

# Chapter 1: Introduction

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## 1.1 Scope

### (a) *Objective*

The joint operating agreement (JOA) is one of the most important documents in oil and gas transactions and projects.<sup>1</sup> JOAs regulate the rights and duties of the parties to an unincorporated joint venture (JV) aimed at the exploration and exploitation of oil and gas.<sup>2</sup> Most of the duties under a JOA rest with the operator – that is, the party responsible for the administration of the day-to-day activities of the JV. Consequently, JOA models and studies commonly focus on the operator's perspective. However, such ventures are not the exclusive preserve of the operator: non-operators also make a vital contribution to the success of joint operations.

Non-operators might retain, individually, a smaller participating interest in the JV, as they might have fewer financial and technical resources than the operator, though this is not always the case.<sup>3</sup> This creates an environment where little attention is given to the perspective of the non-operators. Their situation is akin to that of minority shareholders, who similarly have less say than majority shareholders in the conduct of a company's operations. However, they still have shares in the company, along with their own views on how the company should be run.<sup>4</sup> Thus, it is necessary to understand the needs and perspectives of non-operators in order to establish an efficient, reasonable and fair agreement.<sup>5</sup> If the perspectives of non-operators are ignored, it is extremely difficult to create a balanced instrument.

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1 “Probably the most significant contract used in the upstream business is the JOA. It sets out the fundamental and overarching relationship among joint venture parties from the initial exploration to the ultimate production of hydrocarbons.” A Timothy Martin, “Model Contracts: a Survey of the Global Petroleum Industry” (2004) 22 *J Energy & Nat Resources L* p291.

2 For the purposes of this book, ‘consortium’ and ‘JV’ will have the same meaning.

3 This is not a hard and fast rule. There are a number of instances where the operator will not hold the largest participating interest, but this is more likely to happen in a major transaction and/or project with several large oil companies in the same consortium.

4 Because of such similarities, commentary on the situation of minority shareholders is provided where appropriate (although it is beyond the scope of this book to provide a comprehensive analysis of this position). For further information, see Victor Joffe QC *et al*, *Minority Shareholders: Law, Practice, and Procedure* (3rd ed, OUP, Oxford 2008), AIJA Law Library, *Protection of Minority Shareholders* (Wolters Kluwer, London 1997), AJ Boyle, *Minority Shareholder's Remedies* (CUP, Cambridge 2002), Robin Hollington QC, *Minority Shareholders' Rights* (3rd ed, Sweet & Maxwell, London 1999).

5 It is common to analyse a JOA from the operator's perspective, but it is important to note that some authors also recognise the importance of non-operators, such as John BB Bullough, “The Norwegian Experience – The Role of a Non-Operator” (1996) 11 *Oil and Gas Finance & Accounting* and Peter Roberts, *Joint Operating Agreements: A Practical Guide* (Globe Law and Business, London 2010) pp244–245.

Consequently, critical problems may arise and potentially jeopardise the existence of the consortium, as the cooperation of all its participants is crucial to success. Moreover, the JOA is usually in force for the whole duration of the petroleum title, which can last for 30 years or more.<sup>6</sup> A provision which appears to be favourable to one party in the early stages might, later in the life of the JOA, turn out to be less so. The JOA should thus offer reasonable terms for all contracting parties, from the beginning until the end of the agreement.

This book may be of particular value to mature provinces such as the UK and Norway,<sup>7</sup> as the major oil companies tend to withdraw their investments (especially in smaller projects) from such areas and reinvest in jurisdictions where larger projects promise greater rewards. These companies are in turn being replaced by small or medium-sized independent companies, commonly with less experience and lacking the robust financial resources required to operate in exploration and production (E&P) projects.<sup>8</sup> In other words, the traditional context, in which a JOA is based on a strong, dominant operator, is radically changing. Some JVs are composed of several parties in a more equal position. Many oil and gas regions have already reached maturity, so this trend is set to continue – even if new technology extends the life of current fields.<sup>9</sup> This new scenario requires better-balanced agreements to govern joint operations. It is thus more crucial than ever to understand the perspectives and views of non-operators, as these will assume even greater significance in future JOAs, where the parties are in a more equal position.<sup>10</sup>

The aim of this book is to analyse the most widely used JOA standard model forms from various jurisdictions, in particular the following:<sup>11</sup>

