his usual practice when inspecting a mine to have a discussion with the manager and to look at the mine plan before proceeding underground to inspect the working sections of the mine. When underground, Mr Bailey would check various aspects including the working face, evidence of roof falls and the width of roadways or drives. At the end of each inspection, he filled out an inspection report. Any non-compliance with conditions would be recorded in that report.

[52] Mr Bailey recalled the mine used two different types of machines. His recollection was that in areas where the Marietta borer was used, pillars were diamond shaped, but in areas where the continuous miner was used some of the pillars were square. He did not consider there was a difference between a square pillar or a diamond pillar in terms of the conduct of mining operations. The relevant factor was the percentage of coal remaining within the pillar. His recollection was that the height of the workings did not exceed 17 feet.

[53] Mr Bailey saw his role as primarily to monitor safety matters. He accepted an aspect of his role as an inspector was also to ascertain whether there was compliance with the conditions of the mining lease. In the case of a severe instance of non-compliance, he would stop the mine and ensure the non-compliance was documented in the mine's record book. An inspection of his entries revealed no reference to non-compliance with any of the extraction conditions.

[54] Mr Bailey was aware of the special conditions for Westfalen No 3 Mine. One of those conditions was that the pillars be of uniform size, with the shortest side of a pillar to be not less than 24 yards long. He monitored these conditions using an ordinary tape measure. Any failure to comply with the conditions would be the subject of a note in his mine inspector records. Mr Bailey also monitored the extraction rate. He did not do so by reference to the mine plan. He would look at the dimensions of the pillars on an inspection. He would measure the side of the pillars with a tape measure if a visual inspection suggested more coal was being taken than should have been in compliance with the special conditions of the mine.

[55] Mr Bailey inspected the workings on average once a month. He was provided with the mine plans on each inspection. He could, by reference to those mine plans, determine the shape of the pillars, the area of extraction and the widths of the drives. It was part of his function to check these aspects. If pillars of irregular shape had appeared on the mine plan when he was inspecting the mine, he would have recorded that fact in the mine record.

[56] Mr Bailey accepted the mine plan revealed pillars of irregular shape. He accepted there was no reference in the mine records from his time as an inspector to the size or shape of pillars, or the widths of drives. He also accepted the width, length and

height of a pillar was fundamental to the stability of the pillar. He had known the importance of these factors from the early 1960s. The height of these workings was not unusual for mines with thick seams.

Surface development

[57] No significant development of Portions 55, 56 and 57 occurred for some years after approval of CML568. Portion 55, which had been subdivided into 142 lots in 1978, was rezoned at the request of the QHC in about 1983. As part of that process, QHC provided a mining subsidence report to Ipswich City Council. The Council ultimately approved the rezoning application, concluding any past and future mining activities under the subject land were unlikely to give rise to an unacceptable risk to the surface areas.

[58] Those lots were not released for development until after 1984. A substantial majority of those lots remained vacant, and in the ownership of the State, at the time of the 1988 subsidence event. They were withdrawn from sale after the 1988 subsidence event. Of the remaining lots, 21 were developed by QHC for rental purposes, and 21 were sold to the public. The plaintiffs Byrnes and Pardo acquired three of those lots.

[59] Noblevale, which owned Portions 56 and 57 at the time of the grant of CML568, had objected to the grant on the basis of its intention to mine these portions. However, in August 1969, Noblevale advised the Under Secretary, Department of Mines, that Portions 56 and 57, together with its other landholdings in the area, contained valuable subdivisional land.

[60] In 1972, a development company purchased an interest in Portions 56 and 57. Geological and mining subsidence reports were obtained in 1973 in connection with possible subdivision of that land. The mining subsidence report covered the area of Westfalen No 3 Mine. It concluded a large part of the proposed development area was safe. A further report in March 1974 concluded extraction of coal, leaving some 60% as pillars, and at 200 feet depth or more, should cause little distress to structures at ground surface with any deformations within tolerable limits.

[61] Portions 56 and 57 ultimately formed part of the original Collingwood Park Estate. An application to rezone those lands had been made in May 1973. Those rezoned lands formed part of a Town Planning Scheme for Ipswich which was gazetted in 1976. Subsequent stages were rezoned in 1978. A number of the plaintiffs own land which was subdivided in 1977.

[62] The local Council commissioned its own mining subsidence study as part of the development of the new town plan. That study advised if coal extraction had been limited to 40%, surface subsidence would be expected to be minimal. Where the workings were greater than 100 metres below the surface, there was a very low risk of further movement if the mining operations had terminated by the time of development. However, the study warned close attention would need to be paid to any mining conditions in order to determine the possible impact on any proposed development of surface land within a coal mining lease area.

[63] Prior to the gazettal of the Town Planning Scheme, Wesfalen raised concerns about residential development on the surface land. Those concerns dealt with the potential conflict between proposed rezoning of the land and ongoing underground mining operations. Westfalen specifically raised that "any residential development which was allowed upon the subject land could be deleteriously affected in the future by

underground mining operations already conducted and to be conducted in future years". In response, the Council advised they were aware of the coal mining leases, that development of the majority of the land could not take place without the prior consent of the Council and/or the Minister for Local Government, and objections would be sought at the time of any proposed development.

1988 subsidence event

[64] In December 1988, an area within Portion 56 suffered a subsidence event. That event was centred approximately 250 metres from the 2008 subsidence event. The area below had been mined in 1977-1978. Those workings were about 140 metres below the surface. A subsequent investigation suggested the 1988 subsidence event occurred as a consequence of the collapse of approximately four pillars contained within two sub-parallel trending fault lines. The pillars were believed to have yielded as a consequence of the loss of pillar stability. That loss of pillar stability may have been accelerated by the introduction of flood waters in 1974.

[65] As a consequence of those investigations, the Minister for Mines was advised by Dr Maconochie, a geotechnical engineer with Hollingsworth Consultants, that there were questions as to the stability of several areas within CML568. Relevantly, for present purposes, an area of concern identified was the north-east corner of Duncan Street and Collingwood Park Drive, which had been damaged by the flood waters in 1974. In February 1990, Dr Maconochie also provided a report to QHC. It raised concerns as to the risks of subsidence in Portion 55 in the medium to long term.

[66] Following Dr Maconochie's advice, the defendant put in place a scheme for the provision of assistance in the event of future subsidence events. This scheme was modified on 12 November 1990 to include the whole of Collingwood Park. The modified scheme was the subject of a media release on 15 November 1990. In short, the scheme provided for assistance to owners of homes and property affected by mining subsidence in areas no longer the subject of current mining. If properties were damaged to the point where they were no longer economically repairable, the scheme provided for the purchase of those properties.

[67] The extended scheme applied to persons who purchased properties after the 1988 subsidence, but excluded from recovery any purchase of properties due to stress, health, financial circumstances or loss of property value. Pursuant to that scheme, various properties were repurchased by the State Government. Some of the buildings were demolished, with the land being left as open areas.

2008 subsidence event

[68] Following the 2008 subsidence event, a legislative scheme was implemented through an amendment of the *Mineral Resources Act* 1989. It provided for the Collingwood Park State Guarantee which gave owners of affected land a guarantee by the State to pay for necessary stabilising work, or to repair subsidence damage, if cost effective to do so, or to purchase the affected land at market value where that land was affected by subsidence damage and in the opinion of the Chief Executive, it was not cost effective for the State to repair the damage.

[69] Subsidence damage was defined as "damage to the affected land, or any buildings or structures on the land that were in existence at the beginning of 25 April 2008, caused by or related to subsidence resulting from mining activity". Mining activity meant an activity for the purpose of extracting coal by underground mining. Each of the plaintiffs' properties falls within the definition of "affected land" in the Act.

Expert evidence

[70] A number of expert witnesses gave evidence. In respect of the conditions imposed on CML568, and compliance with those conditions, the plaintiff relied upon evidence given by Dr Pells. The defendant relied upon evidence from Dr Maconochie and Professor Hebblewhite. These experts met in a joint conclave, and produced a joint report before the hearing.

[71] Dr Pells also gave evidence in respect of remediation of the mining area. On this aspect, the defendant relied on evidence from Professor Galvin and Mr Allen. Again, a joint conclave was held and a joint report prepared by all relevant experts.

[72] Dr Pells, an engineer with substantial experience in geotechnical engineering and underground mining, opined the 2008 subsidence event was caused by a combination of factors, including the size and shape of the pillars, the significantly greater percentage of coal extraction, and the decline in pillar strength and support over the passage of time. The presence of major faults was also relevant to the area of pillar failure. They prevented the distribution of the load over a wider area than would be the case if the area was defect free.

[73] In Dr Pells' opinion, there was sufficient information available as early as 1967 of the significance of height and extraction to pillar stability. It was well known, for "over 100 years", that the strength of coal pillars is a function of their height and their extraction ratio. A 40% extraction ratio was a reasonable ratio unless the workings were very high. Dr Pells did not consider a condition restricting working height to 6 metres would be unreasonable, although a condition limiting it to 5 metres may have increased the safety factors.

[74] Dr Pells said where underground mining was taking place below residential development, a factor of safety of 2 would currently be required, although in the late 1960s or early 1970s that factor may have been 1.7. If the factor of safety is 1, there is a 50% probability of failure. A factor of safety of 2 has a 1 in 100,000 probability of failure.

[75] Dr Pells opined the actual rate of extraction in the No 3 Mine was clearly more than the 40% specified in the special conditions. Further, the presence of diamond shaped pillars decreased the effective width of the pillar, decreasing its stability when compared to a square shaped pillar. It was an easy task to ascertain from a mining map whether the pillars were of the required shape.

[76] Dr Maconochie, a geotechnical engineer involved in investigating the aftermath of the 1988 subsidence, opined the 2008 subsidence was caused by a failure of underground pillars. When that event occurred, the ground above collapsed creating a funnel-like shape which spread well beyond the particular failed pillars. The 2008 subsidence event was not caused by the presence of two fault lines in the areas adjacent to panels H1 and H2. Those fault lines contained the extent of the subsidence, which otherwise may have spread over a much larger surface area.

[77] Dr Maconochie measured the pillars in areas H1 and H2, and compared them with the pillars in an area of the mine to the east of one of the fault lines. This analysis revealed 100% of the pillars in areas H1 and H2 and 95% of the pillars in the other area had effective pillar widths less than 24 yards. Most of the pillars in the area H1 and H2 had an effective width of between 14 and 16 metres, which would be much weaker than a pillar of 24 yards width. The extraction ratio in that area in all cases exceeded 40%, with the most common extraction percentage being 49%.

[78] Dr Maconochie found the pillars in areas H1 and H2 had a factor safety of .95 or less, which meant the pillars were more likely to fail than not fail. Dr Maconochie accepted it was well known before 1967 that the height of a pillar was a factor in determining its stability. The strength of a pillar was also affected by its width and shape. A diamond shaped pillar is more prone to weakness than a square pillar as a diamond shape reduces the effective width of the pillar and thereby decreases its strength.

[79] Professor Hebblewhite, a professor of mining engineering at the University of New South Wales, also opined the 2008 subsidence event was caused by the collapse of pillars within panels H1 and H2. He accepted it had been well known before 1967 the dimensions of a pillar were relevant to their stability. Height was a relevant consideration as was the extent of extraction of the mineral. However, he did not agree the significance of these factors was well known or understood in 1967. He agreed it was possible to calculate the dimensions of a pillar, and the extraction ratio from a mining plan.

[80] Dr Pells, Professor Galvin and Christopher Allen gave expert evidence in relation to the cost and practicability of undertaking remediation of the mine working areas following the 1988 subsidence event.

[81] Dr Pells opined remediation could have been undertaken following the 1988 subsidence event. If such work had been undertaken, the risk of subsidence would have been eliminated in the future. Dr Pells accepted whether such work was reasonable involved a value judgment having regard to the cost and the impact on surrounding residences. Alternatively, the defendant could have purchased all of the residential properties at risk of future subsidence events.

[82] In a subsequent report, Dr Pells calculated that based on the costs associated with back filling mine workings underneath the Ipswich Motorway Project, it would cost in the order of $20 million to undertake the remediation work. The equivalent cost in 1988 dollars was $11 million. Dr Pells subsequently revised this cost estimate to $28.778 million or, in 1988 dollars, $15.684 million.

[83] Professor Galvin opined undertaking remediation work in the subject area by means of back filling was not reasonably practicable, and would have been cost-prohibitive. The presence of buildings and associated infrastructure would have constrained access to some portions of the site, although not the entire area. Professor Galvin also expressed concerns as to the reliability of undertaking the work based on a plan of the old workings.

[84] Mr Allen provided details of the likely quantity of materials, and costs associated with that work. He assessed the quantity of back fill as substantially greater than the assessment by Dr Pell. He also opined the cost of that work would be substantially greater.

[85] In the joint report prepared by these experts, each expert agreed the technology was available in 1988 to undertake back filling of the areas at risk of future subsidence, but Professor Galvin and Mr Allen continued to opine there were surface constraints which would have impacted on the practical implementation of such technology. Each expert agreed if back filling had been undertaken, the plan area was about 23,000m^2, a volume substantially greater than had ever been undertaken in Australia at that time.

[86] Whilst Dr Pells considered the substantial increase in volume did not alter the relevant technology to undertake the work, Professor Galvin opined the height of the workings may have required a change in the placement technique. Mr Allen considered the height of the workings would have had an impact in terms of the cost and scope of the work. Both Dr Pells and Professor Galvin agreed it was likely the relevant mine working area had deteriorated over time with roof falls and falls of pillar side walls.

[87] A fundamental point of disagreement between these experts was the applicability of a technique used in 1987 for filling a yard seam at the Tax Office site in Newcastle. Professor Galvin opined that that approach was not practical having regard to the required number of bore holes. Dr Pells considered it was achievable. Mr Allen considered this was a valid starting point, but said it was likely there would be a significant number of bore holes required to undertake that technique. The experts also disagreed on the amount of fill required and the cost.

[88] Two expert witnesses were called in relation to the quantification of any damage. John Kendall gave evidence that based on his valuation of properties both within and outside the subsidence zone, properties had suffered a 20% decrease as a consequence of the blight effect of the subsidence event. This conclusion was reached based on Mr Kendall's assessment of comparable sales "to arrive at the market value on an assumed blight encumbered basis, which acknowledges the presence of mining subsidence blight". The comparable sales used by him were of properties both inside and outside the mining influence area, and inside and outside the boundaries of CML568.

[89] Mr Kendall conducted an analysis comparing the performance of Collingwood Park with the suburbs that encircle Collingwood Park over the two years before and two years after the 2008 subsidence. He then compared the sales performance of properties in Collingwood Park on a mean and median basis inside and outside the mining influence area, and inside and outside the boundary of CML568, in the two years from 27 October 2010 to 26 October 2012. Whilst giving evidence, Mr Kendall also undertook a breakdown of all of the sales in Collingwood Park to determine which sales were inside and outside the mining influence area and which sales were inside and outside the boundary of CML568. Mr Kendall manually removed any purchases made by the defendant, and confined the sales he considered to houses and land between $550M^2$ and $1800M^2$.