- The Association of International Petroleum Negotiators (AIPN) model (the International model);
- The Oil & Gas UK (OGUK) model (the British model);
- The American Association of Professional Landmen (AAPL) model (the American model);
- The Canadian Association of Petroleum Landmen (CAPL) model (the Canadian model);
- The Rocky Mountain Mineral Law Foundation (RMMLF) model (the old American model);

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6 “Joint operating agreements are designed to last for the life of the field, during exploration, appraisal and development. Amendments, though not rare, are less common than might be expected for a document with a 30-year lifespan.” Charez Golvala, “Upstream joint ventures – bidding and operating agreements” in Geoffrey Picton-Turbervill (ed), *Oil and Gas: A practical handbook* (Globe Law and Business, London 2009) pp45–46.

7 “The UK government has for some time recognised that the maturing provinces of the North Sea, coupled with more recent smaller developments, have created a need for a change in its approach to licensing and taxation.” Stephen Dow, “The 20th Round Standard Form Joint Operating Agreement” (2003) 1 *OGEL*.

8 Daniel Johnston, “Contract Terms Worldwide: A Case for New Frameworks” (2004) 2 (3) *OGEL*.

9 “The basins of this planet have matured perhaps more quickly than many of us anticipated.” *Ibid*.

10 Such scenarios might exist where operators are not the dominant party in the enterprise. For example, independent companies are more commonly found in onshore operations, but this scenario is unusual in offshore operations as the risks and costs are much more significant. However, this is generally not an ordinary situation, as the operator is in a better position to control the joint operations. Consequently, major companies prefer to secure their assets in an efficient operation conducted by them. Nevertheless, some major developments will require the participation of several major companies together, where the parties are in a position of equals.

11 See Chapter I, section 1.2.

- The Greenlandic model (issued by the Greenlandic government);
- The Norwegian model (issued by the Norwegian government); and
- The Australian Mineral and Petroleum Law Association (AMPLA) model (the Australian model).

The aim is to arrive at an understanding of how each of these models treats and positions non-operators and their major concerns.

Finally, it is crucial to establish a distinction between these different perspectives and views as outlined and any misalignment of interests<sup>12</sup> that might occur in a JOA. While the different views often relate to the roles of the parties, they do not signify a misalignment of interests. Misalignment of interests is a potential scenario that is likely to lead to an exclusive operation (ie, sole risk or non-consent clauses) as the parties might disagree on the potential value of certain areas, one party might lack the funds to proceed with a given project or there might be other corporate reasons for a difference of views as to whether to proceed. Thus, different views and perspectives of non-operators will always exist, from the moment a JV is established until it ends.<sup>13</sup> It is these different views that are fully analysed in the following chapters.

**(b) *Unbalanced provisions, imbalance of power***

Ideally, a JOA should contain balanced provisions which reflect the concerns of all parties involved – operator and non-operators. It should also allow for the participation of all parties, as they all share ownership of the JV. However, this is not usually the case – current JOAs tend to be biased towards the wishes of the operator.<sup>14</sup> Further, the success of oil and gas operations clearly depends on the contribution of all parties (as such operations often involve extraordinarily high expenditure over lengthy timeframes).<sup>15</sup> The question is this: why are JOAs so often unbalanced? The answer lies in the context and history of oil and gas operations.

The operator's position of strength has its origins in the first JOA established back in 1956 (ie, APL JOA Form 1956), and still prevails today – it is considered the 'traditional' approach. This fact is recognised by the great majority of academics and professionals involved in oil and gas operations.<sup>16</sup> The oil and gas industry has always assumed a need for a dominant operator who could control the consortium and set the pace of operations.<sup>17</sup> The unbalanced relationships that resulted did not encourage a high degree of non-operator participation.

Why, then, was it thought necessary to give one party so much authority? Commentators offer three possible theories. The first is based on the fact that the

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12 "The interests of the parties in their joint venture should be ostensibly the same – that is, to produce the greatest possible quantities of petroleum on the most cost-effective basis. This alignment of interests will be recognized in the JOA, but there could also from time to time be some misalignment between the interests of the parties which the JOA will also need to accommodate." Peter Roberts (n 5) p17.

13 See note 5.

14 "(T)raditionally the perception has been that the operator has *de facto* much more to say over the entire project and is best positioned to take the initiative; thus the operator is rewarded with greater power, rather than greater profits." Scott Styles, "Joint Operating Agreements" in John Paterson, Greg Gordon (eds), *Oil and Gas Law: Current Practice and Emerging Trends* (DUP, Dundee 2007) pp277–278.