[90] Once a blight effect value had been ascertained for the particular property, Mr Kendall determined what the particular property would be worth if unaffected by subsidence blight. His conclusion was that the 2010 assumed blight encumbered valuation should be increased by 20% to arrive at a value free from subsidence blight. In evidence, Mr Kendall accepted that having regard to other factors, the figure may be more in the order of 10% - 15%.

[91] John Gillespie adopted a different approach. His approach involved determining a pre-subsidence value for each property as at 25 April 2008, and as at July 2010 (with an assumption that any defects caused by the subsidence event had been repaired by that date). Mr Gillespie then undertook an analysis of the market in 2008 and 2010, in Collingwood Park and comparable suburbs, in order to determine whether the 2010 valuations reflected the effects of any subsidence blight.

[92] This analysis examined sales in Collingwood Park and the comparable suburbs in the six months before April 2008, in the six months after April 2008 and in the six

months between February and August 2010. Mr Gillespie had regard to factors specific to Collingwood Park, factors relevant to the comparative standings of Collingwood Park and the comparable suburbs and residential price movements generally having regard to general market and economic factors. Finally, Mr Gillespie examined market movement post-April 2008 by reference to the relationship and relativity of sites, both within the mining influence area and sales outside that area.

[93] Mr Gillespie did not accept Mr Kendall's opinion that properties in Collingwood Park had suffered a diminution in value as a consequence of subsidence blight. Mr Gillespie opined the difference in value was as a consequence of different markets. The recorded sales before April 2008 in Collingwood Park had occurred in a rising market. The sales after April 2008 occurred in a falling market. These changes were reflective of general market forces. They were not as a consequence of an influence of the 2008 subsidence event, which Mr Gillespie accepted would have had an impact for a period of time but would have dissipated by 2010.

[94] In reaching this conclusion, Mr Gillespie opined the relative changes in values of properties inside and outside the mining influence area was not significant. There had been no diminution in value of properties outside the area immediately affected by the 2008 subsidence event. Mr Gillespie accepted there was some diminution in value to those properties specifically adjacent to the 2008 subsidence area. This diminution was as a consequence of their proximity to the area, the fact they overlooked the subsidence area, the consequent loss of street amenity following the removal of a number of dwellings, and the defects caused by ground movement.

Applicable principles

[95] Statutory powers must be exercised with reasonable care and an act done pursuant to statutory powers is not necessarily immune from an action in negligence. If those who exercise them could, by reasonable precaution, have prevented an injury which has been occasioned or is likely to be occasioned by their exercise, damages for negligence may be recovered.[7]

[96] Careful consideration must be given to the circumstance of the exercise of a statutory power to determine whether a duty of care was owed in the circumstances. In *Stuart v Kirkland-Veenstra,*[8] Gummow, Hayne and Heydon JJ said:

> "There can be no duty to act in a particular way unless there is authority to do so. Power is therefore a necessary condition of liability but it is not a sufficient condition. Statutory power to act in a particular way, coupled with the fact that, if action is not taken, it is reasonably foreseeable that harm will ensue, is not sufficient to establish a duty to take that action. Rather, as was pointed out in *Graham Barclay Oysters Pty Ltd v Ryan*, the existence or otherwise of common law duty of care owed by a statutory authority … 'turns on a close examination of the terms, scope and purpose of the relevant statutory regime'. Does that regime erect or facilitate 'a relationship between the authority … and a class of persons that, in all the circumstances, displays sufficient characteristics answering the criteria for intervention by the tort of negligence'?

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7 *Caledonian Collieries Limited v Speirs* (1957) 97 CLR 202 at 220.

8 (2009) 237 CLR 215 at 254 [112]-[113].

> Evaluation of the relationship between the holder of the power and the person or persons to whom it is said that a duty of care is owed will require examination of the degree and nature of control exercised over the risk of harm that has eventuated, the degree of vulnerability of those who depend on the proper exercise of the relevant power, and the consistency or otherwise of the asserted duty of care with the terms, scope and purpose of the relevant statute. Other considerations may be relevant."

[97] Whilst reasonable foreseeability of the class of injury is an essential condition of the existence of a legal obligation to take care for the benefit of another, whether a duty of care is owed by a statutory authority involves an evolution of the relationship between the defendant and the plaintiff. In *Graham Barclay Oysters Pty Ltd v Ryan*,[9] Gummow and Hayne JJ observed:

> "An evaluation of whether a relationship between a statutory authority and a class of persons imports a common law duty of care is necessarily a multi-faceted inquiry. Each of the salient features of the relationship must be considered. The focus of the analysis is the relevant legislation and the positions occupied by the parties on the facts as found at trial."

[98] Factors ordinarily to be considered are the degree and nature of control exercised by the authority over the risk of harm that eventuated, the degree of vulnerability of those who depend on the proper exercise by the authority of its power and the consistency or otherwise of the asserted duty of care with the terms, scope and purpose of the relevant statute. Of fundamental importance is the factor of control.

[99] The relevance of these factors was considered in *Caltex Refineries (Qld) Pty Ltd v Stavar*,[10] albeit not in the context of a statutory authority. Allsop P (as his Honour then was) said the salient features included:

> "(a) the foreseeability of harm;
>
> (b) the nature of the harm alleged;
>
> (c) the degree and nature of control able to be exercised by the defendant to avoid harm;
>
> (d) the degree of vulnerability of the plaintiff to harm from the defendant's conduct, including the capacity and reasonable expectation of a plaintiff to take steps to protect itself;
>
> (e) the degree of reliance by the plaintiff upon the defendant;
>
> (f) any assumption of responsibility by the defendant;
>
> (g) the proximity or nearness in a physical, temporal or relational sense of the plaintiff to the defendant;
>
> (h) the existence or otherwise of a category of relationship between the defendant and the plaintiff or a person closely connected with the plaintiff;
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> (i) the nature of the activity undertaken by the defendant;

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9 (2002) CLR 540 at 597 [149].

10 (2009) 75 NSWLR 649 at 676 [103].

(j) the nature or the degree of the hazard or danger liable to be caused by the defendant's conduct or the activity or substance controlled by the defendant;

(k) knowledge (either actual or constructive) by the defendant that the conduct will cause harm to the plaintiff;

(l) any potential indeterminacy of liability;

(m) the nature and consequences of any action that can be taken to avoid the harm to the plaintiff;

(n) the extent of imposition on the autonomy or freedom of individuals, including the right to pursue one's own interests;

(o) the existence of conflicting duties arising from other principles of law or statute;

(p) consistency with the terms, scope and purpose of any statute relevant to the existence of a duty; and

(q) the desirability of, and in some circumstances, need for conformance and coherence in the structure and fabric of the common law."

[100] This list provided a "non-exhaustive universe of considerations of the kind relevant to the evaluative task of imputation of the duty and the identification of its scope and content".[11] Allsop P's analysis and observations were adopted by Fryberg J in *French v QBE Insurance (Australia) Limited.*[12]

[101] Whether or not a duty of care exists is a question of law.[13] However, a duty of care is not owed in the abstract. It is a defined legal obligation arising out of the "relations, juxtapositions, situation or conduct activities".[14] In the context of an ascertained defendant or class of defendants and an ascertained plaintiff or class of plaintiffs, the kind of damage suffered is relevant to the existence and nature of a duty of care.[15]

[102] Where the damages claimed constitute pure economic loss, five principles are relevant to determining whether a duty exists. They are reasonable foreseeability of loss, indeterminacy of liability, autonomy of the individual, vulnerability to risk and knowledge of the risk and its magnitude.[16] In relation to pure economic loss, it is insufficient to merely show that the defendant's negligence was a cause of the loss and that the loss was reasonably foreseeable.[17]

[103] A duty of care must be formulated prospectively, not retrospectively.[18] Care must be taken to not formulate it in too specific terms so as to avoid mixing the anterior

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11 At 676 [104].
12 [2011] QSC 105 at [68]-[69].
13 *Wicks v State Rail Authority (NSW)* (2010) 241 CLR 60 at 73 [33].
14 *Miller v Miller* (2011) 242 CLR 446 at 470 [64].
15 *Cole v South Tweed Heads Rugby League Football Club Ltd* (2004) 217 CLR 469 at 472-473 [1].
16 *Woolcock Street Investments Pty Ltd v CDG Pty Ltd* (2004) 216 CLR 515 at 529-531 [19]-[24]; 547-550 [74]-[87].
17 *Woolcock* at 530 [22].
18 *Graham Barclay* at 611[192]; *Vairy v Wyong Shire Council* (2005) 223 CLR 422 at 443 [60]-[61]; and at 461-463 [124]-[129].

question of law with questions of fact in deciding whether a breach has occurred. But articulation of a duty of care must be not at too high a level of abstraction as it will thereby provide an inadequate legal means against which issues of fact may be determined.[19]

[104] Importantly, foresight of harm is not the ultimate criterion of liability. A defendant will only be liable in negligence for failure to take reasonable care to prevent foreseeable harm to the a plaintiff if the law imposes a duty to take such care on that defendant. In *Sullivan v Moody*[20] it was observed:

> "If it were otherwise, at least two consequences would follow. First, the law would subject citizens to an intolerable burden of potential liability, and constrain their freedom of action in a gross manner. Secondly, the tort of negligence would subvert many other principles of law, and statutory provisions, which strike a balance of rights and obligations, duties and freedoms. A defendant will only be liable, in negligence, for failure to take reasonable care to prevent a certain kind of foreseeable harm to the plaintiff, in circumstances where the law imposes a duty to take such care."

[105] The duty of care imposes an obligation to exercise reasonable care. Reasonable care is to be assessed by the standards and knowledge at the time of an alleged breach with any assessment of that breach being made prospectively not retrospectively.[21] The classic exposition of the task was enunciated by Mason J (as his Honour then was) in *Wyong Shire Council v Shirt*:[22]

> "… it is then for the tribunal of fact to determine what a reasonable man would do by way of response to the risk. The perception of the reasonable man's response calls for a consideration of the magnitude of the risk and the degree of the probability of its occurrence, along with the expense, difficulty and inconvenience of taking alleviating action and any other conflicting responsibilities which the defendant may have. It is only when these matters are balanced out the tribunal of fact can confidently assert what is the standard of response to be ascribed to the reasonable man placed in the defendant's position."

[106] A reasonable response to a foreseeable risk is properly to be assessed having regard to an evaluation of the probability of the risk, and the degree of a defendant's control over that risk.[23] Having assessed the probability of the occurrence of the risk, the question to be determined is what, judged prospectively, the exercise of reasonable care would require in response to that foreseeable risk of injury. It is not a question of asking whether what was done would have failed to prevent harm.[24]

[107] The importance of a prospective analysis was emphasised by Gummow and Hayne JJ in *NSW v Fahy*:[25]

> "… the examination of the causes of an accident that *has* happened cannot be equated with the examination that is to be undertaken when asking whether there was a breach of a duty of care which was

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19 *Cole* at 487 [56].
20 (2001) 207 CLR 562 at 576 [42].
21 *Roads and Traffic Authority (NSW) v Dederer* (2007) 234 CLR 330 at 338 [19] and 353 [65]-[67].
22 (1980) 146 CLR 40 at 47-48.
23 *Dederer* at 351 [59].
24 *Dederer* at 353 [65].
25 (2007) 232 CLR 486 at [57].

> a cause of the plaintiff's injuries. The inquiry into the causes of an accident is wholly retrospective. It seeks to identify what happened and why. The inquiry into breach, although made after the accident, must attempt to answer what response a reasonable person, confronted with a foreseeable risk of injury, would have made to that risk. And one of the possible answers to that inquiry must be 'nothing'."
> (emphasis in original)

Findings

A duty of care

[108] In determining whether the defendant owed each of the plaintiffs a duty of care in imposing conditions on the grant of CML568, in supervising those conditions, and in responding to the 1988 subsidence event, regard must first be had to the terms, scope and purpose of the relevant statutory regime. In doing so, care must be taken to not focus on questions of breach of duty as there is an inherent danger in determining the relevant duty, scope and content by first looking at the cause of the damage and what could have been done to prevent it.[26]

[109] The relevant statutory regime provides for the grant of approval to mine, subject to specific statutory conditions as well as any special conditions considered appropriate for the particular mine. Whilst such a statutory regime is directed towards realising a valuable economic resource by mining in an economically efficient and safe manner, its scope and purpose clearly has to have regard to the impact any approved mining may have on the owners of surface land as the regime specifically allows for the approval of mining on privately owned land.

[110] Importantly, the regime provides a power to impose special conditions, and gives the defendant responsibility for monitoring and supervising compliance with those conditions. The imposition of this responsibility, as part of the statutory scheme, is consistent with the statutory regime being directed towards minimizing a risk of foreseeable harm to the owners of the surface land, including prospective future owners of that land. A failure to comply with mining conditions can create an inherent risk of harm from future subsidence of the surface land.

[111] Turning to the "multi-faceted enquiry" required to determine whether the posited duty of care was owed by the defendant, three aspects are of particular importance. First, the degree and nature of control exercised by the defendant over the risk of harm that eventuated. Second, the degree of vulnerability of those who depend on the proper exercise of that by the authority of its powers. Third, the consistency or otherwise of the asserted duty of care with the terms, scope and purpose of the relevant statute.

[112] A fundamental consideration is the degree and nature of control over the risk of harm from subsidence damage to the surface land. That control was substantial. It included specific control of that risk by the imposition of conditions as to extraction ratios and pillar size and shape. Such conditions were designed to preclude any damage by subsidence. It was known, at the time, that a failure to comply with the conditions could impact on pillar stability, and that pillar stability directly impacted upon the risk of subsidence of the surface land.

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[26] *Kuhl v Zurich Financial Services Australia Limited* (2011) 243 CLR 361 at 370 [19].

[113] The defendant's contention it did not exercise sufficient control as it did not undertake the mining in question, fails to have proper regard for that level of control. Further, the defendant's inspectors had an obligation to inspect the mine on a regular basis. An inspector had power to stop mining in the event of non-compliance with such conditions. The responsibility to supervise compliance with those conditions is also particularly relevant. A failure to do so directly impacted on the safety of the operation of the mine.

[114] The power to monitor and supervise compliance with mining conditions is an important distinguishing feature of the present legislative scheme to that considered in *Newcastle City Council v Shortland Management Services*.[27] Whilst the factors identified in *Newcastle City Council v Shortland Management Services* would support a finding that no duty of care was owed in deciding whether to grant CML568, those factors are not persuasive when considering the existence of a duty of care in the imposition of conditions in that grant, and monitoring compliance with those conditions, including responses to non-compliance with those conditions.

[115] This degree of control also distinguishes the present case from *Amaca Pty Ltd v New South Wales*.[28] The degree of control exercised by the defendant under the statutory regime related to the safety of the mine itself, including its long-term safety after the completion of mining operations. It was not merely directed to the safety of a particular individual worker.

[116] The defendant contends that in considering these aspects, it is relevant the defendant did not create the danger. The defendant did not carry out the mining works, and it did not authorise it or undertake the development of the surface areas of CML568 for residential purpose. It seeks to draw parallels with other types of licensing regimes such as the issuing of drivers' licences. However, such licensing regimes are not akin to the level of control exercised by the defendant over mining operations pursuant to this statutory regime.