15 See Chapter I, section 1.3(b).

operator has a number of performance and compliance responsibilities for which it should be compensated. The second is based on the formation of the consortium, the theory being that the leader requires a higher degree of benefit to encourage it to create the JV and take a leadership position. The third theory is the one most widely accepted by commentators, and is related to the level of commitment of the operator. Oil and gas operations involve significant risks and costs, which demand a high level of commitment from the operator if the JV is to succeed. At the same time, the operator's greater level of commitment reduces the risk that it will try to make more profit or recover any losses when negotiating the JOA, which it might seek to do if it were a smaller participant.

In addition, there is a general perception that the operator should have the largest participating interest in the consortium, which in turn demands a higher degree of control over the decision-making process.

The first and second theories are likely to be raised by the operator during the negotiation phase to support its arguments in favour of more control and a higher percentage interest from the JV, as Terence Daintith explains:

*Usually, but by no means invariably, the operator will be the party holding the largest percentage interest or one of its affiliated companies. Reasons for this include a perception of the non-operators that the operator should hold a substantial interest as evidence of its commitment to the project and the fact that operators themselves are usually not keen to take on the burdens of operatorship if they have only a minor share of equity. Furthermore bidding groups are usually organized by an operator who makes it clear from the start that it requires a major interest.<sup>18</sup>*

However, the third reason for the operator's dominant position in terms of control and participating interest, which is founded on economic reasoning, is the most persuasive. Ernest Smith and Kenneth Mildwaters explain this theory as follows:

*The operator under an international JOA is usually the party with the largest interest in the concession. A party with a less substantial interest may be hesitant to commit scarce personnel and technical resources to the management of the host government agreement, and the other participants may doubt that party's commitment to the project or fear that its motivation arises from a desire to profit from the position, rather than from the success of the operations.<sup>19</sup>*

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16 See Terence Daintith, Geoffrey Willoughby, Adrian Hill (eds), *United Kingdom Oil & Gas Law* (3rd ed, Sweet & Maxwell, London 2009) p1140, Gerard MD Bean, *Fiduciary Obligations and Joint Ventures: The Collaborative Fiduciary Relationship* (OUP, Oxford 1995) pp14–15, Kenneth Charles Mildwaters, *Joint Operating Agreements, A Consideration of Legal Aspects Relevant to Joint Operating Agreements used in Great Britain and Australia by Participants thereto to Regulate the Joint Undertaking of Exploration for Petroleum in Offshore Areas with Particular Reference to their Rights and Duties* (PhD thesis presented to the University of Dundee, 1990) p427, John Wilkinson, *Introduction to Oil & Gas Joint Ventures: Volume One, United Kingdom Continental Shelf* (OPL, Ledbury 1997) p40, Ernest E Smith, John S Dzienkowski, Owen L Anderson, John S Lowe, Bruce M Kramer and Jacqueline L Weaver, *International Petroleum Transactions* (3rd ed, RMMLE, Westminster 2010) p542, Sandy Shaw, "Joint Operating Agreements" in Martyn R David, *Upstream Oil and Gas Agreements* (Sweet and Maxwell, London 1996) pp19–21, Antony Jennings, *Oil and Gas Exploration Contracts* (2nd ed, Sweet & Maxwell, London 2008) pp17–27, Hew Dundas, "Joint Operating Agreements: An Introduction" (1994 Summer Programme: UK Oil and Gas Law, CPMLP 09/09, 1994) pp5–11.

17 *Ibid.*

18 Terence Daintith *et al* (n 16) p1140.

19 Ernest E Smith *et al* (n 16) p542.

*The operator is usually the participant with the largest interest. The rationale behind this is that the participant with the largest interest will incur the greatest expenditure and greater commitment will be generated in matters of co-ordination and conduct of the operations. It is hoped that a prudent and economic management and conduct will result.*<sup>20</sup>

The government might also play an important role in determining the higher participating interest of the operator, as in some cases the applicable legal regime will require that the operator retain a minimum percentage of interest for the whole duration of the JOA, subject to its removal if such obligation is not complied with.<sup>21</sup>

It can be seen that both non-operators and host governments sometimes fear that an operator with a smaller interest might not dedicate the necessary effort and commitment to the operations; the operator is therefore likely to be the party with the greatest interest and the strongest position in the JV.