[117] First, the defendant has the primary responsibility for the imposition of any special conditions for the operation of mining activities. Those conditions may be contrasted to the conditions to be imposed on drivers' licences which relates to the class of vehicle to be driven or items to wear when driving, rather than conditions on how the driving is to be undertaken. Second, the defendant has an ongoing obligation to monitor and supervise compliance with those conditions as part of its inspection of the operation of underground mining. That is another salient distinction from driving licences regimes. There is no obligation to monitor the driving undertaken by persons issued with such licences.

[118] These factors distinguish this statutory regime from the regime considered in *Graham Barclay* which was found to contain a policy decision to adopt an industry funded self-regulation regime rather than a publicly funded regulatory regime. The self-regulation regime meant the State neither required regular sanitary surveys of oyster growing areas nor undertook the conduct of such surveys and there was no evidence the State was aware of any particular risk of contamination in respect of the particular fishery.[29]

[119] A self-regulation scheme is in stark contrast to the statutory regime under the Acts. As part of that regime, the State had its employees, as inspectors, inspect the

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27 (2003) 57 NSWLR 173.

28 (2004) 132 LGERA 309.

29 *Graham Barclay* per Gummow and Hayne JA at 606-607 [175]-[176].

operation of the No 3 mine at least monthly with powers to order cessation of mining work in the event of non-compliance. Those inspectors were expressly aware of the risk of subsidence to the surface land in the event of non-compliance with conditions as to the size of pillars, and the extraction ratios.

[120] These factors are also relevant when considering the foreseeability of harm to prospective purchasers and owners of the surface land. At the time of the grant of CML568, the defendant was specifically aware of the intentions of QHC to develop Portion 55. QHC had written to the Mining Warden on 21 June 1966 advising:

> "…a very substantial demand is building up for residential development between Gailes and Riverview and the Commission regards its land at Redbank as an important provision for the future. … This Commission objects to the issue of the lease sought by Westfalen Colliery Pty Ltd, unless such terms and conditions are imposed on the Lessee as will full protect in every way the houses already erected and those which will be erected in the future on the areas of land owned by the Commission and detailed above."

[121] The defendant was also aware of the potential for the subdivision of Portions 56 and 57. It had advised the owner of the surface land not to be concerned as to the impact of mining on the surface land as:

> "I have to inform you that mining will not occupy any surface of the lands described in your letter, and the condition (b) contained in my memorandum of 26th April last, particularly is designed to preclude any damage by subsidence."

[122] The defendant also had a level of control over any future subdivision. Rezoning of the land by the Governor-in-Council was a necessary step in the approval of any residential subdivision of the land by the local council.

[123] The defendant conceded that in 1967, there was a foreseeable risk of subsidence damage to the surface land of CML568 in the sense that such a risk was not farfetched or fanciful and was readily imaginable. That risk of subsidence damage was of sufficient magnitude that a reasonable person in the position of the defendant would foresee that a failure to impose appropriate conditions on the grant of CML568, and to monitor compliance with those conditions would give rise to the risk, and take steps to avoid that risk.

[124] That foreseeable risk included that prospective purchasers and owners of the surface land could suffer subsidence damage if appropriate conditions were not imposed on the operation of underground mining below that surface land, and compliance with those conditions was not properly monitored and enforced during mining operations. The knowledge of likely future surface development meant prospective future purchasers of the land were foreseeable.

[125] Whilst the economic interests of future owners of buildings erected on the surface land are governed by legislative regimes such as town planning and building controls approved by local governments, those local government entities make assessments as to the risk of subsidence to future buildings on that land based on the conditions imposed on any mining grant, having been properly supervised and enforced during mining operation.

[126] Local Government entities have no way of ascertaining whether there has been compliance with the conditions, other than an acceptance the defendant will have

complied with its statutory obligations. That this was so was clear from a consideration of the process of the approval of QHC's application to rezone its land in 1980. The defendant's Department of Mines had provided QHC with a mining subsidence report. That report did not suggest there was any non-compliance with the conditions imposed on the mining lease CML568.

[127] That local government entities owe a duty of care to a subsequent purchaser of land subdivided as a consequence of an approval given by that entity does not detract from the existence of a duty of care owed by the defendant to owners of the surface land, including future purchasers of buildings erected on that land. Further, the imposition of such a duty of care would not be inconsistent with the terms, responsibilities and purposes of the regime. Such a duty does not inhibit mining. It may still continue, subject to proper conditions, and the monitoring of them.

[128] The owners of the surface land, including subsequent purchasers of buildings constructed on that land, were vulnerable to such damage as their capacity to take steps to protect themselves from such damage was limited. They had no control over the imposition of conditions on, and compliance with the conditions of, the mine lease. A failure to comply with those conditions placed them at significant risk of loss and damage as a consequence of a subsidence event. That risk was real, even though the magnitude was small having regard to the depth at which mining was being undertaken at the No 3 mine.

[129] The defendant contends each of the plaintiffs lacked the requisite vulnerability in the present case. There were steps they could take to protect themselves from the risk of the claimed losses, and the defendant's actions did not preclude the taking of such steps, and there was no reliance upon the conduct of the defendant by way of justification for not taking any of those steps. Those steps included undertaking enquiries and searches as to the existence of underground mining in relation to their property and obtaining geotechnological reports as to the stability of the land and the adequacy of the construction of the structures thereon having regard to those geotechnical characteristics.

[130] Whilst each of the plaintiffs could have undertaken requisite searches and obtained necessary reports, the results of those searches and reports would merely have confirmed the existence of underground mining and, perhaps, the conditions imposed on CML568. Nothing in those searches would have revealed whether the conditions imposed on the grant of CML568 had been properly monitored, inspected and enforced in accordance with the statutory regime under the Acts. There were no searches or reports that could be obtained which would or could provide information in respect of those crucial matters, each of which were within the knowledge and control of the defendant.

[131] Having considered all of the relevant factors including the nature, terms and purpose of the statutory regime, the control exercised by the defendant over the risk of harm from subsidence of the surface land, and the vulnerability of subsequent potential purchasers of the surface land to such risk, I am satisfied it is not inconsistent with the statutory regime created under the Acts for there to be imposed upon the defendant a duty of care to the owners of the surface land, including potential purchasers of future residential premises.

[132] The fact the specific residential lots did not exist at the time of the grant of CML568, or when panels H1 and H2 were mined, does not detract from a finding the subsequent potential purchasers of those residential lots had the requisite degree

of vulnerability sufficient to support a finding of a duty of care being owed by the defendant to that plaintiff. That the plaintiffs were aware, or ought reasonably to have been aware of mining in the specific area also does not detract from those plaintiffs having the requisite degree of vulnerability. The issue is not the presence of mining underground. It is the adequacy of the conditions imposed, and the enforcing of those conditions by proper monitoring or supervision in accordance with the statutory regime.

[133] The duty of care only extends to the exercise of the powers in imposing conditions on the grant of a mining lease, and the monitoring, supervision and enforcement of compliance with those conditions in the course of mining operations. To impose a duty of care in the grant of the mining lease at all would be wholly inconsistent with the nature, purpose and effect of the statutory regime. Such a duty implies the reasonableness or unreasonableness of a decision to grant a particular mining lease was a legitimate matter of curial decision in circumstances where legitimacy would involve questions of practicality and appropriateness. It is inappropriate to impose a duty of care in such circumstances.[30]

[134] By contrast, the essence of the power to impose conditions, and to monitor and supervise those conditions, does not involve policy considerations of a kind inconsistent with the exercise of those powers being a legitimate subject for curial decision. The imposition of conditions involves a consideration of expert or professional opinion having regard to the nature of the mineral, the depth of the proposed mine, and the risks to surface land from the proposed mining operation. The monitoring and supervision of the enforcement of those conditions involves the exercise of powers in accordance with the statutory regime.

[135] The plaintiffs contended the defendant also owed a duty of care to each of them in responding to the 1988 subsidence event. It is alleged that duty included a requirement to take remedial steps which were reasonable and practical to obviate or minimise the risk of injury to the plaintiffs from subsidence of their properties, or to establish a "guarantee" that met financial loss.

[136] This alleged duty arises in circumstances where there is no allegation the defendant was in breach of a duty of care in relation to the occurrence of 1988 subsidence event. Against that background, I am not satisfied a separate independent duty of care arises in relation to the taking of remedial action following the 1988 subsidence event. It may well be the need to take remedial, or other action, was a proper response to the risk created by the defendant's breach of its duty of care to the plaintiffs in relation to the imposition of conditions on the grant of CML568, and the monitoring and supervision of those conditions. But that does not mean the defendant owed a separate duty of care in relation to the taking of remedial action.

Breach

[137] The relevant foreseeable risk of harm was the risk of economic loss by way of diminution in the market value of land consequent upon a subsidence event on surface land above the mining operation. That risk is not limited to land actually the subject of the subsidence event, although factors such as the land's relationship to the area of the subsidence event will impact on whether the claimed damage is so remote as to not be properly compensable.

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30 *Graham Barclay* at 557 [15]; *Meshlawn Pty Ltd v State of Queensland* [2010] QCA 181 at [70]-[72]. See *also New South Wales Mining Co Pty Ltd v Attorney General* (1967) 67 SR (NSW) 341.

[138] In the present case, mining was being undertaken a considerable distance below the surface land. As such, the risk of subsidence, judged prospectively, was small. However, it was real. Further, in the event of a subsidence event there was, judged prospectively in 1967, a risk of economic loss by reason of a diminution in value of properties on the surface land.

[139] The fact that development of the surface land was minimal at that time does not mean that risk was not of such a magnitude that a reasonable response to the risk was to take steps to ensure adequate and proper conditions were imposed on the grant of CML568, and that compliance with those conditions was properly and adequately monitored, supervised and enforced by the relevant inspectors.

[140] In respect of the imposition of conditions, the plaintiffs contend the defendant breached its duty of care by granting CML568 without imposing a condition limiting the height of the workings. A height restriction condition was specifically recommended by the Inspector of Mines but that recommendation was not ultimately followed in the conditions imposed on CML568.

[141] I accept the evidence of Dr Maconochie and Dr Pells that increased height of working is causally significant in terms of long-term pillar stability. I also accept it was known in 1967 that pillar stability was affected by height of the pillars. Dr Maconochie and Dr Pells' evidence was clear in this respect. To the extent Professor Hebblewhite disagreed, I prefer the evidence of Dr Maconochie and Dr Pells. Mr Bailey also accepted it was known at that time.

[142] However, the evidence establishes that whilst a height restriction was not imposed as a condition of CML568, the proposed height restriction was, in substance, the height at which most mining was undertaken in the No 3 mine. Whilst there were instances where the height of the workings exceeded the recommended 6 metre limit, there is no evidence these occasions substantially contributed to the subsidence event (as opposed to other factors such as pillar size and the extraction ratio). Dr Pells notes probable collapses in the roadway headings subsequent to mining caused an effective increase in the height of the pillars but does not assign as a separate factor the height of the workings themselves.

[143] I am not satisfied the imposition of a height restriction would have materially altered the risk of a subsidence event. The failure to impose that condition does not constitute a breach of the defendant's duty of care.

[144] Compliance with the imposed conditions is, however, a different question. The plaintiffs contend the defendant breached its duty of care by permitting or acquiescing in the operators of the No 3 mine creating pillars not of uniform size and length, with size routinely less than 24 yards, and not containing more than 60% of the seam. This allegation strikes at the heart of the contention the defendant failed to properly monitor, supervise and enforce the conditions imposed on CML568.

[145] A special condition of CML568 required the pillars be of uniform size, that the shortest side of any pillar be not less than 24 yards and that the extraction rate not exceed 40%. Whilst this special condition applied only in respect of areas below roads, surface buildings and dwelling existing at the time of the grant of the lease, I accept the evidence of Mr Bailey that the mine was operated on the basis that condition applied throughout the mine area. That evidence was consistent with the terms of the advices provided by the Chief Inspector in 1972.

[146] In any event, there were at the time of the mining of panels H1 and H2 some roads on the surface land above such that this special condition properly applied to workings in panels H1 and H2. I reject a contention by the defendant to the contrary.

[147] As to compliance with that special condition, Dr Maconochie undertook a detailed analysis of the size and shape of pillars in panels H1 and H2.[31] That analysis concluded the pillars in this area were not of uniform size and shape. Further, 100% of the pillars had an effective pillar width of less than 24 yards, and 84% of the pillars had pillar sides less than 24 yards long. None of the pillars had more than 60% of the seam left to support this overburden.

[148] I accept the analysis undertaken by Dr Maconochie. That analysis was accepted as accurate by the other experts. Significantly, Dr Pells' own manual assessment had produced an extraction of coal of 42.4%, whilst Dr Maconochie had assessed the common extraction ratio as 49%. That conclusion means this special condition was not complied with in a material way. The pillars in Panels H1 and H2 were not of uniform size and shape, the shortest side of pillars was substantially less than 24 yards, and the extraction ratio was greater than 40%.

[149] Whilst none of the mine managers or inspectors called to give evidence had any concerns about size and shape of the pillars shown on the mine plan, or about a difference between the stability of a diamond shaped pillar as opposed to a square shaped pillar, Dr Maconochie's analysis clearly establishes that panels H1 and H2 were not mined in conformity with the special conditions imposed on CML568. I do not accept that it amounts to a worst case scenario. That analysis is entirely in accord with the depiction of the panels on the mine plan which, on all the evidence, was an accurate document from which an inspector was able to ascertain the size, shape and dimensions of pillars.

[150] In circumstances where the defendant's inspectors knew, at the time of the mining of panels H1 and H2, that pillar stability was dependent upon the size of the pillar and the extraction ratio of the seam, a reasonable person in the position of the defendant would have foreseen that a failure to supervise and enforce compliance with conditions in relation to the size of pillars and the extraction ratio, gave rise to a foreseeable risk of subsidence of the surface land, and a resultant risk of diminution in value of the surface land.

[151] A reasonable person in the defendant's position at the time of the mining of panels H1 and H2 would have taken steps to ensure such conditions were complied with, and would have taken steps to ensure there was ongoing monitoring, supervision and enforcement of those conditions. The defendant did not undertake that task. Whilst the defendant had inspectors in place, those inspectors, despite having access to accurate mine plans which evidenced the non-compliance with those conditions, and undertaking (at least) monthly inspections of the working areas, raised no concerns about non-compliance with this special condition. Those inspectors also took no steps to enforce compliance with this special condition. The failure to do so constituted a breach of the defendant's duty of care in all the circumstances.

[152] The plaintiffs also alleged there was a breach of the duty of care by the defendant in permitting or acquiescing in the operators of the No 3 mine working drive access tunnel widths of greater than 7 yards. The operation of tunnel widths greater than 7

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[31] Although Dr Maconochie identified the area "K", it is clear the area corresponds with Panels H1 and H2.

yards would be a breach of one of the conditions. However, it is not alleged that was a cause of the 2008 subsidence event, and there is no evidence the working drives were greater than 7 yards in the area of the 2008 subsidence event. In any event, the expert evidence, which I accept, is that it is unlikely that having drive widths greater than 7 yards materially contributed in any significant respect to the pillar collapse leading to the 2008 subsidence event. That being so, I am not satisfied to the requisite standard that permitting or acquiescing in drive widths greater than 7 yards constituted a breach of the defendant's duty of care.