It could also be argued that it is in the nature of business that the party in the better negotiating position gets the most benefits.<sup>22</sup> In general terms this may be true, but in an oil and gas context the scenario will be slightly different. Firstly, the operator will not wish to shoulder all the risks and costs of operations by itself, as they could be extremely high – it will want to have co-venturers to share the risks and costs. Secondly, the non-operators are not only part of the JV, but also jointly liable for the operations conducted by the operator in relation to third parties and the host government. Thirdly, oil and gas companies usually have their assets spread across different investments, so normally no party can realistically conduct all operations alone. Thus, it is extremely important that all parties, including the operator, maintain a certain equilibrium in terms of roles within the consortium, as in the end this will benefit all of them.

Failure to establish a balanced agreement may cause problems later on.<sup>23</sup> Firstly, there may be uncertainty, as any non-operator could seek court protection or relief against unfair provisions of the JOA (eg, under the Unfair Contract Terms Act 1977 in the UK), though such protection is not easy to obtain in practice. Secondly, it might lead to the withdrawal of non-operators on the grounds that they are unable to control the operations, yet remain liable for their consequences. If this happens, the operator has to find another co-venturer and negotiate another JOA, possibly while involved in litigation or arbitration with its previous co-venturers. Unbalanced JOAs, therefore, can cause serious damage to the consortium and indeed to the operator itself.

While the adoption of unbalanced JOAs within the traditional matrix may be understandable, albeit risky, it will become less appropriate for future operations as more oil and gas regions reach maturity. Mature regions are less attractive to major or large companies, as most of the reserves have already been produced, leaving only small or medium-sized fields to be explored. In this scenario, large companies tend to migrate towards new regions where reserves remain untapped. As they exit mature

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20 Kenneth C Mildwaters (n 16) p427.

21 See Chapter 3, section 3.2(a).

22 Professor RW Bentham, "The Negotiation of Agreements" (1987) 5 *J Energy & Nat Resources L* p134.

23 *Ibid* p139.

provinces they are replaced by mainly small and medium-sized companies, and the whole paradigm of the JOA changes radically. The operator is no longer in a dominant but an equal position compared with the non-operators. An unbalanced JOA is no longer tenable, and a more equitable agreement is negotiated that reflects the views and concerns of all parties.

That said, the parties' respective bargaining power remains unequal in these non-mature areas, and the *de facto* dominant party is always likely to seek the best outcome for itself. This lack of equality can prove problematic when the smaller party seeks to include optional provisions in a model form. Optional provisions will not be implemented unless they are beneficial to the stronger party.<sup>24</sup> Therefore, the current standard forms do not provide truly balanced terms, as it is unlikely that under current operations the parties will achieve such balance by themselves.

The extent of such an imbalance is clearly seen in the roles of the parties in the consortium. Although the agreement refers to 'joint operations', the reality is that one party will conduct the operations, while the others will mainly contribute financially. However, all parties are jointly liable for the costs and liabilities of all operations performed under the petroleum title (except under limited circumstances related to gross negligence or wilful misconduct).<sup>25</sup> In other words, the costs and liabilities are shared, but the conduct of the operations is not. For non-operators, this can be a critical concern – they are in the same position as passengers in public transport, sharing the cost of the transport but unable to determine the route or the final destination (unless they can effectively control the operating committee). In an oil and gas operation, this lack of control might have severe consequences, as will be discussed in the following chapters.

(c) **Conclusion**

In the traditional framework of oil and gas operations, one party is granted extensive rights and powers in order to secure the performance of operations.<sup>26</sup> Historically, it was considered necessary to put the operator in such a strong position, but this view is changing. It is no longer desirable for the operator that the contract place a heavy burden on non-operators, as courts might provide reliefs for the smaller participating interest, for example by the establishment of fiduciary duties, modification of the restriction of liabilities or allowance of extra time to pay cash calls. However, such protection is not easy to obtain in practice and the extent of any interference will vary between jurisdictions, particularly in civil law countries.<sup>27</sup>

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24 PR Weems, M Bolton, "Highlights of Key Revisions – 2002 AIPN Model Form International Operating Agreement", 1 *OGEL* 5 (2003) p32.

25 See Chapter 3, section 3.2(b).

26 Ernest E Smith *et al* (n 16) p835.

27 See EA Farnsworth, "Pre-contractual Liability and Preliminary Agreements: Fair Dealing and Failed Negotiations" (1987) 87 *Columbia Law Review* p217.