[153] The plaintiffs also contend their damage was caused by a breach of the defendant's duty in failing to make a public statement in respect of the real potential for subsidence of the surface land following the 1988 subsidence, or in making and not correcting a media release which was contrary to external technical advice. However, no evidence was led by any plaintiff in relation to reliance upon any media release. Against that background, there is no basis to conclude a reasonable person in the position of the defendant would have made such a public statement, or would have corrected the media release made by it. Further, there is no causal connection established between a failure to do so, and any loss and damage occasioned by any of the plaintiffs.

[154] Finally, the plaintiffs contend the defendant breached its duty of care by failing to undertake remediation work after the 1988 subsidence event to prevent further subsidence. The remediation work contended for by the plaintiffs' involved back filling the underground workings between the fault lines and areas H1 and H2. It was common ground between the expert witnesses that such back filling would have eliminated or reduced to a negligible level the risk of the 2008 subsidence.

[155] Following the 1988 event Dr Maconochie specifically raised concerns as to the stability of most of Portion 55, with the area of the 2008 subsidence event being specifically identified as an area of concern. Dr Maconochie suggested to a committee consideration be given to filling in the seam roadways to arrest underground movements. Dr Maconochie said:

> "To arrest any further movement underground a program of stabilisation would have to be carried out. Indicative costs for such work would be in excess of $1 million.
>
> Dr McConachie has reviewed previous work by Jim Enever of C.S.I.R.O. on Westphalen No 3 mine and considered that the factor of safety on the mine pillars is lower than it would normally expect. Because of this he considers that the mine pillars would be under great stress.
>
> Dr McConachie also considers that after discussing the problem with Mr Enever other areas of the mine not presently affected, could be affected at a later date."
>
> (errors in original)

[156] Back filling of the relevant area would have involved substantial work over an extended period of time at a cost of tens of millions of dollars. Whilst Dr Pells estimated the cost at less than $30 million, I prefer and accept Mr Allen's assessment that the cost would have been far greater. Dr Pells based his analysis on an acceptance the procedure adopted for the Newcastle tax office site could be replicated at Collingwood Park. However, the area involved in remediation of

Panels H1 and H2 was substantially greater, and did not involve a cleared site, like the Newcastle site.

[157] I also prefer and accept Professor Galvin's evidence that such work, whilst technically feasible, would have involved years of planning, and substantial disruption to the neighbourhood when undertaking such a remediation work. When regard is had to the risk of further subsidence, the presence of the scheme put in place by the State Government following the 1988 subsidence, and the astronomical cost associated with undertaking back filling, I accept Professor Galvin's opinion it was unreasonable to expect the defendant to undertake back filling of the underground workings between the fault lines and areas H1 and H2.

[158] I did not find Dr Pells' evidence to the contrary cogent or persuasive. Dr Pells was too ready to discount the very real practical difficulties in undertaking such a project. Further, whilst back filling would have removed the risk of further subsidence in the particular area it would not have addressed in any way the risk to other properties in Collingwood Park under which mining had occurred, and which contained pillars with similar factors of safety.[32]

[159] Dr Pells' estimate of cost was also questionable having regard to his reliance upon information given to him by another in circumstances where there was little factual basis identified for those costs estimates. By contrast, Mr Allen prepared a detailed cost estimate using two different bases. Each was substantially greater than the cost estimate undertaken by Dr Pells. Mr Allen is an experienced costing engineer. I accept and prefer Mr Allen's assessment of the cost of back filling works.

[160] Remediation was considered following the 1988 subsidence. Inquiries were made with various bodies, however, none of those bodies could offer a realistic proposal. By contrast, the scheme introduced by the defendant following the 1988 subsidence event provided protection for owners whose properties were damaged, including purchase of those properties when they were damaged beyond economic repair. A number of properties were purchased pursuant to this scheme, and demolished.

[161] Having regard to the available information at the time of the 1988 subsidence event, that response was reasonable in all of the circumstances. A reasonable person in the defendant's position would not have undertaken remediation of the area by back filling at enormous cost and disruption to the community when the scheme introduced following the 1988 event provided financial recompense for future subsidence events.

[162] The plaintiffs have not established the failure of the defendant to undertake remediation work by back filling the areas of mining operations in panels H1 and H2 constituted a breach of their duty of care. Such a response, assessed prospectively rather than retrospectively, is not the response a reasonable person would have adopted in all of the circumstances.

Causation

[163] There was general agreement between the expert witnesses that the 2008 subsidence event would not have occurred without mining having taken place in the areas known as panels H1 and H2. They agreed that notwithstanding the conditions imposed on CML568, the mine was operated as if the conditions applicable to areas below surface buildings and roads applied to the whole of the lease.

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32 Galvin Report, ex 59.

[164] The experts agreed a failure to comply with conditions would be detrimental to the long term stability of the surface land. The experts also agreed that in 1978 and in 1983 the risk of surface subsidence was characterised as being unlikely in the available documentation, but left open the question of whether that was a proper characterisation.

[165] The experts also agreed that on the available evidence, despite the lease conditions, the majority of pillars in the Westfalen No 3 Mine area were not of uniform size. A substantial number of the pillars were diamond shaped, as a result of which the width of the pillar was less than 24 yards, with the length of the pillar being substantially greater than 24 yards. The pillar was weakened by this overall result. The experts accepted the percentage extraction across the region of the lease considered by Galvin Associates was higher than permitted by the conditions, ranging between 40% and 53%.

[166] Whilst the experts accepted the roadways in some parts of the mining area were greater than the distance of 7 yards specified in the lease conditions, there was evidence in various mines inspection reports of requests for remedial action to be undertaken whenever excess width was identified. To that extent, the experts did not accept the defendant had acquiesced in permitting mining of roadways greater than seven yards.

[167] The experts agreed the support of workings used was in accordance with reasonable and usual practice at the time. It was not common practice at the time of the granting of lease CML568 for geotechnical reports to be first obtained to assess the impact of mining in the respective area, particularly in respect of building development on the surface land, either in the present or in the future.

[168] The experts agreed the failure to impose a condition limiting the height of the workings in Westfalen No 3 Mine, and a condition linking the extraction ratio of 40% to the extraction thickness, materially contributed to the 2008 subsidence event. They agreed there was available, at the time of the grant of CML568, published technical information indicating height and extraction were material considerations to pillar strength.

[169] In respect of the height of workings, the experts agreed it was known the relevant seam was about seven metres thick but could not comment on what was the anticipated height of the workings by either the relevant Mining Department or by Westfalen. Several references to mining heights of 18 feet were noted as commencing on 20 March 1970. However, later reports identified a height of working in some areas of between 8 and 11.3 metres. Those experts who were prepared to comment on the present height of the workings interpreted the available information to indicate the height of workings were typically about 6 metres but in places were up to or possibly in excess of 11 metres.

[170] I accept the joint opinions of these experts. Whilst diamond shaped pillars may not have caused concerns for any of the mine managers or inspectors called to give evidence, the consequence of having diamond shaped pillars was that the width of those pillars was significantly less than the required 24 yards. The failure to comply with that condition of the mining lease materially impacted on pillar stability. Likewise, the failure to leave at least 60% of the seam within the pillars materially impacted on pillar stability. I accept the evidence of the experts that these factors substantially contributed to the 2008 subsidence event.

[171] I find the 2008 subsidence event was materially contributed to by the size and shape of the pillars and the higher extraction ratio. Each was in breach of the lease conditions.

Damage

[172] A plaintiff in each of the proceedings gave evidence as to the effect of the 2008 subsidence event on their property and/or on the amenities of the surrounding area. Understandably, none of the plaintiffs were able to give relevant evidence as to the operation of the mine, including compliance with any conditions.