28 "The phrase 'good faith' is used in a variety of contexts and its meaning varies depending on the context. Good faith generally implies fidelity to an agreed common purpose and consistency with the justified and practical expectations of the other negotiating party. It excludes behaviour which could be characterised as "bad faith" in that it violates the standards of decency, fairness or reasonableness of the community." Mirian Kene Omalu, "Precontractual agreements in the energy and natural resources industries – legal implications and basis for liability (civil law, common law and Islamic law)" (2000) *J B L* 2000, pp303–331.

Clearly, good faith and balance are essential to maintain a consortium in good health in the longer term.<sup>28</sup> On the other hand, if an unfair agreement is established, the courts might modify the contract in order to resolve or adjust the imbalance.<sup>29</sup>

The inclusion of balanced terms helps to avoid uncertainties and can even be positive for the operator, which might enjoy greater cooperation from the non-operators. Best practice thus indicates that an efficient consortium should allow a high degree of participation by all parties, as experience and expertise can be shared towards a common goal.<sup>30</sup>

Another reason to provide balance is the marketability of the agreement. As previously mentioned, the JOA will be of long duration, in some cases over 30 years. During this period, the parties might change their priorities and are likely to assign a part or even their entire share of the consortium to a third party. Without a balanced agreement, third parties might be reluctant to engage with such a consortium, unless in the operator role.

The current operator-focused JOAs do not take into account the risks involved for non-operators. Elizabeth Pennington recognises this when she states that “some of the standard provisions would appear to favour the large incumbents rather than the smaller independent players and potential new entrants.”<sup>31</sup> If the JOA does not establish a measure of balance, it is difficult to expect any significant participation by non-operators.

That said, the Canadian Association of Petroleum Landmen (CAPL) recognises at least the principle of balanced provisions in order to achieve a reasonable agreement for all parties: “We believe that the 2007 CAPL Operating Procedure offers significant benefits to operators, non-operators, large and small companies.”<sup>32</sup> In another document, the CAPL mentions the drivers behind the latest revision of its model form:

- *Opportunities identified by Industry's experiences with the document.*
- *Evolving business needs.*
- *The challenge was to meet the needs of today and to anticipate the needs of tomorrow in a way in which industry uses the product.*<sup>33</sup>

The CAPL clearly refers to the need to “anticipate the needs of tomorrow” – it is important to secure an equitable agreement for mature province operations. The

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29 “The courts adopting the classic view subordinated the equity of a particular situation to the overmastering need of certainty in the transaction of commercial life. If the negotiations succeeded and resulted in a final contract, a party that had acted inappropriately could be stripped of the bargain on the basis of misrepresentation, duress, undue influence or unconscionability. If the negotiations failed because of similar conduct, courts traditionally have been reluctant to impose precontractual liability.” *Ibid* pp303–331.

30 Michael Jensen and William Meckling discussed an analogous situation in their publication about the theory of the firm as they asked “why his failure to maximize the value of the firm is perfectly consistent with efficiency.” Michael C Jensen, William H Meckling, “Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure” (1976) 3(4) *Journal of Financial Economics*, pp305–360.

31 Elizabeth Pennington, “Issues for new entrants to the UKCS – a legal analysis” (2002) *IELTR* p281.

32 [www.landman.ca/pdf/operating\\_procedures/2007/final/Cover%20Letter%20for%20Web%20\(letterhead\)%20July%202007.pdf](http://www.landman.ca/pdf/operating_procedures/2007/final/Cover%20Letter%20for%20Web%20(letterhead)%20July%202007.pdf). Accessed 14 September 2017.

33 [www.landman.ca/pdf/operating\\_procedures/2007/final/2007%20Overview%20of%20Changes-July%202007.pdf](http://www.landman.ca/pdf/operating_procedures/2007/final/2007%20Overview%20of%20Changes-July%202007.pdf). Accessed 14 September 2017.

CAPL goes beyond that and expressly recognises the need for balanced terms as part of the “major document objectives” as follows:

- (a) *Make required modifications, while maintaining the integrity and substance of the 1990 document.*
  - *Provide a new and improved “car manual” that provides users with clear and complete answers to their questions.*
- (b) *Create a document that will be used widely shortly following completion.*
- (c) *Ensure that the document is balanced.*
  - *Operators and non-operators.*
  - *Operator as the QB [quarterback] of the “team”.*
  - *Generally win and lose as a team.*
  - *Operator’s exposure generally limited to its WI [working interest].*
  - *Individual Parties and the Parties collectively.*
  - *How far can an individual Party go in pursuing its own interest?*
- *Inclusion of controls to limit what a Party can do to others.*
- *Large companies and small companies.*
- (d) *Simplification.*
- (e) *Structure document to exploit advances in systems technology.*<sup>34</sup>

In other words, in the CAPL operating procedure the parties should strive to create an agreement that balances the following:

- needs of operators with those of non-operators;
- needs of individual parties with those of the parties collectively; and
- needs of small companies and those of larger companies.<sup>35</sup>

The CAPL should be congratulated for its efforts to equalise the parties’ positions – and indeed it does provide for some balances and corrections, as will be analysed in the following chapters (eg, in terms of the challenge of operatorship, the AFE mechanism and the title of the agreement); but in general terms it is not entirely successful, as the operator is still the dominant party in the consortium, the title of the agreement referring to ‘Operating Procedures’ rather than ‘Joint Operating Procedures’.

These unbalanced standard agreements only fit one scenario, in which a single party dominates the consortium and smaller parties accept the terms in exchange for the opportunity to participate in a larger operation and to gain experience.<sup>36</sup> It is clear, however, that where an operation involves more than one major company, they will not accept a situation where one party is granted too many rights. Rather,

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*Ibid.*

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[www.landman.ca/pdf/operating\\_procedures/2007/final/Introduction%20to%20the%202007%20CAPL%20Operating%20Procedure%20\(Final\).pdf](http://www.landman.ca/pdf/operating_procedures/2007/final/Introduction%20to%20the%202007%20CAPL%20Operating%20Procedure%20(Final).pdf). Accessed 14 September 2017.

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“The outcome of a successful negotiation is, of course, an agreement, but not an agreement at any price. Negotiations which lead to a failure to agree are not necessarily a disaster, and to discover, through negotiation, that agreement is not possible has its own value, and in the process each party will have learned a good deal about its own position and the realities of the situation. Of course, it may be in certain instances that some agreement may be better than none at all, but that I think may be more true of political than commercial negotiations.” RW Bentham (n 22) pp138–139.



they will modify the key provisions of the JOA so that everyone has *de facto* shared control of the operations.

For traditional (ie, non-mature) areas, the standard models should provide equilibrium between the parties, as they may not be able to achieve such equilibrium by themselves. On the other hand, for future operations in mature provinces, the parties should be able to achieve equilibrium through negotiation. As one of the purposes of a model form is to reduce the time spent on negotiation, it would thus be far more efficient to include balanced terms in the standard models. Equitable<sup>37</sup> provisions would also be useful so that contracts could be performed without further uncertainty:

*The law of contract prioritises stability and certainty, and rightly so. Thus, legal advisers to negotiators ought to avoid all these legal conundrums and ensure that at each point in the negotiations, their clients are well aware of the legal consequences of their actions. Due to the threat of a finding of indefiniteness, the drafter of the precontractual agreement must tread a fine line between drafting to allow flexibility and drafting to assure that the agreement will be enforceable. Extra care has to be exercised since the shadow of the law certainly looms above.*<sup>38</sup>

Finally, it is important to note the fact that the consequences of imbalance might be painful for the operator – as was graphically demonstrated by the BP Deepwater Horizon accident. Briefly, the non-operator sought court relief from their obligations, as they claimed that they had no participation in the operations, which were poorly performed under BP's control. The result of the decision could cost BP several billion dollars. This type of claim creates uncertainties and problems for the consortium, but there are no easy answers, and of course this was not the first significant accident in the history of oil and gas exploration. The great risks involved and the human factor mean that the risk of accidents is always high, which might lead to court disputes as non-operators seek relief from the consequences.

*This is an extract from the chapter 'Introduction' by David Greene and Professor Eduardo G Pereira in Joint Operating Agreements: Risk Control for the Non-Operator, Second Edition, published by Globe Law and Business.*

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37 See Mark Gerus *et al*, "Equitable Interests in Mining Tenements – Resulting and Constructive Trusts – Rebuttable Presumption – s119 Mining Act 1978 (WA) and s34 Property Law Act 1969 (WA)" (2000) 19 *AMPLJ* pp115–118.

38 Mirian K Omalu (n 28) pp303–331.