[173] In order to succeed, the plaintiffs must establish, on the balance of probabilities, that the defendant's conduct in failing to monitor, supervise and enforce compliance with the conditions imposed on CML568, in breach of its duty of care, caused or materially contributed to each plaintiff's loss and damage. In determining whether the plaintiffs have satisfied this onus, it is necessary to undertake a hypothetical inquiry as to what might have happened if the defendant had performed the act omitted to be done.[33]

[174] In determining this question, two issues arise on the pleadings. First, was there any diminution in market value? Second, was any such diminution caused by the subsidence, or other events affecting the market?

[175] In respect of the first issue, the valuation experts disagreed as to the correct methodology for an assessment of damage. The different methodology produced starkly different outcomes. Mr Kendall's opinion assumed a "blight" factor and found that for the first two years following the 2008 subsidence event the whole of the suburb of Collingwood Park suffered suppression in property values due to the subsidence event. In his opinion, but for the 2008 subsidence event, properties in Collingwood Park would have performed within the range of 10% to 15% better than they did for the first two years after the 2008 subsidence event.

[176] Mr Kendall further opined that after those two years Collingwood Park as a whole returned to a normal level but properties outside CML568 out-performed properties inside CML568, and properties outside the mining influence area out-performed properties inside the mining influence area. Had it not been for the 2008 subsidence event, properties inside the mining influence area and properties inside CML568 would have performed 15% better. The number of sales inside the mining influence area and within the area of CML568 had also dropped substantially in the two years from 27 October 2010 when compared with the number of sales in the two years before the 2008 subsidence event, whereas the number of sales outside the mining influence area and outside CML568 had not dropped nearly so substantially in that two year period.

[177] Mr Gillespie's analysis did not support the existence of a blight factor on the prices achieved in Collingwood Park. Mr Gillespie concluded the changes in prices and available properties were due to other factors. Sales before April 2008 occurred in a rising market, whereas sales after April 2008 occurred in a falling market. Further, market fluctuations in Collingwood Park were reflective of the general market rather than being influenced by the 2008 subsidence event. The relativity of values between properties inside and outside the mining influence area had not changed, and there was no diminution in value of properties outside the area immediately affected by the 2008 subsidence event. Finally, whilst there was some diminution

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[33] *Bennett v The Minister of Community Welfare* (1992) 176 CLR 408 at 420.

in value of properties adjacent to the 2008 subsidence event, this diminution was due to their proximity to the area or the impact on their visual amenity over the subsidence area rather than being suburb based generally.

[178] I did not find Mr Kendall's conclusions persuasive. His analysis had significant flaws. First, there was no attempt to determine a pre-subsidence market value in April 2008. His process sought to arrive at a market value on an assumed blight encumbered basis. A determination of a pre-subsidence market value in April 2008 may have properly informed him as to whether the assumption of a blight was factually correct. Second, his analysis took no account of market conditions at different times, and assumed a general effect of the "blight" over the suburb rather than ascertaining if there were differing effects having regard to the proximity of the property to the area of the 2008 subsidence event. Third, he did not have regard to comparable sales in other areas of Brisbane which may have given a better reflection of the impact of general market forces on any changes in value in the Collingwood Park area. Reference to neighbouring suburbs was insufficient to ascertain the impact of general market factors.

[179] Mr Kendall's 2010 analysis of the four sales relied upon by him to derive the 20% figure for blight subsidence was also based on false premises. He treated the purchaser of 24 Strawn Court as being an uninformed or imprudent buyer when the purchaser gave evidence clearly indicative of an informed buyer. Mr Kendall also did not have a proper regard for the differences between what he considered to be comparable properties which may have explained the higher price for one as opposed to the other. Mr Kendall also made no adjustment for comparable sales having occurred over 12 months apart, and therefore in a different market. I accept the residential property market fluctuated between 2008 and 2010, with the market falling in 2009 and rising again in the first half of 2010. Such factors are important factors in the determination of the proper value of a property.[34]

[180] There was one further matter which adversely impacted on my assessment of the reliability of Mr Kendall's conclusions. In the joint report, Mr Kendall accepted his assessment was undertaken on the premise the mining did not exist. Whilst Mr Kendall sought to explain this reference as being an error, his explanation was unconvincing and lacked cogency. The "error" occurred on three separate occasions in the report: paragraphs 1.2.1(b), 2.1.1 and 3.2. A consideration of the relevant paragraphs indicate the references are relevant and in context. On each occasion, there is a clear acknowledgment he undertook his analysis on the basis mines did not exist.

[181] The abovementioned factors left me with the clear impression Mr Kendall's opinion was fundamentally flawed. I do not accept his conclusions. By contrast, Mr Gillespie impressed me as having undertaken a careful and considered approach to the assessment of whether there was any diminution in value to the properties in Collingwood Park as a consequence of the 2008 subsidence event. He did so without assuming there was a "blight", although he had commenced the task with a "gut reaction" that there would be an impact. His analysis did not, however, support that reaction. A diminution in value was only shown in those properties directly adjacent to the 2008 subsidence event.

[182] Mr Gillespie gave cogent reasons for changes in prices, and in the volume of properties sold at particular times. I found his explanation for the reduction in the

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[34] *Kenny and Good v MGICA* (1999) 199 CLR 413 at 436-437 [51]-[52].

number of sales inside the mining influence area after the 2008 subsidence event, as compared to within Collingwood Park but outside the mining influence area, reasonable and logical. As Mr Gillespie noted, the property owners inside the mining influence area lived in an older, more established area, close to shops and schools. This was an area that is desirable, and an area in which people liked to remain. Whilst it is true those factors existed both before and after the 2008 subsidence event, they are still relevant when considering why it may be that there is a reduction in the number of sales at a time coincidental to the 2008 subsidence event. Differing aspects of the same suburb are matters which can impact on the desirability to live in one part of the suburb over another.

[183] The plaintiffs were critical of aspects of Mr Gillespie's evidence. However, his responses impressed me as being both considered and measured, without any hint of a preconceived conclusion. Those responses revealed Mr Gillespie had given careful consideration to what are usual orthodox valuation principles. Mr Gillespie also undertook his task having regard to general market factors, including economic factors. His conclusions included references to comparable suburbs a considerable distance from Collingwood Park. Mr Kendall's reliance on suburbs adjacent to Collingwood Park prevented a proper consideration of those general market factors.

[184] I accept and prefer Mr Gillespie's analysis of the effects of the 2008 subsidence event on properties in Collingwood Park generally and, in particular, on the plaintiffs' properties. I accept his opinion that the only properties that have suffered a diminution in value as a consequence of the 2008 subsidence event were the six properties immediately adjacent to that area. I accept the initial impact of the 2008 subsidence event was temporary, with any change in the value of the remaining properties being attributable to market forces from 2010 unrelated to the 2008 subsidence event.

Conclusion

[185] The plaintiffs have established, on the balance of probabilities, that the defendant owed a duty of care to the owners of the surface land when imposing conditions on the grant of CML568, and in the monitoring, supervision and enforcement of those conditions. The plaintiffs have established on the balance of probabilities the defendant breached that duty of care in failing to properly monitor, supervise and enforce compliance with condition 2 of the special conditions imposed on the grant of CML568.

[186] The plaintiffs have also established this breach of duty was causative of the 2008 subsidence event. I am satisfied, on the balance of probabilities, the defendant's breach of duty caused a diminution in value to those properties immediately adjacent to the area of the 2008 subsidence event, but not otherwise.

Orders

[187] The parties are to prepare a minute of orders in accordance with these reasons. I shall hear the parties as to costs